Written Testimony to

The United States Senate Committee on Health, Education, Labor, and Pensions

A hearing addressing:

Learning from the States: Individual State Experiences with Health Care Reform Coverage Initiatives in the Context of National Reform

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Mr. Chairman, thank you very much for the opportunity to share some of our experience as we have studied then attempted health reform within the State of Utah. I join the Honorable David Clark, Speaker of Utah House of Representatives, in this hearing. Speaker Clark has very ably led a joint Utah Senate-House task force studying health care delivery reform for the last 2 years. The task force report anticipates a coordinated series of legislative initiatives, that will roll out over the next several years. The first installment of that legislation was passed and signed into law earlier this year.

Speaker Clark is obviously better positioned to describe the task force, the results of its investigations, and the resulting Utah State health reform legislative agenda than am I. I therefore plan to focus my remarks on the implementation of health care reform within the State of Utah. I am the Chief Quality Officer at Intermountain Healthcare. Intermountain is a not-for-profit system of 23 hospitals, almost 120 outpatient clinics, and a health insurance plan. We supply more than half of all care delivered within the State of Utah. The short version of our mission statement is "the best medical result at the lowest necessary cost." We provide that care to all people in our service area, regardless of insurance status. As a result, we are the source of much of the charitable care currently delivered in the State. We have been identified by external evaluators as one of the highest quality, most efficient care delivery organizations in the United States – or, for that matter, in the world. For example, the Dartmouth Atlas has asserted that if the rest of the country delivered the same care that is found within Intermountain, national Medicare costs would fall by more than 30 percent while clinical outcomes would significantly improve.

The key to health reform is payment reform. We believe that the evidence clearly shows that efforts to extend health insurance to all citizens, whether at a State or national level, will rapidly fail unless we are able to control the rapidly rising costs of health care delivery.

We recently completed a study, currently under review for publication, that applied quality improvement (sometimes also called process management) principles to estimate waste within current care delivery. The advantage of using a process management approach is that such quality-based waste is, by definition, actionable waste. The same tools that identify the opportunities can be used to reduce operating costs by improving patient outcomes. Our model identified 5 nested categories. We were able to obtain synthetic national estimates for 2 of those categories. The 3 categories for which we could not generate robust estimates, at this time, were of a size roughly comparable to the 2 that we could estimate. Even then, we judged that almost half of all current expenditures in health care delivery are non-value adding from a patient's perspective. (Unfortunately, one person's waste may be another person's income.)

Our analysis distinguished between 2 important factors that determine health care costs. The first is "unit costs" – the actual cost of a single procedure, service, or other item used in health care delivery. The term is fractal, in the sense that it can evaluate granular items such as a single blood test, an imaging exam, a dose of a drug, an hour of acuity-adjusted nursing care, or a minute in surgery. It can also "bundle up" individual, granular, items

into cases, such as a total hip arthroplasty (artificial hip joint replacement), a hospitalization for congestive heart failure, or the total cost of an outpatient visit to a specialist, with testing and imaging. The second factor is utilization – the "number of units" used to deliver care to a patient or to a defined population. Total cost is "number of units" multiplied by "cost per unit."

In the past, most governmental efforts to control the rate of growth of health care expenditures centered around unit costs alone. Typically, payment rates in government-related health care delivery programs are not negotiated with care providers. The controlling agency set payment rates, then care providers chose whether they would participate. However, such price control mechanisms do not address utilization rates – how many cases are performed, each paid at the mandated payment rate.

Our analysis addressed both unit costs and utilization rates. However, the largest opportunities for savings came through utilization rates, by better matching care delivery to patients' true needs and desires (patient-centered care).

To illustrate, over the past 3 years we have been working closely with government-run care delivery systems in western Canada. Clinical leaders of those systems report that, despite universal insurance coverage, as many as one-third of the individual citizens for whom they are responsible have difficulty in obtaining timely access to primary care physicians. The patients with the most difficulty in getting access are those who need it the most – patients with chronic disease. The root of the problem appears to be unit-based payment structure: Physicians can make more by seeing a large number of relatively healthy, simple, patients (the "worried well") than by spending the necessary time with a smaller number of complex patients. This has had a secondary effect of increasing waiting lines for already overburdened, and more expensive, specialists. The "payment per unit" was set by government policy within a province. Physicians have a strong financial incentive to increase the "number of units" (visits), but shortening the time spent per unit.

To support State-level health reform, for patients with chronic diseases we are structuring bundled payments to groups of allied primary care physicians, specialists, and hospitals. This approach relies upon coordinated care. It centers around (a) physician-led primary care clinics; (b) with embedded nurse care managers; (c) supported by evidence-based best practice protocols, built into clinical work flows; (d) tightly linked to an effective network of specialists and, when necessary, hospitals. An electronic medical record is essential. It helps implement evidence-based best practice, and greatly enhances communication among all members of the team (patients, care management nurses, primary care physicians, and specialists). A series of careful studies have shown that this structure produces very significant improvements in both patient outcomes and patient experience of care, while significantly reducing costs. Some call this approach a "medical home." (We were a little slow in coming to the catchy title, but have had such care in place, in some clinics, for more than 6 years.)

In conjunction with the Mayo Clinic, we have assessed the contributions of this coordinated practice style as compared to financial incentives to patients built into insurance plans (e.g., copayments). While both factors contributed to cheaper care, the level of practice organization dominated insurance design.

While about one-third of the physicians practicing in Intermountain's networks are employed by the system, the majority are community-based, independent physicians. This reflects a sea-change that is currently underway within the healing professions: We are moving away from a care delivery model based on a chaotic mixture of individual expert clinicians, to one that recognizes that most modern care is delivered by teams of clinicians, and that coordination among clinical teams is essential for good care. While such coordination does not require that physicians enter employment with some specific group (a common emerging model), it does require a local consolidator (sometimes called an Accountable Care Organization).

We are presently moving to bundled payment in support of coordinated care delivery. Under bundled payment, an accountable care delivery group is given a fixed annual payment for all services for patients with chronic diseases (clinic visits; testing; imaging; hospitalization; end-of-life care). The payments are risk-adjusted based upon the number, type, and level of intensity of the chronic diseases involved. This payment structure directly addresses a major defect in current unit-based payment systems: Under current governmental payment systems, care providers are paid more when patients suffer complications (in sound byte form, "we are paid to harm our patients"). Such circumstances require more care, which means more utilization (the consumption of more units of service). For example, a care delivery group can make much more money by hospitalizing a patient who has congestive heart failure, than by managing that patient so well in an outpatient setting that hospitalization is not necessary. Under a bundled payment system, the care delivery group has strong financial incentives to prevent complications, avoid preventable procedures and hospitalizations, to reduce operating costs, and increase operating margins (sometimes called "shared savings" payment models).

Quality measurement is essential. Over the past 20 years, our ability to measure care outcomes has improved dramatically. This primarily came about by using quality improvement (process management) theory. The resulting evidence demonstrated that quality is very highly "process specific." That is, the fact that a care delivery group does well on one process (e.g., open heart surgery), does not mean that the same group will necessarily do well on any other process (e.g., management of congestive heart failure). It is now possible to (a) prioritize care delivery processes; then (b) generate measurement systems biggest to smallest, one at a time, specific to each condition. (Each of the individual measurement systems are unique – there's some, but not a lot, of overlap among them.)

A prioritized approach helps get the most benefit to the most patients, in the face of limited resources. Care delivery concentrates massively. For example, within

Intermountain, 104 of about 1400 clinical care processes accounts for about 95% of all the care that we deliver.

Even with major advancements in measurement, for most clinical conditions quality measurement is not sufficiently precise to accurately rank physicians, hospitals, or practice groups (references available on request). That fundamental truth has another face: It is easy to scientifically demonstrate that, for most clinicals conditions it is impossible to build an evidence-based best practice guideline that perfectly fits any patient. As a result, achieving 100% performance on most quality measures means that a subset of patients received substandard care. On that foundation, a set of key principles for the appropriate design of quality measurement systems has emerged:

- Methods exist that build quality measurement and accountability in ways that don't depend on ranking providers.

- Measurement systems must contain a feed-back loop (called "gauge theory" in the quality sciences). At a technical level, when quality measurement finds a performance outlier, it (precisely) means that: "If I carefully analyze this outlier, I will (with high probability) be able to find its true cause." With new data systems – even carefully constructed clinical measurement – many of the initial outliers track back to the measurement system (the gauge). This provides opportunity to "fix" the measurement system over time, and is the method by which reliable measurement systems emerge.

- Measurement must blend into clinical workflows:

    (a) The things most needed for solid quality measurement and accountability tend to be those elements that front-line clinicians need to deliver good individual patient care;
    (b) Embedded data tends to be much more timely and accurate (clinicians use the data, and so help produce both timeliness and accuracy);
    (c) If accountability measurement is not embedded in work flow, then the measurement system will compete for resources (time and people) at the front line, potentially damaging clinical performance (quality);
    (d) Embedded measures lend themselves directly to change – they lead to improvement (in other words, use of "after the fact" measurement not only competes for resources with care delivery, it also competes for resources with improvement).

To support State-level health reform, Intermountain is building embedded quality measures as an entry "gateway" for groups to receive bundled payment. We place thresholds at a high enough level that any participating group must put in place effective process management systems, but not so high that compliance with an external standard will damage some patients (as is clearly happening within the current CMS measures).

As a result, Intermountain's evidence-based best practice protocols, and the quality measurement systems that are part of them, are the opposite of "cook book" medicine. Under the reality of current "state of the art" quality measurement, where "it is almost always impossible to generate a guideline that perfectly fits any patient," being too high (a statistical outlier) on a performance measure is just as concerning as being too low on the same measure (a statistical outlier on the other side). Both require the same sort of follow-up, learning, and adjustment.

In summary, health care reform is advancing rapidly within Utah. Key lessons learned include:

- The key to universal access is controlling the rate of increase of health care costs.
- The key to controlling health care costs is managing utilization rates.
- Bundled payment for chronic disease, through Accountable Care Organizations, provides a very attractive mechanism to match utilization to patient needs, as seen by the patient.
- Quality measurement and accountability is an essential part of bundled payment.
- A series of well-established principles form the foundation for effective quality measurement.

Thank you for your time and attention.

(I have taken the liberty of appending a few principles for effective measurement of quality for the purposes of accountability, taken from my 18 March 09 testimony to the Senate Health, Education, Labor, and Pensions Committee)

Background information

Quality measurement has improved significantly over the past 3 decades:

- W. Edwards Deming linked quality to underlying work processes. He suggested that every process produces 3 parallel classes of outcomes: quality, cost, and service. This provided a robust structure for quality measurement, in context.

- Health services researchers (Nelson, James) further broke medical quality into 4 major subdivisions, which greatly simplified measurement within much more consistent categories. Those 4 major subdivisions are:
  1. appropriateness (indications)
  2. complications
  3. therapeutic goals (biologic performance as seen by a health professional)
  4. patient functional status (biologic performance as seen by a patient)

- These advances have led to validated quality measures within well-defined patient populations.

Despite those advances, quality measurement still has major limitations:

- There are widespread problems with incomplete science, incomplete assessment, incomplete documentation, and incomplete data extraction from fragmented, dispersed medical records.
- "Availability bias"
- Problems with attribution (most care is delivered by teams, so clinician-to-clinician comparisons tend to fail)

Any quality measurement system itself contains variability, which can obscure underlying care delivery performance:

- there is a clear need for feedback and follow up on the data system itself, using well-established methods found in industrial quality control theory (gauge theory)
- no national groups currently employ this critical element
- example of how it works: condition-specific measurement within Intermountain Healthcare

As a result, it is currently impossible for quality measures to accurately rank providers in most circumstances:

- a very robust scientific literature supports this conclusion (will supply on request)
- good quality accountability therefore needs to use approaches that do not rely on ranking – effective non-ranking approaches do exist, primarily derived from quality improvement theory

Provider quality performance is highly condition specific:

- 3 decades of investigation have found no reliable general quality indicators (the fact that a provider does well or poorly on one condition does not imply that the same provider will do well or poorly on other conditions)

- however, care delivery concentrates massively. About 10% of clinical conditions account for over 90% of all care delivery
- therefore, build in measures by condition, in size order, to address the most good for the most patients

Poorly-constructed quality measurement systems often lead to "data gaming" (principle: it is easier to look good than to be good):
- There are 3 ways to get a better number (Deming):
    1. improve the underlying process
    2. shift resources to the area under the measurement spotlight, at the expense of areas not under the measurement spotlight (very often, the peripheral damage outweighs the focused gain)
    3. game the number
- Deming: "as one attaches greater rewards or punishments to achieving a number, one gets increasing proportions of (2) and (3)"
- extrinsic rewards tend to destroy intrinsic motivation, damaging professional oversight
- it is very clear that type (2) and (3) activities are becoming common among U.S. hospitals, relative to the CMS measures

Transparency is not the same as accountability:
- high-quality care delivery usually involves a series of decisions around sequential care delivery choices
- patients usually make those decisions in the context of a caring relationship, with a physician or nurse advisor
- "transparency" means that all participants – the clinician advisors as well as the patients – have sufficiently accurate, detailed information to make wise choices at each step in the chain
- Accountability measures, that reduce the problem to a single patient choice of a hospital or a physician, can directly undermine the true transparency that is essential to high quality care.

There are 2 primary approaches to quality - (1) measurement for selection (accountability) versus (2) measurement for improvement:
- measurement for improvement contains measurement for selection / accountability – the opposite is not true (measures for accountability, mandated from above, do not create capacity for actual quality management and improvement at the front line)
- measurement systems designed for accountability often consume limited front-line resources and actively damage quality of care (Casalino; *NEJM*; 1999; Wachter et al.; *Ann Int Med*; 2008)
- there are rigorous methods for generating reliable front-line, embedded data systems that minimize burden and maximize data quality (NQF SFB report). These methods stand in contrast to the political methods currently used by most national reporting groups.

References

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