Why Not Big Ideas and Big Interventions?

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Journals report evaluations of ideas or interventions intended to improve health care. For example, one article evaluated whether paying hospitals and physicians a bit extra for performance reduced mortality rates.¹ Another examined whether care coordination reduced hospitalization.² Others include a meta-analysis of whether the implementation of electronic medical records affects quality or cost,³ an assessment of how free care in a chaotic medical system changes health status,⁴ and an examination of whether a medical home that includes only technical management of a chronic disease improves the quality of care given to disadvantaged patients.⁵

These evaluations employ rigorous designs and sophisticated statistical methods; they take years to complete and publish. Very often, they yield negative results that can lead to dismissals of policies as ineffective. For example, pay-for-performance does not reduce mortality.¹ Discharge planning does not change readmission rates. Implementing electronic medical records neither saves money nor improves quality.³ Changing the organization of practice to a medical home does not improve the quality of care for patients with diabetes.⁵

But let's consider for a moment. If we don't pay for performance, do we want to pay for non-performance? Does it make sense to provide no care coordination for people with chronic diseases? Does it make sense to provide chronic care in an uncoordinated fashion in which no one is in charge?

Any rational individual would answer no to these questions. So why is there a disconnect between basic common sense and the results of program evaluations? Perhaps it's because the policies being evaluated are too cautious to affect outcomes.

There are two basic approaches to developing health policies. The first, which is cautious and careful (a small idea and a small intervention or even a big idea and a small intervention), is more likely to be tested and implemented because institutions and professionals will not be threatened by the magnitude of the change. But this approach runs the risk of discrediting the concept that is being tested because what is being implemented is too limited, circumscribed, or piecemeal. For example, pay-for-performance (a big idea) that puts a small portion of provider compensation at risk (a small intervention), or electronic medical records (a big idea) that are implemented without a universal patient ID that can be accessed across platforms (a small intervention), will be less likely to improve either quality or reduce costs than those interventions that put 50 % of compensation at risk or require a universal patient ID.

The second approach is disruptive and daring (big idea and big intervention). It can adequately test a concept, but the concept may be dismissed as infeasible (see Text Box). What would society and physicians propose and accept if they were allowed to be creative and contravening regulations were set aside?

What if every patient with chronic disease who was discharged from the hospital had free access to their medications, the guidance of a health provider or community member who coached them daily to make sure they were doing the right things to stay out of the hospital, and access to a community on-line network of at least ten people who were paid to ensure that the patient never needed to be readmitted or never missed filling a prescription?

Why not test ideas and interventions that do them justice, such as those in the text box, that are actually worth evaluating because their potential effect could be substantial? For example, they will reduce cost growth not by 1 %, but by 15 %. They will extend quality-adjusted life not by days, but by a

year. If the effect sizes were this large, one would not need sophisticated statistical analyses to prove that they were produced by the intervention. Simple evaluations would be all that was required.

What If?

1. All communities had a health plan that promoted an environment in which all people could thrive and a totally integrated set of social and health services to aid people in need.
 2. Competency in understanding how health is produced was required of all graduates of junior and senior high school.
 3. Educational and health policies were replaced with people policies that targeted the interaction between health and education as the way to improve a community's health. For example, improving educational outcomes by decreasing class size would be considered simultaneously with providing cognitive behavioral therapy to decrease stress produced by violence so that children will learn.
 4. Most face-to-face physician visits were considered a failure of communication and technology, and such visits were replaced by video encounters, encounters with computers and people in the community, or self-directed care.
 5. Global licensure of health professionals became a reality.
 6. Medical expertise was shared, so that by means of broadband/internet all people had immediate access, when needed, to world experts—without boarding a plane.
 7. Obituaries contained information on whether the death could have been prevented by better medical care and/or whether the death was a good death (met expectations about growth, pain, and suffering).
 8. Academic health centers put patients first and master clinician/teachers became the leaders of the institutions.
 9. Expensive equipment was widely shared so that it could be used up before becoming medically obsolete.
 10. Men and women understood the impact of an unplanned pregnancy on their lives, and if desired, received help in ensuring that all pregnancies are planned.
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If the intervention showed no obvious large effect, it could be discarded and the conceptual framework upon which it was based could be set aside. On the other hand, if powerful interventions showed the desired effects, then they could be made more efficient, and regulations could be revised to support these changes. That being said, it should be acknowledged that the success of even big interventions will likely depend on the circumstances or context in which they were implemented.

Currently, sophisticated analyses, understood by few, are being used to identify small positive effects. Those effects are probably also dependent on the context or site in which they were implemented and may not be reproducible.

Making marginal change wastes time, and the crisis facing the U.S. health system requires more than marginal change. We need to de-emphasize the current paradigm of examining interventions that we know will, at best, result in little change, and stop spending years trying to determine if the little impact is real. We need to stop wasting resources trying to implement minor interventions so that ten years later, a complicated statistical analysis will demonstrate a small effect that was significant at $p < 0.05$.

Here is an alternative approach. The country should be divided into geographic areas defined by the density of the population and ranging from a few hundred thousand

individuals to a few million. Each year, we would devote 2 to 3 % of U.S. health care expenditures in a few geographic areas to bold interventions designed to eliminate most of the major health problems identified in that area. The interventions would need to be supported by professionals and the community, and by both the public and private sectors.

The interventions would need to be culturally appropriate and ethically impeccable. If simple statistics demonstrated that a specific intervention met expectations, then a communication strategy employing mainstream and social media would be used to spread the news quickly to the world and to implement the intervention broadly. Of course, in doing this, one should not ignore the context in which the intervention was implemented and the context or circumstances to which the intervention was being spread. Even big ideas and big interventions need to be modified depending on context. For instance, large pay-for-performance incentives to increase the value of care given to people with chronic disease may not work in a community in which physician supply is so limited that physicians can only respond to emergencies.

Disruptive innovations are very risky—most fail—so they are less likely to be funded. But the Federal government and foundations need to focus on funding interventions that can produce substantial, meaningful results rather than on those that are faster to implement or less likely to fail.

Let's demand that we spend our intellectual capital and our limited resources on taking a real shot at eliminating the major problems that face us. For example, what would happen if a community and its health professionals formed an organization whose purpose was to maintain health and prevent premature death at an affordable cost? Would the community demand that equivocal and inappropriate care be eliminated? Would the community agree to end malpractice suits if evidence-based medicine were followed? Would the community agree to the goal of achieving 100 % adherence to evidence-based medications and preventative services?

What would health professionals put on the table? Would they agree to allow a significant part of their compensation to be determined by the community? Would they agree to total transparency? Would they agree to involving the community as an equal partner in improving quality and eliminating waste, defined as services that are provided inefficiently or those that entail more potential health risk than health benefit?

Would this kind of conversation lead to a new system of delivering care and maintaining health that leapfrogs today's concept of affordable care organizations? Let's try to bequeath to our grandchildren a world in which we have identified and implemented a set of culturally sensitive, ethically appropriate interventions that harness the enormous advances in medicine achieved in the last century—that control costs and eliminate obesity, unplanned pregnancies, and avoidable readmissions for patients with chronic disease.

We face immense problems in health; solutions to them need to be commensurately big. Government and foundation money should be used to test and develop bold solutions. It should not be wasted on one more program that, at best, is expected to have a small impact.

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