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Policy Design and Redesign of American Healthcare

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Policy Design and Redesign of American Healthcare

Policy Analysis Exercise

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This PAE reflects the views of the author(s) and should not be viewed as representing the views of the PAE's external client(s), nor those of Harvard University or any of its faculty.

Executive Summary

Action Steps that Emerge from this PAE

The first two sections of this PAE aim at identifying a redesign strategy for American health reform that could be more effective than current strategies for national health reform. By “more effective” is meant more likely to achieve the goals of Title One of the Affordable Care Act: *Quality, affordable health care for all Americans.*

The identified policy design is called *Informed Consumer Choice* (ICC), and has two components: (1) Develop rigorous information on the quality and cost to all payers of healthcare providers; and (2) Build incentives into patients’ health plans to encourage them to choose healthcare providers that are better for less.

After performing statistical analysis to shed light on an underdeveloped area of research central to the argument for the policy design, the PAE outlines a plan for the implementing a demonstration of ICC in Minnesota. There are two phases for implementation:

Phase One: Implement and operate state-wide quality and cost measurement. After many years of visionary work across the country, the technology to measure the cost and quality of healthcare providers is now ready to be put into operation. The task is to warehouse it and present it in some official capacity so that it can be used reliably by health plans. A community-based organization called Minnesota Community Measurement (MNCM) has been a leader in this work, while the state government is also trying to create such an enterprise.

Therefore the action step for Phase One is to expand the board of Minnesota Community Measurement (MNCM) to include an increased number of seats representing all interests, including state officials – paving the way for an agreed-upon measurement entity.

Publishing cost and quality information will induce some natural change in behavior, as some patients will use the information to help choose their providers. But ultimately something stronger will be needed to generate a substantial change in patient behavior, which leads to:

Phase Two of implementation then is to “activate” the cost and quality information by tying incentives on patients’ choices to that information. As research for this PAE indicates, it appears possible to influence patient choices with cost sharing (something that makes intuitive sense, but health economists have been reluctant to assume without evidence specific to the healthcare sector). Though the research is early and rudimentary (more research will be needed, and should

be designed specifically aimed at policy design), the results warrant moving forward with a reform strategy premised on shifting patients.

Therefore the action step for Phase Two is to tie patient incentives to information on cost and quality, through public employee or public assistance programs and health plan ratings in the private sector that rate plans in part by how well they steer patients to better value providers.

While action is taken on Phase One, a body of evidence for Phase Two can be developed concurrently through additional research on patient incentives. Since there is limited research in this area (discussed in the paper), much of it will need to be done from scratch. That can be advantageous since the research questions can be developed mindful of an *Informed Consumer Choice* policy design.

For Ben

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Words cannot adequately express the enormous gratitude I feel toward Walt McClure, the originator of Large System Architecture (LSA). He has contributed a great deal to me, our colleagues, and if we do our jobs well to the world at large. I am also indebted to the community at the Center for Policy Studies, which McClure chairs, for all the useful thinking, experience, and guidance that is so freely shared among them. I am especially grateful to Dan Loritz, Ted Kolderie, and the late Verne Johnson who have supported my first years in professional life and have shaped my thinking in fundamental ways. Throughout this paper I draw upon their insights and experiences, if not explicitly then implicitly. My learning was greatly enhanced during the master's program because I was able to draw upon their work through my experiences.

The Dukakis Summer Fellowship, a program from HKS funded by Cal and Marilyn Gross, proved a catalyst for this paper. The fellowship places students in the office of a state governor between their first and second years of the MPP, to observe and learn executive leadership. I was fortunate to arrive in Minnesota at a time when the state was working at full capacity on implementation of the Affordable Care Act, including lead up to launch of the state's health insurance exchange. It was during this fellowship that I met Nathan Moracco, director of the State Employee Group Insurance Plan, who would soon become PAE client. I learned from Bryan Dowd, a University of Minnesota professor, how insight could be gained through research on the program that Moracco helped build, and how a cooperative relationship around analysis of the program could have significant implications for policy. It is difficult to overstate the importance of the Dukakis Fellowship as an accelerant to this work. To a large extent this paper, and subsequent planned research and work, have been made possible by the opportunities enabled by this fellowship.

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that I could conduct a statistical test important to the work and helped me learn how to work with experts in the field. The research in political economy in Part One, literature review of provider and patient incentives in Part Two, and negotiations analysis in Part Three were conducted as independent reading courses with Professors Sen, Newhouse, and Mandell respectively.

The work undertaken for this paper will continue on multiple fronts after graduation, including research tied to policy design and negotiations; healthcare system redesign; statistical analysis of patient price incentives; and working to get a state demonstration up and running. In that sense this paper is an initial effort that gets something down on paper. There is a lot of room and opportunity for improvement – this represents a first step.

Tim McDonald
Cambridge, MA

Introduction

American healthcare reform is ready for a strategic update. The Affordable Care Act has been launched, most visibly with insurance exchanges, and now is in the ongoing process of implementation. Yet while the statute states in Title One that its objective is *Quality, Affordable Healthcare for all Americans*, it really only gets at the access – there are tools to focus on quality and cost of care, but as this paper will show they are not yet sufficient to drive the kind of dynamics that will lead to substantially better, more efficient performance. And since the ACA is effectively our nation’s health reform strategy, the paper asks: Is our national health reform strategy adequate? If adequacy is measured in likelihood of the policy achieving the goals, the current answer is no – at least, not yet.

This paper is interested in how to identify and implement redesign strategies for American healthcare reform so that the structure of the system as a whole – what will be defined herein as a *macrosystem* – creates incentives that reward the professionals and organizations within the system for measurably better care and consistently lower cost.

With some variation this view for quality, affordable healthcare available to all represents a growing consensus among healthcare reformers about the goals for the country’s health services system. What’s lacking is a strategy – in concept, politically, and for implementation.

To build and argue this case the paper has three sections. They are:

- (1) *Toward a Systemic Approach to Policy Design*: This section explores beyond conventional economic theory to identify theory and analytical frameworks to analyze large social systems like American healthcare (the topic of this paper), education, welfare, criminal justice, or finance.
- (2) *Application to Healthcare System Redesign – Identifying a “Future Model*: This section applies the theory and frameworks identified to section one to identify a policy design that may be more likely to accomplish the goals for American healthcare. That strategy, *Informed Consumer Choice*, is explained as a merger of two comprehensive policy designs developed over thirty years by Alain Enthoven and Walt McClure, two pioneers of competition-based reform in American healthcare.

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(3) *Implementation of Reform – the “Change Strategy”*: This section addresses how to implement the strategy in the real world. It uses econometrics to develop a base of evidence for the policy strategy; and a negotiation analysis to identify where, and how, the strategy could be implemented – including recommendations for overcoming impasse preventing implementation of the strategy.

This third component – “Change Strategy” – is the PAE proper, the graduation requirement. The PAE client is Nathan Moracco, director of the Employee Insurance Division at the State of Minnesota. He has overseen the State Employee Group Insurance Program (SEGIP), called *Minnesota Advantage*, since 2002. Mr. Moracco’s “problem” for the purpose of the PAE – that which the PAE project is meant to address – is to identify how *Minnesota Advantage* is performing on its original purpose to encourage plan members to attend lower-cost providers.

The client and I are also interested in the broader implications for policy design of findings that patient-driven incentives can be brought to bear on healthcare providers. That is, if patients chose providers based upon certain metrics – in this case cost indices – what does that mean for policy?

It means quite a lot. Many strategies have been put forward to contain the cost growth in the healthcare services sector, but so far by my assessment they have yet to accomplish the “Triple Aim,” or what the Affordable Care Act terms *quality, affordable healthcare for all Americans*.

The second section then leads toward identifying a redesign strategy stronger than current strategies for national health reform. By “stronger” is meant more likely to achieve the goals of Title One of the Affordable Care Act: Quality, affordable health care for all Americans.

I have identified two comprehensive policy designs that, if taken together, appear capable of achieving these goals. *Managed Competition* by Alain Enthoven of Stanford University is a comprehensive policy strategy whereby healthcare organizations compete for consumers in a controlled market. *Informed Consumer Choice* is an update of what had been *Buy Right*, a comprehensive policy design put forward by McClure in the 1980’s that focuses on giving patients information about providers and incenting them to choose by that information.

Informed Consumer Choice (ICC), a term that I believe represents both designs, has two components: (1) Develop rigorous information on the cost to all payers and quality of healthcare providers; and (2) Build incentives into patients’ health plans to encourage them to choose healthcare providers that are better for less.

The third section of this PAE is to outline a plan for the implementation of a demonstration of ICC in the state of Minnesota. Here a “Game Changing Move” is needed on two levels, to use the phrase of Harvard’s Project on Negotiations. One is needed to identify a pathway forward for the country’s health reform strategy, and another is needed to move Minnesota forward as a state demonstration.

At the state level, there are two phases for implementation:

Phase One is to get quality and cost measurement up and running in the state. After many years

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of visionary work across the country the technology to do cost and quality measurement of healthcare providers is now ready to be put into operation. The task is to house it and present it at some official capacity so that it can be used reliably by health plans. A community-based organization called Minnesota Community Measurement (MNCM) has been a leader in this work, while the state government is also trying to create such an enterprise.

Therefore the action step for phase one is to expand the board of Minnesota Community Measurement (MNCM) to include an increased number of seats representing all interests, including state officials – resulting in a single official measurement entity.

Publishing cost and quality information will cause some natural change in incentives, as some patients will use the information to help choose their providers. But ultimately something stronger will be needed to generate a substantial change in patient behavior.

Phase Two of implementation then is to “activate” the cost and quality information by tying incentives on to patients to that information. As research for this PAE indicates, it appears possible to influence patient choices with cost sharing (something that makes intuitive sense, but health economists have been reluctant to assume, because of the unique quasi-market character of American healthcare). Though the research is early and rudimentary (more research will be needed, and should be designed specifically for the benefit of policy design), the indications are enough to warrant moving forward with a policy strategy premised on shifting patients.

Therefore the action step for phase two is to combine patient incentives to information on cost and quality, through public employee or public assistance programs and health plan ratings in the private sector that rate plans in part by how well they steer patients to better value providers. This attempts to achieve a “game changing move” as described by Lax and Sebenius in 3D Negotiations, a comprehensive negotiations framework used throughout this paper.

While action is taken first on phase one, a body of evidence for phase two can be developed through additional research on patient incentives. Since there is limited research in this area (discussed in the paper), much of it will need to be done from scratch. That can be advantageous since the research can be targeted specifically for use in an ICC policy design.

Section One

Toward A Systemic Approach to Policy Design

Before engaging a topic so expansive as redesign of the American healthcare system, it needs to be explored if this is even a possible task to undertake. That is, can a policy analyst think about the healthcare system as a whole – as a conglomerate of all its component parts – in a way that can be practical?

I believe it can, and in this section discuss a general theory Large System Architecture and set of related frameworks that assist in the task.

At its basic level Large System Architecture provides a simple conceptual framework, and may strike many experienced economists as redundant. But I believe it adds something to policy work by assisting rigorous policy design that aligns incentives with the goals for a system; followed by methods to develop a viable conceptual, political, and implementation strategy for the design.

This provides an alternative to the reductionist approach to problem solving so frequently embedded in much economic analysis, by providing a more global and systematic perspective than has been championed by economists. The work in this section is drawn most directly from work produced at the Center for Policy Studies, and finds its roots in Adam Smith and Alfred Marshall, more recently through interdisciplinary economists from Alain Enthoven to Amartya Sen. In section two I demonstrate how these tools for policy design can be applied to redesign of American healthcare.

This section will introduce a general theory and set of methods that I believe are necessary to understand policy design for large systems, then bring in a set of analytical frameworks from practitioners that I believe can begin to lay a foundation for policy design as a rigorous field.

I'll discuss some of those analytical frameworks here, specifically those that help me get my thinking straight for the problem at hand – analysis and redesign of American healthcare. A theme through this paper is drawing on analytical frameworks for policy design, to help get clear about the understanding of a problem to develop a policy strategy, and to implement the strategy.

In this first section I will lay out some of those frameworks, then apply them in Sections Two and Three.

The main tool drawn upon by this paper is Large System Architecture, an unpublished general theory and set of practical methods for policy design to be used for improvement of large public systems – what it calls macrosystem redesign.

The theory was developed by Walt McClure, chairman of the Minnesota-based policy design organization Center for Policy Studies. McClure is a theoretical physicist, who made a career working on the field of competition-based reform in American healthcare through the 1970's and '80s. The theory is a general theory he articulated years later to provide structure to the way he came to view redesign of large social systems – informed in part by the failure of so many reform efforts in healthcare and elsewhere.

Large System Architecture theory comprises two components: (1) a theory of why organizations do what they do; and (2) if they are not performing as society wishes, methods for designing and executing strategies to alter their behavior to the desired performance.

Large System Architecture can help a policy designer to think about a system as a whole, not only as the sum of its many subsystems but relative to its purpose for society. It begins by determining a set of goals for a system, then goes about systematically applying analysis to align incentives with those goals.¹

For the experienced economist LSA theory may not explain anything they do not already know. In that case it is a mnemonic that helps a person understand the application of economics to the analysis and design of large systems. It is more general than conventional economics because it doesn't focus so intently on markets, but instead on structure and incentives. The theory helps to explain system analysis and design to laypeople – including policy makers – and when explained laypeople tend to get it.

The key element of Large System Architecture is to begin with goals, then systematically align components of the overarching structure of the system (defined below as a *macrosystem*) so that the resulting systemic incentives reward behaviors consonant with the goals.

The American constitution is an example of Large System Architecture at the “basic level” of society, to use Rawls' term meaning the fundamental social and political institutions of society. It begins with goals – the preamble. Then, the framers imposed a set of constraints against behavior that would violate those goals in the form of the Bill of Rights. The remainder of the constitution is about structure to achieve those stated aims.

This is reflected in Adam Smith's work as well: As Madison and the founders knew ambition must be made to check ambition, Smith knew a group of devils would destroy his market without incentives rewarding desirable action and punishing anticompetitive behavior.

¹ See footnote later in this section on the process for determining the goals for a system.

One level less basic than the constitution exist what LSA theory describe as the *macrosystems* of society (defined below). These are the systems more basic than firms or industries, but less basic than the constitution of a society. Examples of macrosystems are the healthcare, welfare, or criminal justice systems. While a Large System Architect can work at either the basic level or macrosystem level (they overlap), this paper is concerned with redesign of macrosystems – specifically the health services system in the United States.

There are examples of stating goals. At the level of a social system Alain Enthoven (1988) spends the first chapter of his book about his comprehensive healthcare design *Managed Competition* in a rigorous, reasoned, and ethical discussion of the goals for a reformed healthcare system. He then sets out to attempt and design a system that could achieve those goals, evolving it from the system already in place.

For Mexico’s universal health reform *Seguro Popular* the framer Julio Frenk, in consultation with others, determined universal coverage to be the primary goal, accompanied by building out the physical and human medical infrastructure to meet the resulting demand.

In his book proposing what would become the basis for the Clinton-era reform of America’s welfare system, David Ellwood (1988) outlines four “value tenets” that guide the development of his policy design, such as autonomy of the individual, value of work and family, and sense of community.

In public education the goals for the strategy of chartering public schools directly with the state (instead of forming in a centrally managed district), known popularly as “chartering,” were stated in a purpose statement at the top of the first state chartering law in Minnesota. They remain there today, and range from increasing learning opportunities to encouraging innovation and creating new opportunities for teachers. The statute then proceeds to create conditions that its framers anticipated would create the conditions to achieve those goals. (Revisor of Statutes).

At a national or supra-national level the American founding is a quintessential example of Large System Architecture, beginning with the goals in the preamble followed by design of the basic structure of the government to protect these rights while facilitating freedom.

In another supra-national example of Large System Architecture, Jean Monnet’s goal for the creation of Europe post-War could be described initially as peace through interdependence with the Coal and Steel Community, then after the continent stabilized and the common market developed, it became prosperity through interdependence. (Monnet 1978)

These examples illustrate the process of first stating the goals for a system, then aligning system design to achieve those goals, then entering into a process of implementation to put the system structure into place in the reality of the moment. Large System Architecture helps to channel disciplines for the act of policy design, and I turn to a discussion of that theory now.

SYSTEM DESIGN AND POLICY ANALYSIS

Policy analysis is an established discipline, described formally by Nagel as the process of “determining which of various alternative policies will most achieve a given set of goals in light of the relations between the policies and the goals.” (Nagel 1999)

Yet many of our most pressing problems cannot be adequately addressed by analyzing existing policy options – new alternatives are required, and must be designed. Alternatives may arise from deep analysis of a problem, but it seems reasonable to assume that technical policy analysis should also be accompanied by times of visionary, transformative change.

This is important for at least two reasons: First, if emphasis is only on research and analysis, then when it comes time to develop policy professionals will be inclined to draw on the tools they know – from professional training, from academic disciplines – which may be necessary but not sufficient when a system calls for redesign, not marginal changes.

Second, if it is true that from time to time a system will need to be redesigned – either because the goals for the system change and so the system structure also needs to change lest it goes into system failure; or because the system is chronically underperforming – then there needs to be a rigorous process for identifying what that design look like. There needs to be a rigorous method for developing a strategy that can stand up to scrutiny and reason that they will accomplish stated goals (which many comprehensive policy strategies do not), and to think about how to move forward on implementation from the current system to the new system.

The paper distinguishes between methods and theory. Frameworks and maxims are employed alongside general theory to get thinking clear on the complex challenges of analyzing and changing a large system. The frameworks used specifically in this paper have not been published because they have been developed by practitioners. They are combining strong intuition to view problems not as having arisen themselves but as symptoms of underlying causes.

It appears that disciplines have missed policy design for large systems because viewing it from only one discipline leaves blind spots. Even political economy has taken the more limited view of merging the specialized field of political science with the specialized field of economics – which is more narrow than the name implies, and than someone like Adam Smith (who predated the formation of both fields) worked.

Economists, policy and political thinkers, and heads of organizations often resonate with the notion of thinking in terms of a system as a whole, as composite of all its subsystems, but haven’t been exposed to system analysis or design from this perspective because it isn’t a discipline – it hasn’t been taught; systematized. Eventually these concepts (defined later in this section) should be represented in the appropriate literature.

Some analytic frameworks to aid the policy analyst with system design

In this paper “system design” is used as shorthand for “macrosystem design,” a precise term defined later in this section to mean the systematic analysis and change of large social systems.

A key role of policy is to get the system structure arranged so individuals and organizations within the system are rewarded for behavior consonant with the goals for the system.

To distinguish between frameworks and theory for this paper, a *framework* consists of an ordered set of methods that allows one to proceed on an analysis process more systematically. It is usually drawn from some sort of overarching perspective, from which the order is inferred.

A *theory* consists of a set of postulates from which one can deduce predictions of what is observed. In the case of Large System Architecture, an unpublished theory this paper draws upon to analyze the healthcare system, its ordered set of methods for analysis and change of a large system are inferred from an overarching perspective of Large System Architecture theory.

But the perspective offered by a framework needs not be a formal theory, and usually is not. For instance the frameworks below, developed from policy design practitioners Ted Kolderie and Dan Loritz, to the comprehensive negotiations frameworks developed by Lax, Sebenius, and others from the Harvard Project on Negotiations are a set of logical procedural propositions, developed and tested through experience.

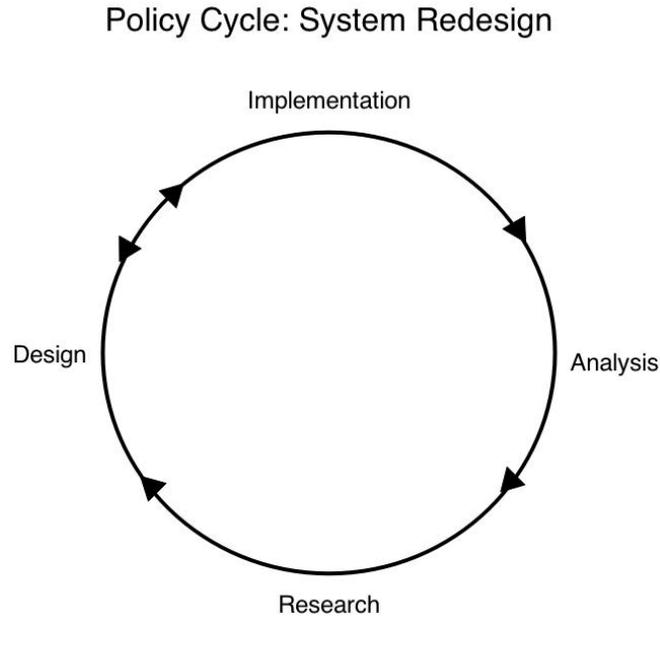
Walt McClure, chairman of the Center for Policy Studies, delineates policy work into four categories requiring rather different skill sets: Analysis, research, design, implementation. A “policy analyst” will engage in all of them, not just policy analysis, and so should possess all the requisite skill sets or be able to work with relevant experts.

- *Analysis* is careful examination and evaluation of something – anything – by breaking it into its constituent parts and assessing the logic and evidence used to build its case. In policy analysis this can be policy goals; an existing policy; a proposed policy design; a set of policy options (evaluating which is likely to be most effective on goals); evaluation of political understanding, motivation, support or opposition for various options; or political and practical progress on implementation. Analysis requires analytical skills using rigorous thinking using logic and evidence, and thorough knowledge of the subject and its politics.
- *Research* is using rigorous methods to study what is not known to obtain more knowledge about it. It can be qualitative research, or quantitative research. In policy research, the research is related to policy questions. Research requires methodological research skills as well as analytic skills, and research methods range from basic to highly sophisticated.
- *Design* is coming up with a proposed policy to accomplish stated goals. A proposed policy is called a policy option, and there may be a number of alternative or competing options. One task of analysis is to assess which might be most effective. Policy design requires imagination and originality beyond good analytic skills.
- *Implementation* is putting a proposed policy into effect. In addition to thorough knowledge of the proposed policy design and competing options and their politics, it

requires leadership, communication, and negotiation skills to communicate with and persuade policymakers and assist parties responsible for implementation.

Figure 1.1 illustrates the path of system redesign through the four phases of policy analysis:

Figure 1.1



The policy cycle in figure 1.2 shows that a policy that is currently being implemented can and should be subjected to analysis, and that analysis may reveal where research is needed. That research informs the design of a system, and design of policy. The relationship between the design and implementation of policy goes in both directions, in an iterative process as design guides action and in turn adapts to the realities of implementation.

The four components of the *policy cycle for system redesign* will be used throughout this paper. In section two an analysis of the current national healthcare strategy against the goals of the ACA reveals shortcomings; research identifies possible strategies that might work as well as providing a scientific basis for certain incentive mechanisms; then design develops a policy. In part three implementation puts it into action.

This paper will also use a framework developed by Ted Koderie for getting thinking clear about short-term and long-term policy actions:

Figure 1.2

	Revenue-side actions	Expenditure-side actions
Short-term	Tax	Cut
Long-term	Grow	System Redesign

In the context of the healthcare system, *tax* means spending more – from personal, business, and government budgets. Its limit is the pricing power of the health services sector.

The *cut* part of the quadrant manifests in the form of plans covering less for the money. The approach for Medicare is to manage decline – whether through decreased reimbursement or moving Medicare to grants to individuals.

Growth is where focus usually goes – the need to get more revenue. Economists usually work in this realm, arguing for varied uses of the tools of taxing and regulation.

The fourth option, to redesign social systems, is the interest of this paper. System redesign has a precise meaning. It is: *To architect – i.e. intentionally redesign and restructure – the large system so that its incentives reward the organizations and individuals within it for doing what society wants them to do.*

Redesign can occur at the organizational level, and the system level. The system redesign described in this paper is concerned with aligning incentives on individuals and organizations so that they are competing toward a certain set of goals for the system. The kind of operator that would undertake this type of work is appropriately called a *Large System Architect*, and their task is to consider the structure of the system as a whole, component of its subsystems.

The concept of a large system architect does not exist in the political or economic disciplines, yet they exist – but there have been large system architects through time. What separates large system architects from others is their rigor and intent. They do not pursue ideological ends but a set of explicit and reasoned goals; and orientate action toward a larger, reasoned policy design.

Unfortunately too many prominent reforms to address our society's most pressing problems are unable to hold up under rigorous analysis. That is, one can reason from the outset that the policy design is unlikely to accomplish its stated goals, either immediately or over time as it progresses.

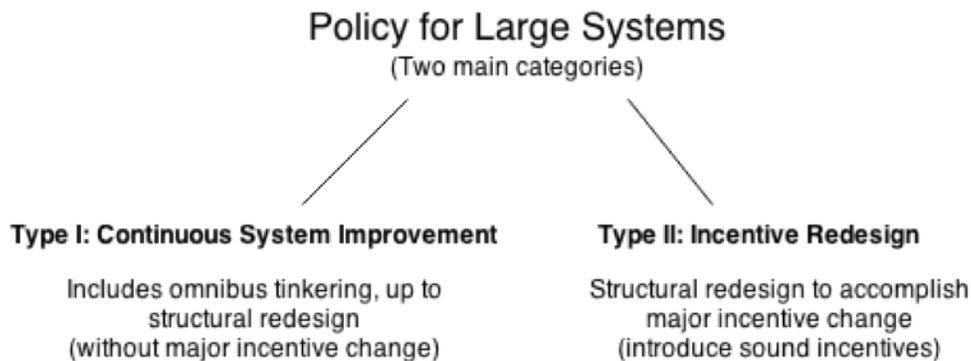
By providing a systematic way to diagnose and remedy a poorly performing system, Large System Architecture – discussed below – aims to make progress on this problem.

THE THEORY AND METHODS OF LARGE SYSTEM ARCHITECTURE

Large System Architecture is a general theory to understand the way large systems behave and can be changed. It was developed by Walt McClure, chairman of the Center for Policy Studies and used for policy design and implementation in the 1980's but never yet formally published in the professional literature. The theory comprises two components: first, a theory of why organizations do what they do; and second, if they are not performing as society wishes, methods for designing and executing strategies to alter their behavior to the desired performance. A brief exposition is presently posted as a working paper on the Center's website, and will be discussed here. (McClure 2014)

The theory assumes there are two categories of large system policy:

Figure 1.3



Large System Architecture theory is concerned with the right side of Figure 1.1 – Incentive Redesign. LSA methods produce three products: (1) *a diagnostic analysis of the current system to identify its current incentives and how well they align with system performance goals*; (2) *a design for a proposed restructured system that aligns system incentives with goals (what is defined later in this paper as incentive redesign (if you are going to define it later then don't raise the term here))*; and (3) *an implementation strategy to accomplish the proposed restructuring in the real world*.

To develop his theory McClure begins with three postulates. They are worth including in full here, and are:

Observation 1. *Organizations exist in a larger system – for brevity call it a macrosystem – whose structure they cannot alter by their own action alone. Thus health care providers exist*

in a larger macrosystem we call the health care system, which has a very definite structure. And schools and districts exist in a larger macrosystem we call the public education system, which also has a definite structure (quite different than the healthcare system). If you doubt these large macrosystems have a definite structure, you have not tried to change them.

Observation 2. *The structure of this larger macrosystem creates and places powerful incentives and restraints on the organizations within it, powerful enough to punish or kill organizations the more they act counter to them, and to make organizations prosper the more they act consonant with them.*

Observation 3. *The structure of a macrosystem can be altered by sufficient collective action.* In other words, while one organization alone within a macrosystem cannot alter that macrosystem by its own actions, if enough organizations within and without it act collectively, it can be restructured. Organizations already know this – virtually all macrosystems are rife with multiple trade associations of the organizations within them. And one of the chief aims and activities of such collective activity is to alter the structure of their macrosystem in ways favorable to the organizations; these may or may not be favorable to the public. Public policy must be given the tools to assure that all collective action, including its own, is brought to bear for the public interest.

In addressing a malperforming macrosystem, McClure writes, the large system architect has two main tasks:

The first is to come up with a future model: a design for the macrosystem’s structure that will place stringent incentives for the desired performance (*defined goals*) on the organizations within it. The second task is a strategy to make the future model happen: to devise change strategies that move the present system to the future model, and then to assist those in position to help make this happen. We start with methods for devising the future model, and address change strategy later below.

To devise a future model, the architect must (1) determine the problem behavior of the organizations in the system and then (2) identify the underlying cause of these behaviors, namely: i) the underlying incentives selecting for the problem behavior, and ii) the macrosystem structural elements that give rise to these incentives. (Using a medical analogy, before we can prescribe a therapy R_x we must identify the symptoms S_x and determine the diagnosis D_x .) This faulty underlying structure is what must be altered in the future model in order to correct the performance of the system.

With the future model in hand, the architect then enters a process of change strategy.

McClure then goes to explain six rules for the change strategy:

- (1) Have the future model design in hand at the start;
- (2) Always work on the “front log” in the jam – that is, the action that, if taken, will lead conditions to shift;
- (3) Finding and persuading those parties of interest with the power and motivation to take the

- needed action to move the “front log”;
- (4) Government may play a more useful role by leadership than by legislation, if it leads to necessary progress;
 - (5) Those architects and advocacy groups working to further a design must always work steadily on the “rhetoric battle,” including rhetoric for policy makers and the public; and
 - (6) To the extent feasible it is best that a major change strategy be staged, so that it may be tested and gradually scaled up as the design is refined and found sound.

This is a theory that thrives by drawing from across disciplines. It requires ethical reasoning in coming up with the goals, and politics and economics to understand the relationship between system structure and the incentives created. It benefits from an understanding of human and organizational behavior to understand how to realign incentives to match the goals society has for the system, and is strengthened through insight provided by negotiations, policy, management, and many other professional fields.

EVALUATING LARGE SYSTEM ARCHITECTURE AS A THEORY

Think that it could help to be deliberate in describing LSA. Examine terms and concepts from the proposed theory and methods of Large System Architecture using five steps: (1) Define terms; (2) Compare/contrast with existing terms in relevant disciplines; (3) Show where these existing concepts fall short; (4) Show how newly defined concepts explain shortcomings of existing; (5) Show how this leads to theory with stronger predictive power.

(1) Definition of terms not presently part of conventional economic theory

In order to move toward a systematic approach to policy design for large social systems I believe some definitions need to be brought in that aren't presently part of the economic or political mainstream. These concepts are each needed to complete one another, in order to illuminate system design.

- *Large System Architecture*: Provides a general theory and practical set of methods to help policymakers properly oversee and, when necessary, improve macrosystem performance. LSA theory shows that macrosystems will only perform well when their incentives are aligned with the desired goals. Large System Architecture comprises two components: (1) a theory of why organizations do what they do; and (2) if they are not performing as society wishes, methods for designing and executing strategies to alter their behavior to the desired performance.
- *Macrosystem*: A set of organizations and individuals that interact strongly to accomplish a definable purpose for society. The organizations and individuals are *system elements*.
- *Macrosystem structure*: All significant persistent principles, relationships, and arrangements – formal and informal – whereby organizations and individuals interact with one another to accomplish the defined goal of that macrosystem.

- *Continuous system improvement*: Also known as *omnibus tinkering*, this describes the process of looking for every place that marginal improvements seem possible that raise system performance or reduce its cost.
- *System design*, or more precisely *macrosystem redesign*: The intentional redesign and restructuring of a large system so that its incentives reward the organizations and individuals within it for doing what society wants them to do.
- *Problem*: A discrepancy between goals and actual performance.
- *Societal goal*: A public policy goal supported by the substantial majority of citizens which does not conflict with individual rights.²
- *Sound system*: When the incentives of a macrosystem align with the defined purpose for that system. Incentives reward the organizations within it for the performance society wishes, and punish them for behavior undesired by society.
- *Unsound system*: A substantial discrepancy between the incentives of a system and the desired behavior. When the incentives of a macrosystem punish the organizations within it for the performance society wishes, and reward them for other behavior undesired by society.
- *Conditions for a sound market*: While the types of market and government failures are generally accepted in microeconomics, the conditions for an effective market are less commonly articulated. For policy design it can be helpful to have a prescriptive collection of conditions. For a market to be sound, it must adhere to certain conditions: (1) No monopolies or oligopolies; (2) No monopsonies or oligopsonies; (3) Freedom of entry and exit for buyers and sellers; (4) Adequate consumer information on seller quality and cost; (5) Adequate incentives on buyers to choose value for money; (6) No buyer or seller free riders; (7) No missing markets; (8) Government market oversight to maintain the above conditions.

² This point deserves further development. McClure argues the purpose of policy is to help achieve societal goals. In practice societal goals are specified by those holding the political power to decide them. In a despotism, goals will reflect the ambitions and values of the leadership cadre in power. They will reflect the interests and values of the cadre for the society not necessarily the interests and values of the society. In a democratic society goals will reflect the aspirations and values of the elected leaders for the society which, depending on the fairness and representativeness of the election process, are more likely to correspond to the aspirations and values of the citizens of the society. Ideally all citizens would share common aspirations and values, but no large societies achieve such perfect unanimity. Moreover many of the aspirations and values of a society are in conflict with each other, so that a balance acceptable to the citizens must be struck by any realistic policy. Such a balance will never satisfy all factions perfectly; some will be more happy with any given balance than others. A spirit of compromise for the good of the greater society over special interest or ideology is necessary to any well functioning democratic society. In a democratic society, each societal goal, provided it does not infringe the basic human rights guaranteed by the society to all citizens (protecting the minority from the tyranny of the majority), desirably should have the support of the vast majority of the citizenry. The greater the percentage of support, the more legitimate a societal goal would appear to be. A goal supported by a bare majority of citizens would more aptly be called a goal of the majority party rather than a societal goal. But goals supported by 80 - 90% or more would seem legitimately termed societal goals.

- *System failure*: Resulting from a substantial discrepancy between the goals for a system (be it a market or non-market system) and the performance of that system. A seriously unsound system is considered to be in system failure.
- *Incentives and the invisible hand*: With focus on system structure and incentives, the invisible hand of Adam Smith becomes visible: the invisible hand is, in fact, the incentives of the system.
- *Decentralization principle*: Decentralization is preferable but safe only when system incentives are aligned – by system re-architecting if necessary – with societal goals.

(2) Comparison with conventional economic concepts

Economic theory has established, defined concepts for market failure and a form of government failure. According to this orthodoxy *market failure* occurs when the allocation of goods and services in a market is not efficient (precisely: *Pareto efficient*, that is perfect efficiency, meaning no actor in the market can be made better off without making someone else worse off), while *government failure* occurs when intervention by government causes a more inefficient allocation of resources than would occur without that intervention. The degree of market and government failure is measured by discrepancy between Pareto and actual behavior of a market.

The trouble with this for policy design is that these concepts of market and government failure limit the conceptual role of government to providing the basic structures of society and regulating an existing system. After a certain point further government intervention leads to inefficiency in an otherwise “free market.” The policy discussion becomes exclusively about the degree and nature of regulation.

(3) Explanation where the conventional concepts fall short

Conventional economic concepts of market failure and government failure tend to accept the structure of macrosystems as given, resulting in a reductionist interpretation of free markets vs. command and control from the political to academic realms. Sen calls this *institutional fundamentalism*, with idealized, often inaccurate notions ranging from “the panacea of wonderfully performing free markets ... to socially owned means of production and magically efficient central planning.” There are good reasons, he says, “to think that none of these grand institutional formulae typically deliver what their visionary advocates hope, and that their actual success...is contingent on varying social, economic, political and cultural circumstances.” (Sen 2009)

In the absence obvious alternative ways of understanding failing systems the policy responses developed to deal with market and government failure (usually a linear argument of more or less regulation) are stretched too far, taking attention off the key question of the structure of the macrosystem. Instead two sides are driven to view one another in antithetical, value-laden terms about the meaning of social and economic justice.

Yet many of those that find themselves on opposite sides of these debates may actually have

significant alignment of interests if presented with a system design that can accomplish all their goals efficiently.

(4) How newly defined concepts explain shortcomings of existing

The economic concepts of market failure and government failure are incomplete – at least for the purposes of system design – and a third concept *system failure* (defined above) is necessary to ensure a system is operating efficiently. System failure includes markets and government regulations but also considers the structure and incentives of a macrosystem (also defined above) and their relationship to markets, individuals, and firms inside the system.

Therefore system failure occurs when the incentives of a macrosystem do not align with society's goals for the system. It is market failure only if a market could be the most effective tool for achieving the social goals and/or Pareto efficiency. The other terms defined earlier derive from this basic concept.

In the case of non-market or naturally uncompetitive systems there still needs to be a way to run them efficiently, and system design can achieve this through a systematic process of aligning incentives created by the macrosystem structure with desired goals – including adherence to the seven conditions of a sound market, or by creating a market where one doesn't presently exist, blending them with social values not present in an unfettered market – such as introducing competitive dynamics to a publicly-funded, publicly-regulated, undiscriminatory public education system.

Because system design (guided by Large System Architecture theory) begins by stating a set of goals, and aligns structure to achieve those goals, then in theory any set of goals can be used to guide the system design. There is beauty and simplicity in this approach: The normative, ethical debate exists at the front end, enabling more clear debate about the design. The Large System Architect simply puts forward a design that will achieve those goals.

In the case of system failure, regulation is attempting to change behavior to an equilibrium that doesn't exist. Market failure and government failure get the analyst into a reductionist mindset, thinking only about a continuum from free market to command/control, with degrees of regulation in between. This is not particularly helpful for understanding system failure when the structure of a system creates incentives on individuals and organizations that are inconsistent with the goals of the system. In this situation Large System Architecture theory holds that any outside intervention will be both inefficient and temporary, as once the pressure of the intervention is removed the system will go back to its equilibrium state. Behavioral insights are susceptible to these same limits.

(5) How LSA leads to stronger predictive power

The power of LSA is in its demonstration, and the test is empirical. The question is, if the conditions of a proposed design are established does the system hone in on the goals? Does the system achieve societal goals for that system because the incentives are operating correctly? In practical terms this is a process of refinement: Once mechanisms are set up for the conditions

they will need to be continually assessed and evolved. This process is assessed through its application, and observation over time.

Those policy designs that have, (a) begun with a clear, reasoned statement of goals; then (b) progress in a rigorous way toward the development of a system design aligned with those goals; then (c) translate and implement while keeping faithful to the core principles of the design – have been policy designs that over time have had the most transformative effect on large social systems. As mentioned above, the American Founders and Jean Monnet’s creation of the European Community are two examples of national and international governance; while national health reform in Mexico and public school choice and welfare reform in the United States are examples of successful redesigns of national-level macrosystems. Many other examples exist, and a study of them and their common characteristics of success are warranted.

These examples are not perfect, and some are quite far off from their desired performance. Large System Architecture theory anticipates this, using the metaphor that “the first rocket on the pad always blows up” (McClure began his career as a rocket scientist.) Therefore a continual process of monitoring and responding to the performance of a system design (McClure helpfully calls it “sheep-dogging”) is necessary. As both Monnet (European unity) and Kolderie (public school choice) have said, progress on the redesign of large systems is measured in decades.

MACROSYSTEM DESIGN RELATIVE TO BEHAVIORAL INSIGHTS

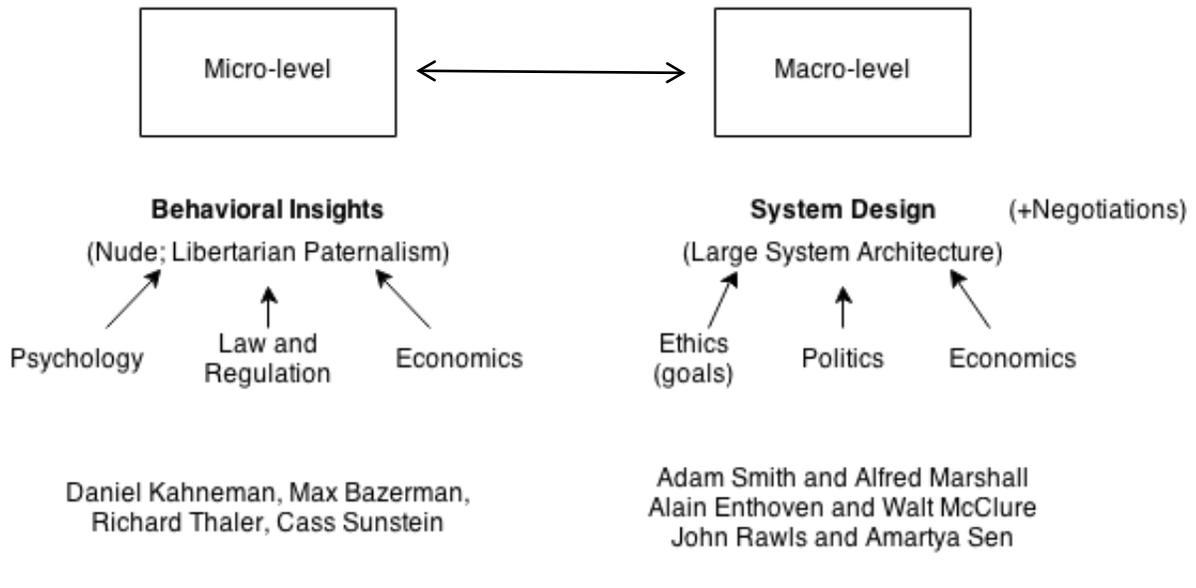
Behavioral insights are important but insufficient tool for system design. Behavioral science focuses on microeconomics of actions, and do not apply well to the remedy of unsound macrosystems – while behavioral insights can alleviate the effects of system failure, it is a stretch too far to see them as a remedy to perverse incentives created by flawed system structure.

As discussed above regulations suited to address market failure are often not adequate to address system failure – when the system structure creates incentives on individuals and organizations that reward behavior substantially inconsistent with the system’s goals.³ Behavioral insights on the other hand may change behavior of those within a macrosystem, but do not alter the macrosystem structure.

The behavioral sciences face the same ethical question confronted by Large System Architecture: Who determines the objectives or goals to which these tools are used? McClure responds to this problem by relating to the basic structure of society – an excerpt is included in Appendix B.

³ For a more complete discussion of system goals see Appendix B

Figure 1.4



As shown in Figure 1.4, in contrast to behavioral insights system design is a macro-level approach to policy problems, involving the disciplines of ethics (for determining goals for a system), and politics and economics for the analysis and design. It also involves the field of negotiations, for the process of translating a system design into actionable proposals; enacting the proposals; and implementing policy.

While the field of behavioral insights has developed with some formality, system design as relates to large social systems has not. Its roots appear to begin with Adam Smith and Alfred Marshall, continuing through to John Rawls and Amartya Sen’s analysis of social systems, and applied by people like Alain Enthoven and Walt McClure, among others. This is a field with potential, and given the structural changes that must be undertaken by societies to keep up with a changing world this may be the time for it.

With this foundation, the next section will show how a policy design for national health reform can be devised using these frameworks.

Section Two

Application to Healthcare System Redesign – Identifying a “Future Model”

Now that a way of thinking about large systems has been identified, it can be applied to American healthcare redesign. Following the process of Large System Architecture, this means first identifying a “future model” for the system design, then engaging in a process of “change strategy.”

To identify a future model I first considered what the objectives of the American healthcare system are. The prevailing national view of goals for healthcare appeared to be reflected fairly in title one of the Affordable Care Act as “quality, affordable healthcare for all Americans.”

I then asked how well the current national health reform strategy is doing in relation to those goals. Finding it incomplete, I assessed alternative options until I found two comprehensive policy strategies – Managed Competition (by Alain Enthoven of Stanford) and Informed Consumer Choice (by Walt McClure of the Center for Policy Studies) – that, if combined and applied to the current policy environment, appear capable of accomplishing all three goals at once.

The test for the validity of a future model design is that it can be show to a reasonable likelihood to result in the behavior desired for that system – that is, if fully implemented the incentives created by the resulting system structure would reward individuals and organizations within the system for behaviors consistent with the objectives of the system; and discourage or punish behaviors inconsistent with the goals.

That process of identifying goals, assessing strategies, and identifying a future model system design is what this section will do. Then in Section Three I consider how this might be implemented, beginning with a state demonstration.

THE AMERICAN HEALTHCARE SYSTEM

Since this section of the paper will be engaging in system design, we need to begin by formally defining what is meant by the healthcare system.

The American health care system comprises all those strongly interacting individuals and organizations necessary to deliver personal health services directly to individuals to maintain and improve their health.

It is a *macrosystem*, defined in section one as a set of strongly interacting organizations and individuals with a definable societal purpose. The *system elements* are the individuals and organizations within the system, and the *system structure* is the sum total of interactions among the elements.

It is not the only system directed at or contributing to health. It is to be distinguished from the public health system, which maintains the health of populations (assuring safe food, water, sanitation, environment, infectious disease control, etc), but with the exception of mass vaccinations, generally not through direct services to individuals.

It is also to be distinguished from social and other services (such as education, safety, employment, youth organizations, athletic clubs and fitness centers) which also strongly contribute to health. But these other systems do not generally strongly interact with the health care system, although an improved health care system would likely take much greater interest in many of them.

The health care system as discussed in this paper is comprised of patients, providers (doctors, hospitals, allied professionals, etc), medical suppliers (drug companies, supplement manufacturers, device manufacturers), insurers, and group purchasers (employers, union funds, government), and government as regulator (licensure, FDA, etc).

The strongly interacting elements are: patients, providers, insurers, group purchasers, and government. By *strongly interacting* is meant they have a direct influence on the behavior of other elements in the system. The counter to strongly interacting elements are *weakly interacting*.

Until recently suppliers were a weakly interacting subsystem interacting solely with providers and not patients, but pharmaceutical and device makers have recently begun to strongly interact with patients primarily through advertising and now affect system cost performance.

For some time there have essentially been two kinds of health care systems in the developed world. The first type, what can be called a *dysfunctional market*, is where the market works against the public interest. The system's incentives punish providers for behavior in the public interest like maintaining health and using resources effectively, while rewarding behavior against the public interest like churning to generate revenue. At its best the system is extraordinary, the best the world has known and continuously improving – at its worst it is incredibly inefficient, quality is highly variable (and generally unknown), and its cost is unsustainable.

The second type of healthcare system in the developed world is *strong government control*, ranging from price controls to full government provision of care as with the National Health Service in Britain.

In a ranking of the two – dysfunctional market or strong government control – the strong government control is probably less-bad. It can go a long way in getting rid of common and serious problems like denying coverage and extremely high cost. (As the reader likely knows the U.S. spends 70 percent more per capita on health care than the second-highest spending country, and over two times the OECD average.)

But the government-only approach is still far from ideal, and has its own problems. Command-control doesn't drive productivity. It doesn't hold providers accountable for results, and thus lacks incentive to drive providers to do the hard work of producing better results at less cost.

A third type of system can be one that is redesigned so that it is “sound” – that is, its incentives reward the three goals of measurably better care at steadily lower cost, made available to everybody. This would be done by incenting providers to improve by encouraging patients to choose those providers that are better for less (this strategy, called *Informed Consumer Choice* is discussed at length below.

The rationale is that providers who are better for less will then draw patients from those who are poor or cost more. Attempts by costly providers to maintain income on fewer patients by “churning” will accelerate the patient shift. Providers will steadily improve productivity (better outcomes for less) to continue to win patients over competing providers. Quality will increase, the excessive cost rise end, the best providers flourish, and poor and costly providers change their ways or leave the field for lack of patients.

Before seeing what this third way might look like it will help to gain a more full understanding of the kind of incentive mechanisms out there presently, and that is what we turn to now.

PROVIDER VS. PATIENT INCENTIVES

The incentive mechanisms in health services can be broken down into supply-side (incentives from payers directly on healthcare providers) and demand-side (incentives on patients). This section will break down analysis of the demand-side incentives into two categories – utilization incentives and choice incentives – and consider them independently .

Incentives on providers (supply side)

Reform of the structure of payments made by insurers to providers have become popular to try and contain cost growth. They are used by Medicare and Medicaid, and have become central to the Affordable Care Act and related state efforts. The most common is Pay for Performance.

- **Pay for Performance (P4P) and sharing savings:** A comprehensive literature review of Pay for Performance initiatives conducted in 2007 found improvements in quality to be

“quite modest” (University of Minnesota, 2007). Pay for Performance programs are associated with better quality, but since they are employed as part of comprehensive strategies it is difficult to determine their effect on quality. The inconsistency of design and implementation of these programs makes comparison difficult, and the literature is not clear what level of payment would be needed to see a major effect. While in many studies the actual amount of bonus payment was proprietary, in cases where they were known bonus payments ranged from 1 or 2 to 10 percent of revenue. To have a major effect on provider behavior a bonus payment would likely need to be larger than these.

Studies looked at incentives on individual physicians, and physician groups/providers. Armour, et. al reviewed four studies of physicians and physician groups and only found improved quality in immunization rates in response to payments (2001). Petersen, et. al reviewed fifteen studies and found five out of six that examined physician-level incentives and seven out of nine studying provider group incentives identified partial or positive effects on quality (2006). Amudson, et. al analyzed an HMO program that rewarded physicians to advise smokers to quit, with physicians receiving bonus payments for meeting a target process score. They found that advice to quit increased from 32 to 53 percent (2003).

Armour, et. al analyzed a year-end bonus program for physicians in a managed care plan to perform colorectal screening. A multinomial logistic regression was used to estimate the impact of the bonus, and found screening increased significantly, a 12.8 percent relative increase (2004). Casale, et. al analyzed the performance of coronary artery bypass surgeries within a managed care plan. They found care improved from 59 percent of patients receiving all 40 best practice measures to 86 percent within 6 months after the implementation of a fixed-payment-plus-bonus based scheme (2007).

Levin-Scherz, et. al analyzed pay for performance with physicians for diabetes and asthma care in Massachusetts. This model used a different design – 10 percent withholding of fees to physicians, returned upon meeting performance targets. The investigators employed a difference in difference test to study years 2001 to 2003, and found a significant improvement in diabetes and asthma measures (2006). Rosenthal, et. al studied a pay for performance program implemented by a health plan in 2003 that used quality targets, and that found that paying physicians produced limited improvement; though those receiving the bonus payments were already close to the targets to begin with. This finding indicates a bonus designed to reward improvement instead of a cardinal score may have been more appropriate (2005).

In 2006 Rosenthal and Frank reviewed literature on paying for quality in healthcare and found that the foundations for the concept to be “rather weak” (2006). I agree with this assessment, and would add further that finding statistical significance in something like a bonus payment to providers does not mean it will have practical significance. For example, Rosenthal found changes in provider behavior were not large relative to the money involved for payments.

An important question unanswered by the studies is whether these improvements, when they occur, are limited process improvements within the context of existing operations – operations

that may be limited in their capacity for improvement – or if the improvements come as a result of some more fundamental management improvements such as integrating and coordinating care.

This is important for policy because it may be the case that we cannot get to where we need to be as a country with the prevailing health services models we have. If this is true, then we need a way to get from where we are today to the kinds of organizations that are needed. That would involve not only innovations in technology but major innovation business models and processes. Incentives can do it, but these don't appear to be it.

Shared savings is another payment reform, where an insurer splits the difference between a benchmark reimbursement for a service or group of the services and the actual cost incurred by the provider. I believe there is a logical flaw with this tool because providers in a fee-based compensation arrangement are still losing revenue from the prior period – just less than which they are able to keep. I was unable to find evidence that this tool has a significant effect, but its results may be similar to findings for P4P programs.

- **Global budgets or capitation; global spending targets:** Song, et. al studied 11 provider organizations that entered an Alternative Quality Contract based on a global budget and found a savings of 1.9 percent in the first year and 3.3 percent the second year (2012). While these findings are significant the literature is not clear whether these savings are marginal improvements on existing processes, or the result of fundamental improvements in process.

Quality measures are important to pair with global budgets. For example fixed-fee reimbursement is a form of capitation, and can lead to churning if the providers are not held accountable for quality.

Global spending targets are used as goal setting tools. In 2012 Massachusetts enacted a global spending target for the state, and paired it with efforts to contain cost. In a lesser-known example, in 1993 an amendment to the Minnesota Care Act created a cost-decrease target on the part of providers of 10 percent per year for 5 years, with penalties for those that didn't achieve it. Implemented in 1994, costs continued to rise and the statute was amended to "cost containment goals" in 1997 with tax incentives for plans that meet the goals. It was later repealed altogether.⁴

A global spending target must be paired with a viable theory of action, or else it is just hope – and hope is not a strategy.

Utilization incentives on patients (demand side 1/2)

⁴ Citation: Conversations with state officials and legislative staff.

Demand-side strategies include helping consumers and purchasers differentiate providers by value, making patients price sensitive for services and insurance, and raising awareness and accountability for the health consequences of behaviors (Cunningham 2013).

After the backlash against the emergence of closed network HMOs in the 1990's, cost sharing emerged as a tool in the 2000's to mitigate overuse. Newhouse and Sinaiko describe the traditional view of cost sharing in economics as a tradeoff between moral hazard and risk avoidance (2008). Mathematically, they describe the value of insurance is depicted as the difference between what consumers are willing to pay (demand price) and what physicians are paid for their services (supply price), plus any value the patient places on the prospects for smoothing their consumption: $P_D - S_D + V_C$.

Patient price sensitivity can be a tool for regulating consumption. John Goodman illustrates if only 10 percent of a physicians' services is paid out-of-pocket and the rest paid by a third party, then the patient's incentive is to consumer services until their value to the patient is only 10 cents per dollar (2006). Therefore any measures to increase price sensitivity should have an effect.

In 2013 Academy Health convened a meeting to discuss demand-side incentives and concluded that the research is nebulous; additional research is needed to understand how patients and consumers respond to incentives (Cunningham 2013). Even so there are examples and I identified the following tools in the literature:

- **Consumer-Directed Health Care (CDHC):** Consumer Directed Health Care reflects insights gained through the RAND Health Insurance Experiment (see below). CDHCs employ high deductibles to try and make patients price sensitive. Tools include Medical Savings Accounts (MSAs), Health Savings Accounts (HSAs), Flexible Spending Accounts (FSAs) and Health Reimbursement Arrangements (HRAs) (Daly 2005).

A review by Goodman of studies found that these tools resulted in decreased use of services where there is presumed to be a lot of waste, with patients substituting less expensive treatment options for more expensive ones such as fewer trips to primary care physicians and more purchasing of generic drugs (2006). A study by McKinsey in 2005 found that patients in plans employing CDHC tools were twice as likely as patients in conventional plans to ask about cost and three times as likely to choose less expensive treatment options (Agrawal 2005). The Kaiser Family Foundation found in 2012 that plans employing higher deductibles cost 10 percent less (Horwitz 2013).

A survey of studies by Buchmueller found one third of HMO enrollees facing a price increase of \$20 per month in the 1990's switched insurers. A series of studies by Strombom, Buchmueller, Feldstein, and Feldman found price elasticities of demand ranging from -2 to -5.3 (Buchmueller 2009). These studies are both statistically and practically significant, and are reason to believe patients are price sensitive.

The role and character of price sensitivity for poor patients is a challenge deserving consideration. In a study of increased copayments in the Massachusetts Commonwealth Care program, Chandra, et. al found a price elasticity of -.15 across hospital, drug, and

outpatient services for poor patients (2012). Chernew et. al found that reducing copayments for medications in high-value classes improved nonadherence by 7-14 percent (2007).

CDHC's are commonly described in the literature as "market-based reform," which raises a more general issue about the way markets are discussed in policy design. Market failure is used as a rationale for government intervention, and the seeming inability of markets to improve social welfare in health services is a motivation for command-control advocates. On the other hand "pro-market" advocates argue for tools like price sensitivity and information but are wanting for comprehensive strategy.

Enthoven has argued when describing Managed Competition (1988), and Sen (2004) and McClure argue that the market-failure/government-failure frameworks are too limited to understand and diagnose the nature of the systematic challenges facing the healthcare sector. The objective of policy they argue should be to align the incentives of the healthcare system with the goals for the system, whether market or non-market, however those goals are defined. The healthcare "system" as a whole is too complex to use a government control vs. free market framework. It is a system of many subsystems which – like providers, payers, regulators, and suppliers – in turn have many sub-systems. A more appropriate analytical framework is one that focuses on the incentives generated by this system (precisely: a *macrosystem*) and systematically realign components of it so that incentives align with goals. This is a topic deserving of a full analysis but beyond the scope of this paper, but is relevant here to critique the way in which these incentive tools are described, which sometimes imply a greater capacity than is appropriate – unless they are incorporated into a more comprehensive policy strategy. I touch on this again in the behavioral section below.

Critics of high copayments have argued that making it more expensive to obtain care will affect quality. This tension between blunt reduction of care and reducing lower-value procedures is what Value-Based Insurance Design seeks to address.

- **Value-Based Insurance Design (VBID):** The concept behind value-based insurance is to improve the cost-effectiveness of high deductible plans by reducing co-payments only for treatments that have a better cost/benefit value. VBID is intended to account for heterogeneity among the health benefits of different services. The research on VBID is limited because most programs are employer-based and proprietary. Academy Health cites a 2013 review of peer-reviewed studies that found programs employing VBID resulted in 3 percent improvement in medication adherence, though they did not produce reductions in spending (Cunningham 2013). A review of thirteen studies performed by Lee, et. al found there was improved adherence to process quality measures of 3 percent over one year, but also no cost savings (2013).
- **Behavioral economics (nudge):** Behavioral economics has become a popular and important field of interdisciplinary study, with many important applications to healthcare. Knowledge of cognitive biases can be incorporated into insurance program design, and in preventative measures such as smoking, alcohol abuse, physical inactivity, and diet. It is

manifesting in employers or governments exercising “active choice,” such as auto-enrolling patients into desirable plans.

The field of behavioral economics is so vast I am only beginning to survey it. I found a helpful paper by Liebman and Zeckhauser arguing that people are poor at making healthcare decisions that optimize social welfare because of the complexity of care and of insurance, status quo biases, and the difficulty of making decisions with long time horizons. Therefore they argue charging people the marginal cost for providing care or changing co-payments will not result in a socially optimal outcome. The authors argue for making price and value information more transparent so that people can optimize more effectively, and when governments provide an insurance subsidy calculating the amount to offset human error in consumption (2008).

I believe the capacity of behavioral insights, while important, is at high risk of being oversold as policy strategies. Their effects are marginal, not fundamentally transformative. Therefore when healthcare systems are misaligned with the goals for the system – as I believe they are in American healthcare – behavioral intervention may not be sufficient to get people and institutions to behave the way policy makers desire they behave. Continual outside intervention through a nudge may not be sustainable: when the intervention is removed the perverse structural incentives remain and the system returns to its prior state. I believe it is a better general approach to redesign the system components to change incentives acting upon patients and providers than to try and correct a system failure by nudging. To redesign the system requires a more comprehensive policy strategy, guided by an adequate theory of action.

- **Workplace wellness programs or other wellness tools:** Workplace wellness programs are widely used by employers but the effects are difficult to isolate and measure because they are component of health plans. Even so Baicker, et. al were able to conduct a meta analysis of the literature on the costs of such plans, and found that medical costs fall by \$3.27 for each dollar spent on wellness programs and absenteeism costs fall by \$2.73 for every dollar spent (2010). Other studies have not found an effect.

THE RAND HEALTH INSURANCE EXPERIMENT AND INSIGHTS FOR PATIENT INCENTIVE RESEARCH TODAY

The Rand Health Insurance Experiment (HIE) is the benchmark for cost-sharing research, and is supplemented by studies on Consumer-Directed Health Care. The experiment found that with patient cost sharing the use of services and hospitalizations decreased significantly (two fewer visits per year to a physician; 20 percent less hospitalization). The reduction came from decreased patient-initiation of care – once the patient entered the healthcare system the effect of cost sharing was more modest. Consumption was reduced without regard to the cost effectiveness of care, and contrary to criticism the experiment also found that there were not clear adverse health effects as a result of higher deductibles (RAND 2006).

Sinaiko and Newhouse describe two important ways that cost sharing has changed since HIE: 1) Differentiated cost sharing by providers, and 2) Differential cost-sharing by the type of service

(value-based) (2008). When RAND revisited the experiment during the leadup to the ACA authors writing on behalf of the organization highlighted three studies: The first is that cost sharing did not significantly affect the quality of care received by patients. Second, the overall quality of care received, judged by process measures, did not improve despite dramatic improvements in technology. Third, the increase in co-payments did not lead patients to take better care of themselves (RAND 2006).

These findings indicate to me there is strong need for process improvement among providers, and since quality did not change a stronger incentive on providers is required. Similarly for patients, since higher deductibles did not lead them to take better care of themselves (consistent with Zeckhauser and Liebman's behavioral insights) a stronger incentive – that is, a reason and an opportunity – is needed.

Managed care may be a route toward better quality and more cost effective care. In a 2004 article looking back on the experiment Newhouse argued high deductibles of Consumer Directed Health Plans and tools of managed care can complement each other to contain both utilization and unit cost, while improving processes (2004).

Stipulating this as true, the policy question then appears to become: *How to encourage more managed care toward better quality and cost effectiveness?* The Affordable Care Act and many state efforts are premising the policy response to this question on payment reforms, yet the research cited above indicates these are not having a sizeable effect on the behavior of providers – and certainly not strong enough to drive providers to substantial business model changes. Something fundamental to the incentive structure must change.

This country cannot get the performance it needs from its healthcare sector with the organizations in the form we presently have. They will need to evolve substantially, and innovate in terms of technology, business model, and processes.

So if the supply-side incentives are too weak, and utilization incentives only change patient behavior but not providers – what *could* create incentives on providers strong enough to evolve?

The prospects for incentives for patient choice (demand side 2/2)

In the 2004 article Newhouse argues convincingly that cost increases are driven by an ever-expanding capacity of medical technology, desire of patients to seek care, and insufficient incentives on patients or providers to economize. The result is what an HBS professor remarked to me once about the relationship between policy and firms: “Every year we turn out some of the best managers in the world to go into the health sector and manage it to +6-8 percent per year,” the pricing power of family, business, and government budgets.

To pilot the ICC strategy two kinds of incentives are needed: Direct incentives on consumers to choose providers based upon value, and then the indirect, powerful incentive that those patient choices have on providers to improve. Tiered networks on quality and price are only beginning to emerge, and if it's true that these two kinds of incentives are needed – direct on consumer, and indirect on provider – then we need to better understand what will cause patients to shift. RAND

and CDHC tools provide reason to believe patients can be made price sensitive, but further research on copayments is needed.

Amartya Sen responded once to criticism of the difficulty of certain kinds of economic measures by saying, “You have to suit your measurement technique to the problem that you are studying. To each subject the extent of precision you are looking for must depend on the nature of the object you are studying” (Robeyns 2003). I believe this applies both to the development of cost and quality measures (they need not be perfect, just good enough to begin – since improvement comes through practice), but it also applies to incentives. We do not need perfect measurement of a prospective incentive before using it in policy design, but enough of an insight that it can be subjected to and withstand reasoned argument about whether it actually will work.

ASSESSING THE CURRENT NATIONAL HEALTH REFORM STRATEGY

Continuing to follow the methods of LSA, the next step before looking for other policy strategies is to assess how the current national health reform strategy is doing. We do this by measuring the policy design (and/or its actual performance) against its goals. Is the policy likely to achieve the goals?

To help illustrate this point the logical order of analysis proceeds as follows:

- ↳ *A national health reform strategy is adequate if it accomplishes the prevailing view of society for the goals for the system.* These goals are fairly represented in Title I of the ACA: “Quality, Affordable Health Care for all Americans.”
- ↳ *The present healthcare system does not accomplish these goals.*
- ↳ *The cause of bad performance of the healthcare system are bad incentives rewarding patients and providers for bad performance.*
- ↳ *The bad incentives are caused by system failure.* Conditions necessary for a sound market (such as consumer information and incentives) are either violated or missing.
- ↳ *The strongest way to reverse bad incentives is system redesign.* It may be only way – everything short of it has failed. To create strong incentives for good performance policy must replace these bad incentives with good incentives. A sound market with adequately informed and incented consumers, if feasible, would create strong proper incentives on providers and patients.
- ↳ *System redesign is possible.* The necessary technology for assessment exists and is in use. It is adequate to begin the strategy, and would improve with time and use.
- ↳ *System redesign is not presently contained in the ACA, but could be.* Assessment is not a primary emphasis; consumer incentives are not mentioned.

- ↳ *System redesign could be incorporated into the national health reform strategy through state demonstration.* Minnesota is one state prepared to implement the conditions necessary for a sound market. The strategy could then be spread through states, each their own way, by staging. Draw from research insights on patient incentives in Massachusetts and Minnesota.

Discussion of these points follows.

Is our nation's health reform strategy adequate?

The Affordable Care Act is at present the overwhelming player in our nation's health reform strategy. In fact it is so overwhelming the phrase "national reform strategy" is not used – the ACA being effectively synonymous.

Since it is the nation's principal strategy it is prudent to consider whether this is an adequate strategy to accomplish the goals that have been set out for it, and what an adequate strategy would need to accomplish.

First, to be adequate what must a national reform strategy accomplish?

At a minimum, it must achieve the three goals contained in section one of the ACA: "Quality, Affordable Health Care for all Americans."¹

More fully, to achieve these three goals the reform needs to accomplish four objectives: (1) high quality care, (2) high quality coverage, (3) cost control, and universal and affordable care and coverage. Presently the American healthcare system falls seriously on all of them, particularly cost control.

An adequate reform strategy must reasonably address all four goals – anything less is incomplete, as we are still left with major problems. They are difficult to reconcile: The country needs serious cost control – and to lower the health care share of GNP – but this must not compromise quality of care and coverage or universality.

The ACA's central accomplishment toward national health reform is a reasonable strategy for adequate universal coverage made affordable by sliding public subsidies for the poor. Its core mechanism, state-based public insurance exchanges, is an appropriate tool to facilitate this, particularly for individuals and small companies. But it is not yet clear that the ACA will be affordable to the nation. The cost control provisions seem vague and where clear, they seem inadequate. And the Act's capacity to protect or raise quality of care seems uncertain.

Without adequate cost control the ACA needs an update or will come unglued. To seriously contain cost, reform must address the underlying cause of inefficient use of resources. The healthcare system, as presently structured, places powerful incentives on providers rewarding cost independent of quality of care, and punishing efficiency no matter how high the quality. To accomplish cost containment while protecting and improving quality, an adequate strategy must powerfully reverse these incentives.

A redesign strategy must address the root system failure. Correcting the unsound healthcare system – if it can be done – would seem the most powerful strategy because it is essentially a market-based strategy with special attention paid to the values our society imposes on the market, and markets, where feasible and appropriate, are the most powerful engine for quality and efficiency known. It would mean providers who are better for less win the patients from those who are poor and costly, who in turn must improve or go out of business. Given the lackluster success of past cost control strategies, correcting the unsound market may be the *only* strategy up to the task to accomplish all the desired goals simultaneously.

The question for national health reform is whether the healthcare system be restructured to meet the requirements of an effective market? What are the key requirements that must be met?

There are several but two conditions seem crucial: Patients need comparative *information* telling them who is better for less, including ratings of the quality and costliness of all providers in their area. Patients also need strong *incentives* in their coverage so that they will choose providers not just for quality but also for economy. These and other conditions are outlined in table 2.1.

Table 2.1

Seven conditions for an effective market

1. No monopolies or oligopolies, and prevention of provider market pricing power
 2. Freedom of entry and exit for buyers and sellers
 3. Adequate consumer information on seller quality and cost
 4. Adequate incentives on buyers to choose value for money (no disincentives for buyers to choose value for money)
 5. No buyer or seller free riders (externalities)
 6. No “missing markets” (absence of long-term risk protection in the individual and small group markets)
 7. Government market oversight to maintain the above conditions
-

The next part of this section will argue that the ACA is premised upon correcting market failure, and does so creatively and brilliantly – yet since the healthcare system is in fact in *system failure*, the policy design is insufficient and less efficient than it could be. After analyzing the ACA’s strategic approach, considering its strengths and shortcomings, we will consider what policy designs could be brought in to strengthen it.

LIMITS OF A MARKET FAILURE RESPONSE TO SYSTEM FAILURE

The goal of the Affordable Care Act is to achieve “Quality, Affordable Health Care for all Americans.” (Act 1) This is a reasonable representation of prevailing view of most Americans.

The principal tools of the ACA are the development of state-based insurance exchanges to assist low-income and middle class individuals and families; expansion of public assistance and the initiation of payer-driven incentives through Medicare (the provider incentives described earlier).

The strategic approach of the Act is to address symptoms of market failure to – in economic terms – improve social welfare, or overall wellbeing. This approach represents the market failure/government failure frame of conventional economics, which permeates policy and politics as well. This can be seen in the political discourse around the ACA: On one hand the reforms are being sold as correcting some of the most acute ills (market failures or negative externalities in economic terms) of the current system. The opposition has difficulty arguing against regulation on the grounds that the market should be left alone because it is so obvious the system is dysfunctional – so they argue against government takeover of healthcare, a version of the government failure argument that applies to the basic structure of society (to use Rawls’ definition). But they haven’t proposed a serious alternative to the ACA’s regulation-based approach to offset perceived market failures.

The primary market failures that the insurance exchanges are intended to correct are:

- (1) Missing markets: Create viable markets where they did not exist for individuals and small employers through regulated insurance exchanges – possibly with market power.

Details: Pooling of risk; individual mandate; tax subsidy intended to draw in healthy people to exchanges; become a vehicle for Medicare and Medicaid.

- (2) Consumer information and access: Improve consumer information by providing price transparency on providers, later including quality as measures become available.

Details: Section 1311(e)3 requires reporting on standardized data reporting on price, quality, benefits, consumer choice and other factors, as well as providing tools for comparison among plans. Methods to do this are not provided for, and will need to be done as part of implementation.

- (3) Information asymmetries: Monitor adverse selection by plans in exchanges; ban exclusion from coverage for preexisting conditions.

Details: Individual mandate of ACA; exchanges intended to draw a mixture of healthy and less healthy through use of tax credits; states have authority to regulate against adverse selection under section 1311(e)(1)(B).

- (4) Free riding: Those that willingly went without insurance, or those that were unable to purchase care, in emergencies were backstopped by Emergency Medical Treatment & Labor Act. Separately, in economic terms social welfare was lost through job insecurity, an artificially immobile workforce, bankruptcy.

Details: This is corrected through the individual mandate.

Additional symptoms of market failure that the ACA seeks to correct include:

- Perverse payment incentives: Begin to replace the inflationary incentives of fee for service with capitation, global payment, payment bonuses and penalties, and other related forms of payment for Medicare.
- Decrease transaction costs for consumers: Streamline enrollment in public and private insurance programs.
- Make it easier for individuals and businesses to compare plans. Belief that transparency on the net price paid by consumer will lead to competition on price.
- Integration of care: The Act aspires to change the business models of healthcare delivery that are believed to be more cost-effective. The intent is integrate delivery of care for patients, from preventive to tertiary services, toward maintaining health instead of having to find things to bill an insurance company for. The vehicle is the Accountable Care Organization, versions of which have been in existence for some time.
- Monopoly pricing power and distorted prices: Greater transparency of pricing.

LSA theory holds that the market failure/government failure approach to offsetting negative externalities is an efficient way to address system failure, because once any external intervention is removed the system will return to its prior problematic behavior.

The current strategy faces three particular shortcomings:

- *No correction of cost-raising tax incentives*, favoring higher incomes and higher cost states, eroding insurance-based consumer incentives.
- *No patient price incentives*
- *Ambiguity in what will be measured, how, and where the information will be used..*

While many of the market failures can be offset by regulation, it is a reach to expect that this will lead to fundamentally different organizational models. The mechanisms of payment reform appear too weak alone to accomplish the task of correcting system failure, which we turn to now.

Under the ACA Medicare will compensate ACO's through bundled payments, a similar method to that used to compensate Health Maintenance Organizations (HMO). While an improvement over fee for service, global payments are not substantially different from payment methods that have been underway for years with managed care organizations.

The human characteristics often suggested for problems of American healthcare – revenue

maximization, self-interest – are present among individuals and organizations in all industries, not just health care. For-profit, high tech, and self-interested industries steadily give us better for less, while health care gives us marginal health improvement and soaring cost. Surely no one will suggest this is because executives in industries like IT and vehicles are more virtuous than health care providers. So greed, profit, and/or technology cannot be the underlying causes.

The underlying cause is incentives. The IT and car markets have structure that reward better results for less cost and punish worse relative results for higher relative cost. The health care market on the other hand punishes better for less and rewards costliness independent of quality. No matter how virtuous they may wish to be, or we desire them to be, providers must adhere to these systemic rewards to prosper.

Payment reforms such as global payments, bonus payments, and profit sharing put forth in the ACA do not appear sufficiently powerful to control cost because they do not target the root problem of misaligned incentives. And since payment reform is not a proven systemic strategy, it is a risky strategy to pursue on its own if another strategic option is available that can be pursued at the same time.

Cost containment strategies to date have missed the underlying cause of cost growth. The case for what has come to be known as integrated delivery began in 1966 when Kerr White advocated for multispecialty hospital-based group practice.ⁱⁱ White believed that the right organization of primary care would lead to the proper use of specialists as well.

Paul Ellwood built from White's idea and generated the Health Maintenance Strategy, and the Health Maintenance Organization as a process to integrate care.ⁱⁱⁱ The vision for integrated payment and provision of care got pulled off track as managed care diluted to become open-panel insurance plans with networked providers – not fully integrated providers.

Alain Enthoven found it was not the HMO or Integrated Delivery System (IDS) that was critical, but competing delivery systems in a context of market incentives – integration would follow.

If it is true that integrated care is superior, then government intervention should not be required to realize them – the policy design should create incentives powerful enough that these forms of reorganization emerge.

There have been other strategies that, because they neglected the system causes, were in fact counter-effective. In 1968 economists argued cost growth was an issue of scarcity and favored the expansion of medical schools. Since the inefficiency of the system was structural – the results of incentives that reward costliness and punish productivity – increasing supply was like pouring gasoline on a fire.

A more basic approach is needed, and here the seven conditions for an effective market in table 2.1 can provide a framework. The beneficence of markets is not a self-evident axiom. It is a theorem depending on prior conditions. The cure for an unsound market is to install the required conditions.

Any cost control strategy based on market reform must implement in a practical way each of the above conditions. Any market reform proposal which violates one or more of these conditions will be unlikely to work.

The last condition arises because only sound markets are self-correcting; unsound markets must be corrected by wise policy. The first two conditions could be met in most local healthcare markets. In most local markets, and overall nationally, there are ample provider competitors. Localities with too few providers would gain by sound competition in glutted areas driving the surplus to areas of shortage. In the least populous rural areas, which can't support competitors for most products let alone healthcare, social pressure is more important than competition. If armed with good consumer information, it ought suffice in most. Antitrust tools are available and there is debate about whether they are being adequately used. And easy entry should not be a problem if the reform approach makes ample room for small new provider competitors to get started in any area.

It is the next two conditions, consumer information and incentives, that are most widely and seriously violated in healthcare, and their absence is the primary cause of healthcare system malperformance. Today no consumers – nor employers, insurers, or providers for that matter – can obtain simple clear information comparing providers on quality and cost. And most insurance lacks either means or rewards for consumers to choose better providers for less. This creates powerful perverse incentives on providers rewarding costliness and punishing productivity. If these two conditions cannot be corrected, a market strategy is infeasible.

Consider the consequence. If it is feasible to measure the quality and cost of any size provider unit – from a solo doctor to a group practice, hospital, ACO, or managed care plan – then provider units of any size are free to form in the market and compete. This solves both the problem of entry and of sufficient competitors in smaller markets, making this market strategy applicable to most of the nation. Second, by uniting employers and other purchasers in a local market so that all local consumers have information and incentives, ICC forces all local providers to compete on better care for less. They can no longer generate income doing costly services of little value, as consumers would see that their cost rises but not their quality. Unsound provider competition and incentives have been reversed and made sound in the area.

The consequences for a national health reform strategy built on this strategy are also great. Once consumers have ample information and incentives on the quality and cost of competing providers and plans, they need no bog government agency to act on their behalf, as they do not in other sound markets with ample consumer information. And health plans are spared any huge bureaucratic apparatus. Equally important, because these reforms correct one local market at a time, independent of what happens in other areas, a cost control strategy could be tested and refined to assure they are working, then spread market by market across the nation. Congress need not take the entire nation on a flying leap into the unknown with an unproven plan.

All these merits hinge on the crucial question of feasibility. What would such an incentive-based system redesign strategy look like? Is it possible to implement? Before answering the second question we need to answer the first by identifying what LSA calls a future model.

IDENTIFYING A FUTURE MODEL

Enthoven, McClure, and an Informed Consumer Choice (ICC) policy design

Having considered the current national health reform strategy against the goals of *quality, affordable healthcare for all Americans*, and finding the strategy incomplete, the next step is to search for any policy designs that might already exist that can improve upon the current national strategy. LSA theory is about structure and incentives, so incentive-focused policy design is the most promising.

Some of the best thinking in this area was done by members of what was known as the *Jackson Hole Group*, a bipartisan group of academics and policymakers that met to identify pathways forward for national health reforms in the 1970's and 1980's. From this group emerged what Alain Enthoven, one of the conveners, called "The Gang of Four" that laid the intellectual foundations for competition-based reform in American healthcare. This included Enthoven, Paul Ellwood, Walt McClure, and Clark Havighurst. (Enthoven 1988)

Of these four Enthoven and McClure remain active and a survey of their work finds two comprehensive policy strategies – *Managed Competition* (by Alain Enthoven of Stanford) and *Informed Consumer Choice* (by Walt McClure of the Center for Policy Studies) – that, if combined and applied to the current policy environment, appear capable of accomplishing all three goals at once.

Managed Competition is a comprehensive policy strategy whereby healthcare organizations compete for consumers in a controlled market. Informed Consumer Choice is an update of "But Right," a comprehensive policy design put forward by McClure in the 1980's that focuses on system structure, whereas Managed Competition focused on market structure. They have common origins in the discussion and work group known as "The Jackson Hole Group." Both were developed before the technology for quality and cost measurement was available, but they anticipated its eventual arrival. McClure – impatient for measures – even went so far as to develop them himself, extracting sample populations from claims data.

As they are the two most comprehensive competition-based strategies available, a merger and update of these two strategies to the present context would strengthen them both, and provide a way forward for national reform.

For the purpose of this paper, and to begin, we only need the two parts of ICC articulated by McClure – information and incentives. But it quickly becomes complex during implementation and requires further design work, hopefully by these two men, comparing their designs to one another and developing a competitive strategy applied to the current context.

The Informed Consumer Choice strategy consists of two main components:

- First: Information on cost and quality made clear and available to consumers in the form of ratings on plans and providers. The information must be based on rigorous, transparent, verifiable, and continually improving measures.
- Then: Incentives built into consumer's health plans for members to choose providers that are better for less.

Through these elements the strategy reverses the perverse incentives of the unsound market of the present healthcare system. Providers who are better for less win patients and flourish the better and more efficient they are. Providers who are poor, or inefficiently costly, lose patients to those who are better for less. If they try to make up for loss of patients by “churning” up more services of marginal value on each of their remaining patients, they simply accelerate the shift. Eventually they must either substantially improve or go out of business for lack of patients.

Health care of superb quality (superior outcomes and patient satisfaction) can be delivered for substantially less than the variable quality care of the present health care system. If the powerful incentives of ICC were to lead all providers to become merely as effective and efficient as the best, most efficient providers today the entire United States population could be cared for at much lower cost – and quality would rise. But this does not begin to exhaust the potential of ICC. The best most efficient providers today are not even pressed to be as good and efficient as they could be; under the present incentives they must pull their punches to survive, as value is not only uncompensated but punished if it leads to less revenue. Under the new incentives, competition among successful providers to be better for less than their competitors will spur continual productivity increase across the nation's restructured health care system.

New incentives do not work overnight, nor can a huge system presently geared to costliness turn on a dime, but in ten years one can predict the quality rise and cost drop will likely be substantial and growing, and – at last – both will be measurable.

Gaining insight into what could be done in Minnesota, and whether it is possible

Minnesota provides a good test-case for the ICC policy design because it has quality and cost measures available, a place to house them, and – importantly – a culture of evolution and accountability that has been built-up over three decades of leadership. Assessment has progressed organically, led by providers themselves; and business, industry, and government have maintained cooperative relationships. In addition there is a government insurance program called *Minnesota Advantage* – analyzed in Section Three – that uses the kinds of incentives on patients to switch providers called for in Informed Consumer Choice. Therefore for implementation of a pilot this is not out of left field, but can be tied to and grown from what is already known – an important negotiations principle discussed further in section three.

For the information component to work requires two elements:

- a) *The information needs to include both provider quality and costliness, and indices of plan value.* In Minnesota most providers are above the national average on quality. By measuring their relative costliness as well these providers must compete on overall value,

doing away with the need to force differentiation on quality when substantial differentiation may not exist. Plan ratings should be developed by the value of their benefits down to the level of provider quality and how well they steer patients to providers that are better for less.

- b) *The technology of the measurements – algorithms, methods, indices – must be transparent and non-proprietary, and verifiable by physicians and accrediting organizations.* This is as much for the sake of legitimacy and provider confidence as for the need to continually advance the state of the art. No matter how accurate measures are professionals cannot be expected to agree to be measured if they cannot vet the metrics. Further, transparency is required in order for ongoing development and improvement of measures. Quality and costliness assessment is a science, and the more open development of metrics there is, the faster the field can advance.

Meanwhile the consumer incentives can be structured at two levels:

1. *Steer choices at the plan level with the premium:* If the plan restricts access to better for less providers, it should cost less. Right now employers pocket the savings and are afraid to restrict access to higher-cost/poorer-quality providers with high copays. These are problems that would need to be worked through.
2. *Steer at the provider level with sufficient copay or other mechanism for price-sensitivity:* There are likely many ways this could be done, but the one Minnesota has the most experience with via Minnesota Advantage involves creating tiers by costliness and using co-pays to steer members to providers in lower cost tiers. With information available for both quality *and* cost, the tiers would break down in descending order of value to: high-quality/low-cost, high-quality/high-cost, low-quality/low-cost, low-quality/high-cost.

The State Employee Group Insurance Program (SEGIP) *Minnesota Advantage* structures tiring by cost and co-pays to steer members to lower-cost providers and is one of the only examples of its kind. Many private plans use cost-sharing tools to control how much members consume but the *Advantage* program's explicit focus on steering the members to the lowest-cost providers is something special, and I think has policy implications.

The behavior changes among members and providers in the *Advantage* plan actually appear pretty significant: 85 percent of members attend providers in the two lowest-cost tiers, and there is anecdotal evidence that providers change processes to move into a more advantageous tier. The Wisconsin state employee program uses tiers for choosing plans (not providers), and the patient price sensitivity is so acute that all but one provider network have moved to the lowest-cost tier.

These examples are important because they indicate what is possible: That plans can place incentives on members to go to some providers over others. It begs the question: *Could plans and government payers also do this based on cost and quality information?*

A survey of the research finds only the Rosenthal/Sinaiko study of 2014 pertaining to price incentives and patient choices. That study found greater price sensitivity among new plan enrollees than those already affiliated with a doctor, yet significant both ways. Beyond this study there is a dearth in the field of patient choice and price sensitivity.⁵

A reason for this appears to be strong quality and cost measures only recently became available. And, the national attention has been on payment reforms staged between payers and providers, or on incentives to affect utilization, not choice.

Where in Minnesota could the ICC policy design be piloted?

There are multiple places in Minnesota where quality and cost measurement can be paired with patient incentives as part of a pilot effort.

- Minnesota Advantage uses basic cost measures very successfully and could be expanded to include additional measures.
- The Department of Human Services has considered modeling Minnesota Advantage for public enrollees through the state health insurance exchange *MNSure*, and has spoken with HHS about a waiver to do so.
- The MNSure team intends to use measures at some point in the future, but are consumed presently with implementation related to launch.
- Health insurers in the state are using measurements from MNCM and changes in payment within their plans, and have progressed rapidly since enactment of the 2008 statute. For example they are using copays to encourage members to use discretion in consumption, and sharing savings with providers. The best way to get plans to use tiering in premiums and of providers is through a plan assessment system, developed openly at a venue like MNCM with the participation of plans and other stakeholders.

Any of these areas could be used as an initial pilot project, for the purpose of working out problems before going statewide. While the patient incentive may initially be limited to one of these programs, the quality and cost information could be put into the public domain right away.

The advantage of staging policy efforts

Since MNCM is a known quantity and operates statewide it will be less disruptive of a change than the introduction of patient incentives tied to this information, though there would still be much work to do to make the information consumer friendly. The consumer incentive work could be done at MNCM, MNSure, the Department of Health, or in some other capacity.

⁵ Policy and research throw around terms and phrases like *measurement, assessment, value, quality, information,* and *better for less* very loosely – even irresponsibly, since it obscures the issues. The ACA calls for use of measures, yet not all measures are created equal – in fact most are insufficient to link with consumer incentives.

Making the measures available statewide while piloting the consumer incentive in a more limited setting – has the following advantages:

1. *It broadens the problem of measurement to include the broader policy objective of Informed Consumer Choice.* Taking up the question of consumer incentive calls the question on measurement to answer what consumer incentives will be based upon. That puts both assessment and incentives on the table at the same time, and creates an opportunity for a deal.
2. *Minimizes political opposition.* Limiting initial use of consumer incentives presents a more manageable (and politically conservative) place to begin. Minnesota Advantage already provides cost-sharing incentives to incent their members and dependents to choose lower-cost providers. Further, that program was a product of labor/state cooperation and is respected by the legislature.
3. *Staging consumer incentives provides opportunity to test and improve both the incentives and their relationship to measures.* The design of cost-sharing at the plan and provider levels can take varied structures, and would need to be worked out to find optimal forms for different populations. It is unlikely one incentive mechanism would work for all populations, and so those would vary. (For example creating four tiers and using copays from \$20-40 appears to have been an effective incentive on state employees, but for Medicaid populations a different tool for price sensitivity may be needed.)
4. *Beginning with Minnesota Advantage and/or public enrollees enables the state to research the effect of different consumer incentives and make adjustments before spreading the policy statewide.* This would be a new policy strategy – pioneering even – and so there is almost no research on consumer incentives unlike the more common payment reforms that are part of the national consensus. This is an opportunity for the state to study pilot efforts to inform statewide policy later. First could be a straightforward study of Minnesota Advantage and if possible Wisconsin's state employee program, to understand the movement of employees and providers among the cost tiers. This could be begun immediately, testing areas such as whether members changed providers based upon co-pay; how strongly they responded to copays; and whether providers changed in response. Then over the coming year in preparation for a DHS program, a comprehensive study could be constructed for a Medicaid waiver that would be designed specifically to test a range of consumer incentives for the Medicaid population for the purpose of exploring the most effective tools going forward. Minnesota is a pioneer in health policy, why not be pioneers in policy research as well?

This section has identified the merger of comprehensive competition-based policy designs *Managed Competition* by Alain Enthoven and *Informed Consumer Choice* by Walt McClure under the name *Informed Consumer Choice* as a design more likely than any others available to accomplish the goal of Title One of the Affordable Care Act for *quality, affordable healthcare for all Americans*. It appears possible in concept to create a state demonstration of the ICC policy design in Minnesota, and the broad outlines are provided. Now the task is to make the policy

design real, and to put it into operation so that it can be tested and improved upon. This requires an implementation strategy, and that is the subject of the next section.

Section Three

Implementation of Redesign – the “Change Strategy”

No system design is sufficient if it can't be implemented. Political enactment and practical implementation are central – in order to have an effect it must actually become implemented.

The objective of this third section is to develop a strategy to successfully implement Informed Consumer Choice as a system design. It begins by building a body of evidence for the use of patient incentives connected to quality and cost, and then identifies a path forward to implement a pilot project in Minnesota.

The statistical analysis of an existing state insurance program called Minnesota Advantage demonstrates that it appears possible to influence patients' choice of provider through cost sharing. This analysis was necessary because as described in Section Two the research in the field is very limited. The program administrator, as PAE client, sought to learn insight of the behavior of the program to gain insight for policy.

The statistical results found that patients do change provider when faced with greater cost sharing. These findings warrant future work to gain a more full understanding of the nature of this effect, but this initial result is significant for policy and provides reason to believe Informed Consumer Choice could work.

A negotiation analysis is then performed, applying system design frameworks from the Center for Policy Studies described in Section One and the “3D” negotiation framework of Lax and Sebenius to develop a 3D Strategy to outline and take action on the necessary steps to reach objectives. Next steps for continuation of this project are discussed.

THE SYSTEM DESIGN IN SUMMARY

To review, the Informed Consumer Choice system design as described in this paper consists of information and incentives. More precisely: (1) Information in the form of ratings of plans and assessment of providers; and (2) Incentives on consumers and level of plan and providers, thus

IMPLEMENTATION OF REDEISGN

placing incentives on providers. In practice there are many layers of detail to this design that emerge through implementation. Challenging and intricate problems need to be addressed, from how measures are developed and measurement conducted; how information is presented; implications for health plan design; the relationship of states and the federal government; and many others. The processes for developing rigorous quality and now cost measures are rigorous and academic, involving professionals and objective standards. That approach will be necessary for other areas of design work as well. Part of the task of the Large System Architect is to address these engineering challenges in an adaptable and resourceful way, while adhering to the principles of the policy design.

While this implementation strategy can begin guided by the general principles of information and incentives, serious design work will need to continue as part of an ongoing implementation process. Nobody is better positioned to lead this work than Enthoven and McClure.

To move forward on implementation in Minnesota the following steps will need to be taken, roughly in this order:

- Get an operating provider assessment system for the state up and running as soon as possible, by merging existing state and community-based measures under a single effort. The threshold for measurement technology is that it must be vetted, transparent, and ready to go into operation now.
- Partner or contract with experts to develop a consumer information component to pair with these measures, made available statewide. (Consumer Reports recently piloted an effort using limited measures from multiple states with community-based provider measurement capacity, including Massachusetts and Minnesota.)
- Through the same open processes used to develop provider quality and cost measures, develop value ratings of health plans' benefit sets (tuned to Informed Consumer Choice). This will move in the same direction as the metal levels for the ACA but serve the strategy of better-for-less.
- Pilot incentives on consumers to choose providers by cost and quality through government programs. Plan ratings above may accomplish this same objective task for health plans.
- Perform research on the consumer incentives presently in use in Minnesota Advantage, to gain insight for state policy.
- Stage the implementation of Informed Consumer Choice across the entire market.

THE PROGRESSION OF HEALTHCARE REFORM IN MINNESOTA⁶

As this paper considers Minnesota as a demonstration site for Informed Consumer Choice it can be helpful to take a look at how the state got to where it is, and the private and public sector leadership that has brought the state to a position where it can be a demonstration of reform at this important time.

Minnesota's focus on incentive-based reform of the health care system dates back to the 1970s, when Excelsior-based *InterStudy*, under the direction of Paul Ellwood, began developing what came to be the Health Maintenance Strategy for federal policy. The objective of the strategy was to foster Health Maintenance Organizations (HMOs): prepaid, integrated, managed comprehensive-care organizations, which presumably had internal incentives to reduce unnecessary services and costs. By 1980 it became clear that, with some heartening exceptions, true HMOs were not catching on widely and were not making a dent on cost escalation.

By 1981 Walter McClure, part of Ellwood's team at *InterStudy*, had concluded the HMO strategy was aimed at the wrong level: It was addressing symptoms and not the underlying cause of the health care system's variable quality and runaway cost. Instead of looking at incentives within organizations, one had to look above the organizations to the level of the system itself and the incentives the system placed upon the organizations within it, including HMOs. It became clear the system punished providers who were better for less and rewarded costly providers, independent of their quality. Even an HMO could not pursue efficient practice if it were punished for it. McClure founded the Center for Policy Studies to design a system reform strategy that would reverse these pernicious incentives and to assist people in positions of leadership who wished to implement it.

The Center concluded that a strategy to reward providers who were better for less would have to:

- Identify who those providers are, and
- Reward providers by giving patients objective ratings of provider quality and cost and placing incentives in their insurance plans to choose providers who are better for less

This strategy – described in this paper as Informed Consumer Choice had its origins as *Buy Right*. Thirty years ago, these policy ideas, originating in Minnesota, were considered radical and impractical. Nevertheless, enough progress was made nationally that they are now becoming mainstream around the country, including in Minnesota.

The Institute for Clinical Systems Improvement (ICSI)

Measurement of quality took a significant step forward in the 1990s due to two developments in the state. The first was when two HMOs, Group Health and MedCenters, merged to form HealthPartners. This led Dr. Jim Reinertsen, CEO of Park Nicollet and George Halvorson, CEO of the old Group Health and now of the new HealthPartners to the inspired idea to use the clinical expertise of all three medical groups to develop and publicly release a new common set

⁶ This section draws from an article originally published in the *Minnesota Journal* (McClure, McDonald, 2012)

of improved quality measures for themselves and the medical community at large.

At about the same time, a group of large employers, represented by their business coalition, Buyers Health Care Action Group (BHCAG), sought a single health plan and put it out for bids. The group of three, led by HealthPartners, submitted a bid and won. Thus in 1993, from this work was born ICSI, the Institute for Clinical Systems Improvement: the first independent agency continuously developing, and updating in light of new evidence, quality guidelines for practicing providers – not limited to a research project but a practical, operating program.

Dr. Gordon Mosser, formerly head of quality at Group Health, was brought in to head ICSI. He had the relevant clinical experts from HealthPartners, Park Nicollet and Mayo to work through the medical literature and arrive at consensus on the best protocols. ICSI protocols are achieving increasing recognition and endorsement around the country. Each protocol was accompanied by a set of patient outcome objectives, and the program called for each provider group to audit its records and report on the percentage of its patients achieving the desired outcome for each protocol. These reports were kept confidential and shared only among the participating providers. Mosser's consensual, confidential process won provider trust, and more and more provider groups joined ICSI and used its protocols and confidential reporting. They all discovered that while some were better than others on this condition or that, they were all far from where they wanted to be on patient outcomes and they could learn from each other to improve their care.

A second important development came in 1995. HealthPartners under its new medical quality director, Dr. Gail Amundson, developed a set of "patient-centered" quality measures aligned with CSI guidelines for monitoring HealthPartners' medical group as well as participating groups in its network such as Park Nicollet and Fairview. She proposed and got strong support from HealthPartners leadership that these measures be released publicly for each participating provider group, putting the groups in competition with each other publicly on quality.

By the end of the 1990s, many of Minnesota's providers were participating in ICSI's confidential but objective quality assessment, and those participating in HealthPartners' plans were having their quality reported publically. This was a significant advancement in quality assessment, particularly because it involved a shift in physician culture—from unease and opposition at objective external measurement of their quality (let alone public release of the results), to recognition that when done competently and transparently, assessment is a powerful tool to improve their quality of care and the right thing to do for their patients.

The skill and patience with which this culture shift was brought about offers an important lesson. One cannot impose external assessment on providers in a day or year and expect cooperation; the impatient advocate or policy will fail. Physicians are smart, independent thinkers – experts in their field. They will not accept things on others' say-so; they must work through the matter themselves until persuaded of the merits. Moreover, their training drills them in autonomy, and even when persuaded that competent external assessment is a powerful tool to improve quality, it takes them some getting used to. ICSI gave physicians years of experience via confidential processes, in which they themselves came to consensus on well-validated measures, to see the value of assessment for improving care.

Minnesota Community Measurement (MNCM)

A second area of progress began quietly in the early 2000s. Blue Cross Blue Shield of Minnesota, Medica, PreferredOne, UCare and Metro Health Plan had joined as sponsors of ICSI, and Mary Brainerd had succeeded Halvorson as CEO of HealthPartners. At this time, each of the health plans was using its own confidential internal measures for assessing provider quality. HealthPartners proposed to the two other largest plans, the Blues and Medica, that it would be better and easier on plans and providers alike to come to a common set of measures, so that providers reporting on this one set would satisfy all plans. The three plans came to a landmark agreement to aggregate the common measures by provider group and make the results public as soon as there was confidence in the process. Since these plans covered most of the state, this meant most provider groups would now be publicly assessed on their quality.

It was thought at first that ICSI should perform this assessment, but Mosser advised that this should be done by a separate organization. ICSI had promised its provider participants confidentiality and should not betray this trust; moreover, acting as a public quality auditor would conflict with its role of quietly helping provider groups to improve. So the three plans (joined later by PreferredOne and UCare) set up and funded a separate pilot project headed by Amundson with 50 participating provider groups covering most of the state.

There was some initial unrest among providers in some of the groups, but most bought into the concept when they saw the assessment was valid, fair and transparent. In 2004, results for the first patient condition – diabetes – were publicly released with each provider identified. The pilot was deemed a success and a nonprofit organization, Minnesota Community Measurement (MNCM), under the direction of Jim Chase was created to continue assessment and expand the quality measures. Like Mosser at ICSI, Chase proved patient and skillful in setting up an open participative process to earn provider consensus and approval on all quality measures as they developed. MNCM has grown in provider participation and the range of patient conditions assessed for quality. The board has been broadened well beyond the initial plan and provider group leaders to include a balanced set of representatives from labor and business, as well as plans and providers, with none dominant.

Incentive-based system reform becomes state policy

A third area of progress came in 2008. Governor Tim Pawlenty signed into law a series of reforms arrived at with the Democratic-controlled Legislature that made assessing and buying “better for less” state policy. The 2008 reforms had their origins in a failed attempt in 2007 to pass a health insurance exchange bill Pawlenty proposed that led to an end-of-session compromise to create a Health Care Transformation Task Force. Its role was to “advise and assist the governor regarding activities to transform the health care system” to improve affordability, quality and access. It reported in 2008.

- Use public health programs and education to curb unhealthy consumer behavior
- Measure all providers on quality and cost and publish the results to consumers, so they can act accordingly

- Change payment to reward those providers who are better for less
- Assure all Minnesotans basic health insurance at an affordable price

These recommendations would not have been serious – had Minnesota’s private stakeholders not brought the state to a forward position. Their collaborative effort had that provider quality assessment was practicable, had built the culture shift that made it acceptable and persuasive to most providers and was presently gifting the state with an operating quality assessor.

Provider Peer Grouping (PPG)

Since 2008, officials across multiple private and public agencies, and through two administrations, have been implementing the statute. In the process, some challenges and new opportunities have emerged.

The first and most difficult task was to arrive at a practical method to assess providers for quality and cost, and MNCM had a well-developed methodology for assessing provider quality, and the department borrowed heavily from it with MNCM’s full cooperation and assistance. But at the time, there was no method for the task of accurately assessing provider costliness, which the statute directed had to be measured as well.

Any cost methodology has to assess a provider’s “total cost of care”—a technically daunting exercise. Not only service prices must be measured (those actually paid the provider, not billed charges), but also how efficiently the provider uses services to achieve its contribution to a given patient outcome, which can involve multiple providers. Like outcomes-based quality assessment, it has to be risk- adjusted for the patient population served.

The department, after considering proposals from multiple bidders, hired an outside vendor to work with providers, plans and community stakeholders to develop such a cost assessment method and combine it with quality assessment to rate each provider grouping’s quality and efficiency. The department and vendor chose an approach called Provider Peer Grouping (PPG), and it appeared to have considerable promise but would require lengthy and challenging development.

In 2011 the department issued its first preliminary report (released only to the hospitals for review) rating hospitals based on cost and quality. These early results appeared off the mark, and shortcomings in technical methods became evident to both private and department participants.

An NQF-endorsed total cost of care metric

In 2012 the National Quality Forum (NQF), the pre-eminent body that rigorously examines provider quality assessment methods, endorsed its first Total Cost of Care metric. In the past few years, the quality of care movement has embraced cost as part of provider and health plan assessment on grounds that excessive cost denies too many patients coverage and access to quality health care. The combination of patient outcome, patient satisfaction and lower cost has come to be known in this movement as the Triple Aim. But no accepted rigorous method for cost assessment had come out until this year. The newly endorsed metric is also of Minnesota origin.

There is now an opportunity to move forward on quality and cost.

Viewing this strategy as part of a continuum in the state

The implementation of Informed Consumer Choice in Minnesota can be viewed as part of a continuum of policy work that began decades ago with early, visionary work to lay the foundations for measurement in the form of provider-led and community-based efforts to create a professionalized, independent assessment program; and similarly visionary efforts between the state government and public employee unions to develop an early version of what would become patient price incentives in the Minnesota Advantage program.

More recently, four phases to state policy work can be distilled, predating and lending through the ACA:

- Phase One involved preparing 2008s under Governor Pawlenty that made “better for less” state policy.
- Phase Two was the emergence of Provider Peer Grouping, a quality and cost assessment to create measures in-house. The effort faltered, lost trust of the community, and has struggled to recover.
- Phase Three was Minnesota Community Measurement bringing together a new total cost of care metric with its quality measures.
- Phase Four now is implementation of the ACA, including creation of a health insurance exchange and expansion of Medicaid.

The executive branch is consumed by challenges of implementation. Industry leaders are working on their business without shared vision. The question now is: What’s next? To this we turn, after first analyzing the *Minnesota Advantage* program to gain insight for policy.

**BUILDING A BODY OF EVIDENCE THROUGH RESEARCH AND
STATISTICAL ANALYSIS OF *MINNESOTA ADVANTAGE***

While the case for Informed Consumer Choice can be argued strongly in theory, for the purpose of implementation the more it can be rooted in evidence the higher the likelihood it will move.

While we know empirically from other sectors that consumers are price sensitive, healthcare poses special problems. For example patients are loyal to their doctors, there is an absence of consumer information on price and quality from which patients can feel confident about making decisions, and there are problems with accessibility of alternatives.

Since the literature on patient incentives is so limited, I sought ways to build the body of evidence. During my summer fellowship with the Minnesota Governor I found that the State Employee Group Insurance Program (SEGIP), called *Minnesota Advantage*, uses just this type of

patient incentive. Precisely, it uses claims data from public employees to categorize providers into tiers based upon cost, and then employs cost sharing tools to incent plan members to go to lower-cost providers. The administrator of the program agreed to become PAE client, and together with staff from Deloitte (who administers the data) we began a program analysis.

The program originated in the early 1990's as part of a deal between the state and its bargaining units represented by AFSCME who shared an interest in curbing healthcare costs that they saw would become a problem for state budgets and compensation packages.

The program initially based member cost on differences in plan premiums, but in 2002 sought to increase efficiency by premising cost on utilization and relative cost of provider.

Health care providers are categorized into provider groups consisting of primary care physician clinics and ancillary services, and assigned to one of four levels based on analysis of historical risk-adjusted cost (using the Johns Hopkins ACG system), and the more costly levels have higher cost sharing. Before the final determination of a provider's assigned tier, they are notified of their placement and the extent of cost reductions necessary to move to the next lower-cost tier. A provider may switch tiers if they reduce their reimbursement levels sufficiently.

The program covers 125,000 plan members, each uniquely identified by a member code. The claims spending is broken down by in-patient (IP), out-patient (OP), physician spending (PS), and prescriptions (R_x). The data include information about the primary provider a patient was enrolled with (and for how many months for a year), and what plan and tier the provider was in at the time.

The purpose of this study is to begin exploring the relevant data, and to consider and gain some insight to what may be possible to learn from research on patient incentives. The research question for this study is: *Did a change in the patient's provider's tier, resulting in increased out-of-pocket costs induce the patient to change to a lower cost tier provider?*

The model and results

In 2004 the program's tiers expanded from three to four creating a natural control group as this exogenous effect resulted in greater than usual movement among tiers. One-third of providers from the first (lowest-cost) tier remained in place, and two-thirds moved to tier 2.

A logit model was developed to estimate the predicted probability of a patient moving up at least one tier, if the provider they are enrolled with moved up at least one tier. The model:

$$\ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1(Clin_T1_T2)_i + \beta_2(Clin_T1_T3T4)_i + \beta_3(Clin_T2_T3T4)_i + \beta_4(ipalloweddollars)_i + u_i$$

where $\ln(p_i / 1-p_i)$ is the log-odds that patient i will move to a higher tier, β_0 is the constant term and corresponds to the effect of a clinic that did not changed tiers, β_1 is the average coefficient associated with the effect of a clinic moving from tier 1 to tier 2, β_2 is the average coefficient associated with the effect of a clinic moving from tier 1 to tier 3 or tier 4, β_3 is the average coefficient associated with the effect of a clinic moving from tier 2 to tier or tier 4, β_4 is the

average coefficient associated with the spending in USD, and u_i is an idiosyncratic error term. Models include heteroscedasticity-consistent (Huber-White) standard errors. The predicted probability of a patient moving to a higher tier is computed as follows:

$$p_i = \frac{e^{(\widehat{\beta}_0 + \widehat{\beta}_1(Clin_T1_T2)_i + \widehat{\beta}_2(Clin_T1_T3T4)_i + \widehat{\beta}_3(Clin_T2_T3T4)_i + \widehat{\beta}_4(ipalloweddollars)_i)}}{1 + e^{(\widehat{\beta}_0 + \widehat{\beta}_1(Clin_T1_T2)_i + \widehat{\beta}_2(Clin_T1_T3T4)_i + \widehat{\beta}_3(Clin_T2_T3T4)_i + \widehat{\beta}_4(ipalloweddollars)_i)}}$$

These results were then compared to providers that did not change tiers). This could indicate the probability a patient stayed with their provider when the provider moved to a more expensive tier, and is a way to get at the research question. It does not track patient enrollment precisely to the provider so this test has an element of ambiguity in that regard.⁷

The model was also estimated controlling for utilization as a continuous variable, separating in-patient spending from out patient, physician, and prescription. The results are very similar between the two groups indicating that, despite the difference in character of in-patient and other spending (many fewer entries for IP spending, but when it appeared it was much larger) there wasn't a strong effect on patient change. Demographic data are available and may be included as control variables in future work.

Estimates from the model result in a 1.7 percent probability that a patient stayed in tier 1 (T1) – and thus left their provider – if their provider moved to T2; a 6.1 percent probability a patient stayed in T1 if the provider moved to either T3 or T4; and a 10.5 percent probability a patient remained in T2 if their provider moved from T2 to T3/T4. These compare to the control group's .6 percent probability a member moved up a tier if their provider stayed in T1. These results are significant at the 1 percent level.

Table 3.1

Predicted probability patient moving at least one tier up (Logit Models)	
ipalloweddollars (mean = USD 574.63)	
Clinic does not change tier	0.00631
Clinic changes from T1 to T2	0.98282
Clinic changes from T1 to T3 or T4	0.93879
Clinic changes from T2 to T3 or T4	0.89529
nonipspending (mean = USD 2,531.15)	
Clinic does not change tier	0.00627
Clinic changes from T1 to T2	0.98290
Clinic changes from T1 to T3 or T4	0.93900
Clinic changes from T2 to T3 or T4	0.89525

⁷ I had considered performing an ordered logit but did not because there were only 25 cases of providers going down a tier.

All predictors are statistically significant at the 1 percent level.

The vast majority of providers were in T1 in 2003, with two-thirds moving to T2 in 2004 with the introduction of a fourth tier and one-third remaining in T1. The concentration in T1 has been explained anecdotally by officials familiar with the program as migration by providers over the years to more-advantaged tiers.

Table 3.2

Number of providers by tier			
Change in tier level from 2003 to 2004	Frequency	Percent	Cum.
Clinic does not change tier	28,946	27.77	27.77
Clinic changes from T1 to T2	57,419	55.08	82.85
Clinic changes from T1 to T3 or T4	5,324	5.11	87.95
Clinic changes from T2 to T3 or T4	10,106	9.69	97.65
other	2,453	2.35	100
Total	104,248	100	

Discussion of results

While preliminary, the findings are important on two levels.

First, the results indicate practical as well as statistical significance, because while provider incentives are the focus of the field comparatively little attention has been paid to incentives on patients. Since the potential for patient incentives to leverage the incentive on providers is so great (meaning, a provider either gets a patient or not – a 100 percent proposition), and the evidence of direct incentives on providers so weak, I predict patient incentives will emerge as an important field of research.

The findings also have practical implications for policy design, as policy strategy based off patient shift would be a departure from current national strategies based upon incenting providers directly.

Second, the research has real-world relevance. The country is looking for strategies to contain healthcare cost, and patient-shift can be an important element of policy strategies. As discussed in this paper strategy based off patient shift would be a departure from current national strategies based upon incenting providers directly.

Thee findings are consistent with Rosenthal and Sinaiko (2004) who, analyzing a similar Massachusetts public employee program, found that there was a “stickiness” of plan members with their physicians – meaning they paid more to stay with a physician when the physician changed tier – but new enrollees without a prior relationship with a physician were more likely to chose a provider from a lower-cost tier.

The predicted probabilities pertain to whether the patient also moved up a tier. They do not tell us whether a patient stayed with their provider, but if they did not move up a tier then we know for sure they did not move with the provider.

This above modeling approach aims at getting to know the data, and to test the hypothesis (and substantiate the observation of the program administrator, the PAE client) that patient incentives do have an effect. This is flawed because it does not link the patient with the provider, and does not go into detail about which provider moved. That should be done in subsequent tests.

DEVELOPING A “3D” NEGOTIATION STRATEGY FOR IMPLEMENTATION OF A STATE DEMONSTRATION OF ICC

This section will apply the “3D” negotiations framework developed by Lax and Sebenius (2006) to identify a pathway toward implementation of a state demonstration of Informed Consumer Choice. This includes getting clear about what qualifies as a state demonstration (how will we know when it is achieved?), then mapping how to get there.

There are three dimensions to the 3D framework. The first dimension is the *tactics* used for persuasion in the back and forth of a deal. The second dimension is *deal design*, including economic and non-economic value. The third dimension is what they call *setup* away from the negotiation table. A comprehensive strategy involving all three of these dimensions doesn't guarantee success, but improves the likelihood of a positive outcome.

The objective of taking the 3D negotiation approach to implementation of Informed Consumer Choice is to premise the implementation on a process that creates and claims value for the long-term, involving a wide range of people and organizations and accounting for (if not always accommodating) their interests. The process for moving ICC forward will continue after a state demonstration is established, because many engineering and conceptual issues and opportunities will continue to arise. The more value created along the way, the more likely for a favorable progression during this time of “continuous improvement,” to use Clayton Christensen's word – and the more likely that the strategy will withstand political confrontation.

The first step in constructing a 3D negotiation strategy according to Lax and Sebenius is to perform a *barriers audit*. This involves mapping all the parties involved in the negotiation – real and potential – including their interests, and their best no-deal options known as a BATNA (best alternative to a negotiated agreement). That is, their best alternative arrangement in the event that a deal is not done. This could be maintaining the status quo; a political or material victory; or an alternative deal or partner they could work with.

When this is clear the negotiator should consider implications of the barrier audit on the sequencing of actions, and the manner and methods used for approaching each step. Large System Architecture's imagery of “finding the front log in the log jam” is complimentary to Lax and Sebenius, seeking “the step or action most likely to unbalance the status quo...and produce the most response in the direction of the future mode.” To “work” on the front log, McClure

says, means “finding and persuading those parties of interest with the power and motivation to take the needed action” (2014).

The second step is to overcome the identified barriers by mapping backward from the barrier to current position, creating a “deal map” to get from here to there. This involves special attention to the moves made at and away from the negotiating table; how a strategy is arrived at, including value-creation and sequencing deals; and focusing always on how to turn problems into constructive opportunities.

The third step is to create an all-party map that enables us to gain situational awareness over where parties stand on necessary actions. We will take each of these three steps in turn, beginning with the barriers audit.

Barriers audit

The benefit of a barriers audit is it compels the strategist to think deeply about the terrain, and all the parties currently or potentially involved – including their underlying and overlapping interests – to provide a heightened degree of situational awareness.

For implementation of an ICC demonstration in Minnesota an audit of the parties, their interests, and best no-deal options are outlined in the table below. The “best no-deal option” in this instance means their best alternative to *Informed Consumer Choice* as a redesigned system.

Large System Architecture theory adds an extra dimension to this kind of barrier audit, distinguishing between *strongly and weakly interacting elements* of the healthcare system. From section one, citing McClure’s theory, strongly and weakly interacting are defined as such if they significantly affect or not the behavior of other organizations an individuals in the system in the achievement of the system’s goals.

All of the parties included below are those that are strongly interacting with the initial stage of Informed Consumer Choice implementation – they do not represent the many parties that are weakly interacting or one step removed from the decision for a redesigned system, such as medical education, pharmaceuticals, or medical device companies.

Table 3.3

Barrier Audit for Implementation of Informed Consumer Choice in Minnesota

<p>Party (All strongly interacting with ICC)</p>	<p>Interest</p>	<p>Best “No-Deal” Option</p>
<p>Integrated payer/provider HP/ParkNicollet</p>	<p>Both a self-interest and community interest. Health Partners succeeds in a system that rewards better for less – and stands to gain significantly.</p> <p>The organization also has a</p>	<p>System remains as-is; continues to be a market leader but runs a business model that goes against the current for FFS.</p>

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	history of building institutional capacity for measurement and best practices in the community, tracing back to its founding. It has been a pioneer in forming the Institute for Clinical Systems Improvement, and MNMCM.	
Providers	Most large providers in Minnesota perform above the national average on quality, but there is more pronounced variance on cost. As measures are made public in a consumer-friendly format (presently many are public but rarely used by consumers) not all hospitals will fare as well on a value index.	Change will occur more slowly so those providers that are comparatively better value will not realize that full value, and those that are comparatively poorer value will be protected from full market information and patient price sensitivity.
Fairview		
Allina		
Mayo		
HealthEast		
Sanford Health		
Independent – specialists Independent - general		
Minnesota Hospital Association	Become a partner leading the evolution of the healthcare provider industry.	Members are increasingly subject to changing external circumstances.
Unions	Unions (state employees) pioneered the SEGIP program’s use of patient incentives through creative and forward-looking concern about the increasing cost of healthcare, and its expanding role in benefits packages. Their interests are to maintain autonomy and some self-direction over care without increased costs of care eating what could otherwise be increased costs of compensation. Unions can pilot Informed Consumer Choice if they choose to “Buy Right” to use a phrase from McClure, meaning they link incentives in group plans to the available provider information.	Healthcare costs continue to account for a disproportionately large portion of increases to compensation packages.
Labor unions – state employees		
Labor unions – by sector		
Teacher union		
Business	Better quality care at lower cost – cost containment – whether they choose to keep care in-house or whether employees will buy coverage on an exchange. Chance that costs will increase slower, and that the healthcare section of compensation can increase no faster than pay. Opportunity to play leadership role making Minnesota a national demonstration.	Continue to react to initiative of the ACA, future unknown.
Itasca Project		
Minnesota Chamber of Commerce		
TwinWest Chamber of Commerce		
Small Business Health Care Action Group National Federation of Independent Business		

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Insurance agents	Have a seat at the table as their industry enters an unknown period – help define their role.	Spend more time trying to preserve what is than redefine the system with their role identified within it.
Minnesota Medical Association	Tends to oppose measurement because it favors integrated, well-managed providers. Look to rise of large poorly-managed providers as cautionary tale. Will likely oppose measurement unless brought along by fellow physician leaders.	Continue in system as-is; evolution of American healthcare system is away from the independent practice format that make up many of the association’s members.
MN Council of Health Plans	A community leader and community asset, organized as non-profits, with boards comprised of members across industries. Their interests are at the highest level advancing the public good through leadership on measurement and development of best practices aligned with measures. Operationally their interests are in spreading their work as far as possible, both statewide and nationally, which will bring recognition and revenue.	Continue to make progress step by step among providers in the community. “We are aware we need to justify our existence by doing valuable work,” one leader has said.
ICSI MNCM		
Legislature	Interests split generally by party to see work tied to the ACA succeed or get bogged down. The state has a history of leadership in policy, but presently all attention is on implementing national reforms. This can change, and there is a sizeable number of legislators interested in seeing the state emerge as a leader.	Play mostly a reactive role to the initiative from Washington, and in response to problems that arise with ACA implementation.
MNSure authors		
Committee chairs		
Leadership Respective staff		
Executive branch	Top concern at present is implementation of the ACA, and the politics of healthcare during an election year. It is taking the oxygen from both the executive and legislative branches. Leadership – at least initially – is going to need to come from the non-governmental sector, with government officials and elected officials cooperating where	Minnesota remains a leading state in practice; and a middling state in terms of policy leadership – on both dimensions far below its potential.
Governor’s office		
Management and Budget		
Dept of Human Services		
Dept of Health PPG Staff		

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	<p>interested. There is interest, as one key legislator says “someone needs to be thinking about the big picture.”</p> <p>Interests are varied throughout the government. It is appropriate to say that the farther-left is interested in single payer, and views government actions as steps in that direction; while on the farther-right position is to obstruct “Obamacare” and the Governor, who is up for reelection this coming year. Though these are significant groups, not all members are opposed to constructive ways forward when their interests can be met. The more that progress is made outside of government first, the easier it will be for them to come along.</p> <p>The larger middle section – perhaps 50 percent or more of those in government – just want to see progress, and are energized by the prospect of Minnesota being a demonstration to the nation. This is encouraging but action is not taken by consensus, instead by the decisions of individuals so deliberate strategy is necessary.</p>	
Patients	Informed and empowered	In the dark, making decisions off hearsay or limited information.

Next we turn to the process of backward mapping that Lax and Sebinus describe as necessary to result in a sequencing that lead to a 3D strategy.

Map backward to create a 3D strategy

The objective of this project is to get a state demonstration of Informed Consumer Choice up and running, so that it can be piloted, tested, and improved.

This requires us to define what threshold must be met for a demonstration to be in effect. An Informed Consumer Choice policy strategy as defined by McClure will be in effect when rigorous measures of provider quality and cost are paired with incentives placed upon patients in their health plans that advantage better-value providers based upon that information.

(There are layers of subsequent detail to such as strategy such as the publication of information in consumer friendly formats and plan design, but for a demonstration to be declared the two core elements are the information and incentives.)

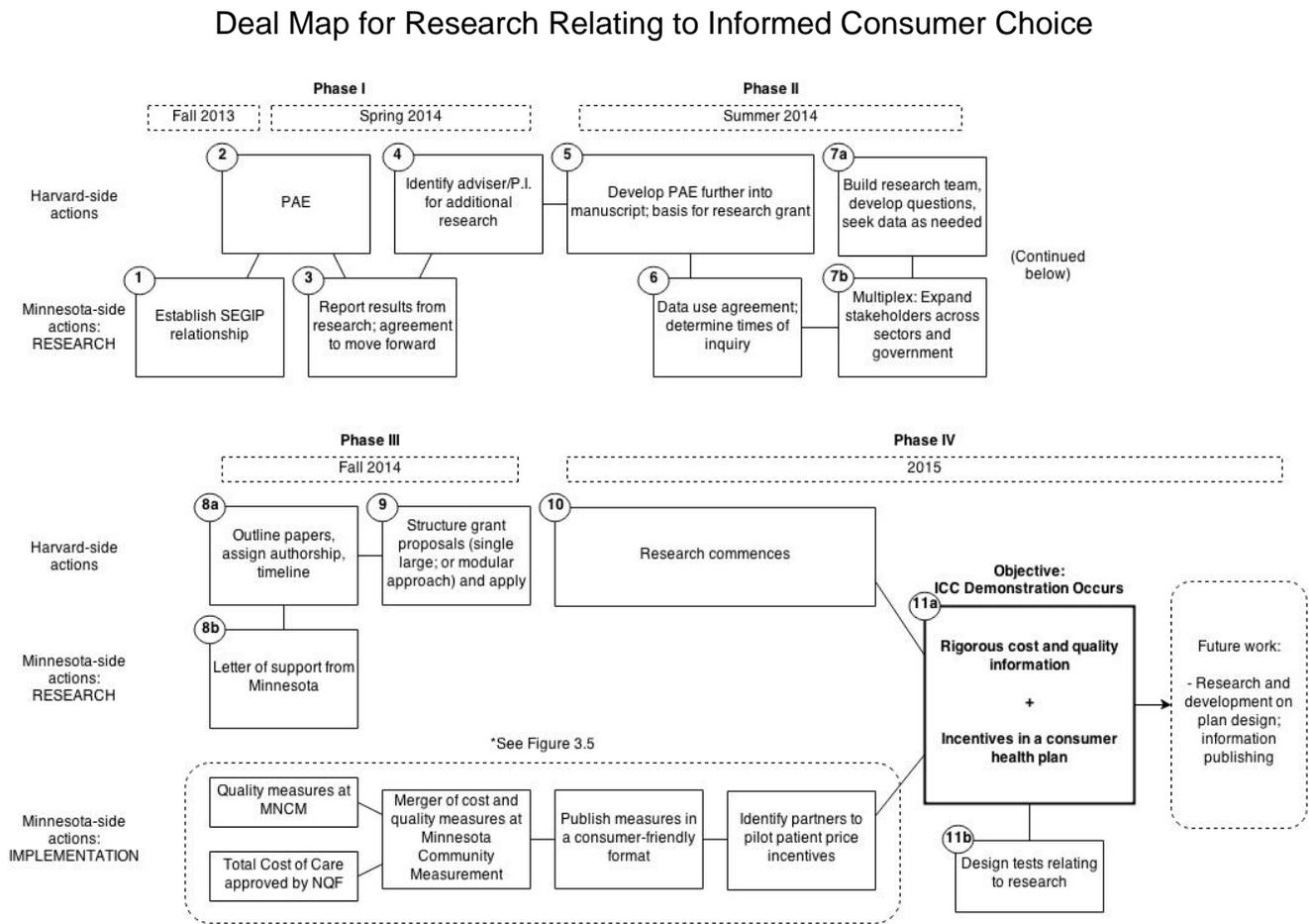
The pairing of cost and quality information with patient incentives then become the objective, to which Lax and Sebenius advise the creation of a *deal map*, a sequencing of events that trace backward from the objective to the present state. The map should show in a series of steps how to get from the current position to the objective, allowing for continual refinement and revision of the map as each step progresses.

The deal map in Figure 3.4 breaks the work into four phases, from spring 2014 through 2015. The work proceeds along parallel and interrelated paths – research (at Harvard and in Minnesota), and implementation (in Minnesota) – with each contributing to the other. The research informs development of the redesign in Minnesota, and in turn the state demonstration produces both material and opportunities to produce research that is both meaningful for the literature and for its use informing the development of policy.

Phase I was about establishing the relationships for and carrying through the development of the PAE, which describes the Informed Consumer Choice strategy and performs initial research to indicate that the central insight – incented consumer decisions as the principle incentive on providers to improve value – may work. Phase II will be about the further development of insights gained from the PAE while solidifying the foundation at both Harvard and Minnesota to move forward with a comprehensive research program. Phase III is about preparing a research proposal for funding, and begins applied work. Phase IV begins the research and moves the applied work toward a demonstration, uncovering opportunities through the process.

The deal map of Figure 3.4 orders the steps to be taken. This “sequencing” Lax and Sebenius describe is critical to proceeding in a successful way. To be effective the methods behind these steps require working with and through teams. In some cases the teams exist *defacto*; in some cases they will need to be formed by first identifying champions and requesting their assistance. The approach follows the maxim that it’s not what can do on own, but as part of a team.

Figure 3.4



Sequencing analysis for research is as follows:⁸

Step 1: To date efforts by researchers to gain access to data from the State Employee Group Insurance Program (SEGIP) have been unsuccessful. Probe underlying interests of program director to understand reservations and identify opportunities for overlapping interest.

Update: An alignment of interests was found between the program administrator’s interest to gain insight from the program to inform programs in the state, and the

⁸ A note about execution of steps: These steps included in the sequences above do not get into operational details, or what the military might call “actions on” stages – the actions to be taken upon particular responses to action. That would be born out during the implementation process, and is probably not necessary to map out on paper, but instead among colleagues as needed. Each move has multiple responses to which there can be counter moves. An understanding of the character of probability distributions can help here, as does thinking in a continual iterative process in response to actions by parties and changing conditions.

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PAE's interest to inform policy design. The program director's concern was over vulnerability of the program in a tumultuous political environment. Concerns were addressed by gaining support of others necessary for research program, and inviting director to become client to PAE.

Step 2: Through PAE describe Informed Consumer Choice system design and perform initial research on patient price incentives including a review of current healthcare reform efforts and econometric analysis of SEGIP. Develop trust with program director; begin building awareness and cooperative relationship with researchers and those that can help with implementation.

Update: PAE complete.

Step 3: Report research results to program director. If results warrant additional research, and director agrees, discuss continuing the research beyond PAE.

Update: The initial results indicate significant potential both for the literature and for practice – leading to an agreement by the client to continue moving forward after the PAE.

Step 4: Identify an adviser that can serve as principal investigator during a research program extending beyond PAE, into next academic year.

Update: Professor Rosenthal has agreed to be PI, with further assistance of Anna Sinaiko. Additional advisers from master's program have agreed to remain involved either directly or indirectly.

Step 5: Spend the summer developing PAE results into a publishable manuscript, substantially strengthening that component of Section Three from this paper. This serves as the basis for a research grant proposal.

Step 6: Obtain a data use agreement from SEGIP program director. Determine lines of inquiry for research program: Determine the lines of inquiry, which may include: (1) Consumer response to information and price incentives; (2) Provider behavior in response to measurement; tiring; patient price incentives; (3) Implications for policy.

Step 7: (a) Build research team with mixture of first-rate researchers that cross generations, geography, and interest. Because a team will need to be built around the project it will be easier to increase the value to the team if publishing rights are exclusive for a certain period of time – work with program director on this.

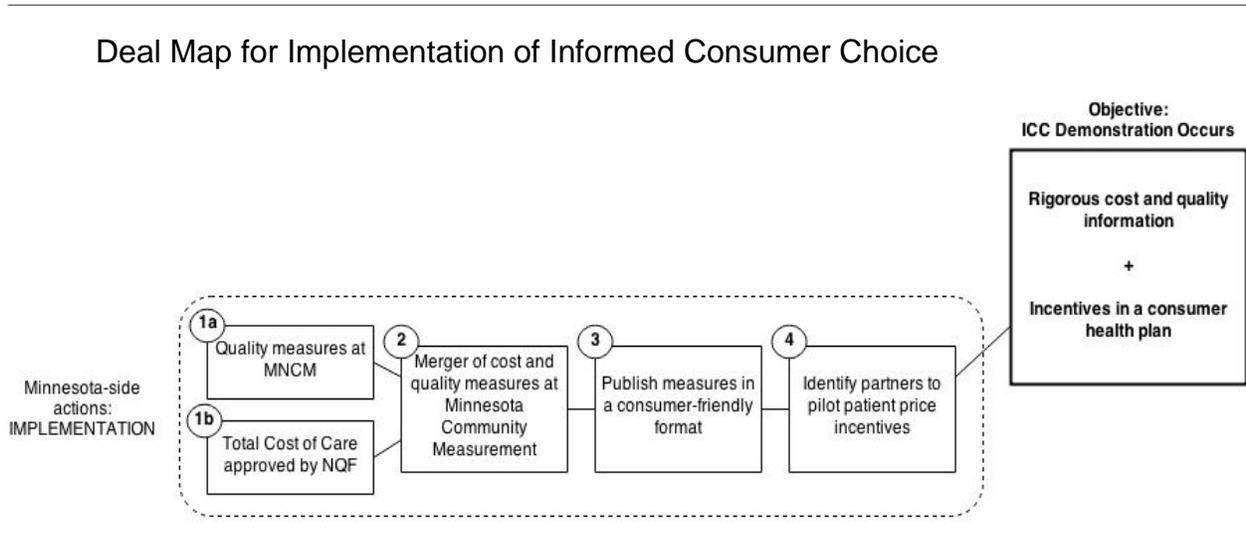
(b) Approach the planning for a grant as a value-creating process itself. Bring potential funders along in the process to match the project most well to their interests. There should be enough value created that people find this worth spending time on. (Discussed further below.)

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- Step 8: (a) Outline the papers to be written by authors, assign author order and create timeline, to be folded into grant application.
(b) Letter of support from state of Minnesota for research proposal.
- Step 9: Determine structure for research grants – one large, multi-year grant; or modular grants to cover different components of a comprehensive research program.
- Step 10: Research begins

Then running parallel to this research sequence – with its Minnesota and Harvard dimensions – is the implementation sequence outlined in Figure 3.5.

Figure 3.5



As with the research sequence, this too can be broken down by steps.

- Step 1: (a) Quality measures at Minnesota Community Measurement are well established and continual to improve.
(b) The Total Cost of Care and Resource Use (TCC) measures developed by Health Partners have been endorsed by the National Quality Forum.
- Step 2: Merge quality and cost measures at MNCM, while addressing the state’s interest in having measures available. Broaden MNCM board to include more seats for state government, and run work done to date on PPG through MNCM processes, leveraging the industry confidence in MNCM’s processes. If possible or necessary, do this as part of deal to bring in patient price incentives to create an ICC demonstration in one fell swoop.

- Step 3: Publish quality and cost measures in a consumer-friendly format and distribute as widely as possible. A possible partner could be Consumer Reports, which has run a pilot in multiple states with limited measures.
- Step 4: Identify plans that would be able and willing to employ patient price incentives in combination with the provider information at MNMCM. Possible partners in a pilot may be SEGIP, teacher unions, private plans, or other public programs.

Objective met: *Once rigorous information on cost and quality are combined with incentives built on consumers to choose based upon that information a demonstration of Informed Consumer Choice can be declared to be operational.*

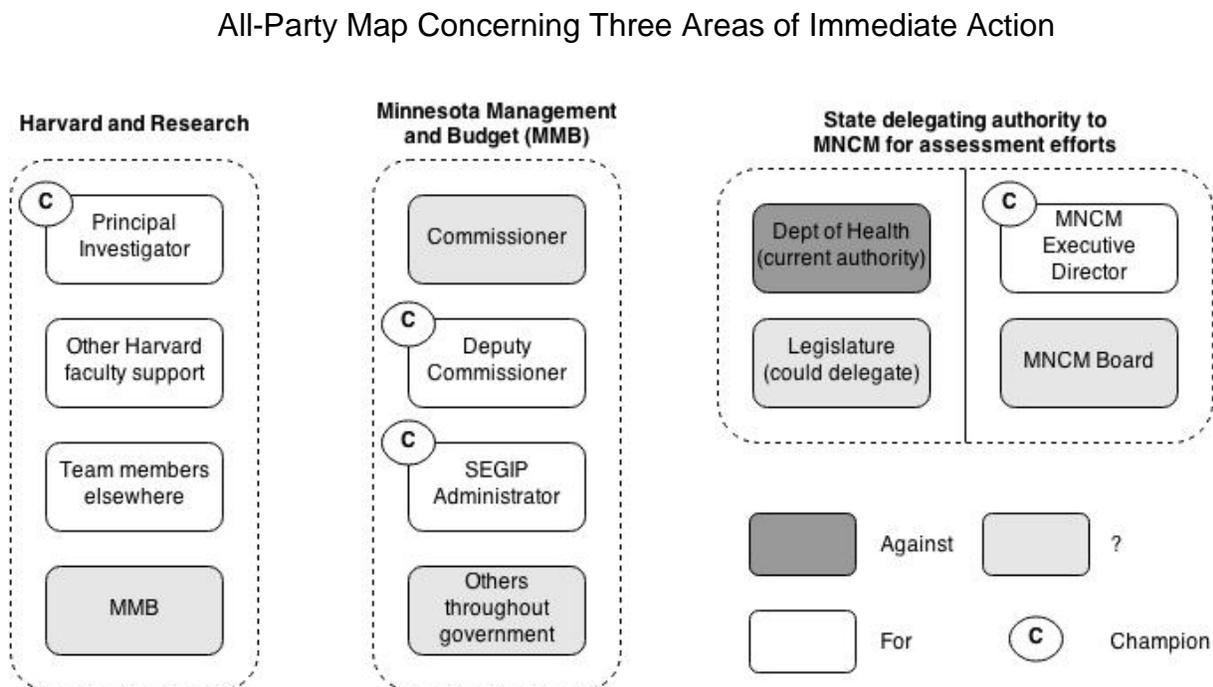
At that point a process of continual improvement begins, and the role of the strategist becomes observation and testing – “sheep dogging,” as McClure calls the process – running heard on a new pilot.

Assess current state of affairs through an all-party map

In addition to the deal map, Lax and Sebenius recommend creating an *all party map* to...

This map deals only with the high-priority interests: Harvard team for research; Minnesota Management and Budget (MMB) as a partner for research; and Minnesota Community Measurement as a vehicle for merging cost and quality measures. Many subsequent all-party maps can be constructed but these are the first steps.

Figure 3.6



The first phase of this work involves moving forward on research and implementation simultaneously. As will continue to be a theme of this work, the research feeds the implementation, and the implementation creates opportunity for research. Many of the parties involved are interested in both dimensions, even if their work is particular to one component. For research there are tasks to perform at Harvard and in Minnesota, represented by the first two columns of the all-party map.

For implementation the first of two steps includes bringing both quality and cost measures under the roof of Minnesota Community Measurement, in cooperation with the state – an effort already underway – represented by the third column above. The second task is to build a shared vision for Informed Consumer Choice among interested parties in Minnesota. Work for that task is discussed below in Figure 3.7.

Meredith Rosenthal has offered to become the Principal Investigator for research. A professor at the School of Public Health, she studied under Joe Newhouse and has mentored Anna Sinaiko, a researcher who also studied under Newhouse and is helping with the research. Professor Rosenthal and Dr. Sinaiko are at the cutting edge of research on incentives and patient choice, research that appears to be an appropriate extension of Professor Newhouse’s pioneering work on patient utilization. As information on the quality and cost of care (measured by outcome, not just service-by-service) become increasingly available both kinds of incentives will see a range of potential applications not possible before. These may be within provider organizations as they use information and internal incentives to build and improve practice; in plan design as plans incent patients to choose care based upon results; or as part of state and federal policy.

Additional Harvard faculty familiar with the research are interested in remaining involved, either directly or through related lines of inquiry. The research team for the project also includes professors at other universities working on topics related to the lines of inquiry, and students. The first step in the research post-PAE will be to develop the PAE results into a manuscript, and through that process coming to know the data better. After that – which should take the course of the summer – planning for the broader research program will commence through the development of a grant proposal.

A key party to this is the state of Minnesota, and their willingness to join the work formally through a data use agreement, and formally or informally as a partner in the work, helping to identify questions of interest. While the state is supportive this still needs to be locked down and cannot be counted on until agreement is formally complete.

The agency in charge of the data – represented in both columns one and two of Figure 3.6 – is Minnesota Management and Budget. The program director and his superior (at the level of political appointee) are both on board, and it may be possible to move forward on an agreement without the question rising above these two. It may need to rise to the level of the Commissioner, who may be predisposed to be supportive unless there are strong exogenous factors, such as political sensitivity. The formal request will be made of the director and his superior after full consideration is given to the interests and pressures on the Commissioner – and the development of a deal design *ex-ante* to avoid a request without sufficient diligence.

The first step of implementation is for Minnesota Community Measurement to house rigorous cost and quality measures actionable for pairing with patient incentives. It does not need to be designated an official assessment entity by the state to pair with patient incentives but that may help: The state presently in statute is tasked with creating a parallel effort, but it looks like that is some time off from producing actionable results. Instead the state – which already has seats on the board of the non-profit MNCM – could move work done through the in-house effort to MNCM, running them through the regular MNCM processes for certification of new measures. If the board expands to include more seats from the state, that could be a “game changing” bargain that gets assessment up and running and resolves a current impasse with the state and private sector over measurement at the same time.

To do this the director and board of MNCM, as well as the Commissioner of Health (responsible for the state’s assessment effort) would be interested if not involved, as well as the legislature which could simply delegate the state’s assessment of cost and quality measures to MNCM. It is possible to do without legislation, and MNCM appears on board but it is not clear whether the Commissioner is willing to move the initiative away from his internal constituency working on assessment. Others from the executive branch may need to be involved, or the non-government sector can continue moving forward. Once they reach a certain degree of progress they will emerge as the obvious choice for performing measurement. There need not be only one provider assessment entity – but any measures should be open, transparent, and have the confidence of the provider community. The objective is to get the measures up and operational so they can be paired with patient incentives in health plans. Also, once the measures are being published widely (a task in itself) they and the providers they assess will be under the spotlight, and subject to continual improvement.

The first step toward implementation: Identify and take action to move the “front log”

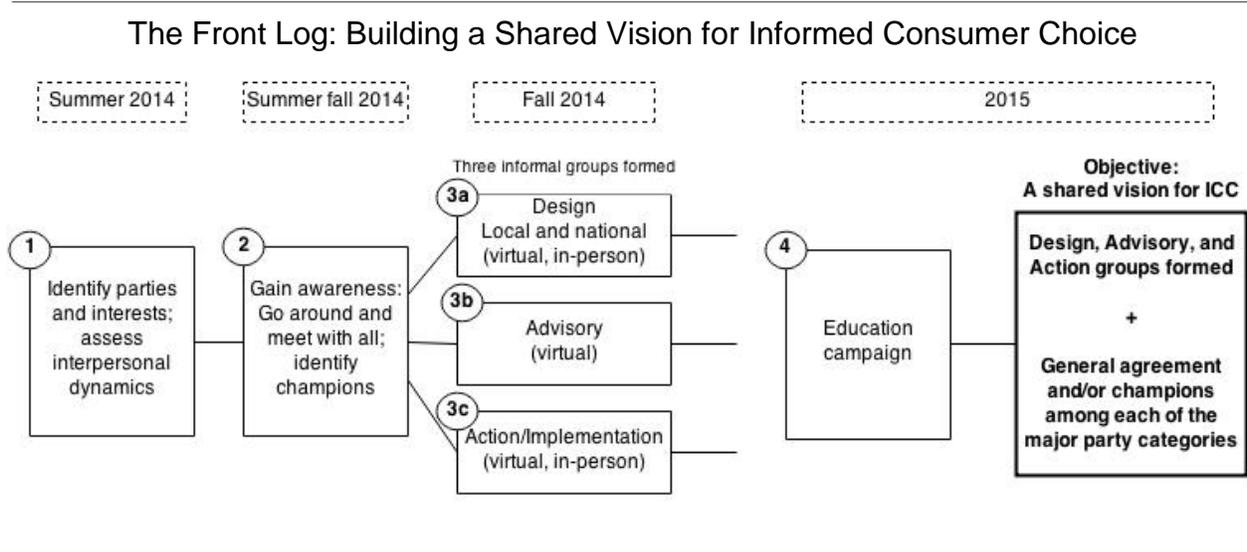
All strategy must begin with action. So what is the “front log,” as Large System Architecture theory calls it? This question is perhaps most pertinent for the applied work.

The front log is to build a collective sense in Minnesota and eventually nationally that Informed Consumer Choice presents the best chance at this country getting the value proposition of its healthcare system under control.

The pieces are in place for a state demonstration of ICC in Minnesota but there is not focused action – the executive branch is consumed implementing the first stages of the Affordable Care Act, while, healthcare is not a natural priority for the Governor. “We need people thinking about the big picture,” one legislator has repeatedly emphasized through the past two years.

There is broad agreement on general course of action – by key legislators, agency staff, non-governmental leaders – but nobody sees how to do it. Key actors are willing to take action if provided a catalyst. To take action on those steps outlined in Figure 3.5, a shared vision for ICC will need to be built. That is outlined in Figure 3.7.

Figure 3.7



As mentioned above to be effective the processes behind this project require working with and through teams, and nowhere is that more the case than in the implementation where my role as a junior professional will need to be leveraged.

The sequencing steps for building a shared vision for Informed Consumer Choice are:

- Step 1: Identify the parties that are strongly interacting with ICC, assess their interests.
- Step 2: Seek first to understand: Go around and talk with people throughout government and industry (particularly those on the all-party map), both in Minnesota (to lay the foundation for action) and in Washington DC (to cultivate). The purpose of this is to gain knowledge of what is afoot and develop a sense of what's going on, to intuit strategy.
- Step 3: (a) Form two “design groups,” one in Minnesota and one with a national focus, to work on conceptual and engineering problems with ICC. The groups can meet virtually and in-person.

The Minnesota-based group will work on political and implementation tasks specific to getting a demonstration up and running in the state. This will include all practical questions from how to facilitate a state-designated assessment process to publication of measures and plan designs. Experts from across industry and government should be involved.

The national design group will likely include many from Minnesota, but include academics and professionals from elsewhere interested in the many questions and challenges that come with engineering a strategy from concept to subsequent

layers of specificity. McClure and Enthoven can be help lead this work, and serve as catalyst for the many parties with shared interest.

(b) Develop an advisory group to help guide implementation work. Engage with the group generally one at a time.

(c) Develop an “action” group to regularly identify and work to move the “front log” at any given time. This group is the most devoted, and willing to invest effort to see the task through.

Recruitment for all these groups begins with either identifying a chair, or otherwise asking people to participate.

Step 4: Regional and national education campaign about Informed Consumer Choice, including branding and explanation of the strategy in general and specifically. May include describing the strategy in publications.

“Multiplexing” through applied research

The successful state demonstration opens opportunity for testing on two new dimensions. While research to this point has been important to suggest what incentive mechanisms might work, it now can be used to test the pilot in real time, and to gain deep insight into the incentive mechanism through the design of tests that coincide with the launch of the pilot. These can inform both the literature and subsequent work.

Since the data is part of a politically sensitive sector with many competing interests the research is at risk of being thwarted by endogenous or exogenous forces. Internally, the program administrator has been sensitive about the vulnerability of the program and has resisted requests from researchers to conduct research on the program.

This impasse was overcome by expanding the scope of the project to develop a mutually beneficial relationship where research questions were developed that were both of interest to the program director and to the PAE. By probing behind the reluctance of opening the project to research it could be seen that the program administrator’s reluctance was that the benefit would be one-way – to the researchers – while the program only shouldered risk that questions would shine a light on the program and expose it to external politics. Once this concern was uncovered it could be addressed by making the program administrator the client for the paper, placing him in the “driver’s seat,” approving research questions while agreeing to academic independence over the study and reporting of results.

As this research moves forward it provides an opportunity to build value, yet also develops risk of being upset by political forces the more visible it becomes. Both concerns will be addressed presently.

Lax and Sebenius describe risk management over a project by moving from a *simplex* agreement with a single party over a single issue to a *multiplex* agreement, which involves adding more parties, more issues, or both.

The PAE research is essentially a simplex agreement, between the student as PAE author and SEGIP program director as client. Others are involved and aware of the work, but the essence of the agreement exists between two people. This presents a risk moving forward because the program administrator may not always be in his position – already he has been promoted to a higher position in a different agency, though he retains oversight of the SEGIP program – but also it makes the program vulnerable to political forces, either friendly or hostile, especially in the polarized environment of ACA implementation. (Indeed one other state official that was intending to serve as a second unofficial client was unexpectedly let go, dropping that aspect of the project.)

Multiplexing can be achieved by adding more parties or issues to the relationship. Involving a range of people within the organization, broadening the types of relationships that are formed, and developing multiple and enduring points of contact. By becoming more fully integrated with a partner's operations and providing a web of customized services higher value can be generated for both sides, increasing both the returns and the resiliency of the relationship against external forces or shocks. The deeper, multi-faced partnership of multiplexing also increases the likelihood of identifying additional opportunities to create value that are opened up.

An objective working with the SEGIP program post-PAE is to enter into a partnership and agreement of exclusivity over the data for a certain period of time, without having to enter into a formal agreement. The partnership would enable us to build a team; pursue funding; and do research on and publish results following multiple lines of inquiry. If the relationship prospers opportunities for other forms of value-creating work may become possible, such creating controlled, deliberate tests or involving a program in a pilot project. Such opportunities would be born out over time.

To pursue this multiplexing approach the guidance of Lax and Sebenius can followed: Adding more parties and issues; developing points of contact with a range of people within the organization and broadening the types of relationships; and becoming tightly integrated with the partner's operations and offering a web of customized services.

Adding additional parties to the relationship has the dual effect of bringing others along as part of the work and improving the stability of the project. There is a substantial amount of movement among the healthcare professionals in Minnesota state government, so bringing in others to smooth transitions is a prudent idea. The program administrator's immediate superior is a deputy commissioner and has a special understanding of the political sensitivities. Her agreement is essential to provide cover – as is the program administrator's willingness to oversee a transition of the work to his ultimate successor.

Being clear about the data use, and having data in-hand, will be beneficial. In the event of a political “shock” event – something internal to the SEGIP program (such as scandal or uneasiness of plan members over publishing results) or external (such as a shift in political

priorities, or the rise of hostile sentiment) having all the data in-hand will enable the work to continue during the storm.

Additional issues can be brought into the project, by broadening the lines of inquiry and increasing the relevance to research and policy. Multiple lines of inquiry are being developed in addition to the effect of price incentives on patient behavior, such as the effects of such incentives on provider behavior, as well as the publication of information. This research can be constructed to be directly relevant to policy development, and thus of interest to diverse parties.

Broadening the types of relationships with a range of people within the organization will help contribute to the development of a shared vision for Informed Consumer Choice among members of the executive and legislative branches, and industry leaders. Specifically within the agency where the state employee program is housed, and among interested parties generally, probing for their interest in the project may result in their having a stake in its outcome. The relationships can take the form of academic research, program assessment, and policy development.

Becoming tightly integrated with the partner's operations and offering a web of customized services can take the form of integrating evidence-based policy development with policy-enabled research. That is, as the demonstration takes shape tests can be designed *ex-ante* to provide maximum insight to the program, if not for its own sake then to inform policy generally. This provides opportunity to attract the interests of a range of parties within and without the state.

Research plays a central role in the development and implementation of an Informed Consumer Choice demonstration, before, during and after. It is involved with evidence-based design, and testing wherever possible – but not to be caught in the trap of thinking that something cannot be done unless it derives directly from research. In many cases that will be possible to do, in many the existing evidence will simply suggest what might work – in these cases the test of an effort will provide feedback to its progress.

Design work will include the further development of quality and cost measures, as well as research on what has worked in Minnesota and what has not, to inform others that may be interested (there are many lessons to be learned from the community-based approach). Plan design will need to be considered, including how to structure cost-sharing by patients. Plan assessment may play a role encouraging plans to include patient price incentives.

A critical role for policy is setting rules for effective competition. At present, health plans can—and many do—compete in highly undesirable ways. The most flagrant is cherry-picking—that is, keeping premiums low by excluding employer groups and individuals who are sick, or segregating them into prohibitively expensive policies. But there are many other undesirable competitive practices.

Cost competition among health plans should be limited to just five legitimate objectives, and all other means forbidden by appropriate law and regulation: (1) Financial protection; (2) Encouraging healthy behavior and preventive care among their insured; (3) Incenting the insured toward providers who are better for less; (4) Administrative cost efficiency; (5) Consumer

satisfaction.

Policy should be evidence-based where possible – where something is new, such as the demonstration of ICC, the strategy should be to create a pilot and observe. The test of Informed Consumer Choice as a strategy is empirical via observation, though mechanics can be tested more precisely: Patient response to information, patient response to price incentives, and provider response to the prospect of moving a value tier (if patients are in a tiered plan) or otherwise losing patients all can be tested scientifically.

This application/research relationship can create a virtuous dynamic whereby value is created across parties, making it more likely that the overall value will increase as the project identifies additional opportunities that may not have otherwise existed, and as it is made more resistant to political shocks.

ACTION STEPS

Large System Architecture outlines six steps for the “change strategy,” all of which need to be part of a successful negotiations strategy. While many are addressed in this paper they are not all discussed in-depth, but would instead be part of the operations of the change strategy. These six steps are:

- (1) Have the future model design in hand at the start;
- (2) Always work on the “front log” in the jam – that is, the action that, if taken, will lead conditions to shift;
- (3) Finding and persuading those parties of interest with the power and motivation to take the needed action to move the “front log”;
- (4) Government may play a more useful role by leadership than by legislation, if it leads to necessary progress;
- (5) Those architects and advocacy groups working to further a design must always work steadily on the “rhetoric battle,” including rhetoric for policy makers and the public; and
- (6) To the extent feasible it is best that a major change strategy be staged, so that it may be tested and gradually scaled up as the design is refined and found sound.

The first two sections of this paper worked to identify a redesign strategy stronger than current strategies for national health reform. By “stronger” is meant more likely to achieve the goals of Title One of the Affordable Care Act: *Quality, affordable health care for all Americans*.

The identified policy design is called *Informed Consumer Choice* (ICC), and has two components: (1) Develop rigorous information on the cost to all payers and quality of healthcare providers; and (2) Build incentives into patients’ health plans to encourage them to choose healthcare providers that are better for less.

The purpose of this PAE is to outline a plan for the implementation of a demonstration of ICC in the state of Minnesota. There are two phases for implementation:

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Phase One is to get quality and cost measurement up and running in the state. After many years of visionary work across the country the technology to do cost and quality measurement of healthcare providers is now ready to be put into operation. The task is to house it and present it at some official capacity so that it can be used reliably by health plans. A community-based organization called Minnesota Community Measurement (MNCM) has been a leader in this work, while the state government is also trying to create such an enterprise.

Therefore the action step for phase one is to expand the board of Minnesota Community Measurement (MNCM) to include an increased number of seats representing all interests, including state officials – resulting in a single official measurement entity.

This could be accomplished with or without legislative action. If the board can be expanded at MNCM to include more seats then that will go a long way to decide the question of who does measurement without ever opening up the question of state-run efforts.

When the question of incentives come up, and what measurement to link it to, the most stable and qualified organization will be clear. Those advocating state-run measurement (in addition to the state providing for and overseeing) because they have an ideological agenda such as single payer or command-control will have a difficult time making their case because a sound healthcare system achieves all the same social goals but more efficiently.

Publishing cost and quality information will cause some natural change in incentives, as some patients will use the information to help choose their providers. But ultimately something stronger will be needed to generate a substantial change in patient behavior.

Phase Two of implementation then is to “activate” the cost and quality information by tying incentives to patients to that information. As research for this PAE indicates, it appears possible to influence patient choices with cost sharing (something that makes intuitive sense, but health economists have been reluctant to assume, because of the unique quasi-market character of American healthcare). Though the research is early and rudimentary (more research will be needed, and should be designed specifically for the benefit of policy design), the indications are enough to warrant moving forward with a policy strategy premised on shifting patients.

Therefore the action step for phase two is to combine patient incentives to information on cost and quality, through public employee or public assistance programs and health plan ratings in the private sector that rate plans in part by how well they steer patients to better value providers.

While action is taken first on phase one, a body of evidence for phase two can be developed through additional research on patient incentives. Since there is limited research in this area (discussed in the paper), much of it will need to be done from scratch. That can be advantageous since the research can be targeted specifically for use in an ICC policy design.

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Appendix A

62U.02 PAYMENT RESTRUCTURING; QUALITY INCENTIVE PAYMENTS.

Subdivision 1. Development.

(a) The commissioner of health shall develop a standardized set of measures by which to assess the quality of health care services offered by health care providers, including health care providers certified as health care homes under section 256B.0751. Quality measures must be based on medical evidence and be developed through a process in which providers participate. The measures shall be used for the quality incentive payment system developed in subdivision 2 and must:

Both MNMCM and PPG achieve this

(1) include uniform definitions, measures, and forms for submission of data, to the greatest extent possible;

(2) seek to avoid increasing the administrative burden on health care providers;

(3) be initially based on existing quality indicators for physician and hospital services, which are measured and reported publicly by quality measurement organizations, including, but not limited to, Minnesota Community Measurement and specialty societies;

(4) place a priority on measures of health care outcomes, rather than process measures, wherever possible; and

(5) incorporate measures for primary care, including preventive services, coronary artery and heart disease, diabetes, asthma, depression, and other measures as determined by the commissioner.

(b) The measures shall be reviewed at least annually by the commissioner.

Subd. 2. Quality incentive payments.

(a) By July 1, 2009, the commissioner shall develop a system of quality incentive payments under which providers are eligible for quality-based payments that are in addition to existing payment levels, based upon a comparison of provider performance against specified targets, and improvement over time. The targets must be based upon and consistent with the quality measures established under subdivision 1.

(b) To the extent possible, the payment system must adjust for variations in patient population in order to reduce incentives to health care providers to avoid high-risk patients or populations.

(c) The requirements of section 62Q.101 do not apply under this incentive payment system.

Subd. 3. Quality transparency.

The commissioner shall establish standards for measuring health outcomes, establish a system for risk adjusting quality measures, and issue annual public reports on provider quality beginning July 1, 2010. By January 1, 2010, physician clinics and hospitals shall submit standardized electronic information on the outcomes and processes associated with patient care to the commissioner or the commissioner's designee. In addition to measures of care processes and outcomes, the report may include other measures designated by the commissioner, including, but not limited to, care infrastructure and patient satisfaction. The commissioner shall ensure that any quality data reporting requirements established under this subdivision are not duplicative of publicly reported, communitywide quality reporting activities currently under way in Minnesota. Nothing in this subdivision is intended to replace or duplicate current privately supported activities related to quality measurement and reporting in Minnesota.

Subd. 4. Contracting.

The commissioner may contract with a private entity or consortium of private entities to complete the tasks in subdivisions 1 to 3. The private entity or consortium must be nonprofit and have governance that includes representatives from the following stakeholder groups: health care providers, health plan companies, consumers, employers or other health care purchasers, and state government. No one stakeholder group shall have a majority of the votes on any issue or hold extraordinary powers not granted to any other governance stakeholder.

Subd. 5. Implementation.

(a) By January 1, 2010, health plan companies shall use the standardized quality measures established under this section and shall not require providers to use and report health plan company-specific quality and outcome measures.

(b) By July 1, 2010, the commissioner of management and budget shall implement this incentive payment system for all participants in the state employee group insurance program.

This section may need to be redacted in lieu of consumer incentives

MNCM Qualifies

62U.04 PAYMENT REFORM; HEALTH CARE COSTS; QUALITY OUTCOMES.

Subdivision 1. Development of tools to improve costs and quality outcomes.

May be done in house or contracted for

The commissioner of health shall develop a plan to create transparent prices, encourage greater provider innovation and collaboration across points on the health continuum in cost-effective, high-quality care delivery, reduce the administrative burden on providers and health plans associated with submitting and processing claims, and provide comparative information to consumers on variation in health care cost and quality across providers.

Subd. 2. Calculation of health care costs and quality.

The commissioner of health shall develop a uniform method of calculating providers' relative cost of care defined as a measure of health care spending including resource use and unit prices, and relative quality of care. In developing this method, the commissioner must address the following issues:

May be done in house or contracted for

- (1) provider attribution of costs and quality;
- (2) appropriate adjustment for outlier or catastrophic cases;
- (3) appropriate risk adjustment to reflect differences in the demographics and health status across provider patient populations, using generally accepted and transparent risk adjustment methodologies and case mix adjustment;
- (4) specific types of providers that should be included in the calculation;
- (5) specific types of services that should be included in the calculation;
- (6) appropriate adjustment for variation in payment rates;
- (7) the appropriate provider level for analysis;
- (8) payer mix adjustments, including variation across providers in the percentage of revenue received from government programs; and
- (9) other factors that the commissioner and the advisory committee, established under subdivision 3, determine are needed to ensure validity and comparability of the analysis.

Subd. 3. Provider peer grouping; system development; advisory committee.

There does not appear to be anything that necessitates the state run this itself

(a) The commissioner shall develop a peer grouping system for providers that incorporates both provider risk-adjusted cost of care and quality of care, and for specific conditions as determined by the commissioner. For purposes of the final establishment of the peer grouping system, the commissioner shall not contract with any private entity, organization, or consortium of entities that has or will have a direct financial interest in the outcome of the system.

(b) The commissioner shall establish an advisory committee comprised of representatives of health care providers, health plan companies, consumers, state agencies, employers, academic researchers, and organizations that work to improve health care quality in Minnesota. The advisory committee shall meet no fewer than three times per year. The commissioner shall consult with the advisory committee in

developing and administering the peer grouping system, including but not limited to the following activities:

- (1) establishing peer groups;
- (2) selecting quality measures;
- (3) recommending thresholds for completeness of data and statistical significance for the purposes of public release of provider peer grouping results;
- (4) considering whether adjustments are necessary for facilities that provide medical education, level 1 trauma services, neonatal intensive care, or inpatient psychiatric care;
- (5) recommending inclusion or exclusion of other costs; and
- (6) adopting patient attribution and quality and cost-scoring methodologies.

.....

Subd. 6.Contracting.

The commissioner may contract with a private entity or consortium of entities to develop the standards. The private entity or consortium must be nonprofit and have governance that includes representatives from the following stakeholder groups: health care providers, health plan companies, hospitals, consumers, employers or other health care purchasers, and state government. The entity or consortium must ensure that the representatives of stakeholder groups in the aggregate reflect all geographic areas of the state. No one stakeholder group shall have a majority of the votes on any issue or hold extraordinary powers not granted to any other governance stakeholder.

MNCM Qualifies

Appendix B

A note on the societal goals for a macrosystem

By Walt McClure, excerpted from *Theory and Methods for Architecting Large Systems*

The purpose of policy is to help achieve societal goals. Here we discuss what is meant by a societal goal for a large system, and how such goals get specified. In practice, societal goals are specified by those holding the political power to decide them. In a despotism, goals will reflect the ambitions and values of the leadership cadre in power. They will reflect the interests and values of the cadre *for* the society, not necessarily the interests and values *of* the society. In a democratic society, goals will reflect the aspirations and values of the elected leaders for the society which, depending on the fairness of the election process, are more likely to correspond to the aspirations and values of the citizens of the society. Ideally all citizens would share common aspirations and values, but no large society achieves such perfect unanimity. Moreover many of the aspirations and values of a society are in conflict with each other, so that a balance acceptable to the citizens must be struck by any realistic policy. Such a balance will never satisfy all factions perfectly; some will be more happy with any given balance than others. A spirit of compromise for the good of the greater society over special interest or ideology is necessary to any well functioning democratic society.

Desirably each societal goal, provided it does not infringe the basic human rights guaranteed by the society to all citizens (ie protecting the minority from the tyranny of the majority), should have the support of the vast majority of the citizenry. The greater the percentage of support, the more legitimate a proposed societal goal would appear to be. A goal supported by a bare majority of citizens would more aptly be called a goal of the majority party rather than a societal goal. But goals supported by 80-90 percent or more would seem legitimately termed societal goals.

Societal goals in general include social investment (education, healthcare) and social responsibility (care for the elderly). Each system has goals particular to it, such as quality, universal access, and affordability in American healthcare; or improved achievement, innovation, accountability, and new professional opportunities for teachers in public education.

This differs from the welfarist economic assumption that the desired equilibrium of a market represents the aggregation of individual goals, and Pareto efficiency. This theory includes those concepts but generalizes them to include a normative dimension. It envisions the role of

efficiency not as the efficient allocation of resources in and of itself, but aligning efficiency with pursuit of the system's goals. *Therefore viewed from the Pareto/welfarist perspective it is possible to be at market efficiency but in system failure.*

Consider now the role of the large system architect: he can only propose, he has no power to decide. Just as a house architect can propose a house design to a client, it is the client, not the architect, who makes all final decisions – approve, reject, or request modifications. Just so, the power to decide societal goals, and any system design strategy to achieve them, rests with those holding legitimate authority to decide – in a democracy, its elected officials. They may approve or reject the proposed goals or request modification. Independently they may accept or reject the proposed system redesign or request modification. In proposing a complete set of goals, the large system architect certainly tries to anticipate and help clarify the goals that society and its legitimate decision-makers have for the large system in question. In eventually airing his proposal to society and its leaders, he says to them in effect: 'Here is a set of proposed system goals; if you agree with them, then here is a proposed redesign strategy to accomplish them; but if you do not share these goals, then this is the wrong strategy.' And then, like a house architect whose house plan is rejected or modifications requested, it's back to the drawing board for the large system architect to devise a more acceptable set of goals and a new redesign strategy to accomplish them.
