

Rethinking —*Design Thinking*— Health Care

**A Framework for National Health Care
Recommendations**

IIT Institute of Design

Health Care Recommendations prepared for:

The 2008 Presidential and Congressional Campaigns
United States of America

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Abstracted from:

Redefining Health Care. Creating Value-Based Competition on Results.

Michael E. Porter and Elizabeth Olmsted Teisberg

and

Rethinking—DesignThinking—Health Care.

The Government Role. Korel, Paik, Palit and Troitzsch

The Supplier Role. Batchu, Kim, Pee and Seng

The Provider Role. Bhoopathy, Lin, Lynam, Verma and Yoo

The Health Plan Role. Gardner, Hong, Narayanan, Rivera-Pierola and Thodla

The Employer Role. Gao, Jung, Kuprys and Lindholm

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project: **Rethinking—DesignThinking—Health Care**

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Background

Health Care is a major concern for Americans—for many, the number one issue for the 2008 presidential campaign. For decades, health care has been a matter of national concern; it now demands attention.

*As costs continue to climb, concerns about financial failure of the health care system are joining concerns about quality and access. In 2004, health care nationally accounted for 15.2% of the GDP, far in excess of amounts spent by **any other** developed country. For this, the expected life expectancy of Americans born in 2004 was 78 years—**behind, not ahead**—of almost all developed countries. In 2007, life expectancy in the U.S. actually declined by .3%, moving our country to 44th among industrialized nations. Considering life expectancy to be a reasonable measure of health care quality, this is what we have purchased with our unprecedented expenditures.*

*The cost of health care in America **must** be brought down. Now nearly 2 trillion dollars annually and climbing, health care costs threaten to destabilize the economy. But we are in no position to reduce cost at the expense of quality; across the full spectrum of our society, we already trail nearly all of our international peers! **As we reduce costs, we must also improve quality.***

Policy Planning and Design Planning

The major health care sectors must be given ways and incentives to make quality of medical care a competitive issue. Results must be measured at the medical condition level—improvement in patient outcome per unit cost. And means must be developed to collect, aggregate, evaluate and communicate these measurements to the public and the health-care sectors so intelligent choices can be made competitively.

The task is daunting, not the least because we have been at it so long with so little success. We need a fresh look from a new viewpoint.

The recommendations in this proposal are derived from a marriage of policy planning and design planning. Policy planning suggests strategy; design planning suggests forms of implementation. Policy planning recommends what should be done; design planning gives form to the implementation.

At the strategy level, Harvard business strategist Michael Porter and colleague Elizabeth Teisberg provide a compelling analysis of the competitive health care environment. Their exhaustive results, set forth in a remarkable book: *Redefining Health Care, Creating Value-Based Competition on Results*, explain:

"The combination of high costs, unsatisfactory quality, and limited access to health care has created anxiety and frustration for all participants. No one is happy with the current system—not *patients*, who worry about the cost of insurance and the quality of care; not *employers*, who face escalating premiums and unhappy employees; not *physicians and other providers*; whose incomes have been squeezed, professional judgments overridden, and workdays overwhelmed with bureaucracy and paperwork; not *health plans*, which are routinely vilified; not *suppliers of drugs and medical devices*, which have introduced many life-saving or life-enhancing therapies but get blamed for driving up costs; and not *governments*, whose budgets are spinning out of control.

"The fundamental problem in the U.S. health care system is that the structure of health care delivery is broken. ... And the structure of health care delivery is broken because competition is broken. All of the well-intended reform movements have failed because they did not address the underlying nature of competition. ... The failure of competition is evident in the large and inexplicable differences in cost and quality for the same type of care across providers and across geographical areas. Competition does not reward the best providers, nor do weaker providers go out of business. ... Why is competition failing in health care? Why is value for patients not higher and improving faster? The reason is not a lack of competition, but the *wrong kind of competition*. Competition has taken place at the wrong levels and on the wrong things. It has gravitated to a zero-sum competition, in which the gains of one system participant come at the expense of others. Participants compete to shift costs to one another, accumulate bargaining power, and limit services."*

*Porter, Michael E. and Elizabeth Olmsted Teisberg. (2006) *Redefining Health Care. Creating Value-Based Competition on Results*. Cambridge, MA: Harvard Business School Press, p 1-4.

Porter and Teisberg continue:

"Competition on *value* must revolve around *results*. The results that matter are *patient outcomes per unit of cost at the medical condition level*. Competition on results means that those providers, health plans, and suppliers that achieve excellence are rewarded with more business, while those that fail to demonstrate good results decline or cease to provide that service. ... Competing on results requires that results be measured and made widely available. Only by measuring and holding every system participant accountable for results will the performance of the health care system ever be significantly improved. ... *Mandatory measurement and reporting of results is perhaps the single most important step in reforming the health care system.*"*

How to Read These Recommendations

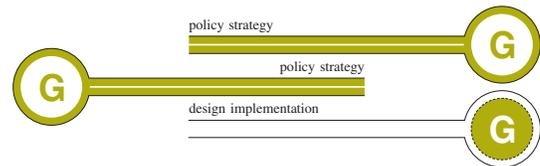
The recommendations that follow are abstracted from **Redefining Health Care** for strategy and from **Rethinking—DesignThinking—Health Care** for implementation. The former, published in 2006, may be purchased at bookstores. The latter, in the form of a pdf presentation and five pdf reports, may be obtained under *What We Do / Projects* at the web site www.id.iit.edu.

Recommendations are presented in a hierarchical fashion, beginning with the most all-encompassing, strategic recommendations and moving progressively toward component recommendations for how specifically to implement them. The graphic format is intended to make it easier to follow the logic. The flow is from left to right, with the left recommendation treated as an "end" to be achieved by following the "means" recommendations to its right. As the process proceeds to the right, former means become new ends to be achieved, and the nature of the recommendations becomes less strategic and more specific. The effect is to move from broad policy objectives to practical programs, services, law enactments, organizational structures and the like—implementable solutions. These solutions are elements of a system, designed to work together to accomplish complex goals—as are present in the health care context.

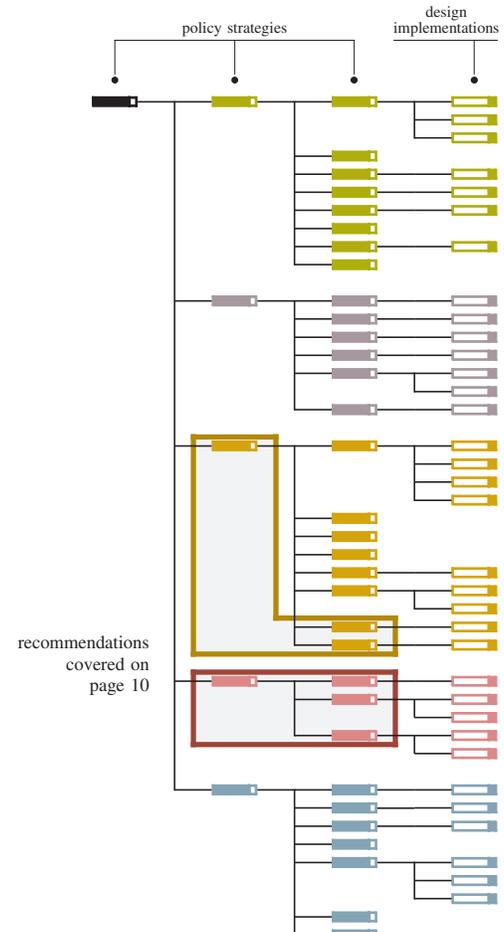
*Porter, Michael E. and Elizabeth Olmsted Teisberg. (2006) **Redefining Health Care. Creating Value-Based Competition on Results.** Cambridge, MA: Harvard Business School Press, p 6,7.

Recommendations are referenced with the authors' last names (or initials after a first reference). Page numbers refer to Porter and Teisberg's book or one of the five reports.

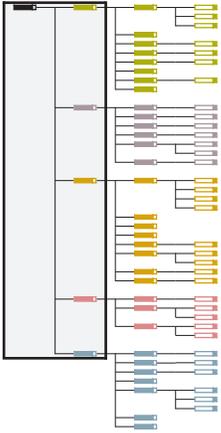
Porter and Teisberg divide their policy recommendations into five sectors: Government, Suppliers, Providers, Health Plans and Employers. Their policy strategies are coded with G, S, P, HP and E in colored letters on a white background in a bold-line icon. Design implementation concepts are coded with white letters on a colored background in a fine-lined icon. Examples for the Government sector are:



The full set of recommendations, when assembled, form a "tree" structure, rooted on the left and branching to the right. The tree is represented in simplified graphic form below and, in miniature, on each succeeding page as a navigation aid to place in context the recommendations under discussion.



End to be achieved



HC

Rethink health care

Reform health care to reduce costs, improve quality and increase access. And do so using the full range of resources available, involving all participants. Competition is at the wrong level and on the wrong things. "It has gravitated to a zero-sum competition, in which the gains of one system participant come at the expense of others. Participants compete to shift costs to one another, accumulate bargaining power, and limit services" (Porter & Teisberg 4).

*Note: The phrasing of the policy strategies reflects Porter and Teisberg's emphasis that the redefinition of health care will require action by all of the five sectors. Accordingly, **Deliver superb health care with more efficiency** is a recommendation to the Provider sector, as **Stop trying to maximize usage and start maximizing value for patients** is an admonition to Suppliers.*

From the Government side, these recommendations can be seen as indications of where governmental encouragement, incentives or regulation might be applied to assist the sector concerned to change its behavior. Recommendations for Government, of course, are direct suggestions for governmental action.

Means to achieve end

1 Put in place the infrastructure and rules that enable value-based competition

G

Ensure that the right kind of competition takes place by overseeing the development of risk-adjusted outcome measures for all medical conditions, requiring mandatory reporting of results, opening up provider and health plan competition, defining new rules for pricing and speeding the introduction of information technology (P&T 384).

2 Stop trying to maximize usage and start maximizing value for patients

S

Demonstrate product value (in terms of outcomes and costs) compared to alternative therapies through long-term clinical studies, and focus on getting products to the patients who will benefit from them the most (P&T 383).

3 Deliver superb health care with more efficiency

P

Offer services that can be truly excellent, rather than all services to every patient. Organize care around medical conditions and coordinate it across the full cycle of care. Move to integrated practice units with prices covering the full care cycle, to end myriad individual service bills (P&T 382).

4 Move from a culture of denial to one of health

HP

Align strategies with patient value and measure success on member health results per premium dollar. Become true health partners with members, improving advice and assistance to members and their physicians (P&T 383).

5 Improve health and health care value for employees and their families

E

Stop complaining about health care costs. Redesign health benefits around prevention, disease management and employee involvement. Evaluate benefits in terms of employee health, greater employee productivity and reductions in time lost from work (P&T 384).

End to be achieved

1 Put in place the infrastructure and rules that enable value-based competition

Ensure that the right kind of competition takes place by overseeing the development of risk-adjusted outcome measures for all medical conditions, requiring mandatory reporting of results, opening up provider and health plan competition, defining new rules for pricing and speeding the introduction of information technology (P&T 384).

Means to achieve end

1.1 Enable universal results information

Collect and disseminate universal, high-quality information on provider outcomes and prices for every medical condition (P&T 343).

1.2 Improve pricing practices

Create a billing/pricing model in which prices cover the full bundle of services and products delivered together—based on a patient's medical condition, not his or her group affiliation (P&T 353).

1.3 Open up competition at the right level

Eliminate artificial barriers to competition—intentional or unintentional. Safeguard competition by preventing anticompetitive practices and combinations (P&T 357).

1.4 Establish standards and rules that enable information technology and information sharing

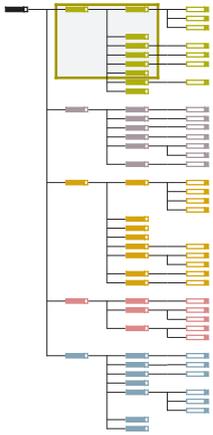
Develop standards for interoperability of hardware and software, exchangeability of medical data, and procedures for identification and security. Create incentives for adoption of information technology (P&T 362).

1.5 Reform the malpractice system

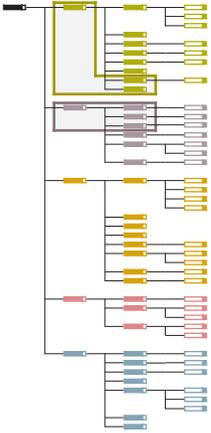
Move away from disciplining poor practice in court and toward value-based competition that allows comparing treatments and providers in advance. Shift the dynamic from defensive medicine to the pursuit of superb risk-adjusted results (P&T 365).

1.6 Redesign Medicare policies and practices

Make Medicare a health plan, not a payer or regulator, and modify counterproductive pricing practices. Improve pay/performance, move to bundled pricing, require results-based referrals, and allow providers to set prices (P&T 366).



End to be achieved



1 Put in place the infrastructure and rules that enable value-based competition

G Ensure that the right kind of competition takes place by overseeing the development risk-adjusted outcome measures for all medical conditions, requiring mandatory reporting of results, opening up provider and health plan competition, defining new rules for pricing and speeding the introduction of information technology (P&T 384).

Means to achieve end

1.7 Align Medicaid with Medicare

G Move toward becoming a value-based health plan focusing on primary and preventive care. Incorporate disease management, encourage practices based on results information, and enable individuals moving in and out of eligibility to remain in Medicaid by paying premiums (P&T 372).

1.8 Invest in medical and clinical research

G Ensure that appropriate technological infrastructures for medical advances are in place. Provide support for basic scientific and medical research and increase support for research on clinical outcomes and processes. Establish incentives to accelerate the transformation of health care delivery and the diffusion of promising new approaches (P&T 373).

2 Stop trying to maximize usage and start maximizing value for patients

S Demonstrate product value (in terms of outcomes and costs) compared to alternative therapies through long-term clinical studies, and focus on getting products to the patients who will benefit from them the most (P&T 383).

2.1 Compete on delivering unique value over the full cycle of care

S Base strategies on creating unique value for patients. Focus on cycles of care rather than narrow product usage; sell not just products, but provider and patient support (P&T 288).

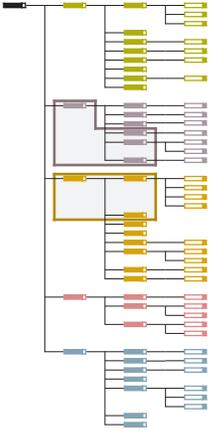
2.2 Demonstrate value based on careful study of long-term results and tests vs alternative therapies

S Assemble information on results and costs over the whole care cycle to demonstrate value compared to alternative therapies. Conduct post-approval, very-long-term comparative studies in collaboration with providers and patients (P&T 289).

2.3 Ensure that products are used by the right patients

S Instead of maximizing usage, increase success rates. Change sales representatives' roles from maximizing reach and frequency to more substantive identification of patients who will benefit most from the products (P&T 292).

End to be achieved



2 Stop trying to maximize usage and start maximizing value for patients

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Means to achieve end

2.4 Ensure that products are embedded in the right care delivery processes

S Assist providers and patients to use products correctly, particularly where diseases are rare and medical experience is limited. Track the usage and value of drugs, devices and equipment over the long term (P&T 292).

2.5 Rebuild marketing to be based on value, information and customer support

S Concentrate on value, not volume and discounts. Educate and build bridges of understanding between units within provider organizations where institutional value is important. Conduct value-added marketing with improved care delivery products and methods, and provide clinical and cost evidence to help providers to make better choices (P&T 294).

2.6 Offer support services that add value rather than reinforce cost shifting

S Support efforts to measure and improve results at the medical condition level—rather than controlling usage, securing discounts, and maximizing reimbursements. Replace support services that advocate stand-alone packages and single-department information systems with services that advocate value-based approaches and whole system support (P&T 294).

3 Deliver superb health care with more efficiency

P Offer services that can be truly excellent, rather than all services to every patient. Organize care around medical conditions and coordinate it across the full cycle of care. Move to integrated practice units with prices covering the full care cycle, to end myriad individual service bills (P&T 382).

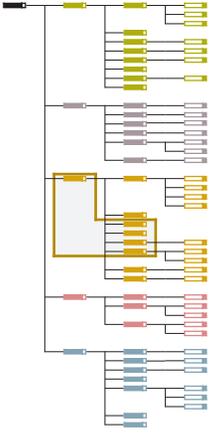
3.1 Redefine the business around medical conditions

P Become patient centric, rather than doctor centric, procedure centric or institution centric. Deliver value and measure success over the full set of activities and specialties involved during the complete cycle of care (P&T 158).

3.2 Choose the range and types of services provided

P Establish the set of medical conditions in which to participate and where they fit in the care cycle. Don't try to offer everything; choose where true excellence can be achieved (P&T 159).

End to be achieved



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Means to achieve end

3.3 Organize around *integrated practice units (IPUs)*

Define structure around medical condition, *not* particular services, treatments or tests. Approach diagnosis, treatment and disease management as a multidisciplinary process requiring a full range of medical expertise, technical skills and specialized facilities over the care cycle (P&T 168).

3.4 Create a distinctive strategy in each practice unit

Find ways *within* each IPU to establish distinctive areas of excellence differentiating it from local and regional competitors. Individual physicians should be encouraged to develop unique expertise to deepen the overall competence of the group (P&T 178).

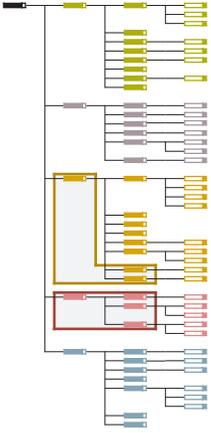
3.5 Measure results, experience, methods and patient attributes by practice unit

Move to measure results, make results transparent and use them to improve value—*the single most important step in transforming the health care system*. Collect information by medical condition at each level of the medical hierarchy: from the top—results (outcomes, costs and prices), experience (a tool for matching patients and providers), methods (the processes used in care delivery), and patient attributes (to control for initial conditions and identify causal factors) (P&T 180).

3.6 Move to single bills and new approaches to pricing

Start with discrete care episodes such as diagnostic office visits (combining physicians' fees, all tests and associated charges). Advance to billing for multivisit treatment cycles and, eventually, accumulated costs for the full cycle of care. Incorporate gain sharing so that providers are not penalized for improvements in care delivery that result in revenues falling faster than costs (P&T 190).

End to be achieved



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Means to achieve end

3.7 Market services based on excellence, uniqueness and results

P Shift marketing from reputation, breadth of services, convenience, referral relationships and word of mouth to patient value determined at the medical condition level, not at the hospital or practice overall (P&T 193).

3.8 Grow geographically and locally in areas of strength

P Center growth strategies on IPUs, not the institution as a whole. Seek deeper penetration in areas of excellence, leveraging scale, expertise, care delivery methods, staff training, measurement systems, and reputation to serve more patients (P&T 195).

4 Move from a culture of denial to one of health

HP Align strategies with patient value and measure success on member health results per premium dollar. Become true health partners with members, improving advice and assistance to members and their physicians (P&T 383).

4.1 Provide health information and support to patients and physicians

HP Organize around medical conditions, not geography or administration. Develop measures and assemble results information on providers and treatments. Support provider and treatment choice with unbiased information and counselling, organizing information and support around the full care cycle. Provide comprehensive disease management and prevention services to all members, including the healthy (P&T 240).

4.2 Restructure the health plan-provider relationship

HP Change the quality of information sharing with providers to collaborative support. Reward provider excellence and innovation. Move to single bills and single prices for episodes and care cycles. Simplify, standardize and eliminate excess paperwork and transactions (P&T 258).

4.3 Redefine the health plan-subscriber relationship

HP Move to multiyear subscriber contracts; shift the nature of plan contracting. End cost shifting—such as reunderwriting—that erodes trust in health plans and breeds cynicism. Help manage members' medical records (P&T 268).

End to be achieved

5 Improve health and health care value for employees and their families

E Stop complaining about health care costs. Redesign health benefits around prevention, disease management and employee involvement. Evaluate benefits in terms of employee health, greater employee productivity and reductions in time lost from work (P&T 384).

Means to achieve end

5.1 Set the goal of increasing health value, not minimizing health benefit costs

E Measure not just the direct costs of health care, but also the indirect costs of poor health and reduced productivity. Rather than focus on minimizing cost in the short run, adopt a time horizon appropriate to the interests of the employee and, ultimately, the company (P&T 313).

5.2 Set new expectations for health plans, including self-insured plans

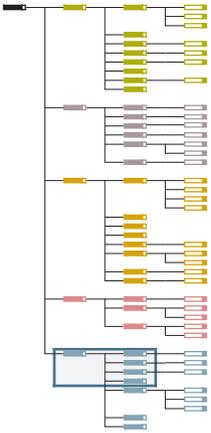
E Instead of short-term discounts, choose plans that demonstrate excellence in achieving the ends listed for Health Plans. Select plans and plan administrators based on health results, not administrative convenience (P&T 313).

5.3 Provide for health plan continuity for employees, rather than plan churning

E Align interests by encouraging long-term relationships between the plan and subscribers. Through long-term relationships, create incentives for excellence in care and investment in disease prevention and management. Restructure health benefits using multiyear contracting to allow and reinforce plan continuity while, at the same time, minimizing plan churning (P&T 315).

5.4 Enhance provider competition on results

E Through health plans, exert influence on providers to make data on results and experience available at the medical condition level over the full care cycle. Collaborate with other employers in advancing competition on value-based results rather than provider discounts (P&T 315).



End to be achieved

5 Improve health and health care value for employees and their families

E Stop complaining about health care costs. Redesign health benefits around prevention, disease management and employee involvement. Evaluate benefits in terms of employee health, greater employee productivity and reductions in time lost from work (P&T 384).

Means to achieve end

5.5 Support and motivate employees in making good health choices and in managing their own health

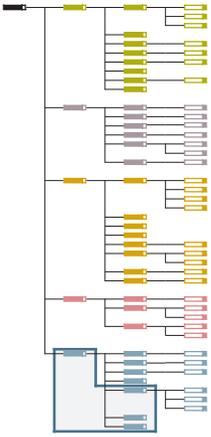
E Encourage and support employees in managing their health, supplying independent information, advisory services and health plan structures that provide good value and encourage saving for long-term health needs (P&T 316).

5.6 Find ways to expand insurance coverage and advocate reform of the insurance system

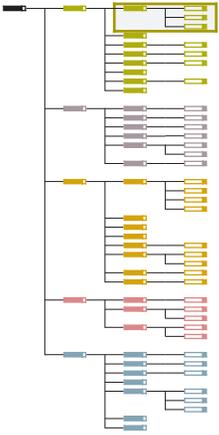
E Create collaborative vehicles with other employers to offer group insurance coverage to employees or affiliated individuals not currently part of the employer's health plan. Support insurance reform that levels the playing field among employers and limits free riding (P&T 318).

5.7 Measure and hold employee benefit staff accountable for the company's health value

E Move the responsibility for health care to the senior executive level and make the health management team accountable for health performance. While preserving the confidentiality of individual records, track the aggregate health circumstances of employees and their families, using measures such as the number of treatments or hospitalizations, lost days, and the extent of disability, controlling for the attributes of the employee population (e.g., age health history, and severity of chronic conditions) (P&T 320).



End to be achieved



G

1.1 Enable universal results information

Collect and disseminate universal, high-quality information on provider outcomes and prices for every medical condition (P&T 343).

Means to achieve end

1.1.1 Health.gov

G

A portal that includes a glossary where consumers can learn about medical conditions and treatment, can view provider and supplier ratings, and can connect to all government health websites (Korel, Paik, Palit and Troitzsch 17).

- *Informs consumers about their health*
- *Is administered by the Department of Health and Human Services*
- *Allows consumers to compare elements of the health care system on issues relevant to making choices*

1.1.2 Health Care Quality Seal

G

A symbol identifying a health information site as being recognized and approved by the government for meeting high standards of quality (K,P,P&T 25).

- *Encourages and accelerates voluntary adoption of high-quality standards and practices in the health care sector.*
- *Warrants reliable health information.*
- *Assures viewers that approved sites have been audited in a timely way for the implementation of standards.*
- *Assures viewers that governmental standards for security and privacy have been met.*

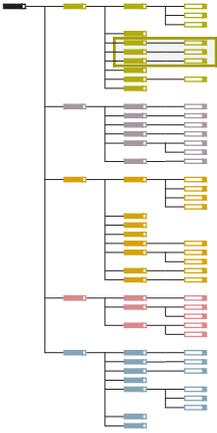
1.1.3 Health Information Kiosk

G

An information terminal usable in public buildings for educating the public about web-based information services provided by the government (K,P,P&T 31).

- *Connected by Internet to the government web portal, **Health.gov**.*
- *Gives anyone easy access to governmental health care information and health care sites.*
- *Accesses a video database archive containing extensive information on health care issues.*
- *Provides tools and educational aids for **Health Information Navigators** to use in helping new users.*
- *Supplies easy-to-understand video tutorials in multiple languages.*
- *Helps users to better understand how to work with computers, the Internet and governmental services.*

End to be achieved



1.3 Open up competition at the right level

Eliminate artificial barriers to competition—intentional or unintentional. Safeguard competition by preventing anticompetitive practices and combinations (P&T 357).

Means to achieve end

1.3.1 Health Care Compare

An online tool for viewing and comparing information on elements of the health care system as made available by providers, suppliers, health plans and employers. Translates information collected on *Score Cards* and presented on *Report Cards* to help consumers to make informed decisions (K,P,P&T 15).

- Rates the full range of health care services in part and in whole.
- Allows consumers to compare services in multiple ways.
- Enables value-based competition.

1.4 Establish standards and rules that enable information technology and information sharing

Develop standards for interoperability of hardware and software, exchangeability of medical data, and procedures for identification and security. Create incentives for adoption of information technology (P&T 362).

1.4.1 Electronic Medical Record Regulations

Regulations standardizing the content and form of Electronic Medical Records (EMRs). Sets up framework for information network infrastructures run by third parties to connect health care providers, suppliers and health plans (K,P,P&T 7)

- Provides accessible health records for all.
- Enables interoperable medical information between providers.
- Reduces redundant treatment and medication.
- Creates incentives for adoption.

1.5 Reform the malpractice system

Move away from disciplining poor practice in court and toward value-based competition that allows comparing treatments and providers in advance. Shift the dynamic from defensive medicine to the pursuit of superb risk-adjusted results (P&T 365).

1.5.1 Health Care Information Initiative

A nationwide campaign to coordinate and promote governmental health care information efforts. Stresses education for the general public about health issues and how to gain access to governmental health care sites through the Internet and public or private computer resources (K,P,P&T 19).

- Establishes and maintains a direct communication channel to the public.
- Promotes governmental health information.
- Promotes health and healthy living practices: wellness, nutrition and exercise.
- Informs the public about new concepts entering health care (e.g., mandatory health insurance).
- Educates the public regarding ways to find reliable information and make smart choices.

End to be achieved

2.2 Demonstrate value based on careful study of long-term results and tests vs alternative therapies

Assemble information on results and costs over the whole care cycle to demonstrate value compared to alternative therapies. Conduct post-approval, very-long-term comparative studies in collaboration with providers and patients (P&T 289).

Means to achieve end

2.2.1 Product Center

A third-party, online retailer of medical products. Can be used by providers to view and purchase pharmaceuticals, medical equipment and supplies (B,K,P&S 49).

- Extracts product details and supporting information from suppliers' databases.
- Allows providers and the public, using *e-Purchase*, to buy products directly (bypassing group purchasing organizations).
- Creates a forum for discussing products and collecting feedback.
- Identifies early adopters and key users for potential future collaboration.
- Creates a transparent cost system for both providers and the public.
- Employs *EZ Decide* to help buyers make decisions.

2.3 Ensure that products are used by the right patients

Instead of maximizing usage, increase success rates. Change sales representatives' roles from maximizing reach and frequency to more substantive identification of patients who will benefit most from the products (P&T 292).

2.3.1 Buddy System

An organizational model for suppliers. Helps structure a sales force to maintain optimal services for providers (B,K,P&S 17).

- Allows supplier teams to get to know each other and develop cohesive, efficient teams.
- Allows providers to develop stronger relationships with their suppliers.
- Creates a feedback channel between suppliers and providers based on trust.
- Encourages suppliers to tailor their services to specific providers.
- Fosters healthy competition and a learning culture for supplier teams.

2.4 Ensure that products are embedded in the right care delivery system

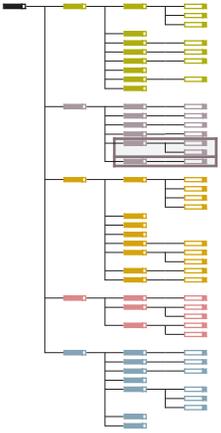
Assist providers and patients to use products correctly, particularly where diseases are rare and medical experience is limited. Track the usage and value of drugs, devices and equipment over the long term (P&T 292).

2.4.1 Phase I Sales

A model for holding sales discussions with providers. Specifies that product sales must be conducted in two phases, where negotiations cannot occur until the second phase (B,K,P&S 20).

- Allows suppliers and providers to share ideas without pressure in a no-sales environment.
- Discourages manipulation or false representation of data.
- Encourages open discussion between providers and suppliers.
- Allows providers to inform themselves thoroughly about products before purchasing.

End to be achieved



2.5 Rebuild marketing to be based on value, information and customer support

Concentrate on value, not volume and discounts. Educate and build bridges of understanding between units within provider organizations where institutional value is important. Conduct value-added marketing with improved care deliver products and methods, and provide clinical and cost evidence to help providers to make better choices (P&T 294).

Means to achieve end

2.5.1 Buddy System

An organizational model for suppliers. Helps structure a sales force to maintain optimal services for suppliers. Based on the semi-independent, small team organization of Whole Foods Markets' sales force where each team is composed of a sales representative, trainers and technicians (B,K,P&S 17).

- Allows supplier teams to get know each other and develop cohesive, efficient teams.
- Allows providers to develop stronger relationships with their suppliers.
- Creates a feedback channel between suppliers and providers based on trust.
- Encourages suppliers to tailor their services to specific suppliers.
- Fosters healthy competition and a learning culture for supplier teams.

2.5.2 Good Practices

A set of guidelines to ensure ethical sales practices. Published by the Official Supplier Organization (B,K,P&S 25).

- Puts in writing the ethical standards required to maintain a company's public image.
- Suggest ethical ways to promote products and services.
- Holds sales representatives accountable for their team members' actions.
- Maintains lists of suppliers with poor records to ensure industry-wide "good practices".

2.6 Offer support services that add value rather than reinforce cost shifting

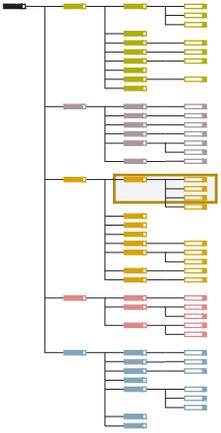
Support efforts to measure and improve results at the medical condition level—rather than controlling usage, securing discounts, and maximizing reimbursements. Replace support services that advocate stand-alone packages and single-department information systems with services that advocate value-based approaches and whole system support (P&T 294).

2.6.1 Official Supplier Organization (OSO)

An opt-in network of suppliers of medical equipment, pharmaceuticals and services. Sets guidelines and standards, encourages communication among members, and collects relevant supplier news to share (B,K,P&S 57).

- Sets standard evaluation metrics for supplier members with *Value Metric*.
- Sets language and graphical standards with *GraphIc*.
- Encourages suppliers to collaborate and develop new products (*Supplier Partnerships*).
- Sets and publishes *Good Practices* guidelines.
- Lobbies for research funding for members.
- Moves competition from zero-sum to positive-sum where suppliers can work together.

End to be achieved



3.1 Redefine the business around medical conditions

Become patient centric, rather than doctor centric, procedure centric or institution centric. Deliver value and measure success over the full set of activities and specialties involved during the complete cycle of care (P&T 158).

Means to achieve end

3.1.1 [un]Structured Conversations

A set of procedures, devices and environments to enable medical professionals to be able to communicate freely and comfortably with patients. Helps to build shared understanding of patient conditions, diagnoses, procedures and post-procedure plans (Bhooopathy, Lin, Lynam, Verma and Yoo 9).

- Builds shared understanding with physician/nurse/caregiver and patient.
- Incorporates an **Electronic Chalkboard** to link the discussion to web resources.
- Translates medical information into "plain English" for medical resources and Personal Health Records.
- Stores conversations with session information for later review by patient or physician.

3.1.2 Patient Comprehension Test

A tool for a physician to check patient understanding of information conveyed during a visit (B,L,L,V&Y 21).

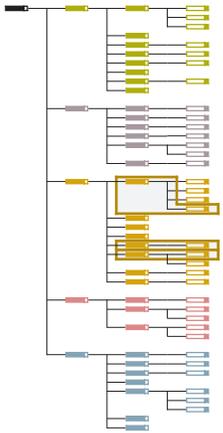
- Captures information and comprehension.
- Measures patient understanding of the visit.
- Assesses physician's ability to explain medical terms clearly.
- Helps physicians to improve communication skills.

3.1.3 Patient Compliance Agreement

An explicit agreement between patient and physician outlining and explaining the patient's role in maintaining or returning to health and obtaining the patient's commitment (B,L,L,V&Y 41).

- Creates shared responsibility for achieving good health.
- Emphasizes necessary patient commitments.
- Personalizes a plan for each patient and condition.
- Sets requirements for check-ups and patient actions.
- Requires at-home monitoring if necessary.
- Includes both penalties for performance failures and rewards for successes (**Patient Responsibility Rewards**).

End to be achieved



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Means to achieve end

3.1.4 Patient Responsibility Rewards

P A system of financial rewards designed to create incentive beyond good intentions for patients to seek and maintain good health (B,L,L,V&Y 43).

- Acts as a progressive reimbursement against provider charges.
- Rewards good patient behavior over time.
- Supports patient adherence to the *Patient Compliance Agreement*.

3.5 Measure results, experience, methods and patient attributes by practice unit

P Move to measure results, make results transparent and use them to improve value—the single most important step in transforming the health care system. Collect information by medical condition at each level of the medical hierarchy: from the top—results (outcomes, costs and prices), experience (a tool for matching patients and providers), methods (the processes used in care delivery), and patient attributes (to control for initial conditions and identify causal factors) (P&T 180).

3.5.1 Satisfaction Collection Ratings

P A public report of provider diligence in collecting patient satisfaction feedback (B,L,L,V&Y 19).

- Measures accessibility of feedback means and frequency of use.
- Sets accessibility and use frequency goals for providers.
- Provides both an indication of provider commitment to patient satisfaction and an incentive to higher achievement.
- Guides providers toward meaningful consumer-centric measures of satisfaction.

3.6 Move to single bills and new approaches to pricing

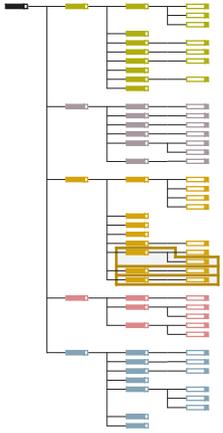
P Start with discrete care episodes such as diagnostic office visits (combining physicians' fees, all tests and associated charges). Advance to billing for multivisit treatment cycles and, eventually, accumulated costs for the full cycle of care. Incorporate gain sharing so that providers are not penalized for improvements in care delivery that result in revenues falling faster than costs (P&T 190).

3.6.1 Clinical Pathway Map

P An electronic tool able to visually present alternative clinical pathways diagrammatically to compare outcomes and costs (B,L,L,V&Y 11).

- Helps providers to communicate available choices and their implications in terms of outcome and cost.
- Facilitates patient/physician collaboration in treatment choice.
- Educates users on the implications of choice.

End to be achieved



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Means to achieve end

3.6.2 Consumer-Generated Price List

P An Internet compiled listing of prices consumers have paid for procedures, treatments and medications (B,L,L,V&Y 31).

- *Accepts pricing data anonymously from providers as patients are processed.*
- *Coalesces pricing from many providers for patient comparison.*
- *Used with quality information by **Personal Health Advisors** for treatment counseling.*
- *Puts pressure on prices through transparency.*

3.7 Market services based on excellence, uniqueness and results

P Shift marketing from reputation, breadth of services, convenience, referral relationships and word of mouth to patient value determined at the medical condition level, not at the hospital or practice overall (P&T 193).

3.7.1 Comprehensive Performance Evaluations

P Mainstream provider performance reviews that include both objective measures and subjective measures (B,L,L,V&Y 33).

- *Drives competition through exposure of performance.*
- *Evaluates adherence to best practice guidelines, complication rates, mortality rates and referral rates among objective measures.*
- *Evaluates overall satisfaction, perceived condition improvement, conversation quality, wait time and accessibility as subjective measures.*
- *Expands performance to include outcomes.*
- *Improves consumer comprehension of performance issues.*

3.8 Grow geographically and locally in areas of strength

P Center growth strategies on IPUs, not the institution as a whole. Seek deeper penetration in areas of excellence, leveraging scale, expertise, care delivery methods, staff training, measurement systems, and reputation to serve more patients (P&T 195).

3.8.1 Retail Health Outlet

P An independent health "store" extending the Minute Clinic concept to a shopping experience customized for health information, advice, products and service (B,L,L,V&Y 5).

- *Advocates preventive measures for health care from a consumer perspective.*
- *Provides a point of contact for consumers to establish care and select a primary physician.*
- *Connects consumers with similar health concerns and, in turn, connects them to pre-existing local provider networks.*
- *Offers suppliers of medical devices (monitors, etc.) space to explain, sell and service products.*
- *Affords customers secure data storage for health information they wish to maintain, use and archive with complete privacy.*

End to be achieved

4.1 Provide health information and support to patients and physicians

HP

Organize around medical conditions, not geography or administration. Develop measures and assemble results information on providers and treatments. Support provider and treatment choice with unbiased information and counseling, organizing information and support around the full care cycle. Provide comprehensive disease management and prevention services to all members, including the healthy (P&T 240).

Means to achieve end

4.1.1 Contextual Recommendation Engine

HP

A timely decision-making aid that distributes health care recommendations to patients at appropriate times throughout the patient care cycle (Gardner, Hong, Narayanan, Rivera-Pierola and Thodla 5).

- Analyzes and aggregates government health trends, provider advice, supplier product information, third party reviews and plan member feedback.
- Works with **InfoGate/MedMap** to form appropriate delivery channels.
- Recommends actions throughout care cycle.
- Empowers plan members with relevant information.
- Expedites the research process for members in need of advice and suggestions.
- Informs suppliers of peer offerings.
- Builds competition by publicizing comparisons.

4.2 Restructure the health plan-provider relationship

HP

Change the quality of information sharing with providers to collaborative support. Reward provider excellence and innovation. Move to single bills and single prices for episodes and care cycles. Simplify, standardize and eliminate excess paperwork and transactions (P&T 258).

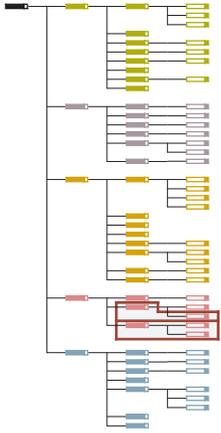
4.2.1 Provider Business Performance Scorecard

HP

A scorecard measuring specific metrics and ranking providers on how well they work with health plans.

- Reports results to providers via **Provider Clinical Performance Reports**.
- Compares and ranks providers against others providing similar services.
- Includes summaries of best case provider/health plan relationships.
- Compares costs for patient care cycle.
- Shows providers their standing compared to other providers.
- Recommends improvements for business-to-business dealings with the health plan.
- Helps improve provider administrative function through competition.

End to be achieved



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Means to achieve end

4.2.2 Provider Clinical Performance Report

HP

A summary of provider performance derived from plan member feedback, cost comparison calculations and aggregation of existing third-party rankings. Sent to the provider with plan member suggestions and recommendations (G,H,N,R-P&T 32).

- *Collects feedback from plan members.*
- *Evaluates provider throughout care cycles.*
- *Aggregates provider performance data.*
- *Compares against benchmark evaluations.*
- *Consolidates information for a single view.*
- *Assigns rank and value.*
- *Informs providers of peer offerings, services and performance.*
- *Builds competition by publicizing comparisons.*

HP

4.3 Redefine the health plan-subscriber relationship

Move to multiyear subscriber contracts; shift the nature of plan contracting. End cost shifting—such as reunderwriting—that erodes trust in health plans and breeds cynicism. Help manage members' medical records (P&T 268).

4.3.1 Personal Health Stats Application

HP

An application that compiles health data originating from monitoring devices and third party systems. Funnels the information to appropriate PHRs (Personal Health Records) specified by the patient/consumer (G,H,N,R-P&T 32).

- *Accepts data in multiple formats.*
- *Standardizes, stores and transmits data to PHR in format usable by multiple viewing programs.*
- *Marks data with date, time and recording instrument.*
- *Marks data according to quality (self-administered tests may be less reliable than tests administered by experts).*

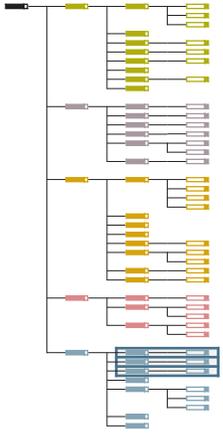
4.3.2 Community Health Program

HP

A program that connects plan members with risk pools within their plan and helps them to form support groups and information networks to promote preventive care (G,H,N,R-P&T 13).

- *Identifies risk pools within plan membership.*
- *Partners with health support organizations and directs plan members to support groups.*
- *Encourages community-run health programs.*
- *Delivers health improvement information.*
- *Organizes forums for communication between members and health plan.*

End to be achieved



5.1 Set the goal of increasing health value, not minimizing health benefit costs

Measure not just the direct costs of health care, but also the indirect costs of poor health and reduced productivity. Rather than focus on minimizing cost in the short run, adopt a time horizon appropriate to the interests of the employee and, ultimately, the company (P&T 313).

5.2 Set new expectations for health plans, including self-insured plans

Instead of short-term discounts, choose plans that demonstrate excellence in achieving the ends listed for Health Plans. Select plans and plan administrators based on health results, not administrative convenience (P&T 313).

5.3 Provide for health plan continuity for employees, rather than plan churning

Align interests by encouraging long-term relationships between the plan and subscribers. Through long-term relationships, create incentives for excellence in care and investment in disease prevention and management. Restructure health benefits using multiyear contracting to allow and reinforce plan continuity while, at the same time, minimizing plan churning (P&T 315).

Means to achieve end

5.1.1 My Health Rewards

An incentive program that encourages employees to be proactive in their health care and to share their personal health data with other health care stakeholders (Gao, Jung, Kuprys and Lindholm 21).

- Awards adherence to a wellness program.
- Awards dedication to preventive care.
- Collects and saves employee health care points based on employee participation.
- Creates incentive for employees to share personal health data.
- Converts points into HSA (Health Savings Account) money for future health care spending.
- Offers customized options based on individual preferences.

5.2.1 HR-Central

A software application that helps an employer plan and manage the company health care benefits for its employee and retiree populations. Works in conjunction with *My Health Manager* (G,J,K&L 32).

- Collects information authorized by employees.
- Aggregates, evaluates and stores data.
- Sends employer profile data to *Health Book*.
- Assists in health plan and employee wellness program choice.
- Evaluates effectiveness of employer health benefits offerings.
- Provides employer health benefit offerings information to the public.

5.3.1 AllCare Card

An HSA (*Health Savings Account*) card, rewards program card, and health identification card combined. Records health care purchases and wellness program usage (G,J,K&L 23).

- Accesses HSA for out-of-pocket expenses.
- Accesses health plan for purchases covered.
- Accesses health plan, PHR for provider visits.
- Collects points for *My Health Rewards*.
- Allows access to health plan information for doctor's visits and medication purchases.
- Provides access to PHR in case of emergency.
- Tracks expenses and sends data and e-receipts to *My Health Manager*.

End to be achieved

5.5 Support and motivate employees in making good health choices and in managing their own health

Encourage and support employees in managing their health, supplying independent information, advisory services and health plan structures that provide good value and encourage saving for long-term health needs (P&T 316).

Means to achieve end

5.5.1 My Health Manager

An employee-owned website with tools that work with a PHR (Personal Health Record) to enable the employee to plan and manage his/her own health care (G,J,K&L 7).

- Centralizes access point for health care needs.
- Accesses PHR to store information.
- Creates individualized **Health Information Code** to filter content.
- Displays updated health statement.
- Allows individually specified privacy settings.
- Connects employee to self-designated network.
- Allows addition of customized applications and tools built for PHRs.

5.5.2 Health Choice Maker

An application in My Health Manager that takes employees through a series of steps to help them choose their health plan, providers and employee wellness programs (G,J,K&L 10).

- Aids employee in health-care choice making.
- Accesses **Health Book** profile information.
- Presents information from employer's wellness programs.
- Collects data from decision-making process.
- Tracks criteria for making health choices.

5.5.3 Health Planner

A comprehensive software package to help employees set up and follow their customized wellness and treatment plans (G,J,K&L 12).

- Builds customized employee wellness plans.
- Suggests programs based on employee profile.
- Gathers workout data (**AllCare Card**).
- Tracks adherence to wellness plan.
- Informs employee about plan progress.
- Surveys satisfaction with wellness program.
- Rewards employees for wellness improvement (**My Health Rewards**).
- Sends data to **Wellness Program Manager** for program evaluation.
- Communicates wellness improvements to health plan (**Risk To-day**).
- Makes appointments with doctors.
- Alerts patients to take medicines.
- Collects patient feedback about physicians and products (**Surveyor**).
- Evaluates treatment (**Treatment Evaluator**).

Perspective

The 25 pages of these recommendations only suggest what is available in the full documents they abstract. For those concerned with reforming U.S. health care, consultation of the original materials is strongly recommended.

Porter and Teisberg's book is 503 pages long. All of the strategic recommendations they recommend are treated there to extensive analysis, discussion and examples. For a shorter summary, a condensed version of their arguments appeared in the June 2004 issue of the *Harvard Business Review* under the title "Redefining Competition in Health Care."

The design implementation recommendations outlined here are a sample (primarily selected from those covered in the pdf slide presentation) of more than 80 covered in the five reports of *Rethinking—DesignThinking—Health Care*. Averaging 50 pages, each report presents a number of concepts explained with properties and features, illustrations, discussions and scenarios. The 215-slide pdf presentation integrating all five projects is also available with the reports at the Institute of Design web site.

These recommendations explore a new form of collaboration between policy planning and design planning. Under development for the last twenty years, design planning as a discipline is relatively new. In recent projects at the Institute of Design, subject matter has expanded from advanced planning in the manufacturing sector to planning for the service sector and, in the last several years, institutional and governmental sectors. Structured Planning, a process for design planning that has evolved along with the discipline, was used in developing the implementation concepts for these recommendations. It is summarized in the five reports and is discussed in papers elsewhere on the web site.

Twenty-two graduate students from six countries—with 16 different first-degree backgrounds ranging from English to electrical engineering—worked over a period of 15 weeks to understand the U.S. health care system and respond to Porter and Teisberg's strategic recommendations. Their work creates an outline for what is possible in a health care system reconstituted to meet the potentialities of a public/private sector collaboration and the expectations of the American public.

Acknowledgements

This project came about through the inspiration of Rob Pew, Chairman of the Board, Steelcase Corporation. He created funding for a health-care initiative at the Institute of Design and asked only that there be an exploration of what could be contributed by design planning and research to "fixing health care".

The planning team also thanks professors Judith Gregory and Jeremy Alexis, leaders of other projects in the health care initiative, who helped develop the overall research plan and organized two symposiums and a day of presentations that brought health care professionals to the Institute of Design to share their knowledge in the analysis phase of the project and provide critical evaluation for the design concepts outlined here. Elizabeth Collins of the Institute of Design's development staff handled much of the logistics associated with the symposia and presentations and undertook planning responsibilities for future events to build on the current research.

Finally, special thanks are owed to Jihyun Sun, Peter Rivera-Pierola and Rima Kuprys, graduate research assistants who worked over the summer and through the fall to track down needed information and make seemingly good ideas actually happen.