Rethinking – Design Thinking – Health Care

The Government Role

Appendices

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IIT INSTITUTE OF DESIGN
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Charter

Background

"The U.S. health care system is notorious for its high costs, which Americans traditionally assumed was the price of excellence. Some American health care is truly superb, but we now know that serious quality problems also plague the system. There is compelling evidence that much care falls well short of excellence, that both too little and too much care is provided, and that alarming rates of medical error persist".  

"In the past two decades, health care has gone from being a source of national pride to one of America’s preeminent concerns. The nation spends almost $2 trillion annually on health care, and costs continue to escalate to levels approaching a national crisis. As costs rise, more and more Americans have lost access to health insurance. As these individuals face insufficient or nonexistent primary and preventive care, quality suffers and costs rise even further. Unless there is dramatic change, the aging of the baby boomers will drive more cost escalation, followed by intense pressures for cost shifting, price controls, rationing, and reduced services for ever more Americans.

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.1

“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 area. 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.2

“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.”3

2 Ibid, pp 1,2.
3 Ibid, pp 3,4.

Relevant Trends

Health care in the United States is subject to many of the trends that other industries and institutions will experience. Among these, and trends within the industry generated by its own actions are:

Population Growth
Population growth continues in the U.S. Most developed countries have slowed population growth to near-replacement levels, and the U.S. birth rate is .9%, in line with the industrialized nations. Immigration in the U.S., however, is high and rising population figures reflect that. The August 2007 estimate of national population size is 302,500,000. For reference, the population in 1950 was 155,000,000.

Population Age Distribution
Age distribution in the U.S. faces radical change over the period from now until 2025. As baby boomers reach retirement, the population pyramid will shift from one with a central bulge, but relatively classic shape, to one with a slight slope from 85+ to 65 and then an almost vertical slope the rest of the way down. The pyramid will develop a significant "aged" segment during this time. In the oldest portions of this segment (70+), women will continue to outnumber men.

Population Movement
A combination of forces is creating a movement of people from rural to urban environments. In developed countries like the U.S., it is the renaissance of the city as a cultural center coupled with the progression from manufacturing to service to...
information economies. In 2005, for the first time, the world’s population was more urban than rural.

**Health Care Costs**
Health care in America is outstripping all other costs. In the 1950’s it was 6% of the gross national product, compared with 6% for education and 6% for defense. By 2003, the figures were approximately 4% for defense, 6% for education and 14.2% for health care, more than 1.5 trillion dollars for health care alone. The growing elderly segment of the population pyramid guarantees further accelerated growth in health care costs unless there is radical change to the system.

**Increasing expectations**
The growing availability and capabilities of communications such as cellular telephones, satellite and cable TV, and the Internet are providing people with daily knowledge of living conditions, problems, products, threats and services everywhere. As the media create new and faster avenues of communication, they also raise levels of awareness and create expectations that both fuel demand and encourage willingness to change.

**Internet Penetration**
Computer use and Internet access grow exponentially every year. Information of encyclopedic detail can be obtained more and more easily, and complex, sophisticated processes can be used remotely. Access to high-quality communications and sophisticated computer tools are increasingly available to individuals and groups anywhere. In the United States, Internet penetration reached 70% in 2007.

**Emerging Technologies**
The pace of technological change continues to accelerate, bringing new science to industrial, institutional and governmental uses at an ever quickening pace. Most notable among many promising fields, major technological innovations can be expected in the new disciplines of molecular nanotechnology, robotics and the biosciences.

**New Relationships**
Greater public mobility and access to information is changing the nature of association for many individuals and organizations. Organizations that once operated in isolation are now players in a common environment. Sometimes the emerging relationships are competitive, sometimes cooperative, and new forms of relationship can be expected to be created as conditions evolve.

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**Project Statement**
Using Structured Planning methodology, conduct an advanced planning project to develop information service systems and ways to measure their success for employers, providers, health plans, suppliers, and government. Component proposals should:
1. consider Porter and Teisberg’s *Redefining Health Care* as the primary guideline defining policy strategy.
2. plan services with the understanding that they will be incorporated in a universal health care system.
3. anticipate and plan for networked operational cooperation among all elements of the system—locally, regionally and internationally.
4. collect and incorporate best practices and concepts as they have been advanced by organizations, agencies and planning experts throughout the health care community.
5. accommodate concepts developed for the rest of the mix of players in the system—employers/providers/health plans/suppliers/government.
6. present the information of each component report and presentation in a common format with other components as a set of recommendations that can be used by candidates in the 2008 presidential election.
Goals

As general guidelines the project should:

- Explore a full range of possibilities, paying especial attention to the products of emerging technologies successfully advancing through research and development.
- Include ideas for any processes, tools, systems and products needed for services—including procedures, activities, organizational concepts and any relevant relationships among them.
- Explore revolutionary as well as evolutionary ideas.
- Plan for communication processes by means of which all elements of the system can be made aware of successes and failures.
- Consider potential costs and funding thoughtfully; proposals should not incorporate unnecessary frills, but should not ignore services possibly expensive but having great potential—simply to avoid costs.
- Conceive the properties and features of the concepts as means to build competition on the basis of quality as measured by change in medical condition.
- Consciously reflect the effect of the design approach as a demonstration of the power of design thinking applied to problems in the public domain.

Overall, the solution should:

- Assume that the proposal can be acted upon as it is conceived. Do not underpropose on the assumption that a concept might be politically opposed.
- Demonstrate what might be achieved. The value of the proposal is in its ideas, not its certain attainability. Ideas that might not be fully attainable or feasible today may be achieved tomorrow—if they are known.

Resources

Resources for the project will be:

Physical:

- The facilities of the Institute of Design, including Room 514 as meeting space for the beginning of each class session, and 3rd and 5th floors for team activities.
- Computing support from the fifth floor computer facilities.
- Equipment as necessary from ID resources.

Financial:

- Funding for approved research needs and report generation.

Human:

- Planning Teams

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<tr>
<th>Services for Employers</th>
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<tr>
<td>Fei Gao</td>
<td>Hanna Korel</td>
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<td>Margaret Jung</td>
<td>Amy Paît</td>
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<td>Peter Rivera-Pierola</td>
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<td>Sriram Thodla</td>
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Schedule

The project will be conducted from August 28 to December 7, 2007.

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<td>Project Definition</td>
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- Project Advisors:
  - Charles L. Owen
    - Distinguished Professor Emeritus
  - John Pipino
    - Adjunct Professor
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**Methodology**

The project will be conducted using Structured Planning (See articles on the subject by Charles Owen at [http://www.id.iit.edu](http://www.id.iit.edu) under the *Publications* section of *Our Research*:


**Issues**

Consider the following topics as initial issues to be investigated. Supplement them with additional issues as information is developed during the first phase of the project.

*Technology*. What approach should be taken toward the use of advanced medical and information technologies and emerging technologies in general?

*Adaptivity*. How should elements of the system be prepared to respond to evolving demographic changes and emerging technological capabilities?

*Networking*. What policy should be taken toward partnering with health care institutions in other regions, suppliers of funding, suppliers of technology, goods, etc.?

*Means of Introduction*. How should services be introduced to facilitate acceptance and implementation?
Public/Private Sector Relationships. How should services be positioned with respect to authority/responsibility for implementation and operation?

Concept Communication. How should concepts of quality in medical condition terms and measurement strategies, processes and system concepts be communicated to the public and institutional users?

Cost Assignment. How should the distribution of the expected costs of services be approached?

Disaster Contexts. What provisions should be made for extreme conditions that can be expected with more frequent environmental emergencies (e.g., Katrina)?

Eligibility. What part should eligibility for care play in planning for the provision of services and measurement of their quality?

Health Responsibility. How should services approach the issue of personal vs societal responsibility for fundamental individual health care?
To what extent should the government set or control the pricing of health care services?

The government should limit price discrimination by requiring providers to set prices based on a patient's medical condition or care cycle.

The government should not determine the prices providers set for health care services.

The government must regulate prices for health care services.

In the current system, patients are charged prices based on health plan affiliation. For example, a person undergoing a surgical procedure in the current system is billed separately per item. Instead of one bill, the patient receives separate bills for hospital room stay, surgical procedure performed, anaesthesia, and several independent lab tests. Single, bundled prices should be posted for full cycles of care, including procedures, office visits, drugs, supplies, and the services of all the involved entities. (Porter, 354) Such a system would increase transparency, reduce administrative costs and curtail cost shifting among the players.

Moving to a system where providers charge the same price, or within a reasonable band, to any patient, regardless of the patient’s health group affiliation should be advocated. (Porter, 355) The state of Maryland for example, requires providers to charge the same price for every health plan, Medicare, and the uninsured. Prices vary by provider, not group affiliation. (Porter, 356)

In an ideal system of value based competition, the patient gets the most value for dollar spent, and the insurance plan that provides the best patient value would be the most profitable. However, since the healthcare system is not at that level yet, the government needs to require providers to publish bundled prices in order to achieve this goal of healthcare based on patient value.

Providers are the ones best informed of their practice. The government lacks the knowledge to set prices for health care services. If competition is opened up at the right level, and patients are able to choose providers on a results-based level, then competition would allow that providers set their own, competitive prices. However, during the interim, a different method must be employed.
Defining Statement

Project
Rethinking – Design Thinking – Health Care

Originator
Hanna Korel

Contributors
Amy Palit
Soo Yeon Paik
Alexander Troitzsch

Background and Arguments

There are two major issues regarding information in disaster contexts. The first is information in a pre-disasters context. The second type is real time information flow during and after disasters.

There is a plethora of information on the web regarding disaster management via the websites of organizations such as Centers for Disease Control and Prevention (CDC) and the Federal Emergency Management Agency (FEMA). The CDC gives information regarding how to care for minor wounds and FEMA, as the name would suggest, provides information on different types of disasters and what to do before, during and after them. However, none of this information is transparent from one source to the other. The government must better organize this information structure.

Information flow during and after disasters takes place on three levels. It goes between the federal government (generally FEMA), the state government, and the local government. This flow goes both ways. During and after disasters, such as Hurricane Katrina, the flow of this information is vital in sending aid and saving lives. Information is needed to ensure the coordination of medical provision and supplies (food, water) for disaster victims.
**Defining Statement**

**Project**
Rethinking – Design Thinking – Health Care

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**Source/s**


**Question at Issue**
To what extent should the government make available information about medical technologies, research, treatments, ratings and drugs?

**Position**

- **Constraint**
- **Objective**
- **Directive**
The government must publish standardized information regarding new medical technologies, research, treatments, provider ratings, and drugs widely available and easily accessible.

**Alternative Positions**

- **Constraint**
- **Objective**
- **Directive**
The government should only publish medical information as it relates to government-sponsored research in technology, drugs, treatments, and provider ratings.

- **Constraint**
- **Objective**
- **Directive**
The government should let private drug companies and providers publish their own ratings.

**Background and Arguments**

In order for there to be value-based competition, information must be available and accessible to all consumers. Important information includes that relating to: provider ratings, new medical technologies, medical research, new treatments, and new drugs. Consumers can use this data to make purchasing decisions, and it will also ensure that markets are operating competitively. (Musser, 37)

“Both providers and consumers of health care would get the information they need to make decisions about care...This information would be specific to particular diseases or medical conditions, not aggregated across different areas of medical practice. A productive system would also collect or disseminate pricing information, enabling comparisons for specific treatments or procedures.” (Porter, 74)

Currently, there are a few government-sponsored websites that provide information regarding health care, including medlineplus.gov and nih.gov (National Institutes of Health) but they are focused more on educating the consumer about general health topics (diseases, prescription drugs, medical encyclopedia, current research and clinical trials). MedlinePlus provides a directory to find a doctor/physician/specialist/surgeon, but does not provide ratings about them.

If the government were to only publish information in government-sponsored research in technology, treatments, drugs, and provider ratings, this would skew the competition. Consumers would not be able to make an informed choice because they would only have a part of the information out there available to them. A similar case can be made for letting private companies and providers publish their own ratings. Companies may try to inflate their ratings so they seem better than the competition. A neutral source is needed to publish all rating, and to act as the “Consumer Reports” of health care. It is imperative for the government to fulfill this role in order to enable value-based competition, and to educate consumers about their choices in health care. According to Porter, “The goal of public policy should be to enable value-based competition on results at the medical condition level. [The government’s] single most important role lies in the area of ensuring that results information is universally available.” (Porter, 341)
**Defining Statement**

**Project**  
Rethinking – Design Thinking – Health Care

**Originator**  
Hanna Korel

**Contributors**  
Amy Palit  
Soo Yeon Paik  
Alexander Troitzsch

**Source/s**  

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**Issue Topic:** Eligibility

**Question at Issue**  
To what extent should illegal immigrants be eligible for primary health care and health insurance?

**Position**  
- **Objective**  
  Illegal immigrants should be eligible for all types of health care as needed and they should bear the responsibility of paying for it.

**Alternative Positions**  
- **Objective**  
  Illegal immigrants should only be eligible for emergency care and the government should be responsible in paying for it, or most of it.

- **Objective**  
  Illegal immigrants ought to eligible for all types of care and the government ought to pay for it.

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**Background and Arguments**

Hospitals are not allowed to deny emergency care to anyone who needs it. However, it would be wise to also offer primary and secondary care to those individuals that need it as it is in the interest of the collective that a part of the collective be as healthy as possible.

Currently, there are between 10 and 20 million illegal immigrants living and working in the United States. (BW) This also means they are spending money in the United States and companies are finding ways to capitalize on this. The matricula consular is an identification card given out by the Mexican consulate. Blue Cross of California, whose parent, WellPoint Inc., is the nation’s largest health insurer, sells health insurance to matricula holders from company-staffed desks set up inside Mexican and Guatemalan consular offices in the U.S. Blue Cross of California and a sister unit, Blue Cross & Blue Shield of Georgia, say they’re helping to mitigate the health insurance crisis by accepting the Mexican matrícula as a valid I.D. (BW) Although it might be against the law for illegal immigrants to be in the U.S., there is nothing illegal about selling to them. A market of 10 to 20 million people can bring in enormous revenues. Michael Chee, a spokesman for Blue Cross of California states, “If we get them to pay, then they are helping alleviate the problem. It’s a health-care issue, not an immigration issue.” (BW)

In 2005, the Bush administration announced that the government would start paying hospitals and doctors for providing emergency care to illegal immigrants. (NY-Times) Prior to this, the hospitals themselves were responsible for paying for care. The California Hospital Association is happy with this decision as it thinks that “the federal government is finally acknowledging that it has a responsibility to pay for health care provided to illegal immigrants.” (NY-Times) However, this system still advocates cost-shifting, which is exactly what Porter et al. want to get away from. If illegal immigrants are allowed to buy health insurance, then they should, and therefore bear the responsibility of paying for the health care they receive.
Defining Statement

Project
Rethinking – Design Thinking – Health Care

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Soo Yeon Paik

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12 Sept, 2007
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Issue Topic: Medical Records

Question at Issue
To what extent should the government enable new technologies that support access to medical records?

Position
- Constraint
- Objective
- Directive
The government should allow IT systems, enable individuals to store and access medical records but must also ensure the safety of personal data by priority standards.

Alternative Positions
- Constraint
- Objective
- Directive
The government should have a limited role in the development of new technologies.

More Alternative Positions
- Constraint
- Objective
- Directive
The government should not control development but only control personal data’s securities.

Case Study: Google Health

Source/s
Harris Poll, Sep 2007

Background and Arguments

Even though there were legislations about such as HIPAA(Health Insurance Portability and Accountability Act) of 1996, until now, each individual could not reach own medical records at one’s convenience. The reality, scattered medical records in many hospitals and doctors, private insurance companies do not want to inform their customers' information, makes this situation. Moreover, there are not existed the technologies help transparency of individual's access to medical records.

Nowadays, Google and Microsoft have prepared the managing service of medical information. ‘Google Health’ is the managing service for medical records. With this service, each individual can fill out, delete, and refine directly. The categories of this service are divided conditions and symptom, medications, allergies, Immunizations, etc. ‘Google Health’ makes one’s positions clear ‘Health information should be easier to access and organize, especially in ways that make it as simple as possible to find the information that is most relevant to a specific patient’s needs.’ MS is going to lunch the managing personal medical record system in this fall. With MS’s managing medical records system, customers can approach own medical records with all kinds of digital appliance such as computer, cell phone. (New York Times)

According to one of the poll published by Harris in september, 2007, 52% of U.S’s adult population use the internet for searching health and medical information. This number is twice of the number in 2001.

For fostering patients centered health care system, these technologies can provide a great convenience to customers but the government must interfere to activate and limit for safety of personal information. (Redefining Health Care) Of course, the technologies helps customers usability of medical records but it can threaten safety of personal information. At this point, the government must set to regulate the extend of accessing medical records. Moreover the government must foster to develop technologies to protect personal information. And the government must be a mediator between hospitals and private insurance companies.
Defining Statement

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Rethinking – Design Thinking – Health Care

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Hanna Korel
Amy Palit
Alexander Troitzsch

21 Sept, 2007

Source/s
Wikipedia

Question at Issue
To what extent should the government be involved with health insurance policies?

Position
☐ Constraint
☒ Objective
☐ Directive

The government should be involved with health insurance policies as mediator to the extent for fostering value based competition.

Alternative Positions
☒ Constraint
☒ Objective
☐ Directive

The government must present the strong legislation to health insurance industry for universal coverage.

☐ Constraint
☐ Objective
☐ Directive

The government must not do any interference to the health insurance market for free competition.

Background and Arguments

According to Porter, health coverage must be mandatory, like car insurance, with subsidies for those with low incomes. Otherwise, risk is not shared and the health can get out and not pay their fair share into the system to cover their cost if they become sick later. In a system of mandatory insurance, people who cannot afford to pay the full cost of their coverage should contribute what they can, with subsidies to close the gap. (327-328)

Health coverage must also be universal. This is necessary for an efficient and high value system, not just for reasons of fairness and compassion. The United States already has a form of universal health coverage, because emergency care and hospital care are required to be provided to anyone who presents for care. However, this is the most expensive and the worst kind of universal coverage. People without health plans tend to present for care at later stages, making care less effective and more expensive.

Ultimately, however, universal coverage will not solve health care crisis if the current dysfunctional competition continues. The system must be restructured to improve value. Otherwise, increasing amounts of rationing and administrative control of health care are unavoidable. Radical improvements in value will enable better outcomes and more care for more people.

Porter said that value based competition is the only way to solve U.S’s health care problem. However, if there is no mediator, Porter’s ideal structure could not set up. Therefore, the government should be involved with health insurance policies to the extent for fostering value based competition.
Defining Statement

Project
Rethinking – Design Thinking – Health Care

Originator
Soo Yeon Paik

Contributors
14 Sept, 2007
Hanna Korel
Amy Palit
Alexander Troitzsch

Source/s
www.cms.hhs.gov

Question at Issue
To what extent should the government redesign Medicare policy and practice and align Medicaid with Medicare?

Position
The government must make Medicaid and Medicare a health plan, not a payer or a regulator.

Alternative Positions
Medicare should not report to report outcome data since provider’s responsibility.
Medicaid beneficiaries should only be able to remain in Medicaid not pay premiums.

Background and Arguments
According to Porter, Medicare policies and practices have a significant influence on the behavior of other actors in the health care system because Medicare is the health plan for 42 million Americans (14%) and accounts for about 17% of total health care spending. Providers are reluctant to meet one set of requirements for Medicare and another for other health plans. Because Medicaid is considered not as a health care program but a social welfare program, it caused a lack of focus on the value delivered.

Making Medicare a health plan would be easier to achieve if its regulatory roles were assigned elsewhere. Government should require outcome data reporting from all providers, freeing Medicare from the need to tie reimbursement to the reporting of data. Medicare should focus solely on improving health results for subscribers. Ideally, Medicare would operate less as an entity unto itself and more and more under rules that govern the entire system.

Until now, Medicaid covers over 40 million people, but states differ in interpreting and implementing the program. As mentioned before about Medicare, the Medicaid program must move toward a value-based health plan. Even though there is a separate Medicaid program in each of the fifty states, there are general principles of value-based competition that apply to every state. At minimum, individuals should be able to remain in Medicaid but pay premiums.

According to Porter, Medicaid programs must also embody results information. In North Carolina’s Community Care Plan’s Case, we can see steps toward true results measurement and value-based referrals through taking steps to encourage clinical best practices, and tracking information to learn which practices improve quality and reduce cost.
To what extent should the government be responsible in a timely way to the introduction of new drugs?

The government should regulate the introduction of new drugs in a timely way but it should follow to patients' condition and value-based competition.

The government must not involve drugs market and just foster free market.

The government's role in regulating the introduction of new drugs must be considered the first than others.

Distributing drugs at right time is one of the most susceptible issue to government. According to Porter, product development programs and sales efforts should aim at identifying and reaching the patients for whom a product is most beneficial. They should also identify patient groups who gain should be for treatments to succeed in the highest possible percentage of cases. This approach creates far more value, and justifies higher prices, than therapies that deliver poor results for many patients and impose wasted cost and effort on the system (292).

Getting products to the right patients, and supporting patient successes, will require a new role for supplier sales forces. Rather than the traditional reach and frequency approach, the new model should involve fewer, more substantive physician relationships for each sales representative, whose job would be to add more value to each physician's practice (292).

For aiding to developing new approaches, the government should be interfered this market.
Results information is important for a health care system based on transparency and providing patient value through value-based competition. The government has a vital role in enabling universal results information to ensure that high-quality information on provider outcomes and prices is collected and disseminated to patients (Porter, 343). Without government involvement, most providers will not disclose information and those that do could mislead patients by choosing to only disclose positive results.

Although a number of initiatives have been under way, the government needs to set standards for results and require providers to disclose results accurately and timely (Porter 344).
Defining Statement

Project
Rethinking – Design Thinking – Health Care

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Source/s

Issue Topic: Employer supervision of insurance

Question at Issue
To what extent should the government be involved with supervising employer/employee responsibility regarding health insurance?

Position
The government should place disincentives on employers that do not provide employees health benefits.

Alternative Positions
The government must require employers to bear partial responsibility for all employees health insurance benefits.

The government has no role in regulating health insurance benefits offered by employers and should not interfere.

Background and Arguments

One of the main factors hindering the goal of universal health coverage stems from uneven employer contributions to employee health plans (Porter, 335). When large employers negotiate with health insurance companies for group discounts, the cost burden is shifted to small companies, the self-employed, and the uninsured who must pay the higher list price for the same health services (Porter, 305). Ultimately, all individuals should receive healthcare directly from health plans and receive the same tax incentives that are offered through employers (Porter, 307).

First, a number of problems with healthcare value need to be fixed before this type of system can flourish. Protections such as subsidies for low income citizens, mandatory coverage, and creation of risk pools for vulnerable citizens need to be put in place before beginning a new system where all individuals have access to lower healthcare premiums, regardless of income and employment status.

Additionally, at the moment employers still approach purchasing health care for their employees by focusing on short-term cost savings instead of providing employees with the best health value for their money. The missed opportunity is in greater income, morale, and employee loyalty, as well as reduced stress for employees. Employer attitudes towards healthcare will not change for quite sometime.

In the meantime, to encourage more companies to provide health benefits, those that do not provide benefits should be required to pay higher Medicare and Medicaid tax rates.
Defining Statement

Project
Rethinking – Design Thinking – Health Care

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Background and Arguments

Although a government-run system allows for universal coverage in other developed nations like in Great Britain, these systems are coming across problems with quality, costs, and rationing of care (Porter). In other nations like Germany, the government relies on working people to pay for the health care of everyone through mandatory deductions for its social security system (Troitzch). This system is also having problems trying to support an aging population as the population pyramid reverses.

Providing health insurance only to the poor and to the elderly doesn’t solve the entire problem. Millions of other Americans are still left without healthcare, especially those that could pay for insurance if affordable plans were available. Providing only acute, emergency care to Americans puts costlier burdens on the healthcare system; if individuals had access to primary care, the amount of costlier emergency care would decrease.

Universal coverage in America is still a mandatory goal. The government should enact mandatory health insurance coverage and provide subsidies or vouchers for low-income Americans. Requiring all Americans to have health insurance will dramatically reduce premiums and make insurance affordable. Massachusetts’ proposed plan for mandatory coverage would reduce the basic health plan for $140 per month instead the current price of $500 per month (Porter).
Defining Statement

Project
Rethinking – Design Thinking – Health Care

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Source/s

Question at Issue
To what extent should the government encourage a comprehensive approach to health care delivery?

Position
- Constraint
- Objective
- Directive
The government must establish regulatory modifications to enable the adoption of full care-cycle strategies in health care delivery.

Alternative Positions
- Constraint
- Objective
- Directive
The government must run and control the health care system to establish a basis for a comprehensive approach in health care delivery.

- Constraint
- Objective
- Directive
The government should not take an active role in influencing health care delivery.

Background and Arguments

According to Porter and Teisberg in "Redefining Healthcare" the major problem in the US health care system is the fact that competition "has taken place at the wrong levels, and on the wrong things (p.4)." Competition does not take place at the medical condition level of a patient, nor over the full cycle of care. An overall care-cycle perspective means all steps "from monitoring and prevention to treatment to ongoing disease management (p.5)." Today competition in the US health care system takes place on discrete interventions and broad service lines (p.5). Physicians concentrate on the treatment of acutely occurring symptoms and health care providers offer every possible service to any patient. According to the authors "nobody takes an overall care perspective (p.5)" which is the basis for a value-based competition on results (p.97).

This defining statement questions to what extent the government should take an active role in encouraging the adoption of full care-cycle strategies with the aim to establish value based competition in the health care sector. Porter and Teisberg argue that a health care system exclusively run by the government would be an inappropriate solution because it "can allow universal coverage and tight cost control, but will eliminate competition (...). Government-run health systems in other parts of the world are encountering increasing problems with quality, costs and rationing (p.324)." On the other hand the government can not be inactive and shift the responsibility for solving this problem on the other players in the health care system, due to the fact that massive changes need to be done to restructure the health care system.

Based upon those arguments we recommend that the government must establish regulatory modifications to encourage players in the health care sector to adopt full care-cycle strategies. According to the authors central policy goals must be "improving health insurance and access (p.329 et sq.)", "setting standards for coverage (p.338 et sq.)" and "improving the structure of health care delivery (p.341 et sq.)".

Version 3 Date: December 9, 2007 Date of first version: September 5, 2007
Defining Statement

Project
Rethinking – Design Thinking – Health Care

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Unproductive Insurance Practices

Issue Topic:

Question at Issue
To what extent should the government eliminate unproductive insurance rules and billing practices?

Position
Unproductive insurance rules and billing practices should be eliminated to encourage competition on value.

Alternative Positions
The government should not regulate health plan practices. Instead it should set incentives that motivate health plans to eliminate unproductive rules and billing practices themselves.

The government should only support consumer information platforms regarding health plans with the view to let people put pressure on health plans by choosing the best offer.

Background and Arguments

Health insurance is defined as a type of insurance whereby the insurer pays the medical costs of the insured if the insured becomes sick due to covered causes, or due to accidents (see Wikipedia). In practice health plans often drop coverage of patients who develop expensive medical conditions by re-underwriting. Normally, companies that sell health insurance to individuals evaluate their medical history just once, at the outset, but some review customers’ health at each annual renewal. If for example the insured have developed a chronic disease, the insurers would raise their premiums. Those practices distract health plans from delivering value and assisting patients in obtaining excellent health care. Porter mentions that re-underwriting should be banned by the government (p. 337).

Today health plans are not assuming full legal responsibility for the medical bills of their subscribers. The responsibility for medical bills rests with the subscribers which encourages health plans to shift costs to patients. Giving plans legal responsibility would motivate them to simplify bills and administrative processes, which is one reason for cost shifting. Also much of the delays over billing could be eliminated (p.338).

Balance billing is a practice in which providers charge patients the difference between what the health plan reimburses and the provider chooses the charge. This practice allows health plans to pass on costs to patients. The government or health plans should take aggressive steps to enforce rules against balance-billing to help patients secure good value in Porters opinion (p.338).

We strongly agree with Porter. Health plans must be responsible for the risks they underwrite and insure. It is irreproducible and unfair to change agreements in health insurance contracts for the benefit of the insurer when a person gets seriously sick. The insurers must assume risks – that is what they are paid for. A health care consumer platform with the aim to inform customers about those practices in detail would not be an sufficient solution. Health plans could take over the platform or take legal actions against it. The insured should be better protected by the government. Furthermore, eliminating unproductive insurance rules and practices would establish a trustfully relationship between health plans and subscribers.
**Defining Statement**

**Issue Topic:** Cost regulation of drug purchase

<table>
<thead>
<tr>
<th>Project</th>
<th>Rethinking – Design Thinking – Health Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Originator</strong></td>
<td>Alexander Troitzsch</td>
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<tr>
<td><strong>Contributors</strong></td>
<td>15 Sept, 2007 Hanna Korel, Amy Palit, Soo Yeon Paik</td>
</tr>
</tbody>
</table>

**Question at Issue**

To what extend should the government control the costs of drug purchase?

**Position**

- **Objective**
  - The government must not control the costs of drugs, but subsidize drug purchase on a need based level.

**Alternative Positions**

- **Objective**
  - The government should regulate the prices of drugs by setting ceiling prices.
- **Objective**
  - The government should not subsidize drugs for individuals or families to avoid higher insurance premiums.

**Background and Arguments**

Medicines are a commodity for which the end-user (the paying patient) does not decide what to buy and at what cost. The doctor prescribes and the patient pays. Unlike with other commodities, the buyer of medicine is extremely vulnerable as he is seeking immediate relief from suffering. Due to this special nature of drugs all issues related to drugs, including prices, are subject to some kind of regulation by the government.

An implementation of obligatory ceiling prices for drugs with the aim to influence the market equilibrium would be an inappropriate solution. This measure would cause excess demands with the consumers and less quality products on the markets due to a decrease of revenues followed by a decrease of innovation activity within the pharmaceutical industry.

According to Porter "a better approach to control drug costs is to create more competition among providers and drug companies (p.101)". Instead of price regulations the government must introduce a mandatory health coverage for all individuals in the long term as a basis to redefine the health care system. In his opinion subsidies on drugs for poor individuals and families are essential especially during and after the transition phase to a new health care system. Subsidies "should be based on a sliding scale where individuals pay what they can, rather than an all or nothing model (p.332)". He also mentions that "focussing on value over the care cycle would shift this debate from one about controlling spending to one about the most effective use of drugs (p.101)".

Our team agrees that the government should avoid controlling drug costs and subsidize drugs on a need based level.
**Defining Outcome Measures**

**To what extent should the government establish a process for defining outcome measures?**

**Position**

- **Objective**
  - The Government should establish and oversee a process of defining and ratifying a minimum set of outcome measures.

- **Directive**

**Alternative Positions**

- **Objective**
  - The government must develop measures and take on the collection and dissemination of medical data to measure process improvement.

- **Directive**
  - The government should not take a forceful role in establishing a process for defining outcome measures.

**Background and Arguments**

According to Porter the most fundamental role of government in enabling value-based competition is to ensure that universal information on provider outcomes and prices for every medical condition is collected and released to the public (p. 343). The government needs to ensure that these activities take place at a high level of quality and integrity and should establish and oversee a process of defining and ratifying a minimum set of outcome measures for each medical condition (p. 346).

Also, the government should set milestones and fixed deadlines for the development of outcome measures. If the responsible parties for the definition process (medical societies, independent organizations, providers) cannot meet the deadlines the government should take an active role in defining the measures itself, by creating a expert panel (p. 347). All providers should be required to report experience data on an annual basis (p. 351).

The process of defining outcome measures should be open and subject to public and professional comment (p. 347). The government should not develop the measures or take on collection and dissemination of data. Also, the government should not set prices based on this information, or try to mandate pay per performance.
Establishing

01. Establish and support provider specific communication channels
02. Create an IT System for providers
03. Define IT System protocols and guidelines for providers
04. Generate medical standards information for scorecards for providers
05. Establish a common set of measures from providers to report on
06. Define a set of measures for provider reporting on diseases, public health, long term care, and children’s care
07. Define provider guidelines for preventive health and wellness
08. Define provider protocol for emergency situations
09. Collect information on the level of provider expertise
10. Collect information on the range of provider services
11. Collect provider results information on outcomes
12. Collect service ratings information from providers
13. Collect patient attribute information from providers
14. Collect provider information on costs
15. Collect information on provider prices
16. Collect real-time information during emergency situations from providers
17. Evaluate new provider treatment information
18. Evaluate new drug information for providers
19. Evaluate Medicare/Medicaid satisfaction
20. Evaluate providers across geographies
21. Evaluate overall wellness of the country
22. Communicate to providers information on new medical technologies
23. Communicate to providers information on new drugs
24. Communicate to providers standards, measures and guidelines set
25. Publish information regarding providers through various channels
26. Publish provider ratings information
27. Publish information on new provider practices, trends, and patterns

Providers

Collecting

Evaluating

Communicating
Government Information System

Suppliers

Collecting

28. Collect research findings from suppliers
29. Collect new product information from suppliers
30. Collect product distribution information from suppliers
31. Collect product usage information from suppliers
32. Collect drug efficacy information from suppliers
33. Collect drug results of clinical trial from suppliers
34. Collect drug price information from suppliers
35. Collect information on which technologies to fund from suppliers
36. Collect R&D proposals from suppliers
37. Collect R&D findings from suppliers
38. Collect information on results of lab studies from suppliers
39. Collect provider product usage, statistics, and evaluations from suppliers

Assembling

40. Assemble information strategy on supplier results information
41. Assemble medical standard information for suppliers
42. Assemble standards for publishing collected data from suppliers
43. Establish and support health care communication channels for suppliers

Evaluating

44. Evaluate compiled medicate data for suppliers
45. Evaluate results conducting regulations to suppliers
46. Evaluate what to supplier developments to fund
47. Communicate government policies to suppliers: manufacturing standards
48. Communicate government policies to suppliers: product standards
49. Communicate government policies to suppliers: process standards
50. Communicate government policies to suppliers: FDA stuff
51. Communicate health care IT standards to suppliers: HIPAA, HL7, ONCHIT, EHR
52. Communicate international trade and IP laws to suppliers: WEEF, 90-day supply from canada, WHO regulations, WTO regulations
Rethinking - Design Thinking - Health Care
The Government Role: Function Structure

December 14, 2007

Employers

Collecting
53. Collect blinded data on employees without insurance from employers
54. Collect employee demographic information from employers
55. Collect information on employee productivity from employers
56. Collect information on employee satisfaction with health plan from employers
57. Collect administrative cost information on employer health plans from employers
58. Collect cost of foregone health benefits of employers that do not provide health insurance from employers

Assembling
59. Create an information strategy on employer results information
60. Assemble medical standards information for employers
61. Create a national benchmark for employee health

Evaluating
62. Verify quality of employer data and assembled data
63. Evaluate the impacts of new strategies on employees
64. Evaluate employee productivity based on health coverage

Communicating
65. Communicate employee demographics from census information
66. Communicate results data from health plans for employees
67. Publish info on provider performance at the medical condition level
68. Publish external employer benchmarks of results measures
69. Communicate information on employers nationwide
70. Publish company profile snapshots
71. Publish success stories of employers (as guidelines)
Rethinking - Design Thinking - Health Care
The Government Role: Function Structure

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Health Plans

Collecting
72. Collect Medicare and Medicaid information from health plans
73. Collect service offerings information from health plans
74. Collect member information from health plans
75. Collect financial information from health plans
76. Collect performance information from health plans
77. Collect relevant key figures from health plans
78. Collect information on the full cycle of care of a medical condition from health plans
79. Collect case studies on developments and trends in the health care sector from health plans
80. Collect feedback, suggestions and concepts from health plans

Assembling
81. Create information exchange standards for health plans
82. Create portal for data exchange with health plans
83. Create standards for health plans
84. Create strategic suggestions and future scenarios for health plans
85. Create comparable health plan profiles
86. Create disease prevalence reports
87. Produce specific media for health plans
88. Plan communication campaigns with regard to health plans
89. Evaluate quality of data received from health plans
90. Evaluate quality of data assembled out of data received by health plans
91. Evaluate communication activities with health plans
92. Evaluate impacts and efficacy of regulatory modifications

Evaluating
93. Communicate regulatory issues to health plans
94. Communicate scenarios and strategies on how to redefine health care to health plans
95. Communicate health plan specific instructions, standards and values regarding the new information system
96. Communicate standards for minimum coverage to health plans
97. Communicate standards for health plan score cards
98. Communicate disease prevalence to health plans
99. Publish comparable health plan profiles
100. Publish Medicare/Medicaid status reports
101. Publish Census information

Communicating
### Activity Analysis

**Activity:** Collecting Information from Health Plans

**Project**
- Rethinking – Design Thinking – Health Care

**Mode**
- Health Plans

**Originator**
- Alexander Troitzsch

**Contributors**
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- Soo Yeon Paik

### Users (Players)

- Contact persons at health plans
- Contact persons at government
- Health data collectors
- IT-System administrators

### System Components (Props)

- Computer equipment
- IT system
- Database
- Relevant data

### Environmental Components (Set)

- Office building, office
- Network
- Internet
- Computer room
- Security

### System Functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F76.</td>
<td>Collect Medicare and Medicaid information (related to DF02, DF06, DF07)</td>
</tr>
<tr>
<td>F77.</td>
<td>Collect service offerings information (related to DF05)</td>
</tr>
<tr>
<td>F78.</td>
<td>Collect member information (related to DF02, DF04, DF05, DF06, DF07, DF13)</td>
</tr>
<tr>
<td>F79.</td>
<td>Collect financial information (related to DF05, DF12, DF13)</td>
</tr>
<tr>
<td>F80.</td>
<td>Collect performance information (related to DF02)</td>
</tr>
<tr>
<td>F81.</td>
<td>Collect relevant key figures (related to DF06, DF12)</td>
</tr>
<tr>
<td>F82.</td>
<td>Collect information on the full cycle of care of a medical condition (related to DF02, DF05, DF06, DF12)</td>
</tr>
<tr>
<td>F83.</td>
<td>Collect case studies on developments and trends in the health care sector (related to DF12)</td>
</tr>
<tr>
<td>F84.</td>
<td>Collect feedback, suggestions and concepts (related to DF02, DF07, DF11, DF12)</td>
</tr>
</tbody>
</table>

### Associated Design Factors

<table>
<thead>
<tr>
<th>Design Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF 02.</td>
<td>Complete data on full cycle of care is not available from one health plan (related to F76, F78, F80, F82, F84)</td>
</tr>
<tr>
<td>DF 04.</td>
<td>Data security and privacy protection issues (related to F78)</td>
</tr>
<tr>
<td>DF 05.</td>
<td>Incompatible file formats (related to F77, F78, F79, F82)</td>
</tr>
<tr>
<td>DF 06.</td>
<td>Missing Standards for collection (related to F76, F78, F81, F82)</td>
</tr>
<tr>
<td>DF 07.</td>
<td>Too complex information (related to F76, F78, F82, F84)</td>
</tr>
<tr>
<td>DF 11.</td>
<td>Lack of skilled labor (related to F84)</td>
</tr>
<tr>
<td>DF 12.</td>
<td>Identifying and defining relevant data (related to F79, F81, F82, F83, F84)</td>
</tr>
<tr>
<td>DF 13.</td>
<td>Unequal participation among players (related to F78, F79)</td>
</tr>
</tbody>
</table>

**Version** 3  **Date:** 12/15/07  **Date of first version:** 09/23/07
### Activity Analysis

**Activity:** Assembling

**Project**
Rethinking – Design Thinking – Health Care

**Mode**
Health Plans

**Originator**
Alexander Troitzsch

**Contributors**
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### Users (Players)

- Health care experts
- Health data analysts
- IT specialists
- Process designers
- Media producers
- IT-System administrators
- Consultants

### System Components (Props)

- Computer equipment
- Data evaluation software
- Statistics software
- Media production software
- Health information database
- Whiteboards

### Environmental Components (Set)

- Office building, office
- Network
- Internet
- Computer room
- Conference rooms

### System Functions

- **F81.** Create information exchange standards for health plans (related to DF05)
- **F82.** Create portal for data exchange with health plans (related to DF07)
- **F83.** Create standards for health plans (related to DF10, DF12)
- **F84.** Create strategic suggestions and future scenarios for health plans (related to DF12)
- **F85.** Create comparable health plan profiles (related to DF08)
- **F86.** Create disease prevalence reports (related to DF12)
- **F91.** Create specific media for health plans (related to DF11)
- **F92.** Plan communication campaigns (related to DF08)

### Associated Design Factors

- **DF 05.** Incompatible file formats (related to F81)
- **DF 07.** Too complex information (related to F82)
- **DF 08.** Public lacking knowledge on health issues (related to F85, F92)
- **DF 10.** Unfair health plan practices (related to F83)
- **DF 11.** Lack of skilled labor (related to F87, F90, F91)
- **DF12.** Identifying and defining relevant data (related to F83, F84, F86)

### User Functions

### Associated Design Factors

**Date of first version:** 10/13/07

**Date:** 12/13/07

**Version:** 2
**Observation (Insight)**

Governmental health care information services are difficult to access in the virtual and in the real world.

**Extension (Insight)**

Governmental web sites on health care are difficult to find. Most of the time they do not appear in the top of the google search results. Furthermore, the appropriate information is not easy to find on governmental web sites. The web sites are most of the time text heavy and contain complex information, that is difficult to understand.

In the real world there is a lack of governmental health care information services that educate people who have no access to the internet, what makes it difficult to build awareness in terms of health, healthy living and for example issues like health insurance among those people.

**Design Strategies (Ideas)**

- Create an easy to use health care information portal that links to all of the other health care information services the government in providing.
- Educate people about health care issues in the real world.
- Communicate the new services via ads in the media (TV, radio, print) and billboards, flyers in the real world.

**Solution Elements (Ideas)**

- **E** Search engine optimization
- **M** Highly accessible health care information system
- **M** Health education in public places
- **E** Communication Campaign

**Contributors**

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**Source/s**


**Design Factor**

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Communicating

**Originator**
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**Source/s**
http://www.health.gov
http://www.hhs.gov/
http://www.healthfinder.gov/
http://www.fda.gov/
http://www.medicare.gov/

**Associated Functions**

**Observation (Insight)**

Governmental health care web sites don't have a consistent face to the users.

**Extension (Insight)**

The US Department of Health & Human Services is the principal agency for protecting the health of all Americans and providing essential health services, especially for those who are least able to help themselves. The Department includes more than 300 programs, covering a wide spectrum of activities. These services should enable the public to gather current and easy to understand information about health care issues. But unfortunately these health care information sources don't have a consistent face to the consumers, which makes it difficult for them to recognize a government health care source. Governmental web sites need to change and become sources of consistent health information that Americans trust and frequently visit. Otherwise, what's the point in establishing infrastructure and tools for health information exchange if consumers don't use it?

**Design Strategies (Ideas)**

- Create consistency in design and information architecture among all governmental web sites.

**Solution Elements (Ideas)**

- **E** New brand strategy
- **E** Style guide
- **E** Information architecture standards
- **M** Organization that manages the transition

**Version** 2  **Date:** 12/11/07  **Date of first version:** 10/08/07
**Design Factor**

**Title:** Inferior quality of information

---

**Project**

Rethinking - Design Thinking - Health Care

**Activity**

Evaluating

**Originator**

Alexander Troitzsch

**Contributors**

Hanna Korel
Amy Palit
Soo Yeon Paik

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**Observation (Insight)**

Many health care websites provide information of limited quality and poor information value.

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**Extension (Insight)**

More health care websites than expected provide poor content quality. Some of those websites provide data that is too old or not complete, other medical websites are not considering inconvenient issues like “complications” and others show significant inconsistencies in their contents. Information in the internet can not replace a conversation with an experienced physician.

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**Design Strategies (Ideas)**

- Involve experts to evaluate quality of medical websites
- Create quality evaluation mechanisms

**Solution Elements (Ideas)**

- **Status:** E Existing  M Modified  S Speculative
  - E Expert panels
  - M Quality seal
  - E User ratings
  - S Health Information Navigator

---

**Version 2**

**Date:** 10/12/07

**Date of first version:** 10/11/07

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**Source/s**

http://archsurg.ama-assn.org/cgi/content/short/142/9/863
**Design Factor**

**Title:** Data security and privacy protection issues

---

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Collecting

**Originator**
Alexander Troitzsch

**Contributors**
Hanna Korel
Amy Palit
Soo Yeon Paik

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**Observation (Insight)**

Data security and privacy protection issues need to be considered and communicated in a transparent way by the government.

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**Extension (Insight)**

The challenge in data privacy is to share data while protecting personally identifiable information. Data privacy is not highly legislated or regulated in the U.S.. Access to private data is culturally acceptable, such as credit reports. The culture of free speech in the U.S. may be a reason for the reluctance to trust the government to protect personal information. However, there are some partial regulations existing, for instance HIPAA. In today's world, the old security system of paper records in locked filing cabinets is not enough anymore. With information broadly held and transmitted electronically, the HIPAA Rule provides standards for the protection of personal health information, like medical records. HIPAA establishes appropriate safeguards that health plans must achieve to protect the privacy of health information and it holds violators accountable, with civil and criminal penalties that can be imposed if they violate patients' privacy rights. But HIPAA also strikes a balance when public responsibility supports disclosure of some forms of data – for example, to protect public health. Before HIPPA was enacted personal health information could be distributed – without either notice or authorization – for reasons that had nothing to do with a patient's medical treatment. For example, patient information held by a health plan could, without the patient’s permission, be passed on to an employer who could use it in personnel decisions. We strongly believe that a governmental health information system must follow these rules and communicate that approach clearly and actively to the public. The ideas of data security and transparency will create positive associations - like trust - among the users, what will encourage participation and increase the usage of the system, both important criteria for success.

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**Design Strategies (Ideas)**

- Create data security mechanisms
- Create channels that enable to gather information and report failures
- Create a forum where the public can share experiences regarding privacy issues

**Solution Elements (Ideas)**

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<tr>
<td>E</td>
<td>Privacy protection FAQ and/or hot line</td>
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<tr>
<td>S</td>
<td>Health data advisors</td>
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<tr>
<td>E</td>
<td>Health care website</td>
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**Version** 2  
**Date:** 12/11/07  
**Date of first version:** 10/11/07
## Design Factor

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<td>Contributors</td>
<td>Hanna Korel, Amy Palit, Soo Yeon Paik</td>
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### Observation (Insight)

Incompatible file formats can slow down or cut off communication.

### Extension (Insight)

In today's world it is necessary to communicate digitally. During that kind of communication many different file formats will be sent around. Unfortunately those files are not always readable by the receivers. Many versions of Word, for example, are completely incompatible with other versions of Word and most versions of other word-processing software. Therefore sending information as an MS Word DOC file is not a good idea. The most useful output format is “Text Only” in MS Word and “Generic Word Processor Text” in WordPerfect. Another example are e-mails. E-mails are not always secure and when e-mails are a main information exchange channel Spam can spoil the communication. To avoid this the government needs to think about alternative, standardizes ways of communication.

### Design Strategies (Ideas)

- Set standards for information exchange
- Create a secure and fast information exchange solution

### Solution Elements (Ideas)

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<td>Pre-designed web forms</td>
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**Version 2** Date: 12/12/07  
Date of first version: 10/16/07
**Design Factor**

**Title:** Language Issues

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Communicating

**Originator**
Alexander Troitzsch

**Contributors**
Hanna Korel
Amy Palit
Soo Yeon Paik

**Observation (Insight)**

English is not the only language spoken in the USA.

**Extension (Insight)**

The government needs to consider language issues when it thinks about educating the public about health care. Spanish is the second most common language and the most widely taught foreign language in the United States. Spanish is spoken by over 10% of the American population at home. Furthermore, 5% of the American population are Asian what could be an indicator for language issues as well.

**Design Strategies (Ideas)**

- Employ employees that speak more than one language
- Create health care information services in other languages than English to increase the reach of the communication activities
- Web sites should be multilingual

**Solution Elements (Ideas)**

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<td>Ads (e.g. TV) in languages like Spanish or Chinese</td>
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<td>E</td>
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**Source/s**
http://en.wikipedia.org/wiki/USA#Language

**Associated Functions**

- F82. Create portal for data exchange with hp
- F88. Plan communication campaign
- F99. Publish comparable health plan profiles

**Version**
2

**Date:** 12/11/07

**Date of first version:** 10/11/07
Title: Too complex information

Design Factor

Project
Rethinking - Design Thinking - Health Care

Activity
Assembling

Originator
Alexander Troitzsch

Contributors
Hanna Korel
Amy Palit
Soo Yeon Paik

Source/s
http://news.bbc.co.uk/2/hi/uk_news/politics/6896614.stm

Associated Functions
F82. Create portal for data exchange with health plans
F85. Create information exchange standards for health plans
F93. Communicate regulatory issues
F94. Communicate scenarios and strategies on how to redefine health care
F96. Communicate standards for minimum coverage
F100. Publish Medicare/Medicaid status reports
F101. Publish Census information

Observation (Insight)

Too complex information is less valuable to users and might be misunderstood or ignored.

Extension (Insight)

Too complex information is one reason why consumers have difficulties in understanding health and health care issues. People who review complex information are significantly more confused, doubtful and overwhelmed than people who read simple or intermediate-level materials. Health information often includes too much jargon for most Americans to understand - a problem that can lead to poorer health and higher costs, because it can lead to the wrong decisions. To make a governmental health care information system a success information needs to be easy to understand, well structured and clearly arranged to be valuable for and accepted by the receivers.

Design Strategies (Ideas)

Break complex information into small pieces of condensed, easy to understand information

Solution Elements (Ideas)

Status: E Existing, M Modified, S Speculative

M Simplicity standards
S Information clusters
S Theme related ontology

Version 2 Date: 10/11/07 Date of first version: 10/18/07
**Design Factor**

**Title:** Public lacking knowledge on health issues  
**DF.8**

**Project**  
Rethinking - Design Thinking - Health Care

**Activity**  
Communicating

**Originator**  
Alexander Troitzsch

**Contributors**  
Hanna Korel  
Amy Palit  
Soo Yeon Paik

**Source/s**  
04-04-2006/0004333123&EDATE=

**Observation (Insight)**

The public is not very well informed about health and health care issues, what can lead to wrong decisions.

**Extension (Insight)**

According to preliminary results from the COMPLy (Compliance, Modalities by Population, Lifestyle and Geography) study, the majority of people are unaware that the improper use of antibiotics is the main risk factor in the development of bacterial resistance. The study shows how dangerous a lack of knowledge can be and how difficult it is to build awareness. People that are not sick but at risk – like for example persons in pre diabetic conditions – are not always aware of health and healthy living issues. They think that a condition is not affecting their health.

**Design Strategies (Ideas)**

- Build awareness
- Better inform the public

**Solution Elements (Ideas)**

- **S** Health Information Navigator
- **S** Health Information Kiosk
- **M** Health.gov website

**Status:**  
- **E** Existing  
- **M** Modified  
- **S** Speculative

**Version** 2  
**Date:** 10/11/07  
**Date of first version:** 10/11/07
Create a brand that is based upon solid, reliable values as a basis for services and communication

Establish direct contact to the public

The government has a different view on health care issues compared to other parties that are directly involved, like patients or doctors. The government takes a bird’s eye view and can not regulate every transaction or predict every complication in every patient, even if it issues thousands of regulations and guidelines in hundreds of manuals. That is why people trust their doctors in most situations more than the government when it comes to health information. But some of the information the government is offering, for example drug information on the fda.gov web site, is unique, reliable and very valuable for the public. As already discussed in other design factors the provided information by the government is difficult to understand and to find. Furthermore, many governmental information sources like web sites or pamphlets are inconsistent in their design and information architecture.
**Title:** Unfair health plan practices

### Design Factor

**Project**  
Rethinking - Design Thinking - Health Care

**Activity**  
Communicating

**Originator**  
Alexander Troitzsch

**Contributors**  
Hanna Korel
Amy Palit
Soo Yeon Paik

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**Observation (Insight)**

Health plans practice re-underwriting and don’t take over full legal responsibility for medical bills.

**Extension (Insight)**

Today health plans are not assuming full legal responsibility for the medical bills of their subscribers. The responsibility for medical bills rests with the subscribers which encourages health plans to shift costs to patients. Furthermore, in practice health plans often drop coverage of patients who develop expensive medical conditions. They raise the premiums of individuals who become ill, what is called re-underwriting. Those strategies are disadvantageous for patients and the health plans. People don’t trust health plans, because they don’t support their subscribers in obtaining excellent care.

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**Design Strategies (Ideas)**

- Set regulations that ban re-underwriting and unfair billing practices
- Communicate those measures

---

**Solution Elements (Ideas)**

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### Associated Functions

- **F83. Create standards for health plans**
- **F93. Communicate regulatory issues**
- **F97. Communicate regulatory issues to health plans**

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**Version:** 2  
**Date:** 10/12/07  
**Date of first version:** 10/12/07
**Design Factor**

**Title:** Lack of skilled labor  
**DF.11**

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**Observation (Insight)**

To inform the public appropriately about health issues the government needs to train employees or employ more specialists

**Extension (Insight)**

The health care sector is very complex and difficult to understand. If the government wants to reform the system successfully skilled labor is an important aspect, that needs to be considered. The government needs to employ employees that meet required skills or train existing employees to improve their abilities.

**Design Strategies (Ideas)**

- Develop training programs for employees
- Employ appropriate new employees

**Solution Elements (Ideas)**

Status: E Existing  M Modified  S Speculative

- **E** Advanced education school for employees, specialized in health care
- **E** Language courses
- **E** Health care courses
- **E** Rhetoric and presentation skill courses
- **S** Talent pool

**Version** 2  
**Date:** 10/11/07  
**Date of first version:** 10/11/07
Health care is a complex field, what makes it very difficult to identify and define relevant data.

What is the relevant data, that needs to be considered to improve competition in the health care sector? How can the government identify this kind of data? How to define relevant data quality metrics?

**Design Strategies (Ideas)**

- Hear all players in the system, consult experts
- Define relevant data
- Create Systems that enable to identify and access relevant data
- Create institutions that identify relevant data

**Solution Elements (Ideas)**

- Expert Panels
- User ratings
- Database based upon semantic networks
- Health Information Department

**Associated Functions**

- F83. Create standards for health plans
- F84. Create strategic suggestions and future scenarios for health plans
- F86. Create disease prevalence reports
- F94. Evaluate quality of data assembled out of data received by health plans
**Design Factor**

**Source/s**

**Contributors**

Hanna Korel
Amy Palit
Soo Yeon Paik

---

**Observation (Insight)**

Establishing value based competition is not of interest for all players in the health care system.

**Extension (Insight)**

The idea of value based competition will not be supported by all players in the health care system. When there is no competition there are many businesses and services that can make enough money to survive, without actually add value to the system. A health care reform based upon competition means that there will be winners and losers. The losers will be those services that are uneconomical, outdated or specialized in "playing the system". We assume, that there are also many players that just don't want to support change for fear of losing something. Those parties will not support the reform and probably not participate. The problem is that the reform can only be successfully accomplished when as many players as possible participate. How should the government deal with that?

---

**Design Strategies (Ideas)**

- Transparent information on players that support or don't support the reform
- Inform and engage the public
- Provide incentives and subsidies

**Solution Elements (Ideas)**

- **M** Health care reform information portal
- **S** Participation awards
- **E** Subsidy programs

---

**Version** 2    **Date:** 12/10/07    **Date of first version:** 10/12/07
**Design Factor**

**Title:** Costs caused by uninsured

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Assembling

**Originator**
Alexander Troitzsch

**Contributors**

Hanna Korel
Amy Palit
Soo Yeon Paik

**Source/s**

http://www.balancedpolitics.org/universal_health_care.htm

**Observation (Insight)**

Too many uninsured in the US tremendously increase health care costs.

**Extension (Insight)**

The 40 million uninsured cause costs in the health care system. Many of them want to save money, are too poor to pay for an insurance or are illegal immigrants. People who don't have health insurance don't go to a doctor on a regular basis what makes any kind of prevention difficult. If there are no checkups on a regular basis alarming symptoms will not be recognized in time what can lead to chronic illnesses and critical conditions. Those conditions are much more expensive in their treatment. If there is no health insurance, the government will pay for the uninsured.

**Design Strategies (Ideas)**

Make health insurance more attractive to the uninsured by campaigns and subsidy programs.

Implement mandatory health insurance

**Solution Elements (Ideas)**

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<th>Status</th>
<th>Description</th>
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<tr>
<td>S</td>
<td>Health information kiosk</td>
</tr>
<tr>
<td>M</td>
<td>Health.gov web portal</td>
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<tr>
<td>E</td>
<td>Subsidies for low income individuals and families</td>
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**Version** 2  
**Date:** 10/07/07  
**Date of first version:** 12/11/07
### Design Factor

**Title:** Low IT-system performance

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<td>Contributors</td>
<td>Hanna Korel, Amy Palit, Soo Yeon Paik</td>
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</table>

#### Observation (Insight)

IT-system performance regarding web site traffic and security issues are critical factors for a governmental information system.

#### Extension (Insight)

A redesigned governmental health care information system would have a tremendous amount of hits per day. It is important to consider that this amount of visits and the correlated data transmissions require highly specialized systems. Such systems must stable and fast even during peak traffic periods. Furthermore, other governmental needs like data security issues and disaster recovery must be considered. Specialized IT-System providers with years of experience like Cisco or IBM should run such kind of system.

#### Design Strategies (Ideas)

- Engage a specialized computer technology and consulting corporation to set up and run the system

#### Solution Elements (Ideas)

- **E** IT-System requirements catalogue
- **E** Stable and secure high end IT-System
- **E** Backup System

Version: 2  Date: 12/11/07  Date of first version: 10/11/07
## Design Factor

**Title:** Too many forms to fill out

### Project
- Rethinking - Design Thinking - Health Care

### Activity
- Establishing

### Source/s

### Contributors
- Hanna Korel
- Amy Palit
- Soo Yeon Paik
- Alexander Troitzsch

### Observation (Insight)

Each additional form doctors and nurses are required to fill out raises administrative costs and lowers productivity.

### Extension (Insight)

Doctors and nurses are trained specifically to provide care; each additional form they must fill out takes time away from letting them provide that care to patients. Both doctors and nurses spend between one-third and one-half their time on paperwork. (Porter, 29) Because so much time is being spent filling out paperwork, this raises costs for all parties involved. Overall, the estimated health care expenditures spent on administration are a staggering 25 percent of hospital spending and are estimated to be over 30 percent of all health care spending. (Porter, 29)

Doctors and nurses need to focus on providing care. Filling out forms, albeit necessary, needs to become less time consuming.

### Design Strategies (Ideas)
- Digitalize forms
- Streamline the info design of all forms

### Solution Elements (Ideas)

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**Version:** 1  
**Date:** 10/13/07  
**Date of first version:** 10/13/07
## Design Factor

### Project
Rethinking - Design Thinking - Health Care

### Activity
Communicating

### Originator
Hanna Korel

### Contributors
Amy Palit
Soo Yeon Paik
Alexander Troitzsch

### Observation (Insight)
Correct or accurate information is difficult to obtain because information is scattered in many places.

### Extension (Insight)
Individuals seeking information on providers, or provider treatments often become lost in their search. If information is available, it is difficult to find because of the many different places that information is published. Snapshots of information could be found in pamphlets, on-line, or in magazine reports. This information is often incomplete, or does not always paint the entire picture for the consumer.

Furthermore, in order for there to be value-based competition, providers need to know, in depth, what is currently going on the field regarding new medical technologies, treatments and medical breakthroughs.

### Design Strategies (Ideas)
- Single source of information
- Consumer reports for providers

### Solution Elements (Ideas)
- Single source (S)
- Provider reports (M)

### Associated Functions
- F01. Establish and support provider specific communication channels
- F25. Publish information regarding providers through various channels
- F26. Publish provider ratings information
- F27. Publish information on new provider practices, trends, and patterns

### Status:
- E Existing
- M Modified
- S Speculative

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**Version** 1  **Date:** 10/13/07  **Date of first version:** 10/13/07
## Design Factor

### Title: Ease of use

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### Originator

Hanna Korel

### Contributors

- Amy Palit
- Soo Yeon Paik
- Alexander Troitzsch

### Observation (Insight)

Navigating a health website is confusing and it is easy to get lost.

### Extension (Insight)

Websites are often built like trees; it is difficult to "go back" on a branch, and it easy to get lost going down a branch, especially when links to other "branches" exist.

With good information architecture, people feel at ease when trying to navigate through it. Since there is so much health information available, sorting through it to find what is relevant is a daunting task, let alone trying to understand it.

### Associated Functions

- **F01.** Establish and support provider specific communication channels
- **F02.** Create an IT System for providers
- **F03.** Define IT System protocols and guidelines for providers
- **F25.** Publish information regarding providers through various channels
- **F26.** Publish provider ratings information
- **F27.** Publish information on new provider practices, trends, and patterns

### Design Strategies (Ideas)

- Information architecture
- Usability

### Solution Elements (Ideas)

- **Site map** (E)
- **Style guide** (E)

### Version

2  Date: 12/12/07

Date of first version: 10/11/07
**Design Factor**

**Title:** Public lacking knowledge on health issues  
**DF.19**

**Project**  
Rethinking - Design Thinking - Health Care

**Activity**  
Establishing

**Originator**  
Hanna Korel

**Contributors**  
Amy Palit  
Soo Yeon Paik  
Alexander Troitzsch

**Source/s**  
Porter, M. and E. Teisberg.  

http://www.ahrq.gov/  
http://www.fda.gov/

**Associated Functions**

- F03. Define IT System protocols and guidelines for providers
- F04. Generate medical standards information for scorecards for providers
- F05. Establish a common set of measures from providers to report on
- F06. Define a set of measures for provider reporting on diseases, public health and care
- F07. Define provider guidelines for preventive health and wellness
- F08. Define provider protocol for emergency situations

**Observation (Insight)**

Measures and standards exist, but there is no 'set' standard of measures for reporting.

**Extension (Insight)**

There are plenty of measures, guidelines and standards that currently exist, however, there is no common standard. According to Porter, "Numerous studies have also found major differences across regions in quality at the medical condition or specific treatment level, and variations in treatment protocols that are not consistent with established medical standards."

The AHRQ is responsible for collecting all the research that's been done on standards and measures. Currently there are over 1300 independent reports that exist, all coming from a variety of sources and research organizations. Because the research conducted comes from a variety of places, there are redundancies that exist for research done on the same conditions.

**Design Strategies (Ideas)**

- Determine 'set' of standards
- Set guidelines for standards and measures

**Solution Elements (Ideas)**

- Expert panel  
  - M  
- Clearly defined Information  
  - S

**Status:**  
**E** Existing  
**M** Modified  
**S** Speculative

**Version** 2  
**Date:** 12/11/07  
**Date of first version:** 10/13/07
### Design Factor

**Title:** Social, economic and demographic conditions present  
**Project:** Rethinking - Design Thinking - Health Care  
**Activity:** Establishing, Evaluating  
**Originator:** Hanna Korel  
**Contributors:** Amy Palit, Soo Yeon Paik, Alexander Troitzsch  

#### Observation (Insight)

Different areas of the country have different social, economic, and demographic conditions

#### Extension (Insight)

Porter states that there is a regional variance in annual costs per Medicare enrollee, with costs ranging from $3000 to $8500. He goes on to say that the differences cannot be explained by either the need for care or the cost of living (the cost of care), but rather because of the lack of geographic competition.

#### Design Strategies (Ideas)

- Open up competition across geographies

#### Solution Elements (Ideas)

- Competition incentives  
- Competition platform  
- Competition regulations

#### Associated Functions

- F03. Define IT System protocols and guidelines for providers  
- F04. Generate medical standards information for scorecards for providers  
- F05. Establish a common set of measure from providers to report on  
- F06. Define a set of measures for provider reporting on diseases, public health and care  
- F07. Define provider guidelines for preventive health and wellness  
- F20. Evaluate providers across geographies  
- F21. Evaluate overall wellness of the country

#### Source/s

Porter, M. and E. Teisberg.  

#### Version

Document version: 2  
Date: 12/11/07  
Date of first version: 10/16/07
### Design Factor

**Title:** Credentials are difficult to judge  
**DF.21**

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<tr>
<th>Observation (Insight)</th>
<th>Extension (Insight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does the average consumer, who doesn't know much, if anything, about medicine or medical schools, rate a doctor based on a name, location, and hospital affiliation alone?</td>
<td>In searching for providers, many websites currently only list the name, telephone number and hospital affiliation of the specific doctor. Sometimes there is yes/no information on whether the doctor is accepting new patients. This information alone is insufficient for consumers to make informed choices about who their doctor should be. Choosing a doctor is an important task because the relationship between the doctor and patient is so vital</td>
</tr>
</tbody>
</table>

### Design Strategies (Ideas)

- **Collect and provide relevant information**
  - **M** Dr. Bios
  - **E** Medical School ratings information
  - **E** Doctor specialization
  - **M** Dr. Ratings

### Solution Elements (Ideas)

- **Status:** E Existing, M Modified, S Speculative

<table>
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<th>Version</th>
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**Contributors:**
- Amy Palit
- Soo Yeon Paik
- Alexander Troitzsch

**Version:** 2

**Date:** 12/08/07

**Date of first version:** 10/13/07

---

**Associated Functions**

- **F09.** Collect information on level of provider expertise
- **F25.** Publish information regarding providers through various channels

**Form:** 5/26/2000
**Design Factor**

**Title:** Word of mouth is more valued  
**DF.22**

<table>
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<th>Contributors</th>
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</table>
| Hanna Korel | Amy Palit  
Soo Yeon Paik  
Alexander Troitzsch |

**Observation (Insight)**: Despite the plethora of information available, consumers still want to know if the doctor is good based on someone else’s experience.

**Extension (Insight)**: Currently, providers are networked by insurance plan, and the providers that someone has access to is determined by which health plan the employer chooses to purchase. Therefore, when a person is forced to change providers, or find a specialist, the decision becomes quite difficult due to the lack of information available.

If a decision is to be made to select the primary provider of care, usually a name, phone number and hospital affiliation is listed. The search is primarily geographic. Consumers feel more comfortable taking recommendations from trusted sources.

If someone has to see a secondary or tertiary provider of care, a recommendation is usually made by the primary care provider. However, these recommendations usually come associated with a financial vested interest from the primary provider.

| Design Strategies (Ideas) | Solution Elements (Ideas) | Status:  
|--------------------------|--------------------------|
| Collect opinions         | Med Blog                  | E Existing  
M Modified  
S Speculative |
|                          | Provider Blog             |
|                          | Consumer satisfaction ratings |

**Version** 2  
**Date:** 11/15/07  
**Date of first version:** 10/11/07
**Design Factor**

**Title:** Grouping of costs is disparate

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<tr>
<td>Amy Palit</td>
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<tr>
<td>Soo Yeon Paik</td>
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<tr>
<td>Alexander Troitzsch</td>
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</table>

**Observation (Insight)**

"Numerous bills are processed for even a single episode of care." (Porter, 236)

**Extension (Insight)**

"Providers issue a myriad of bills for discrete charges. Hospitals issue multiple bills for each visit, and even for the same treatment. Each doctor issues a separate bill." (Porter 189-90)

Furthermore, the current model doesn’t allow for transparency because price is ultimately determined by the health plan. Quite often doctors don’t even know how much the services they’re providing are going to cost the patient. Finally, even different hospital departments have different billing systems.

The billing system is broken and does not let prices be transparent. Value and cost are measured over the full cycle of care, according to Porter, or at least should come in different stages of the care process such as diagnosis, hospitalization, etc.

**Design Strategies (Ideas)**

- Create a universal billing system
- Create universal codes for billing and pricing

**Solution Elements (Ideas)**

- [E] Universal billing system
- [S] Universal codes for billing and pricing

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Version 2 Date: 10/11/07 Date of first version: 10/11/07
**Design Factor**

**Title:** Price bundles differ across providers

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<tr>
<td>Collecting</td>
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**Project**
Rethinking - Design Thinking - Health Care

**Originator**
Hanna Korel

**Contributors**
Amy Palit
Soo Yeon Paik
Alexander Troitzsch

**Observation (Insight)**
Even when bundled prices exist, there is still doubt in the system

**Extension (Insight)**
Because of different billing systems, prices can be listed differently. Furthermore, "single billing will require independent practitioners to become team players." (Porter, 190) Porter goes on to say that some physicians do not trust the hospital to manage their billing (191). Porter is also a big advocate of single bills per episode of cycle of care. If there are single bills for such cases, this greatly increases price transparency. (265)

**Design Strategies (Ideas)**
- Bundle prices for common procedures
- Define full cycle of care

**Solution Elements (Ideas)**
- Standardize pricing based on location or demographics

**Version** 2  **Date:** 11/11/07  **Date of first version:** 10/17/07
### Design Factor

**Title:** Provider satisfaction versus patient satisfaction  

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<tr>
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</table>
| Contributors | Amy Palit  
Soo Yeon Paik  
Alexander Troitzsch |

### Source/s
- Porter, M. and E. Teisberg.  
- Interview with Gen Kruse, October 3, 2007.

### Associated Functions
- F19. Evaluate Medicare/Medicaid satisfaction

### Observation (Insight)
Medicare is a good system, but not a great system. Initiatives are experimental and there are still gaps in payment plans. So how satisfied are patients and providers with Medicare?

### Extension (Insight)
Medicare works hard towards being a fair system, and therefore requires that its patients get charged less by providers, no matter how poor they are. (354)

In its Pay-for-Performance initiative, "Medicare made the mistake of focusing on the hospital as a whole instead of medical conditions." (368)

As a result, it rewards processes, not results. (369)

Furthermore, Providers and health plans base their billing off of Medicare and Medicaid because they are such large payers. (Kruse)

Ultimately, Medicare should be a health plan, not a payer or regulator. However, in the current system, are providers satisfied with the initiatives and Pay for Performance that Medicare has put in place?

Since there are strict conditions for entry to Medicare and Medicaid, they not the payers of last resort. Despite this, are patients satisfied with Medicare despite that a donut hole exists in their Part D drug plans, forcing them to spend hundreds of extra dollars out of pocket to cover their expenses? (NYT)

### Design Strategies (Ideas)
- User research and surveys

### Solution Elements (Ideas)
- **E** Medicare feedback surveys for providers
- **S** Medicare feedback surveys for patients

### Version | Date | Date of first version
--- | --- | ---
2 | 10/11/07 | 10/11/07
**Employees have privacy concerns about providing information**

**Observation (Insight)**

Employees have privacy concerns about providing health information to employers.

**Extension (Insight)**

There are many reasons that an employee would not want his employer to know about her health information. For example, if a woman was pregnant, she might want to wait to tell her boss to not affect her chances of receiving a promotion. A man with HIV may fear hostile reactions by coworkers if human resources found out his status and informed other people. In the same note, a person who is unsatisfied with her job may not want her superiors to know lest it negatively affects her position.

Even if an employer gave a confidential survey, the employee may fear that his boss could go into the HR office and casually ask for the completed surveys to just "have a look".

**Design Strategies (Ideas)**

- Determine legality of information collection regarding privacy
- System that bypasses employer
- System that prevents employer from accessing health information

**Solution Elements (Ideas)**

- **E** Blinded data on employee information
- **S** Password protected information portal
- **S** Employee incentives for providing health information

**Source/s**


Team deliberations

**Associated Functions**

F53. Collect blinded data on employees without insurance from employers
F54. Collect employee demographic information from employers
F55. Collect information on employee productivity from employers
F56. Collect information on employee satisfaction with health plan from employers

**Contributors**

Amy Palit
Hanna Korel
Soo Yeon Paik
Alexander Troitzsch

**Version** 2  **Date:** 12/13/07  **Date of first version:** 10/13/07
### Design Factor

**Title:** Employers do not want to reveal confidential information

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<tr>
<td><strong>Contributors</strong></td>
<td>Hanna Korel, Soo Yeon Paik, Alexander Troitzsch</td>
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</table>

#### Observation (Insight)

Employers do not want to reveal confidential information to the public.

#### Extension (Insight)

Employers do not want to reveal confidential information to the public, especially information that could result in negative press. Companies are also fearful of competitors learning about trade secrets, and in doing so are loathe to reveal any telling information about them.

#### Design Strategies (Ideas)

- Explore and promote benefits of transparency of information to employers
- Obtain the endorsement of key successful companies to submit information

#### Solution Elements (Ideas)

- **E** Employer incentives for providing health related information.
- **S** Recognition for employers that provide information

---

**Source/s**

Porter, M. and E. Teisberg.  

Team deliberations

---

**Associated Functions**

- F53. Collect blinded data on employees without insurance from employers
- F54. Collect employee demographic information from employers
- F55. Collect information on employee productivity from employers
- F56. Collect information on employee satisfaction with health plan from employers
- F57. Collect administrative cost information on employer health plans from employers
- F58. Collect cost of foregone health benefits of employers that do not provide health insurance

---

**Version:** 2 **Date:** 10/18/07  **Date of first version:** 10/16/07
Title: Unequal participation from employers and employees

**Design Factor**

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Collecting

**Originator**
Amy Palit

**Contributors**
Hanna Korel
Soo Yeon Paik
Alexander Troitzsch

**Source/s**
Porter, M. and E. Teisberg.

Team deliberation

**Associated Functions**
- F53. Collect blinded data on employees without insurance from employers
- F54. Collect employee demographic information from employers
- F55. Collect information on employee productivity from employers
- F56. Collect information on employee satisfaction with health plan from employers
- F57. Collect administrative cost information on employer health plans from employers
- F58. Collect cost of foregone health benefits of employers that do not provide health insurance

**Observation (Insight)**
In a voluntary health reporting system, there will be unequal participation from employers.

**Extension (Insight)**
In a voluntary health reporting system, only companies that see the value in making information about employee health and satisfaction public will want to take part. The number of companies that actually do submit reports is further reduced to the ones that have the resources and money to spend.

**Design Strategies (Ideas)**
- Acknowledge that not all companies will participate and that only a small minority will be early adopters of the system
- Promote the value of the system to the likely early adopters

**Solution Elements (Ideas)**

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<td>Tout benefits as exclusive and important for competition</td>
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<td>S</td>
<td>Promote incentives and benefits for providing information</td>
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**Version** 1  Date: 10/15/07

Date of first version: 10/15/07
There are multiple ways to measure employee satisfaction. Employee satisfaction is a qualitative measurement and is therefore subject to debate. Degree of satisfaction can be based on attitudes, training needs, salary needs, coworker relations, boss relations.

**Design Strategies (Ideas)**

- Talk to experts to form guidelines for measures
- Create a set of measures based on general ideals of employee satisfaction
- Create quality measures based on specific industry measures

**Solution Elements (Ideas)**

- Incentive information collection from employers
- Time with health plan information collection from employers
- Independent health plan information collection from employers
- Industry measures expert panel

**Source/s**


**Contributors**

Amy Palit
Hanna Korel
Soo Yeon Paik
Alexander Troitzsch

**Associated Functions**

F56. Collect information on employee satisfaction with health plan from employers
### Design Factor

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Collecting

**Originator**
Amy Palit

**Contributors**
Hanna Korel
Soo Yeon Paik
Alexander Troitzsch

---

**Source/s**

---

**Observation (Insight)**
If the employee will not participate in any surveys or information collection if any outside party could access his or her health information.

**Extension (Insight)**
An employee’s health information is personal, private, and sensitive. In general, people don’t want other people to have information about their health condition. More pressing, people don’t want their health and demographic information to get into the wrong hands. As health insurance and access to healthcare increasingly becomes a luxury in the US, insurance holders have fallen prey to people stealing their identities in order to obtain medical care.

Although no national survey statistics exist about medical identity theft prosecutions, one source estimates about a quarter to half a million individuals have been victims of medical identity theft (Dixon).

Getting access to health information could make medical identity theft more customized. What if someone with diabetes stole the medical identity of another diabetes patient by breaking into a health information database?

---

**Design Strategies (Ideas)**

- Ensure secure, encrypted electronic information
- Enable anonymous data collection
- Put under umbrella of preexisting organization that already receives sensitive information

**Solution Elements (Ideas)**

- Secure software for employee data
- Secure website for employee data
- IT encryption standards
- HHS employee health information

---

**Version** 2  
**Date:** 11/22/07  
**Date of first version:** 10/13/07
<table>
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<tr>
<td>Observation</td>
<td>The government is too inefficient and overburdened to collect more information.</td>
<td></td>
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<tr>
<td>Extension</td>
<td>The US government is famous for being inefficient and bureaucratic. If the government collects and aggregates this information, there are doubts by employers, investors, and consumers over the quality and timeliness of the information.</td>
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<tr>
<td>Ensure timely information collection</td>
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<td>E Deadlines for information collection</td>
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<tr>
<td>Enlist collection by an efficient third party</td>
<td></td>
<td>E Profit third party engagement</td>
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<tr>
<td>Enlist a group that already manages health information under the government</td>
<td></td>
<td>E HHS employee health information</td>
</tr>
<tr>
<td>Put under umbrella of preexisting organization that already receives sensitive information</td>
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Authors: Amy Palit, Hanna Korel, Soo Yeon Paik, Alexander Troitzsch

Version 1 Date: 10/13/07 Date of first version: 10/13/07

Associated Functions:
- F53. Collect blinded data on employees without insurance from employers
- F54. Collect employee demographic information from employers
- F55. Collect information on employee productivity from employers
- F56. Collect information on employee satisfaction with health plan from employers
- F57. Collect administrative cost information on employer health plans from employers
- F58. Collect cost of foregone health benefits of employers that do not provide health insurance

The government is too inefficient and overburdened to collect more information. The US government is famous for being inefficient and bureaucratic. If the government collects and aggregates this information, there are doubts by employers, investors, and consumers over the quality and timeliness of the information.
Many employers will not see the value in employee health reporting and not engage in it.

Employers are reluctant to spend their resources when it is unclear whether there will be a monetary return. However, once they do recognize value for their company, many employers will spend the necessary resources to remain competitive. Their willingness to spend these resources increases further when the health reports help their company look good for potential investors.

Publishing a voluntary health report will give another opportunity to present information to investors. Investors will see reports that show good level of care per dollar spent, along with proven indicators or increased work productivity.
Collecting the cost of foregone health benefits of employers that do not provide health insurance will be difficult for those employers to calculate.

Porter recommends that employers that do not provide health insurance should disclose the costs of foregone benefits so that compensation levels can be compared to those of other employers (Porter 335). This can present a difficult challenge for these employers; if they lack the resources to spend on benefits, they may also lack the resources to calculate these costs. They also may not know how to calculate these costs.

Provide guidance to employers to provide information

Cost of benefit not provided worksheet

Independent value estimation

Required tax form
**Design Factor**

Title: Employees in a small company lack statistical anonymity

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</table>
| Contributors | Hanna Korel  
Soo Yeon Paik  
Alexander Troitzsch |

**Observation (Insight)**

A dissatisfied employee working for a small firm will be reluctant to answer a survey about employee satisfaction truthfully.

**Extension (Insight)**

Collecting information about employee satisfaction could be a good way to collect information about companies for cross-comparison. The idea works best when comparing large companies. If you are an employee in a company of 10,000 people, a survey on employee satisfaction will very easily bury your personal response in statistical data.

A dissatisfied employee working for a firm of 10 people will be reluctant to answer a survey about employee satisfaction. It will be easier for management to discern who wrote negative reviews.

**Design Strategies (Ideas)**

- Way for employees in small firms to not fear repercussions for responding to surveys
- Include survey questions that ask for neutral responses
- Include questions that ask ways for the company to improve

**Solution Elements (Ideas)**

- S Satisfaction information aggregator
- S Blinded company name

**Version** 1  Date: 10/14/07  Date of first version: 10/14/07
### Observation (Insight)

The type of results measures for external employer benchmarks needs to be determined.

### Extension (Insight)

One way that employers cut costs is by limiting options on health insurance (Herzlinger). Publishing benchmarks about employer health insurance practices is a step towards transparency. Transparency could ultimately put a check on employer practices and reverse the trend towards. However, the types of benchmarks to be published needs to be determined.

### Design Strategies (Ideas)

- Create basic benchmarks on benefit information
- Consult with experts to determine benchmarks

### Solution Elements (Ideas)

- E money benchmarks on health insurance per employee per salary
- S health insurance information expenses system
- M benchmark creation expert panel

---

**Contributors**

Amy Palit
Hanna Korel
Soo Yeon Paik
Alexander Troitzsch

**Associated Functions**

F68. Publish external employer benchmarks of results measures

**Version** 1  
**Date:** 10/13/07  
**Date of first version:** 10/13/07
Title: Many citizens do not have internet access

Design Factor

Project
Rethinking - Design Thinking - Health Care

Activity
Collecting

Originator
Amy Palit

Contributors
Hanna Korel
Soo Yeon Paik
Alexander Troitzsch

Source/s

Associated Functions
F53. Collect blinded data on employees without insurance from employers
F54. Collect employee demographic information from employers
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F58. Collect cost of foregone health benefits of employers that do not provide health insurance

Observation (Insight)
Consumers that do not have internet access need to have access to health information

Extension (Insight)
A recent study found that twenty-nine percent of American households do not have internet access and have no plans to get access in the next year (Tech News World). Lack of access to the internet makes it difficult for these individuals to benefit from the efforts made by players to improve health information technology.

Design Strategies (Ideas)

Provide offline information access
Educate value of internet
Provide free internet access in public places

Solution Elements (Ideas)

Print versions
Info CD-ROM
Free IT Courses

Status: E Existing M Modified S Speculative
Design Factor

Project
Rethinking - Design Thinking - Health Care

Activity
Collecting

Originator
Amy Palit

Contributors
Hanna Korel
Soo Yeon Paik
Alexander Troitzsch

Source/s
Team deliberations

Observation (Insight)
It is important to provide information on health information sites that is unbiased and not misleading.

Extension (Insight)
Consumers can be misled by advertising on health information sites. They may not realize that it is a 3rd party claim. The advertising may be for a service or product that is fraudulent.

Design Strategies (Ideas)
Provide unbiased information

Solution Elements (Ideas)
Status: E Existing M Modified S Speculative

E Allow only approved advertisers on info sites

E Do not allow advertising on website

Version 1 Date: 10/14/07 Date of first version: 10/13/07
For collecting relevant information like trial results, research findings, new product information, product distribution or product usage an open process is needed to offer transparency to all players including the public.

To compile transparent data from other players, all players have to share the process of collecting medical data. These collected data used to fund to suppliers and also used to judge suppliers states to patients. For example, a drugs company might want to hide some information for busting their profits. Moreover, there could be some dishonesty for gaining unfair advantages.

To making open process subject to all players including the public there would be government regulation organization, legislations to monitor information flows and disseminated data through universal communication channels to collect information and share each players’ opinions with others. Moreover, the government must consolidate privacy protection on medical data and it can increase suppliers’ participation to make transparent their data.
Transferring data in real-time is one of the most crucial success factors for the government to assembling medical information from suppliers.

The government would get an enormous amount of medical data from suppliers. Medicine, medical product industries in medical market are so competitive place, so every second's data is precious. Even one datum, if it is not real-time result, it could make an error to health care information system. Moreover, these data are correlated each other.

For better transferring data in real-time, it require highly specialized and developed systems. It helps the government assemble medical data, not have difficulties on outages or even slowness to respond during peak traffic periods. Banks or stock markets' systems can be a model to the government system. Furthermore, government needs specialists to manage these system considered data verification's importance.
**Design Factor**

**Title:** Insincere participation among suppliers

**Project**
- Rethinking - Design Thinking - Health Care

**Activity**
- Communicating

**Originator**
- Soo Yeon Paik

**Contributors**
- Hanna Korel
- Amy Palit
- Alexander Troitzsch

**Observation (Insight)**

When collecting information from suppliers, the government would have a difficulty because of insincere participation among suppliers.

**Extension (Insight)**

According to Porter, suppliers of products, technology, and services to the health care sector include a wide range of companies producing a vast array of products, such as pharmaceuticals, diagnostic tests, medical devices, imaging equipment, medical supplies, pharmacy benefits management, and medical information technology. These various kinds of suppliers have their own plans to archive profits. In these situation, the government suffer to communicate to suppliers appropriately.

To make suppliers follow states standards about product, process, manufacturing, HIPPA, HL7, etc., and international standards such as WTO, the government must act both strict enforcement of the law and incentives to good following players.

**Design Strategies (Ideas)**

- Enforce strict law
- Collect precise information from suppliers
- Give incentives to good following suppliers

**Solution Elements (Ideas)**

- Supervisory organization
- Enforced censorship to medical data information
- Incentive department to medical suppliers

**Associated Functions**

- F47 Communicate manufacturing standards
- F48 Communicate product standards
- F49 Communicate process standards
- F50 Communicate FDA issues
- F51 Communicate health care IT standards to suppliers
- F52 Communicate international trade and IP laws to suppliers

**Version:** 1  **Date:** 10/21/07  **Date of first version:** 10/17/07
## Design Factor

**Title:** Information format is not standardized

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<tr>
<td>Contributors</td>
<td>Hanna Korel, Amy Palit, Alexander Troitzsch</td>
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</table>

### Observation (Insight)

The government has a responsibility to let other players in the health care market place what is the standards. Before publishing standards to players, the government has to assemble different kinds of information which has different format.

### Extension (Insight)

To improve governmental efficiency, it is necessary to provide a common format which suppliers can fill if needed. For standardizing information format, the government has to hire experts who can generate the well organized format. And this format also provides important information to government.

To make suppliers use this format, the government can give incentives to good followers, like assisting research funds, providing enter the new market area, etc.

From the well organized information, the government can also make the standards sharing common format. It helps the government publish standards to suppliers, and furthermore to also other players.

### Associated Functions
- F41 Assemble medical standard information for suppliers
- F42 Assemble standards for publishing collected data from suppliers

### Design Strategies (Ideas)
- Make suppliers use the info flow standard
- Hire experts to make a info flow standard
- Provide incentives

### Solution Elements (Ideas)

<table>
<thead>
<tr>
<th>Status</th>
<th>Common Format Organization</th>
<th>Incentives Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Version 1 Date: 10/22/07 Date of first version: 10/21/07
**Design Factor**

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Assembling

**Originator**
Soo Yeon Paik

**Contributors**
Hanna Korel
Amy Palit
Alexander Troitzsch

**Source/s**
Personal observation
Team deliberations

**Observation (Insight)**
The government has a responsibility to assemble relevant information and publish to health care players. But there are so many different links to sources. Moreover, there are not perfect standards in reality.

**Extension (Insight)**
For gathering relevant information, the government has to try to make a filter which can see what is the important, true information. For setting standards, the government has to work with other agencies like universities, supplier companies. For a fair deal, there has to be a system. For example, the government can choose the partner as the results of industries and schools. Moreover, consumers can participate to measure the efficacy of the medical products. It can enhance the fairness of assessing the results of measuring.

**Design Strategies (Ideas)**
- Make suppliers use the info flow standard
- Hire experts to make a info flow standard
- Provide incentives

**Solution Elements (Ideas)**
- S Common Format Organization
- M Incentives Standards

**Associated Functions**
- F41 Assemble medical standard information for suppliers
- F42 Assemble standards for publishing collected data from suppliers
- F43 Establish and support health care communication channels for suppliers

**Version** 1  
**Date:** 10/13/07  
**Date of first version:** 10/13/07
**Design Factor**

**Title:** IT System network performance

**Project**
Rethinking - Design Thinking - Health Care

**Activity**
Communicating

**Originator**
Soo Yeon Paik

**Contributors**
Hanna Korel
Amy Palit
Alexander Troitzsch

**Observation (Insight)**
The government policies can be changed to the changeable situation. Not only consider national regulations, but also international situation has to be considered. In these situation, the network system has to be stable and more developing.

**Extension (Insight)**
To improve this situation, the government has to try to research for setting infrastructure which provides fast and stable performance and real time transmission rates system. It can be solved by local government, but more collaboration with federal government is needed. For communicating government to players, the communication system has to be in the stable networks system.

**Design Strategies (Ideas)**
- Collaboration between health care department and others
- Collaboration between state and federal government
- Improving network infrastructure

**Solution Elements (Ideas)**
<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td>Re-structured government system based on health care</td>
</tr>
<tr>
<td>Speculative</td>
<td>Auto upgrading Infra structure</td>
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</tbody>
</table>

**Version** 1
**Date:** 10/13/07

**Date of first version:** 10/13/07
### Design Factor

**Title:** The government’s duty to support the suppliers’ market  
**DF.45**

<table>
<thead>
<tr>
<th>Project</th>
<th>Funding Department</th>
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</thead>
<tbody>
<tr>
<td><strong>Activity</strong></td>
<td><strong>Source/s</strong></td>
</tr>
<tr>
<td>Collecting</td>
<td>Team deliberations</td>
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<tr>
<td><strong>Originator</strong></td>
<td><strong>Contributors</strong></td>
</tr>
</tbody>
</table>
| Soo Yeon Paik | Hanna Korel  
Amy Palit  
Alexander Troitzsch |
| **Design Factors** | **Associated Functions** |
| **Ideas** | F35 Collect information on which technologies to fund from suppliers  
F36 Collect R&D proposal from suppliers |

#### Observation (Insight)

The government has to support suppliers for improving national health care. When the government choose the supplier who will get the funds, there have to be standards for fairness.

#### Extension (Insight)

The prices of the medical products effect the whole medical service and the quality of national health care. Therefore, the government has to find to help medical technologies in medicine, equipments, etc. Among the way of helping suppliers, the funds is the one of the effective way. For effective management of funding, the government has to choose the supplier with caution. The government needs to collect research and development proposal and information on which technologies to fund from suppliers. To observing closely, the government can collect the information for twice a month, etc. Moreover, the government can inspect the results with the company’s competitors.

### Design Strategies (Ideas)

- Set the rules for the effectiveness of funding suppliers
- Collect the information regularly
- Inspect the R&D results with the company’s competitors

### Solution Elements (Ideas)

- **Status:**  
  - **E** Existing  
  - **M** Modified  
  - **S** Speculative  

- **M** Funding Department  
- **E** Collaboration with suppliers

**Version:** 1  
**Date:** 10/13/07  
**Date of first version:** 10/12/07
Observation (Insight)

The outcome measures from suppliers are changeable to each medical condition. Because of that, the government has to meditate between the big gaps.

Extension (Insight)

Drug results of clinical trial and efficacy information from suppliers can be changed by different environment and subjects cause the drugs are sensitive materials. The government has to consider the situation and set the standards for preparing big gaps of measures.

The government has to listen to experts in medical area also for understanding the situation deeply. The standards has to be reflected on reality.

Design Strategies (Ideas)

Set the standards for preparing big gaps of medical measures

Co-research with medical experts

Solution Elements (Ideas)

Common Format Lab

Status: E Existing  M Modified  S Speculative
<table>
<thead>
<tr>
<th>Project</th>
<th>Rethinking – Design Thinking – Health Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Enables the public to gather health information and information about issues like about privacy protection in health care.</td>
</tr>
<tr>
<td>Originator</td>
<td>Alexander Troitzsch</td>
</tr>
<tr>
<td>Contributors</td>
<td>Hanna Korel, Amy Palit, Soo Yeon Paik</td>
</tr>
<tr>
<td>Source (if existing or modified)</td>
<td>HIPAA - United States Department of Health and Human Services, Office for Civil Rights Website on medical privacy <a href="http://www.hhs.gov/hipaafaq/about/187.html">http://www.hhs.gov/hipaafaq/about/187.html</a></td>
</tr>
</tbody>
</table>

### Properties — what it is:

- A free health service hotline for the public
- Health service with special trained health consultants

### Features — what it does:

- Answers are given by Fax, phone, FAQ or PDF
- Provides understandable, transparent information on privacy issues
- Informs who has access to medical data of a person
- Collects feedback
- Answers questions regarding general health issues like food, exercise or sleep
- Provides links to approved information sources

### Associated Function/s

- **F74.** Collect member information from health plans

### Source Design Factor/s

- **DF4.** Data security and privacy protection issues

### Version 2 Date: 12/11/07 Date of first version: 10/11/07
### Solution Element

**Title:** Health Data Advisor

<table>
<thead>
<tr>
<th>Project</th>
<th>Rethinking – Design Thinking – Health Care</th>
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<tbody>
<tr>
<td>Mode</td>
<td>Health Plans</td>
</tr>
<tr>
<td>Activity</td>
<td>Collecting</td>
</tr>
</tbody>
</table>

**Originator**

Alexander Troitzsch

**Contributors**

Hanna Korel
Amy Palit
Soo Yeon Paik

### Description:

Supports individuals managing their medical data

### Properties — what it is:

- A person that helps to find, understand and manage medical data

### Features — what it does:

- Provides information about how to collect medical data
- Provides information about when to distribute what kind of data to whom
- Provides access to platform to store and maintain data
- Speaks many languages

### Associated Function/s

- **F74.** Collect member information from health plans

### Source Design Factor/s

- **DF4.** Data security and privacy protection issues

### Version 2

Date: 12/11/07

Date of first version: 10/11/07
Means/Ends Analysis

Cluster: 302
Project:
Rethinking – Design Thinking – Health Care
Means/Ends Analysis

Project:
Rethinking – Design Thinking – Health Care
Rethinking - Design Thinking - Health Care
The Government Role: Information Structure

December 14, 2007
Rethinking - Design Thinking - Health Care
The Government Role: Information Structure

December 14, 2007
Rethinking - Design Thinking - Health Care
The Government Role: Information Structure

December 14, 2007
Ends/Means Synthesis

Cluster: 205
Project: Rethinking – Design Thinking – Health Care

Elements
System
Ends
Means
Ends
Means
Ends
Means
System Elements

End for What Means?

End for What Means?

End for What Means?

End for What Means?

End for What Means?

End for What Means?

End for What Means?

End for What Means?
Ends/Means Synthesis

Cluster: 302

Project:
Rethinking – Design Thinking – Health Care

End

Means
Ends

Means
Ends

Means
System Elements

302 Health Plan Strategy

End for What Means?

Increase competition in the health care sector with the aim to improve quality and democratizing prices

Provide transparent information about different kinds of health insurances available to the public

Website that informs consumers about different kinds of health plans

Standards for health plans

Subsidize systems that support consumers in their choices regarding health plans

Comparable health plan profiles (one page)

Recommendations and future scenarios for health plans

Collect and analyze data out of primary and secondary research to define standards within a political decision making process

Health plan index

Support health plan communication to other players

Communicate standards to health plans

Health plan performance database

Collect and analyze data out of primary and secondary research to understand trends and create future scenarios for health plans

Health Plan comparison tool (offers the best insurance service considering individual situation of customer)

Communicate scenarios to health plans and public

Consumer community portal about health plan experience

End for What Means?

End for What Means?

Board of stakeholders (insurers, providers, politicians, consumers, employers) that create health plan standards

Department for health plan standards creation, communication and control

Standard information exchange system with info on standards, regulations, goals, milestones, requirements. Templates and data up- and download function

Trend analysis tool

End for What Means?

Future scenario planning process and tool

Dynamic future scenarios

Future scenarios as 5 yearly project (e.g. health plan 2020)

Feedback on future scenarios

87
<table>
<thead>
<tr>
<th>Functions</th>
<th>Project: Rethinking - Design Thinking - Health Care</th>
<th>Cluster: 103</th>
<th>Page:</th>
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<tbody>
<tr>
<td>Features</td>
<td>System Elements</td>
<td></td>
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<tr>
<td>25 Publish information regarding providers through various channels</td>
<td>HC Information Initiative</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>26 Publish provider ratings information</td>
<td>Brand Identity</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>27 Publish information on new provider practices, trends, and patterns</td>
<td>Style guide</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>67 Publish info on provider performance at the medical condition level</td>
<td>Quality Seal</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>99 Publish comparable health plan profiles</td>
<td>Hands on Education Program</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>100 Publish Medicare/Medicaid status reports</td>
<td>Health Information Navigator</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>101 Publish Census information</td>
<td></td>
<td>1 2 3 4 5</td>
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</table>

- ■ Strongly supports fulfillment of the Function
- □ Supports fulfillment of the Function
<table>
<thead>
<tr>
<th>System Elements</th>
<th>HC Information Initiative</th>
<th>Brand Identity</th>
<th>Style guide</th>
<th>Quality Seal</th>
<th>Hands on Education Program</th>
<th>Health Information Navigator</th>
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<td>25</td>
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<tr>
<td>26</td>
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<tr>
<td>71</td>
<td>Publish success stories of employers (as guidelines)</td>
<td></td>
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<tr>
<td>93</td>
<td>Communicate regulatory issues to health plans</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Publish comparable health plan profiles</td>
<td></td>
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</table>

- **Strongly supports fulfillment of the Function**
- **Supports fulfillment of the Function**
## Project: Rethinking - Design Thinking - Health Care

### System Element Pairings:

<table>
<thead>
<tr>
<th>Systems</th>
<th>Elements</th>
<th>Elements</th>
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</thead>
<tbody>
<tr>
<td>Health Care Information Initiative</td>
<td>1-3</td>
<td>5-7</td>
</tr>
</tbody>
</table>

### Score:

1. Critical relationship
2. Strong relationship
3. Slight relationship
4. No relationship

### Cells:

To avoid duplication, use this form when row numbers are less than column numbers (e.g., for 2-4 in rows vs 5-7 in columns). Do not use the shaded cells.

### Some questions to ask:

1. How should System Element X work with System Element Y?
2. What new feature/s are possible if System Element X works with System Element Y?
3. What new property/ies would make System Element X work with System Element Y?

### System Element Relationships

<table>
<thead>
<tr>
<th>System Elements</th>
<th>Quality Seal</th>
<th>Health Information Kiosk</th>
<th>Health Information Navigator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

- The Quality Seal marks approved information. It is an important orientation for consumer information on health care.
- The Brand Identity is not related to the Quality Seal.
- The Style Guide is not related to the Quality Seal.
- The contents for the health information kiosk as well as his appearance are branded.
- The Style Guide is not directly related to the Health Information Kiosk.
- The Style Guide is not directly related to the Health Information Navigator.
<table>
<thead>
<tr>
<th>System Element Pairings:</th>
<th>1-3</th>
<th>1-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>row elements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>column elements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System Element Relationships**

### 1. Health Care Information Initiative

- **Score:** 3
- **Relationship:** Critical relationship
- **Description:** The Hands on Education Program is a sub-system of the system element Health Care Information Initiative and therefore highly related.

### 2. Brand Identity

- **Score:** 3
- **Relationship:** Critical relationship
- **Description:** The Hands on Education Program is about communication between people. To make it a consistent experience for the consumer the brand needs to be implemented.

### 3. Style Guide

- **Score:** 0
- **Relationship:** No relationship
- **Description:** The Style Guide is not directly related to the Hands on Education Program.

### Cells

- **Score Guide:**
  - 1. Slight relationship
  - 2. Strong relationship
  - 3. Critical relationship
  - 0. No relationship

To avoid duplication, use this form when row numbers are less than column numbers (e.g., for 2-4 in rows vs 5-7 in columns). Do not use the shaded cells.

### Some questions to ask:

1. How should System Element X work with System Element Y?
2. What new feature(s) are possible if System Element X works with System Element Y?
3. What new property/ies would make System Element X work with System Element Y?

### System Elements

- **Hands on Education Program**
- **Health Information Navigator**
- **Health Information Kiosk**
## System Element

<table>
<thead>
<tr>
<th>Originator</th>
<th>Alexander Troitzsch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributors</td>
<td></td>
</tr>
</tbody>
</table>

### Title: Health information Navigator

<table>
<thead>
<tr>
<th>Status:</th>
<th>Existing Modified Speculative</th>
</tr>
</thead>
</table>

### Description:

The Health Information Navigator is a special trained governmental employee that educates people about health issues in general and how to use computers and the internet. A Health Information Navigator speaks at least one foreign language and can be found in public places like governmental buildings, libraries or schools. His mission is to teach people how to better find and understand high quality health care information and how to compare and rate health services. He also encourages people to be more responsible and actively manage personal health.

### Properties — what it is:

- Special trained health care information specialist
- Skills in health, IT, teaching and languages

### Features — what it does:

- Answers questions and gives advice regarding health, healthy living, nutrition and exercise
- Informs people about health care issues like Electronic Medical Records
- Informs people where to find relevant health information and how to navigate health care information systems that are provided or recommended by the government
- Informs people in public places like libraries
- Teaches classes in schools or at public places like libraries
Fulfilled Functions

- F74. Collect member information
- F82. Create portal for data exchange with hp
- F85. Create comparable health plan profiles
- F87. Create standards for minimum coverage
- F88. Plan communication campaign
- F94. Communicate scenarios and strategies on how to redefine health care
- F95. Communicate specific instructions, standards and values regarding the IT system
- F97. Communicate standards for score cards
- F98. Communicate disease prevalence
- F99. Publish comparable health plan profiles

Associated Design Factors

- DF04 Data security and privacy protection issues
- DF06 Language Issues
- DF08 Public lacking knowledge on health issues
- DF09 Unreliable image of the government
- DF14 Costs caused by uninsured

Discussion

People can go to a public facility like a community center or a library and get help from a specially trained expert in health information. This expert is called the Health Information Navigator and can help them find the appropriate information they need for their health issues. The Health Information Navigator uses the Health Information Kiosk to explain what information means and how they can use web sites like the health.gov web site to find for example the best treatments. The government is also considering language issues. Most of the Health Information Navigators speak a foreign language like Spanish or Chinese to better teach people that are not fluent in English.

Classes on health care information and the usage of IT Systems and the internet in general are also offered by the government and conducted by the Health Information Navigator. This is providing the opportunity to educate more people at the same time. Furthermore one strategic goal of the government should be to bring people together with the aim to encourage networking among the them so they can share knowledge easily and maybe educate each other on the long run.
While watching TV, Betty sees a commercial for Health Information Navigators that informs her that she can talk to one at public places like the library. At the library, Betty finds the Health Information Navigator, and is then directed towards the Health Information Kiosk. The Health Information Navigator sits with Betty and shows her the health.gov, which describes all the different ways she can monitor and control her diabetes. She is pleasantly surprised by how helpful the Health Information Navigator is and appreciates the convenience of the process.
To establish high quality services, information needs to be transparent, up to date and neutral. Of course consumers will go to other sources of health information not provided by the government. The government should recognize this and feel a responsibility to act as a guide for outside sources of trusted information. The Health Care Quality Seal is a way for consumers to know when they come to a health information site that is approved by the government. Sites that bear the seal conform to rigorous privacy and quality standards. Once received, it can be displayed on information materials, ads, web sites or products.

Properties — what it is:
- Seal that labels high quality health care services
- A high quality services sign for consumers

Features — what it does:
- Encourages and accelerates national adoption of high quality standards and practices in the health care sector
- Approved sites have been audited for the implementation of specific standards
- Ensures reliable health information
- Ensures governmental data security and privacy standards were met
Because sites approved with the Health Care Quality Seal will be listed on health.gov and promoted by other channels, health information sources in the private sector will see the need to gain approval. The Health Care Quality Seal is a step to encourage and accelerate national adoption of high quality standards and practices in the health care sector.

The seal is a privilege for players in the health care sector to use on their info materials, ads, web sites or products. It signifies that the player has been audited for the implementation of specific standards. Health Care Quality Seal candidates must agree to adhere to governmental quality standards, part of which includes submitting information to the Government in time to ensure conformance with quality requirements. Health Care Quality Seal candidates are required to demonstrate compliance with the following criteria over a certain period of time, before they are granted permission to display the seal:

- The service meets governmental security and privacy rules and regulations
- The service meets all governmental requirements and standards
- Information is transparent and up to date
- Information is neutral and confirmed
- Redundancies have been eliminated
David is looking for some medical information about diabetes on the internet. He finds many different information sources. Some of the websites he has found explain diabetes in differently which confuses him. Then he notices that one of the sites has a familiar seal, similar to the one he saw on TV. It is the Health Care Quality Seal and he remembers that this is the government seal of approval for credible health information. David continues reading about diabetes on the site that has the Health Care Quality and is now confident that he is receiving correct health information.