

Transforming Health and Health Care to a 21st Century System

Draft

by

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“ I grasped just enough to understand that internal changes in hospital and medical practices--organizational reforms and specific measures to reduce errors and improve patient outcomes--have to be at the heart of any serious effort to rescue our dysfunctional health care system.”*

David Broder on taking a trip to Pittsburgh with Secretary Paul O'Neill to look at the project O'Neill helped launch to apply the system and culture of quality to health and healthcare.

*Broder, David S. 2002. Why O'Neill will Be Missed. *Washington Post*, 10 December, A29.

SUMMARY

- The current health system is politically and financially impossible to defend.
- For both practical and political reasons, the Republicans should take the lead in transforming the health system.
- Practically, Republicans should favor a new approach to health and health care because a more modern system will produce better outcomes at lower costs. This will save saving both lives and money while providing a higher quality of life for most Americans and a more satisfying career for most health providers.
- This positive practical outcome is key to balancing the federal budget because health is now a bigger (and faster growing) part of the federal budget than all appropriated spending. Without successful health transformation it will be virtually impossible to balance the budget as the baby boomers age and health costs go up (without reforms, Medicare will be a far greater financial challenge financially than Social Security).
- Politically, Republicans should want to engage in a new initiative to transform the health and health care system because it would eliminate the issue on which the Democrats think they can mobilize the country.

➤ Since the 2002 election there is every sign that Democrats intend to focus on health care. Their argument is simple:

1. The current system is not working.
2. We need a better system.
3. The Republicans do not care that you can't afford health care.
4. Democrats care and will at least try.

➤ Republicans traditionally would have been comfortable simply opposing Democrats and poking holes in their arguments. That may work but it will not solve the budget problem and it will not meet the challenges of the Republicans the new stable governing majority.

➤ Governing parties offer solutions; opposition parties offer critiques of solutions. Through health care transformation, the Republican Party will finally prove itself as a party of leadership and solutions.

- The key to this new opportunity is recognizing two major facts:
1. Republicans will never win a debate over health care within the framework of the *New York Times*-liberal Democrat definition of the issue. If this is simply a debate about getting the government to pay for things and using bureaucrats to protect people, then Republicans will never be able to outbid the Democrats.
 2. The new opportunities in technology, quality, the Internet, and information systems; new requirement for a system to defeat biological warfare; and the opportunity to rally all the health providers in a litigation reform campaign give the Republicans an opportunity to create a totally new debate – a debate with new language, ideas, and solutions. The market-oriented, personal choice ideas of the 2002 Economic Report of the President give Republicans an opportunity to create a decisive constructive break with the failed liberal health proposals of the past.

This presentation outlines how the new and dramatic process of transforming will save lives and dollars. The amazing fact is that the following initiatives are based on existing though misused programs that simply do not fit into the liberal Democrat definition of health.

Why the Current Health System Must Transform

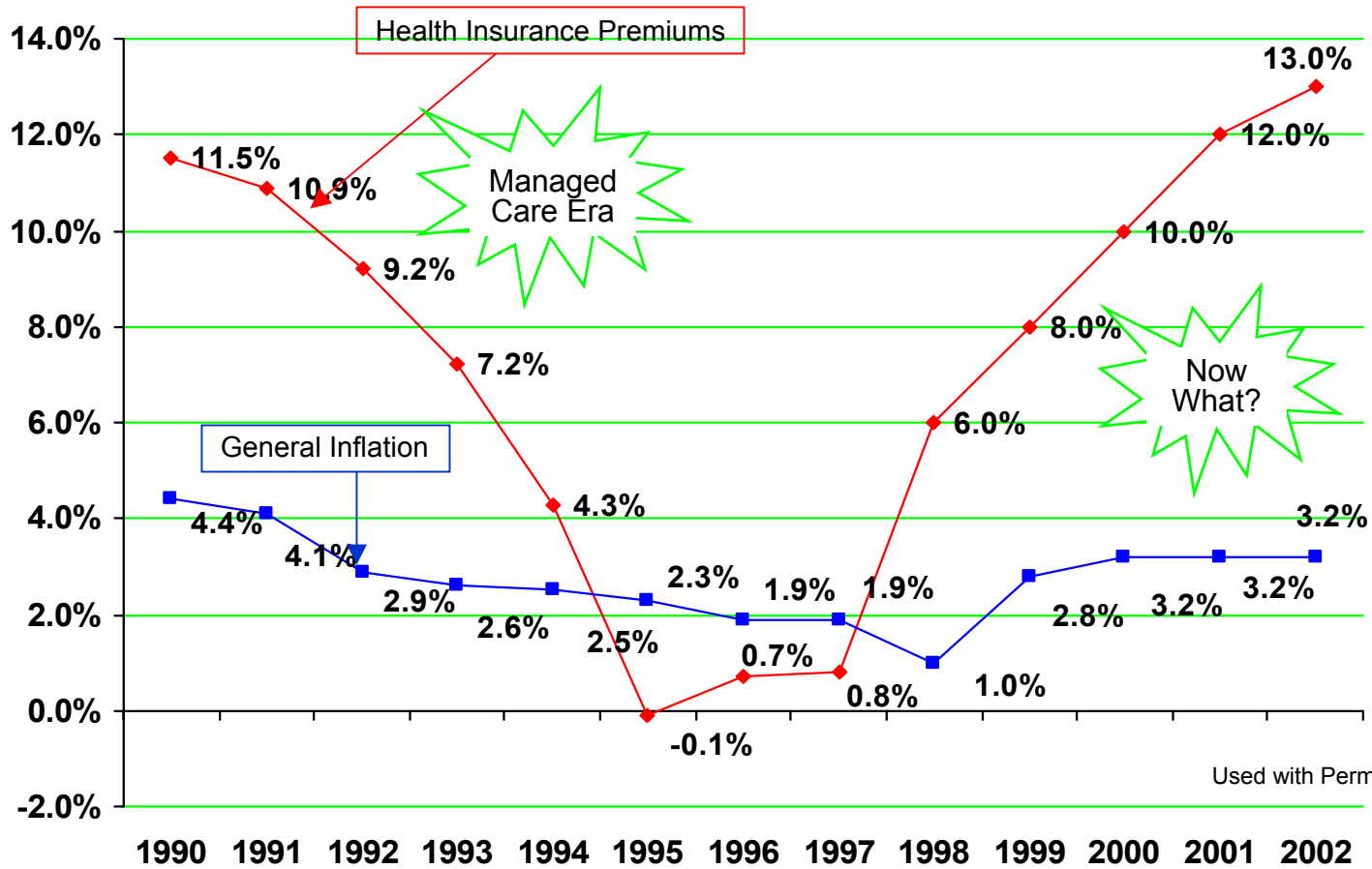
- The current health system is steadily increasing unsustainable health care costs.
- The current health system does not provide inadequate coverage of individuals.
- The current health system's inadequate quality costs lives and money.
- The current health system cannot possibly meet the challenge of a biological, chemical, or nuclear attack.
- The current health system cannot keep up with innovations in science, technology, and best practices.
- The current health system's model of health is wrong. The current model lacks effective systems, information technology, financing mechanisms, and incentives. While failing to emphasize quality, it distributes power to everyone but the patient.
- The current health system cannot be "fixed." It must be transformed into a system of better outcomes and lower costs.

Politics and Health Care:

Why the Debate is Unavoidable

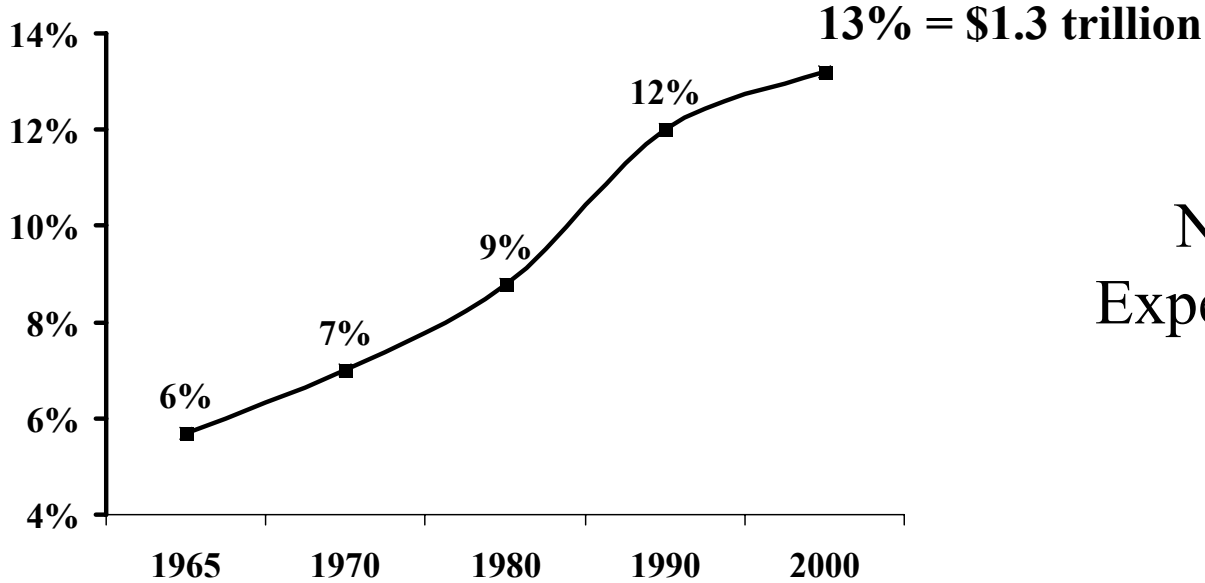
- Rising health care costs hinder small businesses.
- Rising litigation costs limits providers.
- Rising health care costs drive declines in insurance coverage, leaving less people insured.
- Rising health care costs balloon state budgets.
- Rising health care costs result from the growing elderly population.
- The national security requirement of biological warfare requires substantial change in health care.
- The desire for increased Medicare benefits is largest among senior citizens.
 - The House Republican passage of a Medicare drug benefit, (contrasted with the Senate's failure to pass similar legislation) may have been the key to the 12% GOP majority victory among seniors in the 2002 election.

Skyrocketing Insurance Premiums



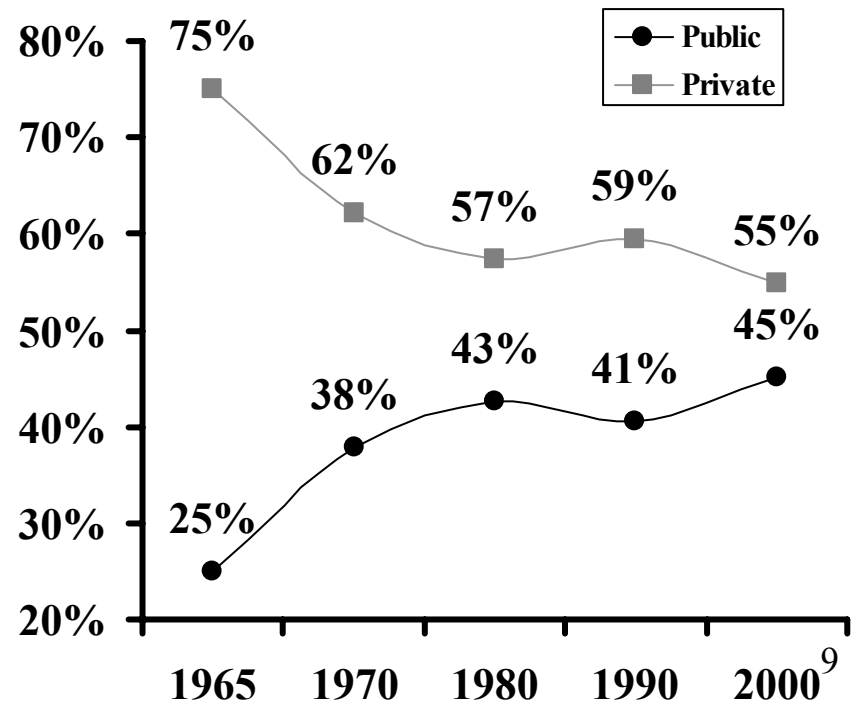
Used with Permission from **Anceta**

National Health Care Expenditures as Percentage of GDP



Private vs. Government Spending as Percent of GDP

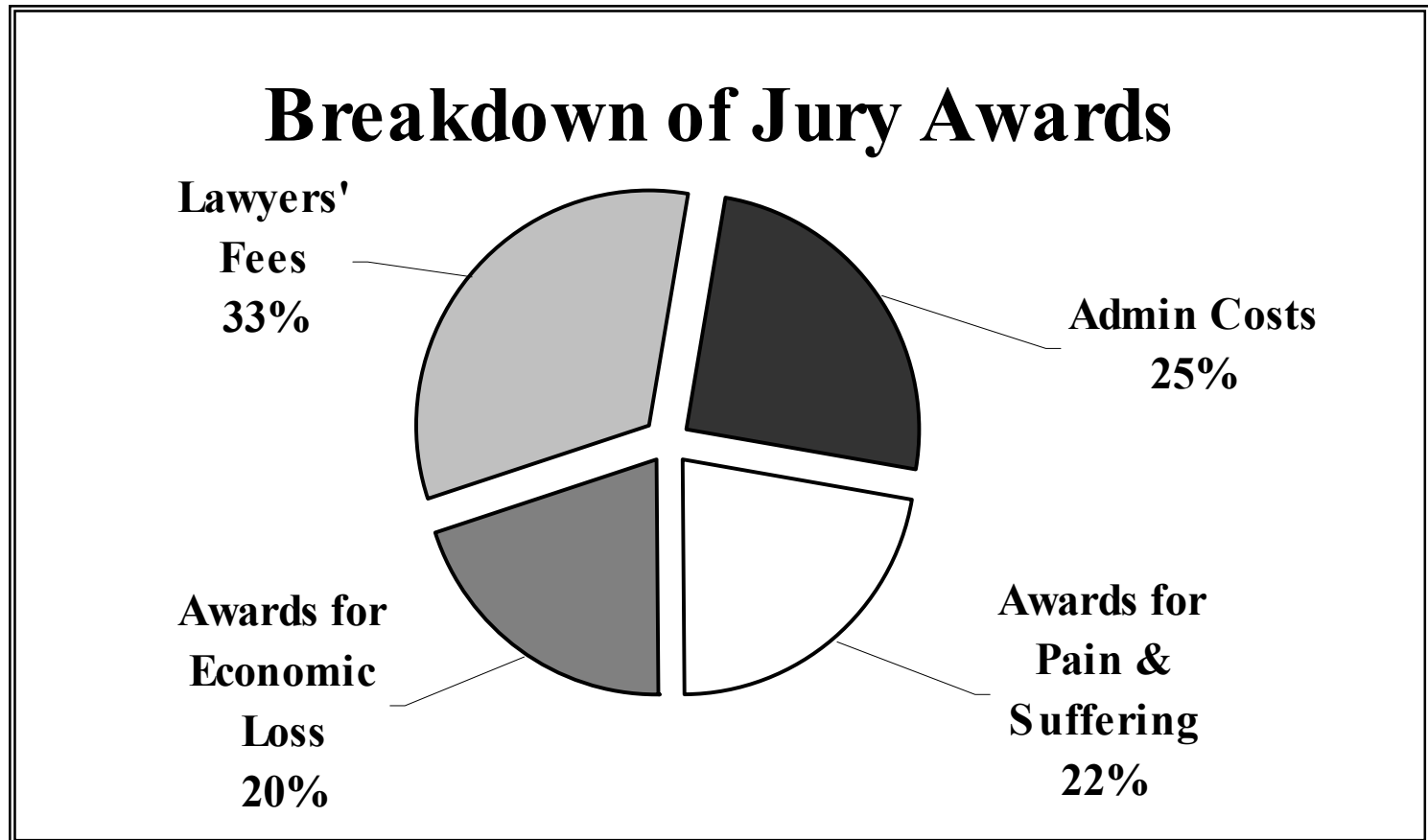
(a breakdown of private vs. public spending can be found in the appendix)



Source for both graphs:

<http://www.cms.gov/researchers/pubs/datacompendum/2002/02pg14.pdf>

Malpractice Cases



- 58% of the awarded amount never reaches the victim or the victim's family.

Proposition

The key directions that will transform the current health system:

- A quality focused system produces better outcomes at lower cost.
- The Internet and the information technology revolution are increasing convenience and accuracy while lowering costs.
- With pioneering health innovators, we have proof that better outcomes save lives and dollars.
- Chapters 4 and 5 from the 2002 Economic Report of the President create the framework of choice, quality, and market incentives that we believe will lead to better solutions at lower cost while increasing patient satisfaction.

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20th Century

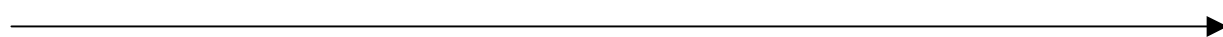
21st Century

Provider-centered



Patient-centered

Price-driven



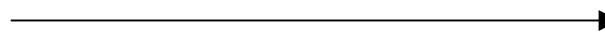
Values-driven

Knowledge-disconnected



Knowledge-intense

Slow Diffusion of Innovation



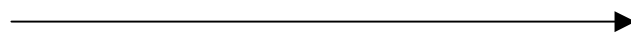
Rapid and Rich Innovation

Reaction after discovery
Of disease. Then
care is episodic,
disjointed, and
provider-centered



Use genetic,
nutrition-activities-attitudes and
outcomes-based knowledge to create a
diagnosis prevention-self-management,
health oriented system
of continuous involvement

Paper-based



Information Age Electronically Based

Triangular Third Party
controlled Market
(patient-provider-payer)



Binary Mediated Market
(patient-provider)

Transforming Health and Health Care (Page 2 of 2)

20th Century

21st Century

Adversarial government
focused on process

Collaborative government focused on best
outcomes

Limited Choice

Increased Choice

Outcomes Under-measured and Ignored

Outcomes Measured and Improved

Overall Cost Increase

Overall Cost Decrease

Quantity and Price Measured

- 2 million hospital induced illnesses & 1.5 million nursing home induced illnesses (source: CDC)
- 44,000 – 98,000 hospital deaths due to medical error (source: 2002 IOM report)
- \$17 billion linked to medical errors

Quality Care and Life measured

Value enhancing goals of:

- 80% reduction in nursing homes and hospital induced illnesses

- 20% decline in projected increase in spending

A System of Better Outcomes & Lower Cost is Possible

The system should be:

- Patient-centered
- Values-driven
- Knowledge-intensive
- Innovation-rich
- Information Age-based
- Market-mediated
- Lower Overall Cost by systematically focusing on improving quality outcomes and taking the cost out.

Transformation Examples

This is not theory...

- This vision of transforming health and health care is not based on a theory. It is based on real examples of health entrepreneurs who are delivering better care at a lower cost today.

However....

- The existing innovations saving lives, improving the quality of life, and lowering costs fail to spread rapidly because:
 1. The old 20th century model power centers simply reject changes that challenge their habits.
 2. Federal and state health bureaucracy structures slow down innovation infusion.
 3. Archaic state laws inhibit modernization and quality efforts.
 4. The current health funding system starves providers of capital essential to innovation.
 5. The news media system thinks that health is restricted to financing, an area they define as “non-news” and “non-policy.” Therefore, there is no coverage of huge opportunities in quality and transforming innovation.

Transforming Examples

- Consider some of the existing breakthroughs that could be grown into nationwide and worldwide opportunities for better care, with better outcomes, at lower costs...

Transforming Example: Visicu

www.visicu.com

The Situation:

- Patients in hospitals without full-time intensivists are *three times more likely to die* after an abdominal aneurysm (21% vs. 7%).
- Dr. John Birkmeyer, a Dartmouth researcher, estimates that 50,000 lives could be saved annually in metropolitan areas alone if intensivists-model ICUs were in place. The rural and small town opportunity may be greater.
- A recent study predicted that by 2020, the supply of critical care "specialist hours" will be 22% below demand, and in 2030 it will be 35% short. The nursing shortage has also forced some hospitals to staff ICUs with less experienced nurses than in the past.

The Solution:

- Visicu's e-ICU solution offers a low-cost intensivists model that could be implemented in every ICU.
- Visicu offers 24/7 ICU monitoring by board certified intensivists through an electronic infrastructure of real-time monitors, electronic medical records, and telephonic and video conferencing.
- By May 2003, 400 ICU beds will have intensivists 24/7 because of an e-ICU hub.

The Outcomes:

- Sentara Hospital System in Virginia:
 - 25% reduction in severity-adjusted hospital mortality for ICU patients
 - 17% reduction in ICU and hospital length of stay
 - Healthcare cost savings of \$2,150 per patient or \$3 million in financial benefit above the entire program costs

Big Picture (Extrapolation of findings):

- **If Visicu's e-ICU was implemented in every American ICU, 54,000 lives could be saved at a cost savings of over \$8 billion annually.**
- **If every Veterans Hospital ICU was transformed into an e-ICU by connecting to its regional hub (28 regions), the VA would save \$100,000 per ICU bed (equaling annual savings of \$350 million).**

Transforming Example: Active Health Management

www.activehealthmanagement.com or www.nap.edu/html/to_err_is_human

The Situation:

- According to the Institute of Medicine report, *To Err is Human*, it takes up to 15 years for a new discovery or practice to diffuse into actual use.
- Two million medical errors occur in hospitals every year.

The Solution:

Their technology detects medical errors by scanning physician, hospital, pharmacy, and laboratory claims for individual patients. The technology then applies the information against evidence-based clinical knowledge for the purpose of identifying patients that are not getting best care. Once identified, Active Health professionals intervene with their practicing physician and necessary critical information.

The Outcomes:

- One academic group studied 50,000 managed care members by utilizing Active Health Management tools with 25,000 members.
- 2,000 doctor interventions/recommendations
 - 15% decrease in hospital bed days per 1000 members
 - 19% decrease in hospital paid claims
 - 5.5% decrease in overall paid claims
- A 56,000 Medicare+Choice Blue Cross/Blue Shield plan yielded 20,000 clinical issues in one year

Current Utilization

- 1.8 million patients currently enrolled, increasing to over 3 million patients in 2003 through contracts with commercial health plans, self-inured employees, and government payers
- Government subscribers include Massachusetts state employees, some FEHB plans, and some Medicare-plus choice plans

Big Picture (Extrapolation of findings from real Active Health members):

- **2-4% savings in medical costs for Medicaid and Medicare Populations**
- **3% average savings for 40 million Medicare beneficiaries would save \$9 billion annually**

Transforming Example:

Computerized Physician Order Entry

www.leapfroggroup.org/FactSheets/CPOE_FactSheet.pdf

The Situation:

- Annually, over 1 million medication errors occur in hospitals alone. One-half are preventable.
- Medication errors in hospitals alone account for 7,000 deaths annually.
- Each error adds \$4,700 in hospital costs resulting in \$2 billion per year for hospital costs alone (does not include malpractice costs and losses in worker productivity).
- 13-15% of hospitals have CPOE, but doctors use the technology less than 25% of the time

The Solution:

- Computerized Physician Order Entry (CPOE)– Physicians prescribe directly using an electronic prescribing system (computer, PDA/handheld) that includes software to intercept prescription order errors.

The Outcomes:

- Brigham and Women's Hospital: 55% fewer medication errors with an ROI of \$5-\$10 million in annual savings.
- Latter Day Saints Hospital in Salt Lake City: 70% reduction in adverse drug events.
- Wishard Memorial Hospital: Length of stay fell by 0.9 days and hospital charges fell by 13% .

Nationwide utilization status:

- Less than 5% of US physicians use CPOE.

Big Picture – (Extrapolation of findings)

- **If every doctor used CPOE when treating inpatient Medicare patients**
 - **Prevention over 400,000 adverse medication errors**
 - **Average Medicare length of stay would go from 6.0 to 5.1 days**
 - **\$823 million savings in Medicare hospital charges alone**

Transforming Example: Vanderbilt University Decision Support led Computerized Physician Order Entry

www.mc.vanderbilt.edu/vcbh

The Situation:

- Laboratory testing is a significant cost driver in health care.

The Solution:

- In December 1999, Vanderbilt University Medical Center altered their CPOE so it was driven by a decision support system that asked physicians to decide if each ordered open-ended, ongoing test was still needed. With a simple click, a normally automatic test could be stopped.

The Outcomes:

- CHEM7 orders decreased by 66% with actual CHEM7 testing decreasing by 40% -- saving \$200K to \$300K/year
 - Portable Chest X-Ray orders decreased by 40% with actual testing decreasing by 35% - saving \$1M/year
 - EKG orders decreased by 10%
 - Total savings are estimated at \$1.3M/year
- When Vanderbilt applied the system to other frequently misused labs (ABG, calcium, magnesium, CT/MRI, etc), they saved up to 25% of the inpatient labs and X-rays costs.

Big Picture (Extrapolation of findings):

If this system was implemented nationally, hospital systems would save approximately \$10-20 billion annually.

Transformation Example: Mayo Clinic, Jacksonville, FL

www.mayo.edu or www.mayoclinic.org

The Situation:

–Paper based practice of medicine decreases the productivity of doctors while increasing both patient waiting time and the opportunity for medical errors.

The Solution:

Mayo Clinic Jacksonville, FL implemented the Cerner HNA 3.06 system which facilitated the transition to an electronically based patient record system. Examples include:

- moving from hand written notes to a dictation with rapid electronic transcription
- scanning historical images into the electronic clinical repository

The Outcomes:

Dictating notes shifted work from the physician and improved both legibility and medical record turnaround time.

- The system allowed for real time availability of clinical information (notes, Lab, X-ray, and other results), automatic checking for duplicate redundant orders, simultaneous access to the same patient chart, improved ability to answer ad hoc questions for patient calls, more timely response from physicians when they have questions, improved flow of information to the physician enabling him/her to have a more “complete” picture of what is known about the patient’s condition at the time of the appointment.
- Mayo Clinic Jacksonville, FL estimates the savings in its facility alone to be \$7 million.

Big Picture (Extrapolation of Findings):

Reduction of medical and medication errors from illegible notes and Rx saving \$17 billion and 98,000 lives (*To Err is Human*, IOM 2002 report).

•The elimination of forms, printing, circulation, and storage space will annually save hospitals anywhere from \$250,000 to \$350,000.

Transforming Example: Evercare

www.evercareonline.com

The Situation:

– More than 30 million elderly and disabled Americans receive health care through Medicare, and six million of them qualify for both Medicare and Medicaid. The oldest Americans tend to be frail, have complex healthcare needs, and reside in nursing homes or assisted living facilities.

The Solution:

– Evercare has demonstrated that for many of the frailest elderly, quality of life can be enhanced while hospital admissions and medications decrease by providing high quality medical management in nursing homes and assisted living facilities with focused timely delivery of coordinated healthcare.

The Outcomes:

- Evercare has a 97% satisfaction rating among families.
- Hospital admission rates for Evercare residents are 50% less than standard nursing home patients due to comprehensive care planning and long-term care coordination.
- 94% of Evercare residents have discussed advance directives, cutting down the cost often incurred at end of life, compared to roughly 57% of other Medicare beneficiaries.
- Evercare patients enter into the program consuming an average of *23 medications per day*. Because of coordination of care efforts, the number of medications consumed is *reduced to an average of 8 pills per day*.

Utilization status:

– Evercare presently serves 60,000 frail, elderly, chronically ill, and disabled Medicare and Medicaid beneficiaries and has a nation wide waiver from HHS to provide services in every county in the country.

•Big Picture (Extrapolation of Findings):

– **By responding to the comprehensive needs of the whole patient and family, Evercare is able to avoid unnecessary transfers to emergency rooms and hospitals, and decrease risk to frail, elderly and chronically ill people. \$20 billion could be saved over a 5-year period if this system could be implemented by the federal government. This can be accomplished by improving communication and involvement with the family and health care providers in the medical decision making process.**

Transforming Example: Northwestern Memorial Hospital

www.nmh.org

The Situation:

- A staph infection is a specific hospital-induced illness that annually extends patients' length of stay in the hospitals by 6 million days and increases cost by \$7 billion each year.

The Solution:

- Northwestern Memorial Hospital combated staph infections by installing sinks in the general areas of every patient room because staff members were reluctant to enter patient's bathrooms. Hand washing between treating patients dramatically reduced the transfer of infections.

The Outcomes:

- Northwestern Hospital's staph infection rate is less than half the US average. (2.1% vs. 4.5%)
- Northwestern Hospital's solution lowered financial costs and shortened patient hospital stays.

Big Picture (Extrapolation of Findings):

The health care system would save \$3.6 billion annually by not having to treat hospital induced infections.

The *Debate* Needs to be Transformed

- There is a remarkable opportunity for dramatically improving quality and outcomes while lowering costs. However, the debate needs to occur outside the “health debate” for payers, government, and the news media.
- The first step in transforming health lies in changing the debate about health to a new set of proposals based on new facts.
- Taken together, these examples illustrate why public policy and news media coverage should shift toward a focus on quality, outcomes, innovation, and entrepreneurial health systems.
- In these examples alone, the health system could create a new pattern of lives saved, enhanced quality of life *and* lower costs.

Summary

- By applying best practices and cost-saving innovations, the government will see dramatic improvements in quality of health care. This will also lead to significant improvements in outcomes and a decline in medical errors.
- As a consequence, there would be a substantial decrease in both the cost of delivering health care and in litigation costs and an increase in quality of life.

The Solution:

**A Vision and Process for
Transforming Health and Health
Care**

The Challenge

- Large-scale comprehensive change in one step is both politically and intellectually impossible.
- Isolated reform efforts fail because the unreformed larger system rejects them or alters them during implementation to serve the interest of the old system.
- There are small isolated models of groups throughout the country that improve quality and, therefore, lower costs.
- There is no clear system for transforming or adapting public policy to save lives and dollars.
- Health is so large (1/7th of the economy) and so complex that no single plan can be designed. As the Clinton effort in 1993-94 proved, trying to design a single comprehensive change in one giant bill is almost guaranteed to fail.

The Solution Is...

1. Explicitly advocate a vision of a 21st century health and health care system.
2. Explicitly outline a transforming strategy.
3. Create transforming councils in the federal government. It should be in a federal-state partnership with a private sector purchaser advisory group (both large and small payers) and provider research advisory groups.
4. Launch a parallel series of building blocks of change.
 - Each block should have a separate strategy, explained on its own merit, coordinated with the general transforming process, and implemented independent of the other building blocks.

Step 1: Explicitly advocate a vision of a 21st Century System of Health and Health Care

- The President is the Chief Patient Advocate for all Americans.
- Governors are the Chief Patient Advocate for their state's citizens.
- Legislators, Federal and State, should be the Chief Patient Advocates for their constituents.
- Every elected and appointed official should think of themselves as a patient advocate.
- Today health decisions and the health debate are dominated by money and pressure groups.
- When the key question becomes “What is the best outcome for the patient?” the entire dialog will change.
- Keys for the patient: quality outcomes, control over personal lives, informed choices, and the latest knowledge that can improve their health.

The leader, as Patient Advocate, can explain the transforming vision in a straightforward, direct, and factual way:

- “If we work together, we can apply new knowledge, new technologies, and new approaches to develop a 21st century system of health and health care in which the patient is at the center of the system. In this new system, the patient and health care providers/partners will have access to the latest technology and knowledge, best outcomes-based processes, and best systems to maintain the health of the patient. This new system will provide better outcomes, higher quality resulting in costs that will actually be lower.”
- “We will incentivize change toward this higher knowledge, better outcomes-based system.”
- “We will invest in the information technologies necessary to protect us all from biological warfare.”
- “Provide healthcare providers with the information-based, quality focused, more efficient, more accurate, and more connected systems.”
- “We will provide lawsuit protection to all who willingly help in surfacing quality problems and eliminating errors.”
- “We will reshape the Federal and State government programs to:
 - Give individuals real control over their health;
 - Provide the right financial incentives for both patients and providers to encourage best outcomes and best quality;
 - Ensure every American has health insurance;
 - Eliminate barriers to the use of modern technology;
 - Incentivize entrepreneurial innovators, both profit and non-profit, to create systems of better outcomes;
 - And shift from an adversarial regulatory approach that focuses on process compliance to a collaborative, knowledge intense regulatory system focused on creating best outcomes.”

The Final Message of the Leaders, as Patient Advocates

“With the help of patients, providers, and payers, we can save thousands of lives and billions of dollars by transforming into a 21st Century system of health and health care.”

“This is our mission.”

Step 2: Transforming Strategies

- The first step is to have speeches, conferences, legislative hearings, workshops, and other activities focused on developing the ideas and explaining the building blocks.
- Transforming institutions should be found in every state.
- Elected officials should take the news media with them to visit the pioneers of better outcomes with lower costs.
- As often as possible, transforming entrepreneurs should be asked to testify at congressional and legislative committees and should be asked to join government advisory boards.
- A nationwide and worldwide online network of best outcomes institutions should be developed.
- The health equivalent of the Baldrige Award for Quality should be developed at both the state and federal levels. Saving lives, improving the quality of life, and lower costs should be the three criteria for the health quality award. The goal is to surface as many innovative, better outcome, and pioneers as possible to communicate the new values of the health system to the public.
- Other strategies should be developed around the building blocks.

Step 3: Creating Transforming Councils

- The amount of change is so large, and so many activities will have an impact upon other activities, that it is vital to have a system of coordinating information and planning. There are a lot of lessons to be learned as the process unfolds. It will be helpful to have systems of new knowledge sharing.
- The goals of transforming councils are to focus attention, coordinate activities, and surface and unlock problems. They should be facilitators of knowledge and encourages of risk taking.
- If councils become centralized planners and decision makers, they will guarantee failure. This process of transforming is too big to be centrally controlled.
- Helping allocate new resources, communicating key ideas; designing new incentives for decentralized implementation, cutting through barriers; and informing the elected leadership and the news media of progress and problems are activities that transforming councils can be very effective in implementing.
- The councils themselves should have an Internet-based continual sharing of information with each other and with the public.

Step 3: Creating Transforming Councils (continued)

- Both the legislative and executive branches of the Federal and State governments should have transforming councils. The principle is simple: as regulator, purchaser, taxpayer, and investor in research, the government plays a decisive role in health.
- Every agency that helps shape the health system should be involved in the transforming council.
- Transforming councils should have advisory groups from purchasers, providers (especially those that are entrepreneurial and innovative), suppliers of significant breakthroughs such as information technology, users of sophisticated quality systems, and scientific resources based on the ongoing revolution in knowledge about health.
- The continuing focus on these councils is simple:
 - What steps need to be taken and what blockages need to be eliminated so every patient can be a part of the 21st Century system of health and health care?

Step 4: The Building Blocks of Change

- Launch a series of parallel building blocks of change with each having a separate strategy explained in its own right, coordinated in design with the general transforming process and implemented on its own without reliance on the other building blocks.
- Even divided into separate building blocks, many of these are huge strategies requiring great leadership to implement.
- The following building blocks of change are not a final comprehensive list but illustrate the scale and nature of the changes that transforming health will require.
- The bulleted examples within each building block are a starting point for ideas, not a final proposal. Many people will have to contribute as the solutions grow in sophistication and effectiveness.

Building Blocks to a 21st Century Health and Health Care System

1. Continue to invest in scientific discoveries, both at NIH and NSF
2. Federal investment for quality, information technology, lowering cost, and epidemiology
3. Develop a culture of best health for awareness, early diagnosis, preventive care, and a nutrition-activity-attitude approach to optimum health
4. Foster personal accountability and empowerment
5. Create information systems that provide usable information to patients and providers
6. Develop a system which rapidly diffuses best practices, highest quality, and best outcomes
7. Build incentives for individuals and institutions to add value and take cost out
8. Create a system of insurance so everyone is covered and the incentives create a true market with patient responsibility
9. Reform the litigation system so doctors and hospitals can be transparent about errors for the purpose of quality improvement
10. Work with employers on increasing leveraging purchasing power to influence change
11. Create a virtual public health system with all health care providers connected through innovative technology to prepare for biological attack
12. Create federal and state councils on transforming health and health care

Real Investment in Scientific Discoveries

- Triple the Budget of the National Science Foundation as rapidly as possible to catch up with the increased investment already made at NIH. It is basic science that creates opportunities for more applied science.
- Continue investment in NIH with a fundamental review of its research priorities and processes.
- Note the requirement to profoundly change our system of basic math and science education to produce enough students capable of maintaining America's scientific effort.
- Recognize the implications of the human genome project for the nutrition-activities-attitude triangle of health maintained and create a new focus on advancing and understanding of this rapidly developing field.
- Create a project comparable to the human genome project to develop a networked supercomputer-based virtual human gut and model the complex nutrition-activities-attitude interactions of the probiotics and their human host which is at the heart of most chronic diseases (cardiovascular, diabetes, etc.) NSF's Partnership for Advanced Computational Infrastructure (PACI) program could be a place to begin.
- Develop more powerful and coherent models of moving scientific breakthroughs to practical applications for patients.

Federal Investment for Quality, Information Technology, Lowering Cost and Epidemiology

- Higher reimbursement for computerized physician order entry- 13-15% of hospitals have CPOE but doctors use this technology less than 25% of the time.
- Create a new paradigm of medical education that includes:
 - Diagnostic health maintenance implications of the human genome project
 - Nutrition-activities-attitude triangle
 - Lifetime learning of best outcomes
 - Patient-provider team
 - Using IT and the Internet
- Bonuses for institutions with high severity adjusted quality outcomes.
- Create a home diagnostic center for routine diagnosis of health status and to make it convenient and easy for patients to engage in health management.
- Create a quality of life index, or quotient, that allows patients to access their own optimum health management strategy to avoid disease rather than waiting for a cure.
- Reimburse physicians for telemedicine and email consultations.
- Allow medical practices with best outcomes to cross state lines.

Develop a Culture of Best Health, Early Diagnosis, Preventive Care, and a Better Nutrition-Activities-Attitude Approach to Optimum Health

- Create opportunities for continuous activity, lifetime awareness of nutrition-activities-attitude continuum and personal health management
- Teach the new model of remaining healthy at every school level
- Require real physical education for K-12, vital to combat the explosion of teenage diabetes and obesity
- Enforce the requirements of the school lunch program
- Incentivize schools to have healthy drinks and snacks

Foster Personal Accountability and Empowerment

- Patient ownership of medical records
- Flexible Health Accounts
- Quality comparisons of doctors and institutions
 - “Consumer Reports for Patients”
- Lower co-pays or decreased premiums for government insurees (FEHBP, Medicare, etc.) who comply with a health management regime and have regular preventive visits
- Develop online systems with personal data to make it easy for patients to monitor their health and be reminded of the nutrition-activities-attitude model of how they can optimize their health

Create Information Systems Providing Usable Information to Patients and Providers

- Develop a drug database listing quality and price comparison for patients, providers, and institutions
 - Include information by demographic location
- Use common DoD, VA, Medicaid, and Indian Health Service electronic platform (SNOMED)
- Incentives for every hospital and doctor's office to use Electronic Medical Records (EMRs)
 - Implementation of EMR with connection to expert systems for diagnostics and drug prescriptions, could save thousands of lives and \$80 billion annually

Develop a system that rapidly diffuses best practices, highest quality, and best outcomes

- Model medicine safety and error standards after the Federal Transportation Administration standards for pilots and mechanics
- Build an accountability system for not using best practices
 - Suspension or withdrawal of license
- Apply technology to detect medical errors or failure to use best practices
- Encourage information systems that rapidly diffuse new best practices, scientific breakthroughs, and other information to both providers and patients

Build incentives for individuals and institutions to add value and take the cost out

- Increased reimbursement for higher, risk-adjusted, quality care
- Increased reimbursement for electronic filing of claims
- Lower co-pays for patients compliant with their health management requirements
- Allow doctors to practice medicine across state lines
- Medicare, Veterans, Military, FEHB program reimbursement for online consultations with doctors
- Provide Personal Health Accounts to pay for co-pays, preventive care, health management, alternative medicine, and mental health
- Reimbursement for skilled medical professional services
- Incentivize health management for the patient and provider

Insure Everyone

- Flexible health account would be personal, portable, carry over, and have tax free interest build up with the ability to withdraw money as taxable income once you have reached a predetermined level of deductible (indexed for inflation).
 - Incentivizes consumerism-- provides an incentive for an individual to have a “first dollar” interest in medical charges.
 - Incentivizes prevention -- individuals have an out year expectation of profit from maintaining good health.
 - Matches financial incentives, information systems with best practices and the notion that responsible stewardship of your body is better health and better finances.
 - Shift cost awareness. Shift management awareness
- Create associational insurance pools so no one buys high cost individual insurance.
- Associations and small companies should have the same exemption as big companies under ERISA. Individuals should have the same tax deductibility as companies.
- Tax credit for those too poor to buy the insurance without assistance.
- Create a national reinsurance pool to eliminate the patient high cost outliers like hemophiliacs. Use a government sponsored enterprise model to have 5 to 7 reinsurers with a competitive interest in best outcomes and lowest costs.

An Example of How to Insure Everyone

- You receive \$1500 every year in a personal health account. It has an interest buildup component so that a young person with good health, who starts to work at 18, might have a \$20,000 deductible which earns \$800 a year in interest and another \$1500 a year in new personal health authority by the time he/she is 35.
- Since the cost of insurance declines less as the deductible gets higher, there is a point where patients could realistically begin to begin drawing money out for a home or to pay off college bills in their thirties if they maintained good health. Money, when withdrawn, would be taxable income— even healthy patients would have a continuing incentive to focus on maintaining good health and to sustain an economic return.

Reform the Litigation System

- Provide caps on damages in situations where health care providers are forthcoming about medical errors
- Develop a non-lawyer health court to review cases. If the plaintiff wins, then the defendant pays. If the defendant wins, then the plaintiff can go to a jury court with the health court opinion included in the proceedings. The goal is to create a speedy, inexpensive, and fair system of grievance resolution before bringing in lawyers.
- Create a loser pays (English rule) model for the clearly frivolous lawsuits designed to coerce a settlement without legal merit.

Work with Employers on increasing leveraging purchasing power to influence change

- Allow Personal Health Accounts to be portable and carryover yearly to have tax free interest buildup
- Allow for tax deductibility of employer contributions to Personal Health Accounts
- Provide tools for employers to give employees evidence-based hospital referrals
- Develop real metrics to help patients make informed decisions
- Incentivize government insurees to go to high volume surgeons
 - More than 100 studies indicate high volume surgeons have better outcomes. One study indicates 4,000 lives could be saved each year.

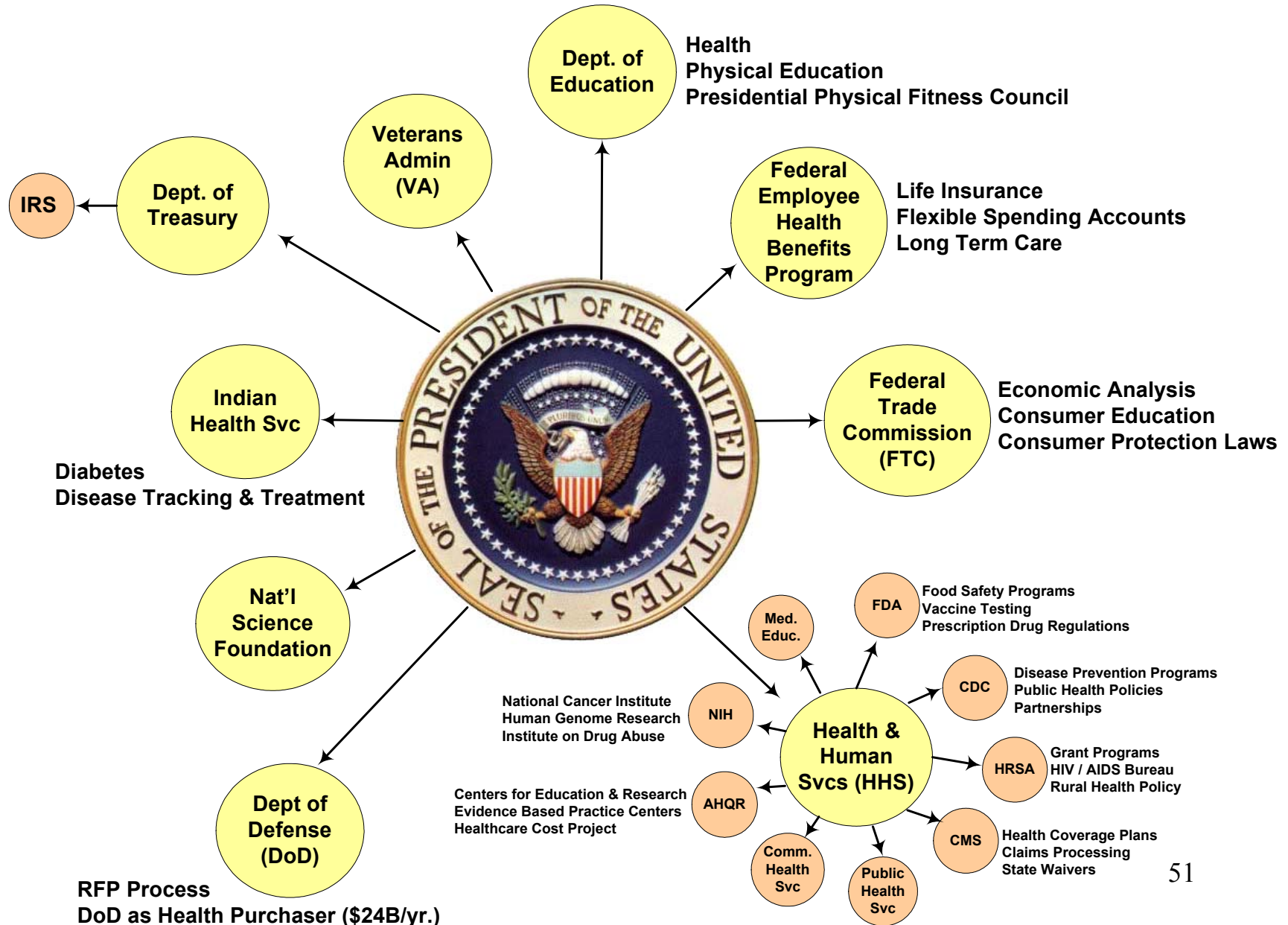
Create a Virtual Public Health System

- Create an information revolution in hospitals, pharmacies, nursing homes, laboratories, and doctors' offices to enable electronic medical records that provide real-time information flow in a crisis.
- Develop a technology standard (SNOMED) for electronic transfer of medical data.
- Use pharmacies as the national link to public health.

Federal and State Councils on Transforming Health and Health Care

The following is an example of the agencies and institutions within the Federal government that should be coordinating with each other about transforming health and health care:

Spheres of Influence: How the transforming councils might develop



What are some key large scale changes that could start the process of transforming?

1. Establish a joint Federal and State Medicaid task force.
2. Launch a health related litigation reform effort among all 50 states which coordinates passing federal and state laws that are pro-quality, pro-health, and pro-best outcomes that will create a real system of medical justice that encourages transparency and deters bad medicine.
3. Because of the threat of a biological attack, it is essential that the federal government make a one-time investment to block modernize the IT infrastructure of the health care system, including adopting a national technology standard for electronic medical information.
4. Develop a patient-based budget that unifies the current budgetary silos (Medicare Part A & B, drugs) into a single outcomes-based budget.
5. Leverage the government as a payer to create a reimbursement system based on outcomes.
6. Create the Federal and the Federal/State Health transforming councils.

Appendix

Eisenhower statements referencing the defense dimension of the highway-building program:

“In case of an atomic attack on our key cities, the road net must permit quick evacuation of target areas, mobilization of defense forces and maintenance of every essential economic function. But the present system in critical areas would be the breeder of a deadly congestion within hours of an attack.”

Ref: Special Message to Congress regarding a National Highway Program. February 22, 1955

“...the big feature of this act was the amount it earmarked for the widening and improving of our interstate and defense highway system, a forty-one-thousand-mile network of roads linking nearly all major cities with a population of fifty thousand or more.”

Ref: *Mandate for Change*, Dwight D. Eisenhower, p. 548

“...Motorists by the millions would read a primary purpose in the signs that would sprout up alongside the pavement: ‘in the event of an enemy attack, this road will be closed...’”

Ref: *Mandate for Change*, Dwight D. Eisenhower, p. 549

“Legislation to provide a modern, interstate highway system is even more urgent this year than last, for 12 months have now passed in which we have fallen further behind in road construction needed for personal safety, the general prosperity, the national security of the American people.”

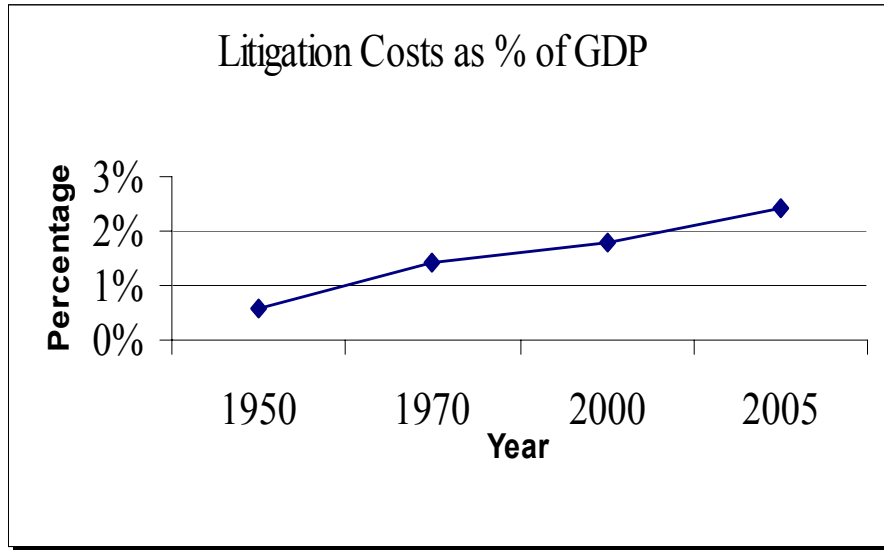
Ref: Annual Message to Congress January 5, 1956

“A greatly improved highway system is vital for both economic development and national defense, as well as to reduce traffic deaths and injuries.”

Ref: Annual Budget Message to Congress for FY57, Jan. 16, 1956

Apply this model to creating an information technology based health system that is necessary against a biological attack and empowers an information rich, quality focused, more efficient peacetime health system.

Litigation Reform



In 2000, litigation cost Americans \$179 billion or about 1.8% of the GDP. In 1970, litigation costs accounted for 1.4% of the GDP, and in 1950, it accounted for 0.6%. Therefore, every American pays \$636 towards litigation costs in 2000 versus \$12 in 1950.^[1] It is estimated that by 2005, litigation costs will account for 2.4% of GDP.^[2]

The money spent on litigation could have paid for the health care needs of 2 million uninsured people. ^[3]

- Because of increased litigation and litigation costs, insurance premiums have risen by \$5 billion in 2001-2 alone. ^[4]
- Increased malpractice premiums are forcing doctors to abandon their practices. This is detrimental to the patient.

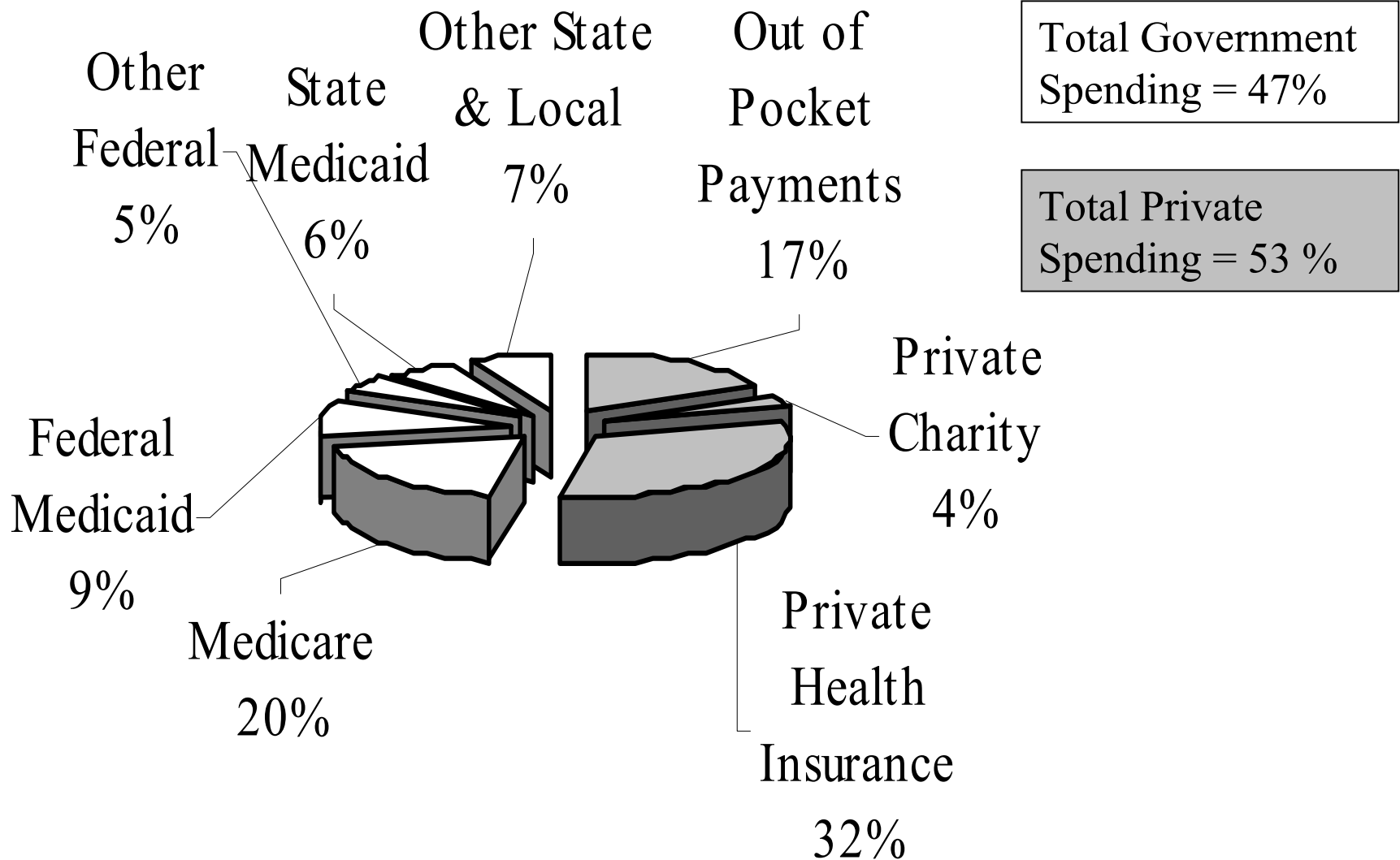
^[1] The Liability System. September 2002. http://www.iii.org/media/hot_topics/insurance/liability/

^[2] Freedman, Michael. The Tort Mess. *Forbes Magazine*. (05/13/02)

^[3] What's Behind Rising Health Care Costs? <http://www.ncpa.org/iss/hea>

^[4] The Factors Fueling Rising Healthcare Costs." PricewaterhouseCoopers. April 2002

Health Care Spending Breakdown

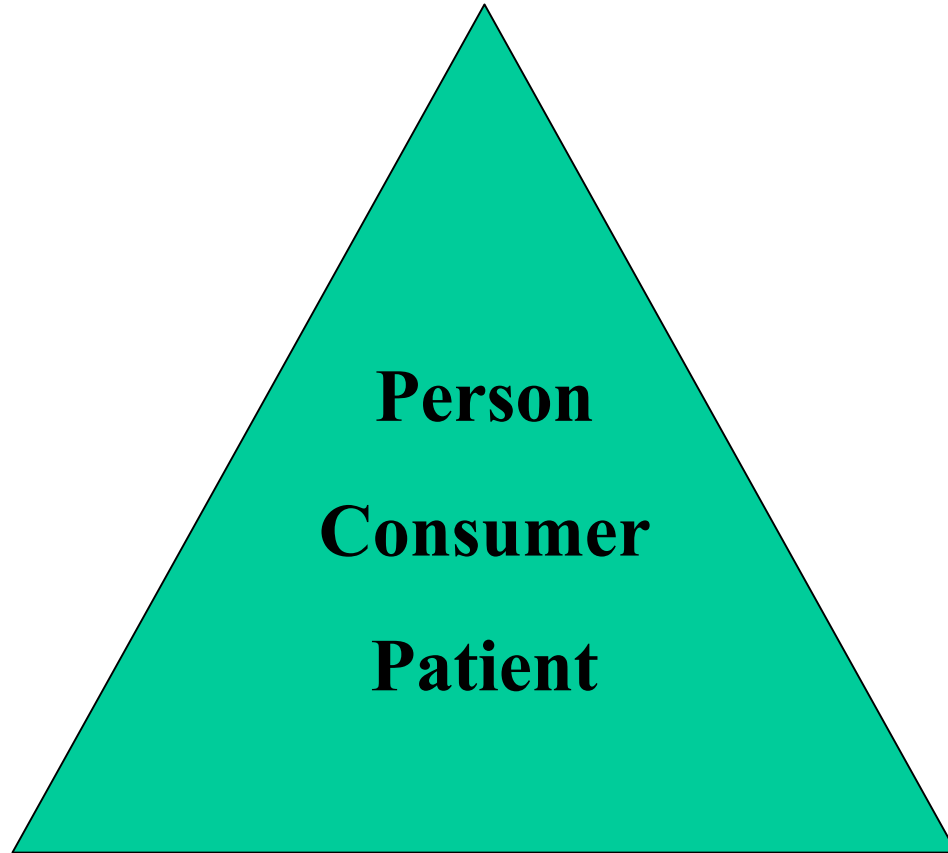


National Application

Company	Lives Saved	Money Saved
Visicu	54,000 Washington Post Article	\$8 Billion
Active Health Management	98,000 To Err is Human	\$ 9 Billion
Computerized Physician Order Entry	7,000 To Err is Human	\$1.9 Billion
Vanderbuilt Decision Support		\$10 Billion
Mayo Clinic, Jacksonville's paperless system	98,000 To Err is Human	\$17 Billion
Northwestern Memorial Hospital, washing hands between every patient	80,000 — lives saved 1,489,500 avoided hospital induced illnesses	\$ 3.6 Billion
TOTAL	337,000+ lives saved	\$53 Billion

There are often developing breakthroughs that would yield similar savings in lives and dollars if the system was focused on finding, nurturing, and implementing them.

**Better
Quality Care**



**Person
Consumer
Patient**

**Better Medical
Justice**

**Better Cost
Effectiveness**