Critical View of health care and health care Policies

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SYMPOSIUM
JULY 29-31, 2009
HERNDON, VA

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Status of health care

SUMMARY OF HEALTH CARE IN AMERICA

Status US health care

- The US has the best health care in the world.
- We have the best health research in the world (NIH and CDC).
- We have the best high technology health care.
- However
  - "Between the health care we have and the health care we could have lies not just a gap, but chasm" IOM.

Cost Structure

- Cost of US health care is determined on a fee for service structure.
- At the specialty care level, care practice has created a situation where supply produces its own demand, not always based on patient need or demand. Higher demand leads into more expensive health cost.
- At the primary care level physicians make money by seeing patients at an alarming (production) rate.
- Without employer or government subsidy, it has became prohibitive for Americans to pay for their own health care, specially from highly trained professionals.
- There does not exist a single federal policy on government financed health care. Each public program (e.g. Medicare, VHA) has its own rules, benefits, cost sharing, provider payment rates, quality systems, and consumer protection.

Cost

- In absolute terms and relative to GDP, we have the most expensive health care in the world: 2 trillion dollars.
- There are no systems of constraints to restrain health care expenditures (e.g. a budget, policies).
- Government agencies that function with a historic budget plus have an incentive to use (deplete) their full budget to guarantee equivalent levels of funding the following fiscal year.
- The almost perfect price elasticity of demand of health care makes it very difficult to control cost. This is evidenced by the exceedingly high demand for care at the end of life, estimated by some to be circa 60% of all cost.

Waste

- We have an unacceptable level of waste. Estimated to be 30% of cost.
  - Inadequate prevention of complications in chronic disease care
  - Overuse of procedures
  - Inappropriate admissions
  - Usage waste
  - Over-reliance on technologies that are unproven of have marginal value
  - Administrative waste due to intricacy (complicated) and variation in billing, licensure, and record keeping
  - Outmoded and , defect ridden and inefficient paper medical records
  - Throughout the health care food chain one of the primary leitmotif (the invisible hand) is revenue maximization, this often leads to situations of waste.

Quality

- Just over 50% of care meets quality standards as defined by the IOM and measured by RAND through over 439 measures of effectiveness for 30 acute and chronic health problems and leading preventive care interventions.
- Overall quality is too complex to track (as the patient flows through the system) and thus there is a mediocre performance on objective measures of system performance.
- Entrenched interest inhibit the introduction of innovative solutions that could improve quality and reduce cost.

Quality Concerns and Disparities

- Injury of patients in care.
- Absence of care.
- Overuse of unnecessary and sometime harmful care.
- Continuity failures for the chronically ill.
- High percent of readmission of Medicare patients (e.g. 40% readmission within 90 days of Medicare patients with heart failure).
- Racial, ethnic, gender, and socio-economic disparities (late diagnosis, late treatment when opportune diagnosis, improper treatment with right diagnosis), deficient outcomes.

Uninsured and Lack of Commitment to Health

- Over 28% (45 Million) Americans under 65 years of age are uninsured, 2/3 which are above the Federal poverty level.
- Nosobehavioral (Infections associated with high risk behaviors) afflict large numbers of Americans.
- There is no generalized national will to improve personal health through healthy living.

Organization

- health care in America is disorganized, many still relying in paper records, and struggling to deal with the tidal wave of new information, tests and treatments.
- Fully integrated systems such as Kaiser Permanente, Intermountain health care, Mayo Clinic and Geisinger Health Systems are leading in care management, and in preventing admissions and re-admission. With care being provided in the best setting.
- However, cross network integration is still a challenge.
- Patient control or access to his/her records is not technically feasible (i.e. PHR is not feasible).

Organization

- Root cause behind rising cost and disappointing quality is the chaos resulting from medical progress in a fragmented and disorganized medical system, and the non-existence of transparency or standards in the health management of health care (similar to “acceptable accounting practices”).
- Uncoordinated disease management hinders quality and cost reduction.
- However, regulation tends to impede collaboration.
  - Joint ventures by physicians, hospitals, and other providers are affected by anti-trust, ant kickback and self-referral laws.

Knowledge and Lack of Knowledge

- Knowledge available and new discoveries is beyond the capacity of medical professionals to absorbed (over $60 billion annual investments in biomedical research).
- There is lack of data about the comparative clinical effectiveness and cost effectiveness of existing diagnostic and therapeutic drugs, devices and procedures. Without such comparative data it is impossible to provide evidence-based care.
- Not seen as revenue producing , there is a lack of will and competence to improve process of care.

Information Technology

- Information technology could help, but it requires a learning curve that will be taxing to health providers and will require an open technology platform.
  - Only 17% of US doctors have functional EHRs
  - Fewer than 10 percent of hospitals report the availability of electronic records.
  - Lack of standards and rapid pace of IT tends to freeze providers
  - Information sharing, data interchange and interoperability is a challenge due to the proprietary nature of technology and customized applications.

Critical Shortage of Providers In Key Areas

- Shortage of health care providers in areas key for health care improvement:
  - Critical need for more nurses
  - Lack of geriatricians to take care of an aging America
  - Growing imbalance between specialist and general physicians (only 2% of students plan to go into internal medicine—where the money flows the practitioners follow)

Critical Analysis of Proposed Solutions

PROPOSED MEASURES TO CREATE A HEALTH SYSTEM, INCREASE QUALITY AND LOWER COST

Proposed Solutions: Quality

- Hold hospitals boards accountable for quality.
- Create a Medicare-based initiative to reduce preventable admission and readmission.
- Expanding hospice care through the support of community-based programs and proper redesign of Medicare and Medicaid payment programs.
- Use information technology as a pathway to quality
- Implement policies that shift focus from specialty to primary care.
- Redefine quality comprehensibly and promote public reporting.
- Develop an innovation review board.
- Issues:
  - What is the legal, medical, organizational and technical framework?
  - What is the plan and transition strategies?
  - Who pays for it?

Proposed Solutions: Provider Coordination

- Focus on the organization of health care providers into a team like configuration to adopt systems that are likely to reduce errors or overuse, underuse and misuse, and improve the overall coordination of care.
  - Promote an environment of team-based care.
  - Integrate care for individuals with chronic diseases.
  - Promote care coordination through medical home
  - Use of registries to facilitate treatment throughout the year.
  - Develop programs of pharmaceutical management.
- Care networks such as Kaiser Permanente function this way. Capitation makes this possible.

Proposed Solutions: Patient Education

- Make the patient and family part of the team
  - Launch campaign of patient and family education with emphasis in self-care skills and home-based monitoring.
  - Issue.
  - This assumes the patient and the family have thorough understanding of the consequences, the ability to learn new concepts and make them part of their routine; capacity to invest in learning (time disposition); will and commitment.
  - This is in contradiction with the prevailing immediate urge for self-satisfaction in our consumer oriented society.

Proposed Solutions: Process Improvement

- Provide federal support for comparative effectiveness research, including demonstration projects.
- Develop a process outcomes information systems which is accurate, reliable and accessible.
- Issue:
  - Whereas this should be a no brainer, even organizations whose purpose is quality of health such as HRSA/AHQR have not demonstrated the willingness to go beyond traditional Plan, Do, Study, Act (PDSA) methodology which has not proven to be truly an effective method of process improvement.
  - Quality Process improvement is not seen as “sexy” by the best minds and many involved in statistical analysis of care are rote contractors.

Proposed Solutions: Process Improvement

- Link use of best practices to payment.
- Issue: Even organizations, such as CMS, which should include this as part of their mandate do not regularly assess a service's cost effectiveness nor does it evaluate clinical effectives in comparison with alternative services.
- Develop strategy for dissemination of best outcome practices .

Proposed Solutions: Primary Providers & Nurses

- Subsidize education of direct care workers (primary physicians), physician assistants and nurses.
- Enact strategies to increase wages and benefits for direct care workers via government programs (e.g. Medicare).
- Implement policies that shift focus from specialty to primary care.
- Enact policies that allow physician assistants and nurses to perform routine diagnosis and treatment.

Proposed Solutions: Revamp the Payment System

- Capitation
  - Problem is risk management. Variability in patients chronic disease and their severity leads into under treatment and clientele discrimination.
  - Clients want to retain the right to choose out of system specialist, for which there is usually a severe penalty .
  - Shadow (pseudo) capitation, based on historical budget plus, often has inflated fix appropriations, such as VHA , DoD, TMA and do not work.
- Bundle payment for acute episodes of care involving major procedures or inpatient stay
  - For Example: combine payments for post-acute care--both facility care and home health services--into the payment of inpatient care.
  - Drawback is that the prime takes the direct risks.

Proposed Solutions: Revamp the Payment System

- Case rates (more amenable for disease management)
  - The difficulty arises in assessing the risk of managing patients with multiple diseases.
  - Case coordination will have to be appraised and assigned a premium.
- Fee for performance
  - Problem is the challenge of measuring and rewarding true outcomes. For the present this can only be adopted in areas where there are readily available outcome measures.
  - It requires the use/development of enabling systems (both human and technical) for decision support.
- Fee for Service
  - Applicable in situations where high performance specialty capability is required.
  - Problem: Who accredits the high performance specialist?

Proposed Solutions: Information Technology

- Computerized health care:
  - Use of Electronic Health Records (EHR) to document patient's medical records.
  - Use Decision Support Systems to assist in the diagnosis and treatment of patients.
  - Use IT systems to perform comparative analysis of health care related data .
  - Universalize the use of Personal Health Records.

Proposed Solutions: Information Technology

- Key issues to overcome:
  - Cost of technology development, refresh, customization, maintenance and enhancement.
  - There are no open standards.
  - Proprietary nature of electronic records both in technology and customized application that embeds the institutions' proprietary knowledge, methods, processes, cost accounting systems, business rules, etc. This of interoperability is even so in the government sponsored AHLTA (Armed Forces Health Longitudinal Technology Application) and VistA Veterans Health Information Systems and Technology Architecture.
  - Tendency by technologist to use IT architecture as the centerpiece sidestepping the complex nature of health and health care.
  - Complex nature of both domains (health and technology) requires a new type of investigator-architect working in interdisciplinary teams.

Disruptive Solutions Proposal

A HEALTH BUSINESS PROPOSITION

Disruptive Solution Proposal

- Follows the paradigm of technology and business innovation.
  - Complicated , expensive products and services are eventually converted into simpler affordable ones that enables the participation of a new set of customers who were previously ignored by the market.
    - New simplified and inexpensive version of the product or service is offered by an insurgent firm to the excluded segment of the market.
    - As market share grows, quality is improved and the insurgent firm eventually rivals and displaces the once dominant firms.

Disruptive Solution Proposal

- Issues:
  - The insurgent firm must meet overall client need.
  - The insurgent firms has the strategic human capital (brain thrust) and, eventually, the accumulated capacity to take on the established market.
  - Does not happen by providence. The insurgent firm must have a takeover transition strategy.
  - Open entry of innovation (e.g. lack of politically manipulated regularity constrains).
  - It takes years for technical innovations to pass regulation and many find closed doors of the medical providers.
  - There is a qualitative difference between health care of human and technology and business innovation and goods production. There is a mechanical translation.
  - It cannot be done by cockroach capitalist.

Disruptive Solution: Business Models

- Segment health care into three business models:
  - Solution shops (intuitive medicine): High caliber medical specialists use their intellectual ability and capacity (abstraction, analysis, pattern recognition, synthesis and intuition) to solve complex medical problems. Fee for service cost model.
  - Value Added (precision medicine):
    - High caliber medical specialists performs diagnosis, the treatment is straight forward and can be handled to less caliber medical providers.
    - The diagnosis follows well established rules—in some cases the ailment(s) can be precisely diagnosed--and the treatment is straight forward all can be handled by non-specialist.
    - Medical event is routine such as strep throat. Event can be handle by a nurse or physician assistant.
    - Fee for outcome cost model
  - Facilitated Network: Applicable to chronic diseases where patients exchange data and support each other. The facilitator performs the duties of quality control. Fee for membership.

Disruptive Solution: Business Models

- Issue: Assuming this it the right solution.
- What is the transition strategy?
- Who designs it?
- Who pays for it?
- What is the timeline?
- How do we get there?
- How do we know when we get there it is the right solution?
- Does it include continuity of care?

Disruptive Solution: General Hospital and Physicians Practice

- General Hospitals will be reserved for the performance of low volume complex procedures.
- High volume standard solutions to be handled by the Solution Shops and Value Added enterprises.
- High volume standard treatments will no longer subsidize by low volume complex cases and R&D. Issue: what is the funding alternative?
- Physicians Practice: to concentrate in wellness examinations. Monitor the overall care of patients--serve as an accountable organization (medical home) for the care of clients, and, with the aid of technology, the generalist will be able to puncture into the specialists market.
- Handoff to physician assistants and nurses (retail clinics) rule-based precision medicine. Handoff to facilitated networks oversight of chronic diseases.

Disruptive Solution: General Hospital and Physicians Practice

- Issues:
  - In all business, bread and butter work always funds R&D and, often, higher level work. This sine-qua-non of the entrepreneurial business model would be disrupted. What would be the funding alternative?
  - Buying technology is not the same as buying health.
  - Quality is not measured by objective criteria (e.g. access to a gadget or service) but by objective & subjective criteria (did the person die or live? If s/he lived what is the quality of life?) personal outcomes.

Disruptive Solution: Chronic Diseases

- Chronic Diseases account for three-quarters of direct medical care cost.
- These diseases can be divided into two:
  - Those which only a multidisciplinary solution shop can diagnose and recommend treatment (e.g. Schizophrenia).
  - Those which a single practitioner can diagnose and prescribe a rule-base therapy (e.g. type II diabetes) .
- Diseases which have deferred consequences have the least adherence to therapy by patients and require constant care.
- Proposed business model:
  - The diagnosis and recommended treatment is done by a solution shop or a single practitioner.
  - The therapy is managed by a facilitated network that focuses on patient adherence to the therapy.

Disruptive Solution: Chronic Diseases

- Issues:
  - Individuals with chronic diseases tend to have multiple diseases whose treatment often clash and precise treatment calibration is necessary.
  - Disease evolution requires constant follow-up and control. Delays in identifying a new state of the disease could prove fatal.
  - Harmful drug interaction sometimes requires closer monitoring than the disease itself.
  - Facilitated networks run the risks of becoming the sole point of reference to patients who might be in need of care. A lick backward mechanism must be instrumented for this to work.
  - There is the risk of quacks taking advantage of this vulnerable sector of the population, facilitated networks will require regulation.

Disruptive Solution: Chronic Diseases

- Proposes new players to come into the health care marketplace and muscle the health plans and heath providers or become themselves providers:
- Corporate orchestrators: powerful companies or group of companies come in and set the ground rules.
- Integrated fix-fee providers.
- Employers develop their own health care system.
- Discounts government as a potential orchestrator

Disruptive Solution: Chronic Diseases

- Issues:
  - Most powerful companies already negotiate and receive preferential rate treatments.
  - Fix-fee providers (e.g. Kaiser Permanente) have been in existence for quite some years, yet they still represent a small sector of the market.
  - Very few large employers would be willing to venture out of their core business.
  - When this has happened it has been as a function of their core business (e.g. car loan companies by auto makers), must have recently divested these ventures.
  - CMS has been using these tactics with their billing codes.

Disruptive Solution: Medical Education

- Medical schools are training more specialist than are needed.
- The process of training specialist is too long, up to 18 years.
- Proposes more focused training and less time spent in learning fundamental science.
- The disruption will come from:
  - Doctors trained by foreign countries (already 27% of primary doctors).
  - More providers developing their own training programs that prepare students according to their needs (e.g. Mayo Clinic).

Disruptive Solution: Medical Education

- Observation:
  - A similar situation has been occurring in science and engineering, and business schools, with no perceivable disruption of the engineering and business schools.
  - Foreign scientists and engineers are great contributors to our competitive advantage.
  - Narrowly focus curricula does not prepare science and engineering students with the capability to switch areas readily as the economy changes, leaving many unemployed due to knowledge obsoleteness.
  - Narrowly focus training in the health field has not been tested.
  - The Mayo and Cleveland Clinics, cited as examples of the disruptive model, are some of the top, highly selective, medical schools, not much different from the other top schools in the nation.

Perspectives in Military Medicine

ATTUNING MILITARY MEDICINE WITH THE WAR

COMMANDER IN CHIEF INTENT

CONGRESSIONAL MANDATES AND EXPECTATIONS

NATIONAL PRESUMED LEVELS OF PERFORMANCE (PUBLIC, MEDIA, AND OPINION MAKERS)

Nature and State of Current War

- We are engaged in a new type of war that demands transformation on the operational aspects of Military Medicine.
- Characteristics of current war:
  - Protocols of war are not respected
  - Continuous, uneven, multi-theater, state and/or non-state, and combined nature of current irregular warfare (non-conforming warfare), it may include (combine) any of the following:

Current State to Defeat

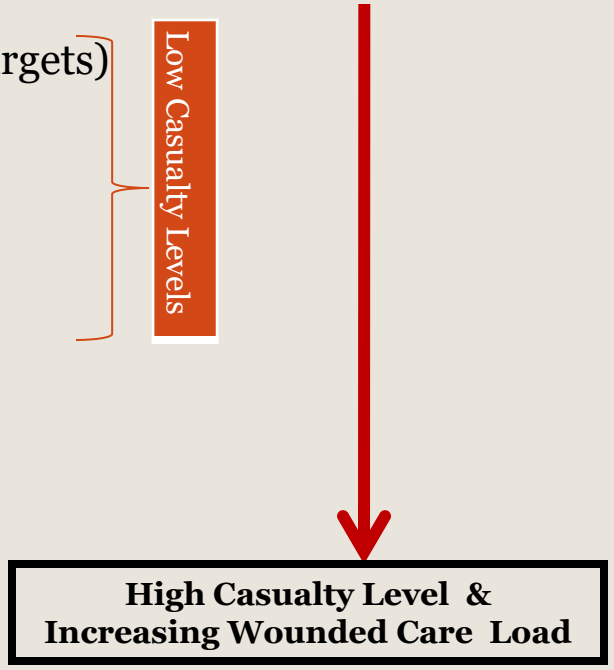
- Hand assaults (commando strikes primarily on soft targets)
- Remote strike (e.g. IEDs, cyber attacks)
- Armed groups
- Zones of control: armed militia
- Spectacular events
- Guerrilla

Low Casualty Levels

State to Avoid

- Insurgency
- Civil war
- War of national liberation
- Regional warfare
- Total war

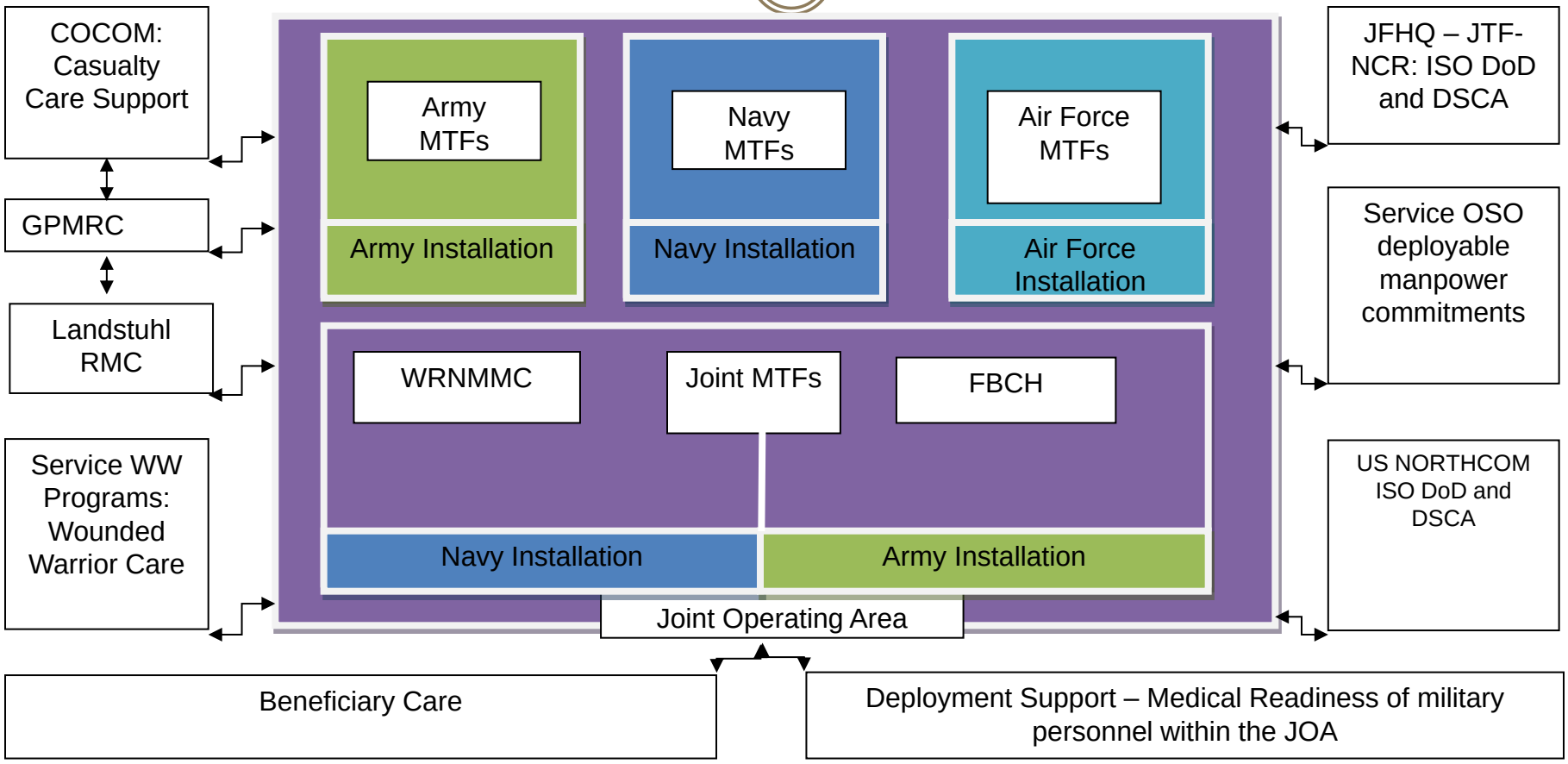
High Casualty Levels



Nature of the Homeland Environment

- There is a national imperative for a new conceptualization of Military Medicine which, apart from the usual requirements, must consider:
  - Non-conforming warfare:
    - Low intensity in casualties
    - High intensity in casualty care
    - Complexity of care (e.g. TBI)
    - Cumulative high volume of wounded warrior care
  - Virtualization in the homeland of the medical theater of war (e.g. Walter Reed and Bethesda)
  - Defense of the Homeland: Medical Emergency Response, including readiness for a nuclear attack.
  - Medical support in catastrophe response (natural and/or human-made)
  - Wounded Warrior care
  - Consequence Management (e.g. TBI)
  - Service specific relevant training, maintenance and sustainability of medical force for a joint environment
  - Joint hospitals in the theater proper (e.g. Balad, Iraq) and homeland (e.g. JTF/CapMed, San Antonio)
  - Medical diplomacy
  - Necessity of health care integration and interoperabilty
- Consistent with:
  - Commander in Chief Intent
  - Congressional mandates and expectations
  - National presumed levels of performance (public, media, and opinion makers)

Joint CAP/Med
Integrated Health Care Delivery Enterprise



COCOM = geographic combatant commander
WW = wounded warrior
JFHQ = Joint Force Headquarter, Washington DC
ISO = in support of
GPMRC = US Transportation Command's Global Patient Movement Requirements Command

JOA = Joint Operational Area
JTF-NCR = Joint Task Force – National Capital Region
DSCA = Defense Support to Civil Authorities
OSO = Overseas operations

Background health care Statistical Information

THE STATE OF HEATH IN AMERICA

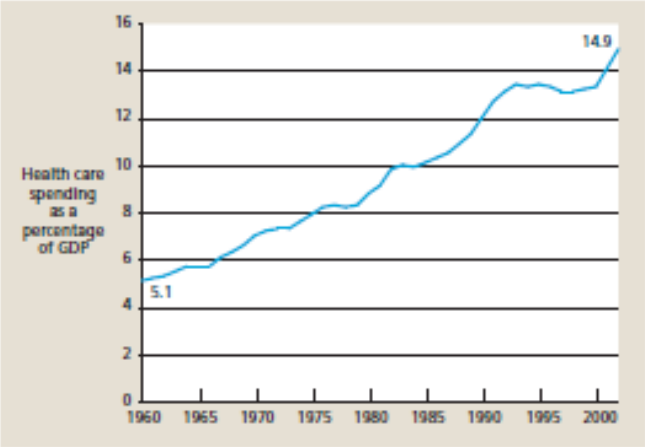
The Status of health care

- Background*
  - Cost
  - Waste
  - Quality
  - Access—the Uninsured
  - Disparities

*Graphs taken from: Dana P. Goldman and Elizabeth A. McGlynn, Health Care: Facts About Cost, Access, and Quality, Rand Health.

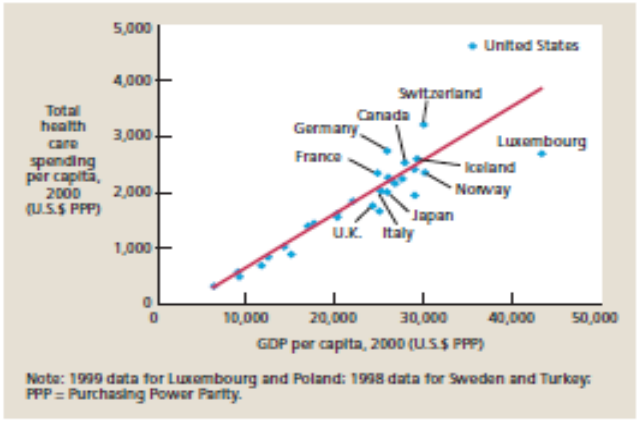
Cost

Source: Centers for Medicare & Medicaid Services, 2004.



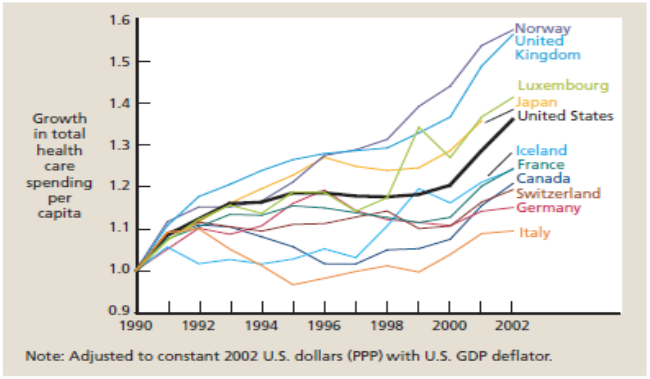
Health Care Cost Growth Rate

Sources: OECD, 2003; Anderson et al., 2003.



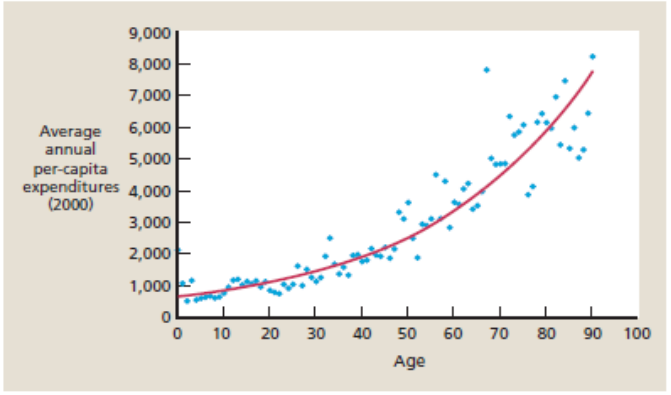
Per Capita Cost by GDP

Source: OECD, 2004.



Normalized Cost Growth Rate by GDP

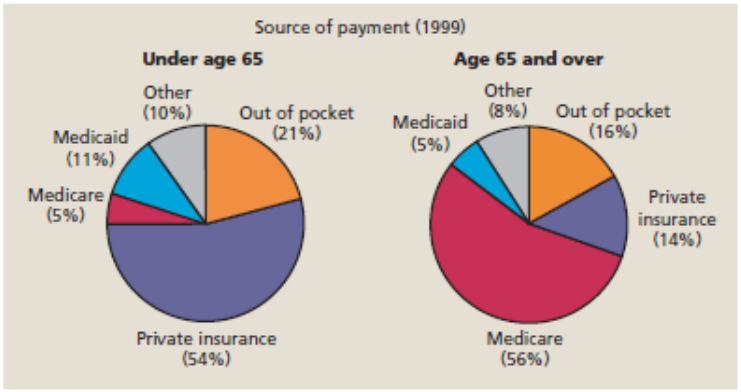
Source: Agency for Healthcare Research and Quality, 2000.



Cost of Health Care by Age

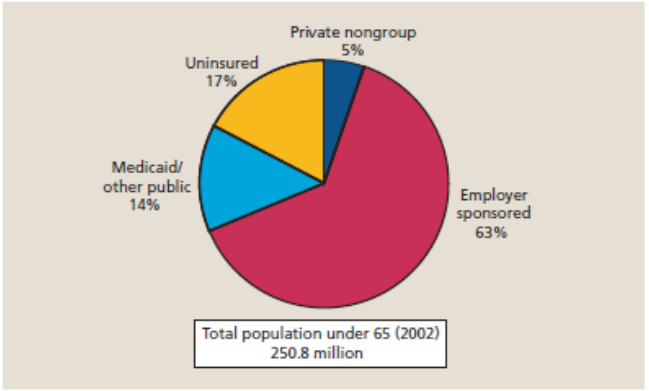
Share of Cost

Source: Olin and Machlin, 2003.



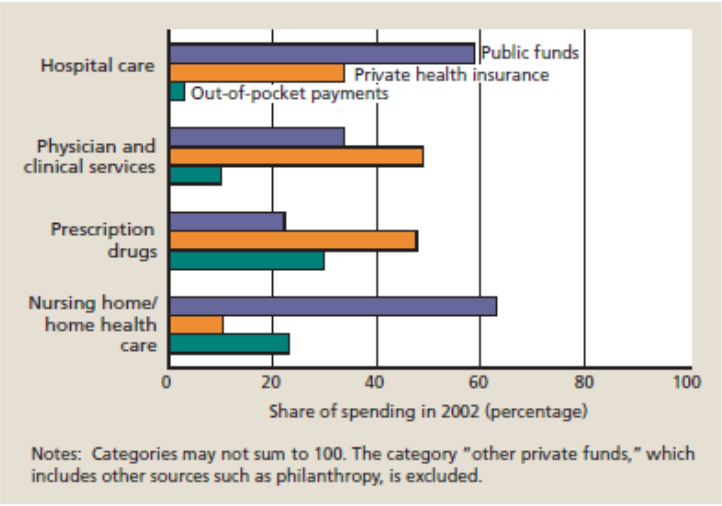
Source of Payment

Source: Kaiser Commission on Medicaid and the Uninsured, 2003a.



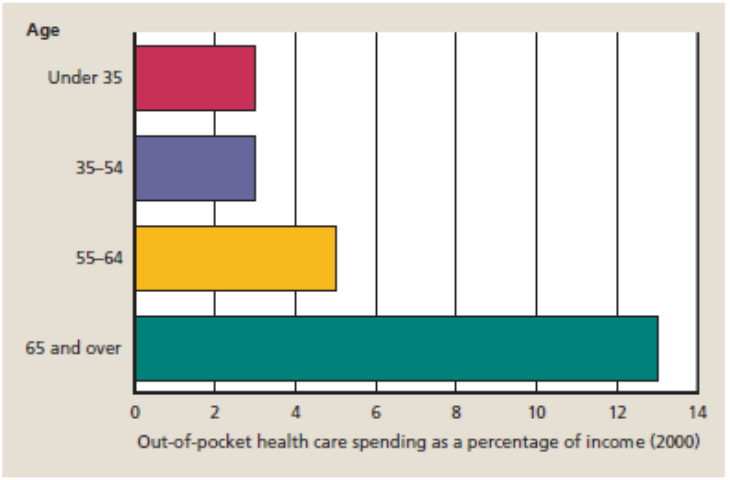
Coverage Source

Source: Centers for Medicare & Medicaid Services, 2004.



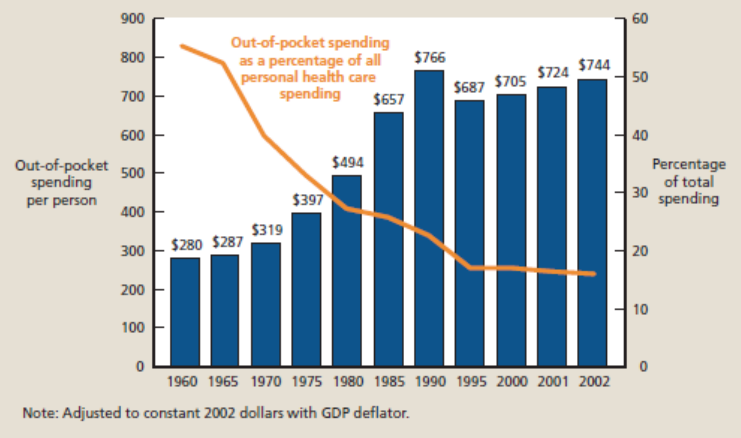
Share of Expenditure by Service Type

Source: Centers for Medicare & Medicaid Services, 2003.



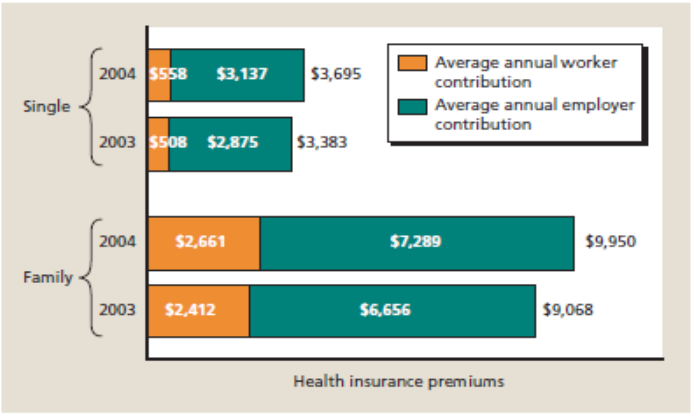
Cost Share

Source: Centers for Medicare & Medicaid Services, 2004.



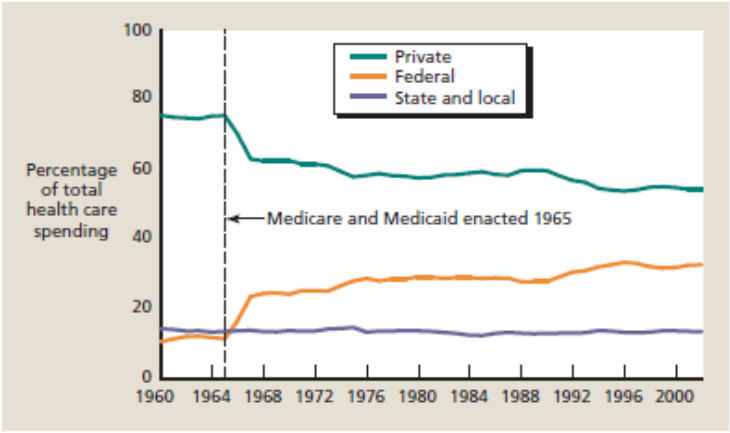
Out of Pocket Spending

Sources: The Henry J. Kaiser Family Foundation and Health Research and Educational Trust, 2004a and 2004b.



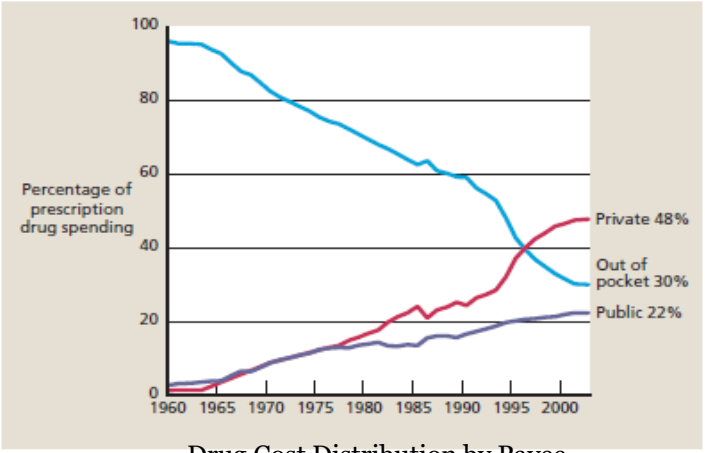
Insurance Premiums

Source: Centers for Medicare & Medicaid Services, 2004.



Health Care Spending: Private, Federal, State & Local

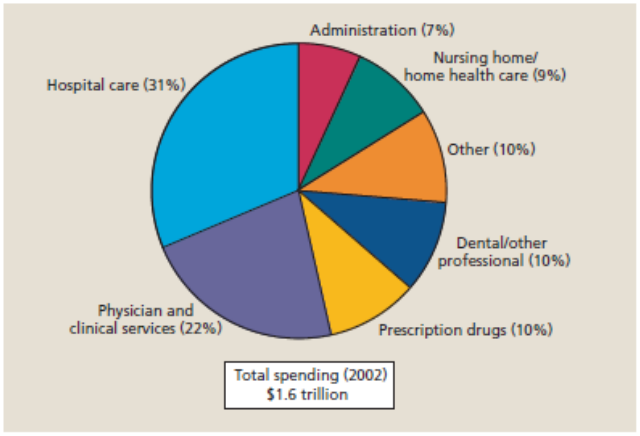
Source: Centers for Medicare & Medicaid Services, 2004.



Drug Cost Distribution by Payee

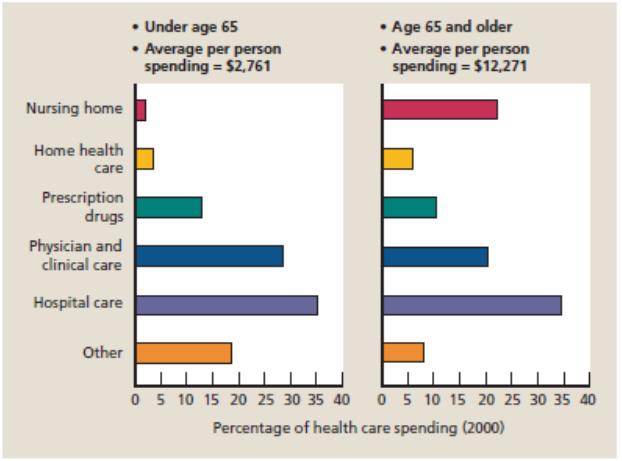
How is Spent

Source: California HealthCare Foundation, 2004a.



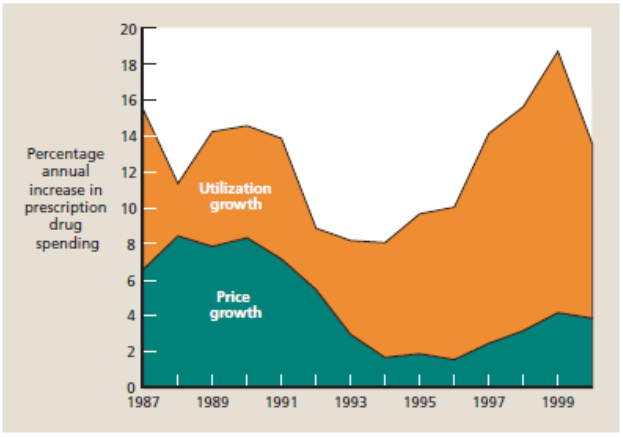
Distribution of Health Care Cost

Source: Meara, White, and Cutler, 2004, Exhibit 4.

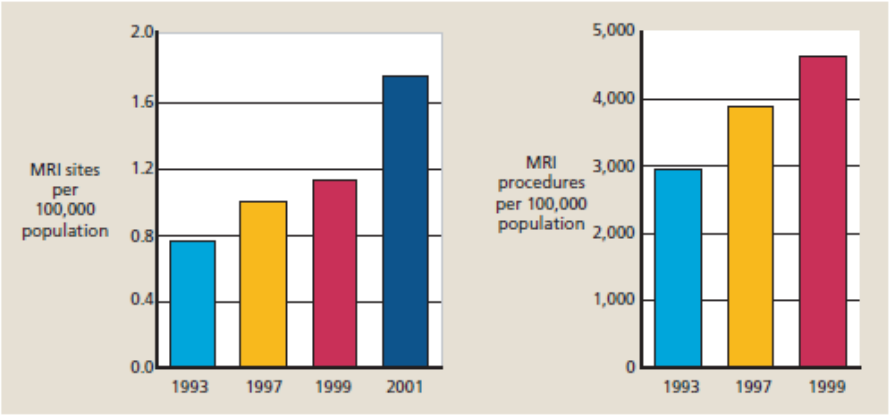


Distribution of Expending by Age Group

Source: Berndt, 2001.



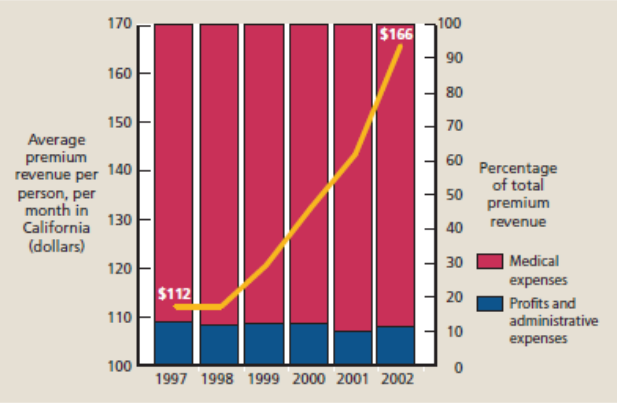
Source: Baker and Atlas, 2004; Canadian Institute for Health Information, 2003.



Sample Increase Use of Technology

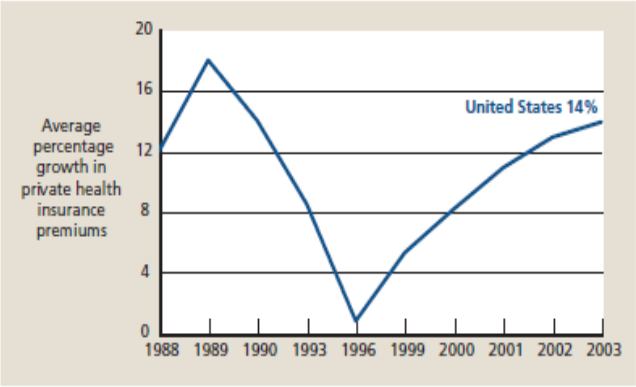
Spent Distribution

Source: Baumgarten, 2004.



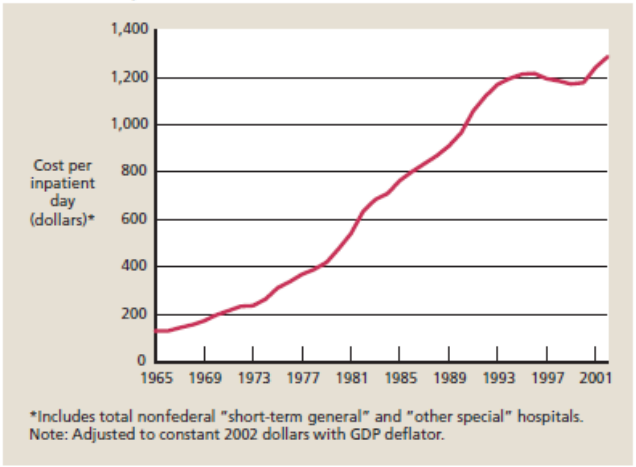
Monthly Premium

Source: The Henry J. Kaiser Family Foundation and Health Research and Educational Trust, 2003a.



Growth Rate of Insurance Premium

Source: American Hospital Association, 1983 and 2004.



Cost of Inpatient Stay per Day

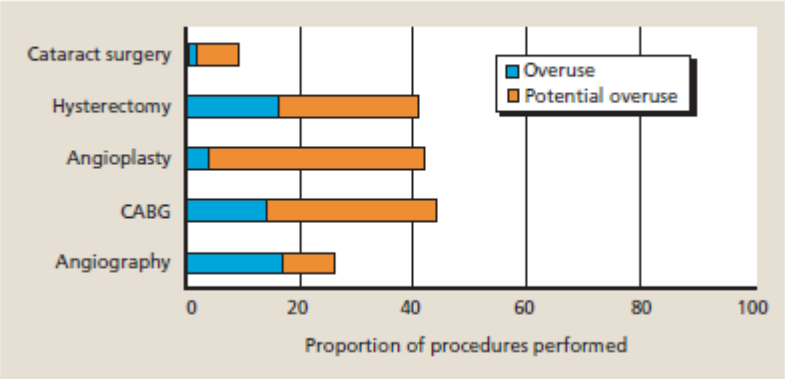
Source: California HealthCare Foundation, 2004a.

Category	Spending distribution 1982	2001	2002	Growth ('02 versus '01) Billions	Percentage
National Health Expenditures	100%	100%	100%	$132	9%
Hospital care	42%	31%	31%	$ 42	9%
Physician and clinical services	19%	22%	22%	$ 24	8%
Dental/other professional	8%	10%	10%	$ 13	9%
Nursing home/ home health care	8%	9%	9%	$ 6	5%
Prescription drugs	5%	10%	10%	$ 22	15%
Administration	5%	6%	7%	$ 15	16%
Other	13%	10%	10%	$ 10	7%

Cost Distribution

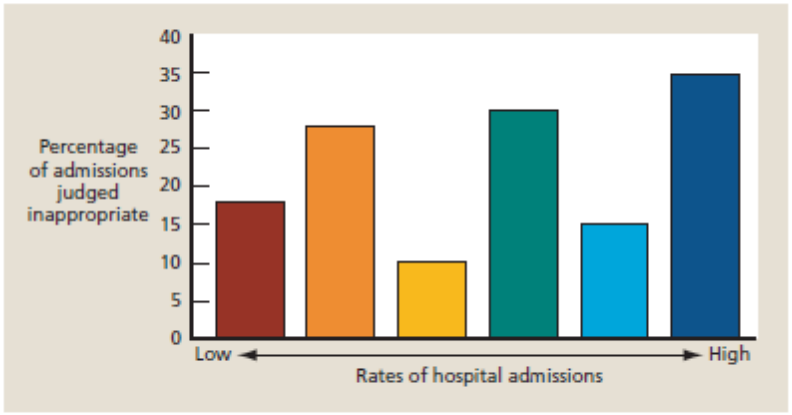
Waste

Sources: Bernstein et al., 1993; Winslow et al., 1988; Chassin et al., 1987; Hilborne et al., 1993; Tobacman et al., 1996.



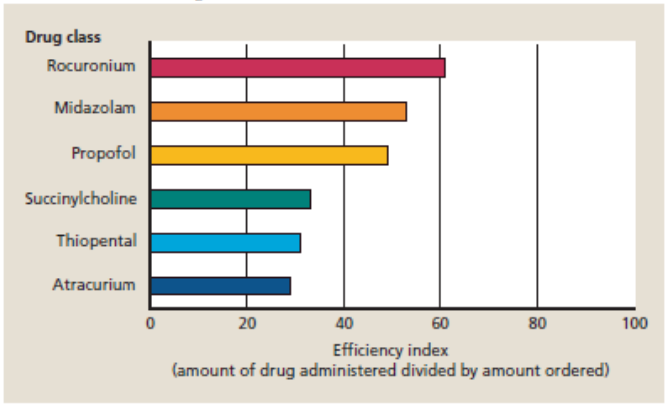
Percent procedure Overuse

Source: Siu et al., 1986.



Percent Inappropriate Hospital Admission

Source: Gillerman and Browning, 2000.



Discard of syringes full or partially full

Waste is estimated at 30% of total production cost: Inadequate prevention of complications in chronic disease care; overuse of procedures; inappropriate admissions; usage waste; over-reliance on technologies that are unproven of have marginal value; administrative waste due to intricacy (complicated) and variation in billing, licensure, and record keeping; outmoded and , defect ridden and inefficient paper medical records

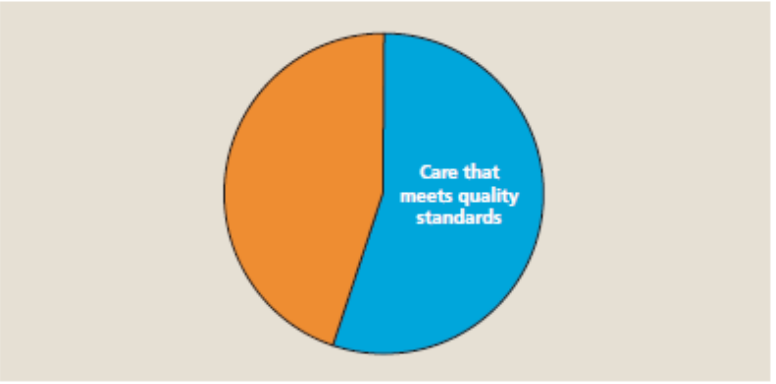
Quality of Health: The Nation's Report Card

Source: Institute of Medicine, 2001.

Elements of quality care		Type of quality problem
People get the care they need	Effectiveness	Underuse
People need the care they get	Effectiveness	Overuse
Provided safely		Error
Timely		Delays
Patient centered		Unresponsive
Delivered equitably		Disparities
Delivered efficiently		Waste

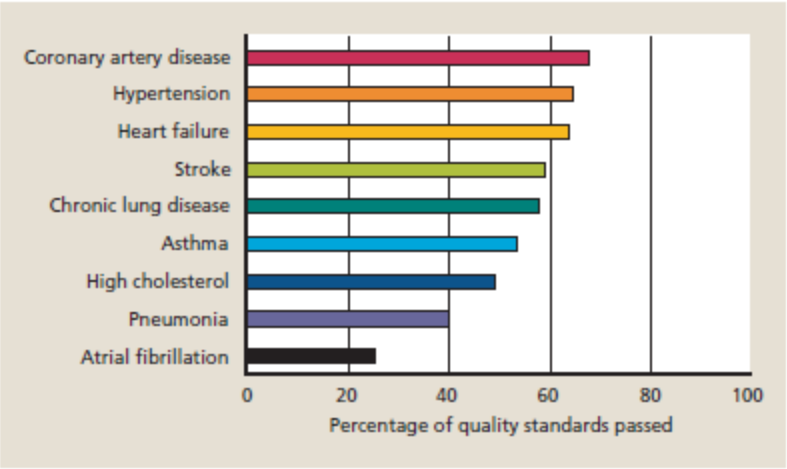
Quality of health care Parameters

Source: McGlynn et al., 2003.



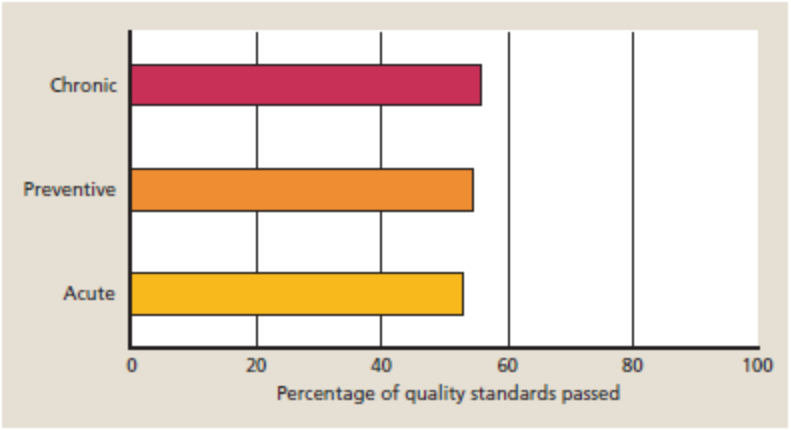
Overall Quality of health care

Source: McGlynn et al., 2003.



Quality of health care by Type of Ailment

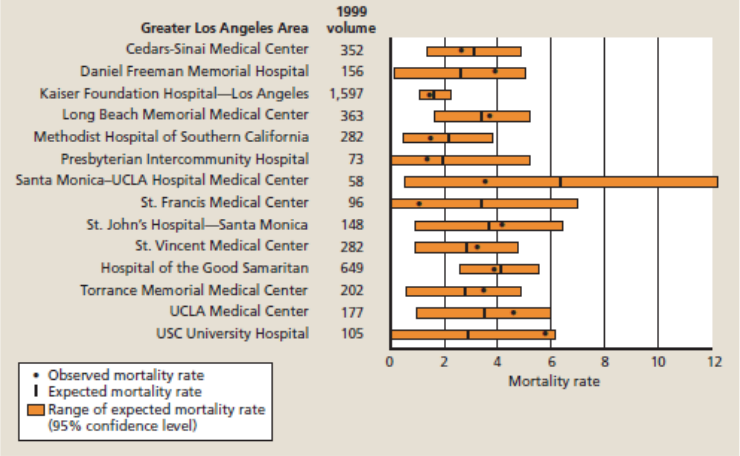
Source: McGlynn et al., 2003.



Quality of health care by Category

Quality of Health: Mortality &Misuse of Procedures

Source: California CABG Mortality Reporting Program, 2003.



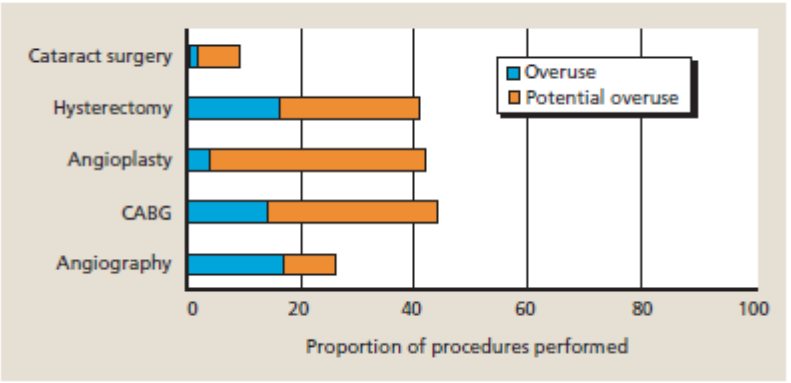
Hospital Mortality

Observed mortality rates are higher than expected
The chart compares expected vs. observed mortality rate for CABG for Greater Los Angeles

Condition	What Rand Found	Outcome
Diabetes	Blood sugar not measured for 40%; 24% uncontrolled	2,500 blind; 29,000 kidney failure
Hypertension	Blood pressure uncontrolled in 58%	68,000 deaths
Heart attack	39–55% did not receive needed medications	37,000 deaths
Pneumonia	36% no vaccine	10,000 deaths
Colon cancer	62% not screened	9,600 deaths

Preventable Deaths

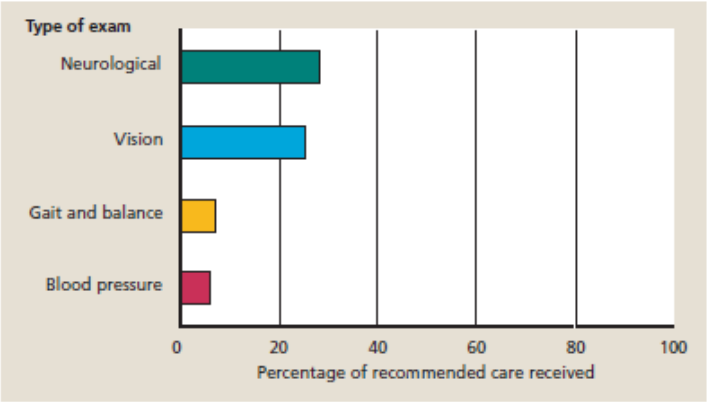
Sources: Bernstein et al., 1993; Winslow et al., 1988; Chassin et al., 1987; Hilborne et al., 1993; Tobacman et al., 1996.



Over and Under Use of Hospital Procedures

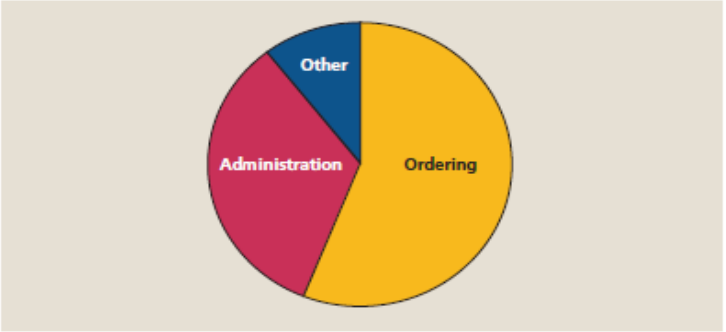
Quality of Health: Appropriate Aftercare

Source: Rubenstein et al., 2004.



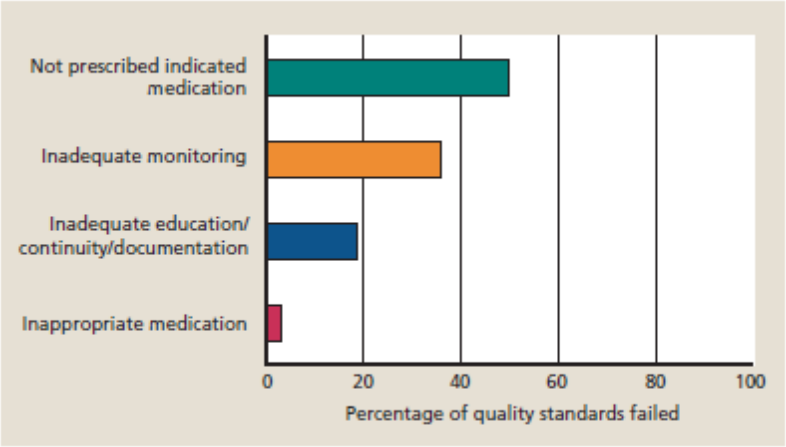
Proper Care Not Received

Source: Bates et al., 1995.



Cause of Adverse Drug Events

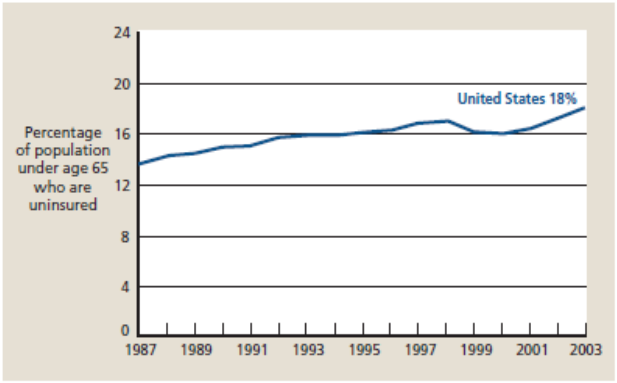
Source: Higashi et al., 2004.



Percent Medication Management Failures

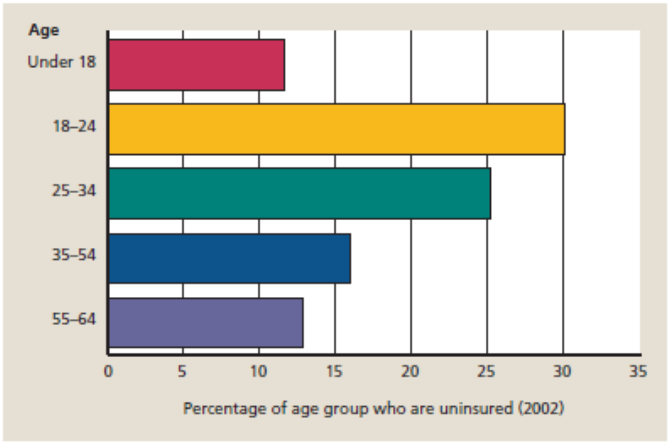
Demographics of the Uninsured

Source: California HealthCare Foundation, 2004c.



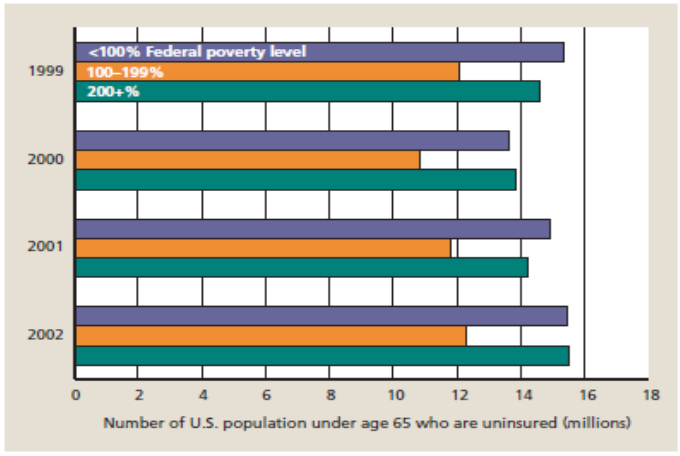
Population Rate of Uninsured, Age < 65

Source: Institute of Medicine, 2004.



Percent of Uninsured by Age Group

Source: Kaiser Commission on Medicaid and the Uninsured, 2000, 2002, 2003a, and 2003b.

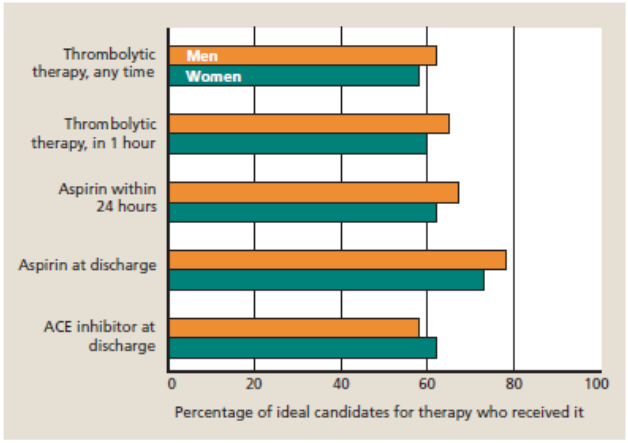


Number of Uninsured by Poverty Level (Millions)

About 2/3 of uninsured are above the federal poverty level.
Over 1/3 earn 200% above the poverty levels.

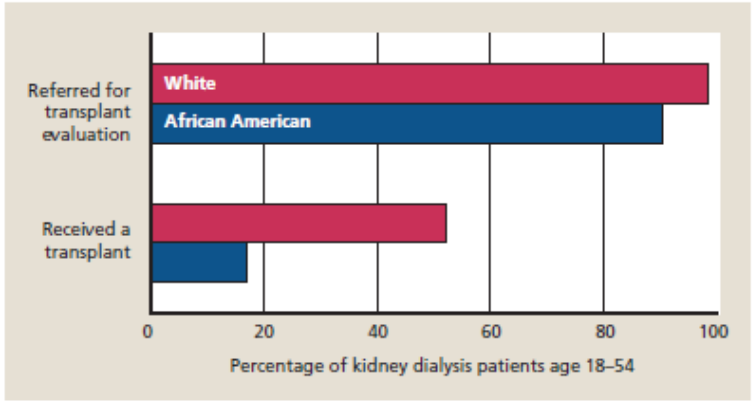
Health Disparities by Race & Gender

Source: Gan et al., 2000.



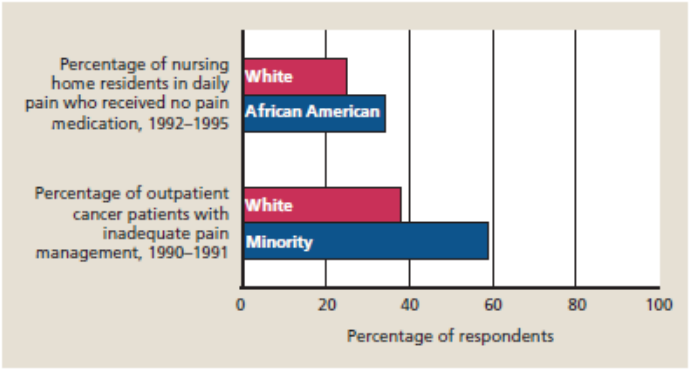
Health Disparities by Gender for Pts w/ Thrombosis

Source: Ayanian et al., 1999; Epstein et al., 2000.



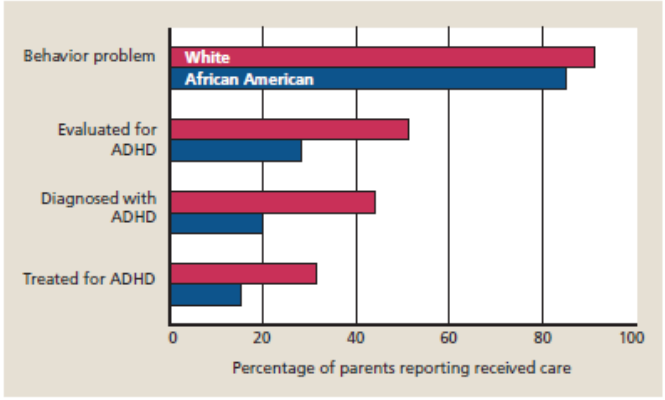
Health Disparities by Race for Pts w/ Renal Disease

Sources: Bernabei et al., 1998; Cleeland et al., 1994.



Health Disparities by Race for Pts w/ Cancer

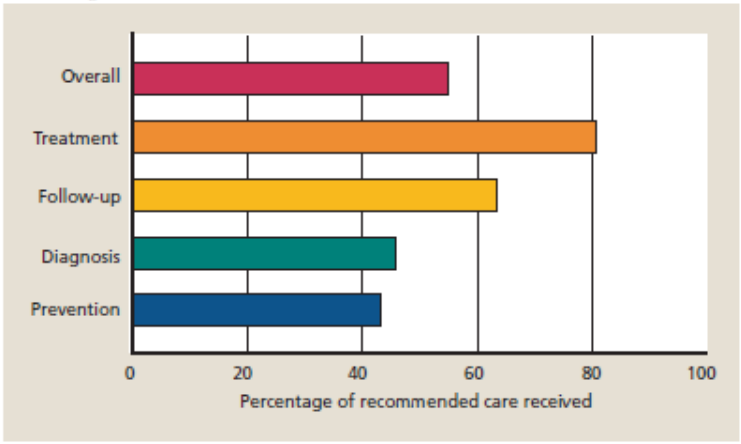
Source: Bussing et al., 2003.



Health Disparities by Race for Pts w/ Behavior Problems

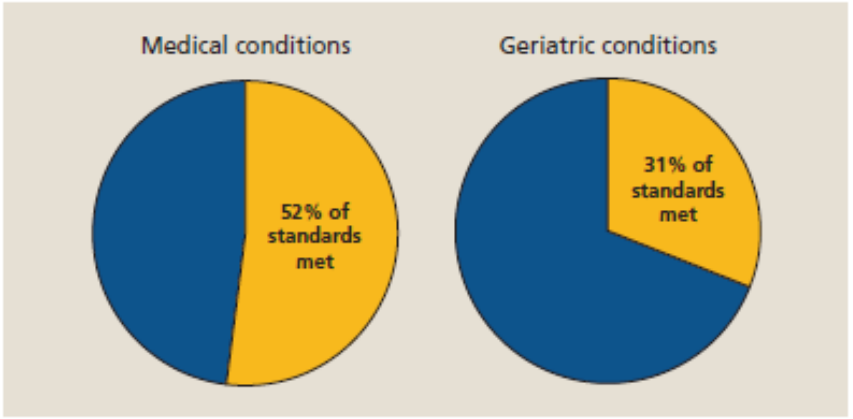
Health Disparities for the Elderly

Source: Wenger et al., 2003.



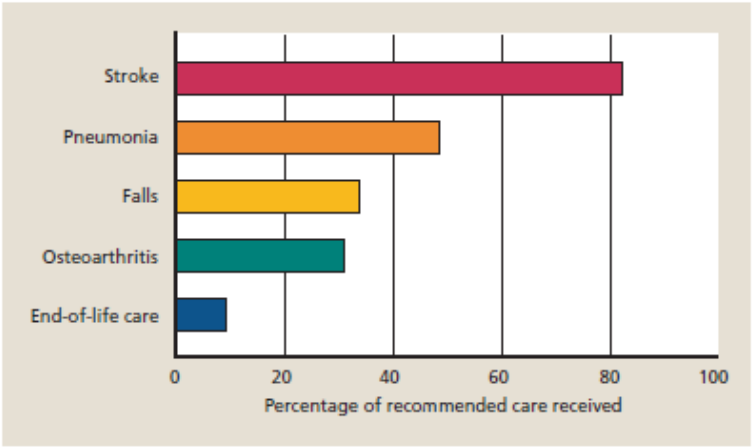
Continuum of Care Treatment for the Elderly

Source: Wenger et al., 2003.



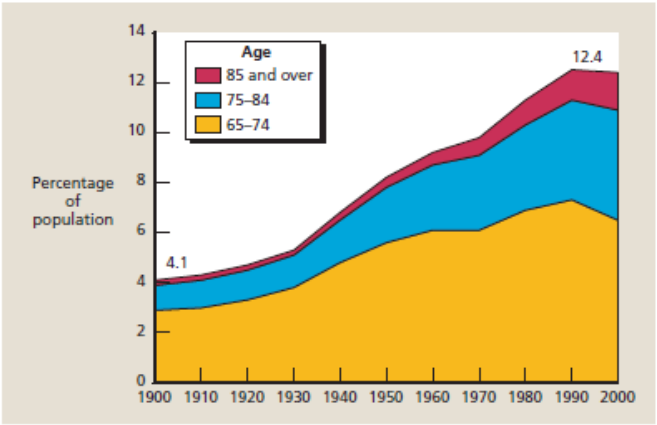
Health Disparities for Geriatric Patients

Source: Wenger et al., 2003.



Focus of Care for Elderly Community

Source: Hobbs and Stoops, 2002.



Growth Rate of Elderly Community

Consulted Documents

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- Atul Gawande, The Cost Conundrum: What a Texas town can teach us about health care, the New Yorker, June 1, 2009.
- Clayton M. Christensen, The Innovators' Prescription: A Disruptive Solution in Health Care
- Crossing the Quality Chasm, Institute of Medicine
- Dana P. Goldman and Elizabeth A. McGlynn, Health Care: Facts About Cost, Access, and Quality, Rand Health.
- Michael Porter and Elizabeth Olmsted Teisberg, Redefining Health Care: Creating Value-Based Competition on Results.
- The Health Care Delivery System, A Blue Print for Reform, Center for American Progress and the Institute of Medicine.
- To Err is Human: Building A Safer Health System, Institute of Medicine.