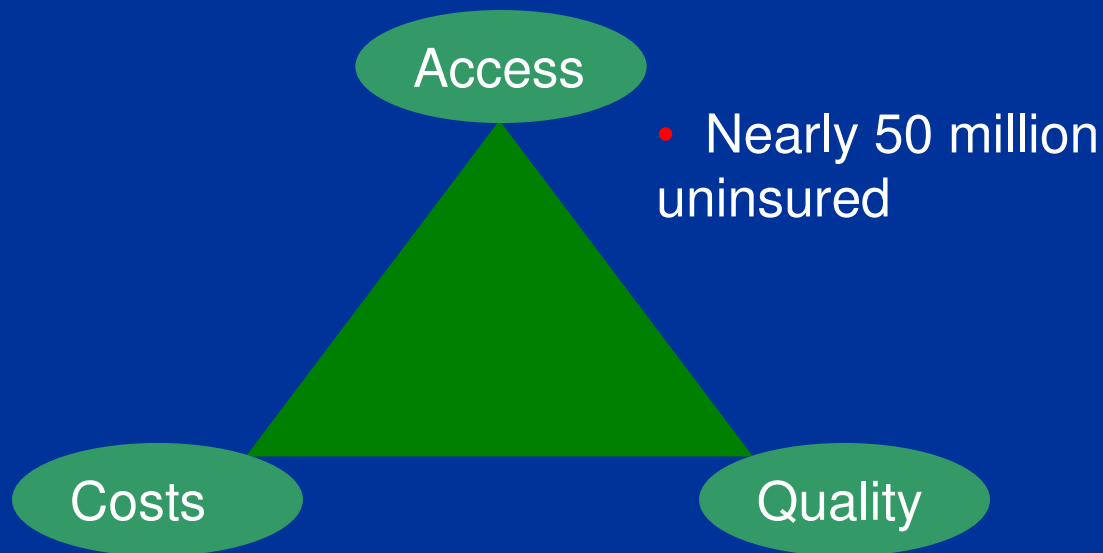


Comparative Effectiveness Research

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Healthcare Reform (U.S.)



- 16% GDP
- Most expensive in world
- \$ 2.4 trillion

- Bottom quartile on most health status measures for OECD nations
- 50/50 chance of getting recommended care

COMPARATIVE EFFECTIVENESS RESEARCH

- Definitions
- Institute of Medicine Report
- Cost effectiveness
- Evidence-based medicine
- Challenges for applying cost-effectiveness standards



Comparative Effectiveness Research (CER)

- Clinical research is needed by healthcare providers to diagnose and treat
- Consumers need information to evaluate and choose treatments
- Often, both these parties have incomplete and unavailable information – 1/2 of treatments today have no clear evidence of effectiveness

CER (continued)

- Variability in healthcare delivery and services leads to variability in costs and outcomes
- CER can help identify what works under what settings
- CER collects evidence that ‘compares the benefits and harms of alternative methods to prevent, diagnose, treat, and monitor a clinical condition or to improve the delivery of care’

IOM Report – Initial national priorities for comparative effectiveness research. Report brief. June 2009.

CER (continued)

- Should lead to informed decisions for healthcare providers, patients, family members and policymakers
- CER can be:
 - Literature analyses
 - Analyzing large established databases to determine distribution of care practices and outcomes
 - Prospective studies of factors that influence clinical practices
- All of these methods have limitations

CER (continued)

- Randomized clinical trials (RCTs) – clearest way to provide evidence-base for use of one practice or intervention of another, by removing effect of individual patient factors
- RCTs have limitations (e.g., not all factors, especially social, that affect clinical decisions can be ‘controlled’)

CER – Recent policy

- Congress – American Recovery and Reinvestment Act (ARRA) of 2009 - \$1.1 billion towards CER
- Institute of Medicine asked to identify priority research topics and needs of CER
- The IOM report recommended comparing effectiveness of different treatments/strategies for:
 - Atrial fibrillation
 - Care coordination programs for chronic disease
 - Prevention of healthcare-associated infections (HAIs)
 - Obesity prevention in school-aged children
 - And many more

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Cost-effectiveness

- Americans spend 16% of their GDP (highest in the world) while having low health status relative to other countries (bottom quartile)
- Some of this may be due to waste in healthcare expenditures and delivery
- For example, use of high-cost technology is reimbursed without challenge by many insurers and Medicaid/Medicare, despite instances where it yields little treatment effectiveness

Cost-effectiveness (continued)

- Efforts to improve cost control include:
 - Technology assessment
 - Weighing marginal cost with benefit, usually in terms of quality-adjusted life years (QALY)
- Challenges include:
 - Political resistance and ethical challenges
 - Fears of litigation
 - Public preferences for delivery of specific treatments for specific populations, no matter the cost-effectiveness

Cost-effectiveness (continued)

- U.S. payors have used *effectiveness* of healthcare technologies as a benchmark rather than their *cost-effectiveness*
- U.S. decisions are in theory based on clinical evidence, but in practice this evidence is weak
- U.K., Australia use a determined threshold of effectiveness to determine whether to offer a service, as well as results from comparative effectiveness research (CER)
- CER is a different, complementary method for reducing cost and improving quality of care

Evidence-based medicine (EBM)

- Uses the best available *scientific* evidence to assess risks and benefits of different treatments
- Part of comparative effectiveness research and can be used in conjunction with cost-effectiveness research
- The National Institute for Clinical Excellence (NICE) in the UK helps the NHS make determinations on what treatments should be covered, based on the evidence base for the treatment *and* cost-effectiveness
- NICE standards are used as benchmarks for treatment recommendations throughout NHS

Challenges for applying cost-effectiveness standards

- NICE uses a threshold for cost-effectiveness of thirty thousand sterling pounds spent per one QALY gained
- This can be controversial at times, and a U.S. Center for Comparativeness Research Effectiveness would face similar challenges
 - Example: Obama town hall meeting with woman whose 105-year old mother got a pacemaker 5 years previously, but the doctor was reluctant at first because of the \$35,000 cost to Medicare
 - It is unclear if this would be higher or lower than a potential threshold set for Medicare in the future

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