EVOLUTION OF VALUE: PERSPECTIVES FROM BOTH SIDES OF THE ATLANTIC

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Use and Non-use of Cost-Effectiveness Analysis in the United States

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SUMMARY: IT’S LIKE THE WEATHER

• Everybody talks about it
• Nobody does anything about it
**VAST OUTPOURING OF CEA STUDIES**

US has 38% of world-wide total of 5,000 CUA studies

Source: Neumann et al, 2017, Figure 1.1

**EDUCATIONAL PROGRAMS IN THE U.S.**

- MPH programs almost universally offer CEA courses
  - Parallel courses in clinical epidemiology
- Numerous doctoral-level programs with CEA focus
  - Pharmacoeconomics
  - Public Health
  - Health Services Research and Policy
  - Health Economics
  - Public Policy
- 80+ US Medical Schools offer joint MD/MPH (45%)
GIVEN ALL THAT – WHY SUCH LITTLE USE?

KEY FEATURES OF US HEALTH CARE SYSTEM

• WHOLLY DECENTRALIZED UNTIL 1966 MEDICARE FOR THE ELDERLY
• PRIVATE PLANS OPEN-ENDED IN COVERAGE
• MODEST MARKET SHARE HELD BY ‘CLASSIC’ HMO PLANS
  • Kaiser Permanente
  • Ross Loos
  • Seattle Group Health
  • Others
• MEDICARE SETS THE TONE

“If CMS were to take the lead on this issue, many would follow quite cheerfully.”
MEDICARE AND EARLY EVALUATION EFFORTS

• Medicare 1965 law: “necessary and reasonable...”
  • No subsequent guidance, minimal meaningful use of CEA in Medicare
• Office of Technology Assessment (OTA)
  • Created to advise US Congress on issues of technology (1975)
  • Carried out a number of specific CEA studies for US Congress
  • Defunded in 1995 (Gingrich “Contract with America” Congress)
• National Center for Health Care Technology (NCHCT)
  • Brief life – 1978 to 1981 (defunded FY 1982) as part of DHHS overhaul
  • Opposed by device manufacturers and AMA (cost control in disguise)

PATIENT CENTERED OUTCOMES RESEARCH INSTITUTE (PCORI) – PART OF AFFORDABLE CARE ACT

• Focuses on comparative effectiveness of alternative interventions within same condition
  • “Disease-specific” approach precludes overall prioritization
• Forbidden to use Incremental Cost-Effectiveness Ratios (ICERs) in ranking technologies
CURRENT PUBLIC SECTOR USE OF CEA IN USA

• ACIP (vaccinations) includes CEA in discussions, no formal process
• CDC Community Preventive Services Task Force uses CEA and CBA
• CMS “informs” coverage of certain preventive services with CEA
  • Other attempts to use CEA by CMS thwarted by legal and political challenges
    • (Neumann and Chambers, 2012)
• US Preventive Services Task Force chose not to use CEA in early 2000s
• Oregon Medicaid program began to ration using CEA-based lists, but abandoned those in favor of expert judgment.

WHAT’S THE HEARTBURN?

• Health care providers and insurers fear legal battles if they withhold effective treatments with poor cost-effectiveness
• US Supreme Court: Employer-sponsored plans cannot be sued in state law
  • Aetna Health Inc. v. Davila, U.S., No. 02-1845, 6/21/04,
  • CIGNA Healthcare of Texas Inc. v. Calad, U.S., No. 03-83, 6/21/04
• Key issue in these cases – state laws allow larger damage claims against HMOs
• Implications of large “cutoff values”
  • Value of life: $7 million/life implies > $400K per life year
  • Estimate may be overstated by factor of 6 (WTP vs. WTA)
• “Disabled” concerns
  • PCORI ban specifically says “…measures that discount the value of life because of an individual’s disability…”
• Behind it all: US loathing for explicit rationing of health care
THE “DEATH PANEL” MYTH IN 2009*

• Belief that a panel of bureaucrats would decide individual’s treatment
• Actual legislation: pay one voluntary visit per year for end of life counseling
• 30% of polled Americans said they believed Palin’s claim
• Provision to pay for end of life counseling removed from Affordable Care Act in final version

*Palin, Aug. 7, 2009: “The America I know and love is not one in which my parents or my baby with Down Syndrome will have to stand in front of Obama’s “death panel” so his bureaucrats can decide, based on a subjective judgment of their “level of productivity in society,” whether they are worthy of health care.” (Facebook posting)

AN INSIGHT FROM BEHAVIORAL ECONOMICS

• “Delisting” takes away something that people have
• Relevant value measure is “Willingness to Accept” (WTA)
• CEA methodology structured around “Willingness to Pay” (WTP)
• In standard economic theory, WTP ≈ WTP
  • Differ only by “income effects”
• Behavioral Economics research says that “framing” matter a lot!
  • Expect WTA >> WPT
• In health care, WTA >>>>> WPT in numerous comparisons (5X greater)
• Message for politicians: Don’t try to take away something people already have!
PRIVATE SECTOR USE OF CEA IN THE USA

• Institute of Medicine* recommends using CEA
• American College of Physicians recommends using CEA
• Heart associations (AHA/ACA) integrate CEA into guidelines
• Institute for Clinical and Economic Research (ICER) promulgates CEAs
• Blue Cross in Washington State uses CEA for pharmacy plan design
• Academy of Managed Care Pharmacy actively promotes CEA
• Rumors of sub rosa use in setting “tiers” for Part D drug pricing
• MUCH OF THIS USE REMAINS UNPUBLISHED AND UNVERIFIED

*Now called the National Academy of Medicine

WHAT MIGHT CHANGE?

• The “disabled population” problem can be solved
  • Use additive, not multiplicative utility weights?
  • Ignore disabled status for CEA on life-saving or life-extending treatments
  • Need disability weights to measure value of disability-improving treatments
• CEA is one of only four tools to reduce health care costs
  • Pay providers less
  • Increase patient copays (High Deductible Plans, etc.)
  • Reduce coverage eligibility (1/4 of US population on Medicaid, etc.)
  • Cut back on high-cost interventions (CEA)
• The “death panel” mentality looms large here
WHAT WOULD REALLY OPEN THE FLOODGATES?

• Where Medicare goes, private plans will follow
  • History of hospital and physician payment proves this conclusively
• Clarify legality of plans that limit coverage of expensive technologies
• Encourage competition of plans with different CEA criteria
  • Pauly, VIH, 2017
• Alter US tax laws to remove subsidy to excessive insurance through employer groups
  • Phelps and Parente, 2017 *The Economics of US Health Care Policy*
    • Real soon now...

EX ANTE OR EX POST?

• “Delisting” takes away existing benefits (WTA)
• “Coverage Determination” occurs before people have access (WTP)
• Behavioral economics tells us that WTA >> WTP
• Therefore, best options will likely involve initial coverage determinations, not delisting.

“If it were done, when 'tis done, then 'twere well It were done quickly.” (Macbeth, Scene VII)
MIGHT NEW EVALUATION TECHNIQUES HELP?

• Possibly, more comprehensive methods of evaluation might increase overall use of evaluative tools
• Candidates
  • Extended CEA – adds financial risk measure, introduces income-related data
  • Augmented CEA – adds other measures of value (hope, insurance, option...)
  • Multi-criteria decision analysis (MCDA)
• ISPOR Special Task Force on Value Assessment Frameworks
  • Forthcoming “special issue” in *Value in Health*

ISPOR SPECIAL TASK FORCE ON VALUE ASSESSMENT FRAMEWORKS

• *Recommendation VI: Explore and test novel elements of benefit to improve value measures that reflect the perspectives of both plan members and patients.*
• *(a)* We encourage development of a more comprehensive economic evaluation that could include novel elements of value—such as insurance value, real option value, value of hope, scientific spillovers, and others—and could ultimately provide for more efficient resource allocation within the health sector and between health and non-health spending. *More research is needed on measuring the additional value provided by—and the willingness to pay for—these novel elements.*
ISPOR SPECIAL TASK FORCE ON VALUE ASSESSMENT FRAMEWORKS

- **Recommendation VI:** Explore and test novel elements of benefit to improve value measures that reflect the perspectives of both plan members and patients.

- (b) More research is needed on MCDA development and use, particularly for generating value weights and thresholds, as compared to other approaches. Alternative approaches for estimating value weights and thresholds in MCDA should be tested and compared both for methodological soundness and practical implementation factors (e.g., ease of use and reliability). Testing of MCDA models should include comparisons of their resource allocation implications with those of conventional or augmented CEA-based decision making as well as those of other decision approaches.

- (c) Payers serve as agents for their plan members who both pay premiums and become patients. Obtaining input on the value of health benefits from members of health plans, informed by patient experience, is central to the validity of value measures.
THANK YOU FOR YOUR ATTENTION