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Health Policy and the Delivery of Health Care: Case Study Continuation and Placing Policy Analysis in Context

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Lecture Objectives

- To continue our “U-Care” case study
- Per your homework assignment, we will have an individual exercise that focuses on
  - Decision criteria (#4 in expanded Bardach policy analysis framework)
Lecture Objectives (Continued)

- Close out our case study by discussing
  - Estimating impact (#5)
  - Decision-making process (#6)
  - Advocacy (#7)
  - Implementation, improvement, evaluation (#8)
- Place the Bardach policy analysis approach into broader context
Section A

Review and Continuation of Case Study
Beyond Bardach

- Expanded Bardach framework
  1. Understand/define problem
  2. Obtain evidence/data
  3. Alternative solutions
  4. Develop “criteria” matrix
  5. Estimate impact (outcome) of policy
  6. Decision process (consider trade-offs)
  7. Advocate chosen policy
  8. Implement, improve, evaluate (“Beyond Bardach”)

- Standard eight-step Bardach policy framework
  1. Define the problem
  2. Assemble some evidence
  3. Construct the alternatives
  4. Select the criterion
  5. Project the outcomes
  6. Confront the trade-offs
  7. Decide
  8. Tell your story
“U-Care” Case Study

- The application of public health policy principles and methods within a private not-for-profit organization responsible for the health of 200,000 persons
Our Task Regarding Cardiovascular Disease

- **Review of our task**
  - To develop appropriate organizational *policies* that address key problems related to the treatment of persons with cardiovascular disease
    - Specifically, hypertension (high blood pressure) and hyperlipidemia (fatty arteries)

- **Problems**
  - Many among our population are not receiving adequate care for early-stage cardiovascular disease
    1. Majority or our members with early-stage disease are not under treatment
    2. For about 50% of the patients under care, “process of care” standards not being met (e.g., lipid screening, recommended drug regimen)
Two Policy Alternatives to Be Considered

1. Comprehensive “community” outreach program involving
   - Member education (not just patients)
   - Screening program for all members

2. Aggressive “disease management” program focusing on
   - Improved administrative systems
   - Changing provider practices (using performance-based rewards and penalties)
   - Patient compliance interventions
Individual Exercise

- Developing decision criteria (turn to step #4 on handout)
  - For each of the five points (#4a–e on the handout), develop at least one practical criterion for possible inclusion in your final decision matrix
    - Remember, this criteria list is generic and should be applicable to both policy alternatives
    - Take 15 minutes for this exercise
    - We will discuss the “correct” answers during the LiveTalk
OK, Time’s Up—Let’s Debrief

- I am the director of policy, planning, and evaluation at U-Care
- This is a meeting of senior staff from all units across our organization
Let’s Review Outcome of “Criteria” Exercise

a) Population benefit
   - End results/outcomes
   - Evidence-based care process standards
   - Access
   - Disparities
Let’s Review Outcome of “Criteria” Exercise

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   — Disparities
Let’s Review Outcome of “Criteria” Exercise

a) Population benefit
   - End results/outcomes
   - Evidence-based care process standards
   - Access
   - Disparities

b) Cost/economics
   - Cost benefit
   - Efficiency
   - Cost containment
c) Ethics/equity
   - “Total good” vs. individual rights
   - Fairness in distribution of resources
c) Ethics/equity
   - “Total good” vs. individual rights
   - Fairness in distribution of resources

d) Feasibility
   - Organizational control and time frame
   - Resources
   - Simplicity/chances of success
   - Legal/regulatory
e) Constituency perspectives
   - Providers
   - Sponsors (employers, Medicaid)
   - U-Care staff
   - Your board and hospital “owners”
   - Other?
OK . . . are there structured evidence-based approaches we can use to estimate the impact of our policy alternatives along some of the dimensions we identified?

First, a little “methods review . . .”
Section B

Estimating Impact
A wide range of analytic techniques can be applied to estimate impact of policy alternatives.

The goal for today is modest—for two of these tools, we will open the “black box” a bit, and I will discuss the range of techniques available.

We hope you will continue your studies so you will learn how to apply these techniques on your own.
Examples of Quantitative Estimation Approaches

- Simulation (operations research—OR)
  - Linear programming
  - Monte Carlo simulations
  - Markov models
  - Decision trees
  - Forecasting/predictive modeling
  - Bayesian/risk analyses

- See required/extra readings on e-reserve
  - Owen (2002)
  - Barton (2004)
Examples of Quantitative Estimation Approaches

- Simulation (operations research—OR)
  - Linear programming
  - Monte Carlo simulations
  - Markov models
  - Decision trees *(see next slide)*
  - Forecasting/predictive modeling
  - Bayesian/risk analyses

- See required(extra readings on e-reserve
  - Owen (2002)
  - Barton (2004)
Sample decision tree for assessment of costs and outcomes of population-based cholesterol screening

- Patient has elevated cholesterol (true +)
  - Receive total cholesterol test
    - True +
      - Drug treatment
        - Maintain drug treatment
          - Survive
          - Die
    - False –
      - Not tested
- Patient has normal cholesterol (true –)
  - Receive total cholesterol test
    - True –
      - Dietary intervention
    - False +
      - Drug treatment
  - False –
    - Not tested
Sample Decision Tree

Patient has elevated cholesterol (true +)

Patient has normal cholesterol (true –)

Receive total cholesterol test

Not tested

Dietary intervention

Drug treatment

Maintain drug treatment

Discontinue

Survive

Die

Survive

Die

Survive

Die

Survive

Die
Examples of Economic Estimation Approaches

- Cost vs. benefit (CBA)
  - Both sides in monetary terms
- Cost vs. effect/utility (CEA)—see next 2 slides
  - Outcomes in units other than monetary
  - Increasing use of “quality/disability adjusted life years” (QALYs and DALYs)
- Fiscal forecasting
CEA: Diet Intervention and CV Risk Factors

QALYs of Diet Interventions

- See Figure 1 from Prosser, L. A. et al. (2000). *Annals of Internal Medicine*, 132, 769–779.
What approaches might we use to help estimate impact of policy alternatives (or their various components)?
**Estimating Impact/Outcomes**

a) Need for phased analyses
   - Rarely will there be equal effort on all aspects for every alternative

b) Learn from others
   - Evidence-based literature reviews
   - Other programs
c) Quantitative techniques
d) Cost effect or benefit

- Can you suggest an example of a decision science, economic, or other analytic techniques that might be applied to estimate the effects of the two alternative policy solutions?
- What types of outputs might these techniques provide to support our analysis?
e) Policy formulation research
   - Primary data collection to inform estimation analysis
   - Evaluate pilot project
f) Expert input
   - Group process (Delphi panels)
   - Consultants
   - Commission policy development study
Making the Decision

a) Advisory group
b) Translate criteria into decision matrix (see appendix of handout)
   - Determine relative “weight” of each
c) Quantitatively “score” each policy alternative for each criterion
Making the Decision

a) Advisory group
b) Translate criteria into decision matrix (see appendix of handout)
   - Determine relative “weight” of each
c) Quantitatively “score” each policy alternative for each criterion
d) Integrate and step back
   - Sensitivity analysis (modify criteria, weights, or scores)
   - Combine/modify alternatives
   - Involve organizational leadership
e) Finalize internal decision memo
### Sample Decision Matrix

<table>
<thead>
<tr>
<th>Criteria (Relative weight)</th>
<th>Screening outreach (Score: 1–10)</th>
<th>Disease management (Score: 1–10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population benefit (.35)</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Cost/economics (.25)</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Ethics/equity (.10)</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Feasibility (.15)</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Constituencies (.15)</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total assessment (1–10)</strong></td>
<td><strong>6.7</strong></td>
<td><strong>7.5</strong></td>
</tr>
</tbody>
</table>
Before finishing our policy analysis case study, we need to step back and discuss context a bit.
The Continuum of Policy, Management, and Evaluation

- Problem/needs assessment
- Policy development and analysis
- Program design and implementation
- Program management
- Evaluation of impact
Why This Broader Perspective Is Important to You

- A subset of you will work within legislative context; most will not
- However, during your careers most of you will
  - Help make “policy” within a public health or service delivery organization
  - Design and plan public health interventions/programs
  - Help implement or manage a program
  - Help evaluate a program’s impact
  - Add to our knowledge base
So, let’s step back and view “policy analysis” from within the context of other key paradigms/frameworks:
- Public health problem solving
- Quality improvement
- Management
- Health services research and evaluation
PH Problem Solving Paradigm

- Public health “problem solving” paradigm
  1. Define problem
  2. Measure magnitude
  3. Identify determinants
  4. Develop intervention
  5. Set priorities and lay out policy
  6. Implement program and evaluate

- Standard eight-step Bardach policy framework
  1. Define the problem
  2. Assemble some evidence
  3. Construct the alternatives
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**QI Paradigm**

- **“Quality improvement”** paradigm
  1. Define problems and prioritize based on impact
  2. Determine ideal criteria
  3. Measure and evaluate performance
  4. Design improvement
  5. Implement improvement
  6. Repeat cycle as needed

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Focus of Health Services Management

- Focus of health services management
  1. Strategic planning
  2. Responding to customer needs and demands
  3. Internal HR/staff management
  4. Process management
  5. Fiscal management
  6. Performance assessment

- Standard eight-step Bardach policy framework
  1. Define the problem
  2. Assemble some evidence
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Health Services Research/Evaluation Framework

Science base

New knowledge for society
Research

Provider/program focus
Evaluation

Methods and basic scientific knowledge

Improve quality and efficiency

Program management

Policy research

Assess program effectiveness

Policy makers (public and private)
Health Services Research/Evaluation Framework

Science base

New knowledge for society
Research

Provider/program focus
Evaluation

Methods and basic scientific knowledge

Policy

Non-policy

Method and basic scientific knowledge

Policy research

Assess program effectiveness

Policy makers (public and private)

Program management

Improve quality and efficiency
Let’s Finish the U-Care Case Study

- Let’s finish up the U-Care policy analysis case study
  - (Let’s just focus on the “community” outreach intervention)
The Expanded Adaptation of Bardach

- The expanded adaptation of Bardach
  1. Understand/define problem
  2. Obtain evidence/data
  3. Alternative solutions
  4. Develop “criteria” matrix
  5. Estimate impact (outcome) of policy
  6. Decision process (consider trade-offs)
  7. Policy advocacy
  8. Implementation, improvement, and evaluation

- Standard eight-step Bardach policy framework
  1. Define the problem
  2. Assemble some evidence
  3. Construct the alternatives
  4. Select the criterion
  5. Project the outcomes
  6. Confront the trade-offs
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  8. Tell your story
Advocacy: Moving the Program Forward

a) Develop carefully targeted policy analysis documents to fit the circumstances

b) PR strategy campaign
   - Figure out what “hat” you are wearing—an advocacy role is not appropriate in all cases
   - What “stories” should you tell?
   - Targets of information
   - Medium/modalities
Advocacy: Moving the Program Forward

a) Develop carefully targeted policy analysis documents to fit the circumstances

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   - Figure out what “hat” you are wearing—an advocacy role is not appropriate in all cases
   - What “stories” should you tell?
   - Targets of information
   - Medium/modalities
Advocacy (Continued)

c) One-on-one with constituencies
   - Feedback
   - Buy-in

d) Policy team hand-off to implementation team
The Continuum of Policy, Management, and Evaluation

- Problem/needs assessment
- Policy development and analysis
- Program design and implementation
- Program management
- Evaluation of impact
a) Liaising with program managers/implementers

- Reviewing the roles of managers
  - **Strategic planning**
  - Responding to customer needs and demands
  - Internal HR/staff management
  - **Process management**
  - Fiscal management
  - **Performance assessment**
A Word about Milestones/Measures

- Milestones/measures are one key “hand-off” to operational managers
  - Used as ongoing performance indicators
    - If you don’t measure it, you can’t manage it
  - Focus of quality improvement process
  - Focus of “formative” evaluation
    - More on that in a moment
- Any thoughts on performance measures that you would suggest to the managers of the outreach intervention program?
Section D

Evaluation and Useful Skills
The Continuum of Policy, Management, and Evaluation

- Problem/needs assessment
- Policy development and analysis
- Program design and implementation
- Program management
- Evaluation of impact
b) Relationship between policy analysis and evaluation design

- Within the public health/health care organization context, evaluation closes the “feedback loop”
- Provides information on whether the policy change has addressed the original problem and how the intervention might be improved
Evaluation: Feedback Loop for Policy Makers, Managers

- Goal and objectives
- Program management
- Treatment units
- Delivery of service
- Patients in original state
- Change
- Comparison
- Patients in final state

Evaluation

Structures
Process
Outcome
Evaluation: Feedback Loop for Policy Makers, Managers

- Goal and objectives
- Program management
- Treatment units
- Delivery of service
- Patients in original state
- Patients in final state
- Outside funding source or policy-making body
- Evaluation

- Structure
- Process
- Outcome
- Comparison
- Change

Program control
There Are Two Main Types of Evaluation

- **“Formative”** (during formation of program)
  - Emphasizes internal operational objectives
  - Can be viewed as a type of ongoing quality improvement
  - Focuses on efficiency improvement

- **“Summative”** (helps sum a program once fully implemented)
  - Allows policymakers to assess whether goals met
  - Focuses on effectiveness (including cost vs. benefits)
The health services research/evaluation framework and the policy process

- **Science base**
  - New knowledge for society
    - Research
  - Methods and basic scientific knowledge
- **Non-policy**
  - Provider/program focus
    - Evaluation
  - Improve quality and efficiency
- **Policy**
  - Program management
  - Assess program effectiveness

Policy makers (public and private)
The health services research/evaluation framework and the policy process

- **Science base**
  - Non-policy
    - Policy
  - Policy research

- **New knowledge for society Research**
  - Methods and basic scientific knowledge

- **Provider/program focus Evaluation**
  - Improve quality and efficiency
  - Program management

- **Policy makers (public and private)**

- **Formative evaluation**
The health services research/evaluation framework and the policy process

- Science base
- Methods and basic scientific knowledge
- New knowledge for society Research
- Provider/program focus Evaluation
- Improve quality and efficiency
- Program management
- Non-policy
- Policy
- Policy research
- Assess program effectiveness
- Policy makers (public and private)
Summative Evaluation

- The health services research/evaluation framework and the policy process

- New knowledge for society
  - Research
  - Methods and basic scientific knowledge
  - Program management

- Provider/program focus
  - Evaluation
  - Improve quality and efficiency

- Non-policy
  - Policy

- Policy research

- Assess program effectiveness

- Summative evaluation

- Policy makers (public and private)
Evaluation and Our Case Study

- As policy analysts, what are some of the key questions that should be included in the screening/outreach program’s . . .
  - Formative evaluation?
  - Summative evaluation?

- Are there any research design or data collection processes you might want to build into the program at its onset?
Evaluation and Our Case Study

- As policy analysts, what are some of the key questions that should be included in the screening/outreach program’s . . .
  - Formative evaluation?
  - Summative evaluation?
- Are there any research design or data collection processes you might want to build into the program at its onset?
Are You Prepared?

- Are you prepared for the future challenge of applied policy analysis?
- Some related skills you can learn from courses offered within HPM...
Some Skills That Can Be Obtained from HPM Courses

- Analytical methods for policy analysis and decision making
- Models for financing and organizing health care delivery to address current problems
- Methods to evaluate the effectiveness of public health interventions
- Methods for measuring and improving quality of care
Skills from HPM Courses (Continued)

- Understanding the role of government and regulation in the policy process
- Understanding social and economic factors that influence health
- Understanding organizational behavior and management
- Effective communication, advocacy, and marketing
- Ethical principles, frameworks, and decision tools
Some Relevant HPM Courses

- Role of Government in Health Policy (308.602/3, 308.625)
- Health Policy and Politics (300.652)
- Health Policy Analysis and Synthesis (301.607)
- Organization, Financing, and Delivery of Health Services (300.651)
- Managed Care and Health Insurance (309.620)
- Cost-Effectiveness/Economics (313.630/1, 313.790)
- Health Services Research and Evaluation (309.615/6)
- Public Health and the Law (306.650)
Relevant HPM Courses (Continued)

- Quality of Care Measurement and Improvement (311.615)
- Ethics (206.650, 306.663)
- Long-Term Care/Aging (309.605/7)
- Introduction to Persuasive Communications (304.620)
- Principles in Health Behavior Change (302.683)
- Theories of Organization and Management (312.615)
- Strategic Planning and Operations (312.621)
- Conflict Management (312.665)