Priority setting and resource allocation in healthcare: Drawing on ethics and economics to inform practice

National Healthcare Leadership Conference
Niagara Falls, June 10-11, 2013

Craig Mitton, Jennifer Gibson & Howard Waldner
Session objectives

- To highlight key challenges around priority setting and stimulate thinking to tackle barriers to good practice

- To introduce a practical resource allocation approach based on ethical and economic principles

- To discuss how to apply this approach in real-time
The Priority Setting Challenge

- Demand for health care exceeds available resources

- Health organizations need to determine:
  - *what* health services to provide
  - *for whom* to provide services
  - *how* to provide services
  - *where* services should be provided

- How should resources be allocated to meet health needs?
Common Strategies

1. Generate revenue
2. Cost reduction activities
3. Outsource services
4. Re-engineering – LEAN, six sigma
5. Non-clinical integration & consolidation
6. Clinical integration & consolidation
Common Strategies

1. Generate revenue
2. Cost reduction activities
3. Outsource services
4. Re-engineering – LEAN, six sigma
5. Non-clinical integration & consolidation
6. Clinical integration & consolidation
7. Strategic re-allocation = disinvestment + reinvestment
“Overall, how would you rate your organization’s resource allocation process?”

- Very good
- Good
- Fair
- Poor
- Very poor
“Overall, how would you rate your organization’s resource allocation process?”

- Very good: 2%
- Good: 44%
- Fair: 32%
- Poor: 10%
- Very poor: 3%

Mitton et al., 2013 – National survey on priority setting practices (n=91)
“What type of process does your organization use?”

- Internal politics
- Formal process
- External politics
- Historical allocation
- Other
“What type of process does your organization use?”

Mitton et al., 2013 – National survey on priority setting practices (n=91)
### Historical vs. formal process

<table>
<thead>
<tr>
<th></th>
<th>Poor - Very Poor</th>
<th>Fair</th>
<th>Good - Very Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical or Political Process</td>
<td>18%</td>
<td>50%</td>
<td>32%</td>
</tr>
<tr>
<td>Formal Process</td>
<td>7%</td>
<td>23%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Formal/rational process = greater overall satisfaction
What factors influence the decisions your organization makes?

<table>
<thead>
<tr>
<th>Most influential</th>
<th>Least influential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercising fiscal restraint to ensure a <strong>balanced budget</strong></td>
<td>Pursuing what’s best for the organization even if at a <strong>cost to others in the system</strong></td>
</tr>
<tr>
<td>Ensuring consistency with <strong>organization’s stated values</strong></td>
<td>Acting in the <strong>community interest</strong> even if not strictly in the interest of the organization</td>
</tr>
<tr>
<td>Applying leading practices to <strong>improve quality</strong></td>
<td>Using resources to <strong>optimize overall population health</strong></td>
</tr>
<tr>
<td></td>
<td>Creating opportunities for affected <strong>patients/clients to participate meaningfully</strong> in the decision</td>
</tr>
</tbody>
</table>

Gibson et al, 2013 – National survey on organizational ethics (n = 300)
How does your organization make decisions?

<table>
<thead>
<tr>
<th>Decision Criteria</th>
<th>Agree/ Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decisions made using explicit criteria*</td>
<td>30-49%</td>
</tr>
<tr>
<td>Explicit about criteria</td>
<td>50%</td>
</tr>
<tr>
<td>Explicit about evidence</td>
<td>53%</td>
</tr>
<tr>
<td>Explicit about values</td>
<td>54%</td>
</tr>
<tr>
<td>Formal mechanism to resolve disputes</td>
<td>38%</td>
</tr>
<tr>
<td>Staff input actively sought</td>
<td>65%</td>
</tr>
<tr>
<td>Active in engaging our community*</td>
<td>30-45%</td>
</tr>
</tbody>
</table>

Gibson et al, 2013 – National survey on organizational ethics (n = 300); *Mitton et al 2013
Ethical challenge

- Resource allocation identified as #1 most pressing ethical issue by Canadian health executives (Gibson et al., 2013).

- Clinicians often perceive executive decisions as ‘business decisions that have little to do anything to do with ethics’ (Foglia et al., 2008).

- Moral distress cited by health leaders in the face of resource constraints (Mitton et al., 2010).
In your own setting, what are the major challenges with respect to priority setting today?
“We know what the problems are. How do we begin to tackle them?”
Two key questions

- *What* priorities should be set to optimize health benefits & achieve health system goals in resource constraints?

- *How* should these priorities be set to ensure legitimacy and fairness in the eyes of affected stakeholders?
Economics & ethics: two silo-tudes?

**ECONOMICS**
Program budgeting & marginal analysis (PBMA)

**ETHICS**
Accountability for reasonableness (A4R)

- Publicity
- Revision
- Fair processes
- Relevance
- Empowerment*
- Enforcement

**Optimal Benefits**
Role of economics

- Provides:
  - A way of thinking about the opportunity costs of allocation decisions
  - A set of techniques

- To guide decision-making that promotes
  - Efficiency
  - Equity
Role of ethics

- Provides:
  - A way of thinking about underlying values in resource decisions
  - A deliberative process

- To guide decision-making that promotes:
  - Legitimacy
  - Fairness
Interdisciplinary Approach

Ethics and economics: does programme budgeting and marginal analysis contribute to fair priority setting?

Jennifer Gibson, Craig Mitton, Douglas Martin, Carol Donaldson and Peter Singer
Centre for Health Services, University of British Columbia, Vancouver, Canada; and Department of Health Policy, Management and Evaluation, University of Toronto, Toronto, Canada.

Objective: Limited resources mean that decision-makers must set priorities among competing opportunities. Program budgeting and marginal analysis (PBMA) is an economic approach that focuses on maximizing benefits available with limited resources. Accountability for reasonableness (AAR) is an ethical approach that focuses on ensuring fair priority-setting processes. PBMA and AAR have been used separately to provide decision-makers with advice about how to set priorities within limited resources. The goal of this research was to test the AAR framework to evaluate the fairness of using PBMA for priority-setting and assess how AAR might influence PBMA.

Methods: Qualitative case studies to describe priority-setting using PBMA in the Galgary Health Region (Alberta, Canada). A conceptual framework was developed to test AAR.

Results: The use of PBMA for priority setting was delivered than previous priority setting because of its emphasis on explicit rational decision-making. However, there were opportunities to improve the process, particularly by addressing data related to the decision criteria, by developing a communication plan to engage internal and external stakeholders about priority setting, and by providing a formal mechanism to review priority-setting decisions and make them visible.

Conclusion: There is potential for combining AAR and PBMA in a more comprehensive approach to priority setting, which uses a fair priority-setting process to reach decisions aimed at achieving optimal outcomes with available resources.

Introduction

Every health system faces significant resource allocation challenges. Priorities must be set among competing opportunities because demand for health care exceeds available resources. While resource allocation may typically be viewed as a managerial activity, it is important for management and decision-makers to work together on this challenging task. Two priority-setting frameworks have been used internationally to guide decision-making about scarce resources: programme budgeting and marginal analysis (PBMA) and accountability for reasonableness (AAR). PBMA, from the economic tradition, focuses on maximizing benefits available with available resources (Box 1). AAR, from the democratic deliberation tradition, focuses on ensuring fairness in how allocations are made (Box 2). PBMA and AAR have been used separately to reach decisions about scarce resources using a range of techniques, from expert consensus to economic cost-effectiveness. Experience shows, however, that decision-makers find both technically unbiased and fair processes to be important considerations in priority setting. It may be possible to combine PBMA and AAR in a more comprehensive approach that employs a fair priority-setting process to reach decisions aimed at optimizing benefits with available resources. Although AAR has been used to evaluate priority setting at national levels, there has been limited work in health services organizations and limited work in health services research organizations and

From principles to practice

“This is sounding good but how do we translate these principles into practice?”
1. Decision Making Criteria

- Priority setting decisions based on complex range of factors - MCDA.

- Criteria should be:
  - Explicit and specified at outset
  - Operational enough to assess funding options
  - Mutually exclusive, i.e., not overlap
  - Clearly defined

- Explicit criteria improves consistency and public defensibility of decisions.
## Defining & weighting criteria

<table>
<thead>
<tr>
<th>DOMAIN</th>
<th>Domain Weights</th>
<th>CRITERIA</th>
<th>DEFINITION</th>
<th>Criteria Weight</th>
</tr>
</thead>
</table>
| **Strategic alignment** |                | **Alignment to Mandate**         | 1) The service is directly related to health care or preventative health  
2) The service is not provided by another organization outside VCH  
3) The service is not the responsibility of an organization outside VCH                                                                                                                      | 15              |
|                         |                | **Efficiency, Effectiveness and Appropriateness** | 1) Optimal use of resources to yield maximum benefits and results,  
2) Care that is known to achieve intended outcomes  
3) Care provided is evidence based and specific to individual clinical needs  
4) Promote wellness & prevention initiatives,  
5) Support clients at home/returning home or self management                                                                                                | 5               |
|                         |                | **Access**                      | Impact on timely access to appropriate health care services for defined population(s). **Note**: the ‘defined populations’ are those using the services affected by the proposed changes.                                             | 5               |
|                         |                | **Flow/ Integration**           | Impact on the coordination of health care services among programs to ensure flow and continuity of care from the patient's perspective (improve flow transitions)                                                  | 5               |
| **Health Impact**       | 45             | **Numbers affected**            | Number of individuals affected by the proposed change                                                                                                                                                    | 8               |
|                         |                | **Equity**                      | Impact on the health status of recognized groups where there is a known health status gap.                                                                                                                  | 10              |
|                         |                | **Significance of impact**      | Impact on clinical outcomes for the patient/client, including risk of adverse events, as compared to current practice/service.                                                                             | 11              |
|                         |                | **Health promotion and disease prevention** | Impact on illness and/or injury prevention, well-being and harm reduction as measured by projected longer term improvements in health                                                                     | 8               |
|                         |                | **Client experience**           | Impact on safety, effectiveness, and client experience of health service(s) provided.                                                                                                                     | 8               |
| **Organizational Impact** | 25            | **Workplace environment**       | Impact on workplace environment including morale, tools and equipment, personal and professional growth and teamwork                                                                                      | 5               |
|                         |                | **Innovation and knowledge transfer** | Impact on the generation and/or application of new knowledge/practice.                                                                                                                                   | 5               |
|                         |                | **Implementation**              | Challenges to the implementation of proposed initiative (or reversal)                                                                                                                                     | 5               |
|                         |                | **Downstream impact on service utilization** | Impact of the proposed change on future use of health care services                                                                                                                                        | 10              |
# Rating & ranking options

<table>
<thead>
<tr>
<th>Domain</th>
<th>CRITERIA</th>
<th>RATING SCALE</th>
<th>TOTAL SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alignment to Mandate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strong alignment with mandate (for releases)</td>
<td>Moderate alignment with mandate (for releases)</td>
<td>Weak alignment with mandate (for releases)</td>
</tr>
<tr>
<td></td>
<td>Efficiency, Effectiveness and Appropriateness</td>
<td>Goes against four or five of the five objectives</td>
<td>Goes against two or three of the five objectives</td>
</tr>
<tr>
<td>Strategic alignment</td>
<td>Access</td>
<td>Significant (more than 10%) worsening of the waiting times for more than 20% of the population or complete closure of a service</td>
<td>Significant (more than 10%) worsening of the waiting times for 10% to 20% of the population or closure of a service for more than 25% of the time</td>
</tr>
<tr>
<td></td>
<td>Flow/Integration</td>
<td>Negative impact on continuity for more than 20% of clients or significant worsening for some patients</td>
<td>Negative impact on continuity for 10% to 20% of clients</td>
</tr>
</tbody>
</table>
### Shifting resources

<table>
<thead>
<tr>
<th>Investment options</th>
<th>Disinvestment options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option #1 (i)</td>
<td>Option #1 (d)</td>
</tr>
<tr>
<td>75</td>
<td>-5</td>
</tr>
<tr>
<td>$75K</td>
<td>$25K</td>
</tr>
<tr>
<td>Option #2 (i)</td>
<td>Option #2 (d)</td>
</tr>
<tr>
<td>65</td>
<td>-15</td>
</tr>
<tr>
<td>$125K</td>
<td>$15K</td>
</tr>
<tr>
<td>Option #3 (i)</td>
<td>Option #3 (d)</td>
</tr>
<tr>
<td>50</td>
<td>-20</td>
</tr>
<tr>
<td>$80K</td>
<td>$75K</td>
</tr>
</tbody>
</table>

- Options ranked in order of decreasing positive impact (most to least benefit for investments and least to most burden for disinvestments).

- Resources shifted from disinvestment list to investment list to optimize overall benefit.
2. Decision Processes

- Fair processes establish the legitimacy and public defensibility of decisions

- Key elements of fair process include:
  - Stakeholder engagement around relevant criteria, values, and evidence to guide decisions
  - Effective communication of decision rationales
  - Mechanisms for decision review and dispute resolution

- Transparency may be the key to perceived fairness of the process.
Evaluation survey of work in Ontario

- Fairness: linked to transparency

<table>
<thead>
<tr>
<th></th>
<th>FAIR</th>
<th>NOT FAIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHIN’s goals, criteria, &amp; funding processes were communicated clearly.</td>
<td>85% Agreed</td>
<td>60% Disagreed</td>
</tr>
<tr>
<td>LHIN’s funding rationales were communicated clearly.</td>
<td>52% Agreed</td>
<td>89% Disagreed</td>
</tr>
</tbody>
</table>
Eight step process

1. Determine aim & scope of decision making.
2. Identify priority setting committee.
3. Clarify existing resource mix.
4. Develop decision criteria with stakeholder input.
5. Identify & rank funding options.
6. Communicate decision & rationale.
7. Provide formal decision review process.
8. Evaluate & improve.

Gibson, et al., Healthcare Quarterly 2005
What specific strategies have you found to be successful in your own settings to improve resource management and stakeholder engagement?
From practice to real-world impact

“OK but what difference does this make?”
"I think you should be more explicit here in step two."
1. IWK Health Centre

- **2011/12 Context:**
  - Large deficit projected
  - Historical approach not working

- **Interdisciplinary approach**
  - Built patient & family-centredness into design – criteria and participatory decision-making
  - Proactive clinical engagement

- **Leadership commitment to learning through innovation**
Proposal Submissions

- Short Form Proposals Submitted: 440
- Short Form Proposals Approved for Long Form: 352
- Proposals Deemed Not Ready to Move Forward (Long Form): 112
- Efficiency Proposals (Long Form): 81
- Investment Proposals (Long Form): 71
- Disinvestment Proposals (Long Form): 71
- Proposals Not Received (Long Form): 6

Overwhelming # of short proposals submitted required extension of timelines for long form submission.
Impact

PBMA Resource Allocation Results ($ Millions)

- Start Up Costs to Achieve Disinvestments
  - $2.55
- Disinvestment Savings 12-13
  - $3.03
- Disinvestment Savings 13-14
  - $3.57
- Disinvestment Savings 14-15
  - $3.58
- $ Re-Allocated (Investment) 12-13
  - $0.12

25% of 12-13 Net Savings
2013/14 Context:
- Facing significant pressure (cooperative gains mandate, clinical transformation system) but also wanting to get at re-allocation

Programmatic Approach:
- Matrix structure, strengthening regional programs while respecting communities of care

Use of novel software developed jointly
- www.prioritizesoftware.com
Prioritize

**PROJECT-WIDE TARGETS**

**Investments**
- Allowance: $1,935,000
- Remaining: $832,490
- Rated: 6
- Value: $295,010
- Accepted for Rating: 0
- Value: $0
- Pending: 5
- Value: $807,500
- Draft: 8
- Value: $8,000

**Disinvestments**
- Requirement: $2,820,000
- Remaining: $2,102,000
- Rated: 4
- Value: $350,000
- Accepted for Rating: 1
- Value: $160,000
- Pending: 4
- Value: $208,000
- Draft: 3
- Value: $0

**Unit / Departments**

<table>
<thead>
<tr>
<th>Department</th>
<th>Investments</th>
<th>Disinvestments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Home and Community Care</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Housekeeping</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>
Impact

- Over $8M in savings identified in three month process
- Evidence informed rationale built into proposal submissions
- Clear engagement across levels in organization
- Targets for savings met, now pressing to move forward with formal re-allocation
Roles and Ongoing challenges
For Health Leaders

“It’s all good”
But what does this really mean for health leaders?
Some practical observations

Noah – are you sure this ship is sustainable?
What can we be certain of?

- Demand for services will continue to exceed available resources
- Our Health System Operates in a complex & fragmented system – Silo’s
- Challenge of Physician / Staff Engagement
- Political Reality - ( P & p )
- Courage, Focus, Transparency
- Robust Coherent Process
Einstein’s Definition of Insanity

“Doing the same thing over and over again and expecting different results.”
Required Behaviors for success

- Moving from ‘knowing’ to ‘doing’
- Engage and involve the team organization
- Open & Transparent Discussions
- Set challenging targets – accept “givens”
- Get stakeholder and Board “buy in” to options being considered
- Effective Leadership
Expected outcomes

- Resources Alignment

- Effective “Buy-in” and support of key Stakeholders

- Publicly defensible decisions based on available evidence and relevant values

- Strengthened accountability for health system for all resource allocation and use
Roles for health leaders

- Key lessons learned
  - Board and Executive endorsement
  - Linking to strategic priorities
  - Engaging physicians and staff
  - Stop Making decisions in a data-free zone
  - Balancing, confidentiality and transparency
  - Dealing with resistance
  - Involving the community
  - Share learning
SWIM!
Comments/Questions

craig.mitton@ubc.ca

jennifer.gibson@utoronto.ca

howardwaldner@shaw.ca