Past, present and future challenges in health care priority setting: findings from an international expert survey

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<th>Journal:</th>
<th>Journal of Health Organization and Management</th>
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<td>Manuscript ID:</td>
<td>JHOM-01-2018-0005.R1</td>
</tr>
<tr>
<td>Manuscript Type:</td>
<td>Original Article</td>
</tr>
<tr>
<td>Keywords:</td>
<td>Resource management, Strategic management, Health and medicine, Health authorities, Hospital management</td>
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Past, present and future challenges in healthcare priority-setting: findings from an international expert survey

Keywords: Priority Setting, Resource Allocation, Rationing, International Trends

Introduction

Whether faced with times of surplus that enable investment or times of scarcity that necessitate disinvestment, all organizations must face the difficult task of priority setting. In healthcare, this exercise can prove to be especially controversial and difficult to accomplish as situations of life and death are regularly faced. Within this field, priority setting can be characterized as ‘decisions about the allocation of resources between the competing claims of different services, different patient groups or different elements of care’ (Klein, 2010). For example, at a micro level: should one patient be seen before another in an emergency department, or at a meso level: should resources from an acute care facility be re-allocated to serve preventative health functions, or at a macro level: should incremental investments be directed towards rural areas with more significant disease burden (Martin and Singer, 2003). To address these difficult decisions, scholars and practitioners have looked to multiple disciplines for guidance including ethics, economics and political science (Hurley, 2010)(Williams et al., 2011). It was in this spirit of collaboration that the International Society for Priorities in Health (ISPH) was created in 1996 with a mission to “strengthen the theory and practice of priority setting in health care” (“International Society For Priorities in Health Care,” n.d)(Baltussen et al., 2017).

Successful priority setting has multiple components which confound simple prescriptions for practice (Smith et al., 2016). For example, we may seek to calculate the benefits of investment and disinvestment options but without a strategy for promoting buy-in and making decisions compatible with organizational and institutional settings, these calculations will remain hypothetical (Landwehr, 2013)(Hipgrave et al., 2014). Furthermore, decision making processes are required to be robust to challenge and to embody wider social values. The search for a ‘magic bullet’ has therefore been replaced by appreciation of the nuanced interplay between evidence, interests, culture, structure and outcomes in priority setting. Progress in relation to each of these dimensions requires assessment of the main achievements to date, and identification of areas where knowledge and practice require most critical attention.

Studies in a variety of settings have highlighted priorities for research and practice including: movement from historical allocation to more strategic re-allocation of resources across budget siloes (“An Interview Survey on Health Priority Setting
Practice in Iran,” n.d.)(Foglia et al., 2007)(Robinson et al., 2012), knowledge gaps between research and practice (“An Interview Survey on Health Priority Setting Practice in Iran,” n.d.), challenges to procedural and distributive justice (Smith et al., 2013), lack of inclusivity and transparency (Robinson et al., 2012)(Kieslich et al., 2016)(Hofmann, 2013), scarcity of data and resources(Barasa et al., 2015), external pressures (Hofmann, 2013)(Barasa et al., 2015), lack of evaluation (“An Interview Survey on Health Priority Setting Practice in Iran,” n.d.)(Hofmann, 2013)(Barasa et al., 2015)(Kapiriri and Martin, 2010), and incorporation of stakeholder views in priority setting (Weale et al., 2016)(Hunter et al., 2016). There is a need to take a cross-national view of the priority setting field and to establish where good practice achievements have been made, and where the remaining challenges for research and practice lie. This is especially important given the shared aim across publicly funded health care systems (including in low, middle and high income countries) of achieving efficient and equitable resource allocation, in the face of exacerbated financial pressures. It is therefore critical to take a coordinated approach to furthering the theory and practice of priority setting. This paper reports from an international survey administered to experts that was designed to establish: notable successes in priority setting research and practice over the last ten years; current challenges, and; promising or crucial areas for future research and analysis.

Methods

Research design

The survey included six open-ended questions designed to elicit expert opinion on the priority setting field in general, and to explore more specifically: past achievements and notable accomplishments; important ongoing policy and/or practice challenges; and important areas for future research (see Appendix #1). The sample population included academics, policymakers and other stakeholders with an interest or expertise in priority setting from across the world. The primary means of recruiting respondents was through the membership and contact list of the International Society for Priorities in Health (ISPH) which holds a biennial international conference to exchange research and practice developments in the field of priority setting (“International Society For Priorities in Health Care,” n.d.). This meant that the sample was drawn from an ‘expert’ list of those involved in presentation and exchange of research-based practice in the field of priority setting. The expert group included those in research and policy roles from lower, middle and high-income countries, albeit with stronger representation from research institutions in more developed countries than each of the other categories.

Survey development and data collection

The authors devised six questions and revised these following pilots of the survey with respondents who were working as researchers at the University of
Birmingham or health care decision makers in the English National Health Service (NHS). Responses were solicited in free text form. Data collection was carried out in the period February 2nd to March 27th 2015. The survey was distributed and returned online using survey software (Survey Monkey) and non-responders received a reminder email two weeks after initial emails were sent (“SurveyMonkey: Free online survey software & questionnaire tool,” n.d.). Ethics clearance was granted by the University of Birmingham (ERN_15-0118) and best practice was adopted in relation to both the recruitment of participants (following principles of informed consent) and the collection and storage of research data.

Analysis

Data were exported into MS-Excel and analyzed quantitatively and qualitatively. For each survey question, all usable responses were assigned a code enabling aggregation and basic descriptive statistical analysis (i.e. percentages). Thematic qualitative content analysis was conducted to enrich understanding of respondent views, and to enable analysis across questions and comparison with themes from the wider research and policy literature on priority setting (“Qualitative Data Analysis | SAGE Publications Inc,” n.d.). Two of the authors (WH and IW) led on coding and categorization of data and compared thematic categories to test for agreement. Categorizations were then reviewed and discussed among the core research team, and are presented in the results section. Select verbatim quotations are presented to illustrate each identified theme.

Results

The survey was sent to 485 individuals with current contact details held by the ISPH with additional targeted distribution to academics and decision makers from lower and middle income countries. Following the reminder email, 103 responses were received, of which 100 were sufficiently complete to include in analysis (response rate 21%). This included 62 researcher/academics, 23 health care leader/decision makers, 15 ‘others’ (including those with both roles). Although responses came from individuals in 16 nations, they reflect a bias towards respondents from North America (46%) and Europe (37%) with the rest distributed across Australia and New Zealand (12%), Asia (3%) and Africa (2%). This distribution is partly a reflection of the profile of the ISPH membership but also reflects a higher response rate from those in North American and European institutions (albeit many of these are researchers with an interest in priority setting in lower and middle income countries).
Respondents were given the opportunity to list up to three items in relation to each of the substantive questions (for example, three priorities for future research in priority setting). The denominator in the presentation of results below is therefore the total number of discrete items listed by participants in response to these questions. Results are presented from survey questions relating to: achievements in priority setting in the past ten years; current challenges to priority setting practice and; priorities for future research and practice. Responses to the second and fifth questions relating to organizations that are applying 'best practice' and the relationships needed to strengthen priority setting are not presented due to word limit constraints.

1. Achievements in priority setting

The 100 respondents to this survey offered a total of 165 responses as to the “most notable achievements in the field of priority setting in the last 10 years." Responses were categorized into five major themes included in Table 1.

Table 1. Most Notable Achievements in the Field of Priority Setting

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Responses</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision making frameworks</td>
<td>67</td>
<td>40%</td>
</tr>
<tr>
<td>Engagement</td>
<td>32</td>
<td>19%</td>
</tr>
<tr>
<td>Evidence generation and implementation</td>
<td>27</td>
<td>16%</td>
</tr>
<tr>
<td>Awareness and education</td>
<td>21</td>
<td>13%</td>
</tr>
<tr>
<td>Formal Institutions</td>
<td>18</td>
<td>11%</td>
</tr>
<tr>
<td>Total:</td>
<td>165</td>
<td>100%</td>
</tr>
</tbody>
</table>

The following provides a description of each theme along with quotes from respondents for illustrative purposes.

a) Decision making frameworks and approaches

These responses included formal frameworks for conducting resource allocation such as Accountability for Reasonableness (A4R) and Program Budgeting and Marginal Analysis (PBMA).

“In my estimation, one of the most important parts of priority setting is its operationalization into resource allocation. Over the past ten years, significant work has been done ... to implement explicit processes for priority setting and resource allocation in healthcare organizations using Program Budgeting and Marginal Analysis. This applied research
has helped organizations contend with serious fiscal challenges.” (R59 - Researcher/academic)

Several sub-themes (each identified in six or more responses) were also observed within this category including:

- ‘No one size fits all’ – recognition that there is not a single best approach to all priority setting decisions
  o “I think that most of us now agree that there is not one way to set priorities "correctly", but that priority-setting is a matter of social values and democratic decision-making.” (R29 - Researcher/academic)

- ‘Beyond the Quality Adjusted Life Year’ (QALY) – including other measures of benefit in addition to QALYs as part of priority setting decision making
  o “Expanding our understanding of the factors that should contribute to priority setting beyond cost-effectiveness to include ethical, legal and social issues in choice-making.” (R66 - Researcher/academic)

- ‘Reassessment or re-allocation of resources’ – a focus on reallocating existing resources from low to high priority areas
  o “There has been an increased focus on using existing resources more effectively rather than just buying more.” (R22 - Researcher/academic)

b) Engagement

Responses highlighted greater collaboration between patients, clinicians, decision makers, policy makers, and citizens to set priorities and allocate resources as a notable achievement.

“It is clearly recognized that priority setting decisions cannot be made at senior levels alone but must incorporate some form of participation and input from other managers and staff, including medical leaders.” (R69 - Researcher/academic)

“Development of methods to support public engagement in priority setting activity.” (R49 - Researcher/academic)

c) Evidence generation and implementation

The next subcategory of responses related to the development of evidence generation methodology and evidence generation itself to support priority setting as a notable achievement. Examples included analysis of burden of disease, cost effectiveness analysis, cost utility analysis, discrete choice experiments, and health
technology assessment.

“Increased application of evidence in applying arguments to benefits, risks and costs.” (R92 - Health care leader/decision maker)

d) Awareness and education

This category of responses referred to increased recognition of financial scarcity in healthcare, and therefore the requirement to ration resources. Responses suggested that this awareness has increasingly permeated through to members of the public, clinicians, researchers, and politicians.

“I think it is a big step that researchers and politicians in more and more countries have begun to understand the need for priority setting.” (R29 - Researcher/academic)

Some respondents suggested that this greater awareness has facilitated more open debate about priority setting.

“[There is] better media coverage of these issues in the UK now, than there was 10 years ago. The arguments seem to be much more balanced and less sensationalized... This means that it is easier for the subject to be debated.” (R2 - Researcher/academic)

The increase in awareness (for example of politicians and professionals) was a particularly commonly cited achievement among health care leaders/decision makers.

e) Formal institutions

Finally, respondents cited the creation of, and enhanced role for, governmental institutions and international organizations in setting policy and guidelines for priority setting as a notable achievement.

“The development of NICE’s role in the UK in developing a process to support national prioritization decisions.” (R9 - Health care leader/decision maker)
2. Policy and practice challenges

When queried about the most important policy and/or practical challenges facing priority setters, participants offered 178 responses that were categorized into seven themes represented in Table 2.

Table 2. Policy and Practice Challenges

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Responses</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Putting priority setting into practice</td>
<td>52</td>
<td>29%</td>
</tr>
<tr>
<td>Awareness and Education</td>
<td>31</td>
<td>17%</td>
</tr>
<tr>
<td>Engagement</td>
<td>24</td>
<td>13%</td>
</tr>
<tr>
<td>External interests</td>
<td>24</td>
<td>13%</td>
</tr>
<tr>
<td>Scarcity of Resources</td>
<td>20</td>
<td>11%</td>
</tr>
<tr>
<td>Evidence Generation and Implementation</td>
<td>19</td>
<td>11%</td>
</tr>
<tr>
<td>Required Resources</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>178</td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The following provides a description of each theme along with quotes from respondents for illustrative purposes.

a) Putting priority setting into practice

A significant group of respondents, including health care leaders/decision makers, highlighted challenges related to the implementation of priority setting including the application, adaptation, and improvement of the process, and ensuring that resources are withdrawn from outmoded services (disinvestment). Ideas for how to do so included the development and use of criteria, timeliness, and evaluation of processes.

“Undertaking priority setting in ways that are sufficiently rigorous (avoid methodological confounding, evidence, quality of the data, etc.), while meeting decision maker expectations in terms of timing, resource cost, effective engagement, etc.” (R42 - Researcher/academic)

A subset of respondents suggested that the culture shift and capacity needed to achieve re-allocation of resources from areas of low to high priority posed significant challenges to priority setting.
“the biggest challenge is the reallocation of resources that have been held historically over a very long time.” (R5 - Health care leader/decision maker)

b) Awareness and education

A second theme within this category was the need for continued education and communication to increase awareness among stakeholders of the necessity for, and legitimacy of, priority setting and rationing.

“Need to persuade politicians and the public that in a just society we have to face the inevitability of rationing.” (R14 - Researcher/academic in the field of medicine)

c) Engagement

Respondents identified engagement of stakeholders (including decision makers, clinicians, and/or members of the public) within priority setting processes as one of the most important contemporary challenges.

“It is very much in vogue to advocate stakeholder involvement in priority setting but undertakings in this area are still reserved for a limited group of actors (clinicians, bureaucrats, experts, and sometimes politicians). To open up the process for more actors while keeping accountability firmly within a framework of representative democracy is a real challenge.” (R27 - Researcher/academic)

d) External interests

Respondents also identified pressure from politicians and industry as important challenges to priority setting - these themes were especially prominent in the responses from health care leaders/decision makers. Examples included the effect of commercial interests in biasing process and outcomes, and political ideology trumping scientific evidence.

“In light of the influence of industry, interest groups, donors, threat of legal recourse for services not covered, and the broader political backdrop in which these decisions take place, how can priorities be set fairly, in accordance with social values, and meet the needs of the people.” (R46 - Researcher/academic)
e) Scarcity of resources - increasing demand with decreasing budgets

Respondents made reference to the scarcity of resources experienced by healthcare priority setters. Causes of the scarcity included shifting demographics, decreasing budgets, and the advent of new high cost treatments.

"Managing increasing healthcare costs and reducing budgets." (R26 - Researcher/academic)

In particular, the management of novel therapeutics with significant costs was a pressing concern.

"The many novel therapeutic options that are being developed through medical research that are extraordinarily expensive, likely to be used before they are fully evaluated, and are likely to make medical [care] financially unsustainable." (R87 - Researcher/academic)

f) Evidence generation and implementation

Others identified generating high quality evidence to support resource allocation decisions, implementing that evidence into PSRA processes, and addressing areas that “don’t fit neatly into the ‘health gain’ paradigm” among the most important challenges that healthcare priority setters face.

"Dealing with things that don't fit neatly into the 'health gain' paradigm - end of life care is a particular example.“(R2 - Researcher/academic)

"how to apply a set of multiple criteria in prioritization decision making process especially when some data unavailable (how to prioritize without bias because of the lack of some information) – technical aspect of PSRA” (R68 - Researcher/academic)

Within this theme, seven responses highlighted the challenges surrounding the communication and translation of knowledge to decision makers.

"The slow KT of available high quality evidence." (R92 - Health care leader/decision maker)

"Conveying evidence and key issues to policymakers that decide on the uses of public spending in a clear and defensible manner.” (R1 - Researcher/academic)
g) Required resources

Finally, a small number of responses argued that investment of time and resources is necessary to more explicitly set priorities, and that a more robust approach may prove to be more costly than historical methods. Obtaining such resources was identified as an important challenge to priority setters.

"Time and resources to conduct 'proper' priority setting exercises every funding period. If a system like PBMA or similar is always used to set priorities, health spending over time will result in more efficient resource allocation that is consistent with social values. But that takes time and resources - which health boards may not have." (R63 - Researcher/academic)

"The lack of capacity to pursue priority setting in low income countries because of insufficient resources, infrastructure and qualified personnel." (R87 - Researcher/academic)

3. Important areas for future research and analysis

Respondents were questioned about the most important areas for future research and analysis. Ninety six responses were collected from this question, and were categorized into the five themes represented in Table 3.

Table 3. Important areas for future research and analysis

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Responses</th>
<th>Percentage of Total</th>
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</thead>
<tbody>
<tr>
<td>Putting priority setting into practice</td>
<td>30</td>
<td>31%</td>
</tr>
<tr>
<td>Engagement</td>
<td>24</td>
<td>25%</td>
</tr>
<tr>
<td>Ethics, equity, and social values</td>
<td>21</td>
<td>22%</td>
</tr>
<tr>
<td>Data improvement</td>
<td>14</td>
<td>15%</td>
</tr>
<tr>
<td>Evaluation and audit</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>100%</td>
</tr>
</tbody>
</table>

The following provides a description of each theme along with quotes from respondents for illustrative purposes.
a) Putting priority setting into practice

Addressing the implementation gap - between devising decision making frameworks and achieving actual changes in resource allocation - featured heavily in respondent prescriptions for future research. This related to practical challenges, focusing on capacity building, implementation and governance, distinctions in practice across differing jurisdictions, and organizational structures.

“How to support greater uptake of technical tools for priority setting - through capacity building and standardized processes.” (R46 - Researcher/academic)

“What leadership qualities are required to be successful and priority setting and strategy execution.” (R94 - Health care leader/decision maker)

“Implementation research to study systematically how priorities are put into practice and how practice can inform priorities.” (R64 - Researcher/academic)

These responses suggest the central importance of translating the theory of priority setting into the practice of health care decision making and service change. An important sub-theme identified suggested that greater research efforts should be placed into the specific investigation of resource re-allocation and disinvestment.

"We need to be able to disinvest using credible data." (R18 - Researcher/academic)

“Technology disinvestment (or reassessment) for freeing resources for new activities with higher health impact.” (R38 - Health care leader/decision maker)

b) Engagement

Responses suggested that engagement of patients and the public continues to be an area that warrants further study. Examples included patient engagement in shared decision making, the elicitation of societal values, and communication of rationing decisions.

“Deeper dives on the aims and processes for public engagement - what exactly is it meant to achieve and how, in light of these aims, should it be conducted to achieve those ends.” (R46 - Researcher/academic)
c) Ethics, equity, and social values

Respondents also suggested that the ethics, equity and social values underlying priority setting would be important for future research. In particular, respondents highlighted the need for greater understanding of the effect of ethics on priority setting and the role of the public in developing foundational frameworks.

“Ethical questions related to health equity, gender, etc. need to be addressed in a more critical way in relation to their effects on priority setting processes and outcomes.” (R69 - Researcher/academic)

Additional suggestions within this theme for areas of importance with respect to greater research included: gaps in health care between regions, the impact of poverty, and how best to incorporate the concept of equity into priority setting.

“Poverty and health inequality.” (R47 - Researcher/academic)

“Equity analysis for both resource allocation and health benefits accruing from allocated resources.” (R81 - Researcher/academic)

d) Data improvement

Some respondents called for improvement in data collection, analysis, and dissemination in order to improve priority setting. Suggestions included increasing access to existing data, leveraging digital collection, more standardized frameworks for applying results of data analysis to practice, and greater collection of population level data.

“Negotiation of wide access to health data and possibly banked issues for health system assessment, including working through the social license and infrastructure to support collection, curation and analysis.” (R43 - Researcher/academic)

“Big data' analytics ... applying 'hot-spotting' methods to guide allocate[jon] of resources and to evaluate their impact after the fact.” (R51 - Researcher/academic)

e) Evaluation and audit

Finally, a small number of respondents indicated that the evaluation and auditing of priority setting were important areas for further research. Suggestions included greater ‘field-work’ to analyze existing tools and determine the impact of priority setting efforts.
“Evaluation of what is actually working and the reasons for it or conversely why we are not making as much progress as quickly as we need to.” (R94 - Health care leader/decision maker)

4. Summary of responses from those working or researching in lower and middle income countries

There were 11 participants who focused their responses specifically on the theme of priority setting in lower and middle income countries (LMICs), including one health care leader/decision maker and 10 researcher/academics.

In their descriptions of prior achievements and areas of good practice, these respondents echoed the wider group response – for example citing the development of institutions such as NICE, and attempts to develop evidence-based decision making processes. These respondents were more likely to also record achievements related to the pursuit of Universal Health Care (UHC) in poorer countries, and to make reference to the World Health Organization (WHO) and HITAP (Thailand) in their exemplars of good practice.

In a similar vein, there were areas of overlap in this group’s descriptions of future challenges with respondents emphasizing the need for development of decision making tools and criteria, and for priority setting to extend beyond drug reimbursement decision making. There was also a particular focus on UHC and the challenges of achieving this in the context of greater shortfalls in funding than are typically experienced in higher income countries. Unsurprisingly, these respondents foregrounded themes of equity (between rich and poor countries) and UHC in their areas for future enquiry and research.
Discussion

Although the survey focused on notable achievements, challenges, and areas for further research, there was considerable overlap in responses across these questions. For example, evidence and engagement were consistently suggested as areas where both achievements have been realized and further development must take place. To facilitate interpretation of findings, themes from each question have therefore been categorized into three overarching domains:

**Ebbing Issues** – those that were important in the past but not strongly projected to be so in the future (i.e., themes that were identified by respondents in the ‘past achievements’ and/or ‘current challenges’ questions)

**Enduring Issues** – those that were identified as past achievements, current challenges and areas for future research (i.e., themes that were identified in every survey question), and

**Emerging Issues** – those that were projected to be key research areas in the future (i.e., themes that were identified in the current challenges and/or areas for future research questions only).

The categorization of themes from each question using this framework is reflected in Table 4.
Table 4: Key issues in Priority Setting

<table>
<thead>
<tr>
<th>Themes – (number of responses)</th>
<th>PAST</th>
<th>PRESENT</th>
<th>FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EBBING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal Institutions - (18)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness – (52)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision Frameworks - (67)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarcity – (20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Interests – (24)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Resources – (8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ENDURING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement – (80)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence Generation &amp;</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Implementation – (60)</td>
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<tr>
<td><strong>EMERGING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical challenges – (82)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics, Equity, Social Values</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>– (21)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation and Audit – (7)</td>
<td></td>
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</tbody>
</table>

**Ebbing Issues**

Although not necessarily lacking in importance for the field of priority setting, themes were categorized into this domain when they were not identified as ‘areas for future research’ by respondents. These themes therefore represent significant achievements and/or areas currently or previously addressed in the empirical literature. They include: the creation of formal institutions, awareness of the need for priority setting, frameworks to assist decision makers, an awareness of resource scarcity, influence of external interests, and resources required to engage in explicit priority setting. It should be noted that responses give some grounds for believing
that these were considered less likely to be less ‘ebbing’ in lower and middle income countries, albeit this is based on a small sample.

**Scarcity and awareness:** Whether in times of surplus or scarcity, the necessity to allocate resources across competing options remains; however, greater focus is generally placed on priority setting during times of resource scarcity (Khan and Hildreth, 2002). Some respondents reported that both members of the public and politicians recognized the need for priority setting given the scarcity of resources in the current economic climate, and that this collective awareness was opening the door for more balanced discussion – a notable achievement. Other respondents suggested the opposite that in fact members of the public and politicians were refusing to face the inevitability of rationing – a challenge to effective priority setting. Therefore although the challenge of recognizing the need for limit setting appears to have ‘ebbed,’ it remains uneven across jurisdictions and has by no means been overcome.

**External interests:** Pressure from external groups including politicians and commercial interests was also highlighted as a current challenge to priority setting. Indeed, respondents noted that greater influence can be wielded by these groups when there is public indifference and data is lacking. The influence of such external interests has long been recognized in the research literature although there remain significant challenges for practice as priority setters seek to mitigate undue influence on decision making (Williams, 2015)(Garpenby and Nedlund, 2016). That this was not an area recommended for future research suggests that the tools to combat this may well already exist, and the issue may be mobilizing the will to act. The diffusion of knowledge literature has highlighted that awareness and evidence are not only, nor even necessarily the most significant, factors to influence policy and practice change (Greenhalgh et al., 2004).

**Formal institutions + decision frameworks:** Notable achievements that were highlighted by respondents included decision frameworks and formal institutions. Accountability for Reasonableness (A4R) and Program Budgeting and Marginal Analysis (PBMA) were highlighted in particular as positive developments in the field and Multi-Criteria Decision Analysis (MCDA) also featured in a number of responses. Examples of national level institutions included National Institute for Health and Care Excellence (NICE) in the United Kingdom, Canadian Agency for Drugs and Technology in Health (CADTH) in Canada, PHARMAC in New Zealand, and the Health Intervention and Technology Assessment Program (HITAP) in Thailand. The focus on ‘agencification’ strategies at the national level has been somewhat disproportionate given the high volume of decisions that still require local adjudication or implementation. Therefore whilst the institution of bodies such as NICE, CADTH, PHARMAC emerge from our survey as an area of progress, it is now arguably a less urgent topic for ongoing attention than is the decision-making and implementation challenges at the meso and micro levels (Airoldi, 2013)(Fair Resource Allocation and Rationing at the Bedside, 2014). Similarly, there are ways to adapt models like A4R and PBMA, and relatively little perceived need among these
survey participants for the creation of new frameworks from whole cloth. Whilst the
development of principles for local framework development and adaption are
relatively well understood, the determinants of their implementation into practice
require further specification.

**Required resources**
Despite the availability of methods and approaches to address priority setting in a
more transparent manner, respondents recognized that adoption of these tools
would require greater investment on the part of health care organizations in the
form of time and/or resources. Indeed, the additional investment of time and
resource necessary to achieve greater explicitness and transparency in priority
setting and resource allocation process is perhaps one of the reasons why
organizations have defaulted to more incremental ‘across-the-board’ approaches
(Smith et al., 2013)(William Hall et al., 2016). Again, the challenge appears to be less
in understanding these barriers, but in mobilizing the will to act upon them (Mitton
et al., 2015).

**Enduring Issues**
Themes categorized as ‘Enduring’ were submitted by respondents in answer to all
three questions, and were therefore identified as notable achievements in the past,
current challenges, and areas for future research. The two themes that fit these
criteria included engagement and evidence generation.

**Engagement:** While the benefits of engagement in priority setting are well
supported from democratic, scientific, instrumental, and developmental
perspectives, there is yet little clear guidance about the scope and level of
involvement that the different stakeholders should have in priority setting –
particularly with respect to patients (Boivin et al., 2014) and the public (Mitton
et al., 2011). Respondents to the survey suggested that a greater focus on and
development of methods to support engagement of both internal and external
stakeholders in priority setting has been achieved in the field. However, they also
acknowledged the challenges inherent in this activity - particularly when scientific
evidence, clinical judgment, political vision, and the public’s views differ. To further
develop this area, respondents suggested that deeper examination of the goals,
processes, and outcomes of engagement is necessary.

**Evidence generation and implementation:** Past research has indicated that
movement from historical to more rational resource allocation has been
characterized by improvements in data quality and analytical methods including
economic evaluation (“An Interview Survey on Health Priority Setting Practice in
Iran,” n.d.)[Hauck et al., 2004]. Respondents echoed this by suggesting that the
development of evidence generating methodology including burden of disease, cost
effectiveness analysis, cost utility analysis, and health technology assessment were
all notable achievements. However, they also noted these methods were difficult to
implement with certain interventions, and that a gap often exists between the development and application of evidence in priority setting. Prior work has questioned whether these gaps are a “failure of academics to ‘push’ or managers to ‘pull’ relevant research” (Lavis, 2006). Respondents called for improvement of data collection, analysis, and dissemination. They also offered increases to access of existing data as well as expansion of standardized collection systems as potential ways forward.

Emerging
Practical application, ethics, and evaluation of priority setting processes were all categorized as emerging themes since respondents suggested them as some of the most important areas for future research.

Practical challenges
In general, respondents described a shift in focus from framework development to a recognition that there is “no one size fits all” approach and so to pay more attention to how PSRA models can be implemented within distinctive priority setting contexts. Specific areas highlighted for further study included the challenges associated with developing or selecting priority setting criteria and particularly to allow meaningful comparisons among dramatically different types of clinical and support services. To facilitate the application of priority setting methods, respondents suggested that a greater focus should be placed on capacity building and governance of process within organizations; and that further research was needed in areas of disinvestment, re-allocation, and the distinctions in practice between jurisdictions. The survey therefore supports the very recent empirical focus on implementation challenges facing priority setting (Cornelissen et al., 2014)(Robert et al., 2014).

Ethics
Given that ethical principles including distributive and procedural justice have served as a foundation for frameworks to guide priority setting ever since the nascent stages of the discipline, it may seem surprising that the authors assign this theme ‘emerging’ status. What these findings reflect, we suggest, is that particular ethical aspects of PSRA processes are rising to attention including the topics put forward by respondents: gender, poverty, incorporation of equity weighting, and the role of the public. Indeed, the impact of societal values on resource allocation is an observable theme within recently published literature (Baltussen et al., 2016)(Shah, 2016)(Clark and Weale, 2012).

Evaluation
Past research has found a paucity of priority setting evaluation in practice with one study reporting less than 20% of health organizations engaging in this critical process ("Current Evaluation Practices Involving Resource Allocation Processes in Canadian Healthcare Organizations: A Survey of Senior Managers |
evaluationcanada.ca,” n.d.). Respondents to this survey lent support to this finding by identifying evaluation and auditing of priority setting practice as an area in need of further research. Suggestions included more fieldwork to analyze existing processes and to measure the impact of priority setting efforts.

**Limitations**

The survey responses presented here are intended to provide a cross-sectional view of the achievements, current challenges, and areas for future research in the discipline of healthcare priority setting. Respondents included attendees from past ISPH conferences including researchers, policymakers and practitioners from countries around the world. This may bias the results towards a narrower range of perspectives than would have been obtained with a more broad sampling technique. However it increases the likelihood that respondents are deeply engaged and therefore highly knowledgeable in this area.

Although 21% is a respectable response rate for unsolicited surveys of this size (Sheehan, 2001), participation might have been increased by offering a shorter version of the survey with a Likert Scale format for responses and increasing the number of reminders for participants. Using the themes generated from this open response survey, a more structured survey could be developed and distributed to gather a wider array of responses. Document reviews of practice in multiple countries could also offer additional insight into findings. Future study should also focus more heavily on a practitioner perspective, and endeavor to collect responses from lower and middle income countries that were underrepresented in this survey. This would allow for further examination of differences between academic and practitioner perspectives as well as differences between lower and higher income countries. A multidisciplinary approach to this future study could also include researchers from political science, organizational studies, and implementation science to leverage the knowledge from similar work in these disciplines.
Conclusions

Whilst the study reaffirms the continued importance of many longstanding themes in the priority setting literature, it is possible to also discern shifting emphasis as the discipline progresses in response to new challenges. The survey responses support the notion that a shift is taking place in the field from its more technocratic roots towards recognition of the complex task of application in ‘real-world’ settings. The survey further suggests that the creation of decision making frameworks and bodies has received ample attention, and future work should therefore seek to ‘build and refine’ rather than to ‘reinvent’ that which has been undertaken so far. The next phase of empirical development requires us to understand how best to support the implementation of existing priority setting approaches, methods and tools into complex system settings. This requires a relative shift in focus from the intervention (i.e. the priority setting process) to the context (i.e. the organization or system) and the outcome (i.e. through evaluation of the costs and impacts of priority setting).

Words: 6,974
References:


