



# Knowledge Translation Curriculum

## *Module 3: Priority Setting*

October 19, 2012

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## Foreword

On behalf of the Canadian Coalition for Global Health Research (CCGHR or the “Coalition”), it is my pleasure to write a foreword for this remarkable contribution to the growing and evolving field of knowledge translation (KT). We believe KT to be a cornerstone of health systems in Canada and across the globe, and see this *Curriculum* as further proof of the Coalition’s strategic commitment to innovation in KT.

Why is KT so important? Despite the recognition that knowledge has led to significant improvements in health outcomes around the world, major challenges remain. These include health outcome inequalities among and within countries, and the continued rift – the “know-do gap” – between the research and policy communities. The World Health Organization has estimated that half of all premature deaths could be prevented by the implementation of known interventions – that is, by using *available* knowledge. And this is the complex challenge that KT addresses: making knowledge available, contextualized, and realistically implementable.

What is the added value of this *Curriculum*? I suggest several unique features:

- It is comprehensive, including a thorough exploration of both theory and practice. Each *Module* begins with a discussion of the relevant theory and then moves into an array of tools and diagrams to illustrate the “practice” component. Each opens with some key suggested readings, and provides a list of readily available and relevant readings.
- After an extensive introduction to knowledge translation (*Module 1*), there are two additional modules not commonly highlighted in the KT field. They emphasize the critical importance of understanding the context (situation analysis) and of developing a consensus around a focus (priority setting).
- The document is called a “curriculum” as the primary intent of this document is educational. To facilitate this learning goal, each *Module* is divided into lessons, but stops short of including specific questions, problems (challenges, scenarios) or case studies. As this is intended for a wide global audience of adult learners, the assumption here is that instructors (or self-learners) are best able to adapt the tools and approaches to suit their own particular contexts. Discussing and learning this content is optimally done in a group, and it is our hope that each individual group will develop their own exercises to practice or modify these tools and approaches for a context-specific challenge.

As the author indicates, in some ways these three *Modules* represent a beginning, steps along a journey. In the spirit of on-going learning, we welcome your comments about how you used this curriculum, what worked well for you, and what could be improved and added. We wish you a productive and stimulating learning experience.



Vic Neufeld MD FRCPC  
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May 14 2012.

# Overview of the Knowledge Translation Curriculum

The three *Modules* within this KT Curriculum serve as an in-depth introduction to knowledge translation (KT). Since its star turn at the 2004 Ministerial Summit in Mexico City, KT has emerged as a leading approach in narrowing the gaps between health research, health practice and health policy. However, it is still a young concept that often means different things to different people. For some it is roughly synonymous with *communications* and/or *dissemination*, where “KT” is a peer-reviewed paper or a conference presentation. For others, it is rooted in the idea of *co-production*, where KT opens up the research, practice and policy processes, with policy- and practice-informed evidence leading directly to evidence-informed policy and practice.

This *Curriculum* provides a comprehensive – if unavoidably incomplete – overview of the key concepts, conflicts and methods in KT. It is grounded in philosophy and political science as much as it is in health, exploring the ideas and the theories behind the great complexity that shape the intersections among research, practice and policy processes.

We define KT in very broad and simple terms as: *an ethos connecting contextualized knowledge with its application to improve health and well-being*. While the literature is replete with KT definitions,<sup>1</sup> our choice here is deliberate in its simplicity and reach. Above all else, KT describes the intersections among research, policy, and (clinical) practice processes. Whereas in the past these processes have evolved separately, the complex, multi-sectoral nature of health in the twenty-first century demands they now develop together, intertwined. And thus the more that each of these processes can influence the others – so that, for instance, the needs of policy and practice might influence the types of knowledge we create – the better our abilities to respond to our current and future health challenges.

This is by no means a straightforward task.

**“Unless ye believe,  
ye shall not understand.”  
– St. Augustine <sup>2</sup> –**

The *Curriculum* is intended for a global audience of students and instructors. While it draws in many instances on evidence and experience in low- and middle-income settings, its focus is not restricted to this context. KT is a universal concept and phenomenon.

Each *Module* within this *Curriculum* is broken into a number of lessons that can be taught individually, as a whole, or combined with other material. Each lesson aspires to be a complete “lesson out of a box” that can be taught as-is. Each begins with a suggested reading list (with links to *pdfs* for all articles), which leads into a lecture of prominent ideas, a review of the major

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<sup>1</sup> See *Lesson 1.2* of *Module 1* for the major definitions, types and frameworks.

<sup>2</sup> cited in Tsoukas (2002)

literature, diagrams and graphics, and quotations of particular relevance. There are, however, very few real-world examples illustrating a particular tool or approach. These can be found in the literature – this *Curriculum* is intended to discuss relatively generic and theoretical approaches that can be adapted to particular issues or problems; we have left the case studies or real-world examples to the available literature.<sup>3</sup> Each lesson does, however, include suggestions for instructors in guiding group work or leading discussion. All *Modules* feature modifiable presentations that may be customized according to need and audience.

In terms of bias, there are definitely some strategic content choices throughout. The field of knowledge translation is crowded with actors, ideas, scientists and theorists, and to navigate this one must invariably be selective. First, this *Curriculum* focuses primarily on integrated KT (i.e. KT that explores the co-production of knowledge and the co-creation of responses, be they policies or practice guidelines etc). Second, it focuses largely on the intersection between research and policy development as this is the connection that predominates in the literature and most closely aligns with author experience. This omits significant fields of interest. There is a *Module* to be written on KT for practitioners (e.g. nurses, clinicians), and one on KT for policy implementation, but unfortunately these are *Modules* for another day.

Each *Module* should help students identify, analyze and comprehend KT principles, approaches and tools, understanding why they are important, when they might be used, and how. Above all, it is hoped that each *Module* will allow students to understand and interact with some of the major ideas emerging in KT, and further, to apply this learning to the development of KT strategies and to the many other KT-related challenges they might face throughout their careers.

*Module One: An Introduction to Knowledge Translation* details, as the title suggests, the central currents in KT. *Lesson One* includes particular attention to the traditional research and policy processes to see the potential for reforming each; the four major domains KT seeks to open and influence; and concludes with an overview of the major approaches in KT, including end-of-grant KT, integrated KT and KT research. *Lesson Two* goes back to first principles: what is the knowledge that KT hopes to translate? This includes a look at the types and layers of knowledge, how knowledge changes as it moves among stakeholders, and the hierarchy of evidence. *Lesson Three* examines the barriers and facilitators to creating evidence-informed policy and policy-informed research, while also discussing scenarios where the research conflicts with political values (issue polarization). *Lesson Four* focuses on the three major sets of activities within KT: brokering, synthesis and dissemination. We discuss in particular: the KT Platform, the Rapid Response Service, the policy brief/dialogue model, and then provide an overview of the major dissemination tools available to researchers, asking of each: *how might this tool be improved to actually influence key research stakeholders?*

*Module Two: Situation Analysis* examines the arts of understanding the context surrounding research, policy and social change. This is a critical act for any research project, policy or KT

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<sup>3</sup> Previous drafts of this *Curriculum* saw each Lesson conclude with “Questions, Challenges, Scenarios” to operationalize some of the learning. However, reviewers felt that these were either too broadly generic or too context dependent to be of consistent value. Instructors are encouraged to devise their own means to reinforce the key Module principles.

strategy, yet one that is ill-explained in the peer-reviewed literature. *Lesson One* outlines a process issue fundamental to situation analyses and to KT more broadly: deliberation. Only an open, balanced and representative group of stakeholders can arrive at an open, balanced and representative analysis of the prevailing situation. This *Lesson* details how such groups can be organized, and how they might choose to deliberate among themselves. *Lesson Two* discusses stakeholder analysis and offers a range of different practical tools groups might use to identify and analyze stakeholders, their power and interests, and the dynamics that exist among them. *Lesson Three* compliments this by focusing on political context analysis, which looks at how previous related policies have been formulated, implemented and evaluated, what opportunities exist to influence policy, the foundational factors shaping policies and interventions, and the external factors that play a role in everything from policy development to evaluation.

*Module Three: Priority Setting* frames priority setting as where KT ultimately begins. In bringing together different stakeholders to identify, weigh and rank a society's knowledge needs, priority setting guides investments in health research. *Lesson One* discusses the broad theory of priority setting and details the two major types of priority-setting processes – priority setting for service delivery (used by institutions to choose among interventions) and priority setting for research (used by research and policy communities to weigh and rank a society's knowledge needs to choose among health research options). *Lesson Two* focuses on the latter type of priority setting, discussing tools for performing various different priority setting process.

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There are many other worthy topics within KT that deserve their own *Modules*. It is hoped that future *Modules* of this *Curriculum* will address additional topics such as: Designing KT Strategies, Monitoring and Evaluation of KT, Methods in KT Research, and KT for Practitioners and Planners. Moreover, given technological advances, it is also hoped that future *Modules* will embrace multi-media, with embedded video interviews or narrated animations explaining key concepts. Ultimately, these three are a beginning – an incomplete yet rigorous beginning – to teaching core KT principles. As KT methods continue to emerge and evolve, equal parts art and science, so too will its instruction: just as we have a great deal to learn in KT, so too must we understand how best to teach it.

Sandy Campbell  
October 18, 2012  
for the Canadian Coalition for Global Health Research

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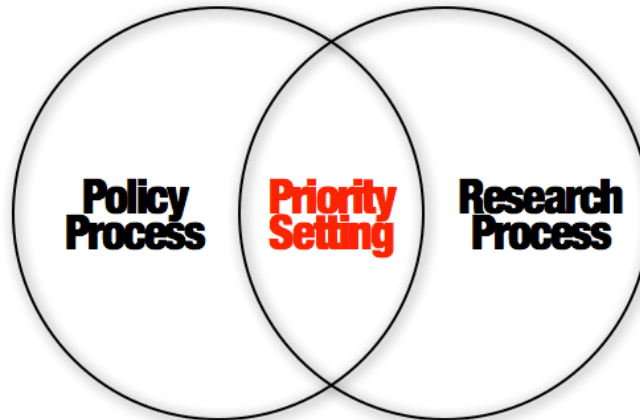
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# Module 3: Priority Setting

## Overview of the Module

In this third *Module*, we examine the art of priority setting. As argued in *Module 1*, priority setting is a crucial act in aligning research and policy processes. Priority setting is a moment of great convergence: where policy-makers discuss their policy needs; where researchers discuss the types of knowledge or methods that might answer those needs, or indeed what other knowledge gaps might exist; and where other stakeholders provide their own perspective on the kinds of knowledge needed to help solve pressing problems.<sup>4</sup> Priority setting connects the processes of research with those of decision-making in ways that are unmatched by any other technique or approach.

Priority setting (PS) is where the cycles of research and policy first overlap. It is a critical KT moment because, as discussed in *Module 1*, when policy needs can inform the creation of knowledge, there exists a far greater chance of that knowledge influencing policy. Policy-informed research, in other words, is a much more likely contributor to evidence-informed policy. As seen in *Diagram 3.1* below, priority setting can occur the very beginning of the research process (*these are the topics we need to research*), and may also occur at the end of the policy process (*we've evaluated Policy X or Intervention Y and realize we need to know Z*). Priority setting opens up both processes, not only to each other but to a range of other voices, balancing individual assertions to arrive at more collective decisions.



**Diagram 3.1: Priority setting unites the research and policy processes**

Priority setting is an essential yet still emerging field, currently evolving in two connected directions. This *Module* details priority setting for research, a set of techniques designed to create priorities for a research agenda. The second type of priority setting – variously called priority setting for service delivery (the preferred term here), intervention priority setting or rationing – determines, weighs and ranks the interventions a health care institution might offer. While this *Module* will indeed discuss this type of priority setting, our attention will largely remain on priority setting for research.

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<sup>4</sup> Some of the material in this *Module* has been modified from Campbell (2010), with permission from CIHR.

Priority setting for research is a cornerstone of KT, creating informed responses to a research or policy dynamic. In asking fundamental questions, priority setting explores the particular ways the research and policy processes might overlap. What are the (general or specific) research needs of policy-makers? What are the present gaps in the research evidence, and what types of research could best fill those gaps? To improve the implementation of a particular intervention, what particular aspects does research need to address? Will a current research priority remain a priority when the research is actually complete? Is there sufficient local capacity and funding to undertake that research?

**“too often priorities for public sector health research and development investments are determined with little concern for the magnitude of the problem to be addressed, for the extent to which scientific judgement supports the possibility that new products and initiatives will be more cost-effective than available alternatives, or for ongoing efforts elsewhere”**

**– the Commission on Health Research for Development (1990) –**

Priority setting is a highly complex process. It is at once political (*this is what the research agenda should be*), philosophical (*what knowledge do we really need?*), ethical (*why is value X more relevant than value Y in assessing priority Z?*) and economic (*how do we align our resources with our needs?*). Moreover, it crosses all kinds of boundaries, and demands that major stakeholders each relinquish some of their power. Priority setting compels researchers and funders to loosen their control over the research agenda. It requires policy-makers to open up their problem-solving processes. For these and other reasons – including a lack of dedicated resources and funder reluctance to support it – priority setting has often failed to become an entrenched mechanism within countries or sectors or institutions.

**“a survey by the WHO of more than 550 policy-makers and almost 1900 researchers in 13 LMICs found that about a third of policy-makers, researchers and users of research interviewed said that there was either no rational process to set health research priorities in their country or that they were unaware of how priorities were identified or set.”**

**– Bennett and Ranson (2009) –**

In this *Module*, we will begin by discussing some of the major theory around priority setting, present some of the major priority setting models, and then walk through a series of steps in an interpretive process dedicated to priority setting for research.

### Module Goals

Upon completion of this Module, students should:

- understand the overarching theory of priority setting, the two major types of priority setting, and the synergies that may exist between the two.
- be able to roughly design a priority setting process of either type, using one or a combination of the presented models.
- have a particular understanding of the steps required in an interpretive priority setting process.
- be completely up-to-date on major topics and themes within the priority setting literature. To that end, we present literature for each of the sub-Lessons – a slightly different organization than in previous *Modules*.

## Key Module Principles

- priority setting for research is a moment of great convergence, where the experiences, opinions and needs of various stakeholders combine to determine a research agenda that can guide future research investments and eventual policy formulation.
- priority setting for research is a major moment within KT; increased attention to its utility will, it is hoped, result in greater funding for PS processes.
- priority setting is an economic, philosophical, ethical and political act that requires stakeholders to understand and even agree upon the overarching values and criteria used to guide priority-setting decisions. Focused deliberation becomes, again, a key method for the successful completion of any priority-setting exercise.

## Note to Instructors

As with the previous two *Modules*, much of the content here is theoretical in nature. Using group work and exercises to explore some of the models presented here depends entirely on the backgrounds and abilities of the students. It is recommended that Instructors spend time on the interpretive PS model as outlined in *Lesson 2* as this provides a sound introduction to the major moments within a generic PS process. Depending on student abilities, Instructors might create a fictional scenario (e.g. the students represent key research stakeholders in a province or low-income country) and then initiate a priority setting process by:

- leading a brainstorming session to create a long list of the pressing knowledge needs (e.g. treating postpartum hemorrhage; integrating mental health services as part of primary health care etc).
- discussing the criteria that could be used to assess the topics on the long list.
- arriving at consensus on the criteria.
- applying that criteria to the long list, arriving in the end at a scored list of priority research topics.

There are many other considerations that could be brought into the classroom, and various different techniques for accomplishing any of these tasks. Following an assessment of student abilities, Instructors should be able to tailor a PS exercise using approaches detailed in this *Module*.

## Module 3: Lessons

1	<i>Priority Setting: The Basics.</i> In this <i>Lesson</i> we look in particular at the theory of priority setting, and why it is an essential aspect for any health research system, and an often-used mechanism allowing healthcare institutions to choose among competing interventions. Though we do discuss this latter type of priority setting, our focus lies much more on understanding priority setting for research.	page 124
2	<i>Interpretive Priority Setting Processes.</i> This <i>Lesson</i> sketches out an ideal, interpretive priority setting process to create a theoretical base from which real-world priority setting processes might customize. Then we discuss some major interpretive processes that have been used in various different ways in countries and contexts across the globe.	page 136

Note that all papers cited in this Module can be found (along with other online resources) [here](#).

## Lesson 1: Priority Setting: The Basics

### Suggested Readings

- Campbell S. Deliberative Priority Setting: a CIHR KT Module. Canadian Institutes of Health Research. 2010. [<pdf>](#)
- Sibbald SL et al. Priority setting: what constitutes success? A conceptual framework for successful priority setting. *BMC Health Services Research*. 9:43. 2009. [<pdf>](#)
- Rudan I et al. Setting priorities in global child health research investments: universal challenges and conceptual framework. *Croatian Medical Journal*. 49. 2008. [<pdf>](#)
- Kapiriri L and Martin D. A strategy to improve priority setting in developing countries. *Health Care Analysis*. 15. 2007. [<pdf>](#)
- Tomlinson M et al. A review of selected research priority setting processes at national level in low- and middle-income countries: towards fair and legitimate priority setting. *Health Research Policy and Systems*. 9:19. 2011. [<pdf>](#)
- Alliance for Health Policy and Systems Research. Priority Setting for Health Policy and Systems Research. Alliance for Health Policy and Systems Research. WHO Geneva. 2009. [<pdf>](#)

<b>1.1</b>	<i>The Theory of Priority Setting.</i> This <i>Lesson</i> details the two major types of priority-setting processes and discusses the Accountability for Reasonableness framework, along with an introduction to the utility of criteria in any PS process.	page 124
<b>1.2</b>	<i>Priority Setting for Service Delivery models.</i> In this <i>Lesson</i> , we begin with two approaches used by institutions determining the basket of services they will offer, and then discuss a handful of other PS techniques useful for prioritizing among interventions.	page 129

### Lesson 1 Presentation:

A presentation highlighting the major aspects of *Lesson One* is available in three different formats:

- as a [<pdf>](#) for printing. Can be used as a handout, but cannot be modified. Can also be used as a presentation in full-screen mode.
- as a [<key>](#) for presentations. This uses Apple's proprietary Keynote software; users of this may modify the presentation as desired.
- as a [<ppt>](#) for presentations. This uses Microsoft's proprietary PowerPoint software; users of this may modify the presentation as desired. Please note that the presentation was not created using ppt software; it looks best in pdf or key formats.

### Lesson 1.1: The Theory of Priority Setting

As explained in the Overview and shown in *Diagram 3.2* below, there are two major types of priority-setting processes. Priority setting for research is a process used to determine, weigh and rank individual research topics and/or research questions. Priority setting for service delivery, on the other hand, determines, weighs and ranks the interventions a health care institution (e.g. a hospital) might offer.<sup>5</sup> Between the two major types, priority setting for service delivery has

<sup>5</sup> Priority setting for service delivery is also called rationing or intervention priority setting, and is discussed in *Lesson 1.2*.

commanded the lion's share of attention, with the literature reflecting many different approaches for arriving at these types of priorities. While there are indeed some synergies between these two different types – notably in the methods they use to determine criteria – our focus here is primarily on priority setting for research.<sup>6</sup> This could be for groups hoping to shape a national or state-level research agenda, possibly organized by theme or issue (e.g. prioritizing and ranking different researchable issues or research questions), or for institutions wanting to determine their own research agenda.



Diagram 3.2: Two major types of priority setting

Whatever the type, though, priority setting is by its nature a philosophical, ethical, economic and political act. It is philosophical in the questions it poses – how does a society decide which topics are urgent, relevant and under-researched? – ethical in the use of values to guide decisions – why is value X more relevant than value Y in making decision Z? – and economic in the guidance it can offer investors – how does a society align its financial resources with its knowledge needs? Ultimately, however, priority setting is a political act. Even the term itself – *priority setting* – carries with it a rigid political finality: one has assessed a society's current weaknesses, anticipated its future needs, and decided what needs to be done, in what order and to what effect. No matter how inclusive or representative a priority-setting process may determine itself to be, the mechanism of where and how a society's needs are identified and how its resources are allocated is a certain political act.

### Box 3.1: Setting vs. Deliberating

Throughout this *Module*, we argue that the actual *setting* of priorities (situating or fixing them) is less important than the *deliberating* around those priorities (where an inclusive, representative group gather to discuss collective needs). *It is the process and not the product that ultimately matters* (WHO 2003). Dialogue may not solve a problem or set actual priorities, but it will build the social relationships, trust and interactions essential to KT and any health system. While arriving at a ranked list of final priorities could be a desired output, the outcome of a group identifying problems, engaging in dialogue, discovering common ground, understanding what research can and cannot do etc., is arguably much more important.

In its ideal interpretive form, priority setting selects an inclusive range of people to brainstorm the priorities for a society, a system, or an institution. It is a transparent, fair, legitimate and accountable process designed to guide decisions, a rational means to determine how resources

<sup>6</sup> There remains great space in the literature for studies on the synergies between these types of PS.

are invested to address societal needs and to steer researchers towards topics of “national interest and priority” (Lenaway et al 2006). It may involve creating a final ranked list of priorities, or it may involve ranking the criteria used to distinguish among priorities, creating another means for ranking a final list.<sup>7</sup>

Within such political and philosophical confines, priority setting can take on many different shapes. Each PS process is typically distinguished by level (determining priorities for a global research agenda, a national agenda, an institutional agenda), comprehensiveness (research priorities for the health sector; research on specific issues; determining precise research questions), the balance between technical and interpretive approaches, and stakeholder involvement (Ranson and Bennett 2009). Each is a complex, value-driven process (Rudan et al 2008).

### ***Box 3.2: Technical vs Interpretive Priority Setting***

Technical priority setting centres on quantifiable, typically epidemiological, data. Tools for performing technical priority setting include PBMA, MCDA and others as discussed in *Lesson 1.2* below. Interpretive priority setting rotates around stakeholder dialogue. As Ranson and Bennett (2009) observe, interpretive priority setting can and should involve technical elements, in many ways a blend of quantitative and qualitative approaches – though clearly favouring the latter.

**“from an economics perspective just two principles are needed to drive any priority-setting exercise: efficiency and equity. Efficiency refers to maximizing the good that the available resources can provide. Equity refers to the just distribution of something or other. However, difficulties arise at the following five levels: accepting that these are the necessary and sufficient principles; defining ‘the good’ that is to be maximized in pursuing efficiency; defining ‘the something’ that is to be justly distributed; measuring ‘the good’ and ‘the something’; changing the philosophy of planning.”**

– Mooney and Newbury (no year) –

By far the most cited framework for priority setting is that of Daniels and Sabin (1998, 2000, 2002, 2008). Their “Accountability for Reasonableness” (AFR) framework for priority setting describes a “fair process” that allows stakeholders to determine the legitimacy, fairness and context-specificity of values and priorities that ought to combine and ultimately inform decisions. AFR establishes a moral underpinning that emphasizes the principles of democratic deliberation (Bruni et al 2007; Kafiriri and Martin, 2007). It prescribes four necessary conditions for any priority-setting process:

- it must be **relevant** to the local context as determined by accepted criteria.
- its eventual decisions – and the reasons behind them – must be **publicized**.
- it must include **appeal mechanisms** for challenging, revising, and reversing decisions.

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<sup>7</sup> For other definitions of priority setting, see the Alliance for Health Policy and Systems Research (2009), who define it as “a programme to generate consensus about a core set of research issues that urgently require attention in order to facilitate policy development”. Rudan et al (2008) note that “some authors define priority setting as ‘who gets what at whose expense’” but define it as “a ‘science’ intending to serve the needs of a community or a society at a specific point in time, within given policy, context, time limit, and financial constraints. It is value-driven and there are many interested stakeholders who will necessarily promote a diverse set of opinions and values”.

- its leaders must be able to **enforce** the above three conditions.<sup>8</sup>

**“in a pluralistic society we will never have complete agreement about what decisions to make, or about what outcomes are correct or preferable. As a result, an ethical framework that emphasizes the process by which priority setting occurs is needed, rather than an outlining of simple rules or outcomes. The focus of an ethical priority setting process then becomes one of a focus on fair process and a shift away from what decisions are made to how decisions are made.”**

**– Tomlinson et al (2011) [emphasis added] –**

AFR rotates around the principles of social justice, and as such describes the idealized “value core” of priority setting processes (i.e. fair, just, deliberative, legitimate, transparent, accountable, enforceable). However, as Sibbald et al (2009) explain, because priority-setting processes depend upon the adjudication *between* those values, they set the stage for conflict as stakeholders will necessarily and fundamentally disagree about the importance of different values. And precisely because of this constant, context-driven adaptability, there can be no normative approaches (Menon, Stafinski and Martin 2007), no agreement on the required elements for a successful process, no formula or replicable algorithm that can apply to any and all situations.<sup>9</sup> While some priority-setting processes will involve a relatively simple judgement on whether an issue or argument advances equality of opportunity for a given population (Hasman and Holm 2005), in many others the process will generate more questions than answers.

**“when confronted with such complex problems, policy-makers tend to use intuitive or heuristic approaches to simplify complexity, and in the process, important information may be lost, and priority setting is ad-hoc. Or worse, they act out of political self-interest and prioritize interventions according to their own objectives. In other words, policy-makers may not always be well placed to make informed well-thought choices involving trade-offs of societal values.”**

**– Baltussen and Niessen (2006) –**

**“a goal of priority setting is justice, which involves priority setting by legitimate authorities using fair processes.”**

**– Martin, Abelson and Singer (2002) –**

Given the context-specificity of values, arriving at criteria for a specific priority-setting exercise is a *crucial* step (Working Group 2000; COHRED 2006). As priority setting is inherently value-driven (*why does Stakeholder X consider Topic A more important than Topic B?*), criteria are used to agree upon and harmonize the values that underpin decision-making on priorities.

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<sup>8</sup> See Byskov et al (2009) for a discussion of AFR with specific application to the REACT project in Africa (REsponse to ACcountable priority setting for Trust in health systems), with details on its application in Tanzania in Mshana et al (2007); Daniels (2000) for a broad yet concise overview of AFR; Mori and Kaale (2012) for its use as an evaluation tool; and Peacock et al (2009) for a general description of AFR. Also see Hasman and Holm (2005) for a sound critique of AFR, highlighting how AFR fails to describe the actual process of priority-setting, with process itself being a “black box”. See Kafiriri, Norheim and Martin (2007) for how AFR can guide evaluations of priority setting. Indeed, this latter element may be AFR’s primary contribution to priority setting – adaptable criteria for evaluating any given priority setting process. For instance, in priority-setting process X, how did the decided-upon priorities reflect the needs of the local context? How were the criteria contextualized? How did the process publicize its decisions? How did the process create appeal mechanisms? And how did the process ensure compliance?

<sup>9</sup> Ghaffar et al (2004) echo the implausibility of finding an algorithm that automatically generates priorities “if the evidence base is somehow fed into the process”.

Determining criteria will allow the group to objectively weigh, analyze and determine what is a priority and what is not, and how seemingly equal priorities measure against each other.

There are many ways to determine criteria in priority setting for research, from considering how any given issue correlates to a laundry list of philosophical concepts to responding in *realpolitik* fashion to the desires of those with power and influence (Rudan et al 2007a; Baltussen and Niessen 2006). In general though, there seem to be a set of criteria that are increasingly useful and used, either for determining a research agenda (no matter the level) or for ranking competing issues. This criteria includes attention to:

- magnitude, relevance and urgency – will the research be needed within the next 3-5 years? (El-Jardali 2010; Working Group 2000). Will the issue at hand still be a priority in five years' time? (Alliance for Health Policy and Systems Research 2009)
- applicability, deliverability, affordability, sustainability (Rudan et al 2007a)<sup>10</sup>
- maximum potential to reduce disease burden equitably (Rudan et al 2007a; Baltussen and Niessen 2006)
- originality – is the issue unresearched or is there an existing knowledge base? (El-Jardali 2010, Working Group 2000)
- research capacity and feasibility: do the skills exist to do the research? Is it feasible financially, technically, socio-culturally and ethically? (Working Group 2000; COHRED 2006; Rudan et al 2008)
- policy relevance (El-Jardali 2010)
- expected impact of the research – will its impact be greater than its relative cost? (COHRED 2006).<sup>11</sup>

**“if we can agree that the ultimate endpoint of any health research should be reduction of disease burden and improvement of health, then some of the criteria needed for prioritization of investments should include: 1) usefulness of the proposed research in terms of its potential to lead to development of new or improved health interventions; 2) true effectiveness of those interventions; 3) their deliverability, affordability, and sustainability in the context of interest, and 4) their maximum potential to reduce persisting disease burden in an equitable way.”**

**– Rudan et al (2007a) –**

A host of **process variables** distinguish different priority setting exercises. Will the priorities identify priority interventions or priority research topics? What level will the PS exercise focus on – global, regional, national, district, local? What methods will be used to identify the stakeholders necessary for identifying those priorities? How will those stakeholders be involved

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<sup>10</sup> Also see Rudan et al (2008) for their excellent list of questions to consider in assessing competing priorities – e.g. answerability (“how likely is it that the objectives will be met given the current state of science and the size of the gap in knowledge?”), equity (“how likely is it that the proposed research will benefit those who are most vulnerable?”), and existing research capacity (“how likely is it that the objectives will be met given existing research capacity?”)

<sup>11</sup> For specific examples of criteria arrived at within priority-setting exercises, see for instance Rosenstock, Olenec and Wagner (1998) for steps taken in determining the National Occupational Research Agenda in the USA (“seriousness of hazard; number of workers exposed; potential for risk reduction; sufficiency of existing research; expected trend in importance of topic; and probability that research will make a difference”). Also see the discussion in González-Pier et al (2006) dividing criteria into quantifiable (cost-effectiveness analyses, available resources, implementation issues) and qualitative considerations (including “an ethical assessment addressing equity implications in population groups and a discussion of social acceptability”).

and when? Will there be a small core group organizing all logistics and methods and a larger reference group to help validate or reject its findings? How will these stakeholders arrive at criteria to assess the individual priorities? How can organizers ensure that the process is fair, reasonable, accountable, widely disseminated, with other stakeholders appealing its decisions? And, ultimately, how will these priorities be enforced?

**“in COHRED’s experience, there is not ‘one best method’ for priority setting. We strongly suggest those responsible for priority setting to weigh complexity of methods against what is to be achieved – and what resources (financial, human and international) are available. For example, it may seem like a ‘gold standard’ to use ‘burden-of-disease’-based methods. However, in countries without reliable mortality and morbidity data for substantial parts of the population, using a burden-of-disease approach may be prohibitive in cost. Instead, consider making ‘developing a good mortality and morbidity information system’ a national priority, and use a Delphi method in the interim’.**

**– Montorzi, de Haan and Jsselmuiden (2010) –**

**“a priority-setting exercise is based on three equally important pillars: process, tools and context”**

**– Ghaffar et al (2010) –**

**“the process cannot function without proper tools, and the tools require a well-defined process.”**

**– Nuyens (2007) –**

These process variables are clearly of great importance for any PS exercise. They add to the complexity of PS but are essential for its precision. These variables calibrate the process. And their importance shows, once again, that there is no ready formula that can be applied in priority setting. For any group in charge of leading a PS exercise, the very first step is to review the intended goals of the exercise, from start to finish. What variables of critical importance emerge? What particular PS methods will help to bring these variables into harmony? And what particular methods – aligned with the AFR principles – are best suited to the intended goals and the overarching context?

*Lesson 1.2* below provides snapshots of these methods and approaches as they apply to priority setting for service delivery. *Lesson 2* provides an overview of methods and approaches as they apply to priority setting for research.

### **Lesson 1.2: Priority Setting for Service Delivery Models**

Though this *Module* focuses primarily on priority setting for research, there is nonetheless great value in understanding mechanisms around priority setting for service delivery. In this *Lesson*, we begin with two approaches used by institutions determining the basket of services they will offer, and then discuss other techniques useful for prioritizing among interventions.

To reiterate, we define priority setting for service delivery here as a process used to determine, weigh and rank the interventions a health care institution might offer. These processes are technical in nature, typically use quantitative (typically epidemiological) data, and are often referred to as *rationing*.

### 1.2.1 Programme Budgeting and Marginal Analysis (PBMA)

#### *Suggested Readings*

- Peacock SJ et al. Priority setting in healthcare: towards guidelines for the program budgeting and marginal analysis framework. *Expert Reviews Pharmacoeconomics Outcomes Research*. 10:5. 2010. [<pdf>](#)
- Peacock SJ et al. Overcoming barriers to priority setting using interdisciplinary methods. *Health Policy*. 92. 2009. [<pdf>](#)
- Peacock SJ et al. Using economics to set pragmatic and ethical priorities. *BMJ*. 332. 2006. [<pdf>](#)
- Mitton C and Donaldson C. Health care priority setting: principles, practice and challenges. *Cost Effectiveness and Resource Allocation*. 2:3. 2004. [<pdf>](#)
- Mitton C et al. The evolution of PBMA: towards a macro-level priority setting framework for health regions. *Health Care Management Science*. 6. 2003. [<pdf>](#)
- Ratcliffe J, Donaldson C and Macphée S. Programme budgeting and marginal analysis: a case study of maternity services. *Journal of Public Health Medicine*. 18:2. 1996. [<pdf>](#)

**“in the context of making decisions between competing claims on scarce health service resources, economic tools and thinking have much to offer.”**

**– Peacock et al (2010) –**

PBMA is most often used at the organizational level (typically by service-delivery institutions) to decide among competing services, or to determine a feasible basket of services available to patients. It is very much an economist’s approach to priority setting, which may limit its effectiveness in some circles but expand it in others (Peacock et al 2010). “The basic principle is that to do more of some things we have to take resources from elsewhere, by either doing the same things at less cost or reallocating resources from other areas of care. This requires accurate measurement of the costs and benefits of healthcare programmes” (Peacock et al 2006). Assessing the “true” cost of programming is one of PBMA’s particular hallmarks, and can thus be a very useful PS tool.

**“PBMA recognizes the need to balance clinical autonomy with financial responsibility.”**

**– Peacock et al (2009) –**

**“approaches to priority setting in developing countries over the past 15 years have emphasized cost-effectiveness analyses. Though occasionally helpful, formal cost-effectiveness is seldom an overriding consideration. Moreover, ‘simple solutions,’ such as cost-effectiveness analysis, are theoretically flawed and difficult to implement in practice.”**

**– Mshana et al (2007) –**

As Mitton and Donaldson (2004) and Mitton et al (2003) explain, PBMA embraces two key economic underpinnings. “The first is that of opportunity cost, which carries with it the understanding that in investing resources in one way, some opportunity for benefit, through investing those resources elsewhere, has been lost. One of the keys in setting priorities, then, is to measure or weigh out the costs and benefits of doing one thing vis-à-vis another... The other principle is that of the margin, which is about shifting or changing the resource mix. If the budget increases, one could reasonably ask how best the additional resources should be spent. Conversely, if the budget decreases, one would likely want to take resources from areas which are producing the least benefit. Lastly, if the budget was neither increasing nor decreasing, at least not continuously, the question remains as to whether resources should be re-allocated (with

some areas cut back so that others can expand) so as to improve benefit to the population being served. The concept of the margin is crucial to this development of an economic approach to priority setting” (Mitton and Donaldson 2004). *Diagram 3.3* below sets out the seven major steps of the process.

**“PBMA as a process involves assessing how health care resources are currently distributed within services or programmes and making recommendations, in a resource neutral environment, about possible future changes. Data on activity and the extent of service provision within maternity care were used alongside information from national policy documents to decide on the main proposals for change in service delivery. Candidates for more resources were compared with each other and with candidates for service reduction to determine whether and what changes should go ahead. This involved 'marginal analysis' of the costs and benefits of the proposed changes... The results demonstrate that modest changes in maternity services in line with government policy are achievable. Estimates of the cost of larger changes in line with policy appear to be feasible 'on paper'. However, it may not be possible to achieve the resource shifts required.”**

– Ratcliffe, Donaldson and Macphee (1996) –

**“while a priority setting process, such as PBMA, can be conducted perfectly in a ‘technical’ sense, an understanding of the context in which the application of PBMA takes place is required in order for the exercise to have a chance at being successful. Further, as different contexts will require different strategies, it is often necessary to undertake background and historical research in order to identify and overcome barriers prior to embarking on a priority setting process.”**

– Peacock et al (2009) –

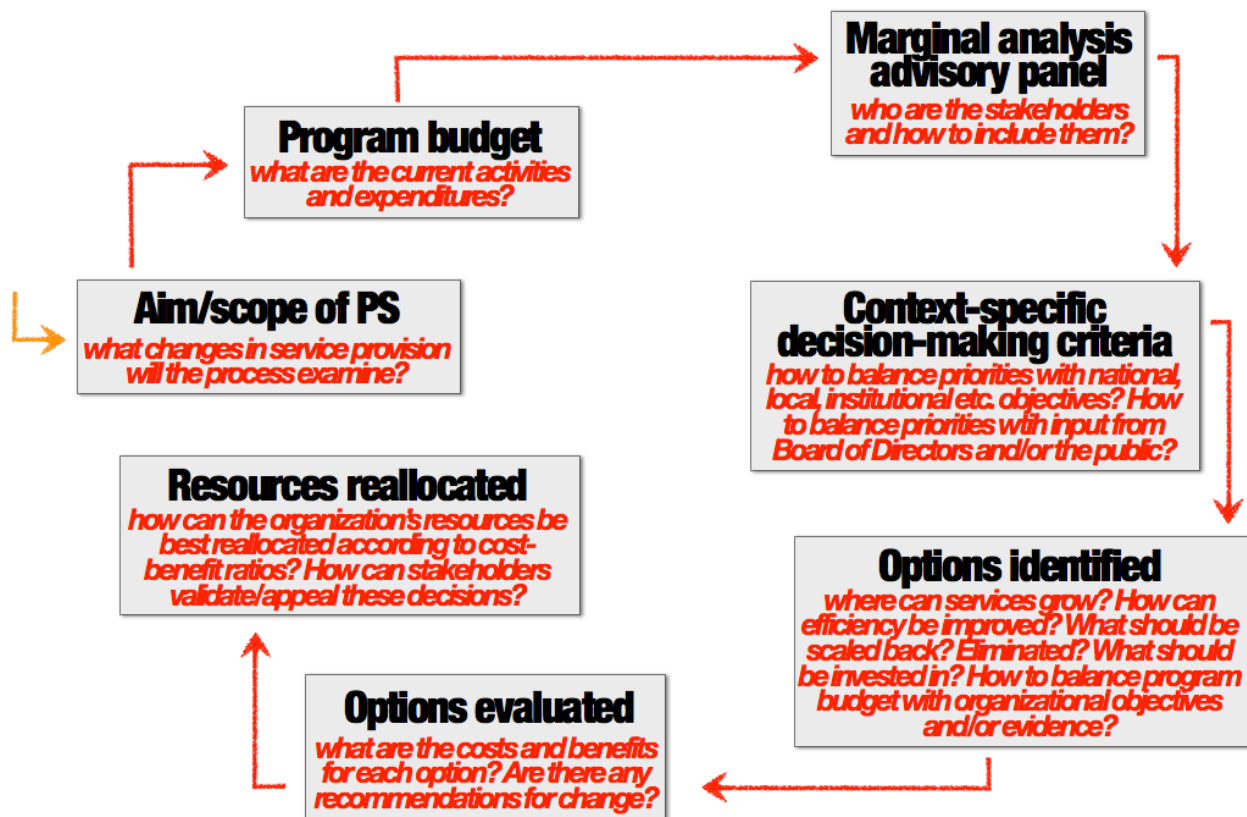


Diagram 3.3: The seven steps of PBMA

### 1.2.2 Multi-Criteria Decision Analysis (MCDA)

#### *Suggested Readings:*

- Peacock SJ et al. Overcoming barriers to priority setting using interdisciplinary methods. *Health Policy*. 92. 2009. <pdf>
- Defechereux T et al. Health care priority setting in Norway: a multicriteria decision analysis. *BMC Health Services Research*. 12:39. 2012. <pdf>
- Baltussen R and Niessen L. Priority setting of health interventions: the need for multi-criteria decision analysis. *Cost Effectiveness and Resource Allocation*. 4:14. 2006. <pdf>

Like PBMA, MCDA is a model of priority setting that tightly focuses on the alternatives available in service delivery. It helps to determine particular decision-maker objectives and the trade-offs or alternatives they face, allowing each option to be “compared with each other in a consistent and transparent manner. A key principle is that decisions between different interventions should be consistent with stakeholders’ objectives. MCDA is transparent in that it shows that decisions are the logical implications of those objectives” (Peacock et al 2009).

As Defechereux and colleagues (2012) illustrate it, MCDA typically proceeds through three different steps:

1. an organizing group defines and structures the problem, and considers how priority setting might respond to this problem. The first questions to ask at this stage are: “‘what priority setting objectives do decision-makers wish to pursue’? And ‘what locally relevant criteria do decision-makers use when deciding between alternative interventions?’” (Peacock et al 2009). Next the group should consider the objectives of the PS process, including the types of criteria that may be used to distinguish among interventions. “In many instances, PS objectives and criteria will not be clearly defined at the start of this process, or they may be too broadly defined (e.g. statements like ‘improving equity’ or ‘improving population health’) to be of practical use in making decisions. Perhaps the most widely debated criteria are efficiency (maximizing health outcomes from limited resources) and equity. However, there is a growing body of evidence showing that local decision-makers consider a wider range of criteria when setting priorities, such as empowerment, acceptability to different stakeholders, waiting times/lists, and sustainability.” (Peacock et al 2009).
2. the organizing group then develops different packages of interventions based on various combinations of criteria. These packages are then sent to major stakeholders, often using a Discrete Choice Experiment (see *Box 3.3* below) to systematize their selections.
3. the organizing group then determines the final options based on the scores each intervention (or package of interventions) receives. This “provides a broad classification and ranking of interventions within a chosen context or specific disease area (a composite league table). Although the league table is not an integral part of the MCDA methods but rather an illustrative application, it is often seen as the most important contribution of a MCDA” (Defechereux et al 2012).

**“MCDA is important because the degree of conflict between criteria, or conflict between different stakeholders regarding the importance of different criteria, is such that ‘intuitive’ decision-making is unsatisfactory.”**

**– Peacock et al (2009) –**

### Box 3.3: Discrete Choice Experiment

This technique allows organizers to gauge stakeholder preferences. It is “an attribute-based survey method for measuring preferences for multiple benefits (utility). The survey elicits respondents’ preferences based on their stated preferences in hypothetical and forced choices between two vignettes or, in our study, two sets of specified policy criteria... In stating a preference for one of the two vignettes, the individual is assumed to make trade-offs and choose the alternatives that yield the highest personal preference or benefit or utility” (Defechereux et al 2012). A DCE “provides opportunities for evaluation whether a given health, non-health or process attribute of a health care intervention or service is important; the relative importance of these various attributes; and the trade-offs individuals make between these attributes” (de Bekker-Grob 2009). Below, we see a simple DCE choice set of different means of transportation to work (modified from de Bekker-Grob 2009). With enough respondents participating in a DCE, and with choices nuanced enough to generate desired levels of detail, this can be a straight-forward, even virtual, tool creating a rough list of user-identified priorities (or packages of priorities).

Attributes	Car	Bus
Duration of transportation	15 minutes	30 minutes
Walk to/from transportation	0 minutes	5 minutes
Price	\$4.00 gas/\$5.00 toll/\$X wear and tear on car	$\$2.75 \times 2 = \$5.50$
<i>My choice</i>	<input type="checkbox"/>	<input type="checkbox"/>

### 1.2.3 Lives Saved Tool (LiST)

#### Suggested Readings:

- Victora C. LiST: using epidemiology to guide child survival policy-making and programming. *International Journal of Epidemiology*. 39. 2010. [<pdf>](#)
- Fox MJ et al. Assumptions and methods in the Lives Saved Tool (LiST). *BMC Public Health*. 11 (Suppl 3). 2011. [<pdf>](#)
- [Supplement of BMC Public Health](#). 2011.

This computer-based model allows groups to see how interventions might affect coverage rates and, ultimately health outcomes. The application of such a tool to priority setting allows organizers to predict with great accuracy how different interventions might play out in real world settings, adding another element to consider in ranking a final priority list. Developed by Johns Hopkins’ Institute for International Programs, LiST is “a free, publicly available software tool that has been used by programs or organizations to estimate the impact of scaling up different interventions and thereby help in the health planning process... the new [2011] version of LiST allows users the ability to add future interventions, thereby judging the impact of these interventions in conjunction with existing interventions. For example, one could put in a vaccine for malaria, set the efficacy of the vaccine and then estimate the impact that this vaccine would have on malaria deaths with or without the scale up of an existing malaria intervention, such as insecticide-treated nets or indoor residual spraying.” (Fox et al 2011).

**“A potential critique of LiST is that, by estimating the likely impact of each intervention, it would contribute to the implementation of vertical programmes in the spirit of what used to be known as selective primary**

**health care. As such, it would detract from efforts to build up horizontal, primary health-care systems...however, recent experience of countries that have managed to reduce child mortality rapidly shows that initial focus on a few priority diseases and interventions is not incompatible with the strengthening of health systems for providing universal primary health care...furthermore, use of LiST can counteract [the] current emphasis on one-size-fits-all intervention packages by suggesting which specific interventions are more likely to have an impact under different conditions”.**

**– Victora (2010) –**

**“I have had the opportunity to use LiST in a few countries, and I share the enthusiasm of its developers about its potential impact on policies and programmes. Sitting in front of a screen with national counterparts, one can discuss which interventions are available, which ones are more likely to be scaled up rapidly, what coverage targets are achievable and what is the likely impact on mortality of different interventions, delivery channels and packages. In some early applications, this has led to a change in short-term priorities at country level”.**

**– Victora (2010) –**

For more, see the [Institute for International Programs](#). Also see the *BMC Public Health* 2011 [supplement](#) on the topic. For a related approach, see the [Disease Control Priorities Project](#) (DCPP). This approach allows countries to use “information on the burden of major diseases to assist decisions about the potential of affordable and effective interventions. The DCPP analysis identifies the ‘best buys’ i.e. the most cost-effective interventions in terms of DALYs saved per unit cost, that should compose a country’s essential health care package” (Rudan et al 2010).

#### ***Box 3.4: WHO-CHOICE***

##### **CHOICE = CHOosing Interventions that are Cost-Effective**

“A critical component of health financing policy is to ensure the available resources are used equitably and efficiently. Governments have a direct influence on the resources they control, but they can also encourage efficient resource use in the non-government sector in a variety of ways. However, this requires good information which can be used for setting priorities.

WHO-CHOICE contributes to this evidence base by assembling regional databases on the costs, impact on population health and cost-effectiveness of key health interventions. It also provides a contextualization tool which makes it possible to adapt regional results to the country level. This work started in 1998 with the development of standard tools and methods which have been used to generate the regional databases.”

For more, see: <http://www.who.int/choice/en/>

### ***1.2.4 Marginal Budgeting for Bottlenecks***

#### ***Suggested Readings:***

- Soucat A et al. Marginal budgeting for bottlenecks: a new costing and resource allocation practice to buy health results. The World Bank: Washington DC, 2002. [<pdf>](#)
- Knippenberg R, Soucat A, Vanlerberghe W. Marginal Budgeting for Bottlenecks: A Tool for Performance Based Planning of Health and Nutrition Services for Achieving Millennium Development Goals. *Concept Note*. No date. [<pdf>](#)

Developed by UNICEF, the WHO and the World Bank, Marginal Budgeting for Bottlenecks (MBB) isn’t a priority setting approach per se but certainly does have some utility for groups executing wider PS processes. As a planning and budgeting tool, it may be used in particular with the 3D CAM (see *Lesson 2.1.1*), PBMA (see *Lesson 1.2.1*) or the CHNRI (see *Lesson 2.2.2*)

methodology to add more detail on particular interventions targeting child and maternal mortality. It works primarily to identify system-wide implementation constraints, then estimating the marginal costs required to address those barriers. It “identifies implementation constraints of the health system that should be removed to optimize expected health outcomes and then estimates the marginal costs of overcoming those constraints”; this then “facilitates a process of budgeting for government health expenditures that starts by improving allocative efficiency of the newly available resources, and provides a basis for policy dialogue and planning” (Knippenberg, Soucat and Vanlerberghe – no year).

As Soucat et al (2002) observe, “In Ethiopia, it has been used to assess the cost and potential impact of various services delivery arrangements to enhance the contribution of health services to the MDGs. In Madagascar and India it is currently used as a planning tool for reallocating funding within the health sector”. In general it answers three big questions:

- who is doing what? What new, high-impact interventions can be integrated into existing delivery arrangements?
- what are the major bottlenecks limiting delivery of particular services? How can these be cleared?
- what kind of budget is needed to achieve results?

Marginal Budgeting for Bottlenecks consists of five major steps:

1. organizers assess key indicators, trends and outcomes (morbidity, equity, access to services) and the types of interventions that might improve those outcomes.
2. organizers identify system-level supply and demand bottlenecks in delivering those interventions. What strategies might be developed to remove the bottlenecks?
3. for each intervention, what is the estimated impact on survival rates?
4. what additional inputs (e.g. training, drugs, salaries) are required to implement strategies to remove the bottlenecks?
5. what are the budgetary implications of the strategy? How do these compare to other health spending?

### ***Box 3.5: Country example of bottleneck analysis***

In Honduras, “a bottleneck analysis of water, sanitation and hygiene services revealed that despite ample access to improved drinking water, less than half of households consumed water that had been treated to make it safe. Strategies selected to address these bottlenecks include scaling up water treatment and providing information, education and communication initiatives to promote the exclusive use of safe drinking water” (Soucat et al 2002).

## **Lesson 2: Interpretive Priority Setting Processes**

### *Suggested Readings*

- Campbell S. *Deliberative Priority Setting*. A CIHR Knowledge Translation Module. 2010. <[pdf](#)>
- Ranson MK and Bennett SC. Priority setting and health policy and systems research. *Health Research Policy and Systems*. 7:27. 2009. <[pdf](#)>
- Tomlinson M et al. A review of selected research priority setting processes at national level in low- and middle-income countries: towards fair and legitimate priority setting. *Health Research Policy and Systems*. 9:19. 2011. <[pdf](#)>

- Kipiriri L, Martin DK. A Strategy to Improve priority setting in developing countries. *Health Care Analysis*. 15. 2007. [<pdf>](#)
- Viergever RF et al. A checklist for health research priority setting: nine common themes of good practice. *Health Research Policy and Systems*. 8:36. 2010. [<pdf>](#)
- Lavis JN et al. SUPPORT Tools for evidence-informed health Policymaking (STP) 3: Setting priorities for supporting evidence-informed policymaking. *Health Research Policy and Systems*. 2009. [<pdf>](#)

<b>Lesson 2.1</b>	<i>The Ideal, Interpretive Priority Setting Process.</i> In this <i>Lesson</i> , we discuss a series of steps any organizing group can use to complete an interpretive (i.e. open, deliberative, multi-stakeholder) priority-setting process	page 136
<b>Lesson 2.2</b>	<i>Other methods and approaches in priority setting for research.</i> Involving a range of stakeholders, these approaches identify existing policy concerns and research priorities; assess the extent to which current research addresses these concerns and priorities; develop a list of core priorities for future research; and then widely disseminate those priorities for discussion, revision and, ultimately, enforcement.	page 143

### *Lesson Two Presentation:*

A presentation highlighting the major aspects of *Lesson Two* is available in three different formats:

- as a [<pdf>](#) for printing. Can be used as a handout, but cannot be modified. Can also be used as a presentation in full-screen mode.
- as a [<key>](#) for presentations. This uses Apple's proprietary Keynote software; users of this may modify the presentation as desired.
- as a [<ppt>](#) for presentations. This uses Microsoft's proprietary PowerPoint software; users of this may modify the presentation as desired. Please note that the presentation was not created using ppt software; it looks best in pdf or key formats.

## **Lesson 2.1: The Ideal, Interpretive Priority Setting Process**

In its ideal interpretive form, priority setting uses clear, objective and fair criteria to determine the knowledge needs that may contribute to solving collective problems. It is transparent, legitimate and accountable, a value-driven decision-making tool to decide among competing knowledge needs. It may result in a ranked list of priority topics or priority research questions, or it may result in no consensus of priorities whatsoever. As several authors comment, achieving consensus is not a necessary requirement of any priority-setting exercise (WHO 2003; Lavis et al 2009). As priority setting brings different stakeholders together in an inclusive, representative way to deliberate on collective needs, this process alone – this deliberation – will contribute to the stronger social relationships and trust that are essential to bridging the worlds of research and policy. And that is an outcome far greater than any single output.

Below we discuss a series of steps any core group can use to complete an interpretive (i.e. deliberative) priority-setting process, as shown in *Diagram 3.4* below. These steps are merely the rudiments of the process; actually launching such an interpretive process requires attention to many more details and decisions – particularly around precise methods to use in the interpretive workshops. As Montorzi, de Haan and IJsselmuiden (2010) explain, any priority setting process

must be adapted to the context in which it functions – and should ideally be a blend of different methods to ensure all relevant angles are covered, and particular considerations addressed.

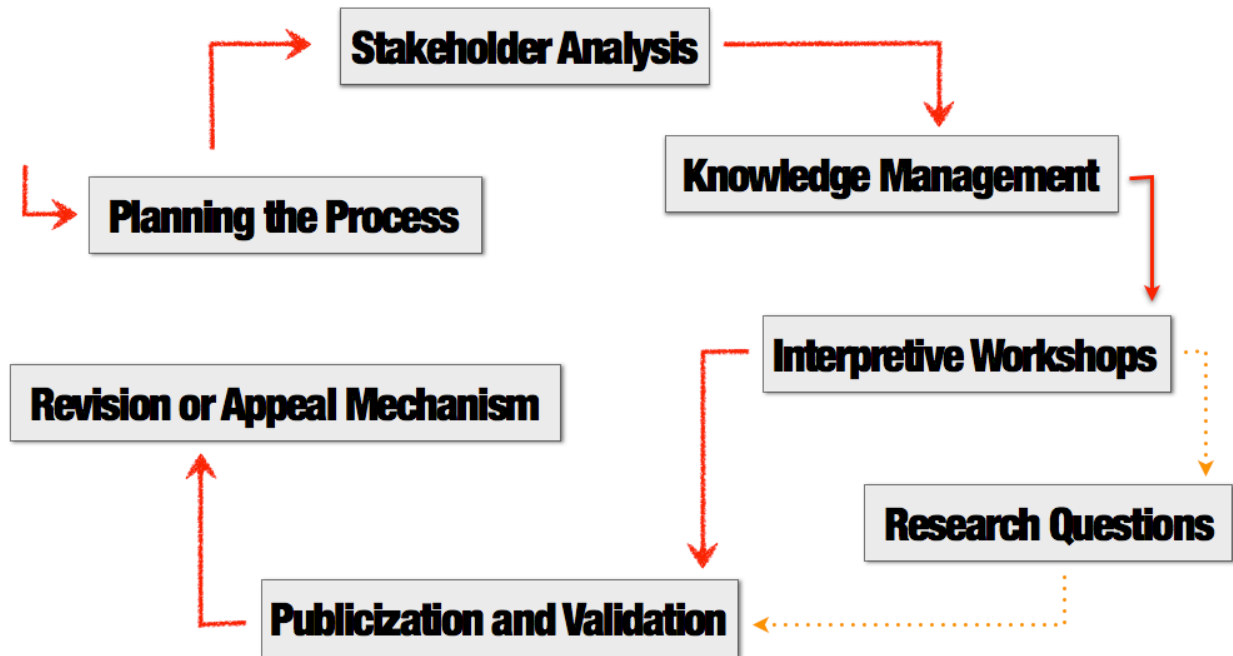


Diagram 3.4: The steps in an interpretive priority setting process

### 2.1.1 Planning the Process

The planning stage is a crucial element to successful priority setting. The core group needs to identify the timing of the process, its budget, logistics, methods and so on. As with many processes, the more that can be anticipated before any activity begins, the better. In some cases, leadership for the priority-setting process may be clear and obvious; in others, some stakeholder analysis may be required to identify the individuals (or institutions) that should be a part of the core group overseeing the priority setting process. See *Module 2* for more on the concept of the core group, with particular reference to *Lesson 1.1 The Core Group: formation* and *Lesson 1.2 The Senior Advisory Team*.

### 2.1.2 Stakeholder Analysis

There are two actions a stakeholder analysis might contribute to: identifying members of the core leadership group, and then identifying members of a Larger Reference Group (LRG), which the core group may use to validate identified priorities (see *Lesson 2.1.5* below for more). The LRG is a key element in keeping any priority-setting work public, transparent and accountable.

**“as research typically involves an investment of society’s limited resources, there exists at least some obligation to ensure that research activity aligns with the interests, needs and values of the larger community”**

– Smith et al (2009) –

**“The challenge of health care prioritization would therefore seem to be to identify an appropriate balance between an expert-led process and a process that emphasizes public involvement in decision-making... one of the main challenges for the priority setting field would be to propose appropriate levels of public**

**involvement and appeal that is much less extensive than the usual rhetoric suggests, but still ensures that decisions reached are legitimate.”**

**– Sabik and Lie (2008) –**

Additionally, stakeholder analyses can help to isolate:

- the particular importance, influence and/or interests of stakeholders in relation to the subject of the priority-setting work (e.g. for priority setting on a research agenda for the overall health sector or for priority setting in a particular topic – malaria treatment, for instance).
- the levels and different types of stakeholders within complex stakeholder institutions. What kinds of policy-makers should be involved? Is the Ministry of Health one stakeholder or multiple? (Varvasovszky and Brugha 2000).
- the type and level of stakeholder to involve – distinguishing for instance between local, national and international stakeholders.
- any potential conflicts, conflicts of interest, or risks that could jeopardize the process;
- opportunities, alliances, coalitions and relationships that might be built upon during the process;
- groups that could participate in different stages of the process (e.g. as part of the core group or as part of the LRG); and
- appropriate strategies and approaches for stakeholder engagement at all points of the priority setting process (WWF, 2005).

**“involving a large group of stakeholders when setting priorities in health research investments is important because the criteria of relevance to scientists and technical experts, whose knowledge and technical expertise is usually central to the process, may not be appropriate to specific contexts and in accordance with the views and values of those who invest in health research, those who benefit from it, or wider society as a whole”.**

**– Kipiriri et al (2007) –**

Note that the core group may also wish to perform or commission a wider situation analysis to understand some key variables relevant to the priority-setting process. This could include, for instance, commissioning a paper to understand how priorities have historically been (or not been) set, or a deeper understanding of the ways in which priorities might eventually be implemented and enforced among the different stakeholders. *Module 2*’s focus on situation analyses has many different tools to offer in completing this type of analysis.

**“a closer look shows that the majority of developing countries that have set priorities have progressed only to the first phase – situation analysis, identification of major health problems and development of a list of research priorities to address these problems. It is rare that the effort has been put into action with a funded implementation plan supported by a process for managing the performance and integration of health research priorities into the health research system.”**

**– de Haan and Montorzi (2005) –**

### ***2.1.3 Knowledge Management***

While presented here as the third step, this is really an element that needs to be present throughout the process. The core group must ensure that all participating stakeholders – as part of the core group, the Larger Reference Group, or even members of the wider public – enjoy the same access to information at all stages of the process. Priority setting depends for its success on

a relatively high level of knowledge among participating stakeholders, and as such must take provisions to ensure that the less technically-skilled stakeholders have the ability to interact with more technically-advanced input (e.g. a systematic review) (Lavis et al 2009). The availability of knowledge – and the knowledge the core group selects to be available – has a direct influence on the priorities eventually chosen.

A knowledge management strategy could be a simple one, starting with circulation of all relevant materials via email well in advance of any formal meetings. There could be a web site dedicated to the priority-setting process, with a database of all relevant information (e.g. peer-reviewed papers, grey literature, synthesis pieces, expert opinion etc.) stakeholders might use to prepare themselves. Even better, there could be a social networking platform dedicated to the active sharing of information among participants (for an example of this, see the Canadian Coalition for Global Health Research's [platform](#))

Key questions to help shape the eventual knowledge management strategy include:

- what are the particular knowledge and information needs the participating stakeholders have? Do they all possess a similar educational and/or working background? Can they all read the same language? Do they all have similar access to knowledge resources (e.g. online databases)?
- in what ways will knowledge (e.g. peer-reviewed papers, syntheses) influence the priority-setting process? Where will it need to be introduced in the process? How will the core group ensure that information is available to stakeholders during and after the process? How will it be disseminated to ensure the transparency and accountability of the process?
- How will people share and access knowledge and information?

### **2.1.4 Interpretive Workshops**

These are the big moments in the priority setting process – when the core group comes together to discuss, identify, weigh and ultimately rank competing priorities. There are many important variables in this step, and this *Module* cannot discuss all of them, but instead offers insight into a selection of the most important.

There may be one workshop to determine priorities, or a series of workshops. These may all involve the same set of stakeholders, or each could involve a different set (divided, for instance, by stakeholder type or stakeholder location). A typical workshop moves through six different stages (as shown in *Diagram 3.4* above):

1. individual or group reactions to the pre-circulated material. This may result in a long, preliminary list of priority research issues or questions.
2. facilitated group brainstorming on the big, pressing or contentious research issues, followed by facilitated group brainstorming on the current or contentious policy issues. This may also result in a long and unsorted list of priorities.
3. a facilitated group discussion of criteria (see below) that should be used to rank the long list or priorities.
4. group agreement on those criteria, and a means of weighting that criteria (i.e. one criterion may be more or less important than another)
5. applying that criteria to the long lists of priorities to arrive at a scored or ranked list of priorities. These priorities may be at the broad level of the research topic or option (e.g.

malaria treatment) or at the research question (e.g. given A and B, which is the most effective malaria treatment for population C?).

6. a discussion of the types of research or research questions that could best illuminate the identified priorities. This is not always done, though some groups may wish to take advantage of the expertise of the core group to do so.

A critical and complex undertaking of these workshops lies in the fourth step above – determining the criteria the group will use to assess each individual priority, and to weigh and rank competing priorities. This is a time-consuming but essential task. As priority setting is inherently value-driven (*why does Stakeholder X consider Topic A more important than Topic B?*), criteria are used to agree upon and harmonize the values that underpin decision-making on priorities. Determining criteria will allow the group to objectively weigh, analyze and determine what is a priority and what is not, and how seemingly equal priorities measure against each other. There are several different ways a core group may determine a set of criteria, from considering how any given issue correlates to a list of philosophical concepts (e.g. equity, equality of access etc.) to how any issue relates to the agenda of the powerful and influential (Rudan et al 2007a; Baltussen and Niessen 2006).

Priority-setting experience from a range of different low- and middle-income settings illustrate some commonly agreed-upon criteria:<sup>12</sup>

- magnitude, relevance, urgency and expected impact. Will the research still be a priority upon its completion in three or five years' time? (El-Jardali 2010; Working Group 2000; Alliance for Health Policy and Systems Research 2009). Will its impact be greater than its relative cost? (COHRED 2006)
- answerability. "How likely is it that the objectives will be met given the current state of science and the size of the gap in knowledge?" (Rudan et al 2008)
- applicability, deliverability, affordability, sustainability (Rudan et al 2007a)
- maximum potential to reduce disease burden equitably (Rudan et al 2007a; Baltussen and Niessen 2006). "How likely is it that the proposed research will benefit those who are most vulnerable?" (Rudan et al 2008)
- originality. Is the issue unresearched or is there an existing knowledge base? (El-Jardali 2010, Working Group 2000)
- research capacity and feasibility. Do the skills exist to do the research? Is it feasible financially, technically, socio-culturally and ethically? (Working Group 2000; COHRED 2006; Rudan et al 2008)
- policy relevance (El-Jardali 2010). How closely do the research topics align with expressed policy needs and concerns?

**"priority setting involves the adjudication between many different relevant values ... people (and disciplines) will disagree about which values should dominate in any specific priority setting context [leaving] no agreed-**

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<sup>12</sup> For specific examples of criteria arrived at within priority-setting exercises, see for instance Rosenstock, Olenec and Wagner (1998) for steps taken in determining the National Occupational Research Agenda in the USA ("seriousness of hazard; number of workers exposed; potential for risk reduction; sufficiency of existing research; expected trend in importance of topic; and probability that research will make a difference"). Also see the discussion in González-Pier et al (2006) dividing criteria into quantifiable (cost-effectiveness analyses, available resources, implementation issues) and qualitative considerations (including equity and ethics).

**upon normative approach for resolving the disagreement. When relevant values conflict, decision-makers must rely on developing context-specific agreement in order to achieve priority setting success.”**

**– Sibbald et al (2009) –**

**“The results obtained through use of different criteria will necessarily conflict each other. Some of the obvious dimensions that are relevant mainly to the researchers themselves are novelty and attractiveness of the research and its results, potential for publication in high impact journals, potential to attract further funding, but also effectiveness of the resulting interventions, maximum potential of research to impact disease burden addressed through health research and many others. Investors in health research will be more concerned about answerability of the research questions in an ethical way, feasibility and value for money...Ministries and international organizations may be more interested in criteria such as deliverability, affordability and sustainability of the results, local and national research capacities to carry out the proposed research ideas and also whether [the] research question is linked in any way to an ongoing public debate or societal issue...Finally, the society as a whole may be mostly interested in safety and equity lenses and whether beneficiaries of supported health research would be found mainly among the underprivileged or would they be widening gaps that are already present in the society”.**

**– Rudan (2009) –**

### ***2.1.5 Publication and validation***

The final list of ranked priorities must now be disseminated to an even wider group of stakeholders for any feedback, fine-tuning, and ultimately validation. Sometimes called a Larger Reference Group (see, for instance, Tomlinson et al 2007), its members may well have been identified through a stakeholder analysis; its role is to ensure that the priorities do indeed align with wider needs and concerns. Each LRG member requires access to the available knowledge, and their feedback can be received virtually (via email or social networking) or, if time and funding permits, through a series of workshops. Given the possible size of the LRG, voting may be the simplest process for arriving at some sort of consensus on criteria ranking or priority listing.

**“policy-makers have to balance a disease or illness orientation (e.g. what priority should be given to HIV/AIDS or diabetes?), a programme, service and drug orientation (e.g. what priority should be given to a screening programme, a counseling service or a new class of drugs), and a health system arrangements orientation (e.g. what priority should be given to a regulatory change in scope of practice of nurses, to a change in the financial arrangements that determine how doctors are paid or to a change in the delivery arrangements that determine whether some forms of care are provided only in high-volume facilities?) A priority-setting approach needs to function with multiple, often interacting, orientations at the same time.”**

**– Lavis et al (2009) –**

### ***2.1.6 Revision or appeal mechanism***

Following publication and the LRG’s discussion of the priority list, there should be a mechanism in place to address disagreements among stakeholders. Such a revision process would “1) improve the quality of decisions by providing opportunities for new information to be brought forward, errors to be corrected, and failures in due process to be remedied; and 2) operationalize the key ethical concept of responsiveness” (Sibbald et al 2009).

### ***2.1.7 Conclusions***

Clearly, the priority-setting process presented here is in an ideal form. Actual priority setting processes may look quite different – mostly due to available resources, time and skills. However, for priorities to be done well, and, ultimately for priorities to be enforced and followed

(especially by the research and funding communities), these steps all play a role of importance. Priority setting has long been a neglected aspect of health systems and of health research systems – yet its role in connecting research and policy is paramount.

<b>Table 3.1: A Priority Setting Checklist</b>
<i>Before the PS process:</i>
<b>1. Context:</b> which contextual factors underpin the process? What are the underlying values and/or principles? What is the reason for the process? What resources are available?
<b>2. Approach:</b> is it comprehensive? Appropriate? Suited to context? Is there structured, detailed, step-by-step guidance for the process?
<b>3. Inclusivity:</b> who will be involved in the process? Is there sufficient representation of expertise, disciplines, gender, regions, etc.? Have other sectors or constituencies been consulted and/or included?
<b>4. Information:</b> what information will inform the process? This could be lit reviews, technical data, stakeholder surveys reviews/evaluations of previous PS exercises, etc.
<b>5. Planning for implementation:</b> are there plans in place to either implement or enforce the priorities? Who will implement the identified research priorities?
<i>During the PS process:</i>
<b>6. Criteria:</b> how will criteria for the process be determined?
<b>7. Methods for determining priorities:</b> how will the stakeholders ultimately decide among priorities? Will they use a consensus-based approach or a metrics-based approach (pooling individual rankings) or a combination?
<i>After the PS process:</i>
<b>8. Evaluation:</b> when and how will evaluation of the priorities and of the process take place?
<b>9. Transparency:</b> write and disseminate widely a report documenting who set the priorities and how.
<i>adapted from Viergever et al 2010</i>

### **Box 3.6: Evaluating Priority Setting Processes**

Tomlinson et al (2011) suggest using four criteria to evaluate an interpretive PS process:

1. “documentation and legitimacy: was the priority setting process well documented, transparent and replicable? Was the decision-making process clearly stated and decisions and the reasons for decisions broadly publicized? Was the PS process a fair and legitimate one?”
2. stakeholder involvement: did the process involve the widest range of context-specific stakeholders?;
3. revision/appeals: was there a mechanism for revising decisions and was there a mechanism for dispute resolution?
4. Leadership: Were leaders responsible for ensuring that the first three elements are met, and were they responsible for monitoring, evaluating and improving the decision-making processes?”

The AFR framework can also be applied to evaluate any PS process; work by Kaporiri and Martin (2007) has further suggestions for precise evaluation methods of PS processes.

**“According to Kaporiri and colleagues, fair PS requires that four conditions are met – relevance, publicity, revisions and enforcement. In none of the countries surveyed were the conditions of revision and enforcement met. In no country was there an effective appeals process.”**

**– Tomlinson et al (2011) –**

## Lesson 2.2: Other Interpretive Methods in Priority Setting for Research

In recent years there has been a mushrooming of priority-setting mechanisms. Most are variants on the above ideal interpretive process. Involving a range of stakeholders, these approaches identify existing policy concerns and research priorities; assess the extent to which current research addresses these concerns and priorities; develop a list of core priorities for future research; and then widely disseminate those priorities for discussion, revision and, ultimately, enforcement. Such approaches have led to context-sensitive, evidence- and stakeholder-informed priorities, and critically revitalized the act of priority setting at national, regional and even global levels with particular relevance for health systems research and for strengthening national health research systems.

**“Experiences from countries that have engaged in priority setting exercises indicate that a number of guiding principles may be helpful in achieving balance. One consideration is to intentionally include only individuals with diverse and relevant experiences and viewpoints as opposed to including representatives from a variety of societies and associations. In the interests of agreement it may be beneficial to have some stakeholders as *ex officio* participants in order that they can contribute their views but are not involved in actual decision-making. Another useful strategy is the establishment of a communication channel with neighboring countries about the PS process. This serves as a gesture of goodwill, but may also aid the PS process. This is pertinent in the case of countries without comprehensive Burden of Disease data, but where neighboring countries may have relevant (similar) data.”**

**– Tomlinson et al (2011) –**

### 2.2.1 The Combined Approach Matrix

#### *Suggested Readings:*

- Ghaffar A et al, Eds. The Combined Approach Matrix: a priority-setting tool for health research. The Global Forum for Health Research: Geneva. 2004. [<pdf>](#)
- Ghaffar A et al. The 3D Combined Approach Matrix: An improved tool for setting priorities in research for health. The Global Forum for Health Research: Geneva. 2010. [<pdf>](#)
- Montorzi M, de Haan S and IJsselmuiden C. Priority setting for research for health: a management process for countries. COHRED: Geneva. 2010. [<pdf>](#)
- Rudan I. The complex challenge of setting priorities in health research investments. *Indian Journal of Medical Research*. April 2009. *Commentary*. [<pdf>](#)
- Ghaffar A. Setting research priorities by applying the combined approach matrix. *Indian Journal of Medical Research*. April 2009. [<pdf>](#)

The Combined Approach Matrix (CAM) was developed by the Global Forum for Health Research in 2004, and was updated in 2010 to add a third dimension. It is thus now known as the 3D CAM, and has become a very popular and widely used tool for priority setting, with particular relevance for prioritizing an implementation research agenda, and for determining existing gaps in the evidence base.

In general, the 3D CAM's objective is to incorporate economic, institutional and equity aspects into a single tool – a combined approach – for priority setting. The advantage of this tool is that it helps “organize, summarize and present all available information on one disease, risk factor, group or condition, and facilitate comparisons between the likely cost-effectiveness of different types of interventions at different levels. The information may be partial, and possibly even sketchy in some cases, but it will improve progressively, and even limited information is sometimes sufficient to indicate promising avenues for research. The CAM seeks, above all, to summarize the evidence base for particular diseases or risk factors, thus highlighting gaps that require further research and action” (Ghaffar et al 2004).

**“setting priorities only on the basis of two dimensions, i.e. public health and institutional, may lead to priorities which do not fully reflect the needs of the most vulnerable populations and are not aligned with the overall goal of achieving health for all and health equity. Based on this experience, and taking account of the broader range of social and economic factors that have emerged as being significant determinants of health, the Global Forum has further developed the original CAM by extension into the ‘third dimension’ – adding an equity dimension to the original two dimensions of the matrix. The purpose of the third dimension of the CAM is not intended as an academic discourse on equity. Rather it should be thought of as a cross-cutting issue to keep in mind in order to facilitate the planning and conduct of research, which will ultimately result in informed policy decisions that are aimed at improving not only the average level of health, but also its distribution and hence, equity”.**

– Ghaffar et al (2010) –

The Matrix helps to organize and summarize information about a particular disease and the interventions available to combat it. As shown in *Diagram 3.5* below, the Matrix categorizes this information according to five “public health dimensions” and four “institutional dimensions” representing the various levels at which interventions can be implemented.

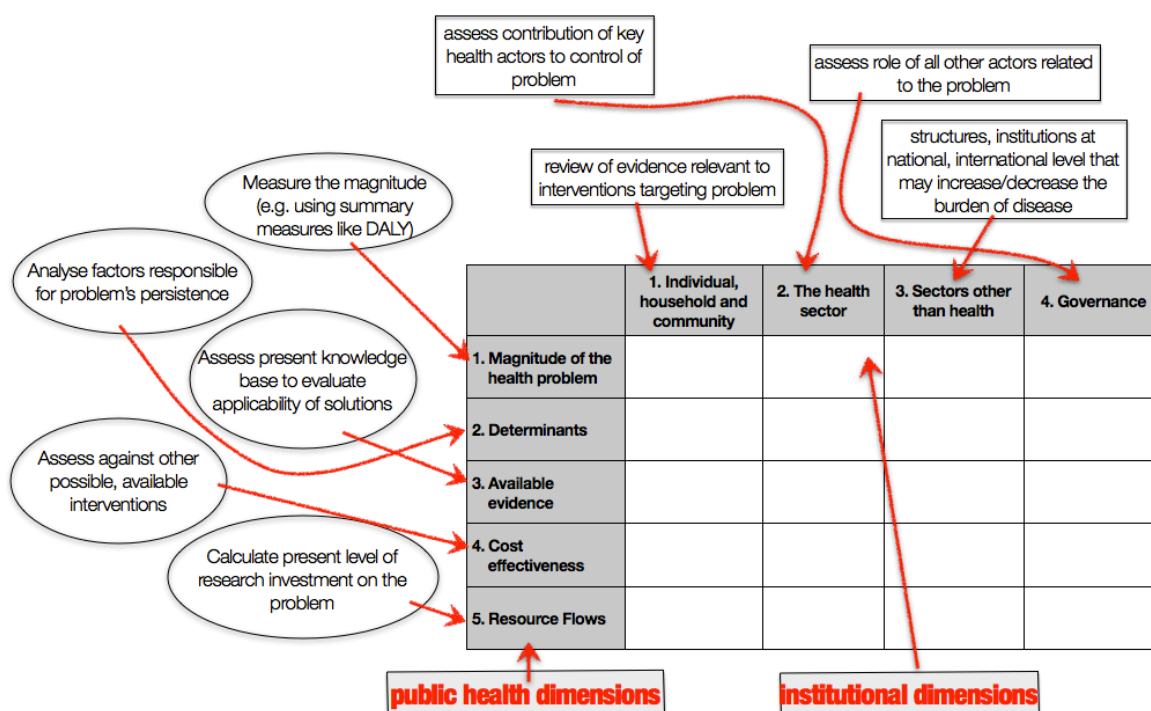


Diagram 3.5: The public health and institutional dimensions of 3D CAM

“Information gathered in a priority-setting exercise conducted at country, regional and global levels could be introduced into the CAM as a common framework to organize and present the collected information (as a basis to identify gaps in health research and health research priorities). As we can see in filling in the above matrix, the CAM:

- “brings together in a systematic framework all information (current knowledge) related to a particular disease or risk factor
- identifies gaps in knowledge and future challenges
- relates the five-step process in priority setting (economic axis) with the actors and factors (institutional axis) determining the health status of a population
- permits the identification of ‘common factors’ by looking across the diseases of risk factors
- is applicable to priority setting in the field of:
  - national, regional or global problems
  - both diseases and risk factors
- permits the linkage of priorities in the field of health and health research
- enables the rapid identification of the effect of a change in one of the ‘boxes’ of the matrix on the others
- permits taking into account the large number of factors outside the health sector that have an important impact on people’s health.” (Ghaffar et al 2004).

**“the strength of the CAM is its flexibility and diversity of application. Depending on the resources, area of research and availability of the required information, it may be applied by an individual researcher, a group of experts, interested stakeholders or a combination of all of these... The CAM provides a conceptual framework for compiling information relevant for priority setting in health research. It is also a practical and standardized tool for data presentation, and for improving transparency of rational decision-making in the PS process.”**

**– Ghaffar et al (2010) –**

In *Diagram 3.6* below we see how equity cross-cuts or influences the public health and institutional dimensions. This third dimension facilitates the “comparison of different social groups in relation to particular health-related or health systems related problems. Social groups can be defined on the basis of gender, income level, race or ethnicity, religion or sexual orientation, depending on the context. The equity dimension takes into account the issues, concerns and biases which are not effectively addressed in the institutional and public health dimensions but are critical to the process of priority-setting in health research resulting in effective interventions carried out by appropriate sectors. For example, from the perspective of equity, health services aimed at early detection and prevention of certain diseases are effective at reducing disparities in severity of illness, while interventions outside the health sector are more likely to have greater impact on the occurrence (incidence or prevalence) of diseases.” (Ghaffar et al 2010).

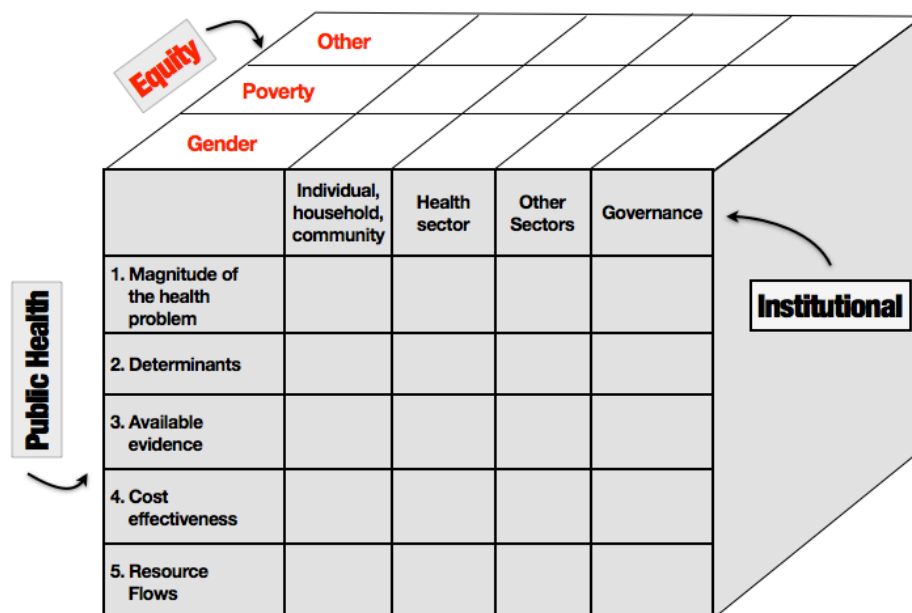


Diagram 3.6: Adding the third dimension of equity to the 3D CAM

### Box 3.7 Equity and health

“The distribution of health across societies is not equal; health indicators differ between and within countries. Any priority-setting exercise should highlight and address these inequalities. Typically, the questions that need to be addressed are:

- Is the problem or burden the same across different societal groups?
- What are the differences in terms of income, assets, access to resources (e.g. land, water), by race, social class, geography, religion, and gender that need to be accounted for?
- Which factors are responsible for the differences across groups?
- Do the disease factors affect the groups differently?
- Is sufficient knowledge available to focus interventions on disadvantaged groups?” (Ghaffar et al 2010).

As various commentators note, though, the CAM has some shortcomings, from non-inclusivity to a disease-driven orientation. “Although it is an extremely helpful tool for gathering and organizing information needed for priority setting, it does not in itself represent an algorithm for making the decisions on the priorities by ranking or separating the competing investment options. Therefore, in the absence of reliable information, which is usually very scarce for developing countries, most of the decisions will still be based on discussions and agreements within the panels of experts” (Rudan et al 2007a).

## 2.2.2 The Child Health and Nutrition Research Initiative (CHNRI)

### Suggested Readings:

- Tomlinson M et al. Setting priorities in child health research investments for South Africa. *PLoS Medicine*. 4:8. 2007. <[pdf](#)>
- Rudan I et al. Setting priorities to reduce global mortality from childhood pneumonia by 2015. *PLoS Medicine*. 8:9. 2011. <[pdf](#)>

- Tomlinson M et al. A review of selected research priority setting processes at national level in low- and middle-income countries: towards fair and legitimate priority setting. *Health Research Policy and Systems*. 9:19. 2011. <pdf>
- Rudan I et al. Evidence-based priority setting for health care and research: tools to support policy in maternal, neonatal and child health in Africa. *PLoS Medicine*. 7:7. 2010. <pdf>
- Tomlinson M et al. Research priorities for health of people with disabilities: an expert opinion exercise. *The Lancet*. 374. 2009. <pdf>
- Kapiriri L et al. Setting priorities in global child health research investments: addressing values of stakeholders. *Croatian Medical Journal*. 48:5. 2007. <pdf>

This priority setting approach is quickly evolving into a pre-eminent priority-setting model. It has now been used in a host of different countries, and continues to evolve and improve. One key variable of CHNRI is its excellent suitability to a mix of global, national and local experts. Each adds a different value and voice to the process; for many low- and middle-income countries, this mix of expertise already bears a strong influence on the health system (and particularly the health research system), and thus CHNRI aligns nicely with existing structures and relationships.

**“the [CHNRI] method has rapidly become the most frequently applied tool to set research priorities at all levels, because it is very cheap and practical, simple to apply via email, transparent and replicable, the output is intuitive and easily understood, and it has been validated and improved through many exercises over the past several years.”**

**– Rudan et al (2011) –**

The CHNRI method is a hybrid of technical and interpretive approaches. It allows technical experts to provide opinions and input anonymously, encourages the integral participation of an inclusive Large Reference Group (LRG), and ranks all identified research options in an open, systematic fashion ensuring transparency, replication and validation (Rudan et al 2008).

**“the CHNRI methodology has four stages: i) input from investors/policy-makers (who define the context and the criteria for PS; ii) input from a larger group of technical experts (who propose, list systematically, and then independently score many research ideas) iii) input from other stakeholders (who agree on differential weights for the chosen PS criteria according to a wider societal system of values); and iv) computation and discussion of the scores and analysis of the agreement between experts.”**

**– Rudan et al (2011) –**

As a participatory priority-setting process, the CHNRI method for priority setting has made two major contributions to the field: first, by concentrating less on the creation of new knowledge (i.e. setting a new research agenda) and more on the “health research option” and how those options may be actually implemented (recognizing the vibrancy of the evidence base but the problems in implementing evidence-informed interventions); and second by focusing on ways of incorporating wider societal values and principles through an LRG (Rudan et al 2007b).

**“The CHNRI methodology insists on transparency about the context in which PS takes place and the criteria used. It was initially developed for health research, but it has recently also been successfully used for health care and health interventions... it uses cost-effectiveness and potential impact on disease burden as criteria. However, within a set of ‘standard’ criteria, CHNRI also uses criteria relevant to the context – answerability, deliverability, affordability, sustainability, local capacity, likelihood of support, feasibility, equity and others. The process is usually designed by policy-makers or donors conducted by technical experts in a transparent way (e.g. each vote counts equally), with a mechanism of stakeholder involvement. Stakeholders**

can assign different weights to the criteria used in the CHNRI exercise. The outcome is a comprehensive list with competing priorities ranked according to the combined scores they received in the process. Such a list is helpful to policy-makers because it provides an overview of strengths and weaknesses of competing investment options against many criteria, based on the collective input of technical experts. The list can also be adjusted by taking the values of many stakeholders into account.”

– Rudan et al (2010) –

As Rudan et al (2008) comment, the CHNRI priority-setting methodology results in seven strong outcomes: a better understanding of the context; an agreement on expectations and acceptable risks; a definition of main criteria for priority setting; a listing of the many different research investment options; a transparent assessment of each option; an ability to adjust options according to social values; and an ability to combine this adjustment with “predicted cost, expected profits and risk preferences to decide on the optimal investment strategy” (Rudan et al 2008). It is systematic, it circumscribes the influence of technical experts, has a final quantitative output (research priority score), can evaluate and rank different types of research and, critically, through the involvement of the LRG “incorporates an efficient means of considering the voice of stakeholders and the wider public, who are given the power to place thresholds and weights upon intermediate scores (which are based on the collective opinion of technical experts) and in this way considerably shape the final outcome” (Rudan et al 2007b).

In 2006, this methodology was tested for the first time at a country level, in South Africa (Tomlinson et al 2007). *Diagram 3.7* below shows the steps employed during that exercise.<sup>13</sup>

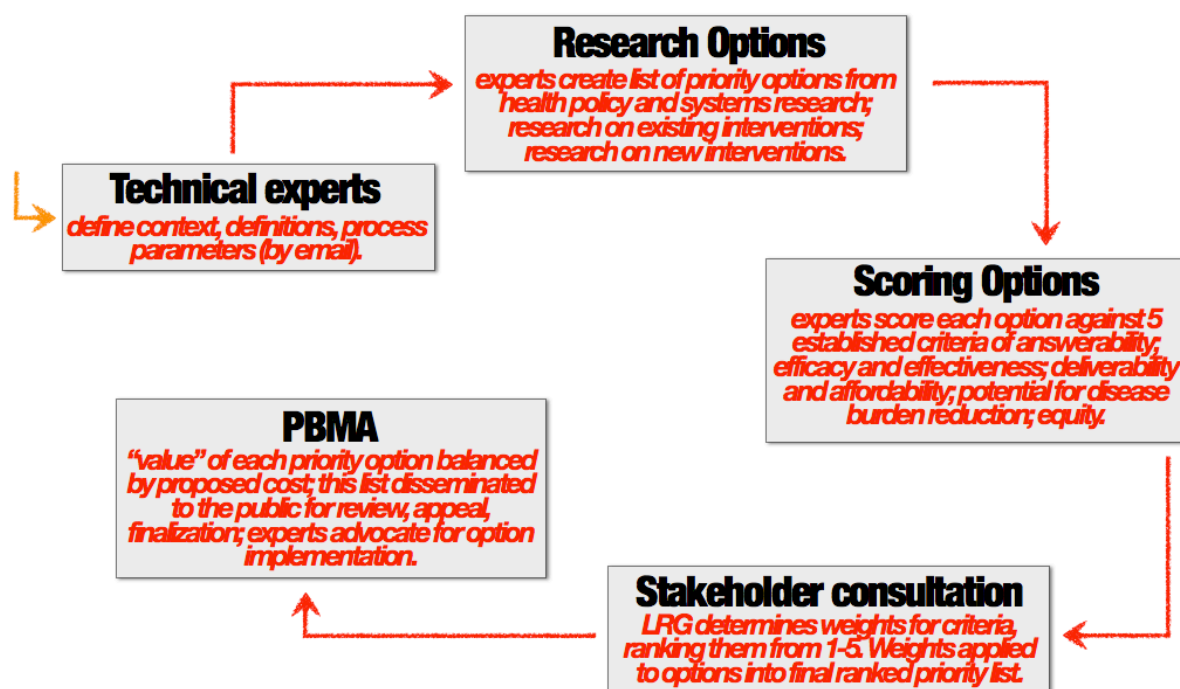


Diagram 3.7: CHNRI methodology to identify child health research options in South Africa (2006)

<sup>13</sup> Source: adapted from Tomlinson et al 2007

Building on this and other experiences, Tomlinson et al (2009) describe a CHNRI process as applied to determining research priorities for the health of people with disabilities. Their process reflects the ongoing evolution of this method: it did not involve an LRG and did not have a single face-to-face meeting – all work was done virtually among a large group of experts. This last fact has huge implications for priority setting work: if it can be done effectively *at a distance*, then the cost implications fall dramatically, and the ability to incorporate busy and/or remote stakeholders (who can participate via email as it suits their schedule) increases.

The CHNRI process Tomlinson et al (2009) used is explained below:

1. “we developed a set of five domains of research questions in the area of interest on the basis of a review of general research domains...”
2. “we then used snowball sampling to approach a group of experts known for their work on disability and health, including activists with disabilities, to independently generate research questions in the five domains that they believed were priorities...This activity yielded an initial list of 348 proposed research questions.
3. “We collated questions into a composite set of 83 questions that eliminated overlap.
4. “On the basis of CHNRI’s conceptual framework, we agreed on five criteria to assess the proposed research questions: likelihood of answerability; likelihood of applicability; potential sensitivity; likelihood for obtaining support; predicated effect on equity...”
5. “We gathered and computed scores for competing research options so that the proposed options received a score for each of the five criteria, five intermediate scores, in the range 0-100%. These scores were a measure of the collective opinion of the experts scoring independently...” (Tomlinson et al 2009).

**“Although an advantage of the CHNRI method is that it attempts to address many issues inherent to a highly complex process of priority setting for research investment, concerns about the validity of this approach and related biases remain. Concerns relate to the many possible good ideas (research investment options) that might not have been included in the initial list of research options that was scored by the experts, and to the potential bias towards items that get the greatest press coverage... It does not provide participants with a review of the evidence, and the process does not have any formal interaction between participants, such as feedback of views or facilitated meetings. Possibly, inclusion of these different factors would produce different results. However, the CHNRI approach was specifically designed to avoid biases that might arise from providing participants with evidence reviews or allowing interaction among participants.”**

– Tomlinson et al (2009) –

### 2.2.3 The COHRED Method

#### *Suggested Readings:*

- Montorzi G, de Haan S and IJsselmuiden C. Priority setting for research for health: a management process for countries. COHRED: Geneva. 2010. [<pdf>](#)
- de Haan S and Montorzi G. Priority setting for health research: toward a management process for low– and middle-income countries. COHRED: Geneva. 2005. [<pdf>](#)
- COHRED 2006. “Priority Setting for Health Research: Toward a management process for low and middle income countries”. COHRED: Geneva. 2006. [<pdf>](#)
- Ghaffar A et al. The 3D Combined Approach Matrix: An improved tool for setting priorities in research for health. The Global Forum for Health Research: Geneva. 2010. [<pdf>](#)

Formed in 1993, the Council on Health Research for Development (COHRED) has been a long-time leader in and supporter of interpretive priority setting methods. In the Essential National

Health Research (ENHR) concept, COHRED promoted the idea of countries determining how health research would contribute to overall development; how evidence would be the basis for decisions in health; and how a wide array of stakeholders should be involved in prioritization processes. This saw COHRED emphasize three different aspects of priority setting:

- **planning the process:** leadership and stakeholders should be identified and involved. Information needed for the process should be gathered and divided into three categories: “health status (main health problems, common diseases, determinants or risk factors); health care system (current status, deficiencies and problems); and health research system (availability of human, fiscal and institutional resources for research)” (Ghaffar et al 2010).
- **setting priorities:** a step-by-step process to determine the criteria and a way of weighting priorities. Leadership to determine precision of priorities – from broad lists to actual research questions.
- **implementing priorities:** transforming the list into a research portfolio. Guiding investment.

**“the main message emerging from consultations between COHRED and research managers in a number of developing countries is that priority setting can ONLY become an effective and relevant catalyst for shaping policy if the focus shifts from methods and tools to defining the process to arrive at research priorities”.**

**– de Haan and Montorzi (2005) –**

**“the key challenges that need to be overcome in sub-Saharan Africa to improve the processes of prioritization in health care and health research include the following: increased acceptability and popularity with local policy-makers, appreciation of the local context, clarity about the criteria used, transparency in the input from the stakeholders, and more specific guidance on translation into policy.”**

**– Rudan et al (2010) –**

Since the development of the ENHR, COHRED has applied (or supported the application of) this priority setting framework in different LMIC settings. This has led to the creation of two documents (2006, 2010) detailing its work. In general terms, the COHRED approach “defines who sets priorities and how to get participants involved, the potential functions, roles and responsibilities of various stakeholders, information and criteria for setting priorities, [and] strategies for implementation and indicators for evaluation” (Tomlinson et al 2011). In *Diagram 3.8* below we outline the six major steps used in COHRED priority setting.<sup>14</sup>

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<sup>14</sup> Adapted from Montorzi, de Haan and IJsselmuiden (2010)

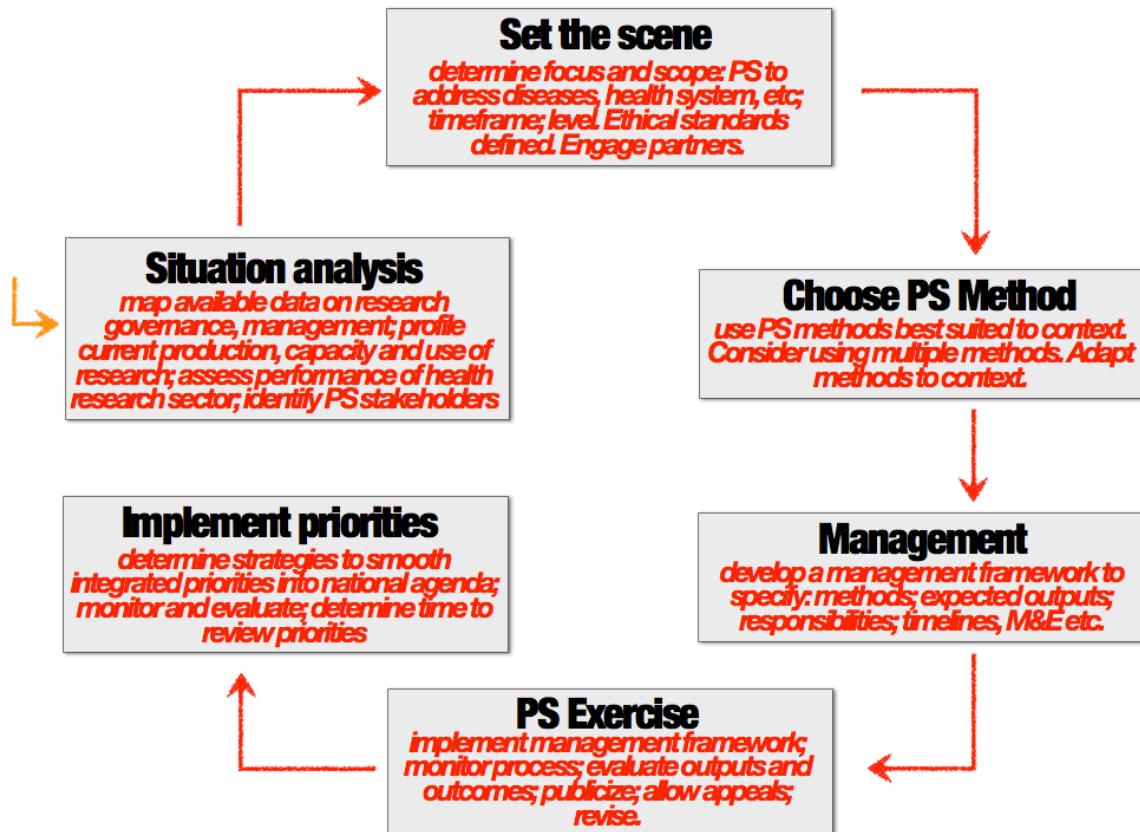


Diagram 3.8: COHRED priority setting steps

“To ‘get the process right’, we need to ask six questions: 1. Is health research priority setting the most appropriate intervention at this moment in time for this country? 2. where are the main resources available for health research and who should be involved in setting priorities? 3. how to do priority setting: what methods, tools and criteria? 4. starting small – what can be done now? 5. how to make priority setting a sustainable process? 6. how to make priority setting a credible process?”

– de Haan and Montorzi 2005 –

## Module 3 References

Alliance for Health Policy and Systems Research	Priority setting for health policy and systems research. <i>Briefing Note</i> : Alliance for Health Policy and Systems Research. WHO: Geneva. 2009.	<a href="#">&lt;pdf&gt;</a>
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