

economic evaluation for health



Advisory Committee to the Editors Meeting Report

Anne Mills, Chair April 26, 2013

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Background

The *DCP3* Advisory Committee to the Editors (ACE) convened its first meeting at the National Academy of Sciences in Washington, DC on March 13-15 2013. In addition to introducing the ACE members to the *DCP3* endeavor and to one another, the first ACE meeting was an opportunity to hear about the processes and participants involved in *DCP3*. Specifically, the meeting was intended to allow ACE members to:

- learn about the scope, structure, and status of the nine *DCP3* volumes;
- hear about the progress and preliminary main messages for several of the volumes;
- learn about the analytical work being conducted by the University of Washington and Public Health Foundation of India systematically across diseases and conditions; and
- discuss *DCP3* publication and dissemination plans.

Day One: March 13, 2013

Introductions

After brief welcomes from ACE Chair Anne Mills, Patrick Kelley of the Institute of Medicine (IOM), and Lai Meng Looi of the InterAcademy Medical Panel (IAMP), Dean Jamison outlined the structure and content of *DCP2* as well as how *DCP3* will differ from previous work. In summary, the economics in *DCP2* focused on cost-effectiveness analysis (CEA) to demonstrate how much health is gained by spending a given amount of money on different interventions. As such, it led to an increase in health cost-effectiveness studies and their application, both among certain global health policy communities and economists. Today, there is a broader understanding of the relative cost-effectiveness of many global health interventions, and a growing literature on country- and context-specific analyses, which were not part of *DCP2*. A core advance of *DCP3* is to develop and utilize economic methods that go beyond standard CEA. These include benefit-cost analysis (BCA), an existing economic method that is more complex than CEA; and extended cost-effectiveness analysis (ECEA), a new tool being developed for *DCP3* that provides additional information about health policy impacts. Using this tool, we expect to be able to look at social protection arising from health policies and interventions.

Opening Panel – Perspectives from DCP2 Experience

A panel consisting of Jaime Sepulveda (Chair of the *DCP2* Advisory Committee to the Editors), Tony Measham (*DCP2* editor), Carlos Rossel (*DCP2* publisher), and Richard Skolnik (Global Health textbook author and *DCP2* user) were invited to present their experiences with *DCP2* and proffer words of advice for those involved with *DCP3*. Noting that the publishing and communication world has changed radically in the few years since *DCP2* was published, the panel's comments focused largely on communication and dissemination of *DCP3*. The panel emphasized the importance of understanding *DCP3*'s audiences. While *DCP3* is intended to guide policy makers and their close advisors, it also serves an invaluable tool for faculty and students as well as for clinicians and researchers. As a result, it should be kept as digestible as possible for all audiences with conclusions that will help stakeholders know how to prioritize different policies and interventions within limited budgets. The panel urged the ACE members to help the editors and Secretariat develop an appropriate dissemination plan. In this regard, the panel believes the ACE will benefit greatly from working closely once again with Patrick Kelley

of the IOM as well as Lai Meng Looi of the IAMP. They said further that it is important for the *DCP3* Secretariat to consider how to achieve impact beyond the end of the grant. Lastly, in discussing *DCP3* content, the panel suggested that *DCP3* editors should signal the priorities for global health by limiting the overall number of chapters and messages, and reflecting the relative importance of topics by varying volume size.

Discussion of DCP3 and the Role of the ACE

The ACE members were invited to discuss how they envision their role in the DCP3 endeavor. The ACE used this time to provide advice to the DCP3 Secretariat on a number of issues. First, discussion arose around the actual use of DCP2 and how DCP3 can ensure its success as a tool in priority setting. It would be useful for the secretariat to find examples of how DCP2 was used which will allow those writing DCP3 to ensure its viability. A key issue is the difficulty of explaining cost and cost-effectiveness analysis to policy makers. One idea is to provide an online tool that will allow policy makers to understand all of the data that is driving the results from *DCP3*. As ACE member Toby Ord pointed out, the *DCP3* spends the bulk of its resources conducting analysis. By putting marginally more effort into the marketing of DCP3 (as IHME has done with the Global Burden of Disease), its impact could increase dramatically. In other words, dissemination is critical to the impact of this product. In this vein, the ACE suggested that DCP3 should develop targeted products for different users. Using the first volume well in this regard is important. For example, no minister of health will read DCP3 in its entirety, however a separate chapter directly targeted at ministries of health, heads of state and other stakeholders would be invaluable. Given that a similar product was derived from DCP2 with little success, more thought is needed about the nature of separate products. DCP2's main ancillary product was too lengthy for policy makers, but too short for practitioners and academicians. Further, by omitting much of the evidence contained in DCP2, the endeavor lost effectiveness.

Related to analytical direction, the ACE suggested that *DCP3* pay more attention to population prevention than clinical health interventions. This will force *DCP3* to look at issues such as scale-up and complementary interventions that are of great importance to policy makers. Doing this will be a challenge, but one that should be taken on by *DCP3*.

While the ACE had some specific comments on volume and chapter content, the Secretariat made clear that the ACE is not expected to delve too deeply into chapter subject matter. Broader comments, however, such as the importance of capturing crosscutting issues on things such as health technologies will be useful.

Day two: March 14, 2013

Session 1: Introduction to DCP3 Structure

The second day's sessions were intended to familiarize the ACE with the specific structure and content of *DCP3*.

Part 1: Analyzing interventions, policies and platforms

Rachel Nugent presented the types of interventions and policies that will be analyzed in *DCP3*. This was followed by Rifat Atun's presentation on health platforms. Both emphasized

that it is no longer sufficient to just look at health interventions; their broader context needs to be understood, along with the policy levers that are used to implement interventions, such as changes in public funding for health. The ACE members used this as an opportunity to discuss the complexity of doing the analysis *DCP3* is proposing. In particular, as Dr. Atun pointed out, there is limited empirical knowledge on the costs associated with scaling up interventions through policies and platforms. The challenges of moving from intervention-specific results to a health systems discussion are significant. It is recommended at this early stage to prompt chapter authors to include information in every chapter on platforms and policies that support the discussed interventions.

Further, the terminology used by different groups varies widely. While the Secretariat is using terms developed for the *DCP2* author guidelines, they must take special care to adopt existing widely used definitions, where possible, and be consistent in their use across *DCP3* volumes. The group agreed that consistency of terminology requires additional guidance for authors, as well as having a team of three or four people reviewing content and approach across all volumes.

Part 2: Assessing effectiveness

Hellen Gelband and Roger Cooke presented on the methods being used in *DCP3* to assess the effectiveness of interventions. These include systematic literature reviews as well as structured expert judgment (SEJ) through the 'Cooke Method'. It involves using calibration questions to weight the accuracy of expert judgment in order to reduce the uncertainty surrounding effectiveness estimates. For example, the surgery volume is using the Cooke Method to determine the degree of disability resulting from fistula treatment. By selecting appropriate calibration questions, it is possible to provide more weight on the answers of those that are likely to be accurate, not necessarily those that do a better job of promoting their views (as you would find in a focus group). As such, the Method found that fistula surgeons were not necessarily the best judges of the continuing disability post-surgery because they had limited interaction with patients after treatment.

The ACE, while expressing interest in the method, remained skeptical. The method relies heavily on choosing the right experts and using appropriate calibration questions. The ACE questioned how these results will be explained to policy makers. Roger Cooke responded that expert judgment is being given to policy makers all the time and this method, at a minimum, attempts to gauge the accuracy of their judgment. *DCP3* editors will be assessing the value of using this method after a few more experiences applying it to specific *DCP3* questions.

Part 3: Economics: Going beyond cost-effectiveness

Toby Ord and Margaret Kruk used this session to discuss the economic approaches in *DCP3*, and particularly why methods other than cost-effectiveness are being used. Their presentations addressed pros and cons of different economic methods, e.g. CEA, BCA, and ECEA. While CEA and BCA are familiar economic tools, ECEA is new and unique to *DCP3*. It expands on traditional cost-effectiveness analysis by quantifying financial risk protection and equity of specific policies. Financial risk protection (FRP) can be measured in multiple ways, such as cases of poverty averted, forced asset sales, or threshold measures. Equity can be analyzed across many parameters including income, gender, and region. Several members of the

ACE agreed looking at equity is useful, as current analytical models rarely do so. Further, this new methodology will be able to include greater detail about actual health systems.

The ACE noted that it is important for the economic analysis to not focus simply on the supply side, but also the demand side policies. While this is captured in ECEA, the Secretariat will make an effort to make it more explicit. The ACE also believed policy makers might find this new methodology difficult to understand and use. **The ACE recommended that ECEA be standardized as much as possible to ensure the utility of this new methodology to the users.** For example, all ECEA authors should present their results in a dashboard with separate rows for displaying the health and FRP impact of policy while at the same time providing separate columns to display equity.

Session 2: Discussion of Selected DCP3 Volumes

The nine volumes are:

	Volume Title	Tentative Publication
		Publication
1.	Disease Control Priorities	January 2016
	in Developing Countries	January 2010
2.	Reproductive, Maternal,	
	Newborn, and Child	August 2014
	Health	
3.	Child and Adolescent	May 2015
	Development	May 2015
4.	AIDS, STIs, TB, and	July/August
	Malaria	2015
5.	Cardio-metabolic and	M 2015
	Respiratory Diseases	May 2015
6.	Cancer	October 2014
7.	Environmental Health	July/August
	and Injury Prevention	2015
8.	Mental, Neurological, and	Mary 2015
	Substance Use Disorders	May 2015
9.	Essential Surgery	August 2014

Cancer - Hellen Gelband, DCP3 Editor

The Cancer volume will examine the disparities in prevalence of different cancer types between low and middle-income countries (LMICs) and high-income countries. These disparities are becoming more extreme and just as LMICs suffer the double burden of infections and non-communicable diseases, they suffer a double burden in cancer: cancers of poverty and infection that no longer affect large numbers in HICs (cervical, liver, stomach cancers), and cancers associated with the "western" lifestyle, especially tobacco-related cancers, as well as breast and colon cancers. The ACE provided valuable input into sources of information and current research

that can be used by chapter authors in this volume. One area that this volume might put more emphasis on is surgery. While there has historically been a constraint in LMICs on surgical interventions, rapid development is minimizing it. Further, the ACE stressed the importance of not looking just at cost-effective interventions but identifying cost-ineffective interventions.

Child and Adolescent Development - Don Bundy, DCP3 Editor

The Child and Adolescent Development volume will focus on development through the life cycle, early childhood development platforms for interventions and school-based platforms for interventions. DCP3 will update estimates of mortality and morbidity for older children while also identifying the constraints on child and adolescent development globally, with an emphasis on poverty and geography. Also, this volume will examine what can be done later in childhood and adolescence to secure the gain of early interventions. The ACE warmly received this outline and offered insights into sources of information that will prove useful to the chapter authors such as a forthcoming Gates Foundation study that includes 13 papers on the subject. The ACE noted that there are certain blind spots in the outline including adolescent health. Given the number of chapters, the ACE believed it prudent for the volume editors to consolidate chapters where they can, including combining the separate mortality chapters. Further, the ACE agreed that coordination is needed between the Reproductive, Maternal, Newborn and Child Health (RMNCH) volume and this one given the significant overlaps. ACE members noted that this volume has the potential to overlap with several others due to things like HIV, child labor, violence, and cancer. The DCP3 Secretariat, at this time, is more concerned with gaps than overlaps but will address these issues.

Essential Surgery - Margaret Kruk, DCP3 Editor

The Essential Surgery volume will cover essential surgical interventions relevant to the developing world. The policies and platforms section of the volume will examine the organization of essential surgical services as well as specialized surgical platforms. As with other volumes, the ACE urged that editors of this volume try to consolidate chapters. Further, the ACE recommended that the editors (and Secretariat) be clear about definitions of terms like "essential surgery" that might vary in different regional and country contexts.

Cardio-metabolic and Respiratory - Rachel Nugent, DCP3 Editor

This volume will cover all major non-communicable diseases with the exception of cancer and mental health. Along with the standard volume sections, this volume will have a complete section on risk factors for cardio-metabolic diseases. It will be carefully linked to other volumes including the cancer, child development, and mental health volumes. The volume's policy and platforms section will focus on integrated delivery for co-morbid diseases as well as innovations in health management such as e-health and community health workers. The ACE pointed to the large scope of this volume and suggested that the title might not do it justice. While there is a heavy emphasis on the cardio-metabolic aspect, there seems to only be one chapter on respiratory disease and the editors might consider including more chapters on this. Further, some chapters, such as diabetes, are left as stand-alone chapters. It is important for these to be looked at in the context of conditions such as metabolic syndrome. The ACE suggested that this volume may also be a good place to compare delivery platforms for different interventions such as blood pressure control. Many innovations that relate to this volume have less to do with interventions and are a result of health system reforms.

Session 3: Priority Setting in Health

Rwanda Minister of Health and ACE member Agnes Binagwaho gave a short talk about the importance of priority-setting in Rwanda. She presented examples of how she introduced new interventions such as HPV vaccines and expended levels of coverage by using good evidence. She will be an eager user of *DCP3* evidence.

Day Three: March 15, 2013

Session 4: ACE and IAMP Contributions to DCP3

Patrick Kelley of the IOM presented the current plan for peer review to the ACE. The proposed plan includes having two subject-matter experts review each chapter. Patrick noted the importance of finding a diverse set of experts for the reviews. The IAMP will be critical in helping to supply an adequate number of reviewers from developing countries. The ACE believed that it is important to have a mix of experts for each article, including an economist. They noted, however, that an economist would not be necessary for each chapter. Further, it will be difficult for reviewers of individual chapters to have a broader perspective of the volume. To that end, the **ACE coalesced around the idea that the best solution would be to have a panel of reviewers for each volume**. A chair of this panel could assign reviewers to each chapter based on the topic. Chapters will also have the opportunity to be reviewed by other chapter authors and the broader public through the *DCP3* website. The mechanism to do this is still being worked out by the Secretariat. It is crucial for the review process to include a check on the robustness of the analytics to avoid some of the mistakes from *DCP2*. The ACE members recommended that a formal process be put in place for chapters that do not meet reviewers' standards.

The ACE will hold its second meeting in 2014 where they will focus on a review of main *DCP3* chapters to extract policy messages. The IOM will provide a synthesis of peer reviews for this meeting to allow the members to ensure a high quality product. As a final note, the ACE expects the content of *DCP3* to be well positioned to inform the response of the global health agenda at the close of the MDG deadline.

Session 5: Communication and Dissemination

Carlos Rossel of the World Bank informed the ACE about the dissemination options for *DCP3*. The World Bank intends to disseminate *DCP3* in the same way as World Development Reports (WDR). This includes on-demand physical printing as well as online publication using an open Creative Commons attribution license. Further, the World Bank will use its online presence to market *DCP3* through social media. Mr. Rossel also presented several other options including applications for mobile devices and specialized web pages. These are being taken into consideration.

Given the structure of *DCP3*, the ACE believed there should be consideration given to how exactly the publication will be rolled out. Instead of having one major event at completion, as was the case with *DCP2* in 2006, *DCP3* should have smaller launch events for each volume to ensure a sustained impact. Branding is very important for this endeavor. A staggered dissemination will require a mechanism to ensure consistency. ACE members also

suggested that interactive tools should be used to make *DCP3* information not only accessible, but also marketable. Dynamic graphics to display *DCP3* evidence is one way this can be done. Lastly, the ACE believed media in the form of short videos could be useful for dissemination. Networks such as PBS or BBC have expressed great interest in health programing. The Secretariat is considering all options presented by the World Bank and the ACE, and will soon be developing a comprehensive communication strategy.

Session 6: ACE Executive Session

The ACE held a closed-door session to discuss their thoughts on the entire *DCP3* enterprise. In their report to the Secretariat, they focused on six areas:

- Purpose
- Content
- Methods
- Peer Review
- Dissemination
- Evaluation

For a full report of the ACE Executive Session, see the attached note from Anne Mills.

Appendix: Report from Anne Mills, ACE Chairperson

1. Introduction

This report summarizes the views of the ACE following its first meeting, from 13-15 March 2013. The ACE expressed its enthusiasm for the *DCP3* enterprise, and affirmed the importance of what it is seeking to do. It was pleased at the progress that has been made in mapping out the volumes and chapters, recruiting authors, and discussing the production process. Its comments below are intended to be constructive comments designed to strengthen the overall product and process.

2. Purpose

The ACE felt that there could be greater clarification about the overall purpose of *DCP3*. Its title, and expressed intention, was to influence decision making and yet there was a risk that the product might be overly academic. Paying greater attention to how policy messages might emerge from each volume and from the set of volumes would be important. This also would mean giving sufficient attention to how the specific interventions considered would be grouped together as packages and platforms, and scaled up.

3. Content

The ACE felt that there was a risk that the academic interests of authors might have excessive influence on the chapter structure. It should be constantly remembered that *DCP3* is not an Encyclopedia. In consonance with the book title, prioritization of subject matter would be critical. Planned chapters should be consolidated to the extent possible both for reasons of coherence and to help make the production task manageable.

The CEA should be pushed beyond analysis of individual intervention and policy instruments to evaluation of intervention mixes and packages, though it is recognized that the limited evidence base may make this very difficult.

For the chapters to feel relevant to regional and country level users, it will be important to ensure that country and regional data are extensively quoted throughout the volumes.

Chapters should be explicit on what investments do not make sense as well as what should be priorities.

Specific areas that the ACE felt need greater emphasis include public health and prevention, diagnosis, and zoonoses.

Volume 1 is critical and will demand substantial time to produce. It should include the summary results of the analyses of cost effectiveness of interventions, packages and policy instruments, scaling up and platform issues, and clear messages on priorities including interventions and services that are not cost effective or evidence based. These messages should be adapted to differing contexts and audiences.

4. Methods

The ACE welcomes the methodological innovations intended in *DCP3*. However they emphasized that the rigor with which the methods are applied will be critical. *DCP3* editors need to provide guidance to authors on costing methods and on quality criteria for reviewing literature, to ensure consistency across chapters and volumes. They should be explicit on what guidance it is following for CEA methods, and the extended CEA method should be clearly explained and consistently applied.

5. Peer Review

The ACE strongly recommends the discussed panel approach to peer review, with panels of experts put together to review each volume. This would permit inclusion of the appropriate regional and disciplinary (epidemiology, economics, social science, implementation science) experience. Preferably a few of the reviewers should review the entire volume (as well as 1-2 economists, for example, reviewing the economics content); in any case there would be a case for reviewers to be allocated more than one chapter. The specific approach to reviews would need to be tailored to each volume and its specific needs.

6. Dissemination

The ACE welcomes the thought that is beginning to be given to communication and dissemination. It strongly encourages the editors and secretariat to develop a clear communications plan, and a process of dissemination including development of materials for different audiences. Translation of the main overview and summary materials into key languages would be critical. The ACE suggested that funding for launches might be better spent in employing more of a workshop format to launches, so that both experts and decision makers could be involved and there would be plenty of opportunity to discuss the tailoring of messages to country circumstances. The ACE agreed with the idea of a rolling program with a final event, and recommends ensuring workshops take place in critical countries.

7. Evaluation

Discussion on what could be learnt from *DCP2* highlighted the value of making sure that learning is documented from *DCP3*, to inform a potential *DCP4*. Care should be taken to document processes and experiences. In addition, a plan should be developed to evaluate the direct and indirect impact of *DCP3*.

8. Budget

The ACE expressed a desire to see the *DCP3* budget, in order to inform its recommendations. Of particular interest was the budget for dissemination and whether it would be sufficient for the activities suggested.

9. Conclusions

The ACE expresses its thanks for the hospitality of the IOM and the support of the IAMP, and looks forward to further interaction over the life of *DCP3*. ACE members were requested to let

the secretariat know with which volume(s) they would like to be associated, as well as whether there is any specific activity (such as development of a communications plan) that they would like to support further.

Anne Mills Chair