



HOW IS RESEARCH KNOWLEDGE TRANSLATED INTO POLICIES?

FINDINGS FROM STUDIES OF PRE-ECLAMPSIA/ECLAMPSIA TREATMENT AND MALARIA CONTROL IN MOZAMBIQUE, SOUTH AFRICA AND ZIMBABWE

KEY FINDINGS REGARDING UPTAKE OF RESEARCH FINDINGS INTO POLICIES IN MOZAMBIQUE, SOUTH AFRICA AND ZIMBABWE

- Research uptake is contextually sensitive:
 - ♦ How and when issues reached the policy agenda influenced demand for particular types of research information.
 - ♦ Different forms of research were seen as important in relation to different questions and contexts.
- Researchers often worked closely with policy makers at different levels and took on policy development roles.
- Key individuals, and the local, regional and international networks they established and participated in, were important in (i) producing and mobilising evidence; (ii) promoting particular policy agendas; (iii) driving interactions between the research and policy communities; (iv) promoting policy development; and (v) shaping approaches to evidence.
- Where research information was not promoted by one or more interest group/s, it was less likely to be taken up into decision making. Researchers therefore need to acknowledge the role of interest groups in facilitating uptake of evidence.



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INTRODUCTION

Low- and middle-income countries (LMICs) often face scarcity of resources and high disease burdens. Research has identified effective and affordable interventions for many of the health problems in these countries (WHO, 2002). Decisions made on the basis of research evidence may not be only cost saving (Garner *et al.*, 1998) but also life saving (Volmink *et al.*, 2004). Often, however, effective interventions are not translated into national policy or are not implemented. For example, in many settings magnesium sulphate ($MgSO_4$) is not recommended nor available for treatment of eclampsia and pre-eclampsia, despite being the most effective intervention (Aaserud *et al.*, 2005).

For many other health issues clear evidence is not available on the most effective and appropriate interventions. Here the scaling up of interventions may be more problematic, and policy makers may need to make judgements on applicability of the

available evidence to particular settings. How they weigh up different types of evidence in making such decisions is not clearly understood.

Few studies have explored the research-policy making relationship within LMICs (Innvaer *et al.*, 2002). Using a case study approach, this project examined the translation of knowledge from randomised controlled trials (RCTs) into health policy making in three such countries: Mozambique, South Africa and Zimbabwe. The case studies explored policies for two health interventions: $MgSO_4$ for the treatment of pre-eclampsia/eclampsia among pregnant women, and insecticide-treated bed nets (ITNs) and indoor residual spraying (IRS) for malaria control. Qualitative research methods were used, including a literature and policy document review, a timeline of key events, and collection and analysis of interviews with key informants (academics, health policy makers, health managers) in each country.

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WHAT IS KNOWLEDGE TRANSLATION?

Knowledge translation involves “The exchange, synthesis, and effective communication of reliable and relevant research results. The focus is on promoting interaction among the producers and users of research, removing the barriers to research use, and tailoring information to different target audiences so that effective interventions are used more widely.” (WHO, 2004, page 140).

WHY WERE THESE CASES SELECTED FOR STUDY?

Case study 1: MgSO₄ for the treatment of pre-eclampsia/eclampsia among pregnant women

Pre-eclampsia and eclampsia are important contributors to maternal and infant morbidity and mortality in LMICs (WHO, 1988). Strong evidence is available showing the effectiveness of MgSO₄ for treatment of women with eclampsia and pre-eclampsia (Duley *et al.*, 2003a; 2003b; 2003c). However, there is concern that this safe, inexpensive drug is still not used widely in many countries (Aaserud, *et al.*, 2005). Many women could benefit from these RCT results, provided they are scaled up into appropriate policies and actions.

Case study 2: ITNs and IRS for malaria control

Malaria remains a major contributor to the burden of disease in many LMICs (WHO, 2002). Trials have demonstrated the effectiveness of ITNs in reducing malaria incidence in endemic regions (Lengeler, 2003). However, there are still controversies regarding the relative effectiveness of ITN programmes compared to traditional household IRS (Curtis & Mnzava, 2000; Lengeler, 2001). Decision-makers need to assess these uncertainties in developing policies and scaling up interventions for malaria control.

FINDINGS

Across all three settings, the findings highlight the complexity of the relationship between research findings and policy making. The process and extent of research use varied enormously between countries. Key lessons are summarised below.

- **Is the health issue recognised as one requiring action?**
For research to be utilised in policy, the issue addressed by the research first needed to be recognised as a policy problem and placed on the policy-making agenda. For example, in South Africa key strategies for malaria control were seen to be working well and thus significant policy changes were not seen as necessary.
- **Openness to findings from research**
Policy makers’ openness to new ideas influenced the extent to which they would consider research findings on particular topics. This in turn was influenced by the extent to which a ‘culture of research’ existed among both policy makers and influential local academics.
- **What constitutes evidence and when should it be used?**
Networks of researchers appeared to develop particular viewpoints on what constituted ‘useful’ and ‘rigorous’ research. For some, scientific evidence was considered to be much broader than RCTs and included surveillance data and operational research. Furthermore, the policy implications of research were seen as clearer in some circumstances than others, e.g. evidence from RCTs of the effectiveness of MgSO₄ in treating eclampsia is very robust compared to that available for many other maternal health problems, making it apparent that the drug is the treatment of choice for this condition.
- **Familiarity with key evidence among local policy makers**
For the case studies examined, knowledge of local and international research was high across the study settings, although willingness to accept and implement the evidence varied among policy makers.
- **Whose evidence?**
Where and by whom evidence was produced influenced its uptake and perceptions of its trustworthiness. Concerns were raised regarding applicability of research

conducted in other settings. For example, respondents questioned how they could apply findings from malaria control intervention studies conducted in settings with different malaria transmission patterns. In these cases, local research and experience were seen as more useful in informing policy. In contrast, research findings regarding the use of MgSO₄ for the treatment of eclampsia were seen as relevant since influential local research institutions were involved in key international multi-centre RCTs.



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- **Role of research and policy networks**
Networks at local, regional and international levels were important in influencing research agendas, research capacity and uptake of research findings. These networks undertook research, assisted policy makers in interpreting evidence, and introduced new ideas and concepts (e.g. with regard to evidence-based practice).
- **Influence of interest groups**
A range of interest groups were involved in the policy making process, contributing to its complexity, particularly if the health issue was seen to have a high political profile. For example, in the case of policy making for malaria control, national political leadership comprised a key interest group as did environmental NGOs in one setting. Donors and bilateral organisations were also often important in country-level decision making.
- **Role of opinion leaders**
Individuals or small groups of ‘policy entrepreneurs’ were important in placing issues on the policy agenda, translating research into policy, and developing a culture of research in local institutions. Their view of what constituted ‘best evidence’ was important, but did not always encompass RCTs. Such local champions appeared to be necessary but not sufficient to get research evidence into policy making. Their role was enhanced where they were in positions where they could influence policy decisions. In the study contexts, the distinction between researchers and policy makers was often blurred. Due to limited human resource capacity, many researchers had either worked in government or advised on policy-making bodies.
- **Feasibility of implementation**
In discussing the issue of scaling up, respondents noted that evidence may be valid but not practical, feasible or applicable in the local setting, or not pertinent to local problems. For example, using MgSO₄ to treat eclampsia requires training. The extent to which evidence concurred with existing practice was also important in policy making and implementation.

CONCLUSIONS

The World Health Organization has noted that “Stronger emphasis should be placed on translating knowledge into action to improve public health by bridging the gap between what is known and what is actually being done.” (WHO, 2004, page xv). Translating research knowledge into policy and practice is a more complex and context sensitive process than simply producing the evidence. Researchers who are keen to increase the uptake of their research results into policy need to be aware of factors influencing the demand for different types of research; work closely with key stakeholders and networks; and acknowledge the roles of important interest groups.

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