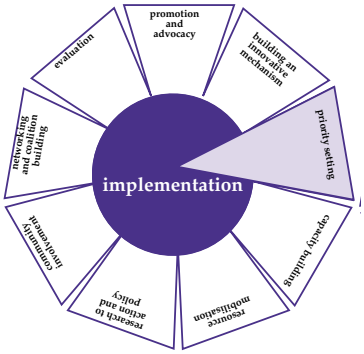

Learning Brief

No. 2002/4

How should public money be spent?

The case of health research in Tanzania

Introduction

In recent years COHRED has supported a number of countries to develop their health research agenda. While the methods and approaches for priority setting for health research have progressed and now provide a strong tool for country teams embarking on an initial priority setting exercise, the implementation of national agendas has in many instances remained weak. The publication *'Health Research in Tanzania: How should public money be spent?'* provides concrete suggestions for this implementation phase.[1] This learning brief summarises the main suggestions and opportunities and is intended to provide discussion material for country teams who are at the stage of implementing a research agenda[a]. The publication and this learning brief use Tanzania as an example, but the same principle could be applied in many other settings.

The Tanzanian example

Even more than rich economies, Tanzania cannot afford to waste its scarce resources and must ensure that public funds spent on health research lead to better health for its people. In 1999, the National Forum on Health Research conducted a process of priority setting for health research, which established a ranked list of topics regarded as most important for Tanzania. The challenge afterwards was to translate that broad research agenda into a plan of action. Maximising the value of health research requires that resources be allocated to projects that yield the greatest expected benefit. This benefit can be defined as: [the returns to each project under ideal conditions] x [the probability that each study will be successfully implemented]. Thus, even if resources are allocated to those projects ranked highest, benefits can be expected to materialise only if the research is implemented efficiently. Essentially, maximising the value of health research involves two steps:

- Define an investment portfolio of research expected to produce greatest benefit within budget constraints
- Ensure that the research is implemented most efficiently.

Step 1
Defining the investment portfolio

Where should investments be made?

The priority setting process conducted in 1999 defined and ranked the priorities given in the table. Analyses of the priority setting process showed that a high level of agreement was achieved, among the participants of the national priority setting workshop, on the main diseases causing morbidity and mortality in Tanzania. It clearly defined the *scope* of a public investment portfolio in terms of the health problems to be addressed. The participants did not reach the same level of consensus on health service and socio-cultural priorities. This probably reflects the wider variation of conditions across the country, and suggests that a local, context-specific approach may be more effective in setting a corresponding research agenda.

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a For more detailed information about the methods used in defining the investment portfolio please refer to the full publication.

Table: National health research priorities for Tanzania, as defined by participants in the priority setting meeting (1999)

Diseases and injury	Delivery problems	Socio-cultural determinants
1. Malaria 2. Upper respiratory tract infection 3. Diarrhoeal diseases 4. Pneumonia 5. Intestinal worms 6. Eye infections 7. Skin infections 8. Sexually transmitted infections 9. Anaemia 10. Trauma/accidents 11. Bilharzia 12. TB/HIV	1. Poorly trained personnel 2. Lack of equipment & drugs 3. Lack of transport for supervision & distribution 4. Allocation of funds for preventive services 5. Low impact of health education 6. Impassable roads 7. Poor building maintenance 8. Inadequate water supply 9. Poor environmental sanitation 10. Too few health facilities	1. Food taboos in pregnancy 2. Poor latrine usage 3. Poverty linked to individual behavior 4. Polygamy 5. Ignorance and high illiteracy 6. Gender inequality 7. Witchcraft 8. Inheritance of widows 9. Low acceptance of family planning methods and high fertility 10. Use of local herbs

What type of investment 'instruments' (R&D) should be used?

The Ad Hoc Committee on Health Research (1996) argued that diseases persist for one or more of the following reasons:

- Knowledge of disease process and causes is inadequate; or
- Existing 'tools' or interventions are inadequate; or
- Existing tools are not used efficiently.

The R&D instruments suggested that best respond to these inadequacies are:

- Develop new interventions
- Improve cost-effectiveness by adapting existing interventions
- Improve efficiency of the utilisation of an existing intervention.

A fourth instrument can be added, namely to achieve greater equity in resource allocation. In low-income countries like Tanzania, strategies to achieve greater efficiency and equity in resource allocation will almost inevitably be one and the same. In the absence of an explicit agenda for equity however, resources will continue to be allocated inefficiently as the true problems of the poor are often neglected.

Analysis of the outcomes of the priority setting workshop showed that participants agreed to place emphasis on strategies that achieve greater equity in resource allocation and that improve efficiency of resource use. They identified and ranked research topics expected to achieve greatest improvements in health status.

The National Forum on Health Research should now decide on how prescriptive it intends to be in framing the research portfolio. Detailing a specific research agenda, yet retaining the flexibility to fund researcher-initiated projects seems to be the most practical way of maximising public returns while enabling researchers to accrue personal benefits as well. In the short – to medium-term, the national portfolio may play a more limited role, but can still be an important instrument in negotiations with donors.

Although a number of national research studies were identified to address service delivery problems and socio-cultural determinants of health, much of the research efforts should be tailored directly to local needs and realities. For this reason, it is not possible to develop a definitive research agenda for these components of the overall portfolio, and a national mechanism should be established for supporting locally initiated research.

How much public money should go into each R&D instrument?

The research portfolio established through the priority setting process needs to be translated into an investment portfolio that responds to new opportunities as they emerge, is cognisant of budget constraints, and takes existing funding commitments into account.

The following tasks need to be conducted:

- Estimate the direct cost of each project addressing the priorities identified.
- Estimate the 'cut-off point' for an investment portfolio that stays within the budget. Instead of a rigid cut-off point, it would be preferable to identify a zone of research options with similar expected benefit for which the actual investment decision is based on practical considerations.
- 'Topslice' for indirect costs of research - to provide baseline institutional funding.
- Allocate investments to priorities.
- Establish revenue centers for direct health research expenses.
- Monitor the allocation of investment

It needs to be kept in mind that without costing, the research agenda identified through priority setting remains a 'wish-list'. Without understanding financing flows, there is no way of determining whether resources are gradually being aligned with national priorities. But once the direct costs of individual projects have been estimated, it is possible to more or less circumscribe the range of feasible options.

Step 2 - Ensure implementation of portfolio

The National Forum on Health Research will play a central role in ensuring that the investment portfolio is implemented efficiently by:

- enhancing research outputs; and
- reducing the costs of research.

Strategies to stimulate a demand for research do not receive as much attention as efforts to increase supply, yet hold the key to substantial efficiency gains. Supply-side strategies tend to focus on building up new resources, but more could be done to allocate existing resources better. Improving efficiency will require the research leadership to adopt a less custodial and more entrepreneurial role in using resources for R&D.

The major transaction costs in Tanzania are incurred in communicating information. Although this is partly due to infra-structural difficulties and international isolation, many of the costs are self-imposed through inadequate interaction within the country. The potential exists for current outputs to be dramatically boosted through new learning partnerships.

Opportunities

There are good opportunities to realise greater returns from the current levels of investment in health research.

First, there are clear gaps in the present national investment portfolio, both in terms of the scope of funding and the type of R&D instruments employed in addressing priorities. Filling these gaps will improve efficiency of allocation of research funds. With respect to R&D instruments, there is an obvious need for more operational research aimed at improving technical efficiency and achieving greater equity in resource allocation. The National Forum on Health Research will need to encourage researchers to respond to deficiencies in the current R&D portfolio. The right motivation will be one in which the individual's share of collective benefits exceeds the personal gains of working alone. This may be achieved by preserving the typical rewards of science such as peer-recognition, supplemented with other incentives such as better access to new information through collaboration.

Second, there is no sustained national program to improve equity of resource

allocation and efficient use of existing tools at local level. A program of district-based problem solving, sharing knowledge and learning from each other would not only fill in some of the gaps in the spatial distribution of research, but may also increase returns to R&D by stimulating demand across the country. Research should be locally initiated as part of each district's development plans, and should form part of a multi-pronged process of support to improve service delivery. Lessons learned should be actively shared across the country, and proactive national leadership is required to make this happen.

Third, communication is constrained by tangible deficiencies in infrastructure, as well as by invisible barriers between research organisations. Dismantling these barriers could boost R&D outputs and reduce transaction costs. A practical place to start is for the National Forum on Health Research to agree on a few common outputs, including a series of learning briefs distributed regularly to every district in the country and an annual review of progress in addressing disease priorities.

Conclusion

Tanzania faces daunting pressures to overcome poverty and improve health. In this context, health research can only be justified if it leads to better health. For the majority of people, the research that could make the biggest difference is practical problem-solving – helping districts to get more out of their budget allocations by improving efficiency and targeting resources to those most in need. Contributing to new product development and finding cost-effective applications for efficacious interventions are important objectives, sustainable through prevailing incentives. Designing additional incentives to fill obvious gaps will not jeopardise existing research disciplines, and should in time stimulate the overall demand for research.

Reference

1. David Harrison (2000) *Health Research in Tanzania: How Should Public Money be Spent?* COHRED, document 2000.9
2. World Health Organization, Ad Hoc Committee on Health Research Relating to Future Intervention Options (1996) *Investing in Health Research and Development*. Geneva (Document TDR/Gen/96.1)

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COHRED

11, Rue de Cornavin
1201 Geneva
Switzerland

Phone: +41 22 591 8900
Fax: +41 22 591 8910

Email: cohred@cohred.ch
Website: http://www.cohred.ch

Designed by the Press Gang, Durban (pressg@iafrica.com)