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Essential National Health Research and Priority Setting : Lessons Learned

Council on Health Research for Development
(COHRED)

Essential National Health Research and Priority Setting: Lessons Learned

Council on Health Research for Development
(**COHRED**)
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In 1996 the COHRED Board recommended the establishment of a Task Force on ENHR Competencies, with Mary Ann Lansang, Board member, as its chairperson. This publication is the first in a series on 'ENHR Competencies.' It is the outcome of discussions at the COHRED Workshop on Research Priority Setting held on 13–15 February 1997, in Manila, the Philippines. The contributions from workshop participants were integrated and synthesised by M.A. Lansang. The cover design and the desk-top publishing are by Hannelore Polanka, Information Assistant, COHRED.

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Foreword

Priority setting is an important process needed in the management of a country's health research, in particular in allocating its often limited human and financial resources. Basic information and analytical capacity must be combined with sound reasoning and judgement in order to create a rational basis for priority setting. This is crucial to the pursuit of Essential National Health Research (ENHR) by countries. Consequently, setting priorities in health research is a basic step in a country's ENHR development.

Experiences in priority setting continue to accumulate worldwide. While the conceptual framework of priority setting, its perspectives and its practice may differ from country to country, its impact is common to all — it is guiding them in planning their health research programmes, in mobilising and allocating their research resources and in strengthening local research capacity.

However, to date, the information on these country experiences has not been reviewed and analysed in a systematic way. It is for this reason that the COHRED Board set up a Task Force to examine those experiences and to propose improved approaches and methods for priority setting, approaches that have as their basis COHRED's overriding goal of equity in health research for development.

It is hoped that the different stakeholders at district, national and global levels will benefit from this publication in that it will encourage them to enter into a scientific and systematic process of collaboration — transparent in nature and driven by a genuine concern for people's values and felt needs.

It is for this reason that I am very pleased to present this publication, and I am confident that it will contribute to a continued dialogue on the important issue of priority setting.

For the COHRED Board

CHARAS SUWANWELA, M.D., Chair

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EXECUTIVE SUMMARY

Essential National Health Research and Priority Setting: Lessons Learned

> *Any process designed to set priorities should not lose sight of the fundamental questions: whose voices are heard, whose views prevail and thus, whose health interests are advanced.*
>
> *— Commission on Health Research for Development, 1990 —*

The health interests of developing countries have not been advanced enough. The proportion of global health R&D funds directed to health problems of developing countries has not increased, despite the overwhelming disease burden in these countries. The inequity calls for affirmative action by and for developing countries. A powerful strategy, as recommended by the Commission on Health Research for Development, is Essential National Health Research (ENHR).

Many countries have responded to the Commission's challenge by setting priorities for health research, a basic strategy for ENHR development. The competency to set priorities can be enhanced by learning from these previous country experiences and developing a systematic approach. This monograph reviews the past and proposes improved priority-setting processes for the future. There have been many valuable lessons:

First, it is possible to draw together different stakeholders for consultation, dialogue, and decision-making. Broad-based participation of various groups has characterised many of the processes related to ENHR.

However, more substantive participation is needed, particularly from representatives of communities, policy-makers, and the private health sector, through systematic methods of information gathering and consensus building. Representative and informed bodies from developing countries should strive for complementary partnerships with international organisations and donor agencies.

Second, health situation analysis is integral to rational priority-setting. However, the analytic framework cannot focus only on new knowledge, new quantitative measures, or new technology. Scientific advances on the supply side of health must be balanced with the demand side: analyses of health needs, people's expectations and societal trends.

Third, priority setting, by its very nature, is also a political process. Countries should balance the 'rigorous' with the 'spontaneous,' but maintain transparency and clear accountability in the process. This can be achieved through inclusiveness and mutual respect, a common understanding of criteria, consensus on the selection process, and skilful synthesis and specification of research priorities. Because of the dynamic and changing nature of health and disease situations, iteration and flexibility must be built into the process through periodic monitoring and review of the research agenda.

Thus, based on the ENHR framework, health research priority setting is an interative process of systematic and scientific assessments of health status, health systems and health research systems, together with systematic and scientific analyses of user demands, felt needs and values.

Fourth, vigorous and creative dissemination and implementation of well-formulated national research agendas are essential at both the country and global levels. Countries themselves must recognise that allocation of local resources is integral to true ownership of the process. Global agencies, on the other hand, should pay closer attention to the research priorities and capability-strengthening needs of countries. Narrowly focused international thrusts, no matter how technologically sound, may potentially divert attention and resources away from national or sub-national interests.

Fifth, inclusiveness and participation of all stakeholders are as important at the global level as at the national level. Through these interactions, new mechanisms should be created to address issues relevant to the global and the national interface, such as: monitoring and reallocation of health R&D funds at the global and national levels; intellectual property management; the brain drain; and long-term subsidies or negotiated contracts for social pricing of biomedical products.

The ‘upward synthesis’ of national research priorities to the global level is an achievable but still elusive goal. This can only be realised with more systematic and credible priority-setting exercises, subsequent articulation at the global round-table, and careful analysis and synthesis of national outputs.

Ultimately, the foundation for the global health research agenda lies on a solid investment in developing countries and their people: increasing the internal capacity of different stakeholders to analyse their own health problems and needs, to set priorities, to generate resources, and to participate nationally and globally in the design, implementation and evaluation of research and health programmes. This is the road, through health research, to equity in development. It remains a global challenge — and our goal.

INTRODUCTION

Mary Ann Lansang

In 1990, the Commission on Health Research for Development urged developing countries to undertake essential national health research (ENHR) as a powerful means towards equitable health and development. It further linked ENHR not only as a means to achieve the health of the public, but also to increase economic gains of a country through a more productive populace.[1] Since then, many countries have responded to this challenge by setting national priorities for health research and implementing various ENHR strategies, according to their particular circumstances.

A review of nine such countries indicated an evolving pattern of priority setting:[2]

- inclusiveness in participation (decision-makers, health service providers, researchers and community representatives)
- broad-based consultations through national and sub-national workshops as well as focus group discussions
- use of both quantitative and qualitative information
- stewardship by a small working group or technical committee.

On the other hand, the use of criteria for priority setting varied from country to country. This ranged from the absence of explicit criteria to a long list of criteria, such as: burden of illness; urgency; perceived demand; extent of previous research; technical, economic, political and cultural feasibility; relevance to the national health plan; and expected impact of proposed interventions. Where there were criteria, few countries had explicit guidelines on how to apply them. In addition, most countries did not specify who developed the criteria, nor on what objective and ethical bases decisions were made.

These country experiences need to be reviewed and improved in order to systematically guide current and future country efforts in developing and implementing their research agenda. Countries should also advance their experiences and needs to the international health arena to inform and actively participate in global health research agenda setting.

This handbook draws on the experiences of countries that have used the ENHR strategy to define their research priorities. Effective aspects of previous efforts have been identified, while weak areas have been strengthened in order to provide guidelines that can assist countries to develop, articulate and implement their own research agenda.

World Developments in Health R&D

Important events on the global health scene in the past five years have had, and will continue to have, a major influence on health resource allocations at the global and country levels. Few developing countries and ministers of health are unaware of the World Bank's 1993 World Development Report, *Investing in Health*, and of the debate on disability-adjusted life years (DALYs) as a primary basis for priority setting. A tide of major health sector reforms is under way in many countries, with the private-public mix of health services, health financing and decentralisation as central issues.

In the field of health research, a major offshoot of the WDR '93 has been the report, *Investing in Health Research and Development,* released in 1996 by the World Health Organization's Ad Hoc Committee on Health Research Relating to Future Intervention Options. A five-step process of priority setting was proposed, focusing on the burden of disease and the cost-effectiveness of potential or available interventions as primary decision tools. A global mechanism has been proposed to implement and monitor initiatives arising out of the Ad Hoc Committee's report. On the other hand, in support of the renewed Health-for-All programme of the World Health Organization (WHO), the Advisory Committee for Health Research has embarked on PLANET HERES (which stands for Planning Network for Health Research). This is an integrated tool that makes use of computational logic and visualisation techniques, among others, to inform research priority setting and resource allocation.

These proposals and recommendations have taken place in the context of a shrinking source of health R&D funds devoted to the health problems of developing countries. Already at a low 5% of the global R&D investment in 1986, this further dropped to 4.4% in 1992[3],[4] In contrast, the disease burden in developing countries comprised 88.3% of the global burden in 1990.[5]

Amidst these developments on the global scene, the countries themselves must take stock of what is 'essential,' i.e., health research that countries cannot do without if they are to pursue health for their own people. There will never be enough resources to address all the people's health needs, especially in developing countries. Focusing on essential research leads to better use of available resources for health and, ultimately, to more health gains per dollar spent. Better health for a greater number, in turn, leads to higher productivity and more equitable economic development.

Using the ENHR Strategy

The Council on Health Research for Development (COHRED) was created in March 1993 as a long-term mechanism for carrying on the work of the Commission and its successor, the Task Force on Health Research for Development. In 1996, the COHRED Board requested an interim assessment of the ENHR process and of COHRED's contribution to that process. An external evaluation team strongly recommended that, to bring ENHR closer to the goal of equity in development, COHRED should 'capture the available expertise' on ENHR competencies and develop these further as effective and feasible tools to promote the ENHR strategy.[6] Foremost among the competencies needed by developing countries are systematic approaches to research priority setting.

Although some literature on priority setting exists, the frequent complaint of developing country users is that the current priority-setting tools are difficult to understand, much less translate into practical operational steps. This handbook aims to narrow this gap by helping countries to put priority-setting principles and methods into practice.

The following gains are envisioned by strengthening developing countries' capacity for priority setting, using the ENHR strategy:

- assists countries to organise and manage health research in the light of the limited resources and the fragmentation, duplication and information asymmetry in health research today;
- informs resource allocation at the sub-national and national levels;
- identifies areas for research capacity strengthening;
- promotes social accountability, ownership and shared responsibility in implementing the research agenda;
- enhances the national contribution to global research priority setting and action;
- helps to correct imbalances in North-South partnerships and interactions.

Indeed much of global health action occurs at the national level, and the key to stronger international health leadership from the South is the strengthening of essential health research capacity at the national and sub-national levels.

The guidelines proposed in this report are based on a framework illustrated in **Figure 1–1**. This framework has as its goal equity in health and development. 'Demand-side' thinking is its primary underlying philosophy, focusing on an analysis of health needs, people's expectations and societal trends, in contrast to 'supply-side' thinking alone, with its focus on new knowledge and new technology. Thus the processes promoted in the guidelines are inclusive, participatory, dynamic and interactive in nature. They also feature the multi-layer and multi-dimensional involvement of different stakeholders.

This level of flexibility in the proposed priority-setting process may be disconcerting to many who favour predominantly supply-side approaches. However, it is in the context of reality that countries must make hard decisions on research priorities and resource allocations. Nevertheless a systematic process is possible. Based on the ENHR framework, this is an iterative process of systematic and scientific assessments of health status, health systems and health research systems, together with systematic and scientific analyses of user demands, felt needs and values, with the objective of setting priorities for health research in a given setting.

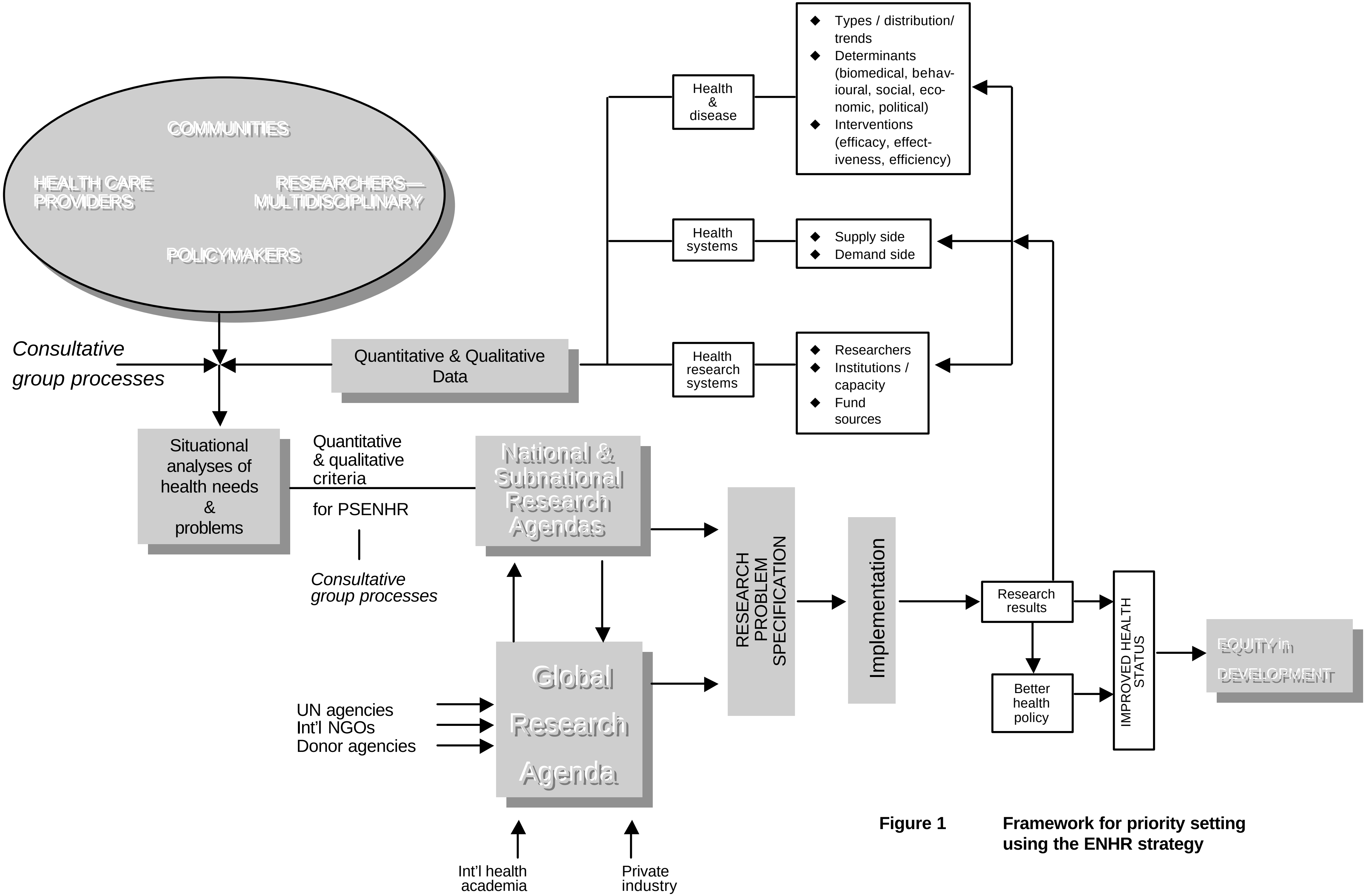

Figure 1 **Framework for priority setting using the ENHR strategy**

References

[1] ENHR has been described as 'an integrated strategy for organising and managing research, ... whose goal is to promote health and development on the basis of equity and social justice... [through] the use of scientific methods to analyse health situations, identify problems, and solve them.' ENHR includes: (1) country-specific health research to address local health problems with tools and solutions appropriate to the local situation, and (2) global health research, which is done by different countries, both developing and developed, in order to contribute new insights and technologies for shared health problems. From: Task Force on Health Research for Development. A Strategy for Action in Health and Human Development. Geneva, Switzerland; 1991.

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[3] Commission on Health Research for Development. *HEALTH RESEARCH: Essential Link to Equity in Development*. New York: Oxford University Press; 1990.

[4] Michaud C, Murray CJL. Resources for health research and development in 1992: a global overview. In: Ad Hoc Committee on Health Research Relating to Future Intervention Options. Investing in health research and development. Geneva: World Health Organization; 1996, pp. 213-34.

[5] Murray CJL, Lopez AD. Global patterns of cause of death and burden of disease in 1990, with projections to 2020. In: Ad Hoc Committee on Health Research Relating to Future Intervention Options. Investing in health research and development. Geneva: World Health Organization; 1996, pp. 133-85

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[6] Examples of these competencies are: advocacy skills, political mapping, skills for facilitating community participation, methods for priority setting, preparation of research protocols, research project management, leadership development, networking skills, resource mobilisation and evaluation skills. From: Neufeld VN, Dlamini QQ, Tan-Torres T, Pruzanski M. The Next Step: An Interim Assessment of ENHR and COHRED. Geneva, Switzerland: Council on Health Research for Development; 1996.

INFORMATION FOR SETTING PRIORITIES IN ENHR

Stephen Tollman

This section aims to provide a conceptual map of the kinds of information that are relevant to the process of setting priorities using an ENHR approach. It does not offer a comprehensive list of all possible sources of information. This can be sought in a range of specialist texts and journals, and would detract from the focus presented here.

Three principles underlie this section:

1. **Information is essential**.

In other words, our priority-setting decisions must be made on the basis of the best, currently available information. As ENHR practitioners, we need to encourage those involved in the ENHR process to access, interpret and use it.

2. **Information exists in a context**.

Information is often <u>locally-specific</u>. Also, there may be differences in the information needed to set priorities at the local or district level, in contrast to the provincial or national level, and to the regional or global level.

3. **Information should address issues of equity**.

Since ENHR has a particular concern with the vulnerable and disadvantaged, the information should allow us to better understand, examine and act on their condition.

Situation Analysis

Priority setting is not a one-off event; it is an iterative process[1] where each step is informed by results from the one that came before. To establish an effective priority-setting process, a 'situation analysis' — or stock-taking exercise — is critical. The situation analysis assists the understanding of all who are participating, provides a picture of the current state of affairs (often different from the expectations of stakeholders), and lays a foundation for the judgements and decisions that lie at the heart of priority setting.

Careful preparatory work is therefore important and will amply repay the effort as the process of priority setting gets under way.

Aspects to cover

There is no single correct way to undertake the situation analysis. However, a systematic approach, using three broad categories: health status, the health care system and the health research system, is recommended:—

1. Health status

Information on health status draws on all available information to describe the state of health, the main health problems and the common diseases affecting a country (the national level), a province or a district (sub-national levels). It may be important to single out diseases which are not so common but have very serious consequences. Or to focus on a particularly disadvantaged group, for example, people living in a slum settlement, remote village or refugee camp.

It is also important to find out what is known about the risk factors (or determinants) of leading health problems. High blood pressure is a well-known risk factor for stroke; malnutrition for childhood infection; overcrowding for tuberculosis; indoor coal-burning fires are a risk factor for respiratory infection.

The objective is to generate descriptive information on the *type, distribution and trends in disease*, paying attention to such issues as geography, income and social class, gender and age-group (e.g., infants, adolescents or elderly). Similarly, it is important to identify, where possible, the risk factors involved.

Such information can come from a range of sources, for example:

- vital registration systems
- special surveys
- clinic, health centre or hospital records
- informed opinion — expert or lay

Do not rely on the health service alone for this kind of information. Other government offices, e.g., education, agriculture or local government, or university groups, NGOs or even private companies, may be able to provide highly relevant information.

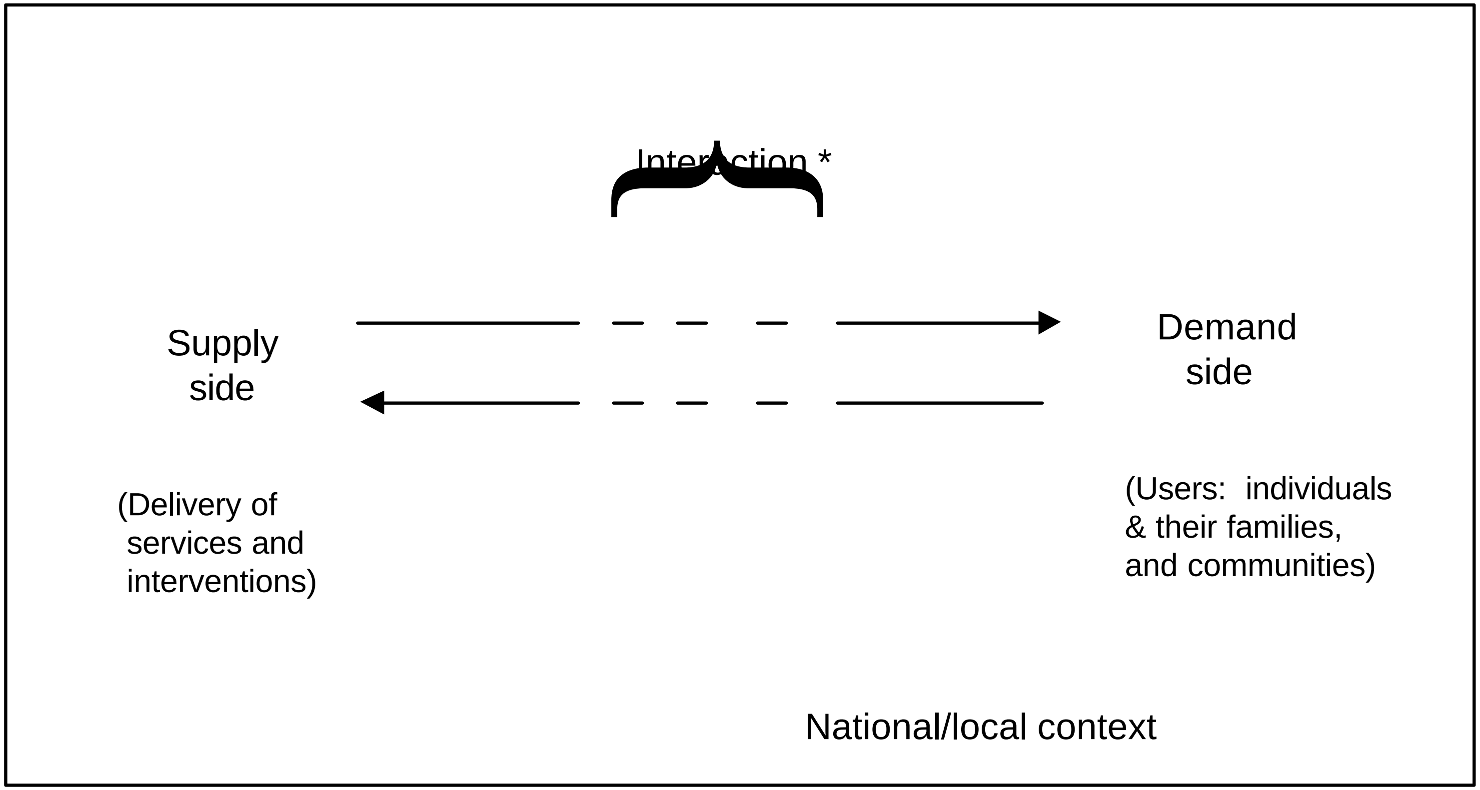
The objective is to 'tell it like it is,' using information from any source available. In virtually every situation, enough is known to build up a picture of the health status of the people. The point is to embark on the exercise without delay. Doing it has the further value of helping to identify gaps in knowledge — which can be filled as the ENHR process evolves.

2. The health care system

It is necessary to describe the current status of the health care system, since this is the mechanism — through the personnel, health programmes and facilities — that is responsible for delivering care. Information on deficiencies in the health care system, for example, problematic attitudes among staff, poorly functioning surgical equipment, lack of emergency transport or poor prescribing practices, are all relevant to developing an ENHR programme.[2]

It is not enough to simply identify the problem. It is also important to describe the problem: how long it has existed, who is affected by it, whether attempts to improve it have failed, etc. This will influence whether the problem is, in the end, ranked as a priority by participants in the ENHR process.

These comments refer to the 'supply side' of the health care system. There is also a 'demand side' made up of the users of the service: individuals, families and communities (see **Figure 2–1**). The situation analysis should consider the users of particular services (for example, well-baby clinics, contraceptive services, antenatal care, chronic disease clinics, etc.) as research may be needed to better understand who does or does not use a service, and why. Attention to the demand aspect can also address whether health service managers and practitioners take their accountability to patients and communities seriously.



* The supply - demand interaction may be "mediated," for example, by a fund-holding district health authority or a health maintenance organisation (HMO).

Fig. 2.1 **Provision of health care: supply side and demand side interactions**

Increasingly the private sector is involved in providing health services to the community. It should not be overlooked in the situation analysis, as these issues apply as much to private sector providers as to those in the public sector.

3. The health research system

In all countries it is important to understand the health research system. For the most part, medical and health professionals lack knowledge of this; it is too much to expect the public to have a detailed grasp. Even researchers are often ignorant of how health research is funded outside of their own very specific area of interest. Yet, in the end, the means to support ENHR will come largely from a country's own resources.

The two big questions are:

What research is currently being undertaken?
Where does the money come from?

Providing an adequate response will lead to further questions:

a) What research is currently undertaken?

Answers are needed to such questions as:

What *areas of research are being addressed (topics, content)?*
Who *is doing this work (university departments, research groups, the ministry of health, private institutes)?*
Where *is the work being done (which institutions, urban or rural, etc.) ?*

b) Where does the money come from?

Answers are needed to questions such as:

Who funds *the research?*
How much money *is granted towards different kinds of research?*
Who makes the decisions, and on what basis*?*

These are critical issues and are integral to decision-making. They were an important part of the South African situation analysis.[3] Responses will help ENHR stakeholders to understand the research system. They will provide a baseline for monitoring changes in the allocation of resources towards priority health research issues. They will also help to bring processes that are often restricted to 'experts,' yet are of major public concern, out into the public domain.

Although not addressed in detail here, the situation analysis should also comment thoroughly on the research training priorities and capacity of a particular country or province.

Conclusion

As mentioned, the situation analysis should be updated at intervals and will form an important part of the ENHR monitoring process. In addition, attention should be given to improving the QUALITY of information available and to filling important GAPS in understanding. This is the kind of work usually undertaken or commissioned by those responsible for the ENHR mechanism.

The Use of Information in the Process of Setting Priorities

As discussed by the Commission on Health Research for Development[4], the ENHR process rests on working partnerships between researchers, providers and policy-makers, and communities. Clearly, these groups do not all understand information in the same way and members of the community, in particular, may not have had higher education. It is important that ENHR prime movers appreciate this. They carry the responsibility for 'structuring the debate' between the different partnership groups. How this is done can impact positively or negatively on the priority-setting process. It can make the difference of whether the community engages in or withdraws from the process; it can affect whether researchers interact with community members as equals or not.

Thus it is important to 'balance the rigorous with the spontaneous': i.e., to recognise that the information or perceptions or sensitivities expressed by community members, NGOs, political leaders or even health workers may have important bearing on the choice of priorities. Those leading ENHR initiatives need to 'manage' the interactions between the stakeholders, ensure that these occur with mutual regard for each other's claim to influence research priorities and, particularly with specialised information, make sure that the less technically skilled are enabled to grasp its import.

It is also necessary to recognise that 'the problem is not always a disease'. This is implicit in the three dimensions of the situation analysis proposed above. The critical issue is ***how the problem is expressed***. Certainly the problem is often a disease (tuberculosis, AIDS, diabetes), but the problem may equally lie within the health service. Important examples today include the process of decentralisation, crucial to health reform in many countries, which is occurring despite serious weaknesses in local management systems; or the heavy investments in disease-specific programmes that occur in the absence of adequate monitoring systems, whether at national or district levels.

Of particular importance is to recognise when a serious health problem, for example, motor vehicle accidents, is relevant to a number of sectors (transport, roads, police) and not to the health care sector alone. Such problems, including potential interventions, lend themselves to the ENHR approach, which is exceptional in its inclusivity and intersectoral outlook.

From Health Problem to Research Problem

Not all health problems require further research. Research can even be a diversion or excuse for not facing up to a difficult issue. Importantly, the core participants in any fully-evolved ENHR process are well placed to make this distinction and urge appropriate action.

Sometimes, careful specification of the health problem itself suggests the form of research needed to address it. Health service problems at local or district level tend to require some form of operational research. Feachem et al. have described the life story of a woman called Fatmah and, by detailing the health problems that she or her child faced at different ages, have shown the breadth of reproductive and child health research issues[5].

Useful approaches have been developed to systematise the process of identifying the key research issues underlying particular health problems[6]. Sections 4 and 5 discuss some of these approaches.

Feachem et al. offer a useful scheme for categorising different kinds of research (see **Figure 2–2**). They distinguish between:

Health problem research, described as lack of knowledge about the size, distribution or costs of the problem;[7]

Aetiology research, being research into the biological cause or pathological process;[8]

Intervention research, referring to ignorance of effective interventions;[9] and

Operational research, being research into issues of health service delivery.

They also note that, separate from these categories, there is research that is concerned with the overall functioning of the health care system: its organisation, financing, policy development process, managerial and administrative systems, etc. Research relating to such issues tends to be termed *health services research*. [See Reference 5, p. 18].

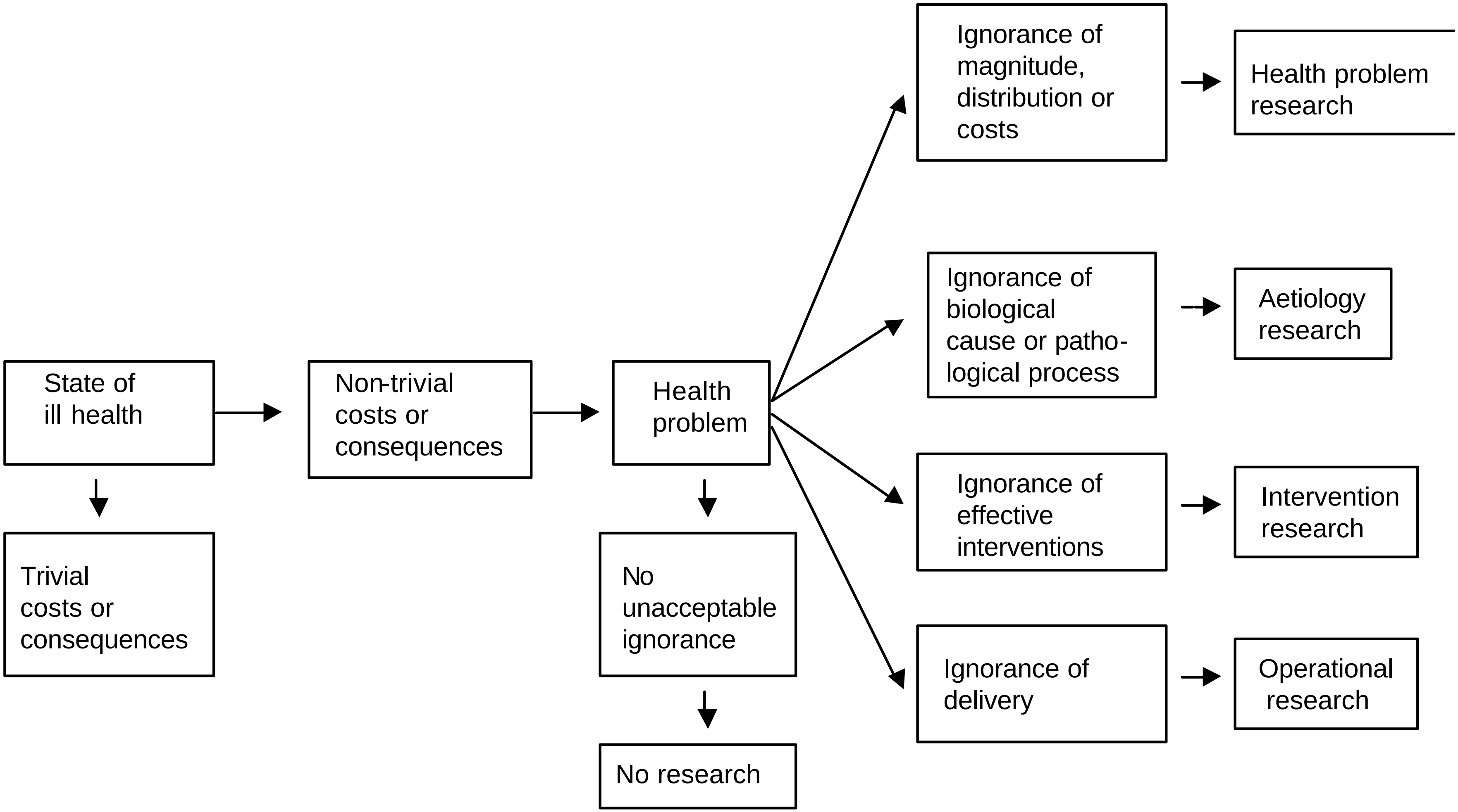


Figure 2.2 **A framework for considering a health problem and the four types of research to which it may give rise.**

From: Feacham RG, Graham WJ, Timaeus IM.. Identifying health problems and health research priorities in developing countries. *J Trop Med Hyg* 1989;92:137.

These research categories are not mutually exclusive and are meant to assist in organising the priority setting and research management task, as well as to contribute to hypothesis generation.[10] The categories may overlap and a mix of priorities, drawing on some or all of the categories, is likely to be the outcome of an ENHR priority-setting process.

Note that the holistic term 'health system' is distinct from the concept 'health care system' (or health service sector). The former refers to **all** factors affecting the health of individuals, families, communities and populations. While this distinction is not a rigid one, and should retain a certain fuzziness at the edges, it is relevant when analysing health problems, the associated research and intervention agenda, and mapping out the groups involved.

Essential research, by definition, distinguishes between country-specific and global health research. This distinction adds a crucial dimension to the priority-setting exercise. It requires not only that individual countries weigh carefully the resources they direct at key national problems, but also that they be well informed about the international research effort. This will assist their decisions on how (and how much) to contribute most effectively at global level.

All countries need to make judgements along the lines just noted. However it is worth noting that the essential research portfolio of middle-income countries such as Brazil, Malaysia or South Africa will undoubtedly contain elements of basic as well as strategic research.

Some Useful Techniques and Approaches

Priority setting in any situation, no matter how well or poorly resourced, must 'begin with what there is'. The objective is to effectively combine descriptive, analytic and evaluative information with the ideas, perceptions and emphases of ENHR stakeholder groups including the public at large. Examples of methods and approaches are cited below. These can be used for various purposes, but are valid tools to strengthen and enrich the knowledge base supporting priority setting in ENHR. Some could be introduced as part of successive efforts to develop the situation analysis. Some are technically sophisticated, others less so; in all cases appropriate adaptation to the local situation will probably be necessary.

Strengthening measurement

1. ***Sample survey methods***. A useful listing is provided by John Last.[11]

2. ***Small-scale censuses***. These are particularly useful at sub-district level and provide the basic information needed to quantitatively describe the size of a community, aspects of household organisation, and the presence and size of certain vulnerable groups (women of childbearing age, the elderly, etc.). When combined with village or settlement maps, a geographic dimension can be added.

3. ***Verbal autopsy methods***. This is a prototype technology to establish the probable cause of death at population level, in the absence of vital registration data.[12,13,14,15] A reasonably valid and reliable verbal autopsy exercise is of great value in its own right; it could also provide a basis for developing the DALY (disease-adjusted life years) measure.

4. ***Generic measures of ill-health***, for example, the DALY.[16] Introduced in 1993, this is a measure not yet used, to any great extent, at country level but highly influential in the priority-setting processes and cost-effectiveness analyses of international organisations, including WHO [see Reference 6, p. 18] and the World Bank.[17]

5. *Indirect demographic techniques*. Again useful where vital registration is not well developed. Allows measures of child mortality, maternal mortality (sisterhood method) and mortality in adults (orphanhood method) to be derived. Although generally only applied by trained demographers, these measures can play a much greater role in describing population health status, and thus contributing to priority setting, than has been the case to date.

Methods to expand community input, policy and provider contributions, and other forms of expert input

1. *Specialised individual and group techniques*. These include: key informant (and stakeholder) interviews, focus group discussions, the nominal group and Delphi techniques.[18] Some are discussed, with examples given, in Section 5 of the present publication, on getting participants involved.

2. *Participatory research methods*. These apply some of the techniques just noted, are important tools in the practice of ENHR, and draw on earlier work in rapid assessment procedures[19], participatory rural appraisal, etc. De Koning and Martin present a very helpful account.[20]

3. *Scenario development and foresight exercises*. These are increasingly used and may be large-scale (such as the recent exercise on the future of cardiovascular research in the United Kingdom[21]) or scaled-down studies. They aim to draw on the experience and expertise of a wide-range of stakeholders to develop plausible, alternative scenarios relevant to policy, planning and resource allocation.

Acknowledgements

We thank Dr R.G. Feacham for his kind permission to reproduce Fig. 1.1 from *Identifying health problems and health research priorities in developing countries*, published in J Trop Med Hyg 1989;92:137. (Page 14, Figure 2–2, in the present publication.)

References

[1] Priority setting is a process that repeats itself, rather like a planning cycle.

[2] Issues other than diseases that are nevertheless health care problems are pertinently introduced by Eleuther Tarimo, of the Division of Strengthening of Health Services, World Health Organization, in his unpublished discussion paper 'The straw men of priority setting in health care', Geneva, 1993.

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[6] Ad Hoc Committee on Health Research Relating to Future Intervention Options. Investing in Health Research and Development. Geneva: World Health Organization; 1996.

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[7] Includes research into determinants/risk factors.

[8] Includes research into determinants/risk factors.

[9] Includes research into determinants/risk factors.

[10] WHO's Ad Hoc Committee on Health Research (6) has developed a similar scheme, based on fewer major categories, to describe the different types of research. They refer to *fundamental research* (aimed at 'generating knowledge about problems of scientific significance'); *strategic research* (which 'generates knowledge about specific health needs and problems ... that may be health conditions, risk factors, or inefficiency or inequity in health systems'); and *intervention development and evaluation* (which aims to 'create and assess products, interventions, and instruments of policy ...'.

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THE PARTICIPANTS IN PRIORITY SETTING

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For research priority setting to be inclusive and participatory, it is necessary to understand the forces which have a stake in the goal of equity in health and development. Such an analysis will improve strategic planning by involving key players who can help to identify research needs, technical and financial capabilities, information gaps and distortions, the political environment, and the values and ethics of a given community or society.

More importantly, involving major stakeholders in priority setting fosters ownership of the process and the output, and facilitates accountability in the implementation of the agenda. Buying into the process can also translate into cost-sharing in research, not only by international agencies but by the developing countries themselves.

This section identifies the broad range of participants in priority setting, and describes their characteristics and potential roles in the context of different levels of decision-making.

General Considerations

The utilisation of research has long been a concern of both the producers and users of research results. Researchers frequently complain that their research outputs are not fully appreciated, whilst most potential users argue that the resulting knowledge or technology is irrelevant and not useful. One of the solutions to this mismatch is to have a broad representation of various groups in the formulation of the research agenda.

The groups of people who should be involved in setting research priorities, besides researchers themselves, are the potential users and the people affected by the research results. This means additional representation from groups that could implement or modify recommendations from research results, mould public opinion, act as true advocates for the public, or, equally important, from those who could hinder successful use of knowledge for action.

Countries that have had experiences in priority setting using ENHR strategies have generally identified four categories of participants: researchers, decision-makers at various levels, health service providers, and communities. In these exercises, there has been under-representation from the private sector (for example, professional associations or the pharmaceutical industry), parliamentarians, potential donors and international agencies.[1] Yet all these groups have a stake in the research enterprise.

Early dialogues among these groups are needed. Whilst not all stakeholders have to be involved in all stages of the priority-setting process, there should be a conscious effort to draw in under-represented groups and those accustomed to a 'culture of silence.' These encounters should be based on mutual respect, an appreciation of the nature and motivation of different groups, and the desire to foster true partnerships. An interactive and rolling process is desirable, so that the resulting research agenda is neither too rigid nor too flexible. Some approaches to increasing the involvement of participants are discussed in Section 5.

Country-specific Agenda Setting

Who should set research priorities at the country level? The choice of participants depends on the existing paradigms for decision-making and the levels of the health system being addressed.

Paradigms for decision-making include, among others, the biomedical and epidemiological models (using data such as mortality, morbidity), the economic model (such as cost-effectiveness analyses using DALYs as the common measure)[2], and the socio-cultural and behavioural paradigm (such as beliefs about the determinants of health and disease, practices to prevent disease and promote health)[3]. Although providing valuable information, each of these paradigms, when used in isolation for identifying research priorities, has its weaknesses.

For example, epidemiological data in developing countries may be incomplete and generally hospital-based.[4] In addition, incomplete national data, particularly from sentinel sites, may represent national trends but may not be useful for local planning at sub-national levels. There are also large variations in the opinions of health professionals and researchers regarding priorities for research. An economic paradigm for research priority setting focuses on efficiency, production and prosperity, which may not always bring health security and social harmony.[5,6,7,8] Community choices may be informed by facts and variable experiences, but are largely influenced by members with strong personalities, prejudices and the varying ability to pay for services.[9]

Thus the selection of the participants with different paradigms is an important process in itself. It should be done with much thought and care so that the research agenda will be broad enough to benefit a large number of stakeholders, but narrow enough to have meaningful and manageable focuses. The participants selected for priority setting will serve two main functions: first, to analyse and provide information from their respective paradigms; and second, to discuss how their perspectives should be weighted in the light of other perspectives.

The various stakeholders can also be identified based on the level of the health system being considered in the decision-making process. Information for decision-making is needed at the following levels: the public, the system, the facility, and health care practice. Potential participants for each of these levels are given below.

The PUBLIC level. Research priority setting at the public policy level primarily aims to promote equity and efficiency in the provision of health services. This is accomplished through various policy instruments: defining target groups, appropriate financing schemes, developing appropriate rules and regulations, and optimal facility planning for health systems. Each of these policy instruments involves a set of important stakeholders, as discussed below:

Defining target groups : these may be classified according to poverty, gender, age, diseases or geography. Focusing research efforts on particular target groups, at the expense of other groups, will require discussions and consensus among representatives of the various groups. On the other hand, if diseases become the focus of research, representatives from the public sector, particularly those from disease control programmes, should be major participants in the priority-setting process. However, most vertical control programmes represent the epidemiological and biomedical paradigms; there should also be inputs from economists, behavioural scientists and ethicists.

The pharmaceutical industry also has a role to play in priority setting and funding of research. Similarly, UN agencies, bilateral aid agencies, multilateral development banks and international organisations can be involved, particularly if their areas of interest and work plans coincide with the country’s defined target groups. For example, the price of a new anti-malarial drug in Thailand was reduced from US$5.00 to US$0.50 per tablet after an agreement to undertake a Phase III clinical trial of the drug in the country. Again in Thailand, the World Health Organization has been able to negotiate a substantial reduction in the cost of a dipstick diagnostic test for malaria in exchange for recommending its use in the country’s public sector.

Appropriate financing and delivery of health services : options for this can be various combinations of public and private financing and health care provision. In addition to the government (e.g., the Ministry of Health, the Ministry of Finance, Ministry of Budget and Management, parliamentarians), the parties which should be consulted to set priorities for research and action are: the private sector (e.g., health professionals and health maintenance organisations), biomedical scientists, economists and the people themselves.

Developing appropriate rules and regulations : these are needed to set standards of care, harmonise relationships between the public and private health care sectors, oversee shifts of health providers between these sectors, and regulate market forces in the provision of health services. Thus the stakeholders in research priority setting involving these issues might include: the public sector, private investors, health maintenance organisations, health care providers in public and private facilities, lawyers, consumer groups and other representatives of the community.

Optimal facility planning and decentralisation : the decision to decentralise depends on the demand for health services, the current and projected private-public mix in health service delivery, and the capacity of local governments to respond to expanded public services. Identifying the required information and research to guide such decisions will need to involve officials and health care providers at the local government level, the private sector, the academia (e.g., economists, public administrators), and the public.

The SYSTEM level. The primary objective of research to promote system policy is to improve the efficiency and the quality of the health care system. The health care system encompasses the providers' systems for service delivery, the consumers of health care, and the systems influencing the interactions between the two. The providers of health care can belong to the public and private sectors, the traditional folk sector, and the popular sector — all of which operate in their respective facilities and systems. To improve the overall health system, both allocative efficiency and technical efficiency should be addressed.

Allocative efficiency : this refers to the allocation of resources to structures, organisations, facilities and special programmes in such a way as to yield optimal attainment of the health system's objectives. Decisions on allocation are bound to produce 'gainers' and 'losers'; hence a careful analysis of different stakeholders is necessary to assess the extent of their support and the potential hindrances. Stakeholders in these structures, be they 'gainers' or 'losers,' should be involved in defining the type of information and research required for allocative efficiency.

Technical efficiency : this aims to minimise costs by organising a given health system appropriately; that is, the appropriate services are given in a timely manner by health personnel at the proper level of the health system. For example, uncomplicated health problems and immunisations are better dealt with at a nearby primary care facility than at a technologically intensive tertiary care facility. Decisions relating to this issue should involve a similar set of 'gainers' and 'losers' in priority setting.

The FACILITY level. Decision-making at this level aims to improve the technical efficiency and quality of health services given by health providers. Although accurate knowledge and evidence should be prerequisites for developing standards of care, many other factors influence the behaviour of health care providers. These include: their attitudes, values, motivations and skills; the interaction between patients and providers; the social structures affecting various categories of providers and patients; and the work environment.

The HEALTH CARE PRACTICE level. The parties that should be involved in setting priorities for health care practice include: various categories of health care providers and professional societies, administrators of health facilities, the patients, and relevant academics (e.g., biomedical scientists, third party payers, clinical epidemiologists, ethicists, clinical economists, and social scientists).

The pharmaceutical industry has an important influence on clinical practice, not only because of its massive R & D resources, but also because of its extensive drug information and marketing strategies. In 1993, for example, a drug company in Thailand invested 120 million bahts for advertising only one product, but generated more than three billion bahts in revenues. In contrast, the Food & Drug Administration had a budget of 20 million bahts to promote appropriate drug information to the public. Closer consultations and appropriate collaborations with the industry should be undertaken.

Social accountability is an additional dimension in decision-making, since it contends that the people have a right to be well informed and to demand the accountability of the government and providers of care. Empowering target groups, particularly patients and communities, requires research on information dissemination through tri-media techniques and the development of community interventions. Those who should be involved in setting research priorities for social accountability include: people's organisations, nongovernmental organisations, government, health care providers, health insurance firms, communications specialists and other social scientists.

International Influences on Agenda Setting

There are several global forces that influence health research. Each of these forces has its own objectives, agenda and approaches to research priority setting. These international bodies are major players in setting global priorities for health research, but they may also have a strong impact on national research agendas because of their relatively large research resources and their field-level activities in developing countries. They must increasingly be regarded as partners in health research rather than as mere sources of research funds for externally-driven priorities. These forces are:

International organisations. These include: UN organisations like the World Health Organization, UN Children's Fund, UN Population Fund, UN Development Programme; multilateral development banks like the World Bank and the Asian Development Bank; bilateral and multilateral donor agencies like USAID (United States), AusAID (Australia), CIDA (Canada), DANIDA (Denmark), Sida (Sweden), the Swiss Agency for Development and Cooperation and the European Union; international organisations with a research focus like the International Development Research Centre (Canada); international foundations like the Rockefeller Foundation, the Carnegie Corporation and the Edna McConnell-Clark Foundation.[10]

Most of the international organisations have development and scientific focuses. They differ in their constituency and their approaches to priority setting of health problems and research. Coordination at both the international and national levels should be strengthened.

Private biomedical transnational enterprises. These are companies that have heavy R & D investments for drugs and biomedical products which are commercially distributed worldwide. These investments are primarily focused on areas where potential market values are high. 'Orphan' drugs, biologicals and technologies, which may have the potential of serving large numbers of underserved populations, generally receive little attention from the industry because they have less lucrative market potentials. On the other hand, some of these companies have established autonomously-run foundations that have made significant research contributions towards solving developing country problems.

As discussed previously, closer linkages should be sought with these multinational pharmaceutical firms, ranging from consultations on strategic research for vaccines, drugs and biotechnology to negotiated agreements and creative partnerships for 'orphan' drugs and biologicals.[11]

International scientific communities and networks. These pertain to professional and scientific organisations which are formed because of common goals and interests in a given field of science and technology. The Council for International Organizations of Medical Sciences (CIOMS), for example, organised a series of consultations leading to international guidelines for ethical conduct of biomedical research on human subjects.[12,13] International health research networks such as the International Clinical Epidemiology Network (INCLEN), the Field Epidemiology Training Program (FETP), and the International Health Policy Program, have attained a critical mass of skilled researchers in many developing countries. They should actively participate in priority setting and make full use of their capacities to support essential national health research. [14]COHRED, as an international nongovernmental organisation, aims to support, broaden and strengthen the linkages and competencies of various stakeholders at the country and international levels.

This overview of international influences is only an introduction. There is much more to learn by direct and regular interactions with these organisations, and by appraisal of their processes, outputs and impact on equity in health and development. Effective international linkages are based on an understanding of the personality, behaviour, values and management styles of these organisations. Researchers in developing countries should make an effort to know the objectives and agenda of these various international groups in order to maximise the relevance of international research to national needs. However, nations must also be encouraged to generate their own research funds for high-priority areas and thus avoid a perpetual dependency on international aid.

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[10] Pocantico Retreat. Enhancing the Performance of International Health Institutions. The Rockefeller Foundation, Social Science Research Council and the Harvard School of Public Health, 1996. This is a critical assessment of the role of leading international institutions in improving the state of international health, as viewed by 25 international health experts.

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[11] In the international arena, there are signs of increasing research collaboration with the pharmaceutical industry through programmes such as the WHO/UNICEF Children’s Vaccine Initiative, the International AIDS Vaccine Initiative, and product development activities in the WHO Special Programme on Research and Training in Tropical Diseases.

[12] Bankowski Z, Levine RJ, editors. Ethics and Research on Human Subjects: International Guidelines. Geneva, Switzerland: Council for International Organizations of Medical Sciences; 1993.

[13] CIOMS. International Guidelines for Ethical Review of Epidemiological Studies. Geneva, Switzerland; 1991.

[14] The Puebla Group of Networks Collaborating on Health Research for Development. An Information Handbook. 2nd ed., 1995. The Puebla Group is an informal consortium of international health research networks that support R & D efforts, particularly in developing countries. This handbook provides profiles of some 10 networks. A few entries are out of date, but it is still a useful reference for mapping research capacities in various disciplines.

CRITERIA FOR PRIORITY SETTING

Tessa Tan-Torres

Broad representation of stakeholders and the active involvement of participants are important elements in priority setting. However, crucial as these may be, they are not enough to guarantee the success of the process. Priority setting, by its very nature, is a political process. As was once said by the Commission, 'Any process designed to set priorities should not lose sight of the fundamental questions: whose voices are heard, whose views prevail and thus, whose health interests are advanced?'[1]

A systematic process of priority setting will increase the probability that the process is not kept hostage by any one group of vocal participants. A core group should develop a priority-setting procedure that is transparent and that invokes clear accountability. The 'how' of making rational choices and judgements is one of the most difficult steps in priority setting. This is essentially a two-step process: the selection of criteria, and the selection of research topics from priority areas. Guidelines for the choice of criteria and for assembling research areas are discussed in this section. In both steps, it is critical that decisions should be made by the participants by consensus. Techniques for consensus building and research problem specification are discussed in Section 5.

Selecting the Criteria

Review of country experiences

Many countries promoting ENHR as a strategy for health and development set research priorities as one of their initial activities. Countries that have reported the use of criteria included one or more criteria from the following categories:

How big and urgent is the problem ? This includes considerations of the burden of illness, perceived demand and urgency. In particular, the burden of illness may be assessed by mortality and morbidity statistics, DALYs or similar indices, the 'epidemic' magnitude of a disease, the extent to which it affects the people and public health, and economically and socially debilitating health problems. These are discussed in detail in Section 2.

What research has previously been done ? Unnecessary duplication of past studies is a waste of human and financial resources. The participants should therefore determine the existence of previous researches, prior to evaluating where further research should be done and where existing interventions and health action may be the likely solutions. **Box 4-1** shows a framework for deciding whether research or action is the priority, based on what the participants know or do not know about the health problem. Section 2 outlines the specific types of research required if few or ineffective intervention tools have materialised from current knowledge.

Box 4–1 A Research — Action Framework for Priority Setting

		Priority ranking of health problem	
		HIGH	LOW
Feasibility for control based on current knowledge	HIGH	Develop health ACTION programmes	Act?
	LOW	Potential RESEARCH priority. Check other criteria.	Low priority

Note: The criterion of research - action is a continuum, not a dichotomy. Several iterations of research - action may be necessary to solve a given health problem.

- Chitr Sitthi-amorn

Is it feasible to do the research ? The extent to which research studies can actually be done depends on various practical and social considerations, such as: technical feasibility (the human and organisational capability of the research community); economic feasibility (the cost in time and money of carrying out the research); political feasibility (the presence of a favourable political climate); cultural feasibility (the development and use of culturally appropriate technology); and ethical feasibility (compliance with social norms and ethical principles).

What and when is the expected impact of the research ? Direct and indirect impact of the research should address issues of affordability, efficacy, effectiveness, equity and coverage. In addition, the time frame for short-term effects as well as the long-term impact of interventions should be estimated as part of the priority-setting exercise.

These criteria illustrate the use of the guidelines on priority setting proposed by the Commission, and later elaborated on by the Task Force on Health Research and Development[2]. There is little documentation from the countries that have adapted these guidelines on the actual process of selecting criteria and applying these to the priority-setting exercise. In addition, the criteria used in the countries have differed. However, the two most commonly used criteria have been the burden of illness (as defined by health statistics or perceived need) and the expected impact of the solutions ensuing from the research. In contrast, technical capability or feasibility, an equally important criterion cited by the Commission and the Task Force, has not been reported as frequently.

When considering the time horizon of the expected impact of results, the competing demands of operational research and biomedical basic research have to be weighed carefully. Several countries have used the urgency of the health problem as a criterion for priority setting. This may bias the research agenda in favour of ‘quick-fix’ problem-solving exercises, while ignoring the long-term investment required in strategic research.

The time factor should also lend itself to projection of future health needs. Thus far, all of the countries that have undertaken priority setting using ENHR strategies have collected and analysed current and past data to describe the burden of illness. Very few countries have forecast the health and disease trends in the next decade or the next generation.

The countries have used a mix of quantitative and qualitative criteria. According to the Commission, ‘No method of setting priorities can rest solely on numerical estimates.’ In Thailand, for example, people’s perceptions of the priority health problems differed from the priority list generated by epidemiological and secondary data sources. (See Reference 1, p. 45).

Nevertheless, quantitative and qualitative data have two aspects in common. First, both types of data may be collected either through scientific or haphazard methods. The former should clearly be encouraged if priority setting is to become a transparent and credible process. Second, qualitative data can also be expressed numerically. Thus the essential issue is not whether information is quantitative or qualitative, but rather, whether participants have been able to balance 'objective' data with information involving human preferences and valuations.

Guidelines for Selecting Criteria

A. **Which criteria are to be used?** The following characteristics of criteria should be considered:

1. Determine the purpose for priority setting and the level of action at which it is being done (that is, whether at global, national, district or sub-district levels). Global agenda would generally have as a criterion the extent to which a health problem is shared by many countries (burden of illness), and would include a bigger share of strategic research that many developing countries may not be able to undertake on their own. On the other hand, priorities at the country level might consider relevance to the National Health Plan as a criterion. Or, if the research agenda is used as a basis for obtaining funds, then it may be important to include 'fundability' by research and donor agencies as one, although not the most important, criterion.
2. Criteria should be defined in detail. In practice, it is easier to apply the criteria when they are in the form of specific questions. For example, the term 'cost-effectiveness' is interpreted in many ways, hence participants should try to reconcile varying notions and perceptions by working on a common definition.[3] The next step is to formulate specific questions, for example: Is the research cost-effective? Or, is the intervention that is likely to result from the research cost-effective? These are two different questions altogether.

3. To the extent possible, the criteria should be independent of each other. For example, the magnitude of the problem and its urgency are often interrelated. It could happen that a health problem scores highly on both criteria, but closer examination might reveal that the magnitude of the problem may be driving participants to look for urgent answers and action. Another example is the interaction between the magnitude of the problem and the expected impact of the research results; the latter may score highly because success in the research intervention affects a large number of the population. This 'double-counting' effect might be minimised to some extent by having the participants discuss and agree on the definitions and delimitations of the criteria used.
4. All the criteria need an information base, both qualitative and quantitative. The language used to describe the information base should be understandable to the community to enable them to participate in an informed way. Section 2 elaborates these information needs.
5. There should be explicit criteria to reflect the promotion of equity and development. This is the added value of the ENHR strategy. For example, although the magnitude of a health problem is an important criterion, participants should not overlook diseases common only in marginalised groups or in a few inaccessible localities. Without a consideration of equity issues, such diseases may not rank highly in priority lists, or may even have a very low rank as a result of the multiple effects of the burden of illness on other criteria like expected impact, urgency and cost-effectiveness.
6. The criteria should be narrowed down to a manageable number of independent criteria. This is because of the generally large information base, the problem of double counting of criteria, and the difficulty of applying many criteria. One approach is to get the participants' consensus on the core criteria (perhaps around 6 to 7), test these on a few research areas, and determine whether the addition of other criteria would change the priorities.

7. The criteria should be expressed in a common language which will allow the criteria to be combined in a summative form. Shown in **Box 4-2** is a proposed scheme for rating topics for health systems research. It illustrates how criteria can be applied, using equivalent systems of rating, so that a reasonable summary score can be derived.[4]

B. **Will criteria be assigned equal or different weights?** If no explicit weight is given to each criterion, then criteria may be given equal weights. However, assigning equal weights should be a deliberate decision since it is a powerful way of expressing values and preferences. Differential weighting is another option, generally based on the importance of the criterion in making a choice. Again, this option should be exercised only after insightful deliberation and consensus among the participants.

Box 4-2

SCALES FOR RATING RESEARCH TOPICS

Relevance
1. = Not relevant
2. = Relevant
3. = Very relevant

Avoidance of duplication
1. = Sufficient information already available
2. = Some information available but major issues not covered
3. = No sound information available on which to base problem-solving

Feasibility
1. = Study not feasible considering available resources
2. = Study feasible considering available resources
3. = Study very feasible considering available resources

Political acceptability
1. = Topic not acceptable to high level policy-makers
2. = Topic more or less acceptable
3. = Topic fully acceptable

Applicability
1. = No chance of recommendations being implemented
2. = Some chance of recommendations being implemented
3. = Good chance of recommendations being implemented

Urgency
1. = Information not urgently needed
2. = Information could be used right away but a delay of some months would be acceptable
3. = Data very urgently needed for decision-making

Ethical acceptability
1. = Major ethical problems
2. = Minor ethical problems
3. = No ethical problems

Source: Varkevisser CM, Pathmanathan I, Brownlee A. Designing and conducting health systems research projects. Module 3: Identifying and prioritizing problems for research. In: *Health Systems Research Training Series*. International Development Research Centre and The World Health Organization, 1991;2(Pt 1):34.

Assembling the Research Areas

Review of Country Experiences

The selection of research areas requires equally careful consideration. If the research area is not included in the initial list for applying selection criteria, there is little chance for it to appear in the research agenda. However, documents on the experiences of various countries in priority setting have not provided information on how the initial list of research areas was assembled. What has been made available is the final research agenda; that is, the final output of the ranking process.

Although the research agenda is not representative of the initial list of research areas, the following observations on the country experiences can be made:

First, disparate research areas have been entered into the ranking process, for example: health problems, diseases, interventions and risk factors. A typical research agenda from a developing country has included a heterogeneous group of research areas, such as: safe motherhood, HIV/AIDS, health services research, traditional medicine, lifestyles, cancers and infant mortality.

Second, a few countries have utilised categories to provide some consistent level of clustering and ranking within categories. For example, in the development of the Philippine research agenda for 1992–1997, rankings were made within five categories, namely: health sector organisation, disease control and public health, personal health care, health care financing, and health product development. At that time, these five categories were the main components of the conceptual framework guiding the Department of Health.

Guidelines for Assembling Research Areas

A. **What should be ranked?** The following characteristics of research areas should be considered:

1. Ideally, the research area should be problem-based rather than disease-based. This allows for a more holistic definition of health, in contrast to the narrow biomedical concept of health as the absence of disease. As discussed in Section 2, problems might also arise from health service needs or disease determinants. A problem-based orientation has the further advantage of being more attuned to the real needs of the community. This, in turn, enables the community representatives to participate at an equivalent level as researchers and health care providers. However, further processing of health problems should lead to areas amenable to research, as outlined in Section 5.
2. The research areas should be clustered at manageable and equivalent levels. Each research area should be specific enough to provide a common understanding and to facilitate ranking. In addition, the different research areas should ideally be expressed at the same level of specificity in order to create a level playing field for the ranking process. In the case of the country cited above, the areas of safe motherhood and health services research are much broader fields, as compared to single disease entities like leprosy or measles. By their sheer breadth and magnitude, the bigger issues are more likely to be in the priority research agenda.
3. Scenario building, projections or modelling should also be undertaken to estimate the magnitude and determinants of health problems in the future. This enables the participants to develop strategic plans for research and to build a long-term research base to address future needs. There may be a tendency to overlook this aspect when the criterion of ‘urgency’ is given a large weight.

B. **How will be the research areas be selected?** Any one of two approaches, or a combination of both, can be used. In the first approach, participants can define a 'sampling frame' to facilitate the identification of research areas and, more importantly, to determine what is missing. An illustration of this is the disease listing prepared by the WHO Ad Hoc Committee on Health Research in the estimation of DALYs for different countries.[5] The advantage of this approach is that the criteria can be more consistently applied across disease entities. However, as discussed above, there are limitations to the disease-based approach; the Ad Hoc Committee has since then expanded its initial list of research areas to include risk factors, such as tobacco use and malnutrition.

Thus the important consideration is to use categories or strata that are linked through a defined framework, and then to rank research areas within these categories. The result will be several lists of priority areas for each category, which are integrated through the conceptual framework. It should be noted that the development of both the framework and the sampling frame is not value-free; these choices must be discussed and made explicit.

The second approach is to institute a nomination process where different groups and individuals can suggest potential research priority areas.[6] Thus each participant is given a right to the playing field.

If, from the outset, the framework for the sampling frame is provided as the primary tool for nominating research areas, spontaneity may be stifled. It is preferable to allow nominations to be slotted into a loose framework as they ensue. At the same time, the research areas collected during the nomination process can also be a test of the robustness of the framework or sampling frame. If only a few additional areas cannot be accommodated within the framework, participants can proceed to the step of mopping up, i.e., identifying areas which may have been missed in the absence of a lobby or interest group. These might be identified through wider consultation. Techniques for this, such as the 'round-table' discussions, are discussed in Section 5.

Applying the Criteria

How should criteria be applied against the research areas? Will there be a global assessment of health problems using all criteria simultaneously? Will the criteria be applied as successive sieves, eliminating research areas which fail to meet a pre-set threshold? Or, will the research areas be assigned explicit weights on each criterion, and then given a summary score?

The simultaneous application of all criteria is very difficult, since there is a limit to the number of information bits that can be processed by the mind at any one time. Thus this process will most likely give the least reliable results, especially if the group uses differential weighting for the criteria.

Sequential application of criteria is generally preferred. With each additional criterion applied, research areas can be short-listed. Those remaining after the final criterion is applied will then be considered as the priority areas. Using criteria as successive sieves thus makes it possible to rank many research areas. However, in this procedure, the order in which criteria are used as sieves becomes paramount. Participants should agree on the order, which is generally determined by what criteria are considered most important.

Another option is to evaluate each research area against all of the selected criteria. The participants then combine the ranks on each of the criteria to come up with an index or composite score. Finally, the research areas are ranked according to their summary scores. This process is more tedious, but is less in danger of distorting the priority-setting exercise compared to the sequential application of 'sieves.'

A variation of the above is the construction of Prioritisation Matrices through methods like the Full Analytical Criteria Method or the Consensus Criteria Method. These are more complex but more systematic approaches of comparing research areas by paired comparisons of criteria, or by weighted voting and ranking. Details on the construction of these selection grids can be found in The Memory Jogger[7].

The greatest challenge is to put everything together in the end. Even if the processes of selecting participants, criteria and research areas are systematically done, the output will still require review and refinement.

The final research agenda may not always be a line list of research priority areas. As some countries have done, research areas may be grouped into low, medium or high priority categories. This is to avoid implications of rigidity in the rankings.

A formal appeals process should be instituted to accommodate anyone who feels disenfranchised during the priority-setting process or who was unable to participate in previous deliberations. In addition, unexpected developments in the health situation as well as rapid advances in science and technology may make some agenda items obsolete or create the need for a new priority area. However, while allowing for flexibility, the appeals process should be used judiciously to maintain credibility and transparency.

Next, the selected research areas have to be converted into research programmes and questions. This can best be done through technical groups. However, an ENHR oversight committee should ensure that the agenda is not subverted in the process of research problem specification. Processes for actively involving various participants in each of these steps are discussed in Section 5.

The most important decision by the core group will be to decide how many and who will participate in the process of applying the criteria against the research areas. Should this be broad-based and done in a national meeting or should there be a committee consisting of a few chosen representatives of the partners? Should there be equal representation or should there be affirmative action? The decision should be made explicitly and will depend on the core group and the values that members represent.

Finally, the full research agenda has to be disseminated widely and implemented effectively. To assist the ENHR working group in this task, a political mapping exercise might be undertaken. This approach has generally been used by decision-makers to understand the political dimensions of a policy — in this case, the research agenda — and to help them to take action in a political environment. It can be used for many other purposes: strategic planning, analysis or explanation.

The analyst collects data from documents and interviews key persons involved in the policy. The information is then analysed in three general steps: first, where to go (policies or, in this case, intended outcomes); second, where we are (mapping the political terrain, including key actors and environment); and how to get there (strategies). Guides to political mapping, as well as its pros and cons, are described in detail by Reich and Cooper[8,9].

Acknowledgements

We thank the International Development Research Centre for permission to reproduce page 34 of Volume 2, Part 1, of the *Health Systems Research Training Series*. (Page 38, Box 4–2, in the present publication.)

References

[1] Commission on Health Research for Development. HEALTH RESEARCH: Essential Link to Equity in Development. New York: Oxford University Press; 1990.

[2] Task Force on Health Research for Development. A Strategy for Action in Health and Human Development. Geneva, Switzerland; 1991.

[3] A common misconception is that ‘cost-effective’ means ‘economical’ or ‘cheap.’ However, cost-effectiveness compares two or more interventions in terms of both their costs and their effects. This could mean, for example, more deaths prevented for a given expenditure, or a lower expenditure for a given number of deaths prevented. For further reading, see Drummond MF, Stoddart GL, Torrance GW. Methods for the economic evaluation of health care programmes. Oxford: Oxford University Press; 1987.

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GETTING PARTICIPANTS INVOLVED

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This section describes some processes and mechanisms that could be used to actively involve different stakeholders and interest groups in research priority setting. It does not intend to prescribe any first or second best approach for the broad participation of stakeholders. Rather, it provides guidelines and poses questions for planning the exercise. The answers, as determined by the country or district, will help to identify a context-sensitive mix of processes and methods for setting research priorities.

Two primary characteristics of the ENHR strategies for the priority-setting process should be considered from the outset:

Priority setting is an iterative process. Health problems change; people's perceptions and responses to health problems change; new knowledge and technologies emerge; and lessons learned from past health decisions and actions accumulate. Research agendas should be revised or expanded periodically to respond to important changes in the health and research environment.

It is interactive and transparent. The process must provide a variety of opportunities for exchange of ideas and information. In addition, all participants need to understand what is expected of them, how decisions will be made, and who will facilitate and manage the entire exercise. Transparency will increase the likelihood that stakeholders will buy into the process and feel that they 'own' the resulting research agenda.

Initial Steps for Involving Participants

The following questions should be considered in the planning stage:

- Who should plan, manage and provide for continuity in the priority-setting process?
- What is the composition or representation of the planning group?
- How will inputs from various stakeholders be processed?
- Who reviews and approves the output?

Experiences in various countries have suggested some of the ways in which the national groups have approached their priority-setting exercise. In some cases, an intersectoral and multi-disciplinary working group was appointed by, and accountable to, the Minister of Health. In other countries, there was a national ENHR convention with tripartite participation from communities, researchers, health programme managers and policy-makers; this was followed by the establishment of a Task Force of decision-makers, researchers and some community representatives. Another model was the holding of a tripartite policy workshop, followed by the establishment of a similarly composed National Commission on ENHR; the Commission, in turn, constituted a working group to oversee the preparation of a research agenda. In some countries where there was a statutory national body for health research, the organisation of the priority-setting exercise was delegated to a research institute or a university group. Generally, the ENHR working group developed and proposed criteria and processes for priority setting, but a larger group (usually from the Ministry of Health or the Research Council) identified the major stakeholders who would be involved in the actual process.

The involvement of a broad range of stakeholders in ENHR is a key element in the priority-setting exercise. The first step in involving the different participants is to know the participants: who and where they are, their needs and interests, their expectations, their relative strengths and weaknesses, and supportive and obstructive forces around them (see Section 3: The Participants in Priority Setting). Prior knowledge of the participants' profiles would greatly facilitate decisions on grouping arrangements for brainstorming, small group discussions, and working groups.

Next, the core group, in consultation with the participants, should determine the extent and nature of participation of different groups or individuals. This may vary in depth and breadth, for example:

- Peoples' consultations through focus-group discussions or interviews
- Community situation analysis through participatory action research
- Cost-sharing
- Consensus-building on specific thematic areas
- Decision-making for determining criteria and setting research priorities
- Translation of priority research areas into specific research programmes and projects.

The extent and nature of involvement largely depend on the interests, willingness and capabilities of the different participants; the funds available for the priority-setting process; and the timeframe for the entire exercise.

For forums or conferences, the core group can facilitate more active participation and wider dialogue by giving participants adequate resource materials that are easy to read and understand, together with adequate lead time. In particular, working group members from academia will find it worthwhile and challenging to share scientific findings clearly and concisely to community members and policy-makers, thereby overcoming one barrier to a true partnership of equals. In addition, valuable insights will be gained from listening to the needs and perceptions of the users of health care.

The ‘bottom-up’ approach in setting priorities is ideal; this involves a sequential pattern of situation analyses at the community and district levels, and aggregation and synthesis of those outputs at the provincial and national levels. However, in some cases, time constraints may necessitate parallel, rather than sequential, consultations and analyses for different groups and levels. This is also acceptable, as long as transparency and genuine involvement characterise the priority-setting processes. Acceptance and a sense of ownership of the resulting research agenda are perhaps the best indicators of involvement in the process.

Useful Methods for Participatory Priority Setting

Described below are some approaches and steps leading towards a common research agenda. This is not an exhaustive list of methods; it is meant to highlight some useful approaches that have been used by different countries.

Promoting dialogue with stakeholders

Goal : To obtain the views of stakeholder groups (identified through the processes described above), regarding health problems and needs, and regarding health research priorities from certain groups.

Who is involved ? Stakeholder groups and representatives, as well as facilitators and interviewers.

Methods : a variety of methods have been used, including ‘focus-group discussions’ (see the example of Uganda, **Box 5-1**).

Box 5-1

DIALOGUE WITH THE COMMUNITY

Using the 'Focus Group Technique'

— An example from Uganda —

Four districts, one from each region of the country, were selected for consultation regarding community perceptions of health problems. However, because of insecurity in the northern region, only three districts participated in these discussions. These were: Iganga district in the east, Mukono district in the south and Hoima district in the west.

A two-day seminar was held in each district, which involved the District Planning Committee and the district health team. Some members of the Planning Committee were local politicians representing rural communities. The seminars were used to select communities for focus group discussions in the district. Two or three discussions were conducted in the villages, each involving 15 to 30 participants. Participants were selected to provide a heterogeneous mix of men and women, young and old.

The focus group discussions revealed the deep interest of the communities in frankly discussing their health problems. However, unlike the researchers, whose priorities were based on disease burden, the community members had more holistic views on health problems. All communities expressed the view that the emphasis should be put not only on diseases, but on underlying factors that predispose to ill health. For example, community concerns included low family income, lack of markets for produce, and population growth leading to overcrowding. They were also worried about bad roads, harmful cultural practices and the unsatisfactory distribution of health facilities.

Specific health problems of concern to the community included malaria, diarrhoea and respiratory tract infections. Others were promiscuity leading to AIDS, tuberculosis, skin diseases and intestinal worms.

In South Africa, the ENHR Unit in the National Department of Health identified 95 stakeholders in health research. These included: universities, NGOs, Science Councils, Professional Associations, Technikons, Nursing Colleges, provincial health departments and others. An information package (about ENHR generally, and plans for ENHR in South Africa specifically) was sent to each stakeholder group. This was followed by a visit where a number of issues were discussed, including the need for a Prioritisation Congress. After this visit, in preparation for the Congress, all stakeholders were invited to submit a list of their current priorities. These submissions were summarised and then used at the actual Prioritisation Congress.

Consensus Building

Goals: To obtain general agreement among a variety of stakeholders regarding the most important problems to be included in a national health research programme; and to create a climate of mutual respect among participants as a basis for future collaboration.

Who is involved ? The key stakeholders identified as being interested in ENHR in a given country, as discussed earlier.

Methods:

There are many published methods or strategies for consensus-building: the 'Delphi' method, round-table discussions, the 'nominal group technique,' and others. The 'Delphi' method involves several rounds of discussion among participants regarding a particular task. Each round of discussion is 'captured' and summarised — for example, on flip chart sheets. This process continues until the overall goal or product is achieved, and may require several 'rounds' of discussion. Typically the Delphi method is facilitated by one person or a small facilitator team. **Box 5-2** briefly describes the processes involved in round-table discussions. The nominal group technique (NGT)[1] is briefly described in **Box 5-3**.

The country experiences derived from the ENHR process suggest that actually reaching consensus regarding health research priorities is not easy. This is to be expected, considering the range of stakeholder groups involved: professional researchers, politicians, government bureaucrats, community leaders and others. Therefore, both the process and output should leave room for disagreement and for expansion or modification of the research agenda. The consensus-building process should be responsive to the specific situation, and should be methodologically flexible. It should also be noted that while some techniques are suggested here, much of the success of consensus-building (and related processes) has to do with social interactions among people.

Box 5-2

ROUND-TABLE DISCUSSIONS

The ‘round-table’ approach, as the name implies, is used to bring people together from different points of view and experiences, in order to discuss a common problem or situation. Typically this involves a relatively small number of individuals who have not met before, usually not more than 20 or 30. Successful round tables are usually scheduled for two days or more, and are held in a quiet, relaxed setting.

The goals include both content and process components. For example, given the task of agreeing on the problems to be included in a national health research programme, the first part of a round-table discussion is devoted to learning about the expertise, experience and point of view of each individual regarding the task. But the round-table discussion also seeks to create a context for change, where new insights are realised from the collective experience, innovative ideas are proposed which may change the way individuals and organisations will do things in the future, and possible agreement can be reached on how collective thought and action can be moved forward.

Successful round tables require careful preparation and skilful facilitation. Also, it is important to have a writer (or rapporteur) who is skilled in note-taking and in preparing reports, a draft of which is distributed for comment to round-table participants soon after the event.

Box 5-3

THE NOMINAL GROUP TECHNIQUE (NGT)

This technique allows a group or team to quickly come to a consensus on problems or issues, by completing individual importance rankings and incorporating these into an overall statement on team or group priorities.

The NGT has the following features:

- builds commitment to the group choice through equal participation;
- allows individual rankings without being pressured by others;
- puts quiet individuals on an equal footing with more dominant persons;
- makes group consensus visible, so that major areas of disagreement can be discussed.

The steps include:

1. Generate the list of problems or issues to be prioritised.
2. Write these on a board or flip chart.
3. Eliminate duplicates and/or clarify meanings of any statement.
4. Record the final list of problems, issues or statements (on a board or flip chart; or on worksheets which each person has).
5. Each person (stakeholder) records the corresponding letters (A, B, C, etc. designated to each problem or issue) and orders them by rank.
6. The rankings of all persons are combined, and displayed. This display can then be discussed further for clarification.

There are, of course, variations on these steps, such as reducing a large number of problems, for example, from 20 to half, before actually prioritising.

In addition, it is important to incorporate discussions about criteria into the consensus-building process. All stakeholders should have a say regarding the selection and definition of criteria, and in their use. It is recognised, however, that the eventual decision about the actual research priorities, is likely to be made by a smaller working group or sub-committee, acting on behalf of the larger group of stakeholders.

Synthesis

Goal : The general purpose of a synthesis is to combine separate components into a single unified statement or document. As it relates to national health research priorities, the synthesis statement should describe a small number of topics for research, in some order of priority, and should reflect the general agreement achieved in a consensus-building exercise (as described above).

Who is involved ? This task is usually delegated to an individual or to a small working group.

Methods : There are no distinctive methods or techniques that have been evaluated. Whether the synthesis is done by an individual or by a small working group is somewhat arbitrary. There could be a combination of the two approaches, where one member of a working group prepares a draft synthesis that is then improved by others. It seems appropriate that the 'synthesiser' is someone with credibility, and with appropriate experience and skills.

Box 5-4

A SYNTHESIS DOCUMENT

— An example from Zimbabwe —

The Zimbabwe experience with ENHR priority setting is captured in a small, concise document which Zimbabweans call 'the little red book.' It is a report of the proceedings of the National Convention on ENHR Priority Setting which was held in Nyanga, in August 1995. In just a few pages, this booklet summarises the processes that preceded the convention, the work by participants at the convention itself, and the end-product of this activity.

The pre-convention process began in late 1993 when the Medical Research Council of Zimbabwe received seed funds from COHRED to conduct a priority-setting exercise. The exercise consisted of two parts:

1. A comprehensive survey of the views of participants at all levels of the health system, using several methods: a structured checklist (which was completed by 252 individuals); a total of 112 focus group discussions in 56 districts; and provincial workshops (reviewing the collected data) in seven of the eight provinces.

2. An analysis of current and recent research in Zimbabwe, gleaned from the Medical Research Council data base. The individual projects were categorised by type of research under four headings; they were also clustered and marked under subject headings.

At the convention itself, summaries of all of the above information were presented. The participants then worked in small groups using two other instruments: (1) one which examined the multi-disciplinary components of each problem category (for example: legal-policy; socio-cultural; medical-research); (2) an instrument which displayed an action plan for each general problem area, with categories such as: specific actions; 'actors;' potential funding sources; and evaluation.

As a product, the convention drew up a list of 25 priority areas. This list served as a basis for evaluating the institutional and operational mechanisms currently in place and the implications for Zimbabwe's ENHR country plan. The document uses tables, lists and summaries in a helpful and concise fashion. The appendices include a listing of participants and a summary of the convention programme.

Some features of the synthesis document are suggested:

- **brief :** probably no more than 3–5 pages.
- **clear**: the research priority areas should be described in terms that are understood by all contributors (stakeholders). This means that the language used should be non-technical, that is, that it can be read, for example, by the president of the country or by a high school teacher who uses it for a class assignment.
- **accurate**: that is, it reflects the consensus discussions that it is trying to describe.
- **interesting**: it is always helpful if the synthesis is written in a compelling fashion, which the stakeholders will be proud of, and which readers will remember. Some attention should be given to the appearance of the document, so that the first impression is pleasing and memorable.

Problem Specification

Goal : Given the research problem areas identified by stakeholder consensus and described in a synthesis document, to develop a specific research plan for each problem area.

Who is involved ? Presumably, a research planning team would be assembled in relation to each problem area. The team would be multi-disciplinary (to reflect one of the ENHR principles), and the task would be to prepare a specific plan, with clearly described projects.

Methods : For a given problem area, the research agenda should: be delimited in time and resources; forward-looking; specific enough to guide funders and researchers; facilitate monitoring of the completion of the agenda; and make full use of the strengths and uniqueness of the research team or institution(s).

Two categories of ‘methods’ could be considered: the technical aspects, and the teamwork aspects. Regarding the technical strategies for research programme planning and protocol development, many useful resources are available.[2,3,4]

Several countries have used an interesting approach to problem specification by inviting researchers to prepare ‘concept papers.’ These describe proposed research projects in relation to specific priority problem areas derived by consensus discussions with stakeholders. (See **Box 5-5** for an example from Uganda).

Regarding the process of building and facilitating multi-disciplinary and multi-stakeholder teams, this may be a complicated challenge which in itself requires special skills and experience. Suggested processes for strengthening such teams are discussed in the WHO-IDRC *Health Systems Research Training Series*.[5]

Box 5-5

RESEARCH PROBLEM SPECIFICATION

— An example from Uganda —

In 1995, the Uganda National Council for Science & Technology (UNCST) called on Uganda researchers to prepare concept papers for projects on topics on the ENHR priority list (which had been prepared at an earlier national ENHR workshop). In these concept papers, researchers were asked to describe a problem statement, and the proposed methods to tackle the research problem. Thirty-eight papers were submitted, covering the four previously determined priority areas for research: maternal and child welfare and nutrition; communicable diseases, including HIV/AIDS; water and sanitation; and health policy.

A workshop was organised to discuss the merits of these proposals among Ugandan researchers, together with some invited guests: the COHRED Coordinator, the Executive Director of the International Clinical Epidemiology Network (INCLEN), and the Director and Programme Administrator of the International Health Policy Program (IHPP). Through a cooperative initiative, the three external programme representatives agreed:

- to help the Ugandan investigators to develop their proposals further;
- to find donors who could support those resulting high quality proposals that would fit their programme's terms of reference; and
- to help to find alternative sources of assistance for those proposals that fell outside a given international programme’s mandate.

Subsequently, after discussions with various donor agencies, three clusters were identified for further support. A group of five papers on health financing were accepted for support by the IHPP; since the five researchers had similar ideas on health financing research, a single larger proposal was prepared collaboratively. The study is now being carried out.

Another group of seven researchers received a favourable response from INCLEN's Reproductive Health fund. These proposals are currently being developed further, with methodological help from the Clinical Epidemiology Unit (CEU), for subsequent funding. The third group of four researchers, who had prepared papers dealing with malaria, were encouraged by the WHO Special Programme on Research and Training in Tropical Diseases (TDR) to prepare more detailed proposals. For the remaining proposals, no source of funds has yet been identified; nevertheless, the researchers have been encouraged to continue working on their proposals.

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[1] Adapted from Brassard M and Ritter D: The Memory Jogger. GOAL/QPC, 1994.

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THE NATIONAL — GLOBAL INTERFACE IN RESEARCH PRIORITY SETTING

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Mary Ann Lansang

With modern communications technology and travel, the globalisation of society has developed rapidly. The health sector is no exception to this interconnectedness of nations. The so-called ‘health interdependence’ has diminished the boundaries between national and global health. Applications from health research results and biotechnology have spread from country to country. The cadre of international health practitioners and researchers is growing, while the ‘global health research enterprise’ has emerged.

In this growing context of globalisation, many developing countries have taken heed of the recommendation of the Commission on Health Research for Development to engage in a mix of country-specific health research and international health research relevant to their own priorities. There can be complementarity in agenda or there can be inequity in the priorities or processes. This section addresses the issue of the balance between country-specific research efforts and global health research.

Equity in Global Health Research

With few exceptions, the health information flow has been largely from developed countries to developing countries. This predominantly North-South gradient can be advantageous when ‘international’ knowledge, methods and technology appropriately address priority issues for a particular country. The ripple effect of a new, relevant and appropriate tool can be tremendous as in, for example, the integration of hepatitis B into EPI, now implemented in at least 80 countries. On the other hand, socio-economic and political realities have also meant that poorer countries have not been able to benefit uniformly from these scientific advances. In some instances, the deprived people have been from the very same countries that participated in the international R & D effort.[1] High pricing, monopoly and dumping of inappropriate health technology to developing countries aggravate the inequity.

In addition, variations in the distributions of diseases have skewed research funds and other resources towards health problems prevalent in developed countries and towards diseases with potentially marketable drugs. A few programmes have attempted to correct this gap, like the WHO/UNDP/WB Special Programme on Research and Training in Tropical Diseases and the old 'Great Neglected Diseases' Programme of the Rockefeller Foundation. Yet the research funds for programmes such as these have been steadily diminishing.

At the country level, there is a real dilemma in harmonising national interests to the agenda of international donors and organisations or of the pharmaceutical industry. The investment of developing countries in national health research has been far too small to match contributions by bilateral and multilateral agencies and other international organisations. Another key factor has been the inadequate research capacity in many developing countries, which has constrained their genuine participation and leadership in the global area.

There have been several attempts to identify global priorities for health research. In the most recent effort by the Ad Hoc Committee on Health Research, a new approach to 'best buys' for R & D was introduced. It quantified the disease burden and costs and impacts of potential interventions as a useful and systematic way to inform the allocation of research resources.[2]

Experts from developing countries have been invited to participate in these forums. However inadequate data and consultation with the constituents of those countries have limited the extent to which national priorities could be synthesised at the global level. Political and social considerations have largely been neglected, while the supply side (for example, new tools and products) has received the most attention. Interestingly, health policy research has recently been championed in the global agenda. But, much more so than in biomedical research, the success of international work in this area will depend on the adequacy of national and sub-national research initiatives.

In addition, undue concentration on global priorities may have undesirable effects such as reallocation of research resources to international health experts (mostly from developed countries), neglect of potential and existing problems downstream, dependence of developing countries on international research outputs, or aggravation of the brain drain.

A reminder from the Commission on Health Research for Development, as timely today as it was in 1990, underscores the primary goal of global priority setting:

> International health priorities should reflect national priorities ... to help countries with the greatest health needs and the fewest resources. Any process designed to set priorities, therefore, should not lose sight of the fundamental questions: whose voices are heard, whose views prevail and, thus, whose health interests are advanced?[3]

The agenda of equity in health research and development remains a world challenge and our goal.

Improving the National—Global Interface

Inclusiveness and participation of all stakeholders are just as important at the global level as at the national level. This involves interactions and broad-based consultations with developing countries, disadvantaged groups, nongovernmental organisations, international health academia, international organisations, bilateral and multilateral agencies and banks, and the drug industry.

Through these interactions, new mechanisms might be created to address issues relevant to the global—national interface, such as: monitoring and reallocation of health R & D funds at the global and national levels; intellectual property management; the brain drain; and long-term subsidies or negotiated contracts for reasonable pricing of biomedical products.

An important contribution from developing countries is the upward synthesis of national priorities to the global level. In the short term, hands-on participation in global task forces devoted to specific initiatives could improve the global—national interface. Participation of representatives from developing countries in such task forces should be premised on similar research initiatives that are in line with their national research priorities. Short- and long-term training and research opportunities for analytical work should be offered to the countries in greatest need, for example, in quantifying and modelling disease burdens or in health policy research.

For the long term, the biggest challenge is to continually increase the internal capacity of countries for analysing their own health problems and needs, setting priorities, designing, implementing and evaluating research and health programmes. The analysis at the global level could then be continually enhanced by the data-based contributions from countries. As shown **in Figure 6–1** , the synthesis–analysis cycle is an iterative loop that should steadily strengthen the methodological and analytical capacities of developing countries to discuss issues on an equal footing at the global round table.

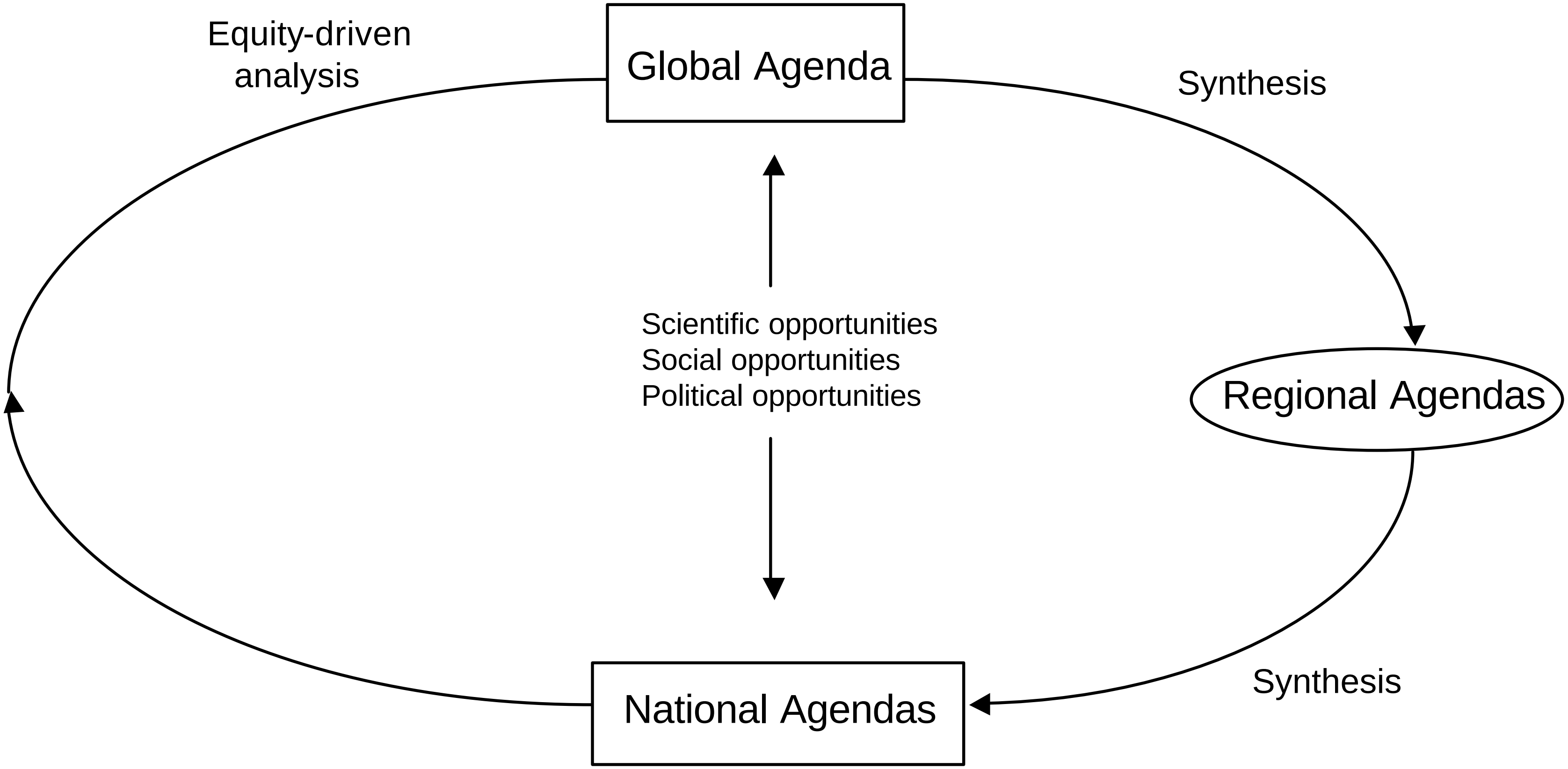

Fig. 6 The Global - National Interaction in Priority Setting

International organisations and donor agencies have an important contribution to make to this long-term objective of capacity strengthening. Coordination of international groups at the global, regional and national levels would greatly enhance the efficiency of international research resources at the country level, particularly if they encourage locally-driven priority-setting exercises and recognise the research priorities identified. The countries, on the other hand, will only gain such recognition if their priorities are identified through processes which are scientific, systematic, inclusive and participatory.

References

[1] A case in point is the unavailability of a hepatitis B vaccination programme in many countries with a GNP/capita of below $500, some of which participated in landmark field trials on the vaccine. See the grid illustrating this inequity in the newsletter item: Hep B: more haves, but too many have-nots, In: Vaccine & Immunization News, October 1996, No. 2.

[2] Ad Hoc Committee on Health Research Relating to Future Intervention Options. Investing in health research and development. Geneva: World Health Organization, 1996. The Committee identified four key areas for R & D response: (1) an unfinished agenda of maternal and child health; (2) continually changing microbial threats; (3) non-communicable diseases and injuries; and (4) health policy research and training. Research initiatives in these areas have since been expanded.

[3] Commission on Health Research for Development. HEALTH RESEARCH: Essential Link to Equity in Development. New York: Oxford University Press; 1990:43-44.

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