



**PROCEEDINGS OF THE FIRST
AFRICAN CONFERENCE ON
HEALTH RESEARCH FOR
DEVELOPMENT**

**IN CONJUNCTION WITH THE SIX AFRICAN
NETWORKING MEETING FOR
ESSENTIAL NATIONAL HEALTH RESEARCH
(ENHR)**

HARARE, ZIMBABWE 19-23 SEPTEMBER 1999

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EXECUTIVE SUMMARY

The African Conference on Health Research for Development, incorporating the Sixth African ENHR Networking Meeting, was held in Harare/Zimbabwe from the 19th to 23rd of September 1999. Delegates who attended the conference came from 30 countries, several donor agencies, national and international research institutions, UN-agencies and NGOs.

The overall theme of the conference was:

Health Research for Development: Promoting an African Perspective for the new Millennium

Dr Chandiwana, Prof. Owor, Dr Samba, and Dr Stamps introduced the meeting with welcome addresses.

'Ear-catching statements'

- *'Absence of evidence is no evidence for absence'* (Dr TJ Stamps)
- *'The poorer the country, the smaller research; the smaller research, the poorer the country'* (Dr I Samba)
- *'Medicine is a social science and politics are nothing else than medicine on a larger scale'* (Prof. R Owor)

The first part of the meeting focused on the ENHR competencies:

- Promotion, Advocacy, and ENHR Mechanism
- Priority Setting for Health Research
- Linking Research to Action and Policy
- Community Participation in ENHR and Health Research
- Capacity Development for ENHR

'Ear-catching statements':

There are three major features of health research that can help make it effective:

- *'Put the priorities of your country first*
- *Design and implement a research strategy that works for equity in health*
- *Make research an active part of development'* (Dr Y Nuyens)

In the second part, keynotes in the field of malaria, tuberculosis, HIV/AIDS, reproductive health, and healthcare reform were presented in plenary and further discussed in breakaway groups. Plenary discussions on equity and partnerships in research were also conducted.

'Ear-catching statement':

- *'The assets of the top three billionaires in the world are more than the combined GNP of all least developed countries and their 600 million people. I would welcome research on how to hack into the bank accounts of these three billionaires'* (Dr R Loewenson)

In the third part, an overview was given of ENHR in the last decade, followed by a plenary session on future directions, with a focus on the upcoming International Conference on Health Research for Development to be held in Bangkok, Thailand in October 2000. Participants came up with a strong statement on *African Solutions for African Problems*, clearly reflecting a regional voice to bring forward on the international scene. This resulted in the '**Harare Resolution on ENHR**'.

The conference furthermore served as a venue for surveying country work plans and areas of support. The official hand-over of Regional Focal Point for ENHR, from Prof. Owor (Uganda) to Dr Chandiwana (Zimbabwe) took place as well.

OPENING CEREMONIES

The opening ceremonies for the African Conference on Health Research for Development started with a welcome address by Dr Chandiwana, Conference Convenor, followed by welcome remarks from Prof. Owor, the Regional Focal Point for the ENHR Network. Dr Samba, Regional Director of WHO/AFRO, and Dr Stamps, Minister of Health and Child Welfare of Zimbabwe gave keynotes for this ceremony. Both keynotes focused on the need for Africans to come forward with a common and strong voice for health development.

DR S CHANDIWANA (CONFERENCE CONVENOR)

Dr Chandiwana welcomed all participants on behalf of the Organising Committee and gave an introduction to the Conference. He explained that the 6th African ENHR Networking Meeting forms the main part of this conference and emphasised that the conference provides an ideal forum for renewing friendships and promoting intersectoral planning and regional cooperation among the many partners in the implementation of the ENHR concept.

PROF R OWOR (ENHR AFRICAN NETWORK)

On behalf of the African Network for ENHR, Prof. Owor welcomed all friends and colleagues to this important meeting, and thanked the local team for its hospitality. Africa is still facing enormous inequity in health and development, even more than countries in for example Asia. Therefore, Prof. Owor urged participants to take ownership of this conference and expressed the hope that together, participants will try to make the best of this experience and come up with a common statement to bring to the attention of the international community.

DR I SAMBA (WHO/AFRO)

Health managers and policy makers need evidence -based information for decision-making in programme and policy matters. Such information should emanate from health research. Unfortunately health research has not been given the priority it deserves in the region. Therefore, Dr Samba discussed the question '*Why is there inadequate use of research?*' and came up with the following:

- Research Myth: we must demystify research.
- Research has been given lip service: a lot of talking about research, but little action.
- Feeling of rivalry and competition rather than cooperation between policy makers and researchers.
- Inadequate capacity.
- Inadequate resources.

But Dr Samba remained positive and urged the participants to start with the little they had. People, he said, are constantly talking about health research, but not much is being done. When it comes to acknowledging the importance of health research, we are pioneers, but Africa deserves no less. The Regional Director made a strong

statement that this is Africa's problem so if we must blame anybody, we have to start with ourselves.

WHO/AFRO held several meetings with COHRED since November 1998; and it is now time to put in practice the recommendations of these meetings, i.e. focus on priority health research, advocacy for research, networking, provision of technical support, resource mobilisation, and support of regional initiatives. WHO will continue its support to the ENHR African Network for capacity development; under the condition that the network presents remarkable results, and solves national problems. Dr Samba encouraged ENHR focal points to get in touch with national WHO-representatives and ministries to sit together and see how to solve problems together. *Partnership is one of the keys to development.*

DR TJ STAMPS (MINISTER OF HEALTH AND CHILD WELFARE, ZIMBABWE)

Opening the conference, the Minister of Health and Child Welfare challenged the scientists to find mechanisms to demystify research and incorporate policy makers and communities in the research fold. He said this conference had come at the most fortunate time for Africa as the continent is in the process of far-reaching reforms to make health delivery systems more effective in providing health care for its population. However, research currently conducted in the continent benefits the international community more than the African continent. The following concerns for research can be identified:

- Absence of evidence is no evidence for absence
- Small things don't count
- Focus on the North
- Unethical research
- Non-availability of research
- Lack of prioritisation
- Inequity and inefficiency in health services

A quick inspection of the list of participants of this conference (including major stakeholders such as UN agencies, Ministry of Health, donor agencies, universities, and other institutions) assures a good debate that can be summarised in a format palatable to the policy makers in the African region. It also assures that areas of differences, if any, can be trashed out in order for the region to have a common stand at the upcoming International Conference¹.

Dr Stamps finally declared the conference open and encouraged the participants to ensure solidarity and unity in global health issues.

¹ In October 2000, a landmark international conference on health research for development will be held in Bangkok, Thailand. The event's four primary initiators are the Global Forum for Health Research, the World Bank, the World Health Organisation (WHO), and the Council on Health Research for Development (COHRED). Central to the conference is the issue of Equity. See for more information, Research into Action (COHRED Newsletter), issue 17/July-September 1999, p.10-12.

INTRODUCTION TO THE MEETING

Dr Chandiwana explained the theme, mechanics and expected outcomes of the meeting whilst Dr Nuyens provided the overall perspective.

DR S CHANDIWANA (CONFERENCE CONVENER)

Theme:

Health Research for Development: Promoting an African Perspective for the new Millennium. This theme highlighted the vital link of health research with development.

Mechanics:

The Conference will have plenary and breakaway sessions on the following topics: Health Research in Africa, Essential National Health Research competencies, Malaria, Tuberculosis, HIV, Reproductive Health, Healthcare Reform and Equity issues related to utilisation as well as quality of care. Representatives of Ministries of Health, WHO, non-governmental health and development organisations will offer their perspectives, and government officials will provide insights into the decision-making processes. The conference will furthermore examine the linkages between health research programmes and policy formulation. It will identify the barriers for good interaction between researchers and decision-makers in Ministries of Health so as to enhance the impact of research on health development in Africa. It will highlight successful strategies and pitfalls for the implementation of the Essential National Health Research (ENHR) strategy. Participants will be challenged to link research to a practical action agenda for health development in their country. Country delegates will have the opportunity to discuss country specific initiatives with members of the African ENHR Mentoring Team and the COHRED secretariat.

Expected Outcomes:

- √ A catalyst for broader discussion of an action agenda for promoting health research issues that concern the African continent.
- √ An African perspective for the year 2000 International Conference on Health Research for Development in Bangkok, Thailand.
- √ Country ENHR plans and follow-up implementation activities would be additional key outputs.

DR Y NUYENS (COHRED)

Dr Nuyens identified three major features of health research that can help make it effective:

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- Put the priorities of your country first.
 - Design and implement a research strategy that works for equity in health.
 - Make research an active part of development.
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Essential National Health Research is a strategy of action for better health, centred on country efforts to achieve equity. Its implementation provides a systematic approach for improving the effectiveness of research, helping advocates for better health to:

- √ Make health research a valuable tool for decision making.
- √ Set national and sub-national research priorities.
- √ Broaden the diversity of groups that have a say in setting the national agenda.
- √ Achieve far greater public involvement.
- √ Develop country mechanisms that facilitate effective health research.
- √ Build the capacity of researchers, coordinators and users of research.
- √ Expand interaction between researchers and users of research.
- √ Promote communication and networking.
- √ Extend networks with researchers in other countries.
- √ Mobilise resources for research.

An important part of the ENHR strategy is to enable countries to learn from each other and to share knowledge. Helping to facilitate this exchange and to encourage an innovative 'Coalition of Learners' is this conference, aiming to share information and ideas at the regional level into creating an ***African Voice*** that is firmly focused on the goal of improving health and based on the value of equity.

HEALTH RESEARCH IN AFRICA:

This section provides the background of, and an insight into the ENHR competencies, enriched with country examples and recommendations for the future. Key sub-themes include communicable and infectious diseases (particularly malaria, tuberculosis and HIV/AIDS), reproductive health, health sector reforms, equity issues, and partnership initiatives.

PROCESS: THE ENHR COMPETENCIES

Dr Neufeld gave an introduction to the ENHR competencies:

The COHRED Board established in 1997 the Task Force on ENHR Competencies.

The Task Force consists of four working groups:

- ✓ Working group on Promotion, Advocacy and ENHR Mechanism.
- ✓ Working group on Research Priority Setting.
- ✓ Working group on Community Participation.
- ✓ Working group on Research – Action – Policy links.

The Working group on Promotion, Advocacy and ENHR Mechanism has tried to shed light on questions like:

How can a country mechanism:

- Promote equity in health?
- Be an agent for change?
- Provide research systems support?
- Respond to changing circumstances?

It has published a monograph titled 'How to boost the impact of country mechanisms to support ENHR: a peek into the melting pot of country experiences'², and is currently working on a monograph on Promotion and Advocacy for health research and ENHR.

The monograph on Research Priority Setting ('Essential National Health Research and Priority Setting: Lessons Learned') is the outcome of the work of the working group on research priority setting. The monograph focuses on the ENHR priority setting process as being inclusive, participatory and transparent. A critical analysis of the demand and supply side of health and health care forms the basis of priority setting. The working group intends to develop (in the coming year) user- friendly modules for priority setting, and will publish the country experiences with the developed methodology in journal articles.

The working group on Community Participation has initiated five case studies (in Uganda, Guinea, Bangladesh, the Philippines, and Trinidad and Tobago) with the intention to answer the following questions:

- How has community participation been practised within the ENHR process?
- How can community participation improve the effectiveness of health research in both knowledge development and research utilisation?
- What are the benefits to the community by being involved in research or by using research results?

The preliminary results are now available and were presented during the conference.

² This publication can be downloaded from the COHRED web site (<http://www.cohred.ch>)

The fourth working group, on Research – Action – Policy links, started its work with a review of the world literature. Its goal is to develop an improved model or framework for linking research to policy and action. The working group is currently conducting five country case studies (in Uruguay, Brazil, Indonesia, Burkina Faso and South Africa), focusing on the following two questions:

- How can research and evidence become the more dominant force in health decision-making?
- How can different stakeholders be involved in information dissemination and action?

Each of the working groups on ENHR competencies has as specific task to address the capacity development needs and initiatives to implement the ENHR strategy.

Promotion, advocacy and ENHR Mechanism

(Dr M. Abdullah)

Why do countries need a mechanism for the support and co-ordination of health research? The Working Group on Promotion, Advocacy and ENHR Mechanism has focused on this question. The main functions identified for a national mechanism include³:

- ✓ A national mechanism can channel global initiatives into local responses.
- ✓ It can facilitate the integration of ENHR plans into national health plans and national development plans, and can engage all actors in this process.
- ✓ It can place equity in the centre of all initiatives by monitoring activities of health research.
- ✓ It can act as agent for change by, for example, actively engaging all users of research, and by fostering ‘ownership’ of the mechanism by stakeholders.
- ✓ It can increase the utilisation of research by promoting timely, scientifically sound and relevant research and by stimulating the development of a dissemination plan for the research results.
- ✓ The mechanism can provide independent thoughts and new ideas for research systems support.

To be able to fulfil the functions mentioned above the mechanism needs to be flexible and dynamic, and respond to changing country circumstances.

Several institutional arrangements are possible for an ENHR Mechanism, each having their own strengths and weaknesses.

Institutional arrangement	Strengths	Weaknesses
Unit in the Ministry of Health (MoH)	<ul style="list-style-type: none"> ✓ Close link to action plans of MoH ✓ Responsive to priority health needs identified by MoH ✓ Official credibility ✓ Established budget 	<ul style="list-style-type: none"> ✓ May become bogged down by bureaucracy ✓ Links with research/ academic environment often lost ✓ The need for longer term research may

³ See for a more detailed discussion on the functions of national ENHR Mechanisms the COHRED publication ‘How to boost the impact of country mechanisms to support ENHR: A peek into the melting pot of country experiences’. This publication is accessible through the COHRED web site <http://www.cohred.ch>

	<p>line, so funding fairly secure</p> <ul style="list-style-type: none"> ✓ Political muscle to pull often fractious researchers together 	<p>become submerged</p> <ul style="list-style-type: none"> ✓ Research agenda may mirror political/ government agenda only ✓ Research outputs will tend to be mainly for MoH use ✓ Ability to monitor the move towards equity may be limited
University based	<ul style="list-style-type: none"> ✓ Based in an academic/ research environment ✓ Ability to develop a short and long term perspective and research agenda ✓ Respected academics may be able to play a leadership role amongst colleagues 	<ul style="list-style-type: none"> ✓ Traditional divide between research and action often perpetuated ✓ Academic interests may override the primary objectives of the research ✓ Research separated from the day to day issues of the health sector and planning activities of the MoH
Parastatal council	<ul style="list-style-type: none"> ✓ Often held in high esteem by academic community and politicians ✓ Legislated bodies for co-ordination of health research ✓ Can make use of existing research management and support infrastructure ✓ Facilitates integration of applied and basic research around priority health problems 	<ul style="list-style-type: none"> ✓ Often stuck in traditional research moulds ✓ Tend to reflect the interests of the senior medical fraternity, who generally dominate council boards ✓ Often bureaucratic and inflexible ✓ Sometimes conflict of interest arises as many councils are both 'doers' and funders of research ✓ Autonomy from State fairly limited, so explicit equity focus may be difficult
Non governmental organisation	<ul style="list-style-type: none"> ✓ Flexible and responsive to priority health needs ✓ Often able to secure additional funds for research ✓ Sustainability often wholly dependent on outputs that attracts investors 	<ul style="list-style-type: none"> ✓ Distant from day to day planning in the MoH ✓ May at times be in conflict with the MoH as a consequence of unfavourable research results ✓ May battle to secure cooperation of

	<ul style="list-style-type: none"> ✓ Organisational autonomy, which permits a clearer monitoring role ✓ No vested interests (if no intramural research conducted) ✓ Able to involve other players easily, such as the media, advocacy and community groups ✓ Easily bridges the divide between research and action 	<ul style="list-style-type: none"> ✓ traditional academics ✓ May be regarded as 'unofficial' by the MoH
Multiple organisations under the ENHR banner	<ul style="list-style-type: none"> ✓ Can draw on the relative strengths of each organisation ✓ Interests of different constituent groups can be represented ✓ Net effect is a powerful national lobby group 	<ul style="list-style-type: none"> ✓ Difficult to co-ordinate activities ✓ Risk that groups will represent their own organisational interests

During the breakaway session the country experiences of Kenya, Nigeria and Uganda were presented and a general discussion on the country mechanisms for ENHR, and the promotion and advocacy for these mechanisms took place.

The following key lessons were identified:

- ✓ Experience shows that donors are not aware of the value of ENHR to achieve health and development. Therefore, donor communities should be included in the promotion and advocacy activities.
- ✓ Advocacy and promotion should be a continuous process, because of the continuous change of policy makers at all levels.
- ✓ The co-ordinating board of the mechanism should include all stakeholders.
- ✓ As a coping mechanism to the frequent changes in personnel at all levels, and to increase sustainability of the ENHR mechanism, ENHR should be more widely incorporated in the curricula for health personnel.
- ✓ ENHR should have a budget line in the government budget to guarantee sustainability of the mechanism.

Research Priority Setting: Practical Suggestions

(Dr D Okello)

Priority setting for health research is becoming increasingly important.

- The health system is facing a financial crisis.
- There is an increasing demand for more and more costlier services.
- There is a great need for strengthening information required for decision-making.
- Demographic and social changes, and the wide health system reform demand a new look at research.

Priority setting for research will lead to:

- An improved efficiency in terms of value for money.
- More attention for the most vulnerable population groups, leading to more equity in health.
- Strengthening of links between research, action and policy.

During the priority setting exercise, **equity** should be the overriding concern. Keeping this in mind, the steps that can be defined for setting research priorities at national (or sub-national) level include:

- Identification and involvement of all stakeholders. An adequate promotion and advocacy for research (including the ENHR process) should be done beforehand so that stakeholders are aware of the process and implications of setting priorities and are 'ready' for priority setting.
- A situation analysis: An analysis of health status, health systems, health research systems, and of the demands for research will facilitate the identification of research gaps.
- Ranking of research areas. To be able to rank the research areas, there needs to be a consensus on the criteria to be used for this ranking, and an understanding of these criteria and of the priority setting process by all participants involved.

Examples of Criteria for Priority Setting

- Magnitude of the problem
- Avoidance of duplication
- Feasibility
- Political acceptability
- Urgency
- Research utilisation and applicability

- Equity
- Economic Impact
- Ethical Acceptability

- Identification of type of research and specification of research questions. This should include the identification of resources to conduct the research, of potential research groups, and of time frames within which the research should be conducted.
- Implementation and follow up. A wide dissemination of the research agenda is a first step in ensuring the implementation of this agenda. Specific follow up activities can include the development of project proposals and the funding of these proposals. A periodic review and assessment of the research agenda will keep the priorities relevant and up to date.

The following **constraints** for priority setting can be identified:

- A shortage of critical health information for setting the priorities.
- Lack of funding to implement essential research.
- Capacity constraints.
- Lack of public/private sector collaboration.
- Difficult communication between researchers and public audiences.

In the breakaway session, the country examples of Tanzania and Benin highlighted some **lessons learned**:

Tanzania

In February 1999, Tanzania has held a priority- setting workshop⁴. Key lessons learnt are as follows:

- **Ownership**: the participants in the Priority Setting workshop were not willing to use the existing criteria for priority setting; they preferred to set the criteria themselves and own this process.
 - **Inclusiveness**: the step from research topics to research questions was done in this workshop including all stakeholders; researchers should not underestimate the users of research in this step of the exercise.
 - **Partnership and coalition building** are very important for a successful priority setting process.
 - **The dynamics of the process**: priority setting is not static; there is a need to continuously follow up and accommodate changes.
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Benin

Benin was one of the first countries to conduct a priority-setting workshop within the context of the ENHR strategy. A workshop took place in 1992. Currently Benin is in the process of reviewing its priorities, keeping in mind the three main lessons learned from the previous experience, i.e.

- The **mechanism for follow up** after setting their priorities was not functioning.
 - There were **no funds** available to implement the priority research projects, and **no capacity** to do the research.
 - The **participants** in the priority setting exercise involved mainly health personnel, ignoring other sectors relevant for development.
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The **recommendations** from the discussion during the breakaway session included:

- The priority setting exercise should build upon what has been done before in a country.
- The establishment of task forces, not only at national, but also at district level, will facilitate the monitoring of the process.
- A revision of the research agenda is necessary every 2 to 3 years, to allow for a continuous dynamic process.
- Funds should be made available for health research on priority issues.

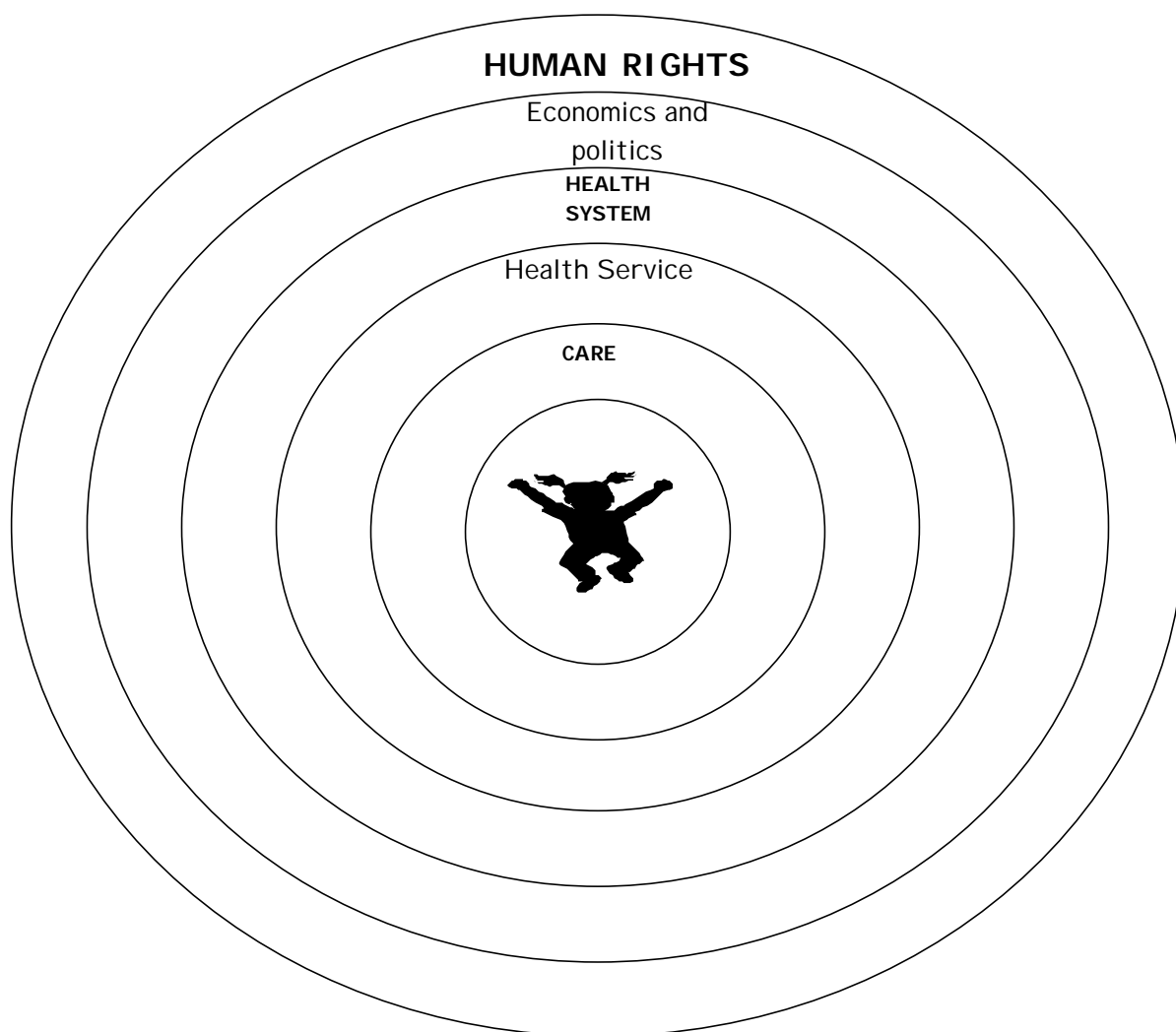
An important **main question** and **challenge** remains: *How to ensure that all players (including the donors) will address the newly set priority areas?* The conference did not come up with clear-cut solutions to this issue.

⁴ See for details on Tanzania's experiences: Research into Action (COHRED Newsletter), issue 17/July-September 1999, p.7-8

Linking Research to Action and Policy

(Dr G. Munishi)

COHRED's working group on research to action and policy uses the following framework for conducting country case studies (the circles illustrate the levels of policy decisions with impact on an individual).



The Case studies of the Working Group:

- Focus on an issue across all policy levels or look in detail at one specific level, but highlighting the connection with the other levels.
- Pilot studies in Brazil, Burkina Faso, Indonesia, South Africa and Uruguay- start in September 1999 and the results will be available in early 2000.

The case studies will cover the following elements:

- 1. Environment:**
 - ⇒Positive/negative events at the time of research (change of government; emerging diseases).
 - ⇒Description of policy- making processes.
- 2. Adequacy of research results:**
 - ⇒Can data be used in given context?
 - ⇒Recommendations translated in action points?
 - ⇒Validity of research methodology?
- 3. Participation in research planning and implementation:**
 - ⇒Who are the active players in the planning stage of research?
 - ⇒Who are involved in conducting the actual research?
- 4. Process of research dissemination:**
 - ⇒Research results known to all stakeholders?
 - ⇒Availability of appropriate dissemination plan?
 - ⇒Packaging and targeting of research results?
- 5. Stakeholders and their perception of the research:**
 - ⇒Stakeholder analysis.
 - ⇒Reactions towards the research results.
 - ⇒Views on the need for research.
 - ⇒Reactions about dissemination of results.
 - ⇒Suggestions for policy linkage improvement.

The studies will lead to a discussion of the following questions:

- Which research to policy model can explain this case study? What are the missing components in existing models?
- Why has the research policy linkage succeeded/failed?
- Who has been most concerned about linking research to policies? Why? What were their roles?
- Who have been the key players in success/failure?
- How could the research to policy linkage have been improved?
- What are the good/bad practices learned from this case study?

Community participation and ENHR: who is the third stakeholder in ENHR?

(Dr Binta T. Diallo)

The community has always been considered as one of the main partners in the implementation of the ENHR process in a country. However, little was known about how the community has been involved in ENHR, how 'community' and 'community participation' were defined, and what the impact of community participation in health research has been. COHRED's working group on Community Participation therefore initiated five case studies, two of which took place in Africa (in Uganda and Guinea).

The purpose of these case studies was to find out how community participation has been defined, interpreted and practised in countries that adopted the ENHR strategy, both for the implementation of ENHR and for conducting health research. Methods used in the studies included: literature review, interviews with key informants, and focus group discussions.

The discussion of the preliminary results among the country researchers of the five case studies has led to the following statements:

- Community should be understood not just as a neighbourhood but also pragmatically as any collection of people who feel that their interests are at stake in a matter.
- Community participation is fundamentally about the role of people in research – as direct or indirect beneficiaries, users and subjects. The relationship between research and the public can take many forms.
- Communities are not static but come into play in a dynamic interaction with researchers and policy makers.
- Participation has to start with communication of research and policy issues in ways that are meaningful to people in the particular realities in which they live. One of the greatest weaknesses of ENHR so far has been the failure to inform people about research findings.
- Involvement of researchers with communities is one of the most important forces for linking research and action because communities press for the kind of research they can use.

The results of the studies show that for the various elements of the implementation of ENHR, 'community' is understood differently and that participation and involvement of the community takes different forms.

ENHR element or competency	Community involved in implementation	Way of involving community
Promotion and advocacy	The population at large, including NGOs, decision makers, village leaders, health service providers etc.	Sensitisation through media, meetings and conferences
ENHR mechanism	Researchers and decision makers at national and district level.	Co-operation through working groups, meetings
Priority setting	Community is represented by NGOs, village leaders, health service personnel	Consultation through meetings, workshops, focus group discussions
Research utilisation	Representatives of the community, researchers and decision makers	Research results can be disseminated through district and national meetings. Action by all stakeholders is needed to achieve change.

Capacity development	Mainly focused on researchers and health service providers. Community can be involved (and trained) in data collection.	Training in research methodology. The community would mainly gain from learning to understand the value of research.
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The key lessons and recommendations:

During the breakaway session the case studies of Guinea and Uganda were presented. The major lesson learned from the case studies is that community and community participation can be understood and interpreted in many different ways, and will have different forms and modalities depending on the type of research done and on the phase/stage of implementing ENHR. Limited forms of participation are sometimes inevitable.

Keeping this in mind the following recommendations were made:

- ✓ Sensitisation of the community about research and ENHR should take place from the on-set onwards, research should be incorporated in the daily life
- ✓ The results of studies should be disseminated to the community in the shortest possible time and in a manner that they understand. The community should be kept informed throughout the whole project, not only at the end of the project.
- ✓ To allow for a useful participation of the community in research, the duration of a study should be long enough, and funds should be available for the whole project, so that researchers can fulfil the promises made to the community.
- ✓ The community should in one way or the other benefit from the project, this can also include a gain in knowledge as long as they are aware how to use this knowledge

Building blocks for Capacity Development

(Dr Vic Neufeld)

The COHRED Board requested in 1997 a review of the capacity development strategy for ENHR (CD/ENHR). As a follow up, a working group developed a concept paper and initiated three country case studies (in Uganda, Ghana and Lao PDR). The African case studies were presented during the Fifth African ENHR Networking meeting in Ghana (in 1998). The discussion in Ghana resulted in the establishment of an African Task Force on CD/ENHR, which has as its main goal the development of a 'toolkit' for capacity building for ENHR in the African region.

During the COHRED Board of 1998, it was re-emphasised that COHRED's mandate in the field of capacity development focuses on three areas:

- ✓ Continued country facilitation.
- ✓ Collaboration on specific activities with selected partner organisations.
- ✓ Focus on capacity development for the ENHR competencies that should result in a 'convergence' of the various working groups, especially a 'convergence' of the products developed.

The continued country facilitation resulted in 1999 in country initiatives in:

- ✓ Uganda: with special attention for capacity development at the district level.
- ✓ Ghana: where the COHRED activities converged with a Ghanaian – Dutch Cooperation program.

- ✓ Kenya: ongoing explorations within the context of the next five-years health research plan.
- ✓ Pakistan: initiation of a study on capacity development.

The collaboration with partner organisations has been followed up with INCLEN, UNDP and the Global Forum for Health Research.

The convergence with the work of the Task Force on ENHR competencies resulted in the notion that the output of the working groups, together with for example an initiative on leadership development, forms the building blocks for COHRED's capacity development initiatives. The newly created 'COHRED communication team' has as one of its tasks to ensure the convergence of the products created. The African Task Force initiative for the production of a toolkit has also been integrated in the plan of work of the communication team.

During the breakaway session the **Uganda experience** with capacity development for ENHR was presented.

In 1998 a survey was carried out in Uganda on capacity needs for ENHR. The survey results indicated among others that:

- ✓ Funding for health research was almost exclusively from outside the country.
- ✓ Donor agencies did not fund in coherence with the set national research priorities, indicating the need to sensitise donors for the national needs.
- ✓ The number of trained researchers in the country is considerable, however, most are not appropriately deployed and therefore not fully utilised.

One of the activities that took place as a follow up to this initial survey was the strengthening of ENHR activities at the district level. The project encouraged the participation of students, especially in their home districts. Training workshops were held in proposal writing at district level. A small grant was given to each of the districts to support the implementation of one research project.

The discussions during the breakaway session revealed the following key lessons learned and recommendations:

- ✓ The results of research are often not accessible. There is an urgent need for capacity development for the utilisation and dissemination of research findings.
- ✓ There is a need to incorporate the ENHR strategy in the programmes of training institutions.
- ✓ Countries should share their experiences on a wider scale, and develop a pool of experiences.
- ✓ There is a need to balance effort-input between anticipated and pressing problems.
- ✓ Capacity Development should not only focus on researchers, but also on the end-users, and on potential donors, the research itself, but the whole process, i.e. sensitisation, proposal development, implementation, and utilisation of results.

HEALTH RESEARCH INITIATIVES

Five eminent scientists working on important health issues in Africa were invited to prepare and give keynote presentations that would guide the discussions in the breakaway sessions. The topics selected by the scientific team of the conference were on malaria, tuberculosis, HIV/AIDS, reproductive health, health sector reforms and equity in health. A separate proceeding from the keynotes is available on request from the organisers of the African Conference on Health Research for Development. Below is a list of the keynote presentations as well as the contact details of the presenters.

MALARIA: LE PALUDISME URBAIN : UN PROBLEME IMMINENT EN AFRIQUE, Pr Robert Tinga GUIQUEMDE Centre Muraz/OCCGE, 01 BP 153 Bobo-Dioulasso, Burkina Faso Tél/Fax :(226) 97 28 24 ; E-mail : rguiguemde@hotmail.com

TUBERCULOSIS: Place de la recherche dans la lutte contre la tuberculose en Afrique, Présenté par Prof. Oumou Younoussa BAH – SOW Service de Pneumophthisiologie du CHU Ignace Deen P 634 Conakry, République de Guinée

HIV/AIDS AND AFRICA: A Research Agenda for 21ST Century by Professor Peter M. Ndumbe, Dean, Faculty of Medicine and Biomedical Sciences, University of Yaounde 1, Yaounde, Cameroon. Formerly Chairman , Cameroon National AIDS Commission.

REPRODUCTIVE HEALTH: Responding to Adolescent Reproductive Health Needs in Sub-Sahara Africa. Stephen N. Kinoti MBCHB, MMED, MPSID.(Page 26)

HEALTH SECTOR REFORM: Health Sector Policies in Africa: Who Informs the Problem Identification and Agenda Setting? Pr Gaspar K. Munishi, University of Dar es Salaam, Tanzania

EQUITY: EQUITY in Health in Southern Africa: Can Research Fill the Gap? Dr Rene Loewenson, Director, Training and Research Support Centre (Co-ordinator, Southern African Regional Network On Equity in Health - EQUINET).

Malaria Breakaway Session

The speakers for the session were Prof. C. Shiff who presented a paper on 'Malaria Control Strategy', Prof. P. Mason who presented a paper on 'Laboratory Contribution to Malaria Diagnosis, Treatment and Control' and Mr T. Bisika who presented a paper on 'Malaria Case Management in Children in Rural Malawi'.

Prof. C. Shiff

In his presentation he advocated for a meaningful agenda to reduce the malaria burden. Focus should not only be on reducing mortality but also on reduction of morbidity and malaria as a whole. Too often outsiders have set the research agenda and consequently a lot of resources are put to waste. An example was vaccine development. The task for African countries is to set their own agenda with political commitment. The capacity to do so has to be created by forming core groups of local experts trained locally. Such experts should be kept in the field by improving their conditions of work to avoid brain drain. A local institute providing expertise on contract

basis would allow for independence and sustainability of such technical core groups. Donor funding should be used to train and retain local scientists. The Ministry of Health should be the main instigator and leader in malaria control efforts and not allow itself to be decentralised or multisectoralised out of effectiveness. Malaria programmes should be scrutinised at all levels of operation by independent experts who are locally based.

Prof. P. Mason

He described the role of the laboratory in three different areas of malaria control.

- Diagnosis that allows detection of the parasite in a variety of circumstances (clinical settings, epidemiological settings etc.). Research efforts should be focused on finding what laboratory technique choices should be made (following algorithms) to make diagnoses cost- effective in a given situation.
- Disease management needs to types of objectives for laboratory institutions, i.e. detection of resistance to specific drugs.
- Finding laboratory detectable indicators for disease prognosis and thus management/interventions. Fields in which the laboratory may research to improve molecular detection of resistance, simple tests to detect disease progression in a given patient.
- Overall control activities and testing efficacy of interventions.

Mr T. Bisika

He presented the perception and activities of a rural community in dealing with malaria and related diseases. 20-40% of the malaria cases are in under fives and the high prevalence of the disease makes it an everyday problem of the rural folk. It shows that simple misunderstandings may be obstacles to proper health care seeking behaviour. An example is the fact that people get suspicious if children get only half tablets (of Fansidar) because smaller dosage pills do not exist. Traditional healers treat many different diseases and delay to health centres is variable. Health centre staff was 5 times better in diagnosing malaria correctly than family members. The recommendation made stressed that drugs should be available in health centres. Antimalarial drugs should be available in grocery shops. The relationship between traditional healers and Health Centres should be strengthened.

Discussion

Most of the arguments made by Prof. Shiff were reinforced. The need for cost effective application of various laboratory techniques at peripheral levels was emphasised. Community knowledge and practices should be tapped and used productively. It was seen as the responsibility of the researchers to let communities share the findings of research and there should be practical guidance to prevent and deal with malaria.

Reproductive Health Breakaway Group

Two presentations were made. Ms E. Takawira presented a paper on Reproductive Health Education Needs of Form III Secondary School Boys. Dr D. Neuvians presented a paper on a Review of Family Planning Services in Eastern and Southern Africa: what works and what does not work.

Ms E. Takawira

The objectives of the study were:

- Assess reproductive health knowledge among secondary school boys.
- Assess attitudes of the boys neglecting sexual responsibility.
- Establish the boys' self reported sexual practices.
- Identify perceived reproductive health information and education needs of the boys.

The study covered four schools-395 boys completed self-administered questionnaires. Focus group discussions were also conducted. The knowledge of boys on different areas varied with the majority (75%) having knowledge of reproductive biology. 40% cited abstinence as a method of preventing pregnancy and 66% knew about some sexually transmitted diseases. 77% considered girls to be responsible for preventing pregnancies and 59% regarded having multiple sexual partners as being normal. 32% had sexual experience. The boys preferred to get information on reproductive health from their parents. 77% said information they got from school on reproductive health was inadequate.

Dr D. Neuvians

He indicated that GTZ had been supporting 16 countries in the eastern and southern Africa regions for about 10 years to improve their reproductive health services and to facilitate health care reforms through applied or health systems research (HSR). The concept of health systems research was developed particularly to address problems of poor utilisation. GTZ support to countries was in the form of:

- Training of programme managers and health service providers in HSR methodology.
- Technical and financial support to HSR studies.
- Dissemination and implementation of research recommendations.

The programme over the years noted a striking difference in current contraceptive prevalence rates in the countries it supported. This was despite the high knowledge about contraceptives (90%). This observation prompted the programme to investigate causes of the differences. Questionnaires and interviews were made with the countries' family planning service providers and managers via e-mail. The findings of the survey found a positive correlation between secondary education of women and contraceptive prevalence rates and a negative correlation between infant mortality and contraceptive prevalence rates. However, the success of family planning was found to be dependent on the political, social, economic and cultural environment. It is clear that efficient family planning programme backed by government commitment and resources can result in a sustained fertility decline.

Zimbabwe is a country that showed commitment to family planning at independence that resulted in impressive decline in fertility rates. The Republic of South Africa was another example although the reasons for the dramatic drop in fertility rates are considered controversial in some aspects. The apartheid government of the Republic of South Africa had a standing policy that ensured reduced reproduction rates of the black population. To achieve this, black women attending health facilities were knowingly or unknowingly exposed to family planning methods. Due to this strategy 1980 total fertility rate fell from 6.9 in the black population to 4.6 in 1980 and 3.6 in the 1990s.

Discussion

The study by Ms Takawira was found to be providing important information about an adolescent boy's knowledge, attitude and reproductive health practices. It confirmed findings from other studies on preference of youth to get information about reproductive health from their parents. Reluctance of parents to discuss issues of sexuality with their children was seen as an area for future research. The group also noted that single parents communicate better with their children. It was found desirable to know the background of the children who wanted to discuss issues of reproductive health with

their parents. Education of parents on sexuality and how to communicate this to their children was seen as a strategy for bridging the gap between parents and their children.

In the discussion of Dr Neuvians's paper, the group reconfirmed the positive influence of education on family planning acceptance by citing other studies. There was a general agreement that where there was security of care in old age, women were more amenable to family planning and the need for large families was reduced. There was a feeling that this needs to be looked into further to inform governments of the long-term benefit of social security programmes in old age to fertility control.

HIV/AIDS Breakaway Group

Dr P. Ndhlovu who presented a paper on HIV and female genital schistosomiasis, Prof. A. Latif who presented a paper on HIV/AIDS treatment and prevention and Dr S. Gregson who presented a paper on Population-Based Survey of HIV and Sexually Transmitted Diseases in Rural Manicaland made three presentations.

Dr P. Ndhlovu

The main objective of the study that is ongoing is to investigate the clinical aspects of Female Genital Schistosomiasis (FGS), the possible effect of praziquantel treatment on the development of FGS and its association with HIV infection. More specifically the study will:

- Determine the prevalence of FGS in women from Mupfure area.
- Describe the course of FGS lesions after treatment with Praziquantel in HIV positive and HIV negative women.
- Determine if FGS is associated with HIV.
- Assess the effect of FGS on viral load in cervico-vaginal secretion.

The long-term objectives of the project are to provide authorities and NGOs with information to treat and prevent schistosomiasis in women and to provide health workers in schistosomiasis endemic areas with reliable and relevant data on genital ulcer disease in women.

Prof. A. Latif

No report available from rapporteur

Dr S. Gregson

No report available from rapporteur

Health Care Reform and Equity Breakaway Group

Five presentations were made by Dr P. Sikosana (Policy maker perspective), Dr M. Basset (Structural adjustment policy in urban/rural Zimbabwe), Dr F. Masaninga (Health research in the 90's: What menu for the new millennium?), Dr D. Essien (Health research coordination in Nigeria) and Dr S. K. Lang' at (Health Research in Kenya: a rapid assessment).

Dr M. Bassett

In 1991, Zimbabwe embarked on a structural adjustment programme. The reform package contained the typical elements of World Bank/IMF economic strategies: trade liberalisation, reduction in social expenditure, and devaluation of the currency among others. In the health sector, user fees were introduced. Concerns were expressed early

on that this package would have a damaging impact on access to health services and health status, because of reduced access to health care and growing poverty at household level. In order to get information on household economic activity, use of health services and nutritional status of under-5s, 300 households each in Murehwa and Chitungwiza were enrolled in a longitudinal household study in 1993 and re-interviewed in 1994, 1995, 1996 and 1998. In 1998, a total of 79% of households initially enrolled in Murehwa and 61% of households initially enrolled in Chitungwiza remained in follow-up.

Economic data showed a growing reliance on informal sector income: in 1998, only 32% relied on one source. Further, data suggested that richer households fared better than poor ones. Rural Murehwa experienced the most marked increase in poverty. Use of health services declined as fees were imposed and report of both home care and private medical care increased. Among children, there was a rise in acute malnutrition. The data based on serial follow-up of rural and urban households suggests that households have responded to growing economic hardship by greatly diversifying means of income generation. These multiple sources of income have not saved households from growing poverty. Rural areas have experienced more hardship than urban areas, and there was evidence of increased income inequality even within relatively homogenous communities. Health service utilisation was adversely affected by the introduction of user fees. A disturbing increase in childhood malnutrition was identified.

Dr F. Masaninga

He prescribed the health research menu for the 90's as:

- Better health care.
- Provision of clean water and improved nutrition.
- Human development and poverty reduction.

In order to meet the challenges associated with the menu two fundamental principles were seen as prerequisites. These are i) the need for a coalition of stakeholders, establishing viable linkages among the stakeholders who should be multisectoral and ii) encouraging community participation by empowering communities thereby motivating them into action. Empowerment and linkages were addressed for each of the problem areas.

Malaria

- Mining companies and NGO's were encouraged to participate in research and disease prevention. Examples for such efforts were the ZCCM/EHP support for multi-disciplinary research on malaria in Kitwe and the involvement of Christian Medical Association of Zambia in malaria control.

Diarrhoea

- Empowerment should be at household level. Individuals should treat their own water with chlorine to improve quality and hence reduce incidence of diarrhoea.
- Local chlorination industry is desirable and sustainability of home- based chlorination program can only be made possible by private/public sector/researcher linkages.

Dr E.M. Essien

Most of the health research carried out in Nigeria is done in universities and their associated teaching hospitals as well as at three established health research institutes.

In two of the institutes, the National Institute for Pharmaceutical Research and Development and the National Institute for Trypanosomiasis Research, problems for investigation have been defined by their respective mandates. The mandate of the National Institute for Medical Research by contrast spans the entire spectrum of human diseases and is sufficiently elastic to include coordination of such activities that occur in the country. In this respect, there is room for conflict with the Directorate of Health in the Federal Ministry of Science and Technology.

The Federal Ministry of Health usually defines the specific problems for which it seeks answers for implementation and normally contracts out to the university groups. On the other hand non-specific problems investigated in University Hospitals and other institutions are based on the expertise and interest of the different investigators. In the case of candidates of the National Postgraduate Medical College diplomas, research work goes towards satisfying their requirements of that body. Similar regulations apply to candidates of the Regional West African Postgraduate Medical College. For utilization purposes the Ministry of Health in its relevant policy definitions and through its National Council on Health utilises results from studies it commissions. However there is no evaluation of how well research findings has been utilised. Work is in progress to improve coordination of health research efforts.

Dr S. K. Lang'at

There are 6 institutions in Kenya that carry out research in order to assist health service provision. These are:

- Division of Vector Borne Diseases in Ministry of Health
- Kenya Medical Research Institute
- Primate Research Institute
- Tuberculosis Investigation Centre
- Kenya Trypanosomiasis Research Organisation
- Tropical Pesticides Research Institute

Malaria is considered the number one priority. Other health problems are communicable disease, respiratory diseases, diarrhoeal diseases, other parasitic infection and the HIV/AIDS pandemic. 18% of the total expenditure in Research and Development is allocated to health research and funds from donors supplement this fund. Between 1990 and 1999, 20 applications for health research funds were made. Of these, 4 were approved, 8 are being processed and 8 were rejected. Research findings are published in 3 local journals, namely, East African Medical Journal, African Journal of Health Sciences and Journal of Obstetrics and Gynaecology; and in international journals.

Tuberculosis Breakaway Group

Two presentations were made by Dr R. Makombe (Tuberculosis Services) and Mrs S. Mutambiranwa (Knowledge and Attitudes on Tuberculosis among the Community in Bulawayo).

Dr R. Makombe

Report not available

Mrs S. Mutambiranwa

Bulawayo, the second largest city of Zimbabwe has a population of 704 000. TB is the second important cause of death in the city after HIV/AIDS. 70% of the TB patients in 1998 were HIV sero-positive. The study had the following objectives.

- Assess the knowledge, attitudes and practices of the community on TB.
- Assess the attitudes of the community towards TB patients.
- Identify factors that influence the health seeking behaviour, treatment compliance and support for TB patients.
- Use the findings to develop effective and appropriate messages on TB.

Data was collected through twenty-two focus group discussions involving 232 adults. The study established the following:

- Most people know what TB is, its signs and symptoms and how it is treated.
- Misconceptions prevail on what causes TB and how it is spread.
- Prevention of TB is linked to how people perceive its spread.
- There is widespread belief on existence of TB1 and TB2, however for rural commuters, this was not mentioned.
- TB was perceived as a very severe disease which was life threatening.
- TB patients in a home were tolerated because there was no alternative to infection control and it was not known when they ceased to be infectious.
- TB was strongly linked to HIV.
- First point of call for sick patients remains the traditional healer.
- Health services help is sought if condition fails to improve.
- Treatment compliance is good if side effects are not severe.
- The DOTS strategy was well known though a few still confused it with the home-based care programme.

The following recommendations were made:

- Messages to address how TB is spread and not spread are necessary.
- Explanation of the link between TB and HIV should be given.
- Treatment period of a TB patient must be made clear to the community.
- TB patients should only be discharged when it has been ascertained that they are no longer infectious.
- The need to educate employers and employees at workplace on spread and prevention of TB was identified.
- There is need to destigmatise TB at workplaces.
- There is need to work closely with traditional healers so that they refer patients early.

POSTER SESSION

Several posters of papers that could not be accommodated in the oral sessions were displayed. Abstracts for the papers are presented below.

Severe pathology of the kidney and bladder among primary school children in a hyper endemic area for *Schistosoma haematobium* in Zimbabwe.

Ndhlovu P.D*., Brouwer K.C**, Munatsi A*., Wagatsuma Y*. and Shiff C.J**. *Blair Research Institute, Ministry of Health Harare, Zimbabwe and **Johns Hopkins University, Baltimore MD, USA

Large areas of rural Zimbabwe are hyper endemic for urinary schistosomiasis, with prevalence among school children (9-16 years) exceeding 50 percent. In these areas, intestinal schistosomiasis is less common, of the order of 10%. Until recently WHO has suggested that "morbidity" be defined by haematuria, but with the advent of portable ultrasound apparatus, it has been possible to examine patients for frank lesions of the

bladder and kidney and record the prevalence of this pathology. We have examined 553 children from 3 primary schools in the Chikwaka communal area of Mashonaland East, Zimbabwe. The prevalence of *Schistosoma haematobium* was 59%. Ultrasound examination of the bladder and kidneys was carried out on 217 and 221 students respectively. Of these 52 (24%) showed bladder wall thickening of ≥ 5 mm with polyps or masses present. 28 (12.7%) showed severe dilation of pyelon with < 2 cm parenchyma remaining. The frequency of haematuria correlated strongly with bladder lesions ($p < 0.01$) but was not associated with kidney lesions. Proteinuria was correlated with both bladder and kidney lesions ($p < 0.01$). A variety of epidemiological factors were also measured for association with pathology.

Promoting Community Cultivation and Application of *Phytolacca dodecandra* (a plant molluscicide) to control Schistosomiasis: A learning process.

Ndekha A^{*}, Woelk G^{**}, Home Hansen E^{***}, Molgaard P^{***}, and Furu P^{****}.

^{*}Blair Research Institute, Box CY 573, Causeway, Harare, Zimbabwe. ^{**}University of Zimbabwe, Department of Community Medicine, Box 178 Avondale, Harare, Zimbabwe.

^{***}Royal Danish School of Pharmacy, Universitetsparken 2, DK-2100 Copenhagen, Denmark. ^{****}Danish Bilharziasis Laboratory, Jaegersborg Alle 1D, DK-2920 Charlottenlund, Denmark.

An ongoing research project on schistosomiasis control in Guruve District, Mashonaland Central Province, Zimbabwe is based on the active involvement of local communities in the growing and application of the plant molluscicide, *Phytolacca dodecandra* as a supplement to other control measures such as chemotherapy and health education. The rural based control method is a new phenomenon and involves encouraging the affected community to cultivate, process and apply the berries of *Phytolacca dodecandra* at water contact sites. *P. dodecandra*'s ability to kill snails, the intermediate host of schistosomiasis and its rapid degradation in water is now known. After introducing the control project it was observed that plant care fluctuated during the four years study period. Furthermore, a few people participated contrary to findings of a survey where stated willingness to participate was 94%. This invoked an investigation for explanations to this scenario. Focus group discussions, semi-structured interviews and observations were used to solicit information. Many explanations emerged, *inter alia* low perceived value about the disease, need for payment in participation, inaccessible fields and weak leadership. We realise in this study that community participation is a complex process impacted by a multiplicity of factors broadly falling into social economic and political categories. If community participation is to become a norm in development programmes it ought to be viewed as a learning process by both beneficiaries and project staff. This will facilitate sharing of its success as well as solutions to obstacles during the process. In addition, motivation in community participatory projects is an indispensable aspect to be considered for the success of such projects.

Developing a user-friendly tool for Inpatient Disease Monitoring and Public Health Research in Zimbabwe: The IMMIS Database.

Aad van Geldermalsen and John Nyamayaro. Provincial Medical Directorate, Box 98, Bindura, Mashonaland Central, Zimbabwe.

The objective of the study was to develop and introduce an inpatient morbidity and mortality information system (IMMIS) based on a uniform disease classification system (ICD-9) that saves time and would yield more disease related information useful for

clinical (operational) research as well as for public health evaluations. The system has to be a trade-off between input effort and user friendliness on the one side and usefulness on the other. It should be able to produce the existing T-9 report format effortlessly. A hospital based computerised alternative to the T-9 system was developed using the EPI-INFO package (CDC/WHO) to be applied in all hospitals in Mashonaland Central, Zimbabwe. Desired information to be gathered comprised variables related to:

- Patient (age, sex, demography, socio-economic class, religion, race, place of birth).
- Disease (diagnosis for admitted condition, underlying disease, complicating diseases, cause of disease).
- Management, both clinically of individual as well as hospital and overall health service organisation (outcome, drug consumption, general expenses, referral pattern, etc.).

The criteria that limited the number of variables and type of information were: Information available at admission (except outcome and length of stay) should be easily obtainable, manageable by clerical staff and fit into a simple line listing per patient. We opted for a paper stage in between patient file and computer database for practical and security reasons: the coded transcription sheet. The number and types of variables and their coding were discussed in a forum including hospital staff. IMMIS is functional in all hospitals (13) in the province since July 1996, (approximately 100 000 records), was generally well accepted and liked by health information staff. All the advantages of a computerised database including easy/quick access, specific queries possible, easily transferable (e-mail), easily summarised at provincial level. A wealth of information at one's fingertips but as yet not much used for specific researches. The possibility to write programmes for specific report formats covering a wide range of issues, e.g. referral patterns (with diagnoses), mean length of stay (per disease/condition, hospital, type of patient, age group, etc.) The limitations of the study were identified as:

- Information is as good as the routine data gathering.
- Diagnoses are not specific (system based on summarised ICD-9 codes).
- Some information is not easily verifiable.

Adrenaline inhibits nitric oxide production by macrophages

Rutendo B.L Zinyama (Blair Research Institute, Josiah Tongogara Avenue, CY 573, Causeway, Harare) and L.B. Sigola (Department of Physiology, University of Zimbabwe, P.O. Box MP 167, Mount Pleasant, Harare).

Macrophages are stimulated during infection to produce proinflammatory and anti-inflammatory mediators. There is increasing evidence that hormones play a role in the regulation of immune responses. Hormones produced during stress, like adrenaline, may depress immune function and predispose the host to infection. We have examined the role of adrenaline, a hormone associated with acute stress, on the production of the macrophage microbicidal agent nitric oxide. Nitric oxide (NO) is a potent microbicidal and cytotoxic molecule produced by activated macrophages and other cells. Nitric oxide is a vasodilator and when produced in excess, results in septic shock. Septic shock is a pathophysiological condition resulting from a cascade of deleterious events due to infection with gram negative bacteria. Septic shock frequently has a fatal outcome mainly due to the excessive release of TNF- α and Nitric Oxide by macrophages.

This study describes the use of lipopolysacchride (LPS) to stimulate macrophages for NO production in vitro and to determine the effect of macrophage-derived proinflammatory (TNF-a)

versus inhibitory (IL-10) cytokines on its production. In addition, the effect of the hormone adrenaline on macrophage NO and cytokine responses to LPS was examined. Adrenaline is a hormone produced by the adrenal medulla in response to physical stress and its production increases during sepsis. Adrenaline has also been used in the management of patients with septic shock. Murine peritoneal macrophages were harvested and stimulated in vitro with E.coli lipopolysaccharide (LPS) for 48 hours. Nitrite levels in the supernatants were determined in duplicate by the Griess reagent method. Adrenaline inhibited nitrite production in a dose-dependent manner. This inhibition was ameliorated in the presence of recombinant murine IFN-g. Additional experiments showed that the adrenaline mediated inhibition of nitric oxide was specifically blocked by propranolol. Therefore, these results suggest that adrenaline inhibits macrophage nitric oxide production through a mechanism employing beta-adrenergic receptors.

Partnerships in Health Research

Global Partnerships

Dr I Aleta (WHO/AFRO): Collaborative and Cooperative Arrangements for Health Research: the Experiences of the WHO/HSR Project

Despite many efforts to promote multidisciplinary research, a major problem in public health research persisted. There is a wide gap between academic researchers and those for whom the research results are really meant -the policy makers, health managers and health workers. Consequently, research rarely covers priority needs of service providers and the utilisation of research results has often been far below its potential value. Health Systems Research (HSR) aims to bridge this gap between research efforts and research needs through a participatory and interdisciplinary approach, involving health managers as well as health care providers and users in the process of problem identification and analysis.

The overall objective of the HSR Project is: to contribute to the goal of Health for All by supporting countries in strengthening their health systems by empowering policy makers and health managers at all levels in decision making on the basis of evidence from health systems research.

Collaborative and cooperative efforts:

Collaboration between various partners has been one of the objectives of the HSR Project. Networking has been achieved by involving specific organisations, other research initiatives, general research training organisations or institutions, and health institutions. This was done throughout the project; from it's planning to implementation, at both national and international level, in the training teams, materials development and in studies conducted.

Contributing factors to successful collaboration and cooperation:

- Step-wise participatory approach starting with the development of the first HSR project proposal in 1986 with the participation of health policy makers and researchers of the first 5 Southern African countries.
- Formulation of detailed work plans for the project bi-annually and annually with participation of the countries that set the priorities.
- Timeliness of the project resulting in overwhelming response of the MoHs who reserved funds for HSR, solicited additional funds from NGOs and multilateral organisations (UNICEF, WHO).
- Group approach in training and participatory training approach.
- Availability of tested methodology (HSR training and training of trainers) enabled the standardised training of health workers at district level and increased credibility.

Limitations of the project:

- High turnover of national health personnel resulting in frequent loss of sensitised policy makers. Continuous advocacy for the newcomers is not always possible.
- Training schools for health staff and research institutions formed an alternative entry, but coordination remained weak.
- The HSR project provided only funds to raise and maintain motivation; it assisted countries in fund raising. Not all teams or countries were inventive in obtaining funds from NGOs and multilateral organisations.
- Institutionalisation of HSR in a number of countries has been affected by
 - Inadequate resource allocation to HSR.
 - Inadequate delegation of authority to the HSR coordinating structures.
 - Human resource issues: staff transfer, brain drain, and lack of career structures.
- Only 50% of research results were used; most studies have focused on operational issues and have had less impact on health policy than expected.
- Health managers and policy makers were often unaware of results of studies done at district level, partly due to frequent turnover as well as failure to set common research priorities.

Focus for the Biennium 2000-2001:

- Development of a regional framework and a package of tools for HSR assessment, research prioritisation, research coordination, policy development and research result implementation.
- Development of complementary HSR training modules in response to expressed needs.
- Support in developing and applying skills in reviewing, analysing and/or developing health research policy in line with national health policies.
- Development and implementation of multi-country research proposal based on WHO priority areas.

SHARED: Electronic Networking

(Dr B. Mons)

SHARED stands for Scientists for Health And Research for Development. Three basic principles have generated the SHARED approach:

1. Genuine partnership and equitable international networking are indispensable to improve the current situation of health and health research for developing countries.

2. To achieve more effective networking, first and foremost a structural, updated and easily accessible knowledge base is needed about what everybody is doing, where, how and with whom.
3. Everybody wants co-ordination, but nobody wants to be co-ordinated.

Based on these principles, SHARED has developed a participatory approach to the sharing of essential public information, and making it available to everyone. SHARED offers a meeting place on the Internet. Its databases are fed with information about ongoing research and development projects in the field of health. It allows scientists and policy makers to analyse and compare information, look at relevance, opportunities and gaps, find new partners and, in all, make better decisions. National focal points are responsible for data entry and management and have their 'own shelf' in the virtual SHARED library.

SHARED and COHRED are working closely together. Not only by linking the COHRED web site (<http://www.cohred.ch>) closely to the SHARED site (<http://www.shared.de>), but also by promoting networking and collaboration at country level.

National Partnerships

Dr S Chandiwana (Blair Research Institute, Zimbabwe): Role of Public Health Research in Zimbabwe in Influencing Policy and Action: Challenges for the New Millennium

At the dawn of the twenty first century, the greatest public health challenges facing Zimbabwe are the unstable socio-economic environment and the rapidly deteriorating health system. To remedy this situation research is critical to support the development of a sound public health policy for the country. Appropriate public health policies at independence led to impressive improvements in basic health indicators, education, nutrition, and contraceptive prevalence for the majority of the population. Marked declines in resources allocated to the health sector (exacerbated by drought and the AIDS epidemic) resulted in erosion of gains in the health status, especially for the poor. An evidence based policy framework for the health sector reforms introduced in the 1990s should stem the tide of institutional decay and reverse declines in the health situation.

Research focusing on the functioning of the health system can provide a framework for policy decisions and alternatives in tackling the health problems affecting the people. A review of research being carried out at the Ministry of Health's Blair Research Institute, documented in the database of the Medical Research Council of Zimbabwe, indicates that Essential Health Research is taking place. Some of this research is already influencing policy and action at operation and district levels. However, research coordination remains weak.

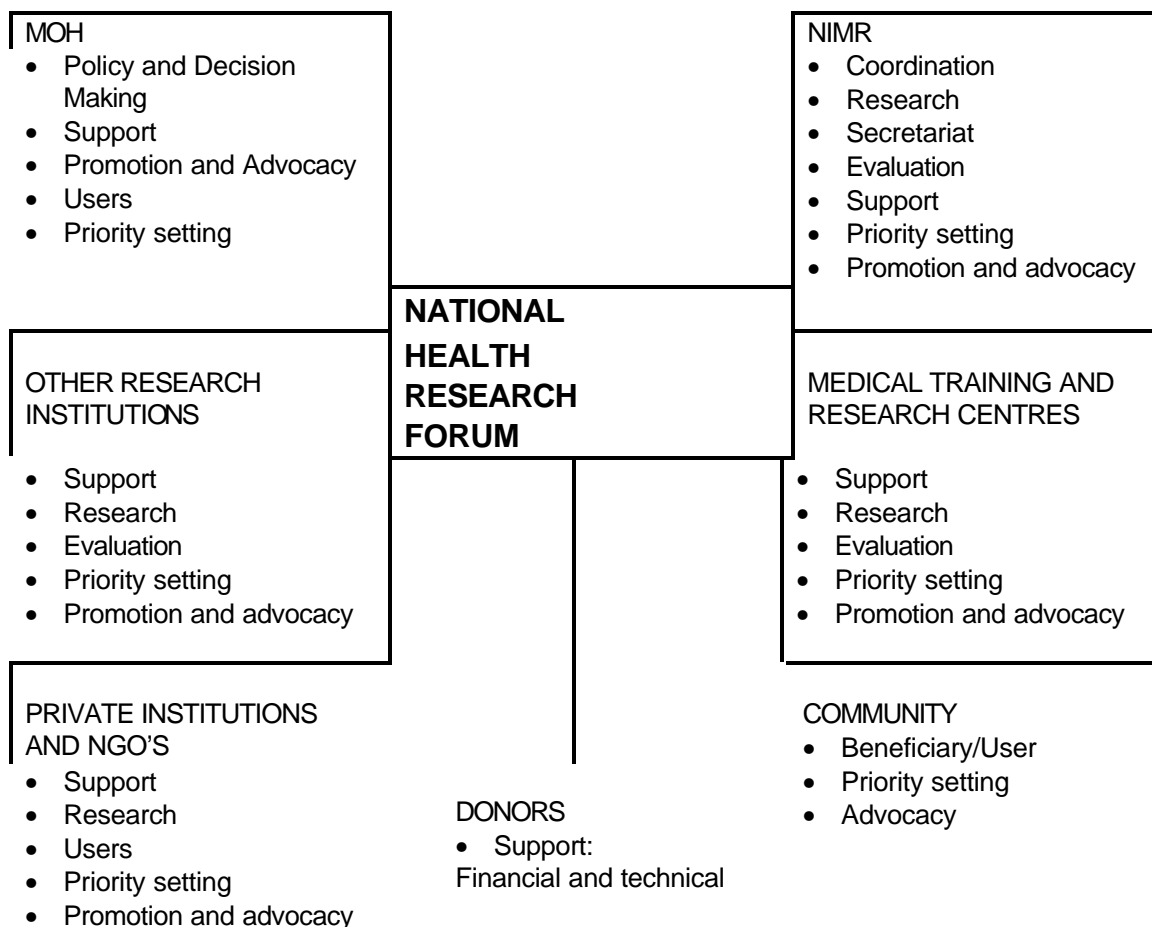
The government should come up with a policy for investment in new style public health education and capacity building to develop and retain credible scientists. Such scientists constitute a significant proportion of the nation's social capital and should be supported in their careers. The Ministry of Health officials should recognise the work of its local scientists and reduce reliance on advice from external consultants. Local scientists understand the local environment and the real problems and concerns of the community. They are in the best position to link research with policy and action in order to provide greater support to the health system. Besides, they can ensure sustainability

by participating in the implementation of the research recommendations. Zimbabwe has adequate research expertise to support public health policy and to develop effective interventions that are relevant to the local situation and are economically feasible.

Dr A Kitua (National Institute for Medical Research, Tanzania): A Tanzanian Model for Research Coordination

Tanzania recently established a new national mechanism for research coordination: the Tanzania National Health Research Forum. The Forum is composed of the relevant players in health research and their representatives. Each partner has a clearly defined role. All partners share ownership of the mechanism. The Forum's functions are based on the ENHR principles, ensuring that evidence-based information is utilised correctly in the policy and decision making process. This will enhance the provision of better and equitable health to the population. The Forum acts as a consultative and advisory body to policy and decision makers. It will advise on health research coordination and collaboration, conducting of health research, dissemination of research results and enhancing utilisation of these results for policy and decision -making. It is a non-political, non -religious voluntary body dealing only with issues of health research and development in the country.

Composition of the Forum and Roles of Key Partners:



REFLECTIONS OF THE PAST AND FUTURE DIRECTIONS FOR ENHR IN AFRICA

By Prof Mutual Mugambi

In light of the upcoming International Conference on Health Research for Development, the time seems ripe to take stock of the developments in the field of health research over the last decade in Africa. Prof. Mugambi will lead this review and consult with many stakeholders in Africa to be able to present an African perspective to the International Conference. The overall objective of this exercise is to collect adequate data, share these data with the rest of the world and readdress the current gross inequities in resources and opportunities for health research development in Africa.

Prof. Mugambi's presentation in Harare formed the first opportunity to consult with a wide range of stakeholders and seek their input and advice. It is also a clear invitation to every stakeholder to join the collective thinking and learning process to create a strong African Voice.

REFLECTIONS OF THE PAST

1. Pre-Commission

Most African countries have been self-governing for only a few decades. It is not surprising therefore that they are still struggling with basic issues of nationhood. Colonisation has had major implications on development as a whole, not least in the development of the health sector. In the prevailing economic difficulties, most governments view research as an expensive undertaking that does not yield immediate economic gains. Consequently research only receives token support and gets additional support when funds are available.

In the post-independence period, many African countries have attempted to organise research by establishing research councils and in a number of cases even ministries for science and technology. Under these councils health research has been institutionalised as a sectoral committee. However there are many countries where such councils have not been established. And in many more countries the established research councils have remained ineffective because of the poor policy framework and/or inadequate funding. There is however a number of countries where research councils have been effective in guiding research development in the countries.

2. The Commission on Health Research for Development

In the realisation that there were fundamental flaws in health research of developing countries, the Commission on Health Research for Development (CHRD), comprising 12 independent experts was formed in 1987. In its inquiry, the commission worked to determine the status of health and health research in non-industrialised countries and the factors constraining health research development. The commission reached a number of conclusions and made far-reaching recommendations in its report that was presented at the Nobel conference in Stockholm in 1990.

The commission's **main findings** were:

- The gross mismatch between the burden of illness (overwhelmingly in the third world) and investment in health research that was overwhelmingly focused on health problems of industrialised countries;
- The need for developing countries to have stronger scientific and institutional capacity to address problems unique to their own circumstances, and in the meantime the sufficient investment to build and sustain their health research capacity;
- International support for research on third world problems neglected a number of significant health issues and new and arising health problems were barely considered.

The Commission made **four major recommendations**:

1. All countries should vigorously undertake ENHR.
2. National efforts of developing countries should be joined together with efforts of industrial countries in international partnerships.
3. Larger and more sustained financial support for research from international sources should be mobilised to supplement investments by developing countries.
4. An international mechanism should be established to monitor progress and promote financial and technical support for research on the health problems of developing countries.

3. Post Commission Initiatives

As a direct follow-up to the fourth recommendation, a Task Force on Health Research and Development (TFHRD) was established in Geneva in 1993. It resulted in the founding of the Council on Health Research for Development (COHRED) by over 40 developing countries. As an NGO under the auspices of UNDP, COHRED was charged with advancing the ENHR movement. COHRED's central target is to foster and encourage action of the countries themselves, with global and regional networking activities as supporting elements. The ultimate goal is to redirect health research activities and to allocate the available resources towards such efforts as are considered essential for improving people's health -with each country setting up its own goals, approaches and time frame.

In 1990, following a WHO resolution (WHA 43.19) the global WHO-ACHR established two working groups to consider how best WHO could facilitate member states to conduct essential health research. In 1998 ACHR published its report (WHO/RPS/ACHR/98.1) entitled 'A research policy agenda for science and technology -to support global health development'. The document observes that despite gains in health status in the world, health like wealth is badly distributed. According to ACHR some of the negative trends influencing global health include:

- Uncontrolled population growth and migration.
- Anarchic urbanisation and industrialisation.
- Environmental degradation.
- Social and economic upheaval.
- Under- and over-nutrition.
- Unhealthy individual and collective behaviour.

ACHR concludes that these serious health issues require research and development initiatives. In particular it is imperative that the global scientific community be mobilised with the WHO facilitating the networking of the entire research community to bring the power of scientific research, knowledge and technology to bear on global health development.

In 1993, the World Bank issued the 'World Development Report -investing in health'. The report stressed the importance of improving use of international assistance for health by paying more careful attention to the role of knowledge generation and dissemination. At the launch of the report, an Ad Hoc Committee on Health Research was formed under the auspices of WHO. The Committee produced its report in 1996 that re-emphasised that the central problem in health research is the 10/90 disequilibrium. The Ad Hoc Committee warned the global community that it would face the following four critical health problems in the decade to come:

1. The unfinished agenda.
2. New and re-emerging microbes.
3. The increase in non-communicable diseases, injuries and violence.
4. Inequity and inefficiency in the delivery of health services.

One of the recommendations of the Ad Hoc Committee was the creation of the Global Forum for Health Research as one of the instruments to follow up on the work of the Ad Hoc Committee. The central objective of the Forum is to help correct the 10/90 disequilibrium by:

- Focusing research efforts on priority health problems,
- Improving allocation of research funds, and
- Facilitating collaboration among partners.

The fundamental question to ask now is: What has been the impact and change in the field of health research and development ten years after the Commission's recommendations?

- Is health now enjoying a higher priority in national development plans?
- Are research findings being utilised to the extent necessary?
- Have the linkages between generators of research findings and consumers improved?
- As capacity development continues to receive higher priority do better-equipped institutions and appropriate disciplines of research accompany this?
- Is funding still a major constraint to the conduct of research?
- Is international collaboration in research still weak and lop-sided?

FUTURE DIRECTIONS

Prof. Mugambi's presentation was followed by a panel discussion, involving Dr Mason (BRTI), Dr Freij (Sida/SAREC), Dr Kitua (Tanzania), Florence Musi-immwe (Rockefeller Foundation), Dr Nchinda (Global Forum for Health Research), Prof. Owor (African ENHR Mentoring Team), and Dr Nuyens (COHRED). The following highlights have been extracted from their discussion.

Architecture of Health Research and the African Voice in International Initiatives

As illustrated by the presentation of Prof. Mugambi, the last decade has seen many international initiatives to promote health research in the South. During the panel discussion, questions and concerns were raised regarding this top-down approach:

- It was felt that countries need stronger coordinating mechanisms for research to be able to negotiate with the global level;

- New ideas should come from the country level and float from there to the global level. Countries should be active partners in setting the agenda for international health research and research collaboration;
- More synergy is needed for the various international initiatives;
- It was felt that Africa needs its own structure for coordinating health research and that African countries should collaborate more closely. A good coordination of research networks within the continent could contribute to this;
- To become a stronger partner in the international health research structure, Africa needs to develop its own vision on health research. Only if African stakeholders come together and voice their common concerns, they can have an impact in shaping international health research cooperation and make it serve their purposes.

Capacity Development

The panel discussion also focused on the need to develop capacity in Africa:

- There is a need to build capacity to negotiate with donors;
- There is a need for local training, instead of international training programs, to develop capacities needed at local level. This might also reduce brain drain from the South to the North;
- Institutional capacity building has been neglected;
- The way in which the production of knowledge is organised, is important;
- Developed capacities should be maintained and used

ENHR: Countries First, Knowledge Utilisation, and Partnership

- ENHR should be seen strictly as a strategy or an organising principle for health research and for fitting the building blocks of a national health research system (individual researchers, institutions, laboratories, research councils, libraries, etc.)
- COHRED is a learning coalition that adapts to country needs;
- Researchers should obtain satisfaction from their work knowing that they do not only generate new knowledge, but that this knowledge gets used and contributes to solving health problems;
- Collaboration and partnership is needed to stimulate common action.

THE HARARE RESOLUTION ON ENHR

We the participants attending the Essential National Health Research (**ENHR**) Annual Network Meeting in Harare in September 1999

Recognising

the deteriorating health and development conditions in Africa due to:

- The changing global social, political, and economic scenario
- The diminishing global resources base, and the diminishing social returns for the investments
- The increasing competitive demands from other emerging regional zones
- The large human resource drain or displacement to other more lucrative regions

Realising

- The need for essential health research for health development
- The need for Africa to address its health problems and offer its own possible solutions
- The need to address the imbalance in resources for health research
- The need to influence policy through evidence based decision making

Reaffirming

The commitment to essential national health research as an essential tool to address equity in health and for health development

Hereby Resolve

- To be united in health development using a well coordinated ENHR strategy of health for all in Africa
- To offer African solutions to the African health problems using African institutions
- To work with our governments and all other partners in health development in Africa
- To develop the necessary critical capacity for health research development
- To develop an appropriate structure and mechanism to facilitate increased resource flows of global funds to the African Region

- To contribute actively, as an African community, to the global body of knowledge and experience base concerning health research for development
- To participate fully with other currently active health networks in Africa.

The endorsement is proposed by: Dr. Sam Luboga of Uganda

Seconded by Dr. Clive Shiff of Zimbabwe

And adopted by unanimous acclamation of the assembly

APPENDICES

CONFERENCE PROGRAMME

<p>Monday 20 September</p>	<p>OPENING ADDRESS: Dr T J Stamps MP, Minister of Health and Child Welfare</p> <p>SPECIAL ADDRESSES Dr I Samba (WHO) Dr Y Nuyens (COHRED) Prof R Owor (ENHR Africa Network)</p> <p>KEYNOTES ON:</p> <ul style="list-style-type: none"> • Promotion, Advocacy, ENHR Mechanism (Dr. Abdullah) • Priority Setting (Dr. Okello) • Research to Action and Policy (Dr. Munishi) • Community Participation (Dr. Diallo) • Capacity Development (Prof Neufeld) <p>Discussion of keynotes in breakaway sessions with country specific examples</p> <p>Report Back Plenary Session</p> <p>Welcome Cocktail, Banquet Dinner and Cultural Performance</p>
<p>Tuesday 21 September</p>	<p>KEYNOTES ON</p> <ul style="list-style-type: none"> • Malaria (Prof R Guiguemde) • TB (Prof Bah-Sow) • HIV (Prof P Ndumbe) <p>Discussants from WHO, MOH, NACP, Donor Agencies, Universities and Institutes</p> <p>Concurrent breakaway sessions (Additional papers related to keynotes and further discussions)</p> <p>KEYNOTES ON</p> <ul style="list-style-type: none"> • Reproductive Health (Prof S Kinoti) • Healthcare Reform (Prof G Munishi) • Equity (Dr R Loewenson) <p>Discussants from WHO, MOH, ZNFPC, Donors, Universities and Institutes</p>

	<p>Concurrent breakaway sessions (Additional papers related to keynotes and further discussions)</p>
<p>Wednesday 22 September</p>	<p>Health Research in Africa: A Decade of Progress (Prof. M Mugambi)</p> <p>Plenary session led by Discussants from BRTI, Global Forum for Health Research, COHRED, Rockefeller, Sida/SAREC, and Research Institutions</p> <p>Plenary Session: Position papers on Health Research Partnerships and SHARED Network</p> <p>Consultations by country delegates with COHRED secretariat and the ENHR African Mentoring Team</p> <p>Closing Plenary and official hand-over of Regional Focal Point Farewell Reception</p>
<p>Thursday 23 September</p>	<p>Business Meeting COHRED secretariat and ENHR Mentoring Team: Plan of Work for 2000</p> <p>Constituency Meetings (Optional) ENHR Sub Regional Groups SADC Health Desk, GTZ/HSR BRTI, EQUINET etc</p>

DIRECTORY OF PARTICIPANTS

1. BENIN	
<p>Dr Issigou Saadou Director of Health Research Centre Regional Pour le development et la sante SSP 01 BP 1822 Cotonou Benin Fax: 229 35 70 20 Tel: 229 35 70 19</p>	
2. BOTSWANA	
<p>Dr John Mulwa Permanent Secretary Ministry of Health P Bag 0038 Gaborone Botswana</p>	
3. BURKINA FASO	
<p>Ki Ouderaogo Salimata, Ministere de la sante, 7009 Ougadougou, Burkina Faso. Tel 226 32 46 62/ 37 13</p>	<p>Prof. R. Guiguemde Laboratoire de Parasitologie OCCGE Centre Muraz 01 BP 153 Bobo-Dioulasso 01 Burkina Faso Email: rguiguemde@hotmail.com</p>
4. CAMEROON	
<p>Dr George M. Ngufor Fotoh Ministere de la sante publique BP 4424 Yaounde Cameroon Fax: 237 23 01 03 Tel: 237 21 49 64 Email: msama@camnet.cm</p> <p>Prof. Peter Ndumbe Faculty of Medicine University of Yaounde 1 BP 8445, Yaounde, Cameroon Tel: 237 31 12 24 Fax: 237 – 31 51 78 Email: camdiagnostix@camnet.cm or pndumbe@yahoo.com</p>	<p>Etienne Magloire Minjoulou Research Associate Faculty of Medicine & Biomedical Sciences B.P. 13033 Yaounde Cameroon Fax: 237 31 52 35 Email: e_m_minkoulou@yahoo.com or e_m_minkoulou@hotmail.com</p>

5. GUINEE	
Alpha Ahmadou Diallo, Ministere Sante Publique BP 585 Conacry Guinee Fax: 224 41 46 86 Tel: 224 41 20 74	Prof. Oumou Bah-Sow BP 634 Conkry Republic of Guinea, West Africa Phone/Fax: 224 41 20 58. Email: prsow@leland-gn.org

6. COTE D'IVOIRE

Dr Akpa Bernard Otch Sous-Directeur des Etudes et des Recherches Appliquees Ministere de la Sante Publique BP V 4 Abidjan, Cote d'Ivoire Tel 225 32 33 17 Tel 225 22 05 45 (secretariat) Fax 225 22 51 91 Mspdceis@africaonline.co.zw Djoussou@globeaccess.net	
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7. ETHIOPIA

Dr. Yemane Teklai, Head Health Department Ethiopian Science and Technology PO Box 2490, Addis Ababa, Ethiopia Tel. 251-1-511344 Fax 251-1-518829 Estc@telecom.net.et Ncic@padis.gn.apc.org	Dr Yemane Berhane, Chairman National Health Science & Technology Council C/o Dr. Yemane Teklai PO Box 2490, Addis Ababa, Ethiopia Tel. 251-1-511344 Fax 251-1-518829 Estc@telecom.net.et Ncic@padis.gn.apc.org
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8. KENYA

Dr. Mohamed Said Abdullah* The National Health Research and Development Centre, PO Box 20707 Nairobi, Kenya tel. 254-2-740607 fax. 254-2-747417 or fax. 254-2-246426 abdullah@AfricaOnline.co.ke nhrdc@ken.healthnet.org	Dr Benjamin Nganda Economics Department University of Nairobi PO Box 30197 Nairobi Kenya Tel 254 2 241 385 Fax 254 2 243 046/336 885 mnganda@swiftkenya.com
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9. LESOTHO

Dr Thabelo Ramatlapeng
Ministry of Health and Social Welfare
PO Box 514
Maseru
Lesotho

Prof. Stephen N. Kinoti
Caledon Road 267,
Maseru West
P O box 7332
Maseru 100
Phone/Fax: (266) 320301
Email: skinoti@lesoff.co.za

Ms Lucy Makoae
Research Coordinator
Ministry of Health
Box 514
Maseru, Lesotho

10. MALAWI

Mr. Thomas Bisika
Research Fellow
Centre for Social Research
PO Box 278
Zomba, Malawi
Fax: 265 522 578

Mr Willard Kazembe, Documentation Officer,
Ministry of Health and Population
P O Box 30377, Lilongwe 3, Malawi
Telephone: 265 – 783 044
Fax: 265 – 783 109

11. MAURITIUS

Mr Premduth Burhoo, Research Officer
Mauritius Institute of Health, Powder Mill
Pamplemousses, Mauritius
Tel: 230 243 3662 / 3698
Fax: 230 243 3270
Email: mihealth@intnet.mu

Mr Said Ameerbeg, Research Officer
Mauritius Institute of Health, Powder Mill
Pamplemousses, Mauritius
Tel: 230 243 3662 / 3698
Fax: 230 243 3270
Email: mihealth@intnet.mu

12. MOZAMBIQUE

Dr. Rassul Nala, National Health Institute
PO Box 264, 296 Av. Eduardo Mondlane/
Salvador Allende
Maputo, Mozambique
Tel. 258-1-430814 / 427131 (4)
Fax. 258-1-426547 / 426164
Email: Rassul@cdiws.vem.mz

Dr Humberto Pedro Cossa
Director National Planification & Cooperation
Ministry of Health
C.P. 264 Maputo, Mozambique
Tel: 258 1 426007
Fax: 257 1 302103
Email: HAPACOSSA@TROPICAL.CO.MZ

13. SWAZILAND

Dr R. Maziya
Research Coordinator
Ministry of Health and Social Welfare
PO Box 5
Mbabane, Swaziland
Fax. (09268) 40 42092
Cooithis@realnet.co.sz

Mr Simon Kunene
Malaria Control Unit
Manzini, Swaziland
Tel: 268 538 04 or 52041
Fax: 268 546 97
Email: cooithis@realnet.co.sz

14. SOUTH AFRICA

<p>Ms P.M. Netshidzivhani Deputy Director Health Systems Research and Epidemiology Department of Health, Private bag X828 Pretoria 0001, South Africa Tel. 27-12-3120774 Fax. 27-12-3286299 Netsh@hltrsa2.pwv.gov.za</p>	<p>Prof. William Makgoba President Medical Research Council of South Africa P O Box 19070 Tygerberg 7505 South Africa Email: denise.nefdt@mrc.ac.za</p>
<p>Dr. Lindiwe Makubalo, Director Health Systems Research and Epidemiology Department of Health, Private bag X828 Pretoria 0001, South Africa Tel. 27-12-3120774 Fax. 27-12-3286299 makubal@hltrsa2</p>	

15. TANZANIA

<p>Dr. Andrew Kitua, Director General National Institute for Medical Research (NIMR) PO Box 9653, Dar es Salaam, Tanzania Tel. 255-51-130 770 / 131 864 Fax. 255-51-130660 nimr@costech.gn.apc.org nimr@twiga.com, akitua@twiga.com</p> <p>Prof. G.K. Munishi Munishi@ucc.udsm.ac.tz</p>	<p>Dr Munyetti, C/o Dr A. Kitua National Institute for Medical Research (NIMR) PO Box 9653, Dar es Salaam, Tanzania Tel. 255-51-130 770 / 131 864 Fax. 255-51-130660 nimr@costech.gn.apc.org nimr@twiga.com, akitua@twiga.com</p>
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16. UGANDA

<p>Prof. R. Owor* Faculty of Medicine Makerere University PO Box 7072, Kampala, Uganda Tel. 256-41 531 730 Fax. 256-41 530 022 uncst@uga.healthnet.org</p> <p>Dr William Bazeyo Uganda National Council for Science and Technology 76 Buganda Road PO Box 6884/2284 Kampala, Uganda Tel 256 41 250494 Fax 256 41 250 494/345 597 Delasi@imul.com</p>	<p>Dr Sam Luboga, Department of Anatomy Makerere University P O Box 7072 Kampala, Uganda Fax: 256 41 245597 / 259 146 / 530022 Email: chrisams@swiftuganda.com</p> <p>Dr Stella Neema Country Researcher for Community Participation Makerere Institute of Social Research Makerere University P O Box 16022 Kampala, Uganda Fax: 256 41 532 821 Email: misrlib@imul.com</p>
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17. ZAMBIA

<p>Dr. Chilinga Puta Acting Director Tropical Diseases Research Centre PO Box 71769 Ndola, Zambia Tel. 260-2-610961/4 Fax. 260-2-614487/612837 TDRC@ZAMNET.ZM</p>	<p>Dr Fred Masaninga, Senior Scientist Tropical Diseases Research Centre Box 71769 Ndola, Zambia Tel: 260 2 621412 Fax: 260-2-614487/612837 Email: fadkaona@zamnet.zm</p>
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18. ZIMBABWE

<p>Ms S. Mtero, Deputy Director Blair Research Institute P O Box CY573 Causeway, Harare Tel: 263-4-703555 / 792747 Fax: 263-4-792480 Email: mtero@blair.co.zw</p>	<p>Mr Ndebele, Liaison Officer Medical Research Council of Zimbabwe PO Box CY 573 Causeway, Harare Zimbabwe Tel: 263-4-791792 Fax: 263-4-792480 Email: mrcz@blair.co.zw</p>
<p>Dr S.K. Chandiwana* Director Blair Research Institute P O Box CY573 Causeway, Harare Zimbabwe Tel. 263-4-703525 / 792747 Fax. 263-4-792480 Email: chandiwana@blair.co.zw</p>	