

Ethics and epidemiology in developing countries: a WHO perspective

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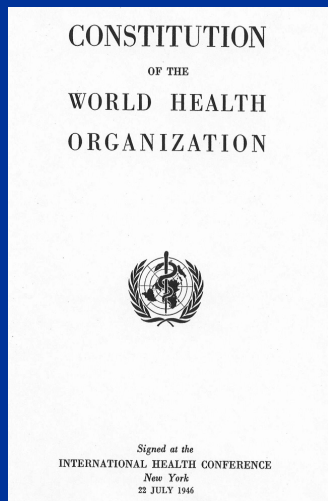
24th September 2008

XVIII World Congress of Epidemiology



- Background – WHO & Research
- Special Challenges to WHO
- Specific examples that highlight gaps.

".....the attainment by all peoples of the highest possible level of health.



"to promote and conduct research in the field of healthin order to extend to all peoples ... the benefits of medical, psychological and related knowledge ..."

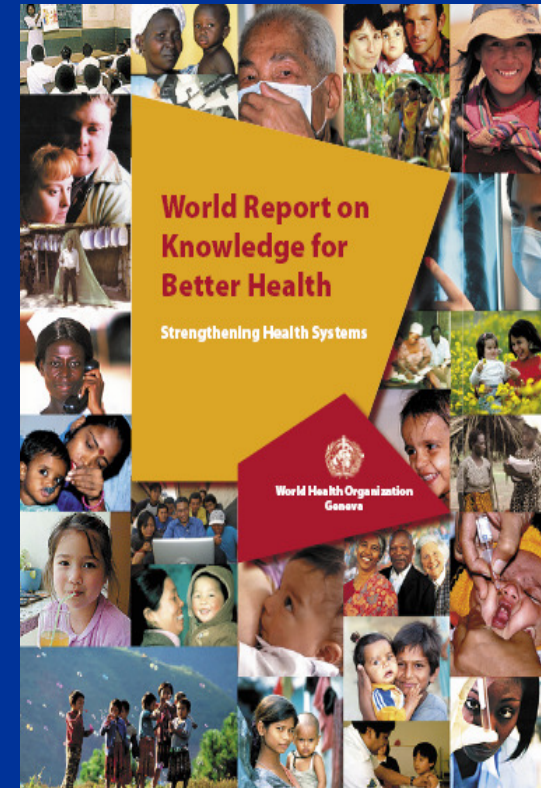
WHO Core Functions

(11th Global Programme of Work 2006-2015)

- Providing leadership on matters critical to health and engaging in partnerships where joint action is needed;
- Shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge;
- Setting norms and standards, and promoting and monitoring their implementation;
- Articulating ethical and evidence-based policy options;
- Providing technical support, catalysing change, and building sustainable institutional capacity;

Ministerial Summit on Health Research 2004

- More investment is needed in research on health systems
- Better management of health research is required
- Increased efforts must be made to secure public confidence in science
- Stronger emphasis should be placed on turning knowledge into action to improve health



www.who.int/rpc/wr2004



GLOBAL MINISTERIAL FORUM ON RESEARCH FOR HEALTH

STRENGTHENING RESEARCH FOR HEALTH, DEVELOPMENT AND EQUITY



COHRED
Council on Health Research
for Development

Global Forum for
Health Research

Republic of Mali

UNESCO
United Nations Cultural,
Scientific and Educational
Organization

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WHO
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Strengthening leadership for health, development and equity:

- empower governments to develop structured and prioritized policies for research for health as part of their broader research strategies
- improve systems capacities for the implementation of these policies and
- enhance international collaboration to address global and national health research

Official Languages

English ▼

Other Languages

Information: ▼

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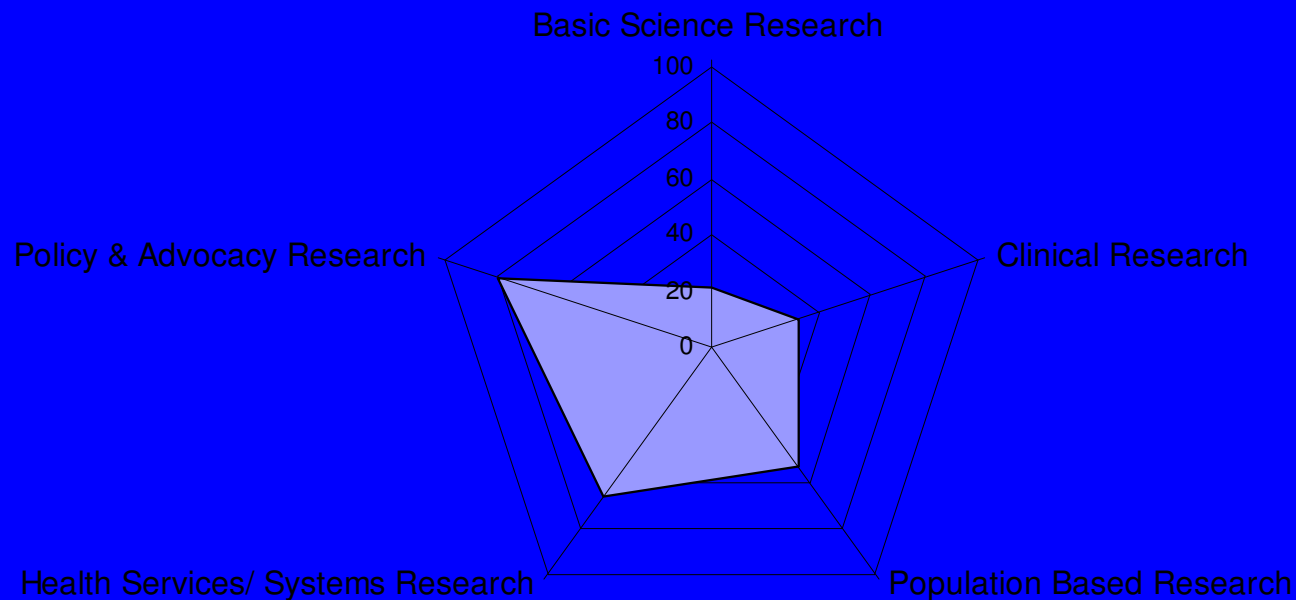
Strategic spread of WHO research activities at an organizational level

Indicative scale

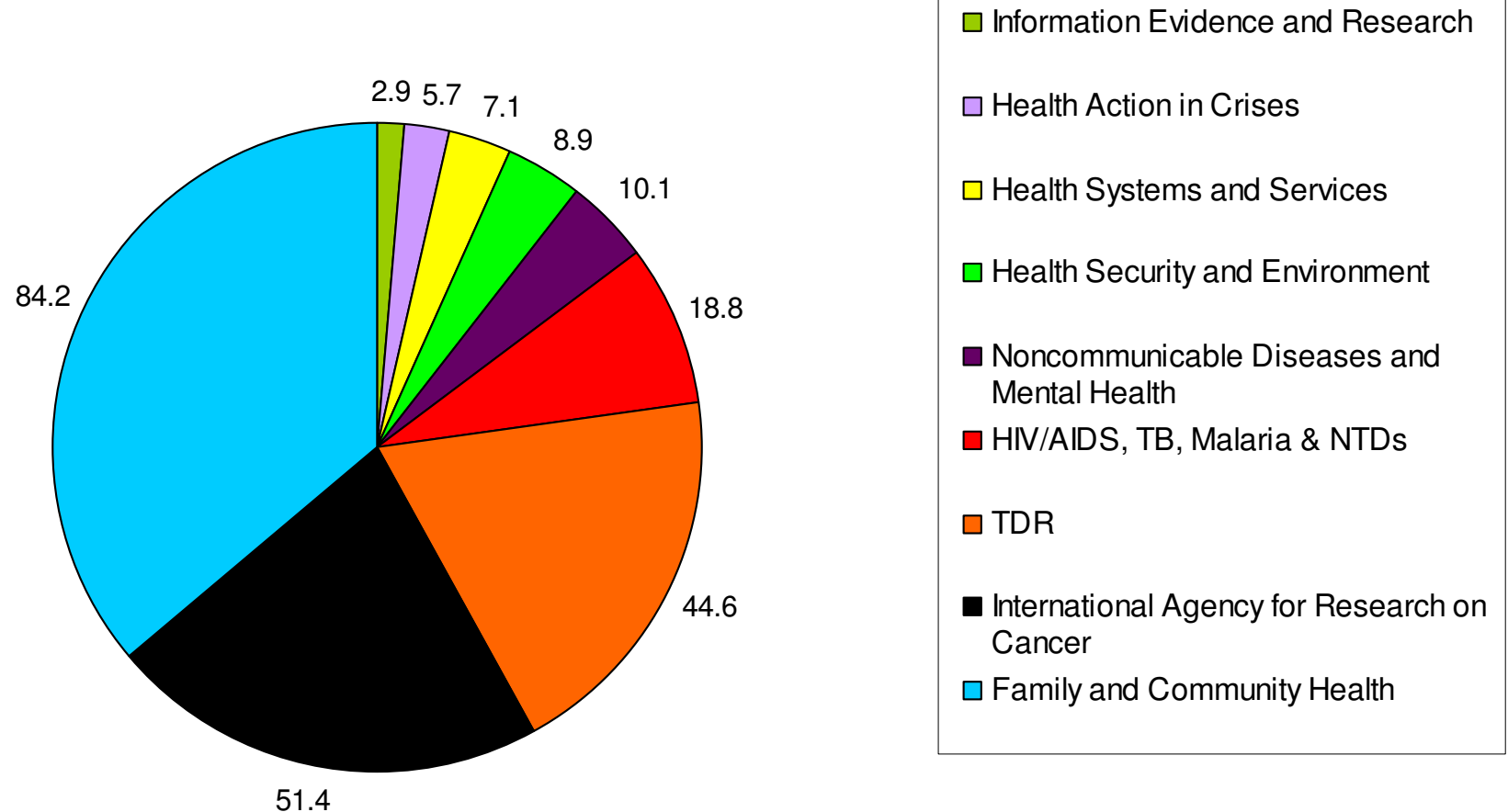
0-33 Low involvement

34 - 66 Some involvement

67 - 100 Strong involvement



WHO Health Research Expenditure \$USD millions 2006/07



WHO Staff Involved in Health Research

<i>Research Area</i>	<i>Staff involved in research</i>
Health Security and Environment	70
HIV/AIDS, TB, Malaria & NTDs	120
Health Systems and Services	66
Health Action in Crises	13
Information Evidence and Research	26
Family and Community Health	181
Noncommunicable Diseases and Mental Health	54
International Agency for Research on Cancer	102
TOTAL	632



UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction

Vaccine research and development



ARTICLES

Articles

WHO antenatal care randomised trial for the evaluation of a new model of routine antenatal care

*José Villar, Hassan Ba'aqeel, Giida Piaggio, Pisake Lumbiganon, José Miguel Belizan, Ubaido Farnot, Yagor Al-Mizrou, Guillermo Carroll, Alain Pinol, Allan Donner, Ana Langer, Gustavo Nigenda, Miranda Mugford, Julia Fox-Rushby, Guy Huttor, Per Bergsjø, Leiv Bakkeiteig, Heinz Berendes, for the WHO Antenatal Care Trial Research Group**

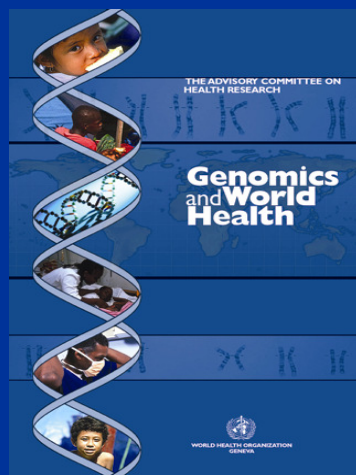
Summary

Background We undertook a multicentre randomised controlled trial that compared the standard model of antenatal care with a new model that emphasises actions known to be effective in improving maternal or neonatal outcomes and has fewer clinic visits.

Findings Women attending clinics assigned the new model (n=12 568) had a median of five visits compared with eight within the standard model (n=11 958). More women in the new model than in the standard model were referred to higher levels of care (13.4% vs 7.3%), but rates of hospital admission, diagnosis, and length of stay were similar. The groups had similar rates of low birthweight (new model

Guidelines for Dengue Surveillance and Mosquito Control
Second Edition

WHO Classification of Tumours: Pathology and Genetics of Tumours of the Breast and Female Genital Organs



Poor Countries to Get Medical Journals Free

WHO and Publishers Join in the Giveaway

By David Brown
Washington Post Service

WASHINGTON — Six giant publishing houses were to announce Monday that they would provide free electronic access to about 1,000 medical journals to medical schools, research laboratories and government health departments in poor countries.

Piloted by the World Health Organization, the program will benefit about 600 institutions, principally in Africa. It will also include training in techniques for researching the vast amount of medical literature by computer.

Barbara Aronson, a librarian at the WHO's Geneva headquarters and a prime mover behind the program, said that most medical schools in developing countries get fewer than 100 journals, and many only a few dozen, compared with 1,000 or more in America.

Libraries and research institutions often must pay a higher price for a subscription than individuals. The Lancet, a

Vaccine research and development

Mission

The mission of the WHO Initiative for Vaccine Research (IVR) is to guide, provide vision, enable, support, and facilitate the development, clinical evaluation and world-wide access to safe, effective and affordable vaccines against infectious diseases of public health importance, especially in developing countries.



Vision

Theme Papers

New challenges in assuring vaccine quality*

N. Dellepiane,¹ E. Griffiths,² & J.B. Milstien³

Iron supplementation of young children in regions where malaria transmission is intense and infectious disease highly prevalent

RESULTS OF TWO IRON AND ZINC SUPPLEMENTATION TRIALS IN ZANZIBAR AND NEPAL

Guidelines for the programmatic management of drug-resistant tuberculosis

No.41 New method to assess ivermectin treatment coverage in communities

Long term studies on children's health and the environment: Identifying, assessing and following up the effects of exposure to environmental factors

Drugs brought to registration



According to an analysis by Pecoul et al(1), drugs identified as reaching the market between 1997, only 13 were approved for tropical diseases, six were developed with TDR support. Since then, chemical entities or drug combinations have been developed for the treatment of tropical diseases with input

NEW AND IMPROVED TOOLS

[No.65 Health Sector Reform](#)

New finding on health sector reforms and equitable resource allocation

[No.59 Malaria](#)

Methodology for analysing gender and equity issues in malaria developed

[No.56 Lymphatic filariasis](#)

Benefits of support groups in the management of filariasis

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Challenges faced by WHO

- **Those related to the populations** (research participants and the research site) – illiteracy, lack of access to health care, poverty etc
- **Those related to the research teams** – inadequate training, lack of appreciation of the difference between inducements and compensation, potential of harm – and in fact the definition of 'harm'
- **Those related to the ethics review committees** – lack of expertise, lack of training, lack of independence etc

WHO supported research....

- More globalized and involves many partners with differing agendas.
- Complex often transcending national borders and national regulations.
- Important to ensure that the research supported by WHO upholds the highest standards and complies with international ethical review requirements.

The WHO ERC therefore reviews all research supported by WHO

However the WHO ERC also faces challenges when reviewing studies, and I am going to give examples in five areas that are inadequately addressed in the current guidelines

Example 1

Definitional Issues

- In epidemiology, the term "studies" encompasses both routine applications of epidemiological methods—for example, in public health surveillance or hospital quality evaluation—and investigations designed to produce new scientific knowledge and theories;

".....Many studies using the tools of epidemiology which are performed on a regular basis by public health agencies, such as routine surveillance for disease outbreaks, are correctly viewed as “practice” even though the information produced may contribute to generalizable knowledge. Thus, in carrying out their activities *epidemiologists (and others examining the activities) need to apply careful judgment to determine whether the activity should be classified as research or practice.*"

(.....such that, those that are classified as research are submitted for a review and approval by the ethics review committee, while those related to practice may not be.)

Definitional issues – contd.

- What criteria have been provided to investigators/public health practitioners to assist them in making that judgement? Who has the final say? How to resolve differences when the judgement of the investigators differs from that of the relevant IRB?

Case Study 1

Programme Evaluation

- To evaluate the programmatic feasibility, effectiveness, cost and public health value of isoniazid prevention therapy
 - Qualitative and quantitative research methodologies will be used
 - secondary data review (document reviews etc), review of case records and programme data.
 - Interviews with respondents: patients, health care workers and stakeholders.

- Submitted to the WHO ERC for review.
- Considered by one of the reviewers to be a routine public health activity, not requiring ethics review.
- Did raise issues regarding confidentiality and privacy.
- Who should take responsibility for adequate oversight?

Case Study 2

Surveys

- The purpose of the Global School Health Survey is to provide accurate data on health behaviours and protective factors among students.
 - Age group 13- 15 years
 - Self administered questionnaires
 - Include questions on sexual behaviors, unintentional pregnancies, drug use, violence and aggression etc.

Case Study 2 (Contd)

- The investigators considered that this activity was a routine surveillance (of behaviours), included only self administered questionnaires, and therefore a low risk
- This was not submitted for an ethics review.

Case Study 3

Strategic assessments of health systems

- To support countries to undertake a strategic assessment of policy, programme and research issues related to unintended pregnancy.
- The assessment uses qualitative methodology consisting of interviews with individuals, group discussions and observation of client-provider interaction and service delivery in relevant health facilities.
- The assessment team probes into
 - problems accessing family planning or abortion services
 - barriers to use of contraceptives
 - attitudes to abortion and use of abortion services
 - experience of using abortion services

Case Study 3 (Contd)

- According to the technical unit, these are not research studies, these are assessments carried out using semi-research methods.
- Do they raise ethical issues?

- What guidance is available to resolve this difference?
- Defining research is very problematic.
- It is easier to define risks and define activities by the risks involved.
- Many public health activities involve potential of harm to individuals
- Perhaps all public health activity should have some ethics oversight, perhaps with a less cumbersome structure than an ethics review committee.

Example 2

Consent in 'emergencies'

- *Research in emergency situations.* The emerging best practice for research conducted during an emergency—such as population studies of outbreaks of disease or of disasters (and relief efforts)—is to establish the basic research design for various categories of research prior to the emergency. Among other benefits, this permits prior ethical review of at least the major features of the research design. When prior review has not occurred, a review should be provided as quickly as possible. The special problems in obtaining informed consent in emergencies are addressed in the Commentary on Guideline 6.

CIOMS Guideline 6

- Guidance on informed consent in a different type of emergency – i.e. one that renders people incapable of giving informed consent, due to an acute condition (maybe because of head trauma for e.g.).
- No guidance on informed consent on emergencies for e.g. like disaster situations, conflicts etc.

WHO is intimately involved in research in conflict areas, and more so in epidemic responses, where quick decisions have to be made, and there may not be time for either developing informed consent, or informed consent may not be a feasibility. However guidance in this respect is not available.

Example 3

Women in trials

- Women of reproductive age group should not be excluded from research. The potential for becoming pregnant should not be a reason for precluding women from research (CIOMS Guideline 16)

However.....

- What are the responsibilities of investigators towards a woman who becomes pregnant when enrolled in a research study, where pregnancy precludes participation ?
- What about when research is done in places where safe and affordable pregnancy related services are either not available or accessible.

WHO supports the position that investigators/ sponsors are obliged to provide or ensure that the woman receives pregnancy options counselling, and when required - a termination of pregnancy which is safe and affordable. If the woman chooses not to terminate a pregnancy she should be guaranteed a follow up through her pregnancy, till the birth of the child, and outcomes recorded.

Example 4

Obligations to participants

- The issue of obligations of external sponsors especially in low resource settings, is a tricky one – in some settings fulfilment of these obligations (e.g. the provision of health care services) may be seen as an undue inducement to participate (e.g. a complex and potentially high risk drug trial), in others it may be seen as an undue requirement for sponsors (e.g. if testing new diagnostics for early detection of tuberculosis), where the only requirement of patients is that they provide two sputum samples.

- The section on obligations in the CIOMS guidelines could have been strengthened - as it is, it could result in an uneven application, depending upon how individuals interpret the guideline. In that respect the new UNAIDS guidelines on care and treatment (in HIV preventive trials) are more complete and less vague.

Example 5

Development and maintenance of huge databases

- There is a growing trend to store health and health related behaviour data on electronic databases.
- There is a also a growing trend towards collection of this data on handheld computer devices or using Computer assisted interviewing techniques
- While the more developed countries have extensive regulation related to electronic databases - especially in relation to maintenance of confidentiality - this is not necessarily true for developing countries.
- The limits of (or lack there-of) confidentiality in electronic systems may not be well appreciated.

- I hope that these 5 examples illustrate some of the challenges that WHO faces when conducting public health research. The CIOMS 2008 Guidelines have discussed many of the current issues and provided good guidance on how to approach them, but as we saw gaps still remain, and these pose a challenge.