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Report on the

**20TH SESSION OF THE
EASTERN MEDITERRANEAN ADVISORY COMMITTEE
FOR HEALTH RESEARCH**

Cairo, Egypt, 27–29 August 2002



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1. INTRODUCTION

The 20th Session of the Eastern Mediterranean Advisory Committee for Health Research (EM/ACHR) was held in Cairo, Egypt, from 27 to 29 August 2002. His Excellency, Professor Ata ur Rehman, Minister of Science and Technology, Pakistan chaired the session.

The meeting was inaugurated by Dr H.A. Gezairy, WHO Regional Director for the Eastern Mediterranean. In his opening address, Dr Gezairy welcomed Professor Rehman as the new Chair of EM/ACHR, new ACHR members and participants of the meeting. Dr Gezairy underscored the achievements in the field of health during the past 50 years, which, he said, were exemplified by significant reductions in infant mortality, improved education, better drinking water, improved longevity and successful models of disease eradication programmes. He cautioned that in spite of the developments there were currently over a billion people who remained deprived of the benefits of proper health care. The disparities in access to proper health care and inequities in health care provision were huge, not only worldwide but also within the countries of the Region.

Dr Gezairy emphasized that the key role of health research was to recognize the needs of those who were most in need, and ensure that the interventions for improvement in health were evidence-based and targeted, so that the available resources were used in the most effective way in the struggle against poor health and poverty. The main purpose of the network of advisory committees for health research at global and regional level was to advise the Director-General or the Regional Directors on the research needs, the priorities and the direction for overall improvement of health and provision of better health care.

The Regional Office, he said, was cognizant of the need for research and development in the Region, and in recent years significant movements had been made in this direction. Through a consultative process of meetings and dialogue, both at regional and international level, EMRO had been able to articulate a renewed policy for health research and development. The policy emphasized the need for equitable health care in the Region through promoting the use of research as evidence for decision-making, policy formulation and health actions, capacity-building, intensifying regional collaboration and providing increased financial support to research endeavours by countries in the Region. The policy also called upon Member States to foster improved environments for nurturing health research to contribute effectively in the national development processes. The allocation of 2% of the biennial budget by the Regional Office to health research was an indication of its commitment.

Dr Gezairy referred to the agenda of the session and reiterated the special need to focus on research issues from the regional perspective. Ethics in health care and health research had been largely neglected in the Region. Strict adherence to ethical norms, practices and standards in health care delivery and research were cardinal to the principles of equity, fairness and justice. The emerging revolution in genetics and genomic research and advances in this technology offered great opportunities for controlling and preventing disease, he said. The Region could not afford to be left behind in this vital arena of health

care. There was need for extensive research in this area to develop viable strategies and plans to utilize the benefits of the biotechnology.

Several countries in the Region had been in crisis situation for decades. Afghanistan, Somalia, Iraq and Palestine were obvious examples. Their populations had endured war, destruction, and loss of life, homes and assets. Health care delivery in many countries in the Region had remained far from optimal. The health systems must respond to people's needs if the goal of equitable health for all was to be achieved. The marked diversity in social, economic and cultural values and perceptions in the Region presented enormous challenges as well as opportunities and scope for health research. Dr Gezairy expressed the hope that the EM/ACHR members, with their wisdom, experience and knowledge, would make recommendations that would enable the Regional Office and the Member States to define health research priorities in these important areas of public health.

After the inaugural address, the session was handed over to the Chairman and the agenda was adopted.

Professor Ibrahim Salti (Lebanon) was elected Vice-Chairman and Dr Tasleem Akhter (Pakistan) was appointed as rapporteur of the session. The agenda, programme and list of participants are given in Annexes 1, 2, and 3 respectively.

2. GLOBAL HEALTH RESEARCH AGENDA: PERSPECTIVES FROM GLOBAL ACHR

Professor M. Fathalla, Chairman, Global ACHR

Health research is paramount, not only for the improvement of health care but also for overall economic development. This is evidenced by the fact that over 80% of the health research expenditures are made in the developed world alone, and nearly 40% of health research is driven by market forces, mainly industry.

The rapid demographic changes in many developing countries mean that the health needs of the growing elderly populations have to be understood and addressed. More drugs are needed for the developing countries to cover existing and emerging health issues. There are numerous examples of private (individual) contributions to health research in the developed world, and the same culture must be promoted and supported in the developing countries.

The resources for health research are undoubtedly limited. However, research in health is not a luxury, but must be recognized as a necessary investment. No country however poor, cannot afford not to support health research. Prof. Fathalla ended his address on an optimistic note stating that there are recent positive signals of hope as evidenced by: international efforts of cooperation to promote research; emergence of private and public sector partnerships; increasing initiatives by developing countries to support health research.

3. RENEWED HEALTH RESEARCH FOR DEVELOPMENT: A REVISED REGIONAL STRATEGY FOR PROMOTING HEALTH RESEARCH IN THE REGION

Dr Abdel Aziz Saleh, WHO/EMRO

An overview of the main challenges and constraints of health research in the Eastern Mediterranean Region and an outline of the renewed policy for health research and development in the Region was presented.

The development of health research in Member States of the Region faces several constraints. These include: inadequate political commitment; an unfavourable research environment; lack of leadership and weak management and coordination of research; near absence of linkages and networking among scientists; poorly developed research capacity and inadequate resources. The rapid globalization offers both challenges as well as opportunities to health care and research especially for the developing countries. These include changes in the macro-economic environment, effects of global free trade, rapid advances in science, technology and biotechnology.

Following intensive consultation and meetings with international and regional partners, the Regional Office articulated a renewed regional policy for health research for development in the region. The Regional Committee endorsed this policy in its 48th session in October 2001 as a resolution. The main objectives of the policy are to:

- support countries and national institutions in their efforts towards the goal of equitable health development
- identify common problems and develop mechanisms to address them
- interact with other regional partners and funding agencies.

The strategic framework of the policy is:

- focus on national needs which are based on valid priority-setting mechanisms
- ethical partnership and the principle of subsidy
- support for national capacity development

The policy calls upon the Regional Office to:

- award high priority to the regional research programme and to strengthen national health research through dynamic advisory and intercountry mechanisms, such as an active EM/ACHR and periodic meetings of health of medical research councils, research managers and fund holders;
- encourage and enhance the role of WHO collaborating centres in the Region in support of health research;

- foster partnerships with international stakeholders such as the Council on Health Research for Development (COHRED), Global Forum for Health Research, Alliance for Health Policy and Systems Research, and others;
- support national health research system initiatives, including leadership and training in various aspects of research management;
- advocate for improved environments for researchers including granting of incentives, better working facilities and ready access to electronic communications.

The Regional Committee approved the allocation of 2% of the 2002–2003 biennium budget for strengthening health research in the Region. Member States have been requested to follow suit.

Discussion

The Committee felt that there was strong need for investments in education, research and development within the Region. Given the limited resources a balance should be drawn between the state of the art scientific research and operational research in the Region, with defined priorities both at regional and country levels.

The need to build capacities and develop human resources in national health systems research was emphasized; a multidisciplinary, multi-sectoral approach needs to be adopted given the diversity of health systems in the Region. Appropriate incentives to stimulate research can prevent the brain drain in health research. National governments should invest in health research, and one way is through provision of and making available matching grants.

Countries need to analyse their research capacities, develop systematic approaches to address priorities and adopt policies and a legal framework to support a research and development culture. Simplified research approaches should be applied for operational research, and all stakeholders, including researchers and the research users, must be involved in the research process. New and simple indicators to demonstrate the research outputs and benefits need to be identified.

The Committee raised the issue of securing and allocating special funds for procurement to address the need for essential drugs. Commissioning research on diseases that are not of interest to multi-drug companies is necessary. This is an effective mechanism for research and the success of commissioned research is exemplified by the research conducted on control of diarrhoea and acute respiratory infections, control of iodine deficiency through use of iodized salt, flour fortification and management and prevention of sunstroke among pilgrims in Saudi Arabia.

3. REPORTS ON REGIONAL ACTIVITIES IN HEALTH RESEARCH

3.1 Summary of the activities of the research policy and cooperation unit, EMRO

Dr Mohammad Abdur Rab, Regional Adviser, Research Policy and Cooperation, EMRO

Although the last (19th) Session of the EM/ACHR was held in 1998, in Beirut, Lebanon, the support by the Regional Office to the Member States has been ongoing. This has been in the form of financial support to applied health research projects and through collaboration with the WHO special programmes of training in tropical diseases (TDR) and reproductive health (HRP). Capacity-building in the form of training workshops on research proposal writing, data management and analysis and report writing has taken place. The Health Information Support unit at EMRO provides a database of health literature to several libraries and research centres with the Region.

The Regional Office has supported the participation of Member States in several international meetings and workshops on health research and development during this period. The Regional Committee endorsed a renewed policy for health research and development in the Eastern Mediterranean at its 48th Session in 2001. The policy recommends augmentation of regional support to Member States and, at the same time, urges them to create favourable environments that nurture health research thereby contributing efficiently to the national development processes. Upon the recommendation of the Regional Committee, 2% of the current biennial budget has been allocated to support regional activities in health research.

Five countries in the Region are currently undertaking a systematic analysis of their health research systems. The purpose of this research is to have an in-depth understanding of the state of the health research systems including the roles and functions of all key actors and stakeholders. The objective is to build future strategic research directions of the national health research systems and their effective governance and sustainability.

Publication of regional health research seems to reflect a trend among some countries to focus on national priority problems with respect to infectious/communicable diseases and noncommunicable diseases. However, focus on global and regional priorities is lacking. There is therefore a need for the countries to take emerging needs into account also and to channel health research resources and funds to addressing these challenges.

During the current biennium, the Regional Office has developed a plan of action to support the Member States in their efforts to develop health research. Activities include funding health research proposals in priority areas of health research, building capacities for health research, building research links and collaboration with research institutes within Member States, WHO regions and international partners, and supporting training workshops/seminars on important areas of health research.

3.2 Research in reproductive health in the Eastern Mediterranean Region

Dr Ghada Hafez, Special Adviser, Gender Mainstreaming and Women's Issues, EMRO

The concept of reproductive health, as an essential component of general health, has received special attention in the Eastern Mediterranean Region, and has been adopted in almost all countries of the Region. Reproductive health research is regarded as an area of strategic priority for programme development and implementation at both the regional and country levels. Specific focus has been placed on safe motherhood (including antenatal, obstetric, postpartum and neonatal health care and family planning) as a priority component of reproductive health in all countries of the Region.

The Regional Office has been striving towards making research a major component of national reproductive health programmes in collaboration with the Reproductive Health and Research Department of WHO headquarters, as well as sister UN agencies, the League of Arab States, AGFUND, World Bank and other concerned international and nongovernmental organizations. Special attention has been given to: a) epidemiological, behavioural and social research to assess the health status and factors which influence it; b) operational research to assess the existing services and improve access and quality of care; and c) policy research to help develop comprehensive and multi-sectoral policies and strategies for reproductive health.

Development of national capacity in research on reproductive health of adolescents was started in 2000 in three countries (the Islamic Republic of Iran, Oman and the Syrian Arab Republic). A directory for reproductive health research in the Eastern Mediterranean Region is under development. The project is aimed at a) establishing a database on reproductive health research to enable exchange of research-related experience between and within countries of the Region; and b) encouraging the utilization of data in reproductive health programme development and implementation. This project is being implemented in close collaboration with Reproductive Health and Research in headquarters.

In order to stimulate discussion and encourage ethical practices in reproductive health research, the Regional Office, in collaboration with the Department of Reproductive Health and Research at WHO headquarters, organized a training workshop on ethical issues in reproductive health research, in Cairo, Egypt, in November 2001. The workshop focused on ethical standards and practices in reproductive health research.

3.3 EMRO/TDR Small Grants Scheme

Dr Amal Bassili, Tropical Disease Research, EMRO

The EMRO/TDR Small Grants scheme aims at strengthening operational research in tropical and communicable diseases in the Eastern Mediterranean Region; supporting research contributing to prevention, control and treatment of tropical communicable diseases; strengthening the research capacity of researchers in the Region; and promoting the integrated approach in tropical and communicable diseases research. The mandate of the scheme is to establish collaboration between academia and clinicians from the control

programmes of the ministries of health, in order to ensure translation of research results into policy and practice.

The scheme is now widely known to researchers in the Region, as reflected in the annual increase in the number of applications, from 29 applications in 1992 to 238 in 2002. The research has focused on epidemiological studies, such as studying the burden of diseases in different countries; determinants of disease transmission and severe morbidity and mortality from different diseases; knowledge, attitudes and practices; entomological surveys and vector control; quality of care; and evaluation of new diagnostic techniques.

During the period 1992–1999 a total of 43 articles were published in peer-reviewed journals. The frequency of publication was not proportionate to the number of funded projects per country due to the tendency of some countries to publish their research results in local journals. The limited capacity of researchers in data management and scientific writing was also one of the major constraints. The research capacity in the Region has been strengthened by organizing research methodology and proposal development workshops, providing on-line technical assistance to researchers and follow-up visits to countries.

Discussion

A substantial amount of research work within the Region fails to get published in the indexed journals, and is published in local journals which are not indexed, many in local languages. The Committee suggested that an analysis of the research published in these journals would be pertinent. However, because the non-indexed journals are not peer reviewed in general, and there are great variations in the validity and quality of information published in these journals, this makes comparative analysis difficult. The Committee suggested that in order to provide opportunities for researchers to publish their work within the region, technical and financial support be provided for improving the overall quality of selected health research journals in the Region. There is also need for an analysis of the research proposals that are being received by the Regional Office in proportion to the defined priority areas of the Region.

The Committee agreed that there is a great need for improvement in the quality of research publications and dissemination of research knowledge within the Member States. Peer review mechanisms are an essential component for defining criteria for quality of research. At the same time there is need for dissemination of research information and its access to the researchers and policy-makers. Translation of published research into information for action and evidence for policy change are lacking.

Although priorities for health research in the Region are numerous, there is little information published with respect to human behaviour and attitudes to illness and issues related to women's health. Given the diverse culture, geography, social and economic conditions and different health systems in the Region, the Committee suggested that it was important to conduct more research in the two areas mentioned.

The Committee discussed the role of universities and other academic institutes in the conduct of research. Concern was raised regarding the lack of interaction or links between these entities and the organizations responsible for programme implementation such as ministries of health and other organizations/entities responsible for or engaged in health care and delivery. Most research emanating from the universities therefore does not relate to or address pragmatic issues of the field, nor does it reach those who manage health programmes. The Committee felt that it was important to identify and build linkages between researchers and research users, to understand better the needs, priorities and directions of health research. Coordinated efforts would allow for development of operational research proposals, timely dissemination of the research findings and better utilization of the research results. The research initiated by the Regional Office on health research systems profile analysis was therefore considered to be an appropriate step in the right direction and the Regional Office was encouraged to support at least three other countries in the Region to undertake a similar analysis in their settings during the current biennium.

The Committee pointed out that developing international linkage can help support training of human resources, fund raising and dissemination of results. There is a need to look beyond the project or programme approach to health research, and countries should adopt a systems approach to health research development in which all key stakeholders are involved and contribute. In view of the rapid advances in scientific knowledge and in access to information, coupled with widespread concern about the quality of medical education in the Region, the EM/ACHR recommended that the topic of research in medical education be included in the agenda for its next meeting.

In order to develop health research, the Regional Office and the countries need to develop short, medium and long-term planning and vision. Short workshops and courses in health research methodology are important short-term strategies, but the medium-term goals should reflect identification of research needs and research programmes be built around them. The Committee advised the countries to identify lead institutes that could define policies, set direction and plan strategies at national level for the development of health research. In the longer term, the focus has to be on overall development of education of communities, particularly female education.

4. PROMOTION OF ETHICS IN HEALTH RESEARCH IN THE REGION

4.1 Ethics in health research: issues, needs and strategies for ethical practices in health research in the Eastern Mediterranean Region

Prof. Gamal I. Serour, International Islamic Centre for Population Studies and Research, Cairo

Ethics refers to what underlines and accounts for a community's customs, attitudes, practices and behaviour patterns. Ethical principles today include autonomy, beneficence, non-maleficence, justice and confidentiality. Medical health care ethics are based on the moral, religious and philosophical ideals and principles of the society in which they are practised. There have been a number of developments which have brought the subject of

ethics in health research to the frontline of concerns of the medical profession and of society at large.

In spite of the existence of international ethical guidelines, which should guide researchers when they are conducting their research, violation of these guidelines is extremely common in developing countries and, to a lesser extent, in developed countries. The responsibility for observing ethical guidelines in human medical research lies with the researcher, research institute, ethics review committee, national drug regulatory agency, editors of medical journals and funding agencies and organizations.

In order to promote the wider application of ethical guidelines in human research in the countries of the Eastern Mediterranean Region, we need national ethical guidelines, ethics committees, ethics curricula in the medical schools and workshops on ethics in health research for researchers.

The strategies to implement drastic changes in the attitudes of researchers in the region can be long-term or short-term. The long-term strategy includes inclusion of health care and health research ethics in the curricula of the medical schools in the Region and establishing ethics departments or ethics law departments in the schools of medicine. The short-term strategy includes workshops in the countries of the Region on ethical issues in health research, in-country workshops on ethical issues in health research, in which WHO can also help, establishment of institutional review boards, and establishment of ethics review committees in the universities and research institutes and national ethics committees with different terms of references.

4.2 Ethics of health research: developing countries perspective

Dr Asad Jamil Raja, The Aga Khan University, Karachi, Pakistan

In an effort to reduce the disparities in global health and the enormous burden of disease, there is increasing research endeavour in developing countries. Other factors responsible for this escalation are lower costs; rapidity of conducting trials and the availability and ease of enrolling research subjects. The ground realities are that inequalities in resources between developed and developing countries pose a real risk of exploitation in the context of externally sponsored research. This has become a source of debate and concern all around the world.

Developing countries have different ethical issues that reflect differences in standards of care, socioeconomic conditions, conceptualization of autonomy, difficulties in realizing informed consent, and cross-cultural and religious issues. This peculiar environment, combined with lack of understanding of these issues, exposes the research subjects to exploitation. The absence of credible ethical review processes, and a strong hierarchical society with illiteracy, poverty and poor health indicators combine to increase vulnerability. The thin line between compensation, reimbursement, inducement and coercion becomes even more blurred in such situations. Widespread corruption with no long-term commitments and lack of accountability make it a fertile ground for unscrupulous research.

External sponsors differ in their motives for conducting research in developing countries. Researchers and the pharmaceutical industry have a potential for conflict of interest. Non-existent or weak ethical review processes and poor socioeconomic conditions are a great attraction for some individuals and organizations. Governments, institutions and researchers in developing countries may have direct interest in obtaining funds, which are always scarce and badly needed. The community gatekeepers, elders and, politicians may also have their own interests.

Genuine efforts are required to reduce the increasing inequities in global health care. There is a need for capacity-building to develop human resources in the field. Informed consent, a cornerstone for ethical conduct of research, has to be made a process rather than an event in developing countries. National and institutional guidelines are necessary to have policies on standards of care, reproductive health research, cross-cultural and religious issues. Institutional ethical review boards need to be set up at all levels with a diverse membership and independent functioning as recommended by WHO/TDR guidelines. Post-approval monitoring is a major problem even in the developed world and its need is even greater in developing countries. A start could be made initially by monitoring high-risk protocols.

Developing countries, because of poor health and socioeconomic conditions, are struggling to maintain a delicate balance between protection of their research subjects and allowing much needed relevant research. If the developed world is genuinely and honestly interested in helping the poor millions around the world, they need to meaningfully debate, deliberate and discuss the global issues of equity and justice.

Discussion

The Committee underscored some of the emerging issues in health research ethics including the investigator's moral conscience, informed consent particularly in the case of weak and the marginalized, use of placebo groups in clinical trials, and deprivation from benefits. The main premise should be to do no harm to the subjects and clinical trials for drugs and products should not be allowed unless previously tested in the country of origin.

The Committee agreed on the need to raise awareness rights among community, researchers and stakeholders to safeguard subjects (individuals) against exploitation and extortion. There is need for capacity-building in bioethics and health ethics in the Member States. Training programmes in health ethics for different levels of the education systems must therefore be initiated through specially designed curricula.

The Committee suggested that the focus on health research ethics should be linked to, and integral to, issues related to ethics in health care. Unfair clinical practices and allocation of resources constitute violation of ethical norms and principals. In spite of the existence of several guidelines on health and research ethics, many countries in the Region do not have national or institutional review boards. The Council of Arab Health Ministers has strongly recommended that all countries should have national ethical review boards/committees. The Committee suggested that there was need for the creation of an Eastern Mediterranean Committee on Bioethics. This body should have terms of reference compatible with assisting

countries in developing guidelines for ethical standards in health care and research for equitable health care systems.

5. WHO HEALTH RESEARCH SYSTEM ANALYSIS INITIATIVE

Dr Ritu Sadana, Research Policy and Cooperation, WHO headquarters

The short overview covered several aspects of the health research system analysis work that headquarters is initiating and coordinating as an input to The World Health Report 2004 and beyond.

First, a brief version of the draft conceptual framework was presented. The framework serves as the basis for operational description and analysis of national health research from a system perspective, rather than from a sector perspective. The framework has been developed during a series of extensive consultations with experts and other interested organizations, a wide range of researchers and representatives from countries, and individuals working on strengthening health research systems. Three areas are delineated, namely, the definition, goals and functions of health research systems.

Second, short summaries of several projects addressing different functions and goals of health research systems, connected to this initiative were provided. These projects aim both to develop and test methods to analyse health research systems, or to investigate specific aspects of health research systems that require further investigation, either from an in-depth country perspective, or from cross-national perspectives. It is intended that the results from this collective work will significantly contribute to an evidence base on health research systems. Results documenting the benefits of health research and identifying the most effective processes to produce and utilize health research for improved health and health equity, will be especially sought. These findings will clearly serve as an input to The World Health Report 2004, as well as to concrete, longer-term technical cooperation with countries to strengthen national health research systems well beyond the publication of the report.

Third, the types of method that may be used to collect and analyse information on health research systems within the in-depth country case studies were outlined. The range of qualitative and quantitative methods is based on the diversity of areas under investigation, the indicators that may be most informative, and data collection and analyses strategies that are feasible and will most likely lead to defensible, and when appropriate, comparable results. It is planned that WHO will support a critical mass of countries representing all WHO regions to participate in this effort before the release of The World Health Report 2004. It is expected that after the report is released, additional countries will want to engage in this process of analysis and capacity strengthening of health research systems.

Discussion

The Committee agreed that the ultimate aim of the knowledge generated through health research systems performance analysis should be to improve the quality of life. This exercise

in many ways is complementary to the ongoing research on mapping of health systems profiles in five countries of the Region.

The Committee was informed that two countries, Pakistan and Islamic Republic of Iran, are involved as pilot countries where the research is already under way. EMRO should engage actively and identify other countries in the Region which can be part of this global exercise.

6. POTENTIAL AND APPLICATION OF HUMAN GENOME RESEARCH FOR THE COUNTRIES IN THE REGION

6.1 Potential of genomics and biotechnology in disease control in the Eastern Mediterranean Region: molecular technologies for health research

Prof. Koussay Dellagi, Institut Pasteur de Tunis, Tunisia

The rapid development in the past 20 years of molecular technologies has generated impressive progress in our knowledge of the physical, informational and functional organization of prokaryotic and eucaryotic genomes as well as of higher organisms, including humans.

Huge impact should be anticipated in the very near future from such achievements, on the development of new drugs and new diagnostic procedures and therapeutic strategies and on the design of new preventive and control measures. These forthcoming discoveries will be easily implemented in developed countries. However, there is concern about how such progress will benefit developing countries and will impact on their health policies and control strategies for communicable and noncommunicable diseases.

Molecular technologies offer powerful tools for epidemiology, clinical laboratory practice and research. Some results obtained in the Institut Pasteur de Tunis on molecular epidemiology, vaccine development and research on pathogen virulence factors were presented to illustrate this point. Suggestions were made on how to develop regional skills in the use of molecular technologies to strengthen the regional efforts for research on, and control of, major health problems.

6.2 Biotechnology and genomics for health: the Cuban experience

Prof. Eric Martinez, Director of Science and Technology, Cuban Ministry of Public Health

The development of a system of science and technology for health including biotechnology in a country or region is closely linked to three general systems: health, education and science. Cuba is a good example to illustrate the case in point. The political commitments of the early 1960s have led to remarkable achievements in the fields of education, health, science, technology, research and development. Huge investments by the Government were made in research in the biotechnology and pharmaceutical industries. The national market was the first priority and biotechnology was part of the whole health system

programme. The health, social and economic impacts were achieved through a variety of vaccines and products of globally recognized excellence and quality through the research and development programmes in the country. There are about 130 scientific centres and 53 universities and other academic institutions currently engaged in research. More than 13 000 university graduated professionals and 20 000 university professors work full time in these institutions, with other 17 000 technologists. There are 10 major centres with 1100 researchers, 5500 total workers, 100 projects, 60 new products in development and 600 patents. Research projects include new vaccines (mucosal vaccines, hepatitis C and dengue vaccines, new adjuvants), new monoclonal antibodies, new diagnostic systems and new neuroscience equipment, antibodies in plants, proteomics and bioinformatics.

Equitable access to proven and effective technologies for the prevention and care of the genetic disorders is guaranteed in Cuba by a comprehensive genetic service net that includes genetic counselling. An increasing number of family doctors now hold a masters degree in medical genetics and are working at the local level with high ethical standards, deep social understanding of particular family needs and clear concepts and actions related to the interaction between multiple genes and the environment.

Recognizing the importance of partnerships of different kinds (South–South, North–South, public–private sectors) Cuba is opened to an effective international collaboration in the field of biotechnology for health, has already agreed technological transfer with several countries and considers bilateral, multilateral and global cooperation as crucial for biological diversity conservation, as a potential source of future drugs and genomes, and for coding for useful biological activities in the protection of human health.

Discussion

The Committee was of the unanimous view that the advent of biotechnology and the recent advances in genomic research have signalled a new revolution in health care and disease control. The attention of the Committee was drawn to the recently published global ACHR report on genomics and world health, which calls upon the developing countries to realize the potential advantages and take necessary steps for developing cost-effective applications and capacity-building in biotechnology.

The developing countries must draw up affirmative action resolutions and plans to ensure that the key stakeholders, including scientists, institutions, policy makers and public, are appropriately educated and prepared to accept and make use of the benefits offered therein. The Committee felt that the Member States should invest in and support development of resources (human, financial and material) in the field of genetics and biotechnology. Failure to do so will result in a biotechnology divide between those who possess this technology and those who do not. The profit driven entities are investing hugely in research and development biotechnology, and this may lead to further exploitation.

The techniques developed for molecular screening for diseases and for predicting diseases offer opportunities in disease control, but at the same time impinge on ethical and moral codes, values and practices in the Region. The Committee suggested that control of

genetic diseases using genetic markers needs to be encouraged. At the same time appropriate safeguards and regulatory mechanisms need to be instituted for effective and proper use of this technology.

The regional countries lack resources and skills in this technology. There is need to develop bioinformation systems in the Region. The Committee suggested that lead institutions in this field such as the Institut Pasteur in Tunisia (and others) must be recognized and mechanisms for sharing information, networking and collaboration should be developed. It is important that the Region and Member States identify and focus priorities, foster interregional and intra-regional partnership and build South–South linkages and collaboration. Most importantly there is need for national vision and political will to create an environment to develop research and development at the regional and national level. The Committee suggested that this can be best achieved through the formation of a regional advisory committee/group to support research and development in biotechnology.

7. ROLE OF HEALTH RESEARCH IN HEALTH CARE DELIVERY AND DISEASE CONTROL IN COUNTRIES FACING COMPLEX EMERGENCIES

7.1 Eastern Mediterranean Region countries in conflict: special health needs for those most in need

Mr Altaf S. Musani, Technical Officer, Emergency and Humanitarian Action, EMRO

The adverse effects of war and sanctions on countries in the Eastern Mediterranean Region have had a tremendous impact on the health and human security of populations. Health indicators, data and analysis illustrate the severity and complexity of health and health care under difficult circumstances. The number of disasters, refugee crises, brain drain, collapse of economies and the cycle of violence are just a few of the determinants of poor health. There are a number of additional factors and risks that must be taken into account to clearly understand the relationship between health status and a negative environment which does not foster peace and security. Therefore, investments in health and health research must continue even in difficult circumstances to ensure the health and well-being of individuals.

The presentation highlighted a number of salient points addressing the fact that there is plenty of health data and analysis illustrating the current health status of populations in countries such as Afghanistan, Somalia, Sudan, and the occupied territories of Palestine. However, trend analysis and clear associations and linkages comparing the health profile of communities with the determinants of ill health are limited. Complex emergencies are a missed opportunity for applied research. There is need for extensive research and analysis for specific health conditions in order to better understand the relationship(s) between communities facing war, disasters, sanctions, and environmental degradation with that of their health and human security. This should be coupled with continuous updating of health information on the various situations in the Region. Additionally, the presentation highlighted some of the shortfalls and challenges in conducting research in a complex emergency. Finally, an overview was given of what is currently being developed and debated in

humanitarian circles on how best to standardize and accelerate the level of applied research in a complex emergency.

7.2 Role of health research in crisis situations: a case illustration of malaria control in Afghanistan

Dr Mark Rowland, London School of Hygiene and Tropical Medicine, UK

During the last 25 years of the 20th century, the number of refugees that fled conflict to seek shelter in neighboring countries rose from 4.6 million in 1978 to 18.2 million in 1993. A further 24 million individuals were internally displaced, often trapped by fighting and inaccessible to international help. Countries that host displaced populations lack the resources to support them alone. Responsibility is shared between the national governments, the United Nations (UN) and nongovernmental organizations (NGOs). Health problems are worst during the early acute phase of emergencies: essential interventions are water, food, sanitation, shelter and communicable-disease control.

The quality of health services that is achievable differs between the acute and post-emergency phases. During the acute phase the priority is to prevent deaths and bring disease under control. Emphasis is on rapid diagnosis and case management. The choice of intervention depends on operational conditions, social behaviour, epidemiology, vector biology, feasibility and cost. Because complex emergencies are dynamic, evolving from acute to chronic and post-conflict phases, different approaches to treatment and prevention may be required at each stage of the crisis.

It is difficult to undertake high quality research in unstable political or demographic situations. Relevant research on malaria has been mainly confined to long-term refugee camps situated in comparatively stable, refugee-tolerant countries that border on complex emergencies. The most prominent examples are those on the borders between Thailand and Burma (Karen refugees) and between Pakistan and Afghanistan (Afghan refugees). Their findings are taken up by NGOs and UN agencies operating in the vicinity.

Operational research can help to identify locally effective treatments, appropriate prevention methods, and cultural and behavioural factors that contribute to the problem or limit the effectiveness of control measures. Integration of research and control activities can improve the efficiency of operations and has, for example, helped to solve many malaria problems that have arisen in Afghan and Burmese refugee camps during the last decade. The hardest challenge is the control of malaria in the acute phase of an emergency, when mortality rates are high and health services rudimentary. Agencies' priorities are rightly focused then on saving lives but it is also recognized that the acute phase is the one that needs more answers, new solutions, and hence more research.

Discussion

The Committee stressed that the essential health needs and requirements for the population of countries facing conflict and crises include nutrition, safe water and sanitation, vaccination programmes for disease prevention, health education and family planning. There

is need for countries to harness resources and institute emergency preparedness plans. Health care and disease control activities must be through locally employed staff. This is important for building national and indigenous capacities in health during times of conflict and crisis.

The Committee reiterated that the most vulnerable groups, such as children, women and the old, as well as common infectious diseases need special attention and care. The extraordinary conditions of stress and insecurity in countries in conflict lead to problems of mental health. The Committee agreed with the need for research to address the problems of the vulnerable and the displaced. However the Committee supported the view that the main focus should be action-oriented research to address local priority problems and issues within the context of local environments and cultures. In addition ethical norms and privacy rights during the conduct of research must be protected to avoid exploitation of the population.

The Committee felt that while relief remains the primary objective in countries that are in crisis situations, control measures instituted under such conditions need continuous monitoring, evaluation and supervision of interventions. These are therefore potential opportunities for investigation and research for improvement and better utilization of disease control and health care under such conditions. The Committee suggested that EMRO should establish a forum or a working group which could bring together experts and, at the same time, facilitate exchange of information between the UN agencies, government departments and other partners and NGOs working in emergencies.

8. RESEARCH AGENDA FOR HEALTH SYSTEMS DEVELOPMENT IN THE REGION

8.1 WHO conceptual framework for health systems performance assessment and the role of research in health system development

Dr Sameen Siddiqi, Regional Adviser, Health Policy and Planning, EMRO

The new WHO conceptual framework defines health system as all the human, financial and material resources and organizations that produce health interventions and actions whose primary purpose is to improve or maintain health through individual and public health services and through intersectoral participation. The framework identifies the three intrinsic goals of health systems and the main functions of the systems to reach these goals. The goals are to improve health of the people and reduce health inequalities; respond to the population's needs; and secure fairness in financial contribution. The four main functions of health systems as defined by the framework are stewardship, financing, service delivery, and resource development. Health and responsiveness are measured in terms of *goodness*—the overall level, and *fairness*—the distribution in the population, while financing is measured only in terms of fairness.

The conceptual framework for health systems performance assessment is novel, however, it is being further refined and its measurement tools being developed. The effort of developing and refining these tools is being spearheaded by WHO headquarters, however, there is opportunity at the regional and country level to assist in the development of

instruments that allow for measuring the various functional and outcome-related aspects of the health system. Once the instruments have been developed a further area for applied research would be to assist countries in using these instrument to assess the performance of their own health system and give policy advice for making appropriate interventions.

Broadly, areas for potential research on various components of the health system include: a) development of instruments for mapping of health system functions and their use in assessing them in countries; b) use of analytical tools for policy analysis: national health account (NHA) studies; burden of disease studies; cost and cost-effectiveness analysis studies; and political mapping of stakeholders; c) conducting health surveys to assess health outcomes that include measuring health, responsiveness and fair financing.

Gaps exist in research in several areas to support health system development (HSD): coverage and equity aspects of financing health care; information on the private health sector; human resources skills mix; public-private mix of health services; optimal payment methods; and quality of health care. Two other issues are of critical importance. First, there is lack of capacity for research in health system development in countries of the Region; and second, there is inadequate linkage between research and policy-making.

EMRO is in the process of establishing a health system observatory. The proposed roles and functions are to be a repository of information and its dissemination, policy analysis and forecasting, advice to countries in understanding the impact of policies and interventions, monitoring and evaluation of health sector performance and reforms, and capacity-building and an educational function.

8.2 Contribution of national health accounts to policy formulation for health systems development

Dr H. Salehi, Regional Adviser, Health Economics, Legislation and Ethics, EMRO

Total health expenditures in the world surpassed three trillion dollars in 1998. While some countries spend less than 10 dollars per capita on health, other countries spend several thousands of dollars per capita on health. At the same time the health-adjusted life expectancy, HALE, is less than 30 years in some countries and over 73 years in others. Such large variation in per capita health expenditures and HALE in the world provide researchers with an opportunity to study the determinants of health indicators and their relationship to health expenditures. National health accounts (NHA) are the backbone of such studies.

NHA are a set of standard tables that show the flow of funds in health systems. They provide information on how health systems raise, allocate and use financial resources and who benefits from them. Such information, used in conjunction with other data sources, can contribute to policy development and health sector reforms, which are on the agenda of most countries of the Region. There is evidence to suggest that NHA, although crude and underdeveloped at present, are being used in some countries of the Region as well as other developing and developed countries to address diverse policy issues.

Over 70 countries, including nine in the Eastern Mediterranean Region, have already produced at least one round of NHA, and more countries are expected to do so in the near future. The contribution of NHA to policy formulation and development has been notable in some countries and marginal or none in others. The future of NHA and their contribution to health policy formulation in the Region and, the rest of the world, depend on many factors including:

- a) technical and financial support for production and application of NHA in all countries of the world from WHO and other international organizations, such as USAID and the World Bank;
- b) the extent to which NHA provide consistent, reliable and relevant information to policy-makers;
- c) recognition and conviction of the potential value of NHA by senior policy-makers;
- d) routine and regular production of NHA by a large number of countries in the world.

Discussion

The Committee felt that the agenda for national health systems development is very broad, and therefore the countries must focus their health system research (HSR) towards important needs and priorities within given resources. Health systems research must be a multi-sectoral and a multidisciplinary endeavour.

The Committee discussed the new framework for health systems development, and expressed the concern that the focus appears to shift from the primary health care agenda. The issues of responsiveness and client satisfaction can be misconstrued, as the health systems may then respond more to the needs of those with influence in the society. This may lead to equity concerns, and aggravation of disparities between the rich and the poor within societies. The Committee felt that the gap can be reduced by a) setting clear priorities for health care planning and strategies, b) utilization of technologies to benefit the poor and c) health policy research.

The Committee felt that the input of the health information system in health system performance is crucial. Issues of information collection, reliability, collation, transmission, analysis, syntheses and its translation for use as evidence to the decision-making and policy change processes need to be addressed. Capacity-building is needed at different levels of data management.

The development and evaluation of health systems are separate issues and therefore there is need to focus both on inputs as well as on outputs of the health systems. The Committee agreed that capacity building in various aspects of the health system is needed. Civil society plays an increasing role in improving health, setting health policy agendas and harnessing financial resources for health systems development.

The Committee felt that development of health human resources has generally been ignored within the overall health policy development framework, and suggested the establishment of health policy units within the ministries of health. The Committee reiterated

the need to understand the financial issues within national economic settings and emphasized the concepts and principles of primary health care, as vanguard strategies for public health policy in the Region.

9. CAPACITY-BUILDING IN HEALTH RESEARCH IN THE EASTERN MEDITERRANEAN REGION

Dr Javid Hashmi, Consultant

Capacity-building can be visualized as the ability to define problems, set objectives and priorities, build sustainable institutions and identify solutions to key national, regional and global health problems. Capacity development is now widely acknowledged as a key and critical strategy for strengthening national health research systems.

During the past 25–30 years, a number of multilateral and bilateral health-based organizations, development agencies and foundations have supported capacity-building in developing countries. A variety of approaches have been used for this, mostly dealing with support to institutions and for research training of individuals. Based on the evaluation of these efforts at capacity-building, it has been possible to identify factors which limit the impact of these efforts. Some of the salient factors are given below.

- The focus of capacity-building tends to be narrow, restricted to individuals and institutions, instead of a broad systems approach;
- Research capacity-strengthening activities are driven by the interests of the funding agencies and do not always address national health research priorities;
- Support has predominantly been provided for the supply side of health research while the strengthening of capacities in the demand and user perspectives have been largely ignored;
- Support for capacity-building in health research in the least developed countries has been neglected, and for equity and gender-oriented research has been generally lacking.

Broadly speaking, research capacity in the countries of the Region is low in terms of quantity and the range of skills available, particularly in relation to population sciences and the new public health directions. In view of the increasing use of research for providing evidence for decision-making, policy formulation and health actions, it is critical that Member States undertake systematic efforts at building research capacity according to their needs.

Discussion

The Committee agreed that capacity-building should be a systematic process to address needs and focus on building networks for sustainable collaboration. The Member States need to take a holistic view in that capacity-building should not focus only on researchers, but also on research users, policy-makers and other key stakeholders to enable them to understand priorities, channel resources and use the research results for action and policy change.

The Committee stated that capacity-building in health research is mainly a national responsibility; increased collaboration is needed between the ministries of health and the universities to address priority issues with an emphasis on field research at the teaching institutes. The Committee proposed that the health research systems framework should be adopted so that all partners can support health research. The advantage of this approach is that the need for just having highly trained PhD level people for health research is minimized and the focus is more on operational research.

The Committee stressed the need to strengthen health research management processes including human resource and financial managements. Incentives and innovations are needed for retaining skilled and qualified human resources. In the long run, the health research systems must identify gaps and necessities and set their own course. Investments must be made where most needed, but investment in human capital is vital.

10. REVIEW OF GLOBAL COORDINATION IN HEALTH RESEARCH

10.1 Support of UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) in the development of bio-informatics

Stephen Wayling, Manager, TDR WHO

The UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) is committed to capacity-building in biotechnology, biogenetics and bio-informatics in the developing countries. The TDR parasite genome project is basically a collaborative network of research institutes in different countries. The support of TDR to the biotechnology research institutes is essentially aimed at providing financial assistance to generate interest in the conduct of research.

TDR has regional training centres in bio-informatics in Brazil, India, South Africa and Thailand. TDR aims to build a pool of 20 to 30 scientists in bio-informatics who can then be used as master trainers in the field of bio-informatics. TDR-supported training in molecular genetics includes:

- training workshops in bio-informatics and applied genetics
- regional training programmes e.g. re-entry grant schemes
- long-term re-training programmes.

There is need for EMRO to identify resources and needs in the field biotechnology in the Region and develop appropriate plans to plug the gaps. Training programmes can be initiated through networking of research institutes engaged in biotechnology, and establishing partnerships with the global/international network. TDR can help by supporting relevant research proposals from countries in biotechnology.

10.2 Scope of EMRO/SEARO collaboration

Dr Adik Wibowo, Regional Adviser, Research Policy and Cooperation, SEARO

The South-East Asia Regional Advisory Committee for Health Research conducts its business through annual meetings that are held in March/April of each year. The committee comprises 18 members from a multidisciplinary mix of scientists, researchers and heads of research councils. The committee discusses health research issues of relevance and need as well as special subjects for scientific debate. The subject chosen for scientific debate is usually one that is common in countries, but is also a specific problem in the country hosting the ACHR session. This gives an opportunity for local expertise to give valued input and feedback on the subject matter. For example, the 2002 subject for scientific debate was arsenic poisoning, an acute problem in Bangladesh where the meeting was held.

The activities of SEARO's research programme focus on national health research systems development, ethics in health research, human resource development, utilization of health research, building partnership in health and the ethical, legal and social issues of genomics and health. A health research information system database is under development. The aim of this is to collate research information obtained from research funded by WHO, and provision of health research information to Member States.

10.3 AFRO/EMRO collaboration in health research

Dr Mohamed S. Abdullah, Vice-Chairman, African Advisory Committee for Health Research and Development, AFRO

Both the Eastern Mediterranean and African Regions of WHO share similarities that include common health research problems, geographical boundaries, social, economic and political conditions and disease burden. Commonalities also exist in many programmatic issues like prevention and curative strategies, health care financing and sector reforms, decentralization and management systems. In addition, there are a number of cross-cutting issues that are common to the two Regions. These include weak political will, lack of long-term planning and vision, poorly developed infrastructure and lack of capacity, resource constraints and ethical dilemmas.

It is therefore in the interest of both Regions to work together and develop synergies. By capitalizing on strengths, learning and information sharing, unnecessary duplication and resource wastage are avoided. Sharing of experiences and information databases, collaboration in research, joint international negotiations and exchange of research and training programmes are a few examples by way of which both regions can benefit, and at the same time minimize attrition of skilled and trained human resources.

10.4 Global forum for health research: helping correct the 10/90 gap

Dr Sameera Al-Tuwaiji, Global Forum for Health Research

The Global Forum of Health Research (GFHR) is an independent global forum, which serves as a platform for building linkages and forging linkages, as well as a catalyst for health research with an aim of reducing the 10/90 gap, wherein just 10% of health research funding

is addressed to 90% of the world's health problems, GFHR works very closely with WHO. Some of the main activities of GFRH include:

- annual meetings of health researchers
- Research activities in collaboration with multinational research initiatives, such as International Alliance for Health Policy and Sustainable Development, Medicine for Malaria Venture, Global Tuberculosis Control Programme, cardiovascular diseases control, sexual crimes and violence against women, child health, public-private partnership for health, etc.
- systematic approaches to priority setting
- financial resource flows in health research.

10.5 Research and development agenda of the Council for Health Research and Development (COHRED)

Dr Somsak Chunharas, on behalf of COHRED

The Council for Health Research and Development (COHRED) is an international NGO having close links with UNDP. COHRED evolved in the early 1990s, as a result of the activities of the task force established after the meeting of the International Council for Health Research which took place in 1990. The vision of COHRED is to support health research as a tool for equity in access to health, social justice and development. The three cardinal principles of COHRED's approach are: a) participatory consensus, b) informal self decision-making and c) priorities of national boundaries.

COHRED advocates for the systems approach to health research and improving health through sustainable health research systems with national focus, i.e. on the essential national health research agenda. COHRED's functional approach to health research is three-dimensional:

- a) analytical and developmental work; through working groups on priority-setting, national health and sustainable development, communication in health research, health research systems analysis and capacity-building;
- b) building communications, through mailing lists, web sites, technical documents and learning briefs;
- c) advocacy for health research and development, equity in health research, essential national health research and cooperation.

10.6 Bioethics and genetics in Islamic countries

Prof. Mohsen El Hazmi, Department of Medical Biochemistry, College of Medicine, King Khalid University Hospital, Saudi Arabia

There have been several activities related to health and research ethics in the Region during the past few years. Genetic diseases are a common public health problem and an ethics course for genetic counselling for Islamic countries has been developed. Molecular technology allows the provision of genetics services, which also must include genetic counselling. These services not only enable early diagnosis, but provide people with

informed choices on rehabilitation and prevention of disease. Within the context of religious and social practices, the culture and beliefs of people, and special ethical issues linked to reproductive health and consanguinity arise in the Region. The principles of beneficence, fairness and justice and confidentiality are all enshrined in the Islamic religion. Some practices such as embryonic cell research, cloning and surrogacy are prohibited.

10.7 Health information support to the Region

Dr Najeeb Al Shorbaji, Regional Adviser, Health Information and Support, EMRO

The presentation focused on the regional virtual health science library, the components of which comprise a regional index medicus, library and document delivery services, regional databases, including journals, books and other information sources, and networking services. The Regional index medicus is a unique source of information comprising about 73 000 articles from 15 health journals. Updated versions of the index medicus are published on a quarterly basis, and can be accessed on-line through the EMRO website on the internet. In addition, information on CD-ROM is available with updates every 6 months. The future plans for improving the virtual health library include addition of abstracts and full texts, introduction of search engines both in Arabic and English, citation capabilities and linkages with the US National Library of Medicine.

10.8 Overview of recent developments in science and technology in Pakistan

Prof. Ata ur Rehman, Minister of Science and Technology, Pakistan

The renaissance in the field of science and technology in Pakistan is evidenced by a massive increase (over 5000%) in the financial allocation to this area by the Government of Pakistan. The latest development is one which is mainly knowledge driven, where ideas are transformed into research and products and the development of science and technology is closely linked to industrial development. Investments in human resources are therefore crucial for development.

The new policy for development of science and technology focuses mainly on the key issue of human resource development. Substantial incentives in the form of increased salaries, research grants and a research productivity allowance are being provided. The remuneration to scientists is now essentially performance driven. In an effort to widen the technical and scientific expertise the Government of Pakistan has initiated PhD programmes where about 300 supervisors have been identified as trainers of PhD fellows, and they have each been allocated significant funds to the tune of up to US\$ 8000 per student per year. Other training programmes include post-doctoral fellowships, technical training programmes and starter grants for young scientists. Six national libraries have been established and will play a central role in information dissemination.

In the field of information technology, seven new universities have been commissioned and the faculty has been induced from abroad. Internet facilities are provided in most cities (97% coverage) of the country. A computer literacy programme for schoolteachers is under way. There is a 15-year tax holiday for software importation and investments in information

technology have increased enormously. The Government provides special incentives for linking known technologies non-existent in the country for industry development.

Efforts are being made for the creation of a special central fund within the group of Islamic countries for the support of science and technology with a proposal of setting aside at least 0.1% of the GNP for the development of priority areas in this field.

Discussion

The Committee suggested that EMRO should continue to give high priority to the regional Research Policy and Cooperation programme and to strengthening national health research systems in its collaborative activities with Member States and other international agencies and partners. Consideration should be given to strengthening the Research Policy and Cooperation unit to carry out its coordinating role more efficiently.

The Committee supported EMRO's efforts to promote intercountry and interregional (with AFRO and SEARO) collaboration for research on common problems, networks and scientific cooperation between individual researchers, institutions and organizations, and suggested that these should continue for making maximum use of the latest communication technologies. The Committee proposed that EMRO in collaboration with TDR and other units in WHO should support research in traditional systems of medicine, including studies on the therapeutic effects of naturally occurring substances and product development. EMRO should participate in the TDR initiative on bio-informatics, and take advantage of the opportunity offered by TDR of supporting relevant research proposals from EMRO countries in biotechnology.

Regarding the date and venue of the next ACHR meeting, the Committee felt that it could be held after 1 or 2 years and essentially depends upon the felt need by the Regional Office. The Committee suggested a list of subjects, which could be included in the next ACHR meeting for discussion. These include:

- chronic problems of aging and malignancies;
- issues related to health transition, obesity, genetic disease and health counselling;
- mental health and psychosocial care;
- health systems research agenda, e.g. health sector reform, community involvement in disease control, health system and policy research, financial tools for health care delivery (health systems development), medical education both at undergraduate and post-graduate levels, role of private medical schools, influence of privatization of health care, role of NGOs in professional education in management of health;
- management issues of health research;
- defining priorities for health
- training needs for high tech interventions and methods such as genetics and biotechnology for disease control;
- health rights ethics and equity issues;
- oral health;
- vector-borne diseases, and integration of research with control;

- country example of a success story or problems;
- any special matter(s) referred to EM/ACHR by the Regional Director.

11. RECOMMENDATIONS

11.1 General recommendations for supporting health research in the Region

EMRO

1. EMRO should continue to award a high priority to the regional Research Policy and Cooperation programme through strengthening of the Research Policy and Cooperation unit, and strengthening national health research systems in its collaborative activities with Member States. These can include supporting initiatives in bio-technological research, such as molecular epidemiology, disease surveillance and bio-informatics, bioethics, priority public health problems, and research in health systems development. Support for health research systems analysis (mapping grants) should be extended to three additional countries during the current biennium.
2. In view of the crucial role of EMRO in supporting health research in the Region, fresh and sustained efforts should be made to generate extrabudgetary resources from within and outside the Region.
3. Regional centres of excellence should be strengthened to provide training in specialized research skills and technical support to researchers in the Region. A database of research resources in the Region should be established and continuously updated. In order to provide increased opportunities for researchers to publish their work within the region, technical and financial support should be provided for improving the overall quality of selected health research journals in the Region.
4. In order to promote intercountry and interregional (with AFRO and SEARO) collaboration for research on common problems, networks and scientific cooperation between individual researchers, institutions and organizations should be actively pursued and supported making maximum use of the latest communication technologies.
5. EMRO and national research organizations in the Region should be closely involved in the global initiative on health research systems performance analysis (HRSPA), especially as it complements the ongoing research mapping initiative in the Region.
6. WHO country offices should be encouraged to work closely with and support national health research bodies for the promotion of research and enhancing the use of research in policy and decision-making.
7. EMRO, in collaboration with TDR and other units in WHO, should support research in traditional systems of medicine, including studies on the therapeutic effects of naturally occurring substances and product development.

8. In view of the rapid advances in scientific knowledge and in access to information coupled with widespread concern about the quality of medical education in the Region, the topic of research in medical education should be included in the agenda for the next EM/ACHR meeting.

11.2 Recommendations for a regional initiative on bioethics

EMRO

9. An Eastern Mediterranean Advisory Committee on Bioethics (EMACB) should be established with the following terms of reference:
 - a) develop guidelines for biomedical/epidemiological/social research for the countries of the Region, is addressing standards of care, and religious and cross-cultural issues peculiar to research in the Region;
 - b) advise EMRO on ethical issues in priority-setting and resources allocation;
 - c) provide guidance and assistance to Member States in the establishment of review boards, bioethics capacity-building and other ethics-related matters, when called upon.
 - d) develop a regional ethics website and maintain a listserv as a forum for discussion among researchers/bioethicists on ethical issues faced by them.
10. In order to address the need for capacity-building in bioethics and research ethics, international training centres should be identified that can train trainers in the field of bioethics and development and organize short courses/workshops in research ethics.

Member States

11. The Member States should establish national ethics committees and institutional review boards. The EMBC could help establish and link these committees to share resources and expertise in the Region.
12. The Member States should develop their own national guidelines and monitoring mechanisms for ethical conduct of health research, organize workshops and short courses for researchers and ethics review board members, as well as design bioethics curricula for undergraduate and postgraduate training.

11.3 Specific recommendations in biotechnology and genomics

EMRO

13. EMRO should establish a regional advisory committee/group on genomic research and biotechnology. Its terms of reference should focus on providing advocacy, technical guidance and advice (on priority needs, applications, training, bioinformatics, ethical, social and legal (ESL) issues, building linkages, resource mobilization) to the Regional Office and Member States to develop research and development in this field.

14. EMRO should identify centres of excellence within Member States in order to initiate and support coordination and build partnerships for information exchange, training and research.
15. EMRO should encourage Member States to recognize the contribution of biotechnology and genomics in the early diagnosis and prevention of diseases and to take necessary steps to strengthen their capacities in these subjects.

Member States

16. The Member States should express political commitment and take necessary action to establish structures for the advancement of biotechnology and genomics and their use for the specific needs of the country, including:
 - a) providing necessary support for development of resource(s) (human, financial and material) in molecular biology, biotechnology and genetic research;
 - b) raising awareness and education in the community and among key stakeholders and policy-makers to promote biotechnology and genetic research, as well as associated ESL issues;
 - c) identifying specific priority areas of health which may benefit from the application of biotechnology and genomics, especially in the fields of molecular epidemiology, diagnostics and genetic disorders;
 - d) developing in-country and intercountry research networking in biogenetics—two possible areas are suggested, disease surveillance/epidemiology through molecular biology techniques, and population genomics to better understand regional priority diseases with strong genetic basis;
 - e) participation in the TDR initiative on bioinformatics.

11.4 Specific recommendations for health research in complex emergencies

EMRO

17. EMRO should establish a forum or working group on operational research in complex emergencies, bringing together expertise and facilitating information exchange between the UN agencies, government departments and NGOs working in emergencies.
18. Even in complex emergencies, intervention and operational research should always follow recognized guidelines, ethical principles and informed consent procedures and should be directed towards the benefit of the affected populations.
19. Alternative research applications such as “action-oriented research” and “rapid assessment” tools should be promoted in health research in emergency situations as well as complex crises.

20. Local health staff and other available resources in the target population should be engaged and involved in health research. This is important for building national and indigenous capacity during conflict and crisis situations.

11.5 Specific recommendations for research in health system development

EMRO

21. Regional priorities for research in health systems development should focus on achieving universal and equitable coverage in the financing and provision of health services.
22. The EM/ACHR should endorse and support the establishment of a health system observatory at EMRO that functions as a repository of information, undertakes policy analysis and forecasting, gives policy advice to countries, monitors and evaluates health sector performance and contributes to capacity building of ministries of health in health systems development.

Member States

23. Ministries of Health should establish health policy research and analysis units, with the support of EMRO, in order to provide evidence-based information and sensitize policy-makers and managers to the need for informed decision-making.
24. Ministries of Health should be encouraged to estimate national health accounts on a regular basis and use the results for policy formulation and monitoring. In addition, countries should undertake studies on estimating the burden of disease and risk, and cost and cost-effectiveness analysis to further support evidence-based policy development.

Annex 1

AGENDA

1. Inaugural session
2. Renewed health research for development; a revised regional strategy for promoting health research in the Region.
3. Report on the regional research policy and cooperation program (RPC) since the last meeting of the EM ACHR
 - Report on research in Reproductive Health
 - Report of the EMRO/TDR Small Grants Scheme
4. Promotion of ethics in health research in the Region
5. Report by HQ RPC initiative on Health Research Systems Performance Analysis initiative
6. Potential and application of human genome research for the countries in the Region
7. Role of health research in health care delivery and disease control in countries facing complex emergencies
8. Research agenda for health systems development in the Region
9. Capacity-building in health research in the Eastern Mediterranean Region
10. Review of global coordination in health research
 - Report by WHO regional partners
 - Report by Global Forum for Health Research
 - Report by Council on Health Research for Development
11. Other business
 - Proposal for agenda for the next ACHR meeting
 - Any other business
12. Adoptions of conclusion and recommendations
13. Closure of the meeting

Annex 2**PROGRAMME****Tuesday, 27 August 2002**

08:30–09:00	Registration
09:00–09:15	Opening Address, Dr Hussein. A. Gezairy, Regional Director, EMRO
09:15–09:30	Participants introduction
	Election of Vice Chairperson and Rapporteur
09:30–09:45	Adoption of the agenda by the ACHR members
09:45–10:00	Global health research agenda; perspectives from global ACHR, Professor M. Fathalla, Chairperson Global ACHR
10:00–10:30	Renewed health research policy for development: revised regional health strategy for promoting health research, Dr A.M. Saleh
10:30–11:00	Open discussion
11:15–11:45	An overview of research activities in the EMR activities since the last session, Dr M. Abdur Rab
11:45–12:15	Progress report on regional health research activities
	1. Research in reproductive health in the Eastern Mediterranean Region, Dr Ghada Hafez
	2. EMRO/TDR small grants scheme, Dr Amal Bassili
12:15–13:00	Open discussion
14:00–14:30	Ethics in health research
	Ethics in health research: issues, needs and strategies for ethical practices in health research in the EMR, Professor Gamal I. Serour
14:30–15:00	Developing countries perspective on health research ethics, Dr Asad Raja
15:00–15:45	Open discussion
16:00–16:30	Global coordination in health research
	The global initiative on health research systems performance Analysis, Dr Ritu Sadana
16:30–17:00	Open discussion

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08:30–09:00	Genomics and world health
	Potential of genomics and biotechnology in disease control in the Eastern Mediterranean Region, Professor K. Dellagi
09:00–09:30	Research developments in genomics and biotechnology; the Cuban experience, Dr Eric Martinez
09:30–10:30	Open discussion
11:00–11:15	Health research in complex emergency situations
	EMRO countries in conflict: special health needs for those most in need, Mr Altaf Musani
11:15–11:45	Role of health research in crisis situations: a case illustration of malaria control in Afghanistan, Dr Mark Rowland
11:45–13:00	Open discussion
14:00–14:30	Research agenda for health systems development in the Region

- WHO conceptual framework on health system performance assessment and the role of research in health system development, Dr Sameen Siddiqi
- 14:30–15:00 Contributions of national health accounts for health systems development, Dr H. Salehi
- 15:00–16:00 Open discussion

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- 09:00–09:30 Capacity-building in health research in EMRO, Dr Javid Hashmi
- 09:30–10:00 Open discussion
- 10:00–10:10 Support of UNDP/World Bank/WHO special programme in tropical diseases (TDR) in the development of bio-informatics, Dr Steve Wayling
- 10:10–10:20 Scope of EMRO/SEARO collaboration, Dr Adik Wibowo
- 10:20–10:30 AFRO/EMRO collaboration in health research, Dr Mohamed Abdullah
- 10:30–10:40 Global forum for health research: helping correct the 10/90 gap, Dr Sameera Al-Tuwaijri
- 10:40–10:50 Research and development agenda of council for health research and development (COHRED), Dr Somsak Chunhares
- 10:50–11:00 Open discussion
- 11:15–13:00 Proposal for agenda for the next EM ACHR meeting
Other issues
- 14:00–15:00 Adoption of the conclusion and recommendations
- 15:00–15:30 Closing session

Annex 3

LIST OF PARTICIPANTS

EM/ACHR MEMBERS

Chairman

H.E. Professor Utta Ur Rehman
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Dr A.M. Saleh, Former Deputy Regional Director, WHO/EMRO
Dr M.A. Jama, Deputy Regional Director and A/Assistant Regional Director, WHO/EMRO
Dr Ghada Hafez, Special Adviser to the Regional Director for Gender issues, WHO/EMRO
Dr M. Abdur Rab, Regional Advisor, Research Policy and Coordination, WHO/EMRO
Dr Sameen Siddiqi, Regional Adviser, Health Policy and Planning, WHO/EMRO
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Dr Ritu Sadana, Scientist, Research Policy and Coordination, WHO headquarters
Ms. May El Sariakousy, Senior Administrative Assistant, WHO/EMRO
Ms. Hala El Shazly, Administrative Assistant, WHO/EMRO
Ms. Amani Kamal, Secretary, WHO/EMRO

WHO-EM/POL/427/E Report on the Thirtieth meeting of the Eastern Mediterranean Regional Commission for Certification of Poliomyelitis Eradication Amman, Jordan 4â€“6 April 2016 WHO-EM/POL/427/E Report on the Thirtieth meeting of the Eastern Mediterranean Regional Commission for Certification of Poliomyelitis Eradication Amman, Jordan 4â€“6 April 2016 © World Health Organization 2016 All rights reserved. Publications of the World Health Organization can be obtained from Knowledge Sharing. This is the Razi Vaccine and Serum Research Institute in the Islamic Republic of Iran. Rationing health services is an inseparable part of the health system of any country in order to achieve universal health coverage. Elective surgery for total hip and total knee replacement places a high financial burden on health systems. Such surgery should be done in a way to ensure that the people who most need it receive the service. Regional Advisor for Mental Health and Substance Use, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt. The global COVID-19 pandemic has demonstrated the impact of a major public health emergency on mental health, and the ways that individuals, communities, professionals and systems can react positively to such a crisis. Eastern Mediterranean is a loose definition of the eastern approximate half, or third, of the Mediterranean Sea (its lowest common denominator being the Levantine Sea). It typically embraces all of that sea's coastal zones, referring to communities connected with the sea and land greatly climatically influenced, in Southeast Europe, northern Egypt and far Western Asia. It includes the southern half of Turkey's main region Anatolia, its smaller Hatay Province, the island of Cyprus, the Greek Dodecanese Eastern Europeans are returning home in droves. Here's what that means for Eastern Europe's economies and the European Union. Argument |. Ognyan Georgiev. Germany Could Have Delivered Justice for Civilian Drone Strike Victims. It Failed. On Sunday, the Interfax news agency reported that Russia is likely to sign a deal with Turkey to sell it an additional batch of its S-400 missile systems. Another sale would be seen as a sharp rebuke of the Trump administration. On Tuesday, Greece sent naval vessels to the eastern Mediterranean to conduct a joint military exercise with France in response to Turkey's decision to extend a maritime research trip in the area that was accompanied by Turkish naval vessels. Resolving the crisis.