

WHO-EM/RPD/64-E/R

Report of the

**EIGHTEENTH SESSION OF THE EASTERN
MEDITERRANEAN REGIONAL ADVISORY
COMMITTEE ON HEALTH RESEARCH**

Riyad, Saudi Arabia, 20-22 March 1995



**World Health Organization
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1. OPENING OF THE SESSION

The eighteenth session of the Eastern Mediterranean Advisory Committee on Health Research (EM/ACHR) was held at Riyadh Palace Hotel in Riyadh, Saudi Arabia, from 20 to 22 March 1995.

The meeting was inaugurated by H.E. the Minister of Health of Saudi Arabia, Mr Faysal Al Hujailan.

In his address to the EM/ACHR, the Minister of Health welcomed the participants to Riyadh, and stressed the importance of the Committee and its role in supporting research in the Region which is a reflection of the international interest in health research. It is not possible to identify the difficult health problems and develop solutions for them without developing better health research capabilities in different countries. It is clear that advancement in different fields of life, including the health field is directly related to scientific research.

In the Kingdom of Saudi Arabia, scientific research enjoyed the full attention of, and support by, the Government. In addition to the research centres attached to the universities, the King Abdulaziz City for Science and Technology (KACST) was established to facilitate scientific research by offering support to research and financing national research projects.

The Ministry of Health played an important role in health research and supported more than 100 research projects. The Ministry cooperated with both KACST and Saudi universities in implementing many national research programmes.

Most of the research projects utilized the Ministry's facilities in the different regions, but a limited number of projects were also executed by private sectors.

The priorities for research supported by the Ministry follow its health policies where PHC is the cornerstone. Therefore, the research topics covered mainly community health problems and health systems research (HSR). It is without doubt that the wide distribution of health centres all over the Kingdom facilitates access by researchers to families and individuals in local areas and help them in studying the actual health situation.

The Minister of Health thanked the WHO Regional Office for choosing the Kingdom for hosting the current session of the EM/ACHR.

In his address to the meeting, Dr Hussein A. Gezairy, Regional Director, mentioned that Saudi Arabia brought back memories of times when they had great expectations for medical education, health services and health research, and one feels quite happy to see that most of those aspirations have been fulfilled.

Dr Gezairy thanked the Government of Saudi Arabia for agreeing to host this meeting, and H.E. the Minister of Health, Mr Faysal Al Hujailan, for kindly accepting his invitation to inaugurate the session and for providing the meeting with such excellent facilities.

He then explained the ACHR system. The ACHR, he stated, is a high-powered network of a global ACHR at headquarters and six regional advisory committees, one in each WHO region. The Eastern Mediterranean Advisory Committee on Health Research assists in further developing regional research programmes and advises the Regional Director on ongoing and planned research activities in the EMR. In this respect, research is directed towards solving health problems of high priority in the Region.

EM/ACHR holds its sessions in countries where active research is being carried out or where there are prospects for initiating research activity. Saudi Arabia certainly falls within the first group. He was pleased to see that the agenda of the session includes the Saudi Arabian experience of research in the Ministry of Health to be presented by a long-standing member of the EM/ACHR, Dr Othman Abdul Aziz Al Rabieah.

The Regional Director mentioned that since the previous session in Aleppo, the research programme of the Eastern Mediterranean Regional Office has been active. Several research projects were supported, giving priority to what had been set in previous meetings, namely health systems research and diseases due to modern lifestyles. Technical and financial support was given to some national activities, such as meetings for setting research policies and strategies and workshops for training in research methodology.

The Task Force for Health Research visited two countries of the Region. Considerable research was done in universities, research institutions and ministries of health. But the results of the greater part of the research were often not disseminated. The researcher might obtain a qualification or be promoted, but the results or recommendations of few researchers were even implemented.

In conclusion, Dr Gezairy said that though the agenda was long, it was both important and interesting.

2. REPORT ON THE PROGRESS OF THE EASTERN MEDITERRANEAN REGION RESEARCH PROGRAMME

Dr El Sheikh Mahgoub, Acting Regional Adviser, Research Policy and Strategy Coordination, presented the report.

He mentioned the various activities that have been initiated during the past two years by the Regional Office to further the research intended to solve health problems, and contribute to the implementation of the WHO programme.

2.1 Meetings

1) Sixth Intercountry Meeting of National Officers Responsible for Health Research, Cairo, Egypt, 27-29 August 1994

The participants in this meeting were not all at the same level of awareness about health research, as reflected by the standard of their country presentations. This was due to the frequent changes of representatives from one meeting to the other and he asked the ACHR to

look for solutions to this situation. The meeting adopted the following recommendations dealing with health systems research.

- WHO should conduct a study to evaluate the different HSR development processes in various countries and the methods used to network with other research units and organizations.
- Mechanisms should be developed to allocate funds for HSR within the budget of the Ministry of Health (MOH).
- Each country should identify a more permanent national focal point for HSR in order to have a more efficient follow-up of country progress through implementation of recommendations made in previous meetings.
- Continuous efforts in HSR orientation should be sustained in view of the continuous developments in the field and the relatively rapid turnover of managers and policy-makers.
- WHO should continue its Task Force approach and motivate countries to benefit from it in order to assess and evaluate their progress in HSR.
- WHO should evaluate the impact of WHO collaborating centres on the development of health research in general and HSR in particular in various countries of the Region.
- WHO should compile and disseminate information about the HR and HSR organization in Member States.

2) Thirty-first Session of the Global ACHR

A report on the Region's research activities was presented at this session. A separate report on this session is given in Section 10.

2.2 Visits of the Task Force for Health Research

Dr Mahgoub mentioned that the Task Force (TF) mechanism has been in operation in the Region for the past ten years and proved its worth. Visits to several countries took place and follow-up visits were now contemplated.

In December 1994, the TF visited the Syrian Arab Republic and Lebanon and reports on these visits appear in Section 3.

2.3 Research Grants

A total number of 39 research proposals were received in EMRO during the previous two years, covering areas of research in epidemiology, basic research, maternal and child health and clinical research. However, on application of selection criteria, only 12 projects were found to be worthy of support, with a total funding of US\$187 382.

It was noted that the proposals selected came from four countries, namely the Islamic Republic of Iran, Lebanon, Pakistan and Sudan. This was essentially due to the ability of the applicants in choosing

researchable problems within EMRO priorities and their capabilities in writing research protocols.

In this respect it was important to encourage Member States to pay attention to training on research methodologies, and writing up research protocols, e.g. through workshops. Dr Mahgoub stressed that although the selected proposals were from those with English-speaking background, language *per se* had never been a factor in selection; and, in fact, applications in Arabic, English or French were looked into equally.

2.4 Research Training Grants

Only one such grant had been awarded to a researcher to visit an advanced centre for one month to carry out special analysis in connection with his research work.

2.5 EMRO/TDR/CTD Small Grants

An amount of US\$100 000--contributed by the Regional Director, EMR (50%), TDR/HQ (30%) and CTD/HQ (20%)--has been allocated to be spent on research of an operative nature in the diagnosis, management or control of TDR-targeted diseases. In 1993, these grants were earmarked for schistosomiasis and 14 were awarded; in 1994, these grants were set aside for malaria, and six were awarded and eight other proposals were referred back for refinement before being supported while nine were rejected.

Since the beginning of these grants, 30 researchers are now in receipt of these grants, the quality of research is good and the projects are well managed.

2.6 Country Activities

In 1993, these included:

- workshops on research methodology (Islamic Republic of Iran, Pakistan, United Arab Emirates)
- assignment of consultants to Kuwait and the Republic of Yemen, to advise the ministries of health on policies and strategies for research promotion;
- support to an HSR project in Lebanon;
- support to a fellow in Saudi Arabia to attend a course for training of trainers in HSR held in Thailand.

In 1994, these included:

- three national training activities on HSR in Egypt;
- a training course on HSR development in Jordan;
- assignment of a consultant to Kuwait to assist the MOH in the promotion and development of HSR and HR.

Dr Mahgoub noted that the implementation of research in Member States seemed to be sluggish and limited. It usually included support for meetings to develop policy/strategy and training in research methodology, but almost no funds were spent on research projects.

2.7 WHO Collaborating Centres

EMRO encouraged the establishment of more collaborating centres to participate in the implementation of WHO programmes (as recommended at a meeting of WRs). Thirteen new collaborating centres were designated in 1993 and 1994, bringing their total number in the Region to 48.

2.8 Follow Up of the Recommendations of the Seventeenth Session of EM/ACHR, Aleppo, April 1993

Diseases of Modern Lifestyles. Important initiatives were undertaken by EMRO to strengthen national capacities in the epidemiology and disease surveillance of noncommunicable diseases in the Member States, e.g. in the fields of cardiovascular diseases, diabetes and cancer. These included sponsorship of attendance in conferences, preparation of relevant protocols and manuals, partial support of research proposals and offering of technical advice. Furthermore, activities were implemented by EMRO to motivate and support Member States in initiating national preventive programmes, and these included an intercountry meeting, an intercountry workshop and two regional consultations.

Health of adolescents. In 1993 an intercountry consultation was held in Beirut, Lebanon, on the health of adolescents. The school health services and education were identified as two important tools to promote the health of adolescents.

WHO Special Programme on Research Development and Research Training in Human Reproduction. Reproductive health research and training, being regarded as an essential component of mother and child health, have been taken up as priority areas for research. In December 1993 an intercountry consultation on this issue was held in Tangiers, Morocco.

2.9 Prizes for Health Research and Health Systems Research

These prizes were proposed in 1991, in order to encourage young researchers (under 35 years of age), but that year the quality of research was low. However, in 1994 there were 64 applications from 39 applicants representing eight Member States. The number of proposals that were marked "A" were 15. The HSR prize went to Dr Sabine Fatima Khan from Pakistan and the HR prize to Dr Fathi Mohamed Sherif from the Libyan Arab Jamahiriya.

* * *

The following comments and recommendations were made during the discussions that followed the presentation.

The communication system between EMRO and researchers should be improved by involving not only the ministries of health, but also other institutions such as faculties of medicine and faculties of allied medical sciences, postgraduate colleges, collaborating centres, etc.

A national committee or group needs to be established in each country composed of experienced researchers so that they can help the young researchers in protocol writing.

Training in research methodology should be started at the undergraduate level, with postgraduates preparing their theses or dissertations and also for other categories of health professionals through workshops, etc.

If the budget of a protocol submitted is high, the researcher can make use of a small grant from EMRO to start using EMRO's acceptance of his/her project for external funding from other agencies.

The system of funding of research projects at EMRO needs to be reviewed; for example, through allocation of funds to Member States which can be granted to their researchers.

Member States can allocate funds for research projects within the priorities of their health ministries from the budgets of the collaborative programmes of WHO and the countries concerned.

Encouragement should be provided for HSR projects starting from the level of medical students' graduation dissertations to postgraduate-level theses.

Commissioned research needs to be looked into as a possible mechanism to promote research in the Region. However, this might be more pertinent at the country level.

Abstracts of research projects submitted to EMRO, whether for grants or prizes, should be included in EMR journals so that researchers would become aware of what others are doing.

Researchers should be encouraged to submit abstracts of their research, whether funded by WHO or other agencies, to EMRO, which will publish them, thereby promoting their dissemination.

One way of addressing the problem of lack of continuity in focal points is to send the new focal points to EMRO for a short period for briefing and orientation.

The problem with research in Member States in the Region is not only funding or human resources, but also the lack of willingness and determination to work using existing facilities.

3. REPORT ON THE VISIT OF THE TASK FORCE FOR HEALTH RESEARCH TO THE SYRIAN ARAB REPUBLIC AND LEBANON

This agenda item was presented by Dr El Sheikh Mahgoub.

3.1 Visit to the Syrian Arab Republic

The visit took place from 3 to 9 December 1994, and the members of the team included Dr Mohamed Abdussalam, Dr Amanda le Grand and Dr El Sheikh Mahgoub. The terms of reference of the Task Force for this visit were similar to those of previous visits with emphasis on the identification of a health research policy and strategy, especially in relation to the development of the PHC system.

The work was carried out through visits to policy-makers, scientists and institutions engaged in research or likely to do so. The Minister of Health and the WHO Representative were kept informed of the findings and eventually of the proposed recommendations.

The situation analysis indicated:

- A felt need for health research
- High political commitment including a presidential directive and the personal drive of the Minister of Health who has initiated annual competition among researchers for the award of prizes for good projects
- So far emphasis has been on biomedical and clinical research.
- Health research is poorly funded
- There is no mechanism for planning and coordination of research
- Services for research, such as a library, are inadequate.

The following plan of action was suggested:

- 1) The establishment of a scientific advisory body for health research to advise on policy, strategy, resource allocation and international cooperation.
- 2) The establishment of a unit for health research within the Ministry of Health or other suitable location with close links with the MOH. The unit will liaise with the health care system in order to identify research needs and act as secretariat for (1) above.
- 3) In order for health research to be promoted effectively, the following steps were proposed:
 - a national consultative meeting on health research needs to be held to sensitize all concerned in the concept of HSR and provide a forum for defining needs and priorities in health research and developing appropriate strategies;
 - The director of the HR unit should be an experienced scientist, preferably with background in epidemiology or HSR;
 - The director should prepare a plan of action to be discussed by the scientific advisory body for health research.
- 4) Plans to go ahead with the establishment of the proposed Assad Centre or the Academy for Health Research and to include three

divisions: HR Division, Education and Training Division and Research Services Division.

The following recommendations were made to the Ministry of Health:

- 1) Carry out the plan of action through the following stages:
 - establish a focal point for health research in the MOH
 - establish a scientific advisory body for health research
 - develop a national research agenda by organizing a national consultative meeting.
- 2) Train a critical mass, including health managers, health professionals and researchers, in health systems research.

The following were addressed to WHO:

- 1) Provision of assistance, technical and financial, in the organization of a national consultative meeting on health research for developing a research agenda;
- 2) Strengthening of library facilities by making available essential textbooks and journals on public health, HSR, community medicine and PHC;
- 3) Assistance in the organization of training in research methodology by providing consultants and training material.

3.2 Visit to Lebanon

This visit took place from 10 to 14 December 1994, by the same team that visited the Syrian Arab Republic. The terms of reference and the method of work were similar to those of previous visits. The situation analysis indicated that:

- health research was adversely affected during the 16 years of civil war;
- efforts are now being made to revive health research, especially through the activities of the National Council for Scientific Research (NCSR) which is responsible for the promotion, planning and supporting research in the country;
- the universities are actively engaged in reviving research not only on clinical and biomedical topics but also on HSR;
- the Ministry of Health is promoting HR and is aware of the need for HSR and health information system for success of this programme;
- the main constraints against HSR are the shortage of trained and motivated human resources and the lack of sufficient funds;
- the overall assessment of the situation shows it to be favourable.

The following recommendations were made:

- 1) The NCSR is the logical focal point for further development of HR.
- 2) The Council needs to strengthen the mechanism for planning, promotion, coordination and follow-up of HR, either by enlarging the current board or by creating a consultative committee to advise on priorities and capacity-building.
- 3) NCSR should call a meeting of all those concerned to draw up a health research agenda.
- 4) NCSR and MOH should hold a meeting for advocacy of HSR as a tool for health development.
- 5) Training courses on HSR methodology, research protocol development, etc., should be conducted.
- 6) Various aspects of the information system need to be strengthened.
- 7) Universities should be involved in research methodology training, both at undergraduate and graduate levels.
- 8) Cooperation with WHO should be strengthened.

The following recommendations were made to WHO:

- 1) WHO should participate in developing the research policy and drawing up the agenda for research.
- 2) WHO support is required on holding the HSR advocacy meeting mentioned above and in planning the training course in HSR methodology and protocol development.
- 3) Advice and support should be provided for further development of information (library) services.

Comments

The divergent experiences of the Syrian Arab Republic and Lebanon showed that there might be different ways of achieving the goal of research promotion. In the Syrian Arab Republic, the venue was the Ministry of Health, whereas in Lebanon it was the universities. However, optimum value could be achieved if both the MOHs and universities get together.

Two countries, such as the Syrian Arab Republic and Lebanon, could complement each others efforts by pooling their resources, expertise, etc. to address common problems.

The success of the National Council for Scientific Research in Lebanon, especially in supporting HSR, shows that the model of the National Health Council, generally advocated by EMRO, need not be the only type of research coordinating mechanism.

The experience of subcontracting in Lebanon, where the Ministry of Health subcontracts the American University of Beirut to conduct its research could be considered by other Member States.

The Arabicization of medicine in the Syrian Arab Republic has not hampered health research in any way. However, foreign languages, especially English and French, are used in addition for acquiring up-to-date scientific knowledge. In this connection, a three-month course in English or French is offered to postgraduate students.

The experience of the Syrian Arab Republic showed the importance of political commitment to research at the highest level.

The prize/competition mechanism of the Syrian Arab Republic is one useful way of promoting research since the proposals submitted constitute the start of viable research projects.

The continuing efforts in Lebanon to develop health research, even during the years of war, show that will and determination are indeed important factors.

The reports of these two visits emphasize the importance of the Task Force mechanism adopted by EMRO. Other countries which have not yet made use of this mechanism are encouraged to do so.

4. HEALTH RESEARCH AT THE MINISTRY OF HEALTH--~~EXPERIENCE~~ OF SAUDI ARABIA

Dr Othman Abdul Aziz Al Rabieah introduced this agenda item.

Dr Al Rabieah, in his report, highlighted the stages of development of research in the MOH since the Department of Medical Research (DMR) was established in 1983. He mentioned the difficulties which the Department had faced at the beginning.

- There were no designated positions and no staff in the DMR. There was also no procedural manual or guidelines to be followed.
- There was no sufficient information concerning the health problems of the community and no exactly defined priorities.
- There were no research facilities and no researchers in the MOH.
- There were no rules regulating or defining the mode of financing research projects, although funds were available.
- Some research proposals submitted to the DMR did not comply with the MOH priorities and often preferred biomedical and clinical topics.
- There was the problem of dissemination and utilization of research results by decision-makers.

DMR managed to overcome these difficulties through the following activities:

1. Through the assistance of three part-time consultants from King Saud University to develop guidelines and procedures were developed for conducting research. Technical staff including a biostatistician were appointed.
2. DMR surveyed the opinions of MOH officials and health care providers about health problems and priorities for research.
3. DMR commissioned a number of researches to academic staff and asked KACST to sponsor some national research projects. Also, some private organizations were subcontracted.
4. DMR set the requirements for forming research units and committees in the regions and organized training courses and workshops for mid-level managers.
5. A multisectoral coordination committee for HSR was established.
6. Meetings between researchers and MOH officials were organized and research results were discussed.

Achievements

The efforts mentioned above enabled DMR to carry out, between 1985 and 1992, 86 research projects costing SR24 650 000.

Out of these projects 33 researches were conducted by the University staff at a total of SR11 585 500; 45 by the MOH staff at a total cost of SR8 874 000, and eight were commissioned to private organizations costing SR4 200 000.

Regarding the central versus peripheral distribution, 21 researches were performed at the national level, the total cost of which was SR13 000 000, whereas 65 researches were performed regionally at a total cost SR11 560 000.

The MOH encouraged the regional health directorates to conduct research in and by their own facilities. So, in 1988 only four proposals were submitted, whereas 19 proposals were approved at the beginning of 1993.

Finally, Dr Al Rabieah appreciated the support extended by H.E. the Minister of Health and officials of the Ministry of Health and regional directorates and praised the cooperation between the MOH and KACST as well as the academic institutions and the technical contribution and assistance given by EMRO.

Comments

The paper was chosen because of the known positive experience of the Ministry of Health, Saudi Arabia, in the field of health research.

The Saudi MOH programme was a success because there was political commitment, a viable health research structure and a committed budget.

The successful cooperation of MOH with the universities, KACST, etc., showed that intersectoral collaboration could be achieved with benefit to all these institutions.

The establishment of peripheral health research structures in Saudi Arabia is an important step in comprehensive health research promotion.

Another positive attitude of the Saudi MOH programme is its contribution to small research training courses at the Colleges of Health Sciences, thereby encouraging research at the early level of undergraduate students.

The continuing leadership at the Saudi MOH shows the importance of this factor in health development in general including health research.

The WHO input in Saudi Arabia is technical rather than financial, which emphasizes the importance of this aspect of WHO support.

5. DISSEMINATION AND UTILIZATION OF RESEARCH RESULTS

This agenda item was presented by Dr Yacoub Yousuf Al Mazrou.

The following is the gist of discussions on the utilization and dissemination of research results, with special reference to the local Saudi experience.

Research has been considered, most of the time, as an academic entity limited to biomedical research aimed at career development, with much emphasis on precision. However it has recently been realized that health ministries need to develop their research capabilities and strengthen their research departments, but unlike biomedical research their research activities are of a different nature, and are identified as health systems research. The latter encompasses skills and techniques of epidemiology, anthropology, sociology and management sciences, as a multidisciplinary activity, involving clinicians and experts in these disciplines.

Unfortunately, most developing countries lack either the expertise, resources, or both for undertaking such research work. Official support for research work may be lacking and even when research activities are carried out, the final reports are shelved and the results not utilized or disseminated. During the past 10 years, WHO had been providing technical assistance and limited financial support to various Member States, mainly developing countries, to meet their perceived research needs.

Dr Al Mazrou pointed out that dissemination of research results will make them accessible to interested readers and represents an avenue of communication between scholars worldwide. However, dissemination may not be possible because of official restrictions on disseminating information or confidentiality. Lack of special resources or expertise in preparing a paper for publication, or language difficulties may hamper dissemination.

The possible methods of dissemination include reports, policy and scientific papers as well as oral presentation at seminars, symposia or conferences.

The following are the targets for dissemination:

- policy- and decision-makers
- scientists in related disciplines
- researchers at large
- regional and peripheral health officials
- universities and research institutions
- health workers
- community members.

Dr Al Mazrou used the following list for distribution of his research papers:

Officials of the Ministry of Health
Officials of health sectors
Medical colleges in Saudi universities
Other governmental sectors
Primary health care supervisors in the regions
Health ministries of Gulf Cooperation Council States
International agencies
International research institutions and universities.

Local utilization of results

The results of the child health survey, the maternal and child health survey and the infant mortality results were very useful in providing national figures for the first time. The data were useful for assessing progress and for planning purposes.

Comments

Discussion about the importance of dissemination of research results and how to utilize them were considered. The actual use of these results in the planning of different activities was emphasized and a suggestion was made for a national body that should be responsible for active dissemination of the research results nationally and internationally.

For better utilization of research results in the Region, it was thought that networking between different research centres needs to be strengthened, and mechanisms were needed for regional dissemination of research results conducted in the countries of the Region.

The Regional Office could adopt some commissioned research suggested and near consensus on it brought about by the countries.

6. VIRAL HEPATITIS C AND E

This item was presented by Dr Zoheir Hallaj.

Hepatitis C is a viral infection which is mainly transmitted by the parenteral route. Less common modes of transmission, such as sexual contact, intrafamilial contact and perinatal transmission, were also reported. The causative agent is a small enveloped RNA virus, of which six major genotypes with few subtypes were identified. The host immunologic reaction to HCV infection fails to clear the infection in many

individuals and does not result in protective immunity, and this may be explained by the ongoing mutation of the virus.

Most cases of acute HCV infection are asymptomatic, but progression to chronic hepatitis occurs in a very high percentage of cases (up to 80%) and although most of these follow an indolent course, some ultimately develop liver cirrhosis and hepatocellular carcinoma. There are indications that coinfection with HBV or schistosomiasis may worsen the outcome. HCV infection is detected either by demonstrating anti-HCV positivity using the second generation assay (ELISA 2) or by detection of HCV RNA using the PCR technique. Several therapeutic agents were tested for treatment and currently alpha interferon is the one most used. The response to treatment is affected by several host and viral factors. The most effective preventive measures available so far are those aiming at reducing the risk of exposure, i.e. blood screening for anti-HCV positivity, proper sterilization of needles and syringes, control of injection-drug use and health education. Prevention of HCV infection by vaccination is challenging because of ongoing viral mutation; however, immunization with native envelope proteins or *in vivo* expression of viral epitopes may be efficacious.

HCV infection occurs worldwide, but its prevalence shows a wide geographical difference as well as clustering in high-risk groups within the communities. Geographical difference in genotype distribution has also been reported. The true picture of HCV infection in the Region is not clear yet and research is needed to uncover the real magnitude of the problem, its epidemiological and clinical features and the feasibility of intervention.

Hepatitis E is another member of the viral hepatitis group, which is transmitted by the faecal-oral route. The causative agent is a small non-enveloped RNA virus, of which only one type exists. Hepatitis E occurs in epidemics (usually waterborne) and sporadic endemic forms in most parts of the developing world. It has a relatively substantial share in the incidence of acute hepatitis in the Region, particularly during epidemic episodes. It differs from hepatitis A in the fact that hepatitis E mainly affects young adults and seems to be responsible for high mortality in pregnant women. Infection can be detected using several newly available serologic tests and can be confirmed by observation of HEV-like particles using electron microscopy. Prevention of HEV is based mainly on preventing faecal-oral transmission. Many aspects of the epidemiology and pathology of hepatitis E remain to be uncovered and this should stimulate research in these fields in the Region.

Viral hepatitis in Pakistan

Major General Iftikhar Ahmad Malik made the presentation.

In Pakistan, acute viral hepatitis (AVH) is endemic and ranks as the fifth commonest cause of hospital admissions in some of the teaching institutions. The incidence of AVH is on the increase and a recent survey had revealed that hospital admissions due to AVH had increased by about 50% during the last decade. All types of hepatitis viruses are prevalent in Pakistan, with varying frequency in different regions, most probably due to geographic distances and ethnic variations of the

population. The prevalence and types of AVH in Pakistan are quite different from that of Western countries.

Hepatitis A

Acute viral hepatitis A is mostly seen in paediatric cases where 60% of the children admitted with AVH had IgM type of antibodies. About 99% of Pakistani adults by the age of 18 get exposed to hepatitis A virus (HAV) as they show IgG type of antibodies against HAV in their blood. The adults are immune to symptomatic HAV infection in later years. This exposure to HAV by 18 years of age may be clinical or subclinical in nature and is due to the presence of HAV in water and food which get polluted by faecal matter (faecal-oral transmission of the virus). There is seasonal variation of the occurrence of hepatitis A and more cases are seen in autumn (September/October) as compared to the rest of the year.

Hepatitis B

The carrier rate of hepatitis B surface antigen (HBsAg) varies from 10% to 16% in different regions, whereas the antibodies against HBsAg (anti-HBs) and HBc antigen (anti-HBc) are present in 17% and 4-45% of Pakistanis respectively. In adult patients of AVH nearly 25% of cases and about 10% cases in children are due to hepatitis B virus (HBV) infection. In cases of chronic liver diseases, HBV infection plays an important etiological role and nearly 50% cases of chronic hepatitis, 52% cases of cirrhosis and 67% cases of carcinoma of liver are due to HBV infection.

Hepatitis C

The serodiagnosis of hepatitis C virus (HCV) became available recently and hence there are only a few small studies available in Pakistan. The mode of spread of HCV through blood is reported in only 30% of cases, whereas nearly half of the cases are due to community spread of the virus. A few preliminary studies of histologically confirmed cases of chronic liver diseases in Pakistan have shown anti-HCV in 43% of patients of chronic active hepatitis, 18% of cirrhotics and 14% of cases of liver cell carcinoma. In another study from Lahore anti-HCV was found in 62% of patients on haemodialysis who had received multiple blood transfusions.

Hepatitis D

The real extent of hepatitis D virus (HDV) infection is not precisely known in Pakistan. Its prevalence in HBsAg positive individuals is reported from the north of the country to be 3% (Rawalpindi/Islamabad), 16% (Lahore) and 27% (Multan). In the south of the country (Karachi) anti-HDV was detected in the blood of 50% of patients of acute fulminant hepatitis.

Hepatitis E

Infection due to hepatitis E virus (HEV) is most commonly seen in adult jaundiced patients (70-75%) as has been reported in most of the studies in Pakistan. In children HEV infection accounts for nearly 30%

cases of AVH. Epidemics of hepatitis E have been reported from all the major cities of Pakistan. Epidemiological investigations in some of those epidemics of HEV infection have invariably revealed that the common source of infection was of faecal pollution of drinking-water. A recent small study of sporadic hepatitis E in 76 pregnant women in Rawalpindi/Islamabad area revealed increase in foetal losses (20%) with no maternal death. This observation was quite opposite to the reports from Kashmir and India, where high maternal mortality was seen in hepatitis E cases during pregnancy and HEV epidemics.

It is not possible to diagnose the types of AVH on the basis of biochemistry or the histological examination of liver biopsy. However, hepatitis E causes more intrahepatic cholestasis and 90% of patients have severely raised serum alkaline phosphatase as compared to the rest of the types of AVH.

Comments

The experience in Pakistan is similar to that of some countries of the Region, such as Egypt, Sudan. Information on this matter is needed from all countries. A large-scale hepatitis survey will begin soon.

Difficulties in developing a vaccine for HBc, e.g. because of its ongoing mutation, etc. were considered.

Feasibility of producing diagnostic kits was discussed in the light of costly screening and treatment.

Research priorities in this field include the mode of transmission.

WHO should consider holding an intercountry meeting on this subject, in particular to prepare relevant protocols and set priorities for research in this field.

7. ETHICAL CONSIDERATIONS IN HEALTH RESEARCH

The paper written by Professor M. Abdussalam was presented by Professor Mohamed Othman Abdel Malek Babiker.

Professor Abdussalam drew attention in his paper to the impact of recent advances in science and technology on the ethics of health research, and cited several examples, including the disastrous mishaps following abuse of medical knowledge (for example, thalidomide tragedy), the recent medical and surgical technologies (such as organ transplantation, induced abortion, artificial insemination, donor and embryo transfer); advances in genetic research (e.g. selection of gender), drug and vaccine development research (especially that initiated in industrialized countries but the field trials undertaken in developing countries), exploitation of vulnerable subjects for research. As a result of these issues the question of bio-ethics has received increasing attention in recent years. In particular, the Council for International Organizations of Medical Sciences (CIOMS) has been playing a leading role in this respect and has prepared relevant ethical codes and guidelines, especially for the benefit of developing countries.

The sources of health ethics are drawn from various value systems: religious, philosophical, ideological and cultural. The Eastern Mediterranean Region is known to be the cradle of three major religions. These religions form the main source of health ethics in many parts of the world.

The main principles of health ethics on which there is worldwide consensus include:

- respect for human life and right of the individual to confidentiality
- respect for the individual options - whether consent or refusal
- maximizing the benefits and minimizing the risk to research subjects
- equality of treatment to individuals
- applying similar principles to community-based research; in general, the rights of the individual supersede the interests of society
- applying codes of ethics to animal research.

These principles have been translated to codes and guidelines of ethics in statutes and regulations, nationally and internationally.

The Islamic Code of Medical Ethics has an additional proviso which decrees that the methodology of research and its applications shall not entail the commission of a sin prohibited by Islam.

The aspects of applying ethical principles to health research are many and include:

- 1) Research involving individual human subject. Here the core principle is informed consent which must be freely given, but there are several difficulties in its application.
- 2) Research involving communities. There is no watertight answer to the balance between the right of individuals and the needs of society. However, high professional standards coupled with the quality of research may safeguard this balance.
- 3) Independent ethical review. This is achieved by establishing a national review committee which has to ensure that:
 - * the proposed research is justified
 - * prior animal experiments and laboratory investigations have been conducted to assess the possible risks
 - * the research subjects have been adequately informed of the consequences of their participation
 - * the investigator is suitably qualified
 - * the subject remains under the observation of a competent physician with adequate facilities to protect the safety of the subject
 - * the sociocultural values of the community are respected
 - * its composition includes both professional experts and laymen with at least one female member.

Most countries of the Region lack adequate capacity and mechanisms for ethical review of research, and these need to be strengthened.

- 4) Compensation for mishaps to research subjects which should be automatic and out of court.
- 5) Human genetic research. This subject was dealt with by CIOMS in the Inuyama Declaration of 1991.
- 6) Measuring and valuing human life, stressing the importance of developing scientifically valid and ethically acceptable criteria for public health practice and resource allocation. In this respect the World Bank (1993) quantification and valuation have met with reservations at a joint WHO/CIOMS meeting.

In conclusion, the author put forward the following recommendations:

- 1) In view of the importance of ethical aspects of research and the increasing worldwide interest in health ethics, researchers, research managers and policy-makers should be made aware of recent developments.
- 2) An information brochure should be prepared and distributed widely in the Region.
- 3) One of the next meetings of the Directors of Medical Research Councils and Analogous bodies should be devoted entirely to ethics of health research.
- 4) Member States should be encouraged to set up ethical review committees and their capabilities should be enhanced through seminars and other training programmes (for groups or individuals).
- 5) Ethics should be included in the curricula of training of professional health workers.
- 6) Consideration should be given to holding a second conference on Ethics, Human Values and Health Policy, jointly with CIOMS and the Islamic Organization for Medical Sciences, as a follow-up of the Cairo Conference of 1988.

Comments

Developing countries are the fields of research for many interventions. This is some times done for the financial benefits accruing to these countries. However, the consequences may outweigh the benefits.

Trials of non-medical interventions which have indirect effects on human beings, for example, of insecticide, should also be considered seriously.

The Region should have its ethical review mechanism at the Regional Office level, or EMRO should at least develop guidelines for dissemination to Member States.

Member States should have competent ethical review committees and equipped with clear guidelines.

The relationship between ethics and equity of resources assumes special importance with foreign inputs.

One of the main problems in the Region is the clinical trials for new drugs and vaccines that have not been comprehensively tested in the industrialized countries where they have been developed first. A special committee or group should be established by EMRO to research this topic, particularly since the situation in this Region is different from that in other parts of the world.

The topic should also be presented at the next meeting of national officers responsible for health research in Member States.

All research projects submitted for funding should be thoroughly screened from ethical point of view whether at WHO headquarters or at the regional offices. A focal point may be established for this purpose.

Though CIOMS guidelines are useful, they do not represent official WHO policy.

The antagonistic interests, e.g. between institutions, individuals, companies etc., and the bias of reviewers in our societies are factors to be looked into.

The speakers were unanimous about the urgency to research the topic and take appropriate action both at regional and country levels, including adoption of the recommendations put forward in the paper.

8. PSYCHOSOCIAL ASPECTS OF HEREDITARY DISEASES AND GENETIC COUNSELLING

The paper on this agenda item was prepared by Dr A. Mohit and presented by Dr Saleh.

Hereditary conditions affect millions of families throughout the world. About three per cent of all pregnancies result in the birth of a child with a significant genetic disorder or disability. An estimated 43% of severe mental retardation (IQ=50) is caused by single genes or chromosomal abnormalities. Most noninfectious diseases, which are the major causes of death in developed nations, probably have a genetic component. In developing nations, hereditary conditions account for about 15% to 25% of perinatal and infant mortality. Major mental illnesses such as schizophrenia and major affective disorders have a genetic predisposition. The major suffering of hereditary disorders falls upon the family that suffers emotionally and carries the financial burden. The society and the community also face a diverse range of dilemmas with many religious, ethical, humanitarian, social and economic consequences.

From a practical point of view, worldwide there are now over 5 000 specialists in medical genetics. Within the next decade newborn screening, carrier screening and parental biochemical screening for common genetic disorders as well as testing for genes that contribute to cancer, heart diseases, schizophrenia or affective disorders will greatly increase.

Therefore, it is necessary to have guidelines for the conduct of genetics services.

Psychological considerations of hereditary diseases

The birth of a child in all cultures is a great occasion. When such a child is borne mentally handicapped, with a clear hereditary disease, the family system gets affected. A sense of despair, anger, guilt, shame, disappointment and failure prevails. In most societies it is the mother who suffers most. Many women carry this sense of guilt and inadequacy throughout their lives. In many societies, stigmas attached to handicapped children add to the emotional burdens of the family.

Social issues of hereditary diseases

In general, hereditary diseases with abnormal mental or physical manifestations are associated with different social issues. Many societies have stigmas attached to certain conditions.

Cultural norms also affect help-seeking behaviours. The level of social acceptance of genetic conditions and mental retardation affects the family's reaction to the problem.

Questions related to marriage and hereditary diseases are numerous and for many of them there is no definite answer. Marriages of relatives are common.

Ethical Issues

Some of the issues that are considered ethical deal with different religious stand on certain decisions such as abortion, eugenics and euthanasia. The following ethical considerations are necessary:

- Voluntary Approach. All types of mandatory approaches such as refusal of marriage licenses, forced contraception, forced sterilization, forced prenatal diagnosis, forced abortion and forced childbearing are against human dignity and they usually fail.

- Avoidance of Discrimination. Provision of services to individuals/families should not cause any discrimination against persons with hereditary disorder.

- Rejection of positive eugenics. The enhancement of normal human characteristics should not be a goal of medical genetics.

- General ethical principles and considerations. Biomedical research and practice has many ethical issues. Some of these issues are of social consequences. Ethical principles for practice and research include respect of persons, beneficence, nonmaleficence, proportionality, justice.

Medical Genetics and Public Education

The goals of medical genetics can be fulfilled only in the context of an educated, informed public. It is only through education that the parties concerned become an informed part of the decision-making process.

Most formal education should be given during biology courses at high school and if that is not required, information about genetics should be conveyed through courses on health, hygiene, family life, etc.

Genetic centres should be resources that provide education to the community at large. Community education should be done with due respect to culture.

In conclusion, the thorough examination of special issues related to prevention and care of genetic disease are very important. These issues have religious, ethical, emotional, social and economic aspects and consequences that should be seen in a holistic manner. The major task is to provide the families with new opportunities and at the same time protect religious and cultural values. Research can provide answer to some of these questions. The areas of research can cover epidemiological, educational, psychosocial and ethical aspects.

Comments

During the discussions, the complex nature of genetic counselling was emphasized. One of the main problems is the lack of national and regional expertise in this field. There are several studies that indicate the magnitude of the problem and the importance of genetic counselling in preventing hereditary diseases.

The results of consanguineous marriages in developing hereditary diseases were documented.

Public education is of special importance.

Research can be conducted to identify the best approaches in raising public awareness with the importance of genetic counselling and preventive measures.

The involvement of religious leaders and mass media in public education activities should be considered. It is therefore important to bring religious leaders and scientists together to discuss and agree on the best approach in dealing with the problem of hereditary diseases.

The development of regional and national expertise require the establishment of appropriate technology transfer mechanisms.

Areas such as medical genetics and molecular biology were identified for research.

It was emphasized that research in the social aspects of hereditary diseases would provide data for most useful interventions and the development of social support to families suffering from hereditary diseases.

9. REPORT ON THE PROGRESS OF THE UNDP/WORLD BANK/WHO SPECIAL PROGRAMME FOR RESEARCH AND TRAINING IN TROPICAL DISEASES

A report on the item was presented by Dr J.A. Hashmi.

Following a wide-ranging review and consultations within and outside the programme during 1993, the research and development component of TDR had been restructured as of early 1994. The disease-specific steering committees have been disbanded and three new components established: strategic research (SR), product research and development (PRD), and applied field research (AFR), with increased emphasis on the last two components.

SR is concerned with furthering the understanding of host-parasite/parasite-vector and parasite biology in order to develop leads towards more effective disease control tools. PRD is responsible for taking the leads, once identified, through to Phase III trials. AFR deals with research for improved disease control, including field testing of new tools in their intended setting of use. Experience gained so far indicates that the restructured programme is functioning satisfactorily.

Dr Hashmi presented some highlights of TDR activities related to filariasis, leishmaniasis, leprosy, malaria and schistosomiasis.

Initial results from a national impregnated bednet trial in Gambia indicate a 20-40% reduction in mortality in children under the age of five years. Four large-scale trials in Africa, to examine the impact of impregnated bednets on childhood mortality, will be coming to an end later this year. Planning has already started for operational research aimed at maximizing the effectiveness of impregnated bednets in areas where they are used and ensuring sustainable delivery of nets and the insecticide. Faced with the emergence of multidrug resistance and the widespread availability of artemisinin derivatives, TDR is supporting studies in South-East Asia and China to develop strategies for improving compliance with multi-dose anti-malarials and to develop consistent national policies with regard to the regulation and use of artemisinin derivatives for treatment of uncomplicated falciparum malaria. TDR is also participating in the larger WHO/UNICEF initiative for integrated management of sick children through the development of sections dealing with diagnosis, treatment and follow-up of malaria and anaemia.

Clinical trials comparing intravenous quinine and artemether injection in severe and complicated malaria carried out in African and Asian countries have shown that clinical responses were significantly more rapid in cases receiving artemether, and survival rates were significantly higher in Thailand where parasites are becoming resistant to quinine. Clinical trials are under way with short half-life antifolate compounds, such as chlorproguanil/dapsone versus currently used long half-life combinations such as sulfadoxine/pyrimethamine combinations, in areas of moderate and seasonal transmission.

In the area of malaria vaccines, a strategy has been formulated for the development and field-testing of some of the more promising asexual blood stage antigens. A study in Tanzania, cosponsored by TDR conducted in Tanzanian children under five years of age, showed that SPf66, the

Colombian vaccine, was safe, induced antibodies, and reduced the risk of developing clinical malaria by about 30%. Phase I and II trials with a leading candidate antigen for a transmission-blocking vaccine will be initiated in the USA and Africa in 1995.

In the field of schistosomiasis, multicentre trials have shown that a school questionnaire to identify communities with high levels of urinary schistosomiasis could reduce case-detection costs from US\$2 to US\$0.07. Multicentre studies with ultrasound have shown that morbidity varies with schistosome species and geographical areas. A strategy for the development of a vaccine against *S. mansoni* has been established focusing on six priority antigens, one of which (glutathione S-transferase) has reached the stage of industrial manufacture and safety testing. It has been shown that a combination of praziquantel and albendazole was safe and effective in treating helminthic and schistosome infections.

Diagnosis of *W. bancrofti* infection in affected individuals has been greatly improved by the development of two different circulating antigen assays that detect infection regardless of the time of the day. Results from multicentre studies have shown that a single dose of di-ethyl carbamazine (DEC) (6mg/kg) given on an annual basis is equivalent in efficacy to multiple long-term regimens. A combination of 400 mg/kg ivermectin and 6mg/kg of DEC reduced microfilaremia by more than 95% for two years after treatment. Recent evidence from Brazil implicating bacterial and fungal superinfections in the etiology of elephantiasis has led to therapeutic strategies based on intensive local hygiene along with local application of antibiotic and antifungal agents. Controlled trials are under way to define the relative effectiveness of local care, topical antibiotics and anti-fungal agents, long-term systematic antibiotics on the progress of skin lesions.

A technique for rapid epidemiological mapping of onchocerciasis has been developed and will be used to map the disease in 11 African countries. Skin disease was confirmed to be one of the leading health and social problems of communities affected by this disease. Systems are being tested for community self-treatment with ivermectin.

The introduction of multidrug therapy for leprosy in 1982 has resulted in reduction in the prevalence of leprosy from 5.4 million cases in 1985 to 1.7 million in 1994. Fifteen centres in eight endemic countries are participating in randomized controlled clinical trials to evaluate the efficacy, acceptability and feasibility of ofloxacin containing combined regimens in both multibacillary and paucibacillary leprosy. The intake of nearly 4000 patients is about to be completed. Patients will be followed for a period of 5-7 years to detect relapses, if any. Some preliminary results from these trials should be available in 1997.

The direct agglutination test (DAT) has been found to be highly specific and sensitive for kala azar. Experience in Bangladesh and Sudan has indicated that together with clinical symptoms the test can diagnose more than 50% of acute cases. Phase I and II studies carried out in the Islamic Republic of Iran with killed *L. major* with BCG have shown it to be safe and a combination dose has been defined to proceed to phase III trials in the Islamic Republic of Iran, Pakistan and Sudan.

Amphotericin B-lipid complex preparation developed against mycoses have been shown to be effective against visceral leishmaniasis. One preparation, Ambisome, has been registered for use in Sweden.

In order to reinforce opportunities for research training in TDR-related topics in developing countries, a new grant format (Regional Linkage Grant for Research Training) was developed in 1993. Four such grants, involving thirteen different institutions with complementary skills, have been awarded. Eighteen young scientists have already been selected for training under these grants.

Dr Hashmi also referred to the joint EMRO/CTD/TDR small grants programme, initiated in 1992, to promote control-related research in leishmaniasis, malaria and schistosomiasis. Some preliminary results from the projects on leishmaniasis thus funded were presented. Within the EM Region, Sudan has been selected for intensified TDR support for capacity-building in the least developed countries, a research strengthening grant has recently been approved for the Institute of Tropical Medicine, Khartoum, and funds have been allocated to support thesis research of outstanding graduate students.

Discussion

The Committee welcomed the EMRO/CTD/TDR small grants initiative and in view of the success of this programme in involving investigators in the Region in research related to the control of TDR-target diseases, it was recommended that this programme be continued. The Regional Director indicated that matching funds to TDR contribution will continue to be provided.

In order to promote research training in TDR-related fields, it was recommended that Member States be advised to utilize the WHO funds available for fellowships for this purpose, particularly in view of the diminishing resources available to TDR. In this connection it was emphasized that efforts should be made to utilize the facilities and the expertise available in some of the more advanced countries in the Region for imparting this training. This will serve to network scientists working in similar fields within the Region.

It was felt that the experience of TDR with protocol development workshops focusing on specific research topics and follow-up by funding well-developed projects and providing on-site technical support to principal investigators could be emulated in the Region.

Concern was expressed about the difficulty of attracting and retaining well-qualified and experienced researchers in several of the countries and, therefore, it was suggested that consideration be given to providing some financial incentives for such researchers, so that they could stay in their own countries and continue to be involved in research. It was pointed out that as a matter of policy, salary supplements cannot be provided to the principal investigators funded by TDR. The Committee was informed that over 90% of the scientists trained with TDR support have returned to their countries and that a majority of them continue to be active in TDR-related research.

It was clarified that TDR does not utilize the WHO collaborating centre mechanism for implementing research activities in priority areas. However, over the years an informal network of TDR-funded investigators has developed and productive collaborative links have been established between TDR-funded principal investigators in developed and developing countries. The Committee recognized that through its activities in strategic research and product research and development, TDR could be of great help in facilitating the transfer of technology to scientists in the Region.

10. HIGHLIGHTS OF THE GLOBAL ACHR SESSION

This item was presented by Dr B. Mansourian.

The thirty-second session marked a return to the annual cycle which prevailed before 1986 and it was hoped that regional ACsHR could do likewise.

For the first time, a report on the ACHR was formally presented by the Director-General to the Executive Board at its January 1995 session.

Attention was drawn to three major discussion items, consistent with the overall policy planning and review role of the ACHR system: the impact of scientific advances on future health, health research policy and health policy research.

The first issue had been the subject of a joint WHO-CIOMS colloquium held in Charlottesville, USA, in June 1994. Six themes were discussed: basic science, application of research and technology, changing concepts of diseases, public health and the economic environment, public health and the constructed environment, and public health and social behaviour.

Drawing on the conclusions of the colloquium, the ACHR made several recommendations, the most salient of which was that special attention should be given to: application of scientific advances to emerging infections, to new developments in information technology with relevance to policy planning and to promote awareness of global problems of critical significance to health, within the scientific community.

The committee underlined the need to encourage developing countries to participate actively (rather than be silent spectators) in the use of new developments and advances in science and technology. An extension of this principle implied that patent rights should not interfere with scientific investigation and universal application of research results. The ACHR further recommended that DALY (Disability Adjusted Life Years) which was developed during the preparation of the World Development Report in 1993, should be critically reviewed by an independent panel.

Finally, CIOMS was recognized to have a special mission to fulfill in continuing its advocacy role for international order and a code of ethics in health research.

The second issue, health research policy, encompassed work done over the previous four years by several ACHR task forces and subcommittees in the fields of science and technology, health development research,

evolving problems of critical significance to health, research capability strengthening and health and the economy. A synthesis of these studies was presented in a monograph entitled, "Research for health: principles, perspectives and strategies", which had also been summarized in a recent issue of the *Bulletin of the World Health Organization* [1994, 72(4) 533-538].

The ACHR considered that the monograph was a strategy document containing critical guidelines and that it should be translated, widely disseminated and followed up with a series of other publications specifying priorities in more detail.

The third issue, health policy research, was presented to the ACHR for the first time, although it is closely linked to health systems research. It is seen by policy planners and economists as the process of scientific investigation in setting policies, leading to formulation of strategies, priorities and plans for health development. Health development is considered a positive change in health status, where health benefits are maximized and health hazards are minimized

Three different papers on the subject were presented to the committee looking at health policy research from different viewpoints, and it was agreed that further investigation would be required by a subgroup of the ACHR.

In addressing the Executive Board, the new Chairman, Professor T. Fliedner, stressed that the ACHR network, global and regional, comprised a vast reservoir of experience and expertise with several hundred top scientists and policy-makers worldwide, and that they should collectively be involved in strategic planning for research.

In endorsing the report, the Executive Board stressed the importance of using extramural scientific resources and welcomed the participation of the ACHR system in the overall strategy formulation of WHO.

11. RECOMMENDATIONS

11.1 Research Promotion

Countries should:

1. Send their newly appointed national focal points to EMRO for orientation on regional research activities and opportunities for research grants;
2. establish national review committees or groups for health research from experienced researchers in order to help young or new researchers in preparing research protocols and even guiding them in the research activities;
3. give priority to research programmes in country allocations from the regular budget of WHO;
4. encourage holding workshops for training in research methodology for health personnel;

5. give due attention for training in research methodology in undergraduate and postgraduate curricula;
6. encourage the establishment of national research institutions (centres, councils or committees) in countries that do not already have them;
7. promote positive relations between ministries of health and universities and other scientific agencies and collaborating centres for better implementation of research programmes;
8. set up a national research agenda which should be prioritized by all those concerned with health in every country;
9. national research bodies should get actively involved in the dissemination of research results at national, regional and international levels.

WHO

WHO should:

10. promote research: the Regional Director will write to countries asking them to give due attention for national research programmes;
11. include the subject of research as a topic for Technical Discussions at a forthcoming session of the Regional Committee;
12. disseminate information about research opportunities available in WHO;
13. promote positive relations between ministries of health and universities and other scientific agencies and collaborating centres for better implementation of research programmes;
14. establish and strengthen networking between research centres in the Region;
15. compile abstracts of research in the Region and disseminate to researchers as well as decision-makers in the countries.
16. The Regional Office could adopt some commissioned research suggested, and near consensus on it brought about, by the countries.

11.2 Task Force for Health Research

17. The EM/ACHR approved the recommendations contained in the reports of the Task Force visits to the Syrian Arab Republic and Lebanon.
18. Since the Task Force on Health Research mechanism has proved to be an effective factor in the development and promotion of health research and health systems research in the countries visited, it was recommended that other countries make use of this mechanism.
19. It was recommended that the Regional Office compile, analyse and publish the experiences arising out of the Task Force visits to

Member States so as to highlight details of both regional and national policies and strategies, and to make this novel experience adopted by EMRO available to WHO headquarters and other regions.

11.3 Dissemination and Utilization of Research Results

20. Member States should consider the establishment of a national body to be responsible for active dissemination of research results.
21. For better utilization of research results in the Region, it was recommended that networking between different research centres needs to be strengthened, and mechanisms are needed for regional dissemination of research results conducted in the countries of the Region.

11.4 Viral Hepatitis C and E

22. Research priorities in this field should include the mode of transmission.
23. WHO should consider holding an intercountry meeting on hepatitis in order to prepare relevant protocols and set priorities for research in this field.

11.5 Ethical Aspects of Health Research

24. The Region should have its ethical review mechanism at the Regional Office level, or EMRO should at least develop guidelines for dissemination to Member States.
25. Member States should have competent ethical review committees with clear guidelines.
26. All research projects submitted for funding should be thoroughly screened from ethical point of view whether at WHO headquarters or at the regional offices. A focal point may be established for this purpose.
27. One of the main problems in the Region is the clinical trials for new drugs and vaccines that have not been comprehensively tested in industrialized countries where they have been developed first. A special committee or group should be established by EMRO to research this topic, particularly since the situation in this Region is different from that in other parts of the world.
28. Trials of non-medical interventions which have indirect effects on human beings, e.g. of insecticides, should also be considered seriously.
29. The topic of ethics in research should also be presented at the next meeting of national officers responsible for health research in Member States.

11.6 Psychosocial Aspects of Hereditary Diseases and Genetic Counselling

30. Being aware of the importance of genetic disorders and disabilities caused by them, which have many individual, family and social repercussions, it was recommended that those aspects of these disorders that have greater health-related issues be given due priority in the Region's research projects. These could include epidemiological studies, attitudinal research, evaluation of the effectiveness of different interventions, formulation of ethical and legal aspects, etc.
31. Although all aspects of complex issues related to genetic disorders and counselling are important, research projects on psychosocial aspects are the ones practically more applicable with results that can be used more easily to build intervention systems.
32. Research should also be usefully directed towards different training approaches for health workers, counsellors and teachers, or in the development of proper curriculum material.
33. It was recommended that, whenever possible, research related to mental health and noncommunicable diseases contain sections related to genetic aspects of the diseases.

11.7 UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases

34. TDR/RCS should continue to provide funds for EMR/CTD/TDR small grants programme.
35. Member States in the Eastern Mediterranean Region need to be advised by EMRO to utilize WHO fellowship funds for training of promising young scientists in TDR-related fields.

12. NINETEENTH SESSION OF EM/ACHR

It was agreed that the agenda for the nineteenth session will be drawn up by the Regional Office, taking into account the topics discussed in the earlier sessions and other subjects of immediate interest.

The invitation to hold the nineteenth session in the Islamic Republic of Iran in 1996 had been accepted; the dates of the session will be decided by the Regional Director in consultation with the national authorities.

Annex 1

AGENDA

1. Opening of the meeting
2. Selection of the Vice-Chairman and the Rapporteur
3. Adoption of the agenda and programme of work
4. Report on the Progress of the Eastern Mediterranean Region research Programme.
5. Report on the visits of the Task Force on Health Research to the Syrian Arab Republic and Lebanon
6. Health research in the Ministry of Health: Saudi Arabian Experience
7. Dissemination and utilization of research results
8. Ethical aspects in health research
9. Sociocultural aspects of hereditary diseases and genetic counselling
10. Hepatitis C and E
11. Report on the progress of the UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases
12. Highlights on the global ACHR meeting
13. Discussion of the draft report and recommendations
14. Any other business
15. Closure of the meeting

Annex 2

PROGRAMME

Monday, 20 March 1995

- 08.30 - 09.00 Registration
- 09.00 - 09.30 Opening of the session
- Address by H.E. the Minister of Health,
Saudi Arabia
- Address by Dr Hussein A. Gezairy, Regional
Director for the Eastern Mediterranean Region
of WHO
- 10.00 - 10.15 Presentation of participants
Election of the Vice-Chairman and Rapporteur
- 10.15 - 11.15 Adoption of agenda and programme of work

Report on the progress of the Eastern
Mediterranean research programme,
by Dr El Sheikh Mahgoub
- 11.15 - 12.00 Report on the visits of the Task Force for
Health Research to the Syrian Arab Republic and
Lebanon, by Dr El Sheikh Mahgoub
- 12.15 - 12.50 Health research in the Ministry of Health: Saudi
Arabian experience, by Dr Othman A. Al Rabieah
- 12.50 - 13.20 Dissemination of research results,
by Dr Y. Al Mazrou
- 13.20 - 14.00 Ethical considerations in health research,
by Dr M.O. Abdel Malek Babiker

Tuesday, 21 March, 1995

- 09.00 - 09.45 Sociocultural aspects of hereditary diseases and
genetic counselling, by Dr A. Saleh
- 09.45 - 10.00 Hepatitis C and E, by Dr Z. Hallaj
- 10.10 - 10.40 Hepatitis in Pakistan,
by Major General I.A. Malik
- 10.40 - 11.10 Discussions
- 11.30 - 12.30 Report on the progress of UNDP/World Bank/WHO
Special Programme for Research and Training in
Tropical Diseases, by Dr J. Hashmi
- 12.30 - 13.15 Highlights of the thirty-first session of the
global Advisory Committee on Health Research,
by Dr B. Mansourian

Wednesday, 22 March 1995

10.00 - 12.30

Review of the draft report and recommendations

Suggestions for the agenda of the nineteenth
session of the EM/ACHR

Proposed time and place of the nineteenth
session of the EM/ACHR

Any other business

Closure of the meeting

Annex 3

LIST OF PARTICIPANTS

Members OF THE Eastern Mediterranean Advisory Committee
on Health Research

H.E. Dr Eyad Chatty Minister of Health <u>Damascus</u> SYRIAN ARAB REPUBLIC	Chairman
Dr Moulay Tahar Alaoui Dean, Faculty of Medicine University of Rabat <u>Rabat</u> MOROCCO	Member
Dr Othman Abdul Aziz Al Rabieah Adviser to the Minister of Health Ministry of Health <u>Riyad</u> SAUDI ARABIA	Member
Dr Mohamed Othman Abdel Malek Babiker Professor of Pathology Faculty of Medicine University of Khartoum <u>Khartoum</u> SUDAN	Member
Dr Iradj Fazel President Iranian Academy of Medical Sciences <u>Teheran</u> ISLAMIC REPUBLIC OF IRAN	Member
Dr Abdulla Ahmed Guneid Lecturer Faculty of Medicine and Health Sciences University of Sana'a <u>Sana'a</u> REPUBLIC OF YEMEN	Member
Major General Iftikhar Ahmad Malik Dean, Faculty of Pathology College of Physicians and Surgeons <u>Rawalpindi</u> PAKISTAN	Member
Dr Ibrahim Salti Head, Division of Endocrinology and Metabolism American University of Beirut <u>Beirut</u> LEBANON	Member

Dr Moncef Sidhom
Director, Primary Health Care
Ministry of Public Health
Tunis
TUNISIA

Member

Mr Nicos Symeonides
Permanent Secretary
Ministry of Health
Nicosia
CYPRUS

Member

Dr Mohammad Reza Zali
Director, Medical Research
Academy of Medical Sciences
Teheran
ISLAMIC REPUBLIC OF IRAN

Member

Resource Persons

Dr Mohamed Ben Salem Al Bakr
Assistant Under Secretary for Planning and Research
Ministry of Health
Riyad
SAUDI ARABIA

Dr Abdel Rahman Salem Al Frayh
Dean, Faculty of Medicine
King Saud University
Riyad
SAUDI ARABIA

Dr Yacoub Yousuf Al Mazrou
Assistant Deputy Minister for Preventive Medicine
Ministry of Health
Riyad
SAUDI ARABIA

Dr Malik Mubashar
Director, WHO Collaborating Centre on Mental Health
Rawalpindi General Hospital
Rawalpindi
PAKISTAN

Advisory Committee on Health Research

Professor Mamdouh Gabr
Former Chairman
WHO Advisory Committee on Health Research, and
Secretary-General
Egyptian Red Crescent Society
Cairo
EGYPT

WHO Secretariat

Dr Hussein A. Gezairy
Regional Director
WHO Eastern Mediterranean Region
Alexandria

Dr Abdel Aziz Saleh
Director, Division of Health Policy and Management
WHO Regional Office for the Eastern Mediterranean (EMRO)
Alexandria

Dr El Sheikh Mahgoub
Regional Adviser
Research Policy and Strategy Coordination
EMRO

Dr B. Mansourian
Director
Research Policy and Strategy Coordination
WHO
Geneva
SWITZERLAND

Dr J. Hashmi
Medical Officer, TDC
Special Programme for Research and Training in Tropical Diseases
WHO
Geneva
SWITZERLAND

Dr Z. Hallaj
Regional Adviser
Control of Communicable Diseases
EMRO

Mrs Madiha Shaker
Administrative Assistant
EMRO

Mrs Laila Korayem
Secretary
EMRO