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IN HEALTH RESEARCH AND DEVELOPMENT

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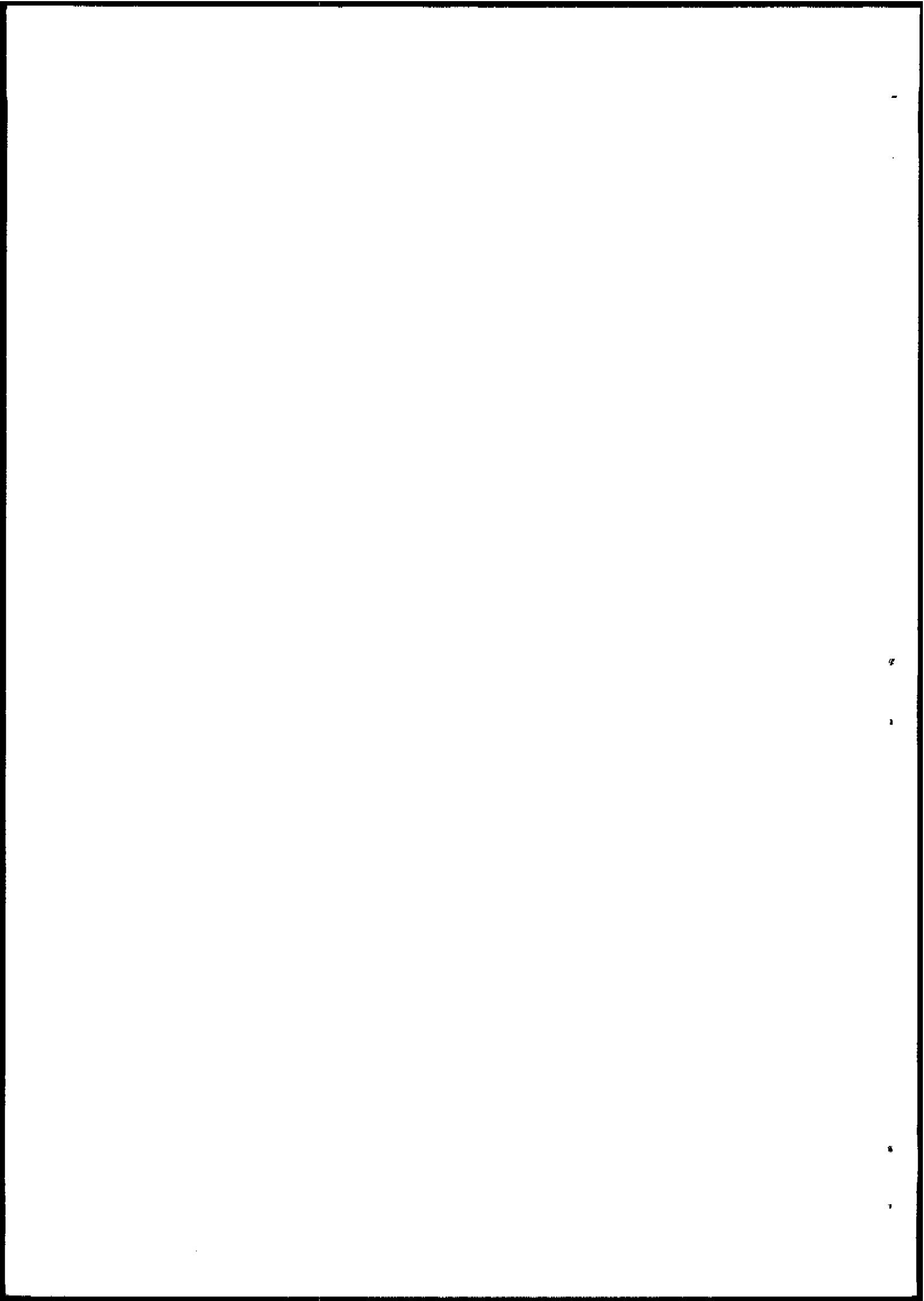
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## CONTENTS

1. INTRODUCTION .....	1
2. SCOPE AND PURPOSE .....	4
3. CURRENT APPROACHES IN DEVELOPING HEALTH RESEARCH POLICIES AND STRATEGIES .....	6
4. HOW THE RESEARCH COMMUNITY SEES THE TARGETS? .....	12
5. EUROPEAN RESEARCH ACTION PLAN .....	20
5.1. Need for and feasibility of the Plan .....	20
5.2. Generating the Plan .....	22
5.3. Objectives and contents of the Plan .....	23
6. IMPLEMENTATION STRATEGY OF THE EUROPEAN RESEARCH ACTION PLAN .....	26
6.1. "Marketing" and information .....	26
6.2. Financing and manpower .....	29
6.3. Coordination and collaboration.....	31
7. EVALUATION AND FURTHER DEVELOPMENT .....	33
7.1. Outcomes of the Plan .....	33
7.2. Further development of the Plan .....	34
8. CONCLUSIONS AND RECOMMENDATIONS .....	35

## FIGURE



MEETING ON EUROPEAN SCIENTIFIC COOPERATION IN HEALTH RESEARCH  
AND DEVELOPMENT

1. INTRODUCTION

The Meeting on European Scientific Cooperation in Health Research and Development met in Marrakech, Morocco, 12-15 Nov. 1985. It brought together representatives of European inter-governmental and non-governmental organizations which coordinate, finance, administer, or do health research; the European Advisory Committee on Medical Research (EACMR); and national administrators and researchers with experience and responsibility in developing research policies and strategies. The aim of the meeting was to discuss the implications of the regional targets in support of Health for All for regional, subregional and national research policies and strategies, and to make recommendations concerning the further development, marketing and implementation of the European Research Action Plan to be produced by the WHO Regional Office for Europe with the assistance of the European Advisory Committee for Medical Research.

The meeting was opened by Mr. Jeunane Othman, General Secretary of the Ministry of Public Health, who emphasized the importance of health research in the overall context of the Health for All (HFA) strategy. He expressed a strong wish that resources could be allocated to the planning and

implementation of research to support the attainment of the regional targets for HFA. The needed knowledge and research work should cover all relevant aspects of health and health care. Mr. Othman stressed the importance of primary health care. He finally proposed that a research committee comprising all necessary scientific disciplines be established in each member country in support of the attainment of the regional targets.

In his opening remarks, Professor Slimane Nejmi underlined the importance of integrated multidisciplinary and multi-faceted research in order to attain the 38 regional targets within the short period of 15 years. The role of WHO in this complex drama would be as a support for and stimulus to the research community in formulating health research priorities, plans, and strategies in the spirit of the Health for All philosophy.

Dr. Hannu Vuori brought the greetings of the Regional Director to the meeting. He thanked the Moroccan authorities for their warm welcome and highly relevant statements about the research implications of the regional target in the overall Health for All strategy. He described the background to the meeting and the current state of development of the European Research Action Plan which aims at supporting the attainment of the regional targets. Dr. Vuori referred to previous great achievements of mankind such as the space programmes Sputnik and Apollo in which bold goals were successfully attained by analyzing the problems to be overcome and

then solving them by research. Similarly it should be possible to approach and solve the problems which will be met on the way to the achievement of the regional targets.

Professor Slimane Nejmi was elected as the chairman of the meeting, Professors Henri Danielsson, Theodor M. Fliedner, Michael Manciaux and Pierre Recht as co-chairmen, and Professor Eino Heikkinen as rapporteur.

## 2. SCOPE AND PURPOSE

At its thirtieth session in Fez in 1980, the Regional Committee for Europe for WHO approved the Regional Strategy for Attaining Health for All by the Year 2000 (EUR/RC30/8 Rev. 1) and requested that specific regional targets be formulated to support the implementation of the strategy.

At its thirty-fourth session in Copenhagen in 1984, The Regional Committee adopted the Regional Targets in Support of the Regional Strategy for Health for All (EUR/RC34/7 Rev. 1). Target 32 reads:

Before 1990, all Member States should have formulated research strategies to stimulate investigations which improve the application and expansion of knowledge needed to support their health for all development.

The European Advisory Committee on Medical Research was charged with "a broad analysis of research priorities related to the regional health for all targets for submission to the Regional Committee. This regional health for all research plan (now known as the European Research Action Plan, ERAP) will be widely disseminated among the European research community and will form the basis for discussions between the EACMR and academies of science or health research councils on their research plans, and for drawing up regional research programmes and projects in support of the regional strategy

for health for all." It was expected that the ERAP would stimulate the development of national health for all research policies and plans.

The ERAP will analyze the research implications of the regional strategy and targets for Attaining Health for All by the Year 2000. It will suggest what type of knowledge will make the greatest contribution to the achievement of the targets. It also will identify high priority research which will be needed in support of the regional targets. In addition the Plan is expected to provide a strategy for implementing the suggested research and to remove obstacles preventing the efficient use of the results.

The enormous research potential which the European Region has can be expected to be a most powerful ally in support of the attainment of Health for All provided that common research goals, policies, and strategies such as the ERAP will be formulated using the Health for All philosophy and regional targets as a starting point.

Assuming the European Research Action Plan will be generated in the near future, representatives of the meeting were expected to give their opinions about the needs for such a Plan. They were also requested to identify what kind of arguments, criticism and problems the Plan might raise in the scientific community. Furthermore the meeting was expected to suggest a "marketing strategy" for the ERAP and ways of overcoming the obstacles to its implementation.

### 3. CURRENT APPROACHES IN DEVELOPING HEALTH RESEARCH POLICIES AND STRATEGIES

The need for developing health research policies and strategies arise on the one hand from demographic changes which have occurred in the industrialized societies during the postwar period, and, on the other hand from constraints in the funding of scientific research, the increasing size of research systems, and criticism directed towards cost-benefit-ratios and the adverse effects of the application of research results.

Demographic changes have led to a decline in turnover and to increased aging of the majority of populations in the European Region. The disease panorama also has markedly changed. The over-whelming majority of prevalent diseases consist of chronic conditions associated with aging. These conditions are, once they have developed, very difficult to cure. They should either be prevented, or, if this is not successful, they will require effective treatment and rehabilitative measures in order to maintain functional abilities and the possibilities of an independent life. On the other hand it should be borne in mind that the most prevalent health problems in the less developed parts of the European region are connected with poor living conditions and on inadequate provision of basic medical and social services.

Research dealing with the organization, management, and funding of health research activities ("research on research") has revealed marked differences between countries. It has been shown that e.g. the ratio of medical research expenditure to Gross Domestic Product varied at the end of 1970's from 0.1 to 0.2 per cent among ten European countries, all members of the European Medical Research Councils. Furthermore, the contribution of medical research councils varied from 2 to 22 per cent of research expenditure excluding the pharmaceutical industry. The pharmaceutical industry's research share of total expenditure varied between 1 and 58 per cent, being in many countries the largest single source of funds.

There are also marked north-south and east-west differences in organizing and managing health research and in principles of setting priorities. These differences should be taken into account when attempts are being made to introduce new priorities and to improve coordination within and between research systems.

It should be borne in mind that intensive international collaboration already exists between researchers and research institutes. In present-day Europe, this collaboration is, in principle, an open forum for a dialogue both between individual researchers and research institutes and those bodies which promote, finance, and administer research activities. This is illustrated for example by the fast application of research breakthroughs in all areas of the region. This

international nature of research provides a good basis for developing even better collaboration and coordination between the scientific communities and other relevant institutions. Coordination and collaboration particularly in the field of health research, should be in the interest of all member countries because health can be regarded as one of the most important priorities for peoples and individuals and a prerequisite for a socially and economically fulfilling life.

The European Region with its 33 member states has numerous national and international, governmental and private organizations and research communities, which manage, finance, and do health research and disseminate the research results. There are marked differences between countries in respect to ways of managing and financing health research and also in respect to the approaches in planning health research policy. To reach HFA the inter-governmental collaboration is not limited to WHO activities only. The work of other inter-governmental organizations, e.g. ILO and UNESCO, is also important. Therefore it would be desirable to integrate the relevant activities of all such organizations in supporting the attainment of the regional targets.

There are also a number of governmental and non-governmental international scientific and professional organizations which promote health research. In some of them health research geared to HFA has been discussed, and relevant parts of the programme are considered in conjunction with their research activities. The European Community, European Society

of Medical Sociology and The European Association of Programmes in Health Service Studies, and the International Council of Nurses were mentioned as examples of such organizations.

In Western Europe the European Medical Research Councils, (EMRC) a standing committee of the European Science Foundation is a forum for the exchange of information related to research policies and activities between medical research councils and corresponding bodies. To promote international collaboration, EMRC has initiated fellowship programmes and collaborated in projects, workshops, and conferences. Bearing in mind the inherent international dimension of medical research, EMRC sets criteria for initiating international collaborative activities. The overriding criterion is a clear need for an international initiative. Such need may be found in areas of research that are not supported at a level adequate to meet societal needs, or in areas of research that are emerging. Within the EMRC-activities researcher-initiated research policy is underlined.

In the Eastern European countries health research is a part of coordinated research policy and programmes. It may be expected that the ERAP will be taken into account in the medium and long-term research policy of these countries.

Great differences in the coordination of health research can also be noticed within the member states. In countries with pluralistic health research systems, coordination between the different parts of the system is often weak and non-systematic. In a few of these countries, however, the health

authorities have an important role in determining the areas of research needs (e.g. United Kingdom, The Netherlands).

In countries with centralized and coordinated planning, health research policies are incorporated in this overall system. For example in the USSR, a comprehensive programme of work for improving prevention and public health has recently been accepted for a period up to 1990. In USSR and some other member states regional targets have already been taken into account in generating national health research programmes.

Research related to the Regional Targets will presumably also be supported by research activities in a number of national health research institutes. For example, the research programmes of INSERM and the Netherlands Institute of Primary Health Care have defined research priorities which cover many problem areas of the Health for All strategy.

In the less developed parts of the European region the research priorities are more related to the inadequate provision of basic services than to the problems of affluence, and the possibilities for generating national health research policies is rendered difficult by a lack of manpower particularly where interdisciplinary research is concerned.

In the universities and corresponding research institutes the way of approaching health research policy depends on national and cultural characteristics and on the overall structure and functioning of research systems. Health research policy related to HFA has not yet had enough time to influence research communities at this level. How the message

of developing health research in support of the HFA strategy and targets will be perceived in research communities will, however, be a crucial question.

The number of non-governmental health research organizations is very large, but not very much is presently known about their research policies. The research potential that these organizations have should be activated to support the HFA strategy, and therefore more information will be required about their roles in promoting health research.

The pharmaceutical and other health industries play, in many countries, an important part in the overall allocation of resources to medical research. Some industrial enterprises have already incorporated projects in the direction of HFA-related research in their own research policy, and are prepared to consider more when feasible. In the future elaboration of the research implications of the regional targets, the possible contribution of the medical industry should become more concrete. However, clear scientific goals of the ERAP after critical analysis of the targets is a prerequisite for this (see p. 12). This information ought to be made available to the relevant industrial enterprises, the IFPMA representing the pharmaceutical industry.

#### 4. HOW THE RESEARCH COMMUNITY SEES THE TARGETS?

When adopting the European Strategy for Health for All and 38 Regional Targets the Member States also agreed to develop their national research strategies (EUR/RC34 7 REV 1). This agreement refers to the key role of available knowledge and its application in creating the necessary conditions for a change, which will be needed for reducing inequities in health not only within and among the European countries but also between Europe and the rest of the world.

It is now up to the research community to critically analyze the targets and make suggestions as to what knowledge will be required and how it could be applied to support the achievement of the targets. The meeting acknowledged the important work which has already been done to this direction by the European Advisory Committee for Medical Research. The participants of the meeting underlined the necessity of transforming the research implications of the targets to concrete and scientifically sound research problems. Otherwise there is a danger that the Health for All strategy and the Regional Targets may be regarded as a rosy utopia towards which the research community cannot be an active contributor. For example the sometimes weak wording of the targets may lead to missinterpretation unless the exact meaning of the targets are presented. What does for example the word "productive" mean in this context? It was underlined by some

of the participants that also non-productive classes of people (children, retired people etc.) and the unemployed should also be an important target of the HFA programme.

The major issues of the discussion dealing with the research implications of the targets included the following:

Differences between the targets. There are marked differences between the targets in relation to research required both with regard to the quality and quantity of new knowledge. Therefore the targets should be systematically analysed and the areas of study should be transformed to a scientific language showing for example what problems can be quantified. In their present form the objectives of the targets may in part be contradictory, i.e. great achievement in one target in one member country may de facto increase the actual differences in health status between countries. An eye should also be kept open for new targets, because changes may occur in the health status of the European peoples and research results cannot be predicted even in applied research.

It was also pointed out by some of the participants that the targets have been written in a defensive way. Instead of reducing various health problems an alternative would be a positive approach. This would require changes in the wording of the targets, e.g. one target would be the better life satisfaction of people by increasing the number

of years that people live free from major diseases.

Nature of needed research. It is apparent that the conception of health used in the Health for All philosophy and strategy requires a multidisciplinary approach in actual research. The conception has two main facets; man as a part of nature, and as a part of society. Both aspects require fundamental research and the application of research results to social practice not only in developing health care but also in overall social planning. Traditional biomedical research has made great advances in providing a better understanding of the factors that produce illness and in developing new methods of diagnosis, treatment, and rehabilitation. Recent development in many areas of biomedical research give hope for new important advances both in providing new knowledge about the biological characteristics of the human body, about the new pathology, about the biological properties characteristic of longevity and the life-long maintenance of good health, and in providing new tools for preventive, diagnostic and therapeutic procedures. In this research field there is an established healthy collaboration with the basic natural sciences which provide a solid scientific basis for furthering biomedical research.

Unfortunately the situation in social medicine and in social and behavioral sciences is not as balanced and advanced. Too little is known about the inter-relationships between the social, economic, psychosocial, cultural, and physical characteristics of environment in influencing the health of individuals and of populations. Much more knowledge is required about peoples' lifestyles and their influence on health, about environmental risk-factor control, about the organizational aspects of health services, and about scientific bases for planning and implementing health priorities, policies, and programmes. The necessity to enlarge the scientific basis of health research is therefore apparent. There are indeed a number of academic disciplines whose potential contribution to the solution of the problems of health has not yet been fully understood and utilised.

It was a strong wish among the participants of the meeting that the relevant sciences contributing to the attainment of better health in the framework of the Health for All strategy should not be separated into competing boxes. What is needed is a better collaboration of researchers in interdisciplinary projects, in which boundaries between different disciplines are not sharp.

International collaboration among the researchers including international comparative studies should be promoted. Only comparison affords explanation. Therefore increased financing of cross-national and cross-cultural studies might help a better understanding of the factors which affect people's health in different socio-economic and cultural contexts. For example research on the effects of lifestyles on health may produce different results among people living in different cultural environments. By synthesizing research data from different cultures it may become possible to draw conclusions about the effects of individual living habits and of their interactions on health.

Training of researchers. The training and quality control of researchers was considered an important question particularly in relation to the information which is being given to the general public. For example health education requires solid and scientifically-based knowledge in order to avoid biased, unrealistic or even contradictory views about the importance of different forms of behavior. In developing health education programmes and procedures knowledge is needed from pedagogics and other behavioral sciences, which, together with traditional medical knowledge, could bring about a sufficient understanding of how to plan the contents and methods of health education.

Another field of research, where research training and interdisciplinary study groups are required, is gerontology. The overall prevalence of chronic conditions has increased and the meaning of the conception of health may be different among the elderly compared with younger population groups.

The communication sciences are an area where new approaches and innovations are required. Better communication between different actors in the complex drama of the Health for All strategy will be of crucial importance. It also requires research in communication sciences to provide effective tools in support of the attainment of the Health for All targets.

Often the gaps in knowledge are in the neglected areas of research. Training of researchers is therefore a prerequisite to having more experts in health related research based on the most important problems in the national Health for All strategy.

In addition to research training in neglected areas of health research there is also a need for adopting a methodology, which has been overlooked within the tradition of positivistic empiricism. In order to complement the approaches used in the biomedical sciences more emphasis should be paid to qualitative methods, action-oriented

research strategy and programme evaluation. These methods and strategies are well-known in the social and behavioural sciences and have recently been applied e.g. in nursing research. New approaches should in particular be applied in such areas of health research where the biomedical characteristics of the problems are well defined but great difficulties are met in attaining the target (e.g. reduction of the prevalence of smoking). More knowledge may therefore be needed on psychological, social and cultural factors that influence human behaviour.

Deadlines. Deadlines set for achieving the regional targets were considered problematic from the research point of view. Action towards better health by the year 2000 is a dynamic process in which exact deadlines and quantitative aims can only be taken as relative concepts and tools for creating mental pictures of possible development. Advances in research together with social changes will presumably alter both timetables and objectives.

Coordination. Because research will be needed in a wide range of subjects covering many academic disciplines and various sectors of social life, improved intersectoral coordination will be necessary within the research community and between the research community and various organizations which plan, administer and finance research. Particularly in the Western-European countries,

ministries of education and science have a responsibility to promote research, whereas the ministry of health applies the research results in the development of health care. Good coordination between those ministries and at all levels is therefore necessary.

Research on health research should also be developed in order to better understand the complexity of research systems, differences in the philosophical base which influence research, and obstacles in the use of research results.

## 5. EUROPEAN RESEARCH ACTION PLAN

The meeting considered, in the light of discussions described in the previous chapters, various aspects of the European Research Action Plan in the contexts of the complex system of health research in the European Region.

### 5.1. Need for and feasibility of the Plan

In view of the short period remaining until the year 2000 it becomes apparent that the proposed plan should emphasize the application of the knowledge that already exists, and policy and health system research which aims at identifying barriers to the use of existing knowledge and better ways of providing services. Given the great differences between member countries in health research potentials, existence of relevant knowledge, and the relative importance of the different targets, the research priorities and problems to be solved vary from one country to another. There is, however, need for a European plan which would outline broad strategies, identify issues common to all targets and specify research areas which, on the one hand, with great probability will contribute to the attainment of the targets, and, on the other hand, identify neglected areas of research where training of manpower and allocation of new resources are required.

There are many interesting research problems. Many of them may be important in the framework of the HFA strategy. Therefore a critical evaluation of the targets carried out by outstanding scientific experts from the discipline involved is needed, and a proposal of possible criteria for selecting research priorities might help the member states generate their own health research strategies.

A possible outcome of the ERAP might also be a better flow of information about the knowledge needed and the possibilities to overcome obstacles in the application of knowledge to attain the targets or a given target. Furthermore ERAP might create a forum where both north-south and east--west dialogue would result in concrete research collaboration to increase equity in health within the Region. It was also pointed out that ERAP, if supposed to be feasible, cannot be a general European health research plan. It should be a Health for All Research strategy relevant to the regional targets.

## 5.2. Generating the Plan

There is no previous experience of generating a research action plan over such a wide area of topics as the HFA strategy and related targets. The plan should therefore be flexible and open to alterations on the basis of the experiences gained during the first years of its implementation. Feedback and evaluation mechanisms should also be built into the plan.

The first draft of ERAP, developed by the European Advisory Committee of Medical Research, will see light in the beginning of 1986. The evaluation and acceptance of the ERAP by the research community at large is a necessary and critical step in the generation of the plan. Therefore the draft of the plan should be reviewed by the relevant research councils and other central organizations which plan, administer and finance health research and disseminate research results. The plan should also be evaluated by health care providers, industries and if possible also by the public, i.e. the consumers of health services.

Research action plans may theoretically be produced in many different ways. The thought process presented to the meeting (Fig. 1) was considered to be a useful way of analyzing the research requirements of the targets. By analyzing systematically all the 38 targets it might be possible to make a list of specific problems, which should be solved either by producing new research results or by applying already existing knowledge.

There should also be a mechanism to set up priorities among the identified research problems and required actions. Again, there may be many methods of producing a priority list and different countries may wish to use different methods in generating their national research strategies.

### 5.3. Objectives and contents of the plan

The aim of the present meeting was not to discuss in detail the objectives and contents of the European Research Action Plan. The following objectives presented to the meeting were, however, regarded as relevant and, with certain reservations, also as realistic:

- to help to achieve the European regional targets for Health for All by translating them into concrete research strategy;
- to simulate the member states to develop their national health research strategies and to serve as a model in such development;
- to guide the allocation of resources for research in the member states;
- to guide EURO's research activities;

- to enlist the support of the European research community for the Health for All process by identifying high priority research areas relevant to European and national health policy; and
- to provide possible input for the research policies of the private sector, e.g. foundations and industries supporting health research.

Some participants at the meeting presented doubts about the possibility of enlisting research priorities at a European level given the great differences in e.g. research potentials and health problems.

A crucial part of the plan is the strategy for implementing the suggested research and maximizing the use of the results. The plan could also contain a list of criteria which might be used in establishing priorities among the required actions. The following list of criteria was suggested for the establishment of priorities (not in rank order):

- magnitude of the problem
- scientific soundness
- probability of success
- impact on practice
- resource requirements (need, availability)
- relevance to the programme
- level of current resource commitments

- relevance to existing programmes in the Member States
- impact on global level programmes

The rank order of the criteria presumably varies from one country to another, and additional criteria may be needed. There may also be reasons for weighing the individual criteria in different ways.

## 6. IMPLEMENTATION STRATEGY OF THE EUROPEAN RESEARCH ACTION PLAN

The acceptance and outcomes of the Plan will depend on many factors. Besides methods of generating the Plan and its objectives and contents particularly the implementation strategy will be important. Research is "skiing on long skis". Researchers and research institutes have in many cases already bound their hands for several years ahead. The results of research on research have shown that research institutions are relatively reluctant to change their priorities and strategies. Efforts are therefore needed to overcome inertia and vested interests.

The required activities contain both direct ERAP marketing measures (such as reallocation of resources) and indirect support measures (such as research training).

### 6.1. "Marketing" and information

The "marketing" of the Plan and the development of appropriate information systems for the evaluation of the Plan should, on the one hand, be incorporated into the general dissemination of the message about the HFA strategies and regional targets. On the other hand, specific actions are required to sell the Plan to the scientific communities and different bodies which promote health research.

An important starting point is the quality of the Plan itself. Low quality products are difficult to sell. Because health research systems differ between the member countries, it is important to identify the right avenues of development for a Plan. In some countries the health authorities have a decisive role in formulating research policies, whereas in others it is the researchers themselves who mostly initiate research programmes. An increasing self-awareness among the research communities would help in widening the scope of health research and preparing ground for new ideas. Self-awareness in health research can be promoted by stimulating interest in questions of the philosophy of science and in activating research councils and corresponding organizations to carry on research on health research.

International scientific congresses, conferences, symposia and workshops provide good form for the distribution of the message of the Plan. WHO should approach relevant international organizations and offer collaboration for joint actions in supporting the implementation of the Research Action Plan. A few international scientific and professional organizations have already expressed their willingness to carry on health research related to HFA and the Regional Targets. Also subregional and national gatherings of researchers should be used for the same purpose.

WHO collaborating centers provide an important tool for advancing the Health for All research and disseminating information about the Plan. In the Western European countries

the medical research council system constitutes an important forum for the exchange of information. This forum should be fully used also in support of disseminating information about the HFA research strategy. It would be highly valuable for WHO, which already takes part in the activities of EMRC, to fully utilize the great expertise of this body in developing, evaluating and implementing the HFA research strategy and plan.

The Plan should also be effectively distributed to the medical industries and private health research organizations.

A critical evaluation of ERAP by scientific communities and different bodies promoting health research should be made possible. This may have a significant effect on the further marketing of the Plan.

In the contemporary world there are both great possibilities and difficult problems in collecting and delivering information. Modern large information systems contain ample data relevant to the HFA strategy and related targets and health research. This data should be made available as widely as possible. Much valuable information does not become part of existing information systems. It is also often difficult to get the message through in the overheated atmosphere of the media ("no news = good news"). Therefore the expertise based on the communication sciences should be made available in supporting the marketing of the Plan, in mobilizing individual investigators, and in promoting communication about the experiences gained in the implementation of HFA-related research.

A meeting of the editors of the most relevant scientific journals could be convened to this effect but also other ways of stimulating opinion leaders in the scientific communities might be stimulated to play an active role in transmitting the message about the Plan. Collaborative research projects in the communication sciences may also be needed to open up new avenues for more effective collection, dissemination and application of HFA research data.

Given the complexity of and great variation within the European health research system the need for developing an adequate information system to disseminate knowledge about the development and implementation of HFA related research is a crucial question. All the existing information channels including e.g. the network of WHO collaborating centers should be used for this purpose. The feasibility of a special "clearing house" activity could also be considered.

## 6.2. Financing and manpower

There are marked differences in the European Region in expenditures on health research both in total national expenditures and in relation to Gross Domestic Product. Consequently, the possibilities of various national health research systems for producing knowledge in support of Health for All strategies vary from one country to another. Also the share of the pharmaceutical and other industries of total

expenditure varies markedly between the Member States. Furthermore some research findings show that the funding of research in the field of public health is generally low. In some countries its share in the expenditure of all funds allocated to health research is negligible.

At present research work is concentrated on the basic biomedical sciences. Problems related to environmental risk-factor control, health services research, and effects of lifestyles on health have received much less support.

Large differences exist between health related academic disciplines e.g. in the quantity of trained research personnel and possibilities in disseminating research results. The European Research Action Plan should therefore encourage member countries and all organizations that promote research in the field of health to reduce differences in health research expenditure and give guidelines for allocating resources to those areas where the greatest contributions to the attainment of HFA can be expected.

The positive role of the pharmaceutical industry in supporting the attainment of the regional targets should also be kept in mind when seeking target groups to respond to the challenges of the HFA research strategy.

Lack of trained manpower appears to be an important obstacle when attempts are made to stimulate research in fields where research efforts are most urgently needed. Toxicology, health services research, nursing research, medical sociology and anthropology, health economics, research on aging, and

the nutritional sciences are examples of research areas in which training for research is not sufficient. National HFA research strategies should contain plans for creating career structures for research workers in the prioritized areas of health research. In some countries the universities may not have adequate resources for researcher training in the critical areas or the training may be non-existent. International collaboration could in these cases afford a solution and new channels should be opened for that purpose.

The often absent link between the health policy makers and the research community could partly be established by training the health policy makers through research and, correspondingly, by arranging possibilities for research workers to work in the administration.

### 6.3. Coordination and collaboration

In many Member States, the health research potential is not fully used because of the lack of coordination. This problem can exist at all levels of health research. At the research community level better coordination and also better collaboration among researchers could be achieved by promoting interdisciplinary research projects. At the governmental level HFA research is planned, administered and financed by many ministries and therefore coordination and collaboration would be needed also between them. The establishment of mul-

tidisciplinary health research councils representing not only the relevant academic disciplines and central health research institutes but also different governmental departments would reduce unnecessary overlapping, provide links for the application of new knowledge to decisions on health policy and programmes, and widen the knowledge needed to assess the quality of research.

The implementation of the European Research Action Plan has to be coordinated, monitored and evaluated. A requirement for controlling the implementation process is the development of health information systems as defined by Targets 1 and 35. WHO collaborating centers represent a valuable mechanism for providing information about the progress made in relation to different targets. In addition to this WHO will need information about important new knowledge and about its application to the Health for All strategy in all prioritized areas of research. This can be obtained through various channels; directly from research institutes, from national research councils or corresponding bodies or through intergovernmental or private bodies which coordinate and promote information exchange in the fields of health (e.g. The European Medical Research Councils).

## 7. EVALUATION AND FURTHER DEVELOPMENT

The development and implementation of the European Research Action Plan and the subsequent generation of national health research plans is a novel enterprise, and therefore it is of utmost importance that an evaluation system becomes an integral part of the Plan. The results of evaluation could lead to the continuous development of the Plan thus making it a dynamic process where outcomes and feedback mechanisms rather than previously set timetables guide the process.

### 7.1. Outcomes of the Plan

Given the multifaceted nature and the relatively large number of objectives of the Plan the outcomes can be expected to be multiple, too. The short term pay off, however, is perhaps more qualitative than quantitative. There may also be spin-off effects which were not originally expected or predictable. It may be difficult to differentiate the impact of ERAP from the other effects of the HFA strategy on the attainment of the Regional Targets. Therefore the evaluation might be focused on the feasibility and the implementation of the Plan. Evaluation could include questions dealing e.g. with the development of national ERAPs, reallocation of resources, research training, creation of interdisciplinary research teams, development of research activities in the neglected

areas of research, and the quantity and quality of international collaborative and comparative research in relation to the HFA-related research. WHO should provide means to enable such an evaluation. The implementation of the European research action plan may be regarded as action research and the points of departure and the methods used in action research together with the methods of evaluation research could be applied to implement and evaluate the action.

## 7.2. Further development of the Plan

In addition to what was suggested in the previous sections a series of discussions between the concerned bodies will be required in the further development of the Plan. In particular research communities should be well informed and their key functionaries consulted both in generating the first plan and during the subsequent developmental stages.

The concreteness and relevance of the Plan can presumably be greatly increased after a few years when the national Health for All strategies and related health research programmes are available. WHO should be prepared to make a synthesis of the national plans and of the achievements towards the regional targets. The second European Research Action Plan could then, besides being interpreted as a policy document, also contain more concrete suggestions for research programmes in the prioritized research fields.

## 8. CONCLUSIONS AND RECOMMENDATIONS

During last few decades Europe has witnessed a tremendous improvement in people's living conditions and achievement of a high level of education, scientific work and technology. When this development is analysed from the point of view of peoples' health, the picture becomes more confusing and raises many questions. There is inequality in health both within and between the nations. The control of both physical and social risk factors of living environments has not been successful. The millions of unemployed represent an additional challenge. In addition the aging of most European populations and the consequent increase in the prevalence of chronic conditions and disabilities have created problems which require new approaches in developing services.

Discussions during the meeting considered the research implications of Regional Targets for health research from many perspectives. The following conclusions and recommendations summarize the most essential contents of the discussions.

1. The Regional Health for All strategy and the projected European Research Action Plan are fruitful and necessary steps in order to increase coordination and collaboration within and between the Member States.

The great research potential of the European Region

may be more fully utilised by adopting common goals and research strategies.

2. The need for solidarity and responsibility of the research community of the developed countries vis-à-vis the developing countries in support HFA was strongly emphasized.
3. The research community has a moral and social responsibility to present the results of their research in a way which facilitates their use in decision-making and in the implementation of health related programmes. In the implementation of the actual HFA research it is the responsibility of the scientific community and every researcher to recognise the ethical components of research and to follow the appropriate guidelines and regulations.
4. Research implications of the Regional Targets vary both between targets and between countries. There may also be logical contradictions between some targets. A great deal of work is required to translate the research implications of the targets into a language understood by the scientific community. The ERAP can be a useful vehicle to do this.
5. HFA-related research is already being initiated in some Member States. Some international scientific or professional organizations have also adopted research policies relevant to the Regional Targets. Systematic and innovative efforts will, however, be required to

inform scientific communities about the research needs related to HFA.

6. Given the complexity and variation of the health research systems between the Member States, WHO should analyze those avenues which would be available and are most critical in order to get the scientific communities and investigators mobilized. By defining common research goals and themes at the regional level it will be possible to prevent the dissipation of focus which might result if things had to be done separately in each country.
7. The gaps of knowledge in some broad areas of action, e.g. the effect of lifestyles on health, environmental risk factor control, and improvement of health care systems, often require multidisciplinary approaches and contribution of social and behavioural sciences. The researchers should therefore be trained and encouraged to initiate interdisciplinary research and more attention should be paid to appropriate funding of required research. The bodies which finance and administer health research should be multidisciplinary and multiprofessional in composition.
8. Gaps in knowledge often exist in neglected areas of research where lack of manpower prevents an effective acquisition of new knowledge. Research training is therefore a prerequisite for stimulating research in

these areas. International research training programmes will help in mobilizing scientists.

9. The application of new knowledge in health policymaking is unsatisfactory because the links between the research community and health administrators are often non-systematic and weak. Better co-operation could be achieved by training health authorities to appreciate research and use its results and vice versa, by providing possibilities for researchers to work in planning and administration.
10. Large differences exist between countries in the financing of health research. In many countries the allocation of resources to health research and development does not correspond with the importance of the health sector in the national economy. Also the share of pharmaceutical industry in the total health research expenditure varies greatly between countries. The ERAP should aim at increasing general research expenditures particularly in countries where investments in health research are low. It could also open avenues to pharmaceutical industry to become more effectively involved in research to support the attainment of the regional targets. The need for a European fund to help promote research, relevant to the ERAP ought to be investigated.

11. The ERAP has to be a dynamic and developing process. Feedback from the research community and the outcomes of the activities implemented to attain the targets should affect the process more than time-tables and deadlines alien to research.
12. An effective evaluation system should be built into the Plan. Relevant methods will have to be developed to evaluate both the process and the achievements. The WHO collaborating centers are an effective tool.
13. Research on health research helps to gain a better understanding of health research systems, of factors which affect the development of research, and the application of the results. The new knowledge arising from this research can contribute to greater self-awareness among the researchers and to a more flexible attitude towards new points of departure and new theories in health research.
14. The EACMR is in a key position in the further development of the ERAP. An important step in generating the Plan is the consultation of the research community, of the medical and pharmaceutical industries and of other relevant bodies. Given their support for the Plan there will be grounds for the ERAP to become a living and important process in the overall Health For All strategy.

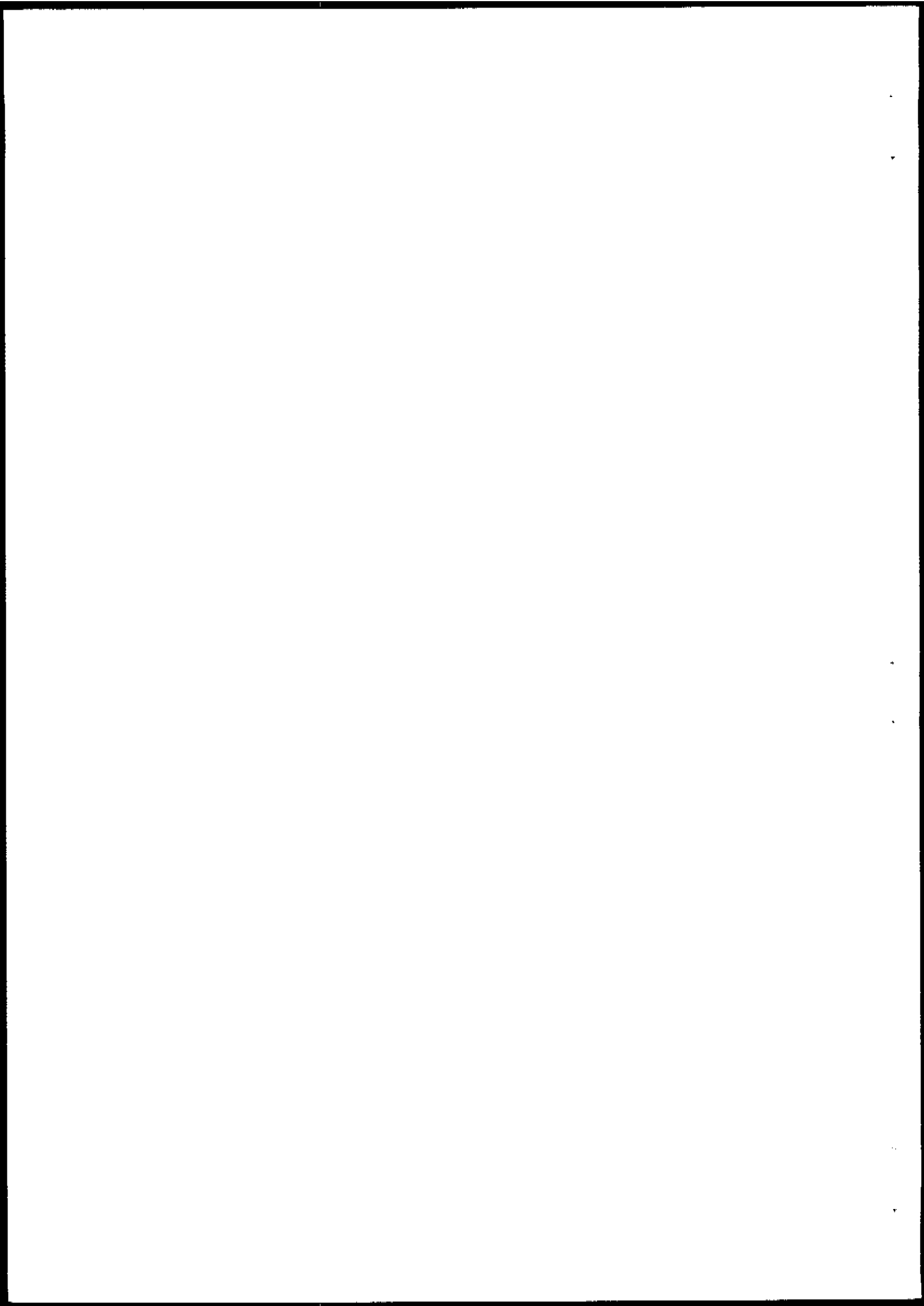
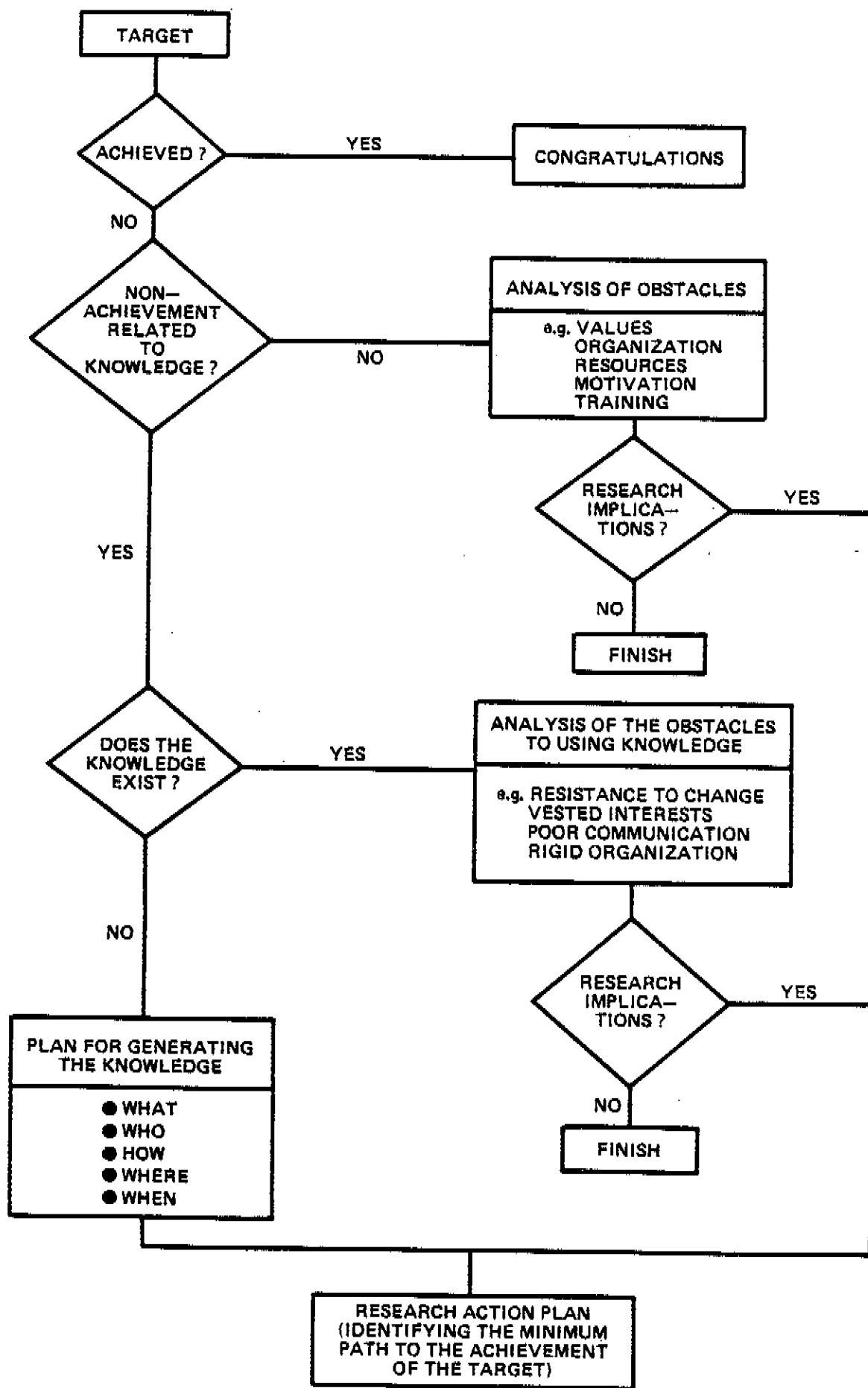
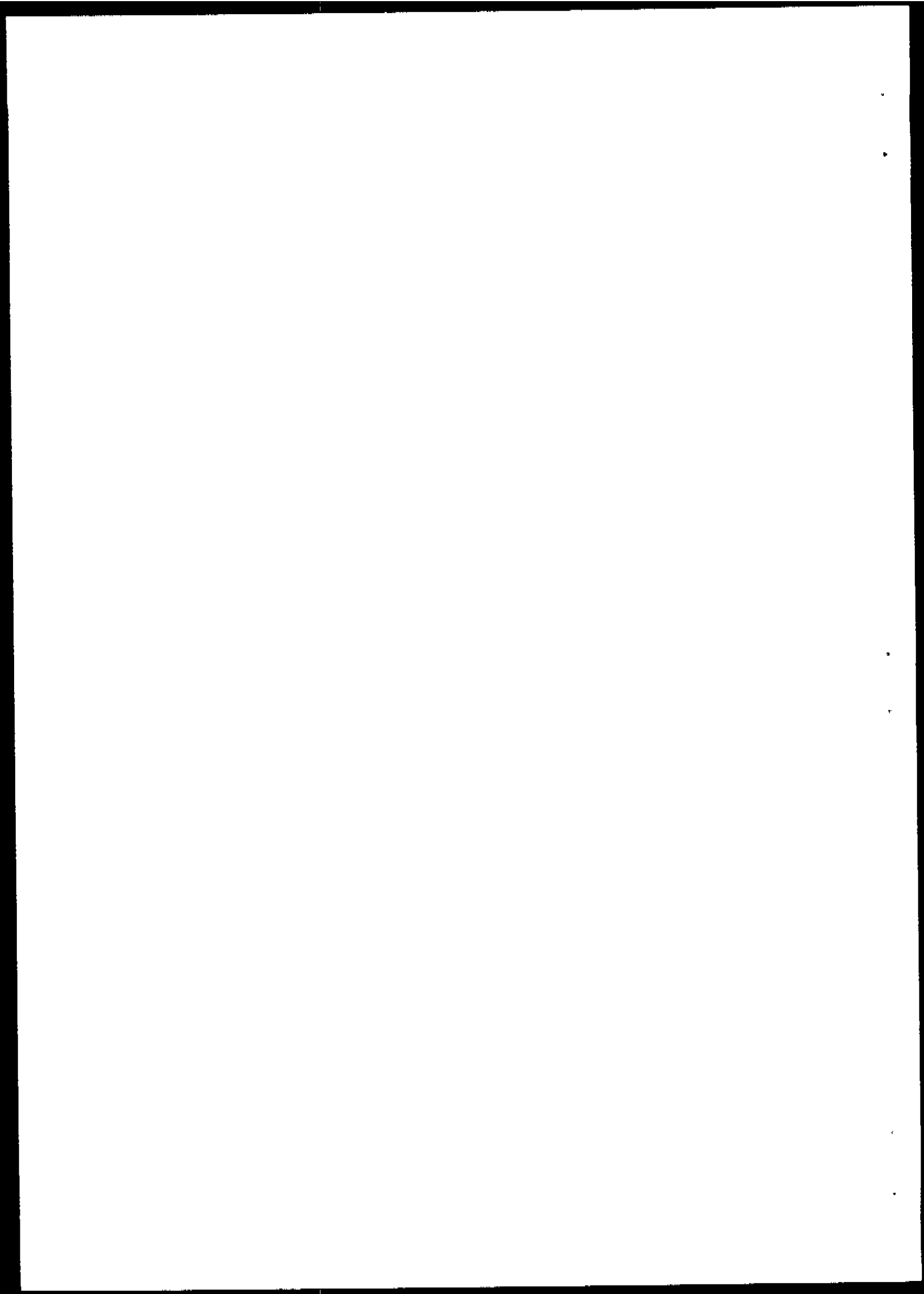


FIGURE 1





Annex 1

LIST OF PARTICIPANTS

TEMPORARY ADVISERS

- Professor H. Danielsson  
Secretary General, Swedish Medical Research Council, Stockholm, Sweden
- Professor K. Doktor  
Polish Sociological Association, Institute of Philosophy and Sociology, Polish Academy of Sciences, Warsaw, Poland
- Professor T.M. Fliedner  
Rector, University of Ulm, Ulm, Federal Republic of Germany
- Madame F. Hatton  
Institut national de la Santé et de la Recherche médicale (INSERM), Paris, France
- Professor E.M. Heikkinen  
Department of Health Sciences, University of Jyväskylä, Jyväskylä, Finland
- Professor M. Manciaux  
Département de Santé publique, Faculté de Médecine de Nancy, Vandoeuvre-les-Nancy, France
- Professor S. Nejmi  
Chef du Laboratoire de Microbiologie et du Département de Médecine et Santé publique, Hôpital militaire d'Instruction Mohammed V, Rabat, Morocco
- Professor B. Z. Nizetic  
Laboratoire d'Epidémiologie et de Médecine sociale, Université Libre de Bruxelles, Brussels, Belgium
- Professor G.N. Novgorodtsev  
Deputy Director, All Union Semashko Institute, Moscow, USSR
- Professor J. Olsen  
Department of Social Medicine, University of Aarhus, Aarhus, Denmark
- Dr P. Recht  
Professeur à l'Université Libre de Bruxelles, Brussels, Belgium
- Dr D. Rothman  
Senior Medical Officer, Department of Health and Social Security, London, United Kingdom

REPRESENTATIVES OF OTHER ORGANIZATIONS

Commission of the European Communities

- Dr A. Baert  
Scientific Adviser, Medical and Public Health Research, Brussels, Belgium

European Science Foundation

- Dr E. Schenk  
Strasbourg, France

International Council of Nurses

- Ms B. Westphal-Christensen  
The Danish Nurses' Organization, Copenhagen, Denmark

International Federation of Pharmaceutical Manufacturers Associations

- Dr A. Walker  
Director of Medicine, Pharma International, CIBA-GEIGY Limited, Basle, Switzerland

Netherlands Institute for Primary Health Care

- Dr J.M. Bensing  
General Director, Utrecht, Netherlands

United Nations Education, Scientific and Cultural Organization

Dr J. Jaz  
Director, Scientific Cooperation Bureau for the Europe - North America Region, Paris, France

WORLD HEALTH ORGANIZATION

Regional Officer for Europe

Mr M. Danzon  
Public Information Officer

Dr P.G. Svensson  
Scientist, Health Research

Dr H. Vuori  
Chief, Research Promotion and Development