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POLICY-ORIENTED RESEARCH  
ON HEALTH OF THE ELDERLY

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Health services research  
- cover*

A selective review of social surveys, epidemiological studies,  
service and policy research, with recommendations for  
future research

Report on a WHO Workshop *Ann*

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Note

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## 1. Introduction

At a conference organized in preparation for the 1982 United Nations World Assembly on Aging, the World Health Organization was urged to support the search for new knowledge as a strategy for ameliorating the many distressing afflictions of old age and for containing the costs of care in the face of growing needs, especially in developing countries (1). Clinical research, epidemiological studies and health services research were considered to be of major importance and of universal concern. The present Workshop was organized for the purpose of elaborating proposals in the two last-mentioned areas, especially proposals that would forge links between industrialized and developing countries in a common research endeavour that addresses the problems posed by the changing age composition of the world's population.

United Nations projections indicate that by the year 2000, of the 590 million persons aged 60 years and over in the world, approximately 6 out of 10 will be living in developing countries and 291 million of these persons will be in Asia alone. The wellbeing of these hundreds of millions of elderly people represents a special challenge to the World Health Organization's commitment to achieving the goal of Health for All by the Year 2000. The elderly were identified as a vulnerable segment of the population requiring concentrated attention in the pursuit of this goal by a group of government representatives from industrialized countries who met in Geneva in 1980 (2). The group found that their discussions on the reorientation of their health care policies towards the Health for All goal were substantially strengthened when supplemented by experience from developing countries, and areas of policy concern were identified in which endeavours of mutual benefit might be pursued in partnership between the industrialized and developing countries. One of the areas identified was the health of the elderly.

## 2. Aims of the Workshop

The objective was to produce recommendations for policy-oriented research derived from the experience of Workshop participants as investigators in social survey, epidemiological and health service research, that has been conducted mostly, but not exclusively, in industrialized countries with the aim of identifying and improving social and health conditions of the elderly. A particular effort was made to bring together researchers with experience in conducting collaborative research between centres in different countries.

The research recommendations elaborated during the Workshop are directed to the World Health Organization,<sup>a</sup> and are intended to help the Organization in its objective of fostering the development of scientifically sound and socially acceptable policies for the elderly through the promotion of national and international collaborative research.

## 3. Workshop participants

The Workshop participants (Annex IV) were mostly social science and epidemiological researchers, and the recommendations which follow in paragraph 5 stem from their research work, which can be categorized in three partly overlapping areas, namely: social surveys, epidemiological studies, service and policy research. (The studies reviewed are listed in Annex III, together with working papers prepared by the participants.)

### 3.1 Social surveys

These include a pioneering social survey conducted in three industrial countries, the first major random sample survey of the aging population in a developing country and a review of research on health of the aged in eastern countries.

### 3.2 Epidemiological studies

Workshop participants were presented with a review of the medical and social conditions of the elderly, as established by epidemiological investigations in various countries. This was prepared by the principal investigator of a major longitudinal study of the elderly in a European city. A current WHO-supported epidemiological study of the health of the elderly in 12 countries of Europe and the Mediterranean was also described.

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<sup>a</sup> The recommendations will be presented: in October 1981 to the WHO Global Advisory Committee on Medical Research; in December 1981 to the WHO Meeting of Directors of National Institutes of Gerontology; and in 1982 to the second Meeting on Health for All in Industrialized Countries.

### 3.3 Service and policy research

A review was presented of research undertaken for the purpose of planning services for the elderly in one European country by the co-investigator of a population-based survey that was undertaken in that country for the purpose of assessing national service requirements. Other service and policy research reported included a "tour d'horizon" review of social and health services in 7 countries in western and eastern Europe and a modified Delphi study of policy concerns related to the elderly in 16 countries around the world.

## 4. Review of major studies

### 4.1 Social surveys

In the late 1950's the topic of social surveys of old people was discussed in the Bulletin of the World Health Organization (3). The author stated that "If, in discussing research and policy, we were to start with the social services rather than the people, it would be all too easy to accept unconsciously the present pattern of services, and to think merely in terms of expansion...". In effect, a policy of "more of the same". It was the author's view that social surveys had been given less attention than other types of study in guiding policy. By the article, the author tried to redress the balance by promoting surveys of old people living at home, in order to assess their relationship with families, friends and neighbours; their management of daily living; their care in illness; their housing situation; their adjustment to retirement and their contact with services. A prophetic word of caution was offered to research workers in the field: in such research one is inclined to lay too much emphasis on what is wrong with society and too little on what is right.

#### 4.1.1 Old people in three industrial societies

It is significant that the present Workshop took place on the 25th anniversary of a conference, held also in Denmark, to discuss the need for cross-national social surveys. This resulted in research on the living conditions and behaviour of old people with the unique characteristic of allowing comparisons between three industrial countries: Denmark, United Kingdom and the United States of America. Each of the three national surveys pinpointed certain identified groups who encountered problems, and this gave planners knowledge upon which policies could be modelled. Fifteen years later, a follow-up survey took place in Denmark and the United States.

Two aspects of this pioneering conference are relevant to the objective of the present Workshop: first the motive force that brought the researchers together, and second, the sequence of cross-national and national investigations that followed. Irritation at the lack of knowledge was a basic motivation for the study: irritation at the unsupported generalizations made about the elderly. Many myths and stereotype images of the elderly were exploded by the cross-national findings. Nevertheless, 25 years later, the phenomenon of unsupported generalizations continue to appear both in relation to industrial and to developing countries. The sequence of events is of note, for the original study generated similar coordinated surveys in Belgium (4,5,6), Czechoslovakia (7,8), India (9), Poland (10,11,12) and Yugoslavia (13).

The advantage of cross-national social surveys becomes apparent from the analysis of similarities and dissimilarities between countries: findings considered unique to a particular culture or social policy are often observed in other settings, and intercountry differences can provide guidance in national policy orientations.

#### 4.1.2 Needs of the Costa Rican elderly

The first major random sample survey of the aged in a developing country was undertaken in Costa Rica. An intended policy outcome of this study is to help planners consider the implications to welfare provision of the increasing number of old people.

Costa Rica is a developing nation committed to democratic and peaceful solutions to development problems. High literacy rates, higher educational facilities, a social security system which provides universal medical coverage and pension plans label it a welfare state. The welfare planners conceive the growing group of the aged as an important problem. "It represents, beyond the humanitarian issues, a challenge to the weave of peace which characterizes the society. If this weave is distorted, the results could be instability, unrest and potential damage to valued national institutions."

The Costa Rica survey is being used as a model for other Latin American and Caribbean countries, which also wish to have basic information on their aging populations, although the questionnaire will have to be modified, especially as regards the health-related questions. In the national survey of 1979, 20% of the aged stated that their health condition was bad or very bad. Visual failing, rheumatism/arthritis and nervous disorders (especially in women) are suffered by the majority. Medical problems of the aged are treated in regular hospitals and clinics. Many felt it would be difficult to obtain work either because of health- or of age-related problems.

Countries in Latin America feel that they cannot import policies for the elderly from other countries without further examination. While some data are generalizable, most policy questions concerning the elderly require locally obtained data. Such studies are just beginning, and the WHO Regional Office for the Americas is planning a cooperative study, phased over three years, in a total of nine Latin American countries where policies for the elderly are being developed. Indeed, many countries in Latin America have identified the elderly as a vulnerable group within national "Health for All" strategies. There has been discussion on including a sample of the Hispanic population of the United States of America in the study. A meeting of collaborating researchers will take place this year to review the protocol.

#### 4.1.3 Aging in eastern societies

Research in eastern countries has been very limited, the main interest being in Japan, the Republic of Korea, Hong Kong, Thailand, Singapore and the Philippines. However, it is Japan that has developed a close link between research and policy, both at central government and the prefectural level. Bodies conducting such research include the Census Bureau, which routinely poses questions on the housing conditions of the elderly. In addition, a "sick persons survey" is conducted as a one-day census each year and this gives most important information. There also exists a section on aging within the Prime Minister's office which conducts yearly surveys, for example on public opinion, family support, social activities and health status of the elderly within the community. The methodology of such studies might be of interest to neighbouring countries, such as the People's Republic of China and the Republic of Korea, not only that of national studies but also of the prefectural studies conducted in Tokyo Metropolitan Prefecture which have been used by other prefectures in the country, for example a survey conducted in 1980 on mentally impaired old people who, in Japan, mostly live in the community.

In many developing countries in Asia, one of the most important health problems of the elderly is serious impairment caused by cerebrovascular disease, and research on its prevention, care and rehabilitation should be given high priority.

#### 4.1.4 Potential for epidemiological research in large countries

The Soviet Union and the United States, since they are large nations, have the possibility of studying regional variations within their countries as, for example, has been done with a population of old people aged 80 and over in the Soviet Union, which showed significant regional variation in social and family longevity characteristics (14).

In the United States, policy-oriented research is conducted by at least five government agencies, the Census Bureau, the National Center for Health Statistics, the Administration on Aging, the National Center for Health Services Research and the National Institute on Aging. The last-mentioned agency is undertaking a descriptive epidemiological surveillance study, with a study population of 11 000 in three geographical areas. A methodological problem encountered in such studies is that there really is no good questionnaire instrument suited to the special needs of physicians and social workers. A second study currently being supported is a follow-up of a National Center for Health Statistics survey of health and nutritional status to relate patterns of morbidity and mortality to feeding habits. A double-blind randomized controlled trial is being conducted on treatment policies for isolated systolic hypertension. Research is particularly difficult in the important area of alcoholism among the elderly; reliable questionnaire responses are difficult to obtain and, as yet, there is no reliable biochemical marker of the condition.

#### 4.2 Epidemiological studies

Selected epidemiological studies on social and medical conditions of the elderly were reviewed and data were presented on their relevance to planning care of the elderly in a rational way. The review covers Scandinavia, United Kingdom, Japan and Canada, and includes detailed descriptions of 15 surveys. Many of the findings call for reorientation of existing services. For example, studies show that loneliness and neglect of physical and intellectual activity are rather common in

many countries, especially among widowed people. It has been shown that such living conditions have a negative influence on wellbeing and result in an increase in demand for health and social services and are an important risk for early mortality.

Another important finding is that there appear to be cohort differences; this is to say old people arriving at the age of 70 today appear to have better health status than those who reached the age of 70 five years ago. This clearly indicates the potential for improving health status through improved lifestyles and environment. Despite the exhaustive literature review conducted, very few population-based studies with medical examinations conforming to strict criteria have been reported and there is a need to develop institutions around the world with facilities for well trained epidemiologists to work in this field.

#### 4.2.1 Seventy-year-old people in Gothenburg - a population study in an industrialized Swedish city

The objectives of this longitudinal study of 70-year-old people in Gothenburg, Sweden, are to contribute to the knowledge of normal aging processes; to study the incidence, prevalence and natural course of disease in ages above 70; and to obtain basic data on the social and medical conditions of the populations for planning preventive measures as well as for care. The original sample studied in 1971/72 comprised three tenths of the 70-year-old population in Gothenburg (1148 *propositi*, 521 males and 627 females). A comparison between responders (85%) and non-responders indicated that the responder group was generally representative of the total population. In 1976/77 the survivors of this population were followed up (331 males and 413 females) and, at the same time, a new 70-year-old cohort of 1281 *propositi* was sampled for the purpose of cohort comparison. In 1980/81 a further follow-up is being conducted on the original population now at the age of 79 (about one half of the *probanda* are still alive). The second cohort will be followed up at the age of 75 in 1981/82. Because significant cohort differences were observed between the original cohort of 70-year-olds studied in 1971/72 and the second cohort studied in 1976/77, a third cohort comparison will be performed with a new group of 70-year-olds in 1982/83.

Investigations begin with a home call to establish basic personal data, dwelling conditions, financial situation, social and physical communication, previous migration, educational level, previous and any present occupation, need for care, consumption of health care and drugs. Certain observations and measurements have also been performed, e.g. a measurement of the light intensity at the habitual site of reading and a simple test of visual acuity. Later on, examinations are performed at the outpatient department of the geriatric hospital. All *probanda* undergo a general medical and ophthalmological examination, as well as clinical and laboratory investigations. Psychological, psychiatric, dental, somatometric and audiometric examinations are performed on representative subsamples, as well as a dietary interview and a body composition examination, study of lung function and a detailed study of the immunoresponse capacity.

#### 4.2.2 WHO epidemiological study on health care of the elderly

This study began with a meeting of investigators in 1976 and will be reported in 1982. The aim is to produce standardized data on various aspects of the life and health of elderly people and on their use of health services. The study is based on a questionnaire which uses packages of items covering health, functional status, use of services and way of life which, for the most part, have been tested in other surveys. Validated local language versions of a common questionnaire were administered by trained interviewers to samples of old people selected from 6 five-year age groups, from 60 to 89 years, in 16 centres in Belgium (2), Berlin (West), Finland, France (2), German Democratic Republic, Greece, Israel, Italy, Kuwait, Poland, Romania, Soviet Union and Yugoslavia (2). Some countries included a physical examination and special investigations, but this was not part of the basic protocol.

One of the national investigators of this WHO study described how the factual material obtained on the lives of the elderly might be used for the purpose of planning comprehensive community aid for the elderly. One of the limitations was that the samples were inadequate in representing the country as a whole. However, the study was of great methodological value since it provides indices that can be used in planning and in the identification of high-risk groups - for example, those living alone in unfavourable housing or economic situations with few visitors, few sociocultural activities and dissatisfied with life.

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<sup>a</sup> Readers who are aware of current or completed studies of this nature are invited to inform the Director, WHO Regional Office for Europe, attention Manager, Global Programme on Care of the Aged.

#### 4.3 Service and policy research

A review of studies of old people which have been conducted in the United Kingdom and that are relevant to the planning of health and personal social services indicates that they may be classified in five main groups. First, there are a number of studies which provide estimates of the prevalence of different dimensions of dependency - mental state, functional incapacity and incontinence. Second, there are studies which have attempted to assess the extent of unmet needs. Third, there are studies about the utilization of different services. Fourth, there are a large number of studies concerned with the inappropriate placement of old people in different institutions and fifth, there are a small number of studies designed to estimate service requirements.

##### 4.3.1 Study designed to estimate service requirements: the Clackmannan survey

A characteristic of such surveys is that they are often initiated by a central planning unit. In the study reported from the Clackmannan district of Scotland, measures of functional incapacity were first obtained: mobility, selfcare and housecare incapacity were developed from measures used by Sainsbury (15) and Townsend (16); mental state was assessed by interview using the Survey Psychiatric Assessment Schedule (17); and incontinence was assessed according to the respondent's answers to a number of specific questions concerning continence. Patients were then categorized according to various levels of dependency, based on the interval of time which may elapse between necessary episodes of help, ranging from a critical interval (those requiring help on demand), through short-interval and long-interval dependence to independence (18).

A model was then developed which related the various dependency categories to different "packages" of services. The model was developed within the context of the current policy of care in which the main emphasis is to enable people to live independent lives in the community. Different estimates of services required can be calculated from the model using survey data and based on different assumptions.

It was concluded that, in addition to the collection of data from different societies on the social characteristics of old people and on prevalence of dependency, emphasis should be placed on evaluative research, particularly evaluation of various methods of providing health services to old people.

##### 4.3.2 Open care for the elderly in seven European countries

The structure of the care services was the topic of a recent report on a study of the care of the elderly in seven European countries: Austria, Denmark, Greece, Hungary, the Netherlands, Poland and Yugoslavia. Such studies reveal the great variation that exists between countries in responding to the needs of the elderly: for example, the level of institutionalization ("closed care") of those aged 65 and above ranges from about 1% in Yugoslavia to more than 10% in the Netherlands. Such studies also serve to assist policy analysts, especially those concerned with the question of distributing resources between vulnerable segments of the society.

The topic of the study was "open care" services, categorized as basic remedial measures (for example, family doctor, home nursing and day care), household-related measures (for instance, home help services, social workers, meals-on-wheels, emergency call systems) or sociocultural and economic measures (such as mobility and transportation programmes and clubs).

This was not designed as a cross-national survey in a strong methodological sense and categories used for description do not fit each individual case; the term "home help service", as it is meant for instance in Austria, does not match with the understanding of home help services common in the Netherlands. The seven national studies were rather carried out according to a common list of "problems" and "solutions" indicating similar situations in the different countries.

##### 4.3.3 International study on the problems of the elderly

Another study which aims to draw attention to certain problems and solutions in different countries is the current Sandoz Institute International Study on the Problems of the Elderly, the aim of which is to survey existing and planned policies and programmes for the elderly. The study is being completed in a very short time, to provide information for the 1982 United Nations World Assembly on Aging. A common set of questions is being answered by a group of three experts, a health professional, sociologist and social planner in each of 16 developed and developing

countries<sup>a</sup> using a modified Delphi method. These experts take a generally pessimistic view of trends in national economies, which they foresee as being increasingly unable to cope with a growing elderly population. Some suggest that feasibility studies be done on new forms of support to help families to care for their elderly dependent members. Since many of the problems of old age have their solutions in early life, preventive medicine, self care, good nutrition, exercise and leisure activities are seen to be important elements of future programmes.

One of the national participants in the study felt that the Delphi methodology, not being quantitative, had limited use as a planning tool, although it could prove useful in generalizing ideas and in providing a general statement of the problems and key issues and reports of approaches used in other countries.

#### 4.3.4 Service and policy research in developing countries

The increasing number of elderly people in developing countries (see paragraph 1) has not yet attracted the attention of policy-makers and researchers. Developing countries are being obliged to use data obtained from studies conducted in other countries for the development of health policies for the elderly, although this is changing as national studies are developed. However, some policies have been introduced without evaluation of their impact on the wellbeing of the elderly in the community. The first step in developing indigenous research on the elderly is information collection (especially as to premature loss of function), and it is necessary to accelerate further steps towards evaluation of alternative forms of care and wellbeing in the local situation. This acceleration might be facilitated by technical cooperation on research among developing and developed countries, in the areas identified in Annex I. In developing countries, treatable conditions are often neglected by the elderly and research on this phenomenon is indicated in order to provide a basis for health education policies directed especially towards families, who have primary responsibility for providing care.

#### 4.3.5 Integrating health and social research

Breakdowns in the physical and mental health of old people are often determined by social, financial and environmental factors and medical solutions may only be palliative. Thus, in order to plan policies and programmes, a multidisciplinary approach is mandatory, and the problems of integrating health and social research were therefore discussed. First, health service and social researchers should pursue the common objective of developing scientifically sound and socially acceptable services which are delivered to the individual and the family within the community with their full participation. Next, the methodologies are important - the "how". Researchers have to put aside their disciplinary biases and use the methodology that is appropriate for solution of the specific problem.

The next question is "why", defining the problem and framing this in researchable terms with input from all the disciplines involved. One substantial area where integrated research is necessary is the development of indicators that allow one to monitor change and avoid "more of the same" expensive and inefficient solutions. Another practical suggestion is to integrate health and social services within research and training demonstration areas. Specific operational interventions might be assessed - for example, on the community management of incontinence - in a few centres around the world with different mixes of service provision. Sensory impairments were also suggested as "tracer" conditions for integrated health and social research.

#### 4.3.6 Does research influence policy?

Political research on the history of the development of policies for the elderly in the developed countries would benefit all nations. The interest of a few influential leaders appears to have been a potent force in promoting care of the aged and few welfare provisions for the aged appear to have emerged directly as a result of research. However, health and social researchers have kept up a spirit of enquiry as to how established care systems for the elderly work in actual practice and, for this reason alone, it is important to build up a cadre of people with the requisite social, epidemiological and service research skills in countries with a growing aging population.

The key information for policy formulation is to know what are the concerns expressed by the elderly. For realistic health policies in the developing countries, research should perhaps focus on assessing functional dependency in the later years of life and on identifying those among the elderly who are most vulnerable.

<sup>a</sup> Australia, Brazil, Egypt, France, Federal Republic of Germany, India, Israel, Italy, Japan, Kenya, Nigeria, Philippines, Poland, Sweden, United Kingdom and the United States of America.

## 5. Recommendations for future research

Gaps in knowledge and research priorities in the field of aging, as perceived by technical experts, policy-makers and planners from developed and developing countries are stated in the report of the WHO Preparatory Conference for the United Nations World Assembly on Aging. These are expressed in general terms, and the recommendations that follow in this paragraph and in Annex I are an expansion of these in the specific areas of social surveys, epidemiological studies, policy and health research. The goal of any national or international programme of coordinated research should be to achieve an increase in healthy productive life, not only the extension of life itself. This involves a broad, interdisciplinary approach to aging, and research should not be limited to the diseases of old age but should extend to those processes that affect function and which operate during earlier stages of the life span.

### 5.1 Social surveys and epidemiological studies

#### 5.1.1 Building on previous studies

Wider use should be made of successful studies which have been carried out or of studies which are under way, as illustrated in paragraphs 4.1 and 4.2 above, by repeating them or extending them in other countries. Appropriate modifications should be made as necessary, while ensuring comparability. It would be of considerable help to such research if WHO were to compile an inventory of standard instruments that could be made available to researchers studying elderly populations. It is especially important for national comparability to encourage researchers to use standard and well tested items. The inclusion of readily obtainable standard indices might also be included in the inventory. The range of topics included in such studies should be all those influencing health, in its broadest sense, such as housing, health services, leisure activities and social services, income, work and retirement, family and community support.

#### 5.1.2 Cross-national research

The World Health Organization should play an active role in promoting, coordinating, and monitoring multicentre cross-national studies; should participate in their planning and organization; should disseminate information about them and draw attention to conclusions that are relevant for policy-making at the national level. In doing this, WHO should, where feasible and desirable, collaborate and exchange information with other national and international organizations, both governmental and nongovernmental, in the health and social areas.

Such multicentre cross-national studies should be carried out with the participation of both developed and developing countries with the aim of enabling them to plan the progressive reorientation of services that are necessary to cope with the increased number of aging people that will appear in neighbourhoods, communities and countries by the year 2000.

#### 5.1.3 Lack of data from developing countries

There is almost a total lack of information on the status of the elderly in developing countries, where the following studies are particularly needed to provide a data base for policy planning:

- simple descriptive and prospective surveys of the socioeconomic and health situation of the elderly;
- the identification of priority social and health problems of the elderly.

Research questions on which there is a consensus of concern between developing and developed countries are presented in Annex I. These stem from the report of the WHO Preparatory Conference for the 1982 United Nations World Assembly on Aging, which concluded that "The differences in research priorities between industrialized nations and those of the third world should not prevent the development of meaningful collaboration, since many problems are of universal concern". Joint research in this area might help all countries to identify what is right in their respective societies, rather than what is wrong, and to build on existing strengths. For instance, it would be relevant in both situations to undertake studies of social support, such as familial and other noninstitutional interactions which affect health outcomes.

#### 5.1.4 Functional assessment

Research concern should focus on assessing function and dependency, especially to standardize functional classification. In this respect, the International Classification of Impairments,

Disability and Handicaps (19) would be a necessary research tool for the purpose of standardization and comparison between different studies.

#### 5.1.5 Usefulness of epidemiology to policy planning

The Workshop endorsed the usefulness to policy planners of well conducted epidemiological studies, as described in paragraph 4.2 above, and the general statements made in the Survey of Epidemiological Studies on Social and Medical Conditions of the Elderly concerning the aging process, vital statistics and the prevalence of disability and disease.

Epidemiological research should be directed towards intervention studies on prevention, considering multiple factors that are not yet fully operating in developing countries, such as smoking, inactivity, improper dietary and alcohol intake, elevated blood pressure and accidents.

Imaginative epidemiological studies are needed for the purpose of deriving strategies to reduce survival disadvantage among males, where this exists. Conditions that will increasingly present in health services and upon which epidemiological research could give leads as to prevention are senile dementia, which affects about one in five of the population aged 80 and over, hip fracture, arthritis, edentulism, accidents, and sensory impairments.

The World Health Organization should help to arrange placement of young scientists for training in the few institutions where epidemiological and social survey research is being conducted.

#### 5.1.6 Risk groups

Studies should be carried out to identify those among the elderly who are at greatest risk and to pinpoint their most urgent needs. In order to do this, it is necessary to define the indicators of risk which affect the wellbeing of the elderly, and to identify in particular those elderly persons who have multiple risk factors.

### 5.2 Service and policy research

Policy-makers face the problem of devising appropriate health programmes for the elderly at a reasonable cost. This problem can be helped towards a solution by research into the efficacy and cost-effectiveness of various alternative interventions. It is important in studying these alternatives that there be a respect for the choice of the individuals themselves. It is the responsibility of the researcher to report the results of their studies in a form that is readily understood by concerned policy-makers. A responsibility of teachers of professionals that is often neglected is the demonstration of how knowledge gained from research helps in formulating policy and a neglected research question is how research findings are utilized by policy-makers.

In devising policies and programmes for the elderly, there is a need to go beyond the medical model of disease control and to focus on the broader range of social and other factors that are important to the health of the elderly person. The common goal of applied health and social research should be to develop programmes that help the old person to maintain maximum functional autonomy.

#### 5.2.1 Research on the role of the family

Since families are the major care providers for the elderly in every society, service and policy research should focus on the nature of family relationships and how they can be supported and built upon in devising programmes for the care of the elderly. Study of the changing nature of these relationships is important in assessing future service requirements.

#### 5.2.2 Effect of mandatory retirement policies on health

Studies are required of the effect of major life events, such as disengagement from work, on morbidity and mortality in later life.

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<sup>a</sup> Basic scientific research also contributes to our knowledge for prevention - for example, physiological studies indicate that people can increase performance through training in advanced age, a fact that has considerable relevance to policies of health promotion.

### 5.2.3 Research on long-term care

There is a need for research into the provision of long-term care facilities in a variety of national settings, including developing countries. In this respect, the open care systems, as described in paragraph 4.3.2 above, should be studied as well as closed institutional systems. Such research should include study of organizational factors that impede the integration of health and social support for the elderly. Outcome measures for the evaluation of long-term services hardly exist and it is a priority to develop these.

### 5.2.4 Research on health knowledge attitudes and practices

While the possibilities for health promotion and prevention are known to health professionals, few studies have been carried out on whether old people share this knowledge, or whether they have the motivation or manifest the behaviour which promotes healthy and active life in old age.

### 5.2.5 Action research

The proposal is endorsed to incorporate into the planning process provision for "action research", namely the participation in the research project of those who are essential in acting on the findings or recommendations of the research.

### 5.2.6 Rehabilitation

Comparative studies are required on the effects of rehabilitation on physical, mental and social wellbeing.

### 5.2.7 Key questions for integrated social and health research

Three policy questions<sup>a</sup> were formulated upon which policy and health research needs to be targeted, namely:

- How could more resources be put into health promotion and prevention programmes?
- What needs to be done to maintain the vulnerable and frail elderly within the community? and
- How can high quality, cost-effective long-term care be provided?

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<sup>a</sup> Proposals for research addressed to these questions are attached as Annex II.

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Annex I

PROSPECTS FOR MAXIMIZING ABILITY AND MINIMIZING DISABILITY IN OLD AGE<sup>a</sup>

Proposals for research cooperation among developed and developing countries

1. Questions requiring collaborative research among social research institutes

How can positive attitudes towards growing old be established and existing negative stereotypes of old age be abandoned?

Do the facts support the generalizations made about the impact of modernization and urbanization on the elderly and their families?

Is it true, in general, that societies are fulfilling well their obligations towards elderly citizens?

How do the status and perceived wellbeing of the elderly compare in developed and developing countries, and how effective are the relevant social support systems?

What forms of social support are appropriate to help families care for their elderly members?

How will the changing nature of family relationships influence future service requirements?

What are the prospects for the year 2000 of the 345 million elderly in the developing world and the 240 million in the developed world?

2. Questions requiring research collaboration among epidemiologists

What are the trends in age-specific mortality in developing countries and have the aged in those countries more or less disability than their age-mates in the industrialized world?

What is the effect on the elderly in developed countries of preventive interventions based on factors that are not yet operating fully in developing countries, such as smoking, inactivity, improper dietary and alcohol intake, elevated blood pressure and accidents?

What prophylactic programmes could be introduced to reduce the many difficulties that elderly citizens encounter in most countries?

How to evaluate the effects of such prophylactic programmes?

How does the health status of minority immigrant groups of elderly in developed countries compare with that of age-mates in their country of origin?

What are the social and family characteristics of people with recorded evidence of long life?

Are contemporary cohorts of the elderly more able or less able than earlier cohorts and what factors account for cohort differences?

What strategies can be devised for reducing survival disadvantage in males, where this exists?

3. Questions requiring collaborative research among health economists

What are the implications to health and welfare provisions of the increasing number of old people?

What is the appropriate mix of preventive, curative and rehabilitation services needed for the growing number of old people?

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<sup>a</sup> Compiled from recommendations made during the WHO Preparatory Conference for the United Nations World Assembly on Aging and the present Workshop. Recommendations for fundamental research are excluded, since it is expected that this will be concentrated in developed countries.

How do care provision policies for the elderly compare in different countries, in terms of cost and effectiveness in maintaining functional ability?

4. Questions requiring collaborative research among political scientists

What are the dynamic forces and the historical processes that have generated health and social policies for the elderly in different countries?

What are the organizational factors that impede the integration of health and social support for the elderly in developed countries and can their genesis be avoided in developing countries?

5. Cooperative research activities that will require international support

5.1 Collaborative research projects

Provision of integrated community care within research and training demonstration areas.

Selective intervention programmes based on risk factors.

Interdisciplinary, multi-centre study on the management of the incontinent elderly within the community.

5.2 Research training

Exchange of research scientists:

- on social survey research methodology;
- on epidemiological research methodology.

Workshops and training courses on methods of epidemiological research.

5.3 Dissemination of research information

Monograph on standardized functional assessment of the elderly.

Publication on policy implications of cross-national research.

5.4 Meetings of collaborating researchers on specific topics

Cross-national socio-epidemiological surveys.

Senile dementia.

5.5 Collaborating research centres

Designation of an institution to act as a repository, on a worldwide basis, for survey instruments, standard items and indices related to the health and wellbeing of the elderly, as illustrated in paragraph 4.3.1 above.

Annex II

SOME EXAMPLES OF POLICY QUESTIONS AND RELATED RESEARCH NEEDS

Policy questions

How could more resources be put into health promotion and preventive programmes?

What needs to be done to maintain the vulnerable and the frail elderly in the community?

How can high quality, cost-effective, long-term care be provided?

Research proposed

- Definition of feasible preventive programmes
- Determination of individuals at higher risk of breakdown (e.g. smokers, drinkers, over- or underweight, socially isolated, bereaved) and state of efficiency, efficacy and cost of intervention programmes
- Epidemiological studies of the characteristics of the healthy old
- Measurement of the health and social characteristics of the aged in different settings (i.e. why are some independent and some not?)
- Definition of characteristics of groups at risk of breakdown and of institutionalization and of their health and social environment
- Perceptions and desires of potential clients
- Utilization and non-utilization of different services by groups of aged
- Outcome studies of policy options for different groups of aged
- Cost-effectiveness of alternative systems of care
- Assessment of the needs of the individual and the community for institutional care (using, for example, a system approach)
- Measurement of the quality of care at different levels
- Measurement of the cost effectiveness of the whole and component parts of the long-term care system
- Development of methods for monitoring utilization, standards and costs
- Design and evaluation of different "packages" of health care and social support

Annex III

STUDIES REVIEWED AND WORKING PAPERS

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Working papers

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2. Hyde I. Policy-oriented research on health of the elderly.
3. Parrish, C.J. Policy options for improving the health of the elderly in developed and developing countries.

Annex IV

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<sup>a</sup> Participation expenses not paid by WHO.

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Dr E. Tarimo, Director, SHS	1
<u>Regional Directors for:</u>	
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The Americas	1
South-East Asia	1
Europe	1
Eastern Mediterranean	1
Western Pacific	1
3. United Nations Centre for Social Development and Humanitarian Affairs	2
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