The Twenty-seventh World Health Assembly, recognizing that psychosocial factors can modify the outcome of health action, precipitate or counteract ill health and influence wellbeing, requested the Director-General to prepare proposals for strengthening WHO's activities in these fields.

The proposals in this report are intended to increase the effectiveness of health programmes in countries and have three medium-term objectives:

1. to apply existing knowledge in the psychosocial field to improve health care, particularly for those most in need;
2. to develop methodologies in collaboration with countries, so that relevant psychosocial information can be made available to health planners; and
3. to acquire new knowledge on which health action can be based, particularly concerning the needs of uprooted people and changes in family functioning under conditions of rapid social change.

To achieve these objectives it is proposed to introduce a psychosocial input into selected WHO programmes and evaluate its effect; to assist in the education and training of health workers; and to coordinate and stimulate research, with emphasis on increasing the research potential in developing countries.

The Director-General has the honour to transmit to the Health Assembly the present report and to draw attention to the summary records of the discussions which took place at the fifty-seventh session of the Executive Board dealing with this topic.1

The Twenty-ninth World Health Assembly may wish to consider the resolution proposed by the Executive Board in resolution EB57.R22.2

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The Executive Board is asked to consider these proposals and make recommendations to the Twenty-ninth World Health Assembly.
# PSYCHOSOCIAL FACTORS AND HEALTH

Report of the Director-General

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1. INTRODUCTION

The Twenty-seventh World Health Assembly (WHA27.53) requested the Director-General to "organize multidisciplinary programmes that would explore the role of these psychosocial factors and to prepare proposals for the strengthening of WHO's activities in this field". In response to this resolution, the Director-General prepared a report for the fifty-fifth session of the Executive Board entitled "Psychosocial Factors and Health" (document EB55.11). The Twenty-eighth World Health Assembly in resolution WHA28.50 decided that, "in view of the importance and complexity of the subject", further study was required to develop a detailed programme of work in the field of psychosocial factors influencing health, and in particular mental health and the functioning of health services; and requested the Director-General to submit a further report to the Executive Board at its fifty-seventh session.

2. SCOPE AND NATURE OF THE PROBLEM

2.1 Background information

This report was prepared taking into account a review of evidence concerning the interrelationship of psychosocial factors, health and health services and of the Organization's activities in this field. Also considered was the material submitted by 62 Member States and nongovernmental organizations in preparation for the technical discussions at the Twenty-seventh World Health Assembly; the recommendations of the Advisory Committee on Medical Research in June 1974 concerning psychosocial factors; the experience and contributions of the WHO Collaborating Centre for Research and Training on Psychosocial Factors and Health in Stockholm; and the results of consultations at national and regional levels, with members of expert advisory panels and with a provisional Steering Committee composed of health administrators.

2.2 Definition of psychosocial factors

For the purposes of the present report, psychosocial factors are defined as factors influencing health, health services and community wellbeing stemming from the psychology of the individual and the structure and function of social groups. They include social characteristics such as patterns of interaction within kinship or occupation groups; cultural characteristics such as traditional ways of solving conflict; and psychological characteristics such as attitudes, beliefs and personality factors.

These factors are interdependent, and the way in which they affect the healthy development and functioning of individuals cannot be understood without considering the more global aspects of society - the organization and division of work, the institutions and structures forming the sociopolitical systems, the values, norms and codes regulating the behaviour of individuals and groups, and the cultural heritage.

2.3 Psychosocial factors, health and health care

The range of conditions for which associations with psychosocial factors have been reported includes coronary heart disease, cerebrovascular disorders, hypertension, cancer, mental disorders, malnutrition, peptic ulcer, tuberculosis, rheumatoid arthritis, and many other communicable and noncommunicable diseases.

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2 See Annex 1.
3 See Annex 2.
Thus, low socioeconomic status is in many communities associated with shorter life expectancy, increased risk for mental disorders, higher infant mortality and cervical cancer among women; overall morbidity and mortality rates for lung cancer and hypertension have been found to be increased for first generation migrants from rural to urban areas. The onset of such conditions as tuberculosis, myocardial infarction, schizophrenia, and depressive illness is preceded by an excessive number of meaningful life events (e.g. death of a close relative, marriage, occupational changes). Attitudes, beliefs, and behaviour patterns play a direct role in the pathogenesis of noncommunicable conditions such as malnutrition, and in the spread of such communicable diseases as schistosomiasis, sexually transmitted diseases, and gastrointestinal infections.

Many prevalent and serious health problems result directly from individual behaviour. Accidents at work and on the road are frequently caused by monotony, emotional stresses (e.g. marital conflicts, job frustration), overstimulation from noise and traffic, and the abuse of alcohol and drugs. Cognitive and cultural deprivation is among the important causes of mental retardation and resulting disabilities. Dependence on alcohol, psychoactive drugs and nicotine has been regarded as a result of sociocultural pressures (e.g. as a means of achieving acceptance or as a reaction to increased responsibilities), or as self-treatment for mental or physical distress. High suicide rates have been found in areas characterized by overcrowding, high population mobility, and a large proportion of persons living alone.

Recovery or failure to recover from illness is also closely related to psychosocial influences, and in many physical and mental disorders sociocultural factors have been found to be more accurate predictors of recovery than clinical symptoms alone. For example, various social groups and whole societies have different mortality rates for the same disease conditions; different morbidity patterns characterized by a high proportion of geriatric disorders and disability have resulted from demographic shifts; and, regardless of the clinical severity, a major contributor to disability resulting from mental disorders, epilepsy and leprosy is the stigma which society attaches to these conditions. Such characteristics of the family as the emotional tension and the size of the household have been found to be associated with risk of relapse and hospitalization of psychiatric patients, and families in which one member has a behaviour disorder show a disproportionately large number of illnesses, accidents and chronic disorders.

Psychosocial factors have been increasingly recognized as a key factor in the success of health and social actions. Health workers who are socially distant from the people they serve may find their beliefs, values and goals incongruent with those of the community and therefore unacceptable. The mutual alienation engendered often leads to misuse of health facilities by members of the community and frustration and inappropriate or decreased effort on the part of health workers. In the selection and training of health workers, personality, motivation and the ability to relate to and communicate with people are some of the psychosocial characteristics that have been identified as being necessary if technical skills are to be put into practice effectively. Public health administrators and health team leaders require considerable psychosocial skills and knowledge in order to ensure job satisfaction among workers and effective care of those in need.

Rehabilitation of the disabled (such as the mentally ill, amputees and those suffering from leprosy) through drug therapy, vocational training, or prosthetics has only limited success if such psychosocial factors as the society's or family's tolerance of the disabled, physical access to facilities and economic conditions are not taken into account. Preventive work in the area of smoking, excessive alcohol consumption, and road traffic accidents is undermined if competing commercial interests are not simultaneously considered. The acceptance of other public health programmes such as immunization campaigns, fertility regulation, and environmental-sanitation also depends upon psychosocial factors, as do social programmes relevant to health such as urban planning, housing projects, rural development schemes, and the resettlement of communities. If these actions are to be effective in the prevention of disease and in the promotion of health and wellbeing, they must be based on an understanding of the culture, traditions, beliefs and patterns of family interaction.
The structure of health services influences and is influenced by psychosocial factors which, in turn, affect health and health care. The separation of certain kinds of services, for example mental hospitals, geriatric hospitals and leprosaria tends to reinforce negative attitudes (fear, stigma, low status) towards both patients and staff, and the environment of such institutions tends to create isolation, increased dependence and lack of initiative.

The importance of two-way communication and mutual understanding between health workers and the community (including lay participation in decision-making), a careful analysis of health-related beliefs and behaviour, and stimulation of the community's own response to health problems are parts of a psychosocial approach of particular importance in health interventions depending on the community's participation such as the provision of primary health care. Psychosocial factors are also of critical importance in the success of interventions in which coordination is required between the health services and other sectors such as the police and the school welfare authorities.

Psychosocial disadvantage is associated with a wide variety of both short-term and long-term disorders and problems in childhood. Family discord and disruption are associated with persistently disturbed behaviour and delinquency and later on in adulthood with problems in becoming parents and in establishing a normal family life. Chronic or recurrent mental disorder in parents is linked with an increased risk of psychiatric disorder in the children - partly because of the accompanying family discord and partly because of the social effects of disturbed parental behaviour. Children reared in one-parent families or in institutions are also more likely to have a wide range of troubles. A lack of stable relationships in early childhood (as experienced by children undergoing many changes of care) sometimes leads to a serious personality disorder. A very large sibship, low social status, and a lack of play or communication opportunities predispose children to intellectual impairment and educational difficulties, probably because of the importance of meaningful social experiences in facilitating intellectual growth. Psychosocial disadvantage tends to be much commoner in the cities than in small towns and as a consequence city children tend to have a higher rate of psychiatric disorder, delinquency and educational retardation.1

2.4 WHO's involvement in the field

Since its inception, WHO has applied psychosocial principles in many of its programmes.

Sociocultural and psychological factors have been recognized in a number of WHO programmes dealing with specific conditions (e.g. tuberculosis, geriatric disorders, cardiovascular diseases, mental disorders including drug and alcohol dependence, malnutrition, schistosomiasis, leprosy, onchocerciasis, sexually transmitted diseases), and with the delivery of health care. Concerning the latter, community attitudes and involvement, the migration of physicians and nurses, and the acceptability of public health and social actions such as immunization, sanitation, resettlement, and fertility regulation have all been the subject of WHO activities in the programmes directed towards strengthening of health services, health education, primary health care, the development of health manpower and family health. In the field of environmental health, where there has been increasing awareness of the human aspects, the Organization has been involved in housing projects and in studies of the working environment and road traffic accidents.

In the Organization's mental health programme psychosocial factors have been given particular attention. The early work on the emotional deprivation of young children had considerable influence on child care policies. In the field of mental retardation an intersectoral approach has been stressed, with coordination of social and medical action. There have been a number of activities concerned with particular social groups, such as adolescents and the elderly, and a series of publications issued on topics such as psychosomatic medicine, suicide and the teaching of psychiatry. Cross-cultural epidemiological studies have provided important clues about social factors that influence the occurrence and outcome of mental

1 A WHO Expert Committee meeting to deal with these matters is planned for 1976.
disorder. Training in mental health and behavioural sciences has been the subject of a number of WHO activities, including seminars, workshops and direct assistance to training programmes in countries.

The recent reformulation of the programme has provided further opportunities to take account of psychosocial factors. Current work includes: the development of new strategies of mental health care as an integral part of general health services, making maximal use of community resources; the development of cross-culturally applicable methods for the assessment of mental abnormality; the evaluation of simple and inexpensive treatments that can be used by primary health care workers; the development of mental health indicators and of mental health information systems adjusted to conditions in countries; and a study of community concepts and the cultural norms of healthy mental functioning in different socioeconomic settings.

In two groups of activities within the mental health programme psychosocial problems are the primary focus of work: alcohol-related problems and drug dependence. In the former projects have been formulated to assist countries in assessing community drinking practices, the nature and extent of alcohol-related problems, and the way the community responds to them. Action to improve community response through increased awareness of alcohol-related problems will be complemented by the collection of data on trends in consumption and their relationship to health and social conditions, to provide the basis for decisions concerning the production and availability of alcoholic beverages.

Activities concerned with drug dependence have been facilitated by the acute awareness of governments of the size and nature of the problem and of its international implications. Close collaboration with the United Nations Division of Narcotic Drugs and support from the United Nations Fund for Drug Abuse Control are enabling WHO to develop a series of action-oriented projects. These include: the establishment of prevention, treatment and rehabilitation schemes in a number of countries; a monitoring system capable of informing countries of the size of the problem and the effects of specific interventions and of contributing to a multinational data base making possible systematic examination of the role of psychosocial factors in this area; and the development of educational and training materials for use by different categories of health personnel and other groups dealing with drug-dependent people.

3. PROGRAMME PROPOSALS

3.1 General considerations

The WHO psychosocial programme could best contribute to other health-related programmes if it was incorporated into them at the country level. This means that a careful examination of existing and planned health programmes to determine which of them could benefit most from a psychosocial input must have high priority and should become an integral part of country health programming. To bring this about, coordination is needed between health administrators, decision-makers in the social sphere, and behavioural scientists at the country level. At the international level, coordination and collaboration would have to be intensified with the United Nations and the members of its system; (in particular ILO, UNESCO, the United Nations High Commissioner for Refugees, the United Nations Research Institute for Social Development and the United Nations Social Defence Research Institute) and with the appropriate nongovernmental organizations.

There has been widespread reluctance or failure to evaluate the outcome of social measures and decisions affecting health with the same stringency as is usually applied to the assessment of biomedical interventions. The evaluation of psychosocially-oriented interventions should therefore be a prominent feature of the proposed programme. The results of such evaluation would permit better utilization of resources and stimulate decision-makers to use more rational approaches in dealing with social issues. In order to facilitate evaluation, existing information systems need to be adjusted so that decision-makers have data about the psychosocial factors necessary for the planning and evaluation of health services in a usable form and without delay. For this, the development of adequate social indicators and the simplification and standardization of reporting methods and instruments are a prerequisite.
Projects to develop the necessary methodologies coordinated by WHO would therefore be a part of the programme.

The psychosocial input into health care delivery has to be provided through the personnel available. To achieve this, decision-makers and health workers should be made aware of the importance of psychosocial factors and of the social and psychological consequences of health action. A necessary feature of the programme therefore would be appropriate training and education at all levels of the health care provision system.

In planning and carrying out this work, it is of particular importance to ensure the applicability of concepts and methods to conditions in the countries in which they are used. Most behavioural science has been developed in the industrialized countries of Europe and America. The concepts, methods and findings of the studies done in these areas may not be applicable in other sociocultural settings, and new strategies and research techniques may be necessary to supplement the approaches to psychosocial problems in the developing countries. Moreover, particularly in a psychosocial programme, radical steps must be taken to avoid the donor/recipient relationship in which the developing countries are mere consumers of methods and projects prepared elsewhere. The fact that in many instances researchers in developing countries serve at best as data collectors for outside experts is contrary to the very nature of a psychosocial programme, in which the methods, concepts and approaches must be developed in the setting in which work takes place, by people who understand it and are part of it, and with a full understanding of the temporal and sociocultural dimensions of the problems under study. Projects undertaken in accordance with these principles and directed to the solution of specific problems facing the countries would therefore be undertaken as part of the programme.

3.2 Objectives and activities

Three medium-term objectives have been formulated:

3.2.1 The application of existing knowledge in the psychosocial field to improve health care

Specific needs for a psychosocial input have been identified in a number of WHO programmes, and some projects to provide it have already been started. An important and early function of the proposed psychosocial programme would be therefore to provide a focal point which would facilitate coordination of psychosocial projects undertaken in conjunction with various programmes of the Organization and ensure that knowledge and experience gained in the implementation of such projects is shared and further applied and thus lead to a more rational utilization of resources. Such coordination may facilitate the identification of specific needs for and the provision of psychosocial inputs in other priority programmes of the Organization.

An important common component of the various projects undertaken in conjunction with other health programmes is that of education and training. Concrete projects in this area would be useful as input in country health programmes and in a variety of WHO projects. Courses and curricula that provide the necessary psychosocial skills and knowledge and can be incorporated into the training of different categories of health and welfare personnel would therefore be designed and evaluated. For administrators and decision-makers, mechanisms would be developed to enhance their awareness of psychosocial factors relevant to health action and enable them to contribute actively to planning in other sectors. The organization in 1976 of a course with this objective is being considered by WHO with the assistance of the Swedish Government and in collaboration with the WHO Psychosocial Centre, Stockholm. Other practical approaches to promoting rapid and wide dissemination of such information would have to be developed.

3.2.2 The development of methodologies through collaboration with countries so that relevant psychosocial information can be made available to health planners

If a psychosocial component is to be taken into consideration in country health programming and in the evaluation of the success of health actions, specific information about it will be necessary. The methods now available cannot provide such information on a
wide scale; in many instances they have been produced in technologically advanced countries and there is little evidence about their suitability for application in other settings. The same is true for methods for the assessment of community attitudes and for the identification of factors that promote community care and self-care for sick or disturbed individuals.

It would therefore be necessary to assess the usefulness of existing methods and strengthen the capacity of countries to develop or adapt methods to meet their needs. The definition of psychosocial indicators and the elaboration and standardization of techniques for their measurement would also lead to the acquisition of a common language in the psychosocial field that would in turn facilitate the exchange and pooling of information and the application of knowledge. WHO can play a crucial role in such collaboration, which would not only produce specific methods and research techniques adapted to country needs but would also develop and strengthen the potential of countries to acquire and apply knowledge in the psychosocial field. Cross-culturally applicable methods of measurement, standardized definitions and other tools for international collaboration in the psychosocial area are necessary and would be developed through collaborative work coordinated by WHO.

Linked to the development and definition of indicators and of measurement techniques is the need to devise new methods for the collection and utilization of information. At the country level this means developing mechanisms for the rapid feedback of information to the decision-makers. WHO would provide assistance through the compilation of information adapted to consumer needs, collaboration with countries in establishing efficient information systems capable of handling psychosocial data, and wider utilization of the facilities of WHO collaborating centres.

At the international level, the creation of a data bank and information centre on published and ongoing work on psychosocial factors and health would make information available to a variety of users and enable countries to benefit from each other's experience. At present the relevant data are spread over several data banks, there is little information about work done in the developing countries or about ongoing projects, and the selection of key words and hierarchies is inadequate for the quick provision of information. Such a data bank could be managed by the WHO Centre on Research and Training on Psychosocial Factors and Health, Stockholm, which has already accumulated a large amount of relevant information.

3.2.3 Acquisition of knowledge on which health action can be based

The new knowledge necessary for more effective programmes can be obtained by a systematic effort to evaluate health actions and learn from failures and successes. In some instances, however, applied research would have to be undertaken to obtain information necessary for dealing with specific health problems. Clearly, priorities for such research would have to vary from setting to setting and country to country.1 The central goal of WHO's activities concerning research in this area would be to strengthen the capacity of countries to undertake psychosocial research. Only in this way would it be possible to ensure the acquisition of relevant and valid information in countries on a continuing basis.

There are two topics of direct and immediate relevance to the area of psychosocial factors and health: uprooting and family functioning. Interest in studies on these two topics has been shown in many countries, and their importance was recognized during the Technical Discussions at the Twenty-seventh World Health Assembly in 1974, which were concerned with the psychosocial environment. The United Nations, the United Nations High Commissioner for Refugees, ILO and UNESCO have expressed interest in collaborating with WHO in this study.

1 Several studies have been initiated in the WHO Collaborating Centre for Research and Training on Psychosocial Factors and Health, at the request of the Swedish Government (see Annex 2).
Uprooting has been recognized as the common factor in a number of psychosocial high-risk situations such as migration, urbanization, resettlement and rapid social change. It occurs in most countries of the world and is often associated with meaningless violence, the abuse of drugs and alcohol, criminality and reactive mental disorders. In spite of the considerable interest and concern about this problem, there is relatively little positive knowledge on which to base intervention programmes. Projects would therefore be undertaken to identify high-risk groups among the uprooted populations and to test strategies aimed at reducing specific strains and stresses or providing services and forms of care best suited to the needs of such groups.

Though anthropologists and other social scientists have carried out studies of the characteristics of family functioning in different cultures, relatively little is known about the changes in those characteristics that take place as the result of rapid social transition, stress as a result of sickness, or a move to an urban environment. Data obtained from studies concerned with these issues could be of direct use in a number of health programmes and help prevent the untoward consequences of social, economic or legal action.

The study of family functioning would be collaborative, link the family health and mental health programmes, and involve WHO collaborating centres and other institutions. It would be cross-cultural and comparative and aim at assessing the characteristics of the family, including its structural attributes (size, generational composition), its biological and medical characteristics (e.g. fertility, occurrence of physical and mental disorder), and its functioning under conditions of rapid social change, specific stress (e.g. when a family member is sick) and health interventions.

4. SUMMARY

Because of the complexity of the psychosocial field, the scarcity of trained manpower and the limited resources in the countries in which the programme must be implemented, a pragmatic approach has been adopted in the proposals put forward.

In essence the programme aims at the application of available knowledge through better coordination of projects at the country's level and at WHO. This coordination between ongoing projects and between agencies and authorities that can provide a psychosocial input in health programmes will be combined with work in the field of education and training, which is the common element of all projects dealing with psychosocial factors. Two additional objectives and the activities leading to their implementation have also been proposed: the development of methodologies to permit a psychosocial input in health programmes in the countries, and research on uprooting and family functioning, to provide knowledge needed in a number of priority health programmes.

The activities planned in pursuance of these three objectives would take approximately five years to complete, after which the programme would be reviewed on the basis of the results obtained, to decide on its future orientation.

Certain activities would be continuing throughout this period including: the coordination and strengthening of ongoing projects; the identification of programmes that would particularly benefit from a psychosocial input and the provision of such an input; and the evaluation of the psychosocial results of health actions undertaken in countries and of activities concerning education and training. In addition, the emphasis in the first year of this 5-year period would be on establishing close collaboration with the countries; in the second and third years on the development of methods and on the proposed research; in the fourth year on stimulation and evaluation of health interventions based on new knowledge acquired in the programme; and in the fifth year on evaluation of all the programme activities.

Funding of a portion of the proposed activities would be met through currently available regular budgetary sources. At the same time, every effort would be made to secure resources from external donors.
The recognition in many countries that the human factor is at least as important as the technical factor in overall development and that there are numerous problems that cannot be resolved without the consideration of psychosocial factors; the need that countries have expressed for a programme in this area; and the availability of knowledge necessary for intervention; all strongly suggest that a programme on psychosocial factors and health is timely, likely to yield practical results, and, therefore, deserving of the support of Member States.
PSYCHOSOCIAL FACTORS, HEALTH AND HEALTH SERVICES

(A selective review with particular reference to WHO activities)

This review of relevant work in the field was undertaken to identify the appropriate points of entry for an effective WHO psychosocial programme. It focuses on the effects of psychosocial factors on individual health and the delivery of health services. Particular emphasis is placed on WHO's past and current activities in this area.

(1) Psychosocial influences on the incidence of disease

Social class is defined differently in different societies and by different investigators. Nevertheless, it correlates highly with economic conditions, education, way of life, attitudes and expectations, and exposure to different types and degrees of stress. In a review of the literature it has been suggested that, although the social classes may not differ significantly regarding the total amount of stress experience, the types of stress and, more importantly, the availability of external resources and internal mechanisms protecting the individual from developing a pathological response to stress differ among the social strata. The relationship between health programmes and socioeconomic development have been reviewed in earlier WHO publications.\(^*\) Class-related living conditions may explain findings indicating that low socioeconomic status is associated with a shorter expectancy of life at birth, an increased risk of developing some mental disorders, poorer indices of growth and health in childhood, higher infant mortality, and prematurity and/or low birth weight.\(^4\) Class-related behavioural patterns (e.g. age at marriage, fertility) have also been suggested as possible reasons for the higher prevalence of cervical cancer among women in lower socioeconomic groups and of breast cancer and cancer of the corpus uteri among women in middle and upper socioeconomic strata.

Cultural change, migration, urbanization and industrialization can have widely varying consequences - positive and negative - for the health of different population groups and individuals. Adverse effects are usually observed in situations of rapid change which strip away the habitual supports and protections with which traditional culture surrounds the individual. Overall morbidity and mortality rates for lung cancer (even when smoking habits were excluded) have been found to be increased for first-generation migrants from rural to industrial areas, as compared with second-generation individuals of the same origin.

A study in Africa found that adherence to traditional beliefs and values was associated with lower blood pressure in members of extended rural families, but individuals who maintained such beliefs after having moved to the city had an increased risk of hypertension. Evidence exists suggesting that populations of the same ethnic and, presumably, same genetic stock can exhibit very different morbidity patterns if exposed to different cultural influences; for example, compared with the general population in Japan, the Japanese living in the United States of America have an excessive death rate from cardiovascular and cerebrovascular diseases but, as noted in a WHO expert committee report,\(^5\) lower death rates from gastric cancer.

The earlier interest in identifying specific constellations of external events, physical and mental constitution, intrapsychic conflicts, and hypothetical "mental mechanisms" that trigger off maladaptive physiological responses and produce specific psychosomatic disorders

\(^*\) See list of references, pp. 22-25.
involving tissue change (such as bronchial asthma, peptic ulcer or ulcerative colitis) has been noted by a WHO expert committee which recommended more emphasis on approaches focusing on the general, non-specific effects of psychosocial variables on the risk of developing a variety of illnesses. (6) It has been pointed out that in developed countries the majority of episodes of illness of all kinds that occur over a period of time in a population tend to cluster within a relatively small proportion of individuals, and the theory has been propounded that these individuals may have in common some psychosocial characteristics such as experience of the environment as threatening. The epidemiological method of standardized recording and counting of units of "life events" affecting the individual has demonstrated that the onset of different conditions (such as tuberculosis, myocardial infarction, schizophrenia, or depressive illness), is preceded by an excess of life events that probably facilitate in a non-specific way the recurrence of the disorder.

Occupational stress and strain are a problem of growing concern. A WHO study group has reviewed the mental health consequences of automation. The incidence of ill health in a variety of occupations has been found to be associated with job dissatisfaction, uncertainty about the future, boredom, low participation and poor social support from co-workers and supervisors. A current WHO project is concerned with the health consequences of shiftwork in industry. Research on the pathogenic mechanisms and health effects of exposure to different stressors, especially in relation to working conditions, is being carried out by the WHO International Research and Training Centre on Psychosocial Factors and Health in Stockholm.

The association between psychosocial stress factors and cardiovascular disorders has been studied particularly extensively. Following observations on "epidemics" of hypertension in situations of continuous stress (e.g., in combat conditions or during the siege of Leningrad), hypertensive responses have been found to occur more frequently in minority groups, among recent migrants from rural to urban areas, and in a variety of occupational situations, especially those characterized by high noise levels. Evidence, however, that such hypertensive responses to stress may be the prelude to chronic hypertensive disease is limited. Some studies have demonstrated that periods of psychological tension are accompanied by increased blood cholesterol levels, and a large number of observations suggest links between sociocultural factors and coronary heart disease. The effects of stress in the urban environment on the occurrence and outcome of cardiovascular disorders are the subject of WHO studies in Europe (Kaunas, USSR, and Rotterdam, Holland) and in the Western Pacific Region.

An important perspective has been opened by multidisciplinary research based on the concept of stress which emphasizes the role of general, presumably phylogenetic, adaptive responses to a large variety of external stimuli mediated through neuroendocrine mechanisms. In a series of multidisciplinary symposia organized in collaboration with the University of Uppsala and the WHO Collaborating Centre on Research and Training in Psychosocial Factors and Health, Stockholm, a detailed review was carried out of current knowledge about the role of psychosocial stimuli as stressors. The symposia dealt with: the psychosocial environment and psychosomatic diseases; childhood and adolescence; female and male roles and relationships; and working life. (8,9,10,11) An important topic discussed in these symposia was that of behavioural "coping strategies" for dealing with stress that could be of particular importance in the prevention of morbidity and disability. A number of these coping strategies have been described, for example the feeling of the environment as predictable that seems to facilitate adjustment to stress. The degree to which coping strategies are universal or even similar in different cultures is not known.

Behaviour and attitudes conditioned both by culture and by the physical environment play a direct role in the inception and spread of widely prevalent noncommunicable conditions like malnutrition and communicable diseases. This has been recognized, for example, in the WHO project on schistosomiasis in the Lake Volta area, which demonstrated that a sociological approach to the health-related behaviour of individuals can suggest specific ways to increase the effectiveness of prevention of a communicable disease.
(2) Psychosocial influences on the course and outcome of disease

Recovery or failure to recover from illness is also related to psychosocial influences. The different mortality rates for the same disease conditions that have been reported for various social groups and whole societies reflect particularly the importance of differences in social and economic conditions for the outcome of disease. The significant demographic shifts that have followed economic development in industrialized countries have resulted in a different pattern of morbidity characterized by a high proportion of chronic disorders such as geriatric diseases\(^{12}\) and disability. In addition, the introduction of new technology has resulted in psychosocial consequences that were not the focus of attention before, as noted by a WHO study group that considered the mental health aspects of the peaceful uses of atomic energy.

The stigma that society attaches to certain diseases, for example mental disorders, epilepsy\(^{14}\) and leprosy\(^{15}\) has been described in WHO and other publications as being a major contributor to disability resulting from such conditions, regardless of their clinical severity. Even in the absence of stigma, social factors such as the complexity of the modern urban environment play an important role in the genesis of disability.

Social conditions and psychosocial factors also play a direct role in the process leading from acute to chronic disease and impairment, and then to disability. This has been clearly recognized in the development of the WHO programme on disability prevention\(^{1}\) in the proposals for the inclusion of separate codes for impairments and handicaps in the International Classification of Diseases, and in a recent WHO-supported study in Belgrade\(^{16}\).

Sociological studies have pointed to the importance of the expectations, prescribed patterns of behaviour, and value concepts inherent in each society's stereotype of the "sick role" and to the complex interactions between the symptoms of disease and their perception by the individual and the social environment that result in the adoption, maintenance or rejection of the "sick role".

These aspects of the problem have been particularly clearly demonstrated in relation to some of the mental disorders. The importance of community attitudes to the mentally ill was reviewed by a WHO expert committee on mental health over 15 years ago\(^{13}\). Schizophrenic patients discharged from hospital are at different levels of risk of relapse, depending on the amount of emotional tension in the family to which the patient returns. The term "social breakdown syndrome" has been suggested to describe the deterioration of personal habits and the loss of activity, aspirations and ability to communicate that accompany chronic disorders and constitute the nucleus of social disablement.

Fairly consistent findings in different cultures suggest that the characteristics of the individual's immediate social environment, e.g. participation in a cohesive family and the availability of group support, function as buffers against the influences that cause disease or disability. Thus, first admission rates for psychiatric disorders in the United States of America have been found to be lower for members of larger households and higher for members of small households\(^{17}\). At the same time, families in which one member has a psychoneurotic or other behaviour disorder show a disproportionately large share of illness, accidents and chronic disorders; this further confirms the contention that the family is the focal point of important influences on individual health. On the other hand, family structure affects the health of its members, as shown for example in WHO's collaborative study on social and psychological factors affecting breast-feeding behaviour and in a recent review of influences of "cycles of disadvantage" on the health of the child.

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\(^{1}\) Disability prevention and rehabilitation, document EB57/WP/1.
Evidence from a number of studies suggests that both in physical conditions and in serious mental disorders, factors related to the social and cultural environment play a major role in determining the course and outcome of the conditions, and are more accurate predictors of recovery or lack of recovery from illness than clinical symptoms alone. In the follow-up phase of the WHO collaborative project, the international pilot study of schizophrenia, patients in different countries suffering from schizophrenia of initially similar severity were found to have strikingly different courses and outcomes. The proportion of patients who recovered fully and did not suffer social impairments was considerably higher in the developing countries, the proportion of patients in whom the disorder became chronic and disabling significantly higher in the developed countries taking part in the study.

(3) Behaviourally determined disorders

Much attention has been given in recent years to conditions related to dependence on alcohol and other drugs (including nicotine), which show a trend of increase in many countries; and it has been suggested that other behavioural disorders such as inveterate gambling, overeating and certain sexual perversions may be due to similar underlying causes. The pathogenetic mechanisms are far from clearly understood, but are ascribed to a complex combination of psychobiological and sociocultural factors and are often explained as learned responses.

Since problems related to the use of alcohol and other drugs may occur at the same or different times in the same person, and since there are many similarities between their psychosocial causes and the necessary preventive and treatment measures concerning dependence on alcohol and dependence on other drugs, a WHO expert committee has recommended that, at least at the national level, such problems should be considered together for planning purposes. The committee stressed the need for the development of comprehensive programmes to meet the physical, psychological, social, economic and other problems arising in relation to the drug-dependent person, his family and society in general.

These matters were explored further by a European Regional Office working group on health education programmes concerning drug abuse in young people and by a WHO interregional course in 1971 and seminar in 1972 on national programmes on problems of alcohol and drug dependence. It was found that parliamentary commissions or coordinating agencies had been established in several countries with representatives from various ministries and other bodies to ensure a multidisciplinary approach to the problems concerned. More recently (1975), a European Regional Office symposium on the planning and organization of services for alcoholism and drug dependence noted the psychosocial aspects of rehabilitation and observed that treatment may be predominantly medical in the initial phase but, as the focus shifts towards reintegration of the individual into his family and community, the emphasis becomes increasingly multidisciplinary.

In preparation for a WHO meeting in 1975, extensive reviews were prepared of the social, psychobiological, psychiatric, economic and legislative aspects of disabilities related to alcohol consumption. It was clearly shown that, whereas a proportion of persons who consume considerable amounts of alcohol develop an alcohol-dependence syndrome, many heavy drinkers do not but are affected by other psychological, social and physical consequences, which in turn have repercussions on the family and wider community.

Many countries have reported trends towards an increase in alcohol-related problems among women. This may be linked to increasing emancipation, the decline in the size of families and the increase in female responsibilities, including employment outside the home. At the same time, the age of onset of alcohol-related problems is falling in many areas. A recent report brings evidence of an at least 30% increase in alcohol consumption between 1960 and
1968 and shows that changes in the overall consumption of alcoholic beverages have a bearing on the health of the people in any society.\(^{22}\) Control of the availability of alcohol thus becomes a public health issue. Therefore, in addition to measures such as public education and early identification and treatment of persons with alcohol-related problems, other preventive strategies have to be considered such as limitations on the number and type of outlets, the content and types of beverage permitted, and the regulation of hours of sale and of marketing and profit as well as pricing and taxation.

Combinations of psychosocial factors may result in one or another of the dependence disorders. Thus, where the host and environmental factors remain the same, change in the availability of the agent may merely result in change in the type of dependence; and change in the environment alone may sometimes result in apparent remission of the disorder. An illustration of this was seen among the armed forces returning from Viet-Nam, many of whom had become dependent on heroin. On follow-up in their home communities a few months later, only a small percentage were still using heroin; however, for a considerable number the change in environment merely altered their drug use pattern and they became heavy consumers of alcohol. The recently published WHO manual on drug dependence\(^{23}\) outlines possible action to reduce or eliminate environmental factors related to drug dependence such as attempts to reduce the social and economic stress, the blocked opportunities and the sociocultural pressures that encourage the nonmedical use of dependence-producing drugs.

Drugs that have long been in use in certain parts of the world are now creating problems in other parts. Thus the use of cannabis and opiates has spread in Europe and North America, while alcohol is increasingly being used in India, Pakistan, and some North African and Eastern Mediterranean countries.\(^{24}\) Another notable trend is the change in patterns of use of drugs by individuals from the middle and upper social classes. An increasing tendency to multiple drug use has been observed, involving a wide variety of drugs with different effects.\(^{24,25}\)

Many studies have reported that heavy drinkers are strongly represented among persons who attempt or commit suicide, and a high frequency of alcoholic parents has been found among young people attempting suicide.\(^{26}\) It has been suggested that dependence on certain other drugs may be an alternative to suicide. There appears to be a particularly high risk of suicide during withdrawal from drugs. As among alcoholics and drug-dependent persons, those known to be suicidal do not appear to show any consistent pattern of psychological attributes. Groups with a high risk of suicide include in most areas of the world the aged, especially recently retired males; university student populations; and persons suffering from depressive illness. High suicide rates have been found in geographical areas with high indices of social disorganization (overcrowding, a high proportion of persons living alone, mostly in boarding-houses, and cheap hotels, a high incidence of alcoholism, drug dependence and criminality and a high population mobility). Findings in relation to attempted suicide have been similar. In the WHO European Region the problem of suicide in young people was the subject of a working group held in Zagreb in 1973\(^{27}\) and of a conference held in Luxembourg in 1974.\(^{28}\) Case histories of suicide and attempted suicide show a more frequent history of broken homes in childhood than the general population shows; in some countries this is true also of persons dependent on alcohol and drugs.

From some countries, very considerable increases in rates of non-fatal self-poisoning among young people have been reported in the last few years.\(^{29}\) These are often interpreted as a "cry for help", although on interrogation the young people are frequently ambivalent about whether their intention was to die. The desperate situations in which they find themselves are sometimes related to increased independence at an early age, and in some cases to unpreparedness to accept non-fulfilment of their desires.
Annex 1

The incidence, course, outcome and consequences - both individual and social - of certain communicable diseases are particularly strongly influenced by psychosocial factors. In many parts of the world alarming increases in sexually transmitted diseases, for example, have been noted. There appear to be clear causal relationships with such psychosocial factors as changes in attitudes towards sexual activity and promiscuity, in part related to the increased availability and use of contraceptive techniques and of treatment for the sexually transmitted diseases. These matters were discussed at a WHO meeting on health education in the control of sexually transmitted diseases held in Geneva in November 1974 and at the Technical Discussions held during the Twenty-eighth World Health Assembly on "Social and health aspects of the sexually transmitted diseases: need for a better approach". The Health Assembly recognized the need for a "fuller appreciation of the public health aspects of sexually transmitted diseases" in its resolution WHA28.58.

The psychosocial aspects of the etiology and management of mental retardation have been considered in several WHO activities. Among the causes of intellectual retardation, cognitive as well as cultural deprivation has been shown to play an important role. It has further been shown that psychosocial and educational assistance, as well as medical care, can do much to alleviate the condition and help a percentage of the mentally retarded to assume a useful role in society. In their management, stress is increasingly being laid on the "normalization principle", emphasizing the support of the family in the care and training of their mentally retarded members; and on the use as far as possible of general education, health and leisure-time facilities for the mentally retarded rather than the establishment of separate facilities. Considering that, according to presently available knowledge, mental retardation affects at least up to 3% of a population, the Health Assembly recognized the need for research in this area in its resolution WHA28.57, stating that "epidemiological, psychosocial and biological research in this area should be encouraged.

Road accidents are responsible for more than 250 000 deaths each year and over 30% of all deaths in the 15-25 age group. Contrary to the belief that road deaths are a matter of concern only to the highly industrialized countries, the road accident problem has risen in developing countries. For example, the road death toll per 10 000 vehicles in India is 10 to 15 times that of the United States of America or the United Kingdom; in Kuwait there has been a threefold increase in road accidents in 10 years; and in Kenya road deaths per passenger miles are several times higher than in the United Kingdom and the United States of America. Psychosocial factors are at least as important as physical strain in the causation of accident-proneness. They include decrease in alertness due to the monotony of driving, overstimulation from noise and traffic jams, and emotional stresses caused by marital conflicts, job frustration and economic problems. Abuse of alcohol and drugs is often a concomitant causal factor, a fact the Twenty-seventh World Health Assembly recognized in resolution WHA27.59 on the prevention of road traffic accidents. The same is true for occupational accidents, neither the frequency nor the severity of which has diminished in the past few decades, thus indicating the limits of technical prevention. Here alcoholism plays an important role, but according to the modern conception of prevention special attention is given to all the possible factors, particularly the psychosocial ones which, through their interaction with material factors, may change the risk into a true accident.

(4) Psychosocial factors and health services

There has been widespread recognition in recent years of the profound problems involved in providing health care. In developing countries, where the majority of people have no access to basic health services (although there may be many traditional forms of health care), the key issues have been identified as coverage, cost and acceptability, in technical, individual and social terms. In industrialized countries where medical care has become

increasingly costly and technically complex, dissatisfaction with existing systems is now expressed, together with concern over their effectiveness in the relief of human suffering. These problems in which psychosocial factors play a major role have been identified as important areas for WHO action\textsuperscript{2,3} and are reflected in a number of ongoing programmes such as those on primary health care, disability prevention and health manpower development.

**Health workers**

Emphasis on teamwork and on a shared, clearly defined and attainable goal has led to persistently high morale and remarkable levels of work under adverse conditions in the smallpox eradication campaign and in a series of health programmes in China, India, Indonesia and Tanzania, described in a recent publication by WHO.\textsuperscript{38} These examples clearly demonstrate that the motivation, attitudes, perception and social position of the health worker in relation to the community are at least equally important as technical skills and knowledge.

Health workers who are socially distant from those they serve may find that their beliefs, values and goals seem incongruous and unacceptable to ordinary people. They may be seen as outsiders and communication between them and the people may be distorted by mutual prejudices and fears. In seeking to overcome these barriers there is a danger that health workers will "oversell" themselves and stimulate expectations of health care that cannot be met. The end point of such a process of social and psychological alienation is frequently low morale, frustration and decreased work output among health workers and low acceptability to and inappropriate use of health facilities by the people. An important indicator of this situation may be a high rate of migration of health workers, a problem investigated in a WHO multinational study of the international migration of physicians and nurses.

The importance of relating the selection and training of health workers to their subsequent roles and taking into account their attitudes, motivation and satisfaction has been reflected in the Director-General's report on "Health Manpower Development".\textsuperscript{4} At present, although selection is clearly a crucial point in determining the psychosocial characteristics of health workers and their suitability for health careers, little or no account is taken of this in practice. Willingness to work in rural areas and under difficult conditions and ability to establish good relations with other health workers and the public may be more important than evidence of academic performance. In a busy public environment such as a factory or marketplace, an outgoing, resilient person may provide a more adequate health service; in family planning services a sensitive individual with the quality of empathy is likely to function better. Yet educational achievement remains the main criterion of selection, in spite of the availability of knowledge of the importance of such factors as the candidate's personality traits and social bias in selection.

The training milieu and experience profoundly influence the subsequent attitudes and functions of health workers.\textsuperscript{39} Trainees may adopt inappropriate attitudes and beliefs during their training, for example an undue preference for a specialist rather than a generalist career or an overemphasis on curative action at the expense of preventive action.\textsuperscript{40}

\begin{itemize}
  \item \textsuperscript{1} Annual Report of the Regional Director for Europe, 1975.
  \item \textsuperscript{2} Resolution WHA28.88, Promotion of national health services relating to primary health care, WHO Official Records, No. 226, 1975, p. 53.
  \item \textsuperscript{3} Resolution of the Regional Committee for Europe EUR/RC25/R3, Health care of the elderly.
  \item \textsuperscript{4} Health Manpower Development, document EB57/21.
\end{itemize}
Social class prejudices may also be acquired during training as a result of the perception by trainees of the social prestige of their teachers. A recent WHO publication has underlined the importance attached to the "moral education" of feldshers in the USSR, its aim being to develop a socialistic attitude to work, a feeling of responsibility for the task assigned, and a sense of collective purpose and discipline.

In addition to knowledge drawn from specific disciplines such as sociology, psychology and anthropology, the need for a continuous element in medical education devoted to improving skills in human relationships has been stressed. The place of behavioural sciences and mental health in medical education has been discussed at a number of WHO seminars organized by AMRO, EURO and SEARO. There has also been some increase in recent years in behavioural science teaching in schools of public health. These activities could be complemented by others laying more emphasis on the application of psychosocial knowledge to the training of other categories of health personnel. In this way it may become possible to organize training activities that would take psychosocial principles into account, such as ensuring that initiative and practical work are encouraged within the training experience and rewarded as much as academic performance; maintaining the contact of trainees with and their awareness of the community at large and fostering attitudes and beliefs leading to an acceptance of a wide and flexible range of tasks in health work; preserving and enhancing, through practical experience, the ability of trainees to communicate meaningfully with individuals, families and other social groups and to understand their needs.

In addition, the specific psychosocial skills and knowledge required by particular groups of health workers should be defined in relation to the nature and environment of their future work in the light of, for example, local beliefs and taboos concerning foods for nutrition work; the social welfare provisions for rehabilitation work; and aspects of sexuality for family planning and gynaecological work.

The principles concerning the selection and training of health workers must also be applied during their subsequent working careers. Health administrators and team leaders need to have considerable skills in human relationships and to be aware of factors contributing to job satisfaction, individual initiative and the prevention of interpersonal conflicts. Their awareness of the fact that even apparently limited administrative changes may have widespread and unanticipated psychological consequences will help them to predict and monitor such effects and lead to direct application of psychosocial knowledge in policies on posting, length of assignments and rotation of posts, in devising systems of special allowances, and in defining the roles of health team members. The latter has been carefully considered in an expert committee meeting forming part of the EURO long-term programme in mental health.

Exchange of experience between categories of health workers and in-service training are important ways of increasing mutual understanding leading to better working relationships. This can be achieved by regular meetings of staff (at local, regional and national level), temporary exchanges of posts (for example, chief nurses in mental hospitals and general hospitals taking over each other's work for short periods), multidisciplinary and team training, and a variety of other measures. The series of multidisciplinary workshops on mental health service organization in Nigeria, held with WHO support, has demonstrated the relevance of these approaches in a developing country.

### Health interventions

Intensive efforts to rehabilitate disabled people (such as the mentally ill, amputees and those suffering from leprosy) through individually based efforts (drug therapy, vocational training, prosthetics, surgery and reassurance) have very limited success unless environmental factors such as society's tolerance of the disabled, the attitudes of patients' families, problems of physical access and the need for opportunities for work are also taken into
account. Efforts to prevent smoking or excessive alcohol intake through modifying individual attitudes have been undermined when there are simultaneous commercial campaigns to promote the sale of tobacco and alcohol. Provision of wastes disposal facilities has achieved little where individuals were not motivated to make use of them.

The regulation of fertility is another example of the need to take culturally determined beliefs and attitudes and the felt needs of communities into account in the planning of programmes. The establishment of an "Acceptability Task Force" shows the Organization's recognition of the need for work on these problems.

Although the importance of psychosocial factors in immunization programmes was recognized nearly 150 years ago by Gaen in 1835, many critical issues that limit or increase acceptability are not yet properly understood. Acceptance rates vary widely and a number of useful strategies are available and being used (e.g. the use of trusted local staff rather than outsiders, contact with and support by important and influential local leaders and quick action to counteract rumours and false information concerning the nature and purpose of immunization).

In the case of very young children, health interventions are directed jointly at the mother and child. A keen awareness of the strong emotional forces involved in the mother/child relationship is important. The harmful consequences of emotional deprivation in early childhood was the subject of an early and influential WHO publication.

Seeking or not seeking health care depends on the strength of opposing forces. An individual may perceive a danger or threat to his health or feel discomfort or pain. As a result he will be "pushed" towards health care, but the strength of this push will depend on the amount of discomfort, the degree of perceived danger, and the extent of his belief that these will be decreased through health care. Ease of access, convenience, and the "visibility" of health care facilities (all of which are influenced by cultural factors) have a "pull" effect; they tend to increase the likelihood of an individual seeking health care. This is an important principle in planning health facilities for groups that may have ambivalent attitudes or be reluctant to seek care (as shown for example in the WHO international collaborative study of dental manpower systems).

An administrative structure is a necessary part of health services, but certain structural features are undesirable. The separation of certain kinds of services, for example, into mental hospitals, geriatric hospitals, and leprosaria, tends to reinforce negative attitudes (fear, stigma, low status) towards the individuals involved in the separated service (both patients and staff). Such services may also take on the features of a "total institution", with a lack of contact with the outside world and an inflexible and closely controlled internal social structure, so that patients become increasingly dependent and lacking in initiative. Inactivity, low self-esteem, lack of personal possessions and constant arguments over trivial matters characterize patients in such institutions. Remediating such a state of affairs requires psychosocial skills. The mental health programme in Jamaica, supported by AMRO, is an example of a carefully planned attempt to change the image of a large custodial mental hospital by improving facilities within the hospital, phasing down the hospital population and integrating mental health into the general health facilities on the island.

Another problem that can arise in a health service structure is inequitable distribution of resources, so that central institutions in large towns are better equipped and staffed and enjoy a higher status than peripheral units. Such a pattern inevitably gives rise to

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1 Disability prevention and rehabilitation, document EB57/WP/1.
dissatisfaction and low morale among staff in the peripheral units, while the centralized units may become increasingly involved in prestige activities that lack relevance to existing health problems. Recent efforts of the Organization in promoting the provision of primary health care attack some of these problems, in which political and social measures play a determining role.

The implications for health services of rapid social change have been reviewed elsewhere\(^{53,54}\) and this important subject will be dealt with only briefly. Migration from rural areas to urban centres has given rise to densely populated periurban and urban slums in which the health needs of migrants are often poorly understood and unemployment, poor housing, overcrowding and other social stresses are common features. The health services, already overextended, have not been able to cope with the needs of the rapidly increasing population. Environmental sanitation in densely populated urban areas poses particular problems and has been the subject of WHO assistance, principally in pre-investment planning, to ensure that the technology used is suited to the country's conditions. WHO has also been involved, in the Region of the Americas, in low-cost housing construction projects through the Inter-Institutional Committee on Housing and Urbanization.

Since 1956, when the United Nations first began studying land settlement, because of dam construction schemes to increase agricultural productivity, the settlement of nomads, the spread of deserts and other causes, the number of such projects has increased exponentially. Resettlement raises health care issues, such as the increased probability of ill health and/or mental breakdown under conditions of change, stress or loss of support, that have not yet been sufficiently studied. The onchocerciasis control programme in the Volta River basin, which involves the resettlement of more than 10 million people, has provided WHO with an opportunity for such studies and for the application of available knowledge about psychosocial factors to a major health programme.

Health action in other sectors

Psychosocial factors are of particular importance in health interventions in which coordination between the structured health services and other sectors is of decisive importance. A good example of a setting in which such coordinated approaches are necessary is the working environment where employers, work planners, health and social service workers, labour unions and the workers themselves must be involved in order to protect health.\(^{55}\) If health services ensure full collaboration with and health education of teachers, a wide variety of important health attitudes and behaviour (e.g. cleanliness, choice of foods, tooth care, sexual behaviour) can be inculcated in schools.\(^{56}\) If handicapped children, including the mentally retarded, attend normal schools, schools can be places where children learn to accept and relate to those who might otherwise be stigmatized. Mental health training for the police, welfare workers, lawyers and judges (all of whom have frequent contact with deviant and disturbed people) will increase community resources for coping with the mentally ill.\(^{57}\) These issues have been the topic of several EURO activities, including a working group on evaluation of mental health education programmes in Nancy, 1973;\(^{58}\) a study in 1973-74\(^{59}\) and a working group in 1975 on youth advisory services; and a working group on forensic psychiatry in Siena in 1975. Coordination with other sectors is also of central importance in providing health care for groups that health services have difficulty in reaching, such as adolescents who have many health problems (e.g., sexually transmitted diseases, drug abuse) that are closely interwoven with social problems (maturation, seeking independence, establishing an adult role, employment)\(^{60,61}\) This interaction of health and social factors was discussed in the EURO working group\(^{62}\) and symposium\(^{63}\) on problems of deviant social behaviour and delinquency in adolescents and young people and in a WHO study group in 1971.\(^{24}\)

Community members

Community members are sometimes considered simply as consumers of health services, and this has led to a largely artificial separation between health providers and health recipients. The passive role thus given to members of the community diminishes their independent health-
seeking behaviour and decreases their active involvement in health action. Health services tend to become inward-looking and may, in turn, fail to be active in seeking links with the community. Such links should be sought not only with the individual but also with key social groups, particularly the family, which can form a natural focus for health care. (64)

The importance of two-way communication and mutual understanding between health workers and community members (including lay participation in decision-making), a careful analysis of the health beliefs of individuals as they relate to personal health behaviour, the active use of the community as a therapeutic tool, and the stimulation of the community's own response to health problems are parts of the psychosocial approach to this problem. The relevance of this approach can be illustrated by three examples.

(a) Overuse or inappropriate use of health facilities is of increasing concern to health administrators. Patients attend physicians, hospitals and clinics for trivial complaints, reject reassurances and continue to seek help from a variety of medical services. In some countries where great efforts are being made to establish rural health care, the overuse of hospitals and clinics in town continues, apparently because patients lack confidence in local health clinics (the so-called "bypassing" phenomenon). In many cases, expensive and potentially hazardous treatments and investigations may be resorted to (e.g., unnecessary radiological investigations). Contributory factors include unrecognized mental illness, the phenomenon of reinforcement of illness behaviour by the inappropriate use of drugs and other medical interventions, and the effect of certain sickness benefit and insurance provisions. In addition, patients may seek medical advice when the health problem itself has been resolved and social problems persist. Improved training in psychosocial skills would allow a better assessment of patients' problems and needs and more effective intervention.

(b) The primary health care concept, as evolved by WHO, has as one of its central defining characteristics the idea that communities, at present underserved, would assume increased responsibility for and involvement in their own health care. This raises several social and psychological issues. For health professionals it represents a sharp change in their ways of thinking and, unless action is taken to demonstrate its validity, the concept of primary health care will be discounted and programmes undermined. Community involvement can only be achieved and maintained with a proper understanding of social groups (including those who might be excluded from the larger community and be denied access to primary health care), entry points, channels of communication and sources of resistance.

(c) Traditional medicine. Traditional medicine as a source of health care has been written about and discussed extensively in the past few years, and it is a potent source of controversy, particularly among the medical profession. In many communities various forms of traditional care (and there are many) have been and remain the principal source of relief and care for the sick. The healers are often trusted, accepted and easily accessible, whereas modern scientifically based medicine is frequently not. Those who have had close and sustained experience with the work of healers have stressed that traditional forms of healing are usually deeply imbedded in the social and cultural structure of society and that ill-considered attempts to control, integrate or otherwise manipulate traditional healing systems may be seen as undesirable interference by ordinary people. Changes are likely to be slow and to require careful understanding of social issues. Where integration between traditional and modern medical care is sought, proper recognition of the contributions and skills of traditional healing and respect for the healers themselves is likely to lead to a sharing of responsibility for health care.
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The Laboratory for Clinical Stress Research at the Karolinska Institutet, Stockholm, was designated the WHO Collaborating Research and Training Centre on Psychosocial Factors and Health in December 1973.

The Centre is affiliated with the Karolinska Institutet's Department of Psychiatry and Medicine at the Karolinska hospital. The staff comprises 50 persons, including internists, psychiatrists, biochemists, statisticians, psychologists, sociologists and clerical staff.

1. Objectives of the Centre

The objectives of the WHO Psychosocial Centre are:

- to carry out and advise on research on the health effects of psychosocial factors in order to provide a more comprehensive basis for health action

- to train researchers from various countries and stimulate transcultural studies

- to develop methodologies for the application of psychosocial expertise in general health care programmes

- to coordinate such work with other institutions

- to collect and disseminate information on public health measures, with particular reference to the psychosocial aspects of such measures.

2. Activities of the Centre

2.1 Research on the health effects of psychosocial factors

Ongoing studies focus on:

- psychosocial stressors and their influence on endocrine and immunological mechanisms

- the most beneficial type of care provided at nurseries based on the psychosocial characteristics of pre-school children and their families

- the influence of psychosocial factors in the work environment, particularly with regard to shift workers and working mothers

- methods for monitoring and improving the quality of life of retired persons through environmental change before, during and after retirement.

2.2 Training of scientists

Scientists and government representatives from several countries have visited the Centre to discuss programmes and design methodologies for studies on psychosocial factors and health. At present the Centre's training capacity is limited and reserved for researchers from developing countries taking part in cooperative studies. In collaboration with WHO, a proposal has been made to institute an introductory course on psychosocial factors and health in June 1976 for public health administrators from developing countries.
2.3 Coordination with other institutions

Cooperative studies with researchers from other countries are being planned at present, particularly in connexion with the development of a WHO network of collaborating centres and field research centres. Staff of the Centre have assisted the Organization in the preparation of the Technical Discussions held at the Twenty-seventh World Health Assembly, the presentation to the Advisory Committee on Medical Research in 1974 of the psychosocial programme, and the formulation of the mental health programme proposals concerning psychosocial factors and health. The Centre has also organized a series of international interdisciplinary symposia on society, stress and disease, jointly sponsored by WHO and the University of Uppsala. The subjects of these symposia were: the psychosocial environment and psychosomatic diseases; childhood and adolescence; female and male roles and relationships; and working life. In collaboration with the International Federation of Institutes of Advanced Studies, the Centre is preparing a publication on human settlements.

2.4 Development of methodologies

In order to develop methods for the effective integration of psychosocial considerations into general health programmes, the Centre has designed a research strategy for the evaluation of social and health actions. A long-term programme in community research has been prepared for the study of the psychosocial environment-stress-health system. The objective is to establish: which physiological mechanisms ensuing from psychological stimuli promote or prevent disease and its precursors; which psychological stimuli are pathogenic and under what circumstances; and which socioenvironmental modifications will increase health and wellbeing and which should be avoided and by whom.

It is envisaged that the results of such research will be of practical value in facilitating preventive measures based on physical factors; in preventing mental and physical ill health; in improving wellbeing; and in integrating psychosocial considerations into general health programmes. To accomplish this, the Centre has proposed a research strategy that combines evaluation of social or health action likely to have an early and beneficial impact on the community studied with testing key hypotheses on pathogenic psychosocial stimuli and physiological mechanisms. At the same time, in the same communities of study, quantified data will be obtained on the interrelation of several other environmental, individual and group characteristics thought to be of importance for an understanding and control of the psychosocial environment-stress-health system. Particular emphasis is placed on studies of fundamental social institutions undergoing rapid changes (such as childbearing and childrearing, sex roles and family life, working life, and other man-environment interactions). Methods for carrying out such studies have been developed and are currently being applied.

This strategy was discussed and endorsed by the Advisory Committee on Medical Research in 1974. It has been applied to the evaluation of two kinds of day care for three-year-old children and shown to be practical and productive. Funds are now available for investigating the possibilities of applying the strategy to improvement of health in working mothers and in periretirement. These investigations have begun.

2.5 Dissemination of information

The Centre exchanges reports and reprints with some 1900 researchers and laboratories all over the world. Additional information is obtained through a number of computerized documentation systems to which the Centre subscribes. The Centre's own computerized bank is at present under construction.