PREVENTION OF MENTAL, NEUROLOGICAL AND PSYCHOSOCIAL DISORDERS

Mental, neurological and psychosocial problems have become a major public and social concern in both developed and developing countries. Many of these problems can be prevented through simple intervention, at any stage in the life cycle, and through behavioural changes in individuals and communities.

The purpose of this document is to present a selection of these measures, so as to provide countries with material to use as a starting point in their examination of possibilities for preventive action.

The measures for preventing these problems constitute a key for the achievement of health for all by the year 2000.
1. INTRODUCTION

In May 1986, the Thirty-ninth World Health Assembly adopted resolution WHA39.25 requesting regional committees to discuss ways in which activities described in the Director-General's report on the prevention of mental, neurological and psychosocial disorders could be best implemented at the regional and national levels.

The action specified in this report blends with and strengthens components of the regional and national mental health programmes developed on the basis of the decisions and resolutions of the Regional Committee. It is a direct response to several interlinked developments which have made it necessary for Member States of WHO to undertake urgent and resolute measures to prevent or reduce mental, neurological and psychosocial problems.

An important positive development in recent years was the definition of a series of measures which have proved to be effective in the prevention of mental and neurological problems. Most of these measures can be applied even in countries where resources are scarce. Their application would lead to a significant decrease in the morbidity, mortality and disability due to mental and neurological disorders and psychosocial problems.

2. THE MAGNITUDE AND NATURE OF MENTAL, NEUROLOGICAL AND PSYCHOSOCIAL PROBLEMS IN THE WESTERN PACIFIC REGION

The Western Pacific Region includes countries which differ significantly in their levels of socioeconomic development, their cultures, their traditions and their approaches to health service organization. Mental, neurological and psychosocial problems also differ from country to country and even from one part of a country to another. Results of epidemiological studies carried out in the countries of the Region and information obtained through WHO's work in general nevertheless permit us to make reliable estimations of the nature and magnitude of problems which countries have to face. These problems can be summarized as follows:

2.1 Mental retardation and cognitive deficit

The prevalence of severe mental retardation (defined according to criteria given in the International Classification of Diseases, Tenth Revision and characterized by major disability in intellectual and social function) is approximately 3 to 4 per thousand. Mild or moderate mental retardation is approximately ten times more frequent. The figures vary between countries because of the varying proportion of mentally retarded people whose impairment is due to insufficient prenatal or perinatal care, parasitic infections of the central nervous system, dietary deficiency, etc. Among the latter, iodine deficiency is still a serious health problem in some parts of the Region.
2.2 Acquired lesions of the central nervous system

Damage to brain tissue can result from a variety of factors including infections, abuse of alcohol, hypertension and exposure to pollutants. Rapid industrialization and urbanization in a number of countries in the Region have led to a significant increase in head injuries and consequent disability. The debilitating effects of cerebrovascular incidents secondary to uncontrolled hypertension are one of the leading causes of mortality in some countries.

2.3 Psychotic disorders

The frequency with which schizophrenia occurs shows little variation between countries at different levels of socioeconomic development. Figures obtained from epidemiological studies in the Region vary, but the incidence of schizophrenia generally does not exceed 15 new cases per 100,000 people per year and estimates of prevalence vary from two to four cases per thousand. Other severe mental disorders without demonstrable organic cause are becoming more frequent in the Region. Of these, depression is the most serious. Estimates of its frequency vary, but it is generally estimated that 3-5% of all contacts with general health services are due to depressive disorders.

2.4 Dementia

The prevalence of dementia in the general population varies with the proportion of the population over 60 years of age and possibly with other factors. On the whole, it seems that the prevalence of dementia in individuals 70 years of age and more is approximately 60 to 200 per thousand. Countries of the Region seem to vary in the contribution of vascular dementia and dementia of the Alzheimer type to that number: in China and Japan, vascular dementia seems to be more frequent than in other countries but differences in methods used in surveys do not allow for a firm conclusion on this matter.

2.5 Epilepsy

The prevalence of epilepsy (all types) in the general population differs between countries, from 2 to 4 per thousand in some to 10 to 15 per thousand in others.

2.6 Emotional and conduct disorders

Such disorders are estimated to occur in as much as 10% of the general population. Many of them do not require treatment but some can lead to severe disability, (e.g. severe anxiety disorders). Learning disorders are frequently reported, but exact figures for their prevalence and incidence are lacking for most countries in the Region.

2.7 Somatic symptoms of psychological origin

From reports in a variety of countries, it appears that patients with psychosomatic problems make up one-tenth or even one-sixth of all contacts with general health services.
2.8 Problems associated with the use of drugs and alcohol

The prevalence and seriousness of problems related to drugs and alcohol differ from country to country. In the countries and areas of the Western Pacific, alcohol dependence does not cause major public health problems. However, alcohol-related problems, such as injuries and accidents caused by excessive drinking, have become a cause for major public health and social concern in both developed and developing countries. Drug abuse, particularly heroin abuse, produces health and social problems affecting up to 1% of the population in some countries and areas in the Region. In recent years, the problems have been complicated by multiple drug abuse and the transmission of AIDS among intravenous drug abusers.

2.9 Psychosocial factors contributing to the occurrence of physical disorders and influencing their course and outcome

Cardiovascular diseases, cancer, gastro-intestinal illnesses and other disorders are directly related to the behaviour and life-style of individuals; estimates from some countries indicate that as much as half of all deaths are directly related to behaviour. The contribution of genetic factors, environmental conditions and demographic characteristics influence the relative importance of psychosocial factors but in all instances these play a major role in the occurrence of disease and its course.

2.10 Other psychosocial problems

Violence in the home, homicide, accidents and suicide, are leading causes of death among adolescents in many countries, and account for a high proportion of years of life lost. Psychosocial factors and mental disturbance play an important role in the occurrence of these problems, as well as in health problems directly related to excessive risk-taking behaviour in adolescents (for example, teenage pregnancy and high rates of sexually transmitted diseases).

3. PREVIOUS AND CURRENT WHO ACTIVITIES RELEVANT TO THE CURRENT PROPOSALS

Over the past decade numerous WHO activities have been carried out in the field of mental health and have paved the way for WHO's full participation in the efforts of countries to prevent mental, neurological and psychosocial disorders.

The mental health programme of WHO is broad and characterized by the public health approach. The programme covers collaboration with Member States in such areas as the development of national policies and programmes on mental health, the development of services, training and education, and research in the field of mental health.

Brief summaries of recent regional activities related to the prevention of mental, neurological and psychosocial problems are given in Annex 1.
4. PROPOSALS FOR ACTION

There are several ways in which the variety of preventive measures available today can be presented. The Director-General's report (document A39/9) first lists measures by sector (such as health, education, etc.) according to which sector had primary responsibility for the measures in question. It then lists them according to the level of action (community, government, district, etc.) and then it classifies them as measures contributing to primary, secondary or tertiary prevention. Finally, Annex 2 provides a list of effective measures which can be undertaken for each of the problems.

In this paper, the measures are listed by stage in the life cycle in which they occur. In most instances, preventive measures have repercussions on several problems: decreasing alcohol consumption, for example, will decrease the occurrence of foetal alcohol syndromes, violence in the family, traffic accidents, alcohol encephalopathy and alcohol dependence. The measures listed have been selected from the many that are possible on the basis of evidence that they are effective, that their costs are such that most countries could afford them and that their implementation is congruent with the overall principles and strategies governing the work of WHO.
<table>
<thead>
<tr>
<th>STAGE IN LIFE CYCLE</th>
<th>PREVENTIVE MEASURES</th>
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<tbody>
<tr>
<td>Prenatal and perinatal</td>
<td>Adequate nutrition (and education about food) of the mother.</td>
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<td></td>
<td>Avoidance of exposure of mother to alcohol, tobacco and other drugs.</td>
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<td></td>
<td>Correction of iodine deficiency in populations.</td>
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<td></td>
<td>Tetanus toxic injection after the first trimester.</td>
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<td></td>
<td>Training of birth attendants in recognizing high-risk pregnancies.</td>
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<td></td>
<td>Promotion of breast feeding, child nutrition programme and immunization.</td>
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<td></td>
<td>Advice on child spacing.</td>
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<tr>
<td>Childhood</td>
<td>Prenatal screening for certain deficiencies (e.g. fragile x syndrome, phenylketonuria, etc. where circumstances permit this).</td>
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<td></td>
<td>Immunization against (maternal) rubella.</td>
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<td></td>
<td>Prevention of iatrogenic damage (occurring, for instance, because of excessive hospitalization of the child or inappropriate use of medicaments).</td>
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<td></td>
<td>Enriched day care.</td>
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<td></td>
<td>Early stimulation programmes.</td>
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<td></td>
<td>Early detection and correction of sensory deficits (e.g. poor vision, hearing).</td>
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<td></td>
<td>Education of teachers in methods of helping &quot;slow learners&quot; and children with specific learning deficits.</td>
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<td></td>
<td>Immunization against the six &quot;target&quot; diseases.</td>
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STAGE IN LIFE CYCLE

PREVENTIVE MEASURES

Detection and treatment of chronic bacteriuria and pyelonephritis.

Prevention of accidents and poisoning in children.

Support to families with several children in which one or more members have a long-lasting chronic illness.

Adolescence

Detection of particularly high-risk groups with regard to parasuicide, alcohol and drug abuse, and delinquency; and formulation of culture-specific interventions.

Promotion of self-help and mutual help groups among adolescents.

Training of primary health care workers on crisis intervention techniques.

Premarital counselling.

Early detection of suicide risk among adolescents.

Liaison schemes between various youth agencies such as youth centres, health services, schools, etc.

Education of teachers about psychosocial features of adolescence.

Adulthood

Provision of support to families with chronically ill members.

Reduction of mild and moderate hypertension and other high-risk factors for cerebrovascular disorders.

Family counselling to reduce marital discord and other family problems.
### STAGE IN LIFE CYCLE

<table>
<thead>
<tr>
<th>Old age</th>
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<tbody>
<tr>
<td><strong>PREVENTIVE MEASURES</strong></td>
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<tr>
<td>Early detection and prevention of iatrogenic damage caused by inappropriate psychopharmacological medication.</td>
</tr>
<tr>
<td>Incorporation of crisis intervention skills and emergency treatment for acute mental disorders into primary health care.</td>
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<tr>
<td>Tertiary prevention measures, for instance through reform or improvement of mental hospitals, nursing homes, etc.</td>
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<tr>
<td>Mental health programmes in the workplace.</td>
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<tr>
<td>Prevention of alcohol and drug abuse.</td>
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<tr>
<td>Training of health-care staff in the early detection of depressive states, distinguishing them from dementia.</td>
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<tr>
<td>Education of the general public and health services about the need to ensure continuing locomotor independence and sensory correction for the elderly (vision, hearing).</td>
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<tr>
<td>Community support to the recently bereaved.</td>
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<tr>
<td>Action to correct risk factors linked to social isolation and long-term residential care.</td>
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The measures listed above involve active intersectoral cooperation, at least among those dealing with health, social welfare, education, labour and home affairs. The creation of national coordinating groups can facilitate such cooperation.

### 5. CONCLUSION

The magnitude and serious consequences of mental, neurological and psychosocial disorders are gradually becoming commonly known. The continuing existence and growth of these problems are a major obstacle to achieving health for all. As we have seen, prevention of many of them is now possible even in countries with a severe shortage of funds, and resolute action must be taken without further delay.

The above list of preventive measures is given so that countries can examine them and include as many of them as possible in their health programmes. In some Member States there
are resources for additional measures, such as screening for metabolic deficiency and the upgrading of maternal and child health care. WHO could serve as an information exchange mechanism regarding the experience of countries with such measures.

Much more can be learnt about the best ways to prevent the enormous burden of suffering and economic loss caused by mental, neurological and psychosocial disorders. This requires a systematic evaluation of the effects of measures already undertaken, and must be supported by a reliable information system, as well as the active involvement of the scientific community.
BRIEF SUMMARIES OF RECENT REGIONAL ACTIVITIES ON MENTAL HEALTH

(1) Development and strengthening of national policies and programmes on mental health

Collaboration with Member States to develop and strengthen national policies and programmes on mental health has been the major thrust of regional mental health programmes. In this context, the Regional Office made technical and financial support available to China for organizing the First and Second Meetings of the National Coordinating Group on Mental Health in 1985 and 1987. Both meetings held in Beijing had multisectoral participation and provided a basis for formulating national mental health policies and programmes in the People’s Republic of China.

In February 1988, the Regional Office collaborated with the Department of Health in the Philippines to organize the multisectoral workshop on mental health which prepared the draft mental health act. There was similar collaboration with Malaysia in 1987 and with the Republic of Korea in 1985 and 1987.

Mental health legislation was identified as a key to developing national policies and programmes on mental health. In 1987 WHO collaborated with the People’s Republic of China to organize a national workshop on forensic psychiatry and mental health legislation in Tianjin which discussed the preparation of mental health legislation in China.

The Third Regional Coordinating Group on Mental Health was convened in February 1987 to review global, regional and national mental health programmes and to coordinate these programmes in the Region.

(2) Mental retardation

Programmes related to the prevention of neurological disorders in the Region have focused mainly on the prevention of mental retardation. Prevention and rehabilitation for mentally retarded children are the areas most neglected in many countries and areas in the Region. The first Working group on Mental Retardation convened in February 1984 recommended further collaboration with Member States to develop national programmes for the prevention of mental retardation.

In response to this recommendation, a national workshop on mental retardation was convened in Nanjing, China, in May 1986. The workshop was attended by more than 100 participants including health administrators, psychiatrists, pediatricians, neurologists, education experts and social welfare experts. A nationwide epidemiological study on mental retardation was initiated in 1987 involving five centres in China. Consultant services were provided to facilitate the study.

In Viet Nam, WHO collaborated in organizing a national workshop on mental handicaps in November 1987.
Annex 1

(3) Mental disorders

Efforts have been made to develop community-based mental health services to prevent the social disabilities of chronic psychotic patients and to provide them with the necessary skills for coping. In view of the scarcity of mental health resources in countries and areas of the Region, it was considered crucial for general health workers to learn skills and acquire knowledge which would enable them to deal with psychiatric problems in their daily practice.

In 1987, technical and financial support was provided to the Lao People’s Democratic Republic, the Philippines and the Republic of Korea to organize training courses and workshops on mental health.

In the same year, consultant services were provided to Papua New Guinea to produce a training manual on mental health in primary health care.

(4) Alcohol-related problems

Since the adoption of the regional resolution on alcohol as a major public health issue in 1982, a series of regional and national meetings and consultancy services have been undertaken in collaboration with interested Member States. Efforts have been focused on the development of national policies and programmes for the prevention and management of alcohol-related problems. These activities took place in Belau, Fiji, the Marshall Islands and Papua New Guinea (1986-1987).

The regional working group on community-based approaches to alcohol-related problems was organized in Yokohama City, Japan, in 1987 and prepared the guidelines to be used by primary health workers in dealing with alcohol-related problems.

(5) Drug abuse

In view of the limited resources available, activities have been focused on collaboration with government and nongovernmental organizations in their efforts to reduce the demand. Consultant services were provided to Malaysia in 1987 to prepare educational materials for health workers in dealing with the rehabilitation of drug abusers. Support was provided to the Philippines to organize national workshops for the identification and management of drug abusers in 1988. WHO provided technical support for the Eighth Conference of the International Federation of Nongovernmental Organizations for the Prevention of Drug and Substance Abuse held in Sydney in 1986, to the Experts Training Programmes for drug abuse management organized by the Japanese Government annually since 1986 and to the meeting of the Australian national campaign against drug abuse in 1988.

Using funds provided by the United Nations Fund for Drug Abuse Control, a series of activities were undertaken in the People’s Republic of China for the prevention of drug dependence. These included fellowships to study the dependence liability of psychotropic drugs, and a national workshop for general physicians on the use of psychotropic drugs.
(6) Other specific problems

Special attention has been given to the mental health problems of specific population groups such as the elderly and children. Collaboration was provided to organize a national workshop on the epidemiology of mental health problems in the elderly population in China, in 1987, and to carry out the epidemiological survey on mental health problems of the aged population in China.

A regional working group on child mental health was organized in Singapore in 1985 and a regional collaborative bio-psycho-social study on emotional and behavioural disorders of children was initiated in 1987 in four cities in the Region, namely, Beijing, Perth, Seoul and Tokyo.
### ANNEX 2

**LIST OF INTERVENTIONS THAT CAN BE DIRECTED AGAINST EACH PROBLEM AREA**

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>INTERVENTION</th>
</tr>
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</table>
| Mental retardation                                | *Prenatal and perinatal care*  
*Immunization*  
*Family planning*  
*Epilepsy control*  
*Adequate nutrition*  
*Improvement of day care facilities*  
*Accident prevention*  
*Support to families under stress*  
*Teaching of parenting skills*  
*Improvement of psychosocial features of long-term care institutions*  
*Recognition and care of sensory and motor motor handicaps*  
*Early stimulation programmes* |
| Acquired lesions of the central nervous system    | *Treatment of hypertension and infection affecting the central nervous system*  
*Epilepsy control*  
*Control of abuse of certain substances*  
*Accident prevention*  
*Prevention of hazards to the central nervous system at the workplace* |
| Functional mental disorder                        | *Treatment of depression, schizophrenia and other frequent mental disorders*  
*Support to families with members who are ill*  
*Improvement of long-term care institutions*  
*Improved legislation concerning care*  
*Maintenance of locomotor independence and correction of sensory deficit in the elderly* |
| Epilepsy                                          | *Prenatal and perinatal care*  
*Immunization*  
*Treatment*  
*Accident prevention*  
*Health education* |
### Annex 2

#### Emotional and conduct disorders
- Family planning
- Health education
- Education of teachers
- Teaching of parenting skills
- Improvement of day care

#### Abuse of psychoactive substances
- Education of primary health-care workers
- Prevention of iatrogeny
- Health education
- Self-help and mutual help groups of adolescents

#### Other psychosocial problems (including violence, accidents, etc.)
- Crisis intervention
- Control of abuse of psychoactive substances
- Support to self-help groups
- Health education
- Teaching of parenting skills
- Education of personnel in other sectors, e.g. police
- Accident prevention

#### Family breakdown
- Day care
- Teaching of parenting skills
- Support services

**Note:** The role of the media, cultural and religious influences, nongovernmental organizations and intersectoral collaboration and government action apply in greater or lesser degree to all problems.