

## *Mental and neurological disorders*

One in every four people, or 25% of individuals, develop one or more mental or behavioral disorders at some stage in life, both in developed and developing countries. These disorders can now be diagnosed as reliably and accurately as most of the common physical disorders. Some disorders can be prevented; all can be successfully managed and treated.

The World Health Report 2001 focuses on a number of common disorders. These include depression, substance use disorders, schizophrenia, epilepsy, Alzheimer's disease, mental retardation and disorders of childhood and adolescence.

### DEPRESSION

#### *What is depression?*

Depression, sometimes referred to as unipolar depression, is a common mental disorder characterized by sadness, loss of interest in activities and by decreased energy. Depression is differentiated from normal mood changes that are part of life by the extent of its severity, the symptoms and the duration of the disorder. Suicide remains one of the common and often avoidable outcomes of depression. If depressive episodes alternate with exaggerated elation or irritability they are known as bipolar disorder. Depressive disorders and schizophrenia are responsible for 60% of all suicides. The causes of depression vary. Psychosocial factors, such as adverse living conditions, can influence the onset and persistence of depressive episodes. Genetic and biological factors also play a part.

#### *How many suffer?*

It is estimated that 5.8% of men and 9.5% of women will experience a depressive episode in any given year. These prevalence figures can, however, vary across different populations. It is estimated that 121 million people currently suffer from depression.

#### *What can be done?*

The first-line treatment for most people with depression consists of antidepressant medication, psychotherapy, or a combination of both. Antidepressants are effective across the full range of severity of major depressive

episodes. Other effective interventions include setting up supportive network systems for vulnerable individuals, families and groups. The evidence regarding prevention of depression is less conclusive, only a few isolated studies show that interventions proposed for the prevention of depression are effective.

### SCHIZOPHRENIA

#### *What is schizophrenia?*

Schizophrenia is a severe disorder that typically begins in late adolescence or early adulthood. It is characterized by profound disruption in thinking and perceptions, affecting language, thought, perception, and sense of self. It often includes psychotic experiences such as hearing voices or delusions. It can impair functioning by causing the loss of an acquired ability such as not being able to gain one's own livelihood or disruption of studies.

#### *How many suffer?*

Around 24 million people worldwide suffer from schizophrenia at any point in time. Schizophrenia is found approximately equally in men and women. Women tend to develop it later in life, and also tend to have a better course and outcome after treatment.

#### *What can be done?*

Primary prevention of schizophrenia is not possible. However, recent research has focused on developing ways of detecting people with schizophrenia in the very

early stages. Early detection would increase the chance of early treatment, diminishing the risk for recurrence or serious residual damage.

The treatment of schizophrenia has three main components: medications to relieve symptoms and prevent relapse; education and psychosocial interventions to help patients and families cope with the illness and its complications; and rehabilitation to help patients reintegrate into the community and regain even their occupational functioning.

Until recently, about one-third of schizophrenia patients recovered completely. With modern advances in drug therapy and psychosocial care, almost half the individuals who develop schizophrenia can expect a full and lasting recovery. However, in the remaining cases, it can follow a chronic or recurrent course with residual symptoms and serious limitations in day-to-day activities.

## ALZHEIMER'S DISEASE

### *What is Alzheimer's disease?*

Alzheimer's disease is a degenerative brain syndrome characterized by a progressive decline in memory, thinking, comprehension, calculation, language, learning capacity and judgement. It is important, however, to differentiate the symptoms of Alzheimer's disease from normal age-related decline in cognitive functions which is much more gradual and leads to much milder disability.

### *How many suffer?*

There are currently an estimated 37 million people worldwide with dementia, with Alzheimer's disease being responsible for causing the majority of the cases. About 5% of men and 6% of women over 60 years of age are affected with Alzheimer's disease. With the ageing of populations, this figure is projected to rapidly increase in the next 20 years.

### *What can be done?*

There is currently no cure for Alzheimer's disease. The goals of care are to maintain the functioning of

the individual, reduce disability due to lost mental functions, reorganize routines so as to maximize use of the retained functions, minimize symptoms such as suspiciousness, agitation and depression and to provide support to the family.

Psychosocial interventions, including education, support, counseling and respite care, are extremely important in Alzheimer's disease, both for patients and family caregivers. Some medicines have demonstrated some usefulness in ameliorating cognitive dysfunction and improving attention, as well as reducing delusions.

## EPILEPSY

### *What is epilepsy?*

Epilepsy is the most common of brain disorders. Epilepsy is characterized by repeated seizures, or "fits" as they are commonly known, which may take many forms ranging from the shortest lapse of attention to severe and frequent convulsions. They can occur several times a day to once every few months. Epileptic seizures are caused by bursts of excessive electrical activity in the brain. The majority of individuals with epilepsy do not have any obvious or demonstrable abnormality in the brain, besides the electrical changes.

### *What causes epilepsy?*

There are many causes of epilepsy, including genetic predisposition, brain damage caused by infections, birth complications, brain injuries, parasites, alcohol or other toxic substances, and tumors. Tapeworm, schistosomiasis, malaria and encephalitis are some of the common infectious causes of epilepsy. However, in half of the cases, the causes remain unknown.

### *How many suffer?*

It is estimated that about 50 million people of all ages around the world are affected by epilepsy. It is estimated that more than 80% of individuals with epilepsy live in developing countries.

### *What can be done?*

Effective actions for the prevention of epilepsy are adequate prenatal and postnatal care, safe delivery,

control of fever in children, control of parasitic diseases, and prevention of brain injury such as controlling blood pressure or using safety belts and helmets.

Epilepsy therapy aims to prevent seizures and to reintegrate people with epilepsy into all aspects of community life. Up to 70% of people newly diagnosed with epilepsy can be seizure free if treated with antiepileptic drugs. Despite the fact that in most countries the cost of treatment can be as low as \$5 per patient per year, the vast majority of those suffering remain untreated. In Africa, for example, more than 80% of people suffering from epilepsy do not receive any treatment.

## MENTAL RETARDATION

### *What is mental retardation?*

Mental retardation is a condition of arrested or incomplete development of the mind characterized by impairment of skills and overall intelligence in areas such as cognition, language, and motor and social abilities. Also referred to as intellectual disability or handicap, mental retardation can occur with or without any other physical or mental disorders. In addition to genetic factors, injuries at birth and brain infections, a common cause of mental retardation in iodine deficiency. Iodine deficiency is the single largest cause of preventable brain damage and severe mental retardation.

### *How many suffer?*

It is estimated that the overall prevalence of mental retardation is between 1% and 3%. It is more common in developing countries because of the higher incidence of injuries and anoxia or deprivation of oxygen at birth and early childhood brain infections, all of which cause retardation.

### *What can be done?*

Mental retardation can be prevented. Actions to prevent mental retardation include iodization of salt to prevent iodine-deficiency mental retardation (cretinism); abstinence from alcohol by pregnant women to avoid

fetal alcohol syndrome; dietary control to prevent mental retardation in people with phenylketonuria; and environmental control to prevent mental retardation due to poisoning from heavy metals such as lead.

Also, prenatal genetic testing can detect certain forms of mental retardation such as Down's Syndrome and parents could benefit from prenatal counseling in these cases.

Treatment goals are early recognition and optimal utilization of the intellectual capacities of the individual by training, family education and support, vocational training and opportunities for work in protected environments. The training of parents to act as teachers and trainers of daily life skills is central to the care of persons with mental retardation. Parents have to be aware of learning principles and be educated in behavior modification and vocational training techniques. In addition, they can support each other in networks and groups.

## SUBSTANCE USE DISORDERS

### *What are substance use disorders?*

There are a number of disorders resulting from use of psychoactive substances including alcohol, opioids such as opium or heroin, cannabinoids such as marijuana, sedatives and hypnotics, cocaine, other stimulants, hallucinogens, tobacco and volatile solvents. The conditions include acute intoxication, harmful use, dependence, and psychotic disorders. Tobacco and alcohol are the substances which are used most widely across the globe and which pose the most serious public health consequences.

### *How many suffer?*

Today, approximately one in three adults, or 1.2 billion people use tobacco. By 2025, the number is expected to rise to more than 1.6 billion. Tobacco was estimated to account for 4 million annual deaths by 1998. It is estimated that tobacco-attributable deaths will rise to 8.4 million by 2020.

There are an estimated 70 million people who have alcohol use disorders, including harmful use and



dependence, 78% of whom are not treated. The rate of alcohol use disorder for men is 2.8% and 0.5% for women.

A large number of other substances generally grouped under the broad category of drugs are also abused. These include illicit drugs such as heroin, cocaine and cannabis. It has been estimated that there are about 5 million people in the world who inject illicit drugs. There is a high prevalence of HIV infection among injecting drug users, making it a major public health problem.

### *What can be done?*

The goals of therapy are to reduce illness, disability and death due to the use of psychoactive substances and to help patients achieve a drug-free life. Strategies include early diagnosis; identification and management of risk of infectious diseases as well as other medical and social problems; stabilization and maintenance with pharmacotherapy for opioid dependence; counselling; access to services; and opportunities to achieve social integration. Medical detoxification is only the first stage of treatment for dependence, and by itself does not change long-term drug use. Long-term care must be provided to decrease rates of relapse.

## DISORDERS OF CHILDHOOD AND ADOLESCENCE

### *What are disorders of childhood and adolescence?*

Contrary to popular belief, mental and behavioral disorders are common during childhood and adolescence. Many of the disorders more commonly found among adults, including depression, can begin during childhood. There are two broad categories specific to childhood and adolescence. The first is disorders of psychological development characterized by impairment or delay in the development of specific functions such as speech and language (dyslexias) or overall pervasive

development such as autism. The course of these disorders is steady, without remission or relapses, though some tend to improve with time. The second category, behavioral and emotional disorders, includes: attention deficit/hyperactivity disorders (ADHD) also known as hyperkinetic disorders, conduct disorders and emotional disorders of childhood.

### *How many suffer?*

Though the prevalence figures vary considerably between studies, it is estimated that 10-20% of children have one or more mental or behavioral problems. The real dimension of the problem is largely unknown and more research is needed to establish exactly how many children are affected by these disorders and to what extent.

### *What can be done?*

Inadequate attention has been paid to this area of mental health. The diagnosis of childhood and adolescent disorders requires an understanding of normal and abnormal psychological development. This is best done by trained observers with a variety of clinical instruments in addition to parent reporting.

Treatment of child and adolescent disorders varies. There are emerging tests involving neuroimaging that hold promise for precise definition of pathological brain function for a variety of disorders that could help improve treatment options. Currently, outpatient care is preferred to hospitalisation as it represents appropriate least restrictive care. Child and adolescent disorders require a continuum of care over time and services, linking all settings where the child may receive care such as hospitals, out-patient facilities, families and schools. These treatments include both individual and group psychological support such as psychotherapy or counselling. The use of medication to treat ADHD or hyperkinetic disorders is now common, as are behavioral techniques for anxiety disorders.