



# Atlas

COUNTRY PROFILES  
ON MENTAL HEALTH  
RESOURCES  
2001



World Health Organization  
Geneva

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The information provided in the profiles should be viewed as the best information available with WHO from all sources combined and not as the official viewpoint of the Member States.

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## The Project Team and Partners

Atlas is a project of WHO Headquarters, Geneva. It has been supervised and coordinated by Dr Shekhar Saxena. Technical support has been provided by Dr Pallab K. Maulik who was also responsible for overall project management. Ms Kathryn O'Connell also provided technical support, besides being responsible for data analyses. Dr Derek Yach and Dr Benedetto Saraceno provided vision and guidance to this project.

Key collaborators from WHO Regional Offices include Dr Custodia Mandlhate, African Regional Office; Dr Caldas de Almeida and Dr Claudio Miranda, Regional Office for the Americas; Dr Ahmad Mohit and Dr Khalid Said, Eastern Mediterranean Regional Office; Dr Wolfgang Rutz, European Regional Office; Dr Vijay Chandra, South-East Asia Regional Office; and Dr Helen Herrman and Dr Gauden Galea, Western Pacific Regional Office. They have contributed to planning the project, obtaining and validating the information from Member States and reviewing the results.

WHO Representatives and Liaison Officers in WHO Country Offices were responsible for collecting and validating the information received from governments.

Ministry of Health officials in Member States provided the information and responded to the many requests for clarification that arose from the data.

A number of experts in countries assisted the Ministries in obtaining and providing information. They also provided relevant literature and reports to support the data.

A number of colleagues at WHO have provided advice and guidance during the course of the project. Significant among them are: Dr Srinivasa Murthy, Ms Meena Cabral de Mello, Dr Thomas Bornemann, Dr Itzhak Levav, Dr José Bertolote, Dr Michelle Funk, Dr Maristela Monteiro and Dr Leonid Prilipko.

Ms Jeanie Bliss and Mr Glenn Thomas assisted in updating the database and its validation during their internship in the Department. Ms Marie-Helene Schreiber, Ms Rosa Seminario, Ms Elmira Adenova and Ms Paola Caruso assisted with the translation of material.

Ms Rosemary Westermeyer, Ms Anne Yamada and Ms Clare Tierque have provided administrative support.

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The publication of this volume has been assisted by Ms Linda Merieau (production), Ms Tushita Bosonet and Ms Carine Mottaz (graphic design) and Ms Katharine Mann Jackson (editing).

## Preface

The primary responsibility of the World Health Organization is to provide technical assistance to its Member States in matters related to health. However, this responsibility cannot be fulfilled satisfactorily if the Organization lacks basic information about the existing infrastructure and resources available for health care within countries. Unfortunately, until now, this has been the case with mental health. Although substantial information is available about the burden that mental and behavioural disorders place on society, very little is known about the resources on hand in different countries to alleviate these problems. Most of the information available about mental health resources relates to a few developed countries. For the vast majority of countries, there is almost no information available. Furthermore, because the various studies carried out have used different units of measurement, the information that is accessible is not comparable across different countries or over time.

In 2000, the World Health Organization launched Project Atlas to address this gap. The objectives of this project include the collection, compilation and dissemination of relevant information about mental health resources in different countries.

The first book from the project was published in October 2001 and was titled, *Atlas: Mental Health Resources in the World*. The publication contained the initial global and regional analyses of data that were collected from 185 countries and covered 99.3% of the world's population. This publication, the second from the project, provides Country Profiles: individual descriptions of mental health resources within different countries. In addition, more detailed analyses of previously gathered data are also included in this volume. The profiles not only present in a narrative form all the data given in the first volume, but also provide new quantitative and qualitative information. This information has been gathered mainly from governmental sources within each country, and supplemented with information gathered from supporting documents sent by those same countries as well as from other relevant literature.

The Country Profiles confirm what mental health professionals working in these countries have known for a long time: that mental health services are grossly inadequate when compared to the needs for mental health care. The value of the Atlas therefore is that it replaces impressions and opinions with facts and figures. The profiles attempt to give a clear picture of existing resources and crucial needs in countries around the world. They also provide a baseline for monitoring changes over time. By using uniform definitions and units of measurement they encourage consistency of reporting.

A note of caution! Although great care has been taken to ensure the reliability of the data presented in the Country Profiles, it is possible that some errors may have crept in. We see Project Atlas as an ongoing activity of WHO where more accurate information will become available as the concepts and definitions of resources become more refined and data sources become more organised and reliable. Furthermore, the information presented needs to be viewed within the context of each country's existing system. For example, a particular country may be running excellent mental health services without having a formal federal level policy or programme on mental health. Just as another country may be devoting adequate resources to mental health care, without ever having defined and allocated a specified separate budget for it.

Overall, we hope that the Country Profiles will assist health planners and policy-makers within countries to identify areas that need urgent attention. The profiles can also help to set realistic targets by enabling comparisons across countries within the same Regions as well as across similar income groups. We also hope that mental health professionals and non-governmental organizations will use the profiles in their efforts to advocate for more and better resources for mental health.

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## Introduction

Medical science is at the dawn of a new age. Genetic restructuring is being considered as a means to fight illnesses, and gene therapy is being envisaged to treat severe mental disorders. However, despite these significant advances, what stands out above all is the lack of information that currently exists about basic mental health resources in the world. Knowledge about the availability of policies, legislation and programmes in different countries of the world is absent. Information about whether mental health is considered part of primary or community care is missing. Estimates of the number of psychiatric beds and professionals are lacking. Data on mental health financing, ease of access to psychotropic drugs, and availability of mental health reporting systems are grossly inadequate. The need to improve mental health services and integrate mental health into primary care was emphasized by most of the Ministers of Health who attended the World Health Assembly, 2001 (WHO, 2001c).

The only data currently available are limited to a small number of developed countries. However, what is needed goes far beyond that. Project Atlas was launched by WHO in 2000 in an attempt to bridge this gap. Some initial analyses of the global and regional data were compiled and presented in the publication – Atlas: Mental Health Resources in the World – published in October 2001 (WHO, 2001b). The current publication takes the issue a step further and provides individual country profiles. Some further analyses are also presented.

Section I of this publication describes the methodology used, as well as the global and regional analyses. It also explains the limitations of the Atlas data. The global and regional analyses are organized into 16 broad themes. Each theme begins with a definition of the terms used and is followed by a description of the significant findings. The results are presented in tabular form, each followed by a short explanation. In comparison with the previous publication, more detailed analyses are presented here. Correlations between variables are given wherever relevant. The analyses include data received from 185 out of the 191 WHO Member States covering 99.3% of the world's population. The main limitations of the data are listed after the explanation of the methodology. The specific limitations of each variable are discussed at the end of each theme.

Section II of this publication provides short descriptive profiles for each country. The profiles were generated by computer from the database. This would explain the language for the profile being repetitive in some areas. They are arranged in alphabetical order by WHO Region. The profiles of the WHO Associate Members and Areas include only those which had responded to the questionnaire sent to them as a part of the project. The profiles begin with some general information about each country. The statistics relating to the land areas of each country were obtained from the World Bank database and other appropriate sources. Only approximate figures are given, as the intention was to provide an estimate of the size of the country – of relevance to a profile on mental health resources – and not accurate figures. The population figures and the health budget as a proportion of GDP have been taken from the World Health Report 2000. The income groupings of countries are based on the groupings ascertained by World Bank 2000. However, the GNP/capita for the different countries has been obtained from a variety of sources, including the World Bank database. The literacy rate and life expectancy figures have been obtained from different sources, including data from other international organizations and data provided by countries themselves. The data provided in the general information section should not be read as the official figures for the country but taken as indicative.

The profiles on mental health resources cover the broad areas of policy and legislation; finance; mental health facilities, including disability benefits, primary care and training facilities, and community care facilities; distribution of psychiatric beds and professionals; non-governmental organizations; information gathering systems; specific programmes for special sectors of the population; therapeutic drugs and any other information that was made available. Additional sources of information, though not intended as a reference list, include documents and literature that provided important details about mental health resources in the country. Some qualitative information was obtained from those documents. There is some variation in the quantity of information available for each country depending on the information gathered. Attempts have been made to provide complete references wherever possible, but some citations have remained incomplete due to lack of information.

## Methodology

Information for this project was collected in a series of stages or steps.

The first step involved drafting a questionnaire. Consultations were held with Regional Offices and mental health experts to determine the main subjects about which information was required. Following these consultations, a questionnaire was drafted at WHO Headquarters. A glossary of the terms used in the questionnaire was also prepared to assist the respondents. The definitions used in the glossary are simply working definitions for the purpose of this project and are not official WHO definitions. The draft questionnaire and glossary were discussed with the Regional Offices and selected mental health experts whose suggestions were then incorporated. The questionnaire was then pilot tested in two countries – one developed, the other developing – and the difficulties presented by both the glossary or questionnaire were once again discussed and amended appropriately. The final questionnaire covered mental health policies, programmes, legislation, mental health budgets, disability benefits, facilities for mental health in primary and community care, number of psychiatric beds and mental health professionals, involvement of non-governmental organizations in mental health, information gathering systems in mental health, special programmes for sub-populations and therapeutic drugs. The aim was to gather basic information from as many countries as possible without going into excessive detail. Once the English version of the questionnaire was finalized, it was translated into four other official languages of WHO: Arabic, French, Russian and Spanish.

The second step of the process involved sending the questionnaire and glossary to the Regional Offices with a request that they transmit them to the focal points for mental health in the Ministries of Health in each WHO Member State, Associate Member and Area. The focal points were requested to complete the questionnaire using all possible sources of information and to follow the definitions provided in the glossary so as to maintain uniformity of the information. They were also requested to provide hard copies of supporting documents wherever possible. Throughout this process the Project Team was in contact with the Regional Offices and focal points. Clarifications were provided where necessary and regular reminders were sent requesting completion and submission of the questionnaire.

As a third step, an electronic database was created and the information received from the countries was entered in it. All quantitative data was coded appropriately and keyed in. In addition, an extensive literature search was carried out to gather further information on mental health resources in each country. All qualitative data gathered from the documents submitted with the questionnaire as well as all other sources were scrutinised and the relevant portions entered into the database. Once all the information had been incorporated, a draft profile for each country was generated electronically and sent back to the mental health focal points in the Ministries of Health of all countries for correction and approval. Focal points were given a deadline to complete this task. More than two thirds of the countries that had originally responded provided confirmation and corrections. The corrections suggested by the countries were then incorporated. The final dataset was then transformed into SPSS 9.0 for analysis.

The final step involved the data analysis and the preparation of this report. For the purpose of analysis, some of the continuous variables were grouped into categories based on distribution. Frequency distribution and measures of central tendency (mean, median, standard deviations) were calculated as appropriate. Countries have been grouped by WHO Regions and World Bank income groupings based on GNP/capita (World Bank, 2000). Population figures are based on the World Health Report 2000 (WHO, 2000). Most of the analysis is descriptive, though some statistical analyses were performed for a few selected variables. Because data was nonparametric, Chi-square statistics were calculated to establish associations between variables.

The qualitative data has been used to clarify and supplement the quantitative data presented in each country profile. Some of the documents provided information on policies, programmes and legislation, while others provided information on essential drugs and professional resources. The literature search yielded some additional information about the development of psychiatric facilities in different countries and changing trends in psychiatric care. Additional inputs were also obtained from country data collected by the WHO Offices of the Eastern Mediterranean Region and European Region as a part of an earlier exercise carried out by those offices. This qualitative data not only helped to support the information submitted by the countries but also provided further detailed descriptions of some aspects of mental health resources.

## Limitations

The data collected in the course of this project have a number of limitations. These should be kept in mind when viewing the results.

While attempts have been made to obtain information from as many countries as possible, some, nonetheless, have not been able to provide details about certain issues. The most common reason for the missing data is that such data simply do not exist within the countries. It is hoped that these information gaps will be filled in the near future. The extent of missing data can be gleaned from the number of countries that have been able to supply details. Each individual table contains the number (N) of countries, out of a total of 191, whose data are included in the table.

As far as the definitions of certain concepts are concerned, the project has used working definitions arrived at through consultations with experts. The aim was to strike a balance between the definitions that are most appropriate and those that the countries currently use. At present, definitions for mental health resources like policy, primary care facilities, community care facilities, health information systems vary from country to country. As a result, countries may have had difficulty in interpreting the definitions provided in the glossary and in reporting accurate information. Some of the definitions provided in the glossary, e.g., those on availability of a mental health budget, availability of disability benefits, availability of services for special populations, definition of psychologists, psychiatric nurses and social workers, will need to be amended and expanded in future as it was felt that some countries had problems interpreting them. Some countries may have had difficulty in providing information about the mental health budget because mental health care in their country is integrated within the primary care system, something advocated by WHO. Most of the questions were framed, so that countries could respond with "yes" or "no". Although this helped with the quick gathering of information, it failed to take into account differences in coverage and quality. Thus information related to implementation of policies, programmes or legislation, type of disability benefits, distribution of resources among rural and urban settings, quality of services available at primary or community level, proportion of financing for rural or urban settings, quality of services available for special populations, quality of services provided by non-governmental organizations and quality of information gathering systems cannot be gauged from this data. Attempts have been made to incorporate qualitative data from several sources, but this is still limited. The information collected on the number of psychiatric beds and professionals gives the average figure for the country but does not provide information about distribution across rural or urban settings or distribution across different regions within the country.

Some of the limitations of the data are due to the fact that they have been collected primarily from government sources. It is possible that information about the private sector, especially that related to availability of psychiatric beds and mental health professionals, may be incomplete and may not be representative of the actual figures for the country. Some details may also be missing because the respondents did not have access to the information. This is especially true of the sections on financing mental health and the availability and cost of drugs at primary care level. Some of the data may be old and it is hoped that countries will help WHO to update the information as new data becomes available. While all possible measures have been taken to compile, code and interpret the information given by countries using uniform definitions and criteria, it is possible that some errors may have occurred due to inaccuracies of the data. WHO requests the mental health focal points within the Ministries of Health of Member States to point out any errors, for correction in subsequent publications.

Project Atlas is an ongoing activity of WHO and as more accurate and comprehensive information covering all aspects of mental health resources become available and the concepts and definitions of resources become more refined, it is hoped that the database will also become better organized and more reliable.

The information provided in the profiles should be viewed as the best information available with WHO from all sources combined and not as the official viewpoint of the Member States.

## Global and Regional Results

The results of the study have been broken down into 16 themes. These include, policies, programmes, legislation, finance, primary care, psychiatric beds, professionals, special programmes in mental health and information gathering systems. The working definitions used for key terms in the questionnaire are given at the beginning of each thematic section.

### Mental Health Policy

#### DEFINITIONS

- *Mental health policy*: a specifically written document of the government or Ministry of Health containing the goals for improving the mental health situation of the country, the priorities among those goals and the main directions for attaining them.

#### Mental health policy may include the following components:

- *Advocacy*: a combination of individual and social actions designed to raise awareness and to gain political commitment, policy support, social acceptance and health systems support for mental health goals.
- *Promotion*: a process of enabling people to increase control over the determinants of their mental well-being and to improve it.
- *Prevention*: all organized activities in the community to prevent the occurrence as well as the progression of mental disorders, including the timely application of means to promote the mental well-being of individuals and of the community as a whole, and the provision of information and education.
- *Treatment*: relevant clinical and non-clinical care aimed at reducing the impact of mental disorders and improving the quality of life of patients.
- *Rehabilitation*: care given to persons with mental disorders in the form of knowledge and skills to help them achieve their optimum level of social and psychological functioning.

More than 450 million people are affected by mental and neurological disorders. In order to improve the lives and conditions of these people it is essential that priorities be set. In the Ministerial Round Tables of 2001, there was unanimous agreement among all the Ministers that mental health should be intimately integrated into the general health care system (WHO, 2001c). For this to happen, services need to be developed or improved; the number of mental health professionals should increase. More and improved mental health care facilities should be constructed. All this requires coordination and direction. Governments, as the ultimate stewards of mental health, need to assume the responsibility for ensuring that these complex activities are carried out. One critical role in stewardship is to develop and implement policy (WHO, 2001a).

A comprehensive policy can provide concrete guidance to a country in the elaboration of its programmes and plans.

#### 1. Presence of mental health policies in each WHO Region and the world

WHO Regions	Countries (%)	Population coverage* (%)
Africa	47.8	68.1
Americas	64.5	62.2
Eastern Mediterranean	68.2	91.0
Europe	67.3	88.6
South-East Asia	70.0	90.3
Western Pacific	48.1	94.1
World	59.5	85.1

N = 185 \*population according to WHR 2000.

An analysis of the data gathered by Project Atlas shows that only 59.5% of countries, accounting for 85.1% of the population, have a mental health policy. In the African Region only 47.8% of countries have a policy. About one third of the population in the African Region is not covered by a mental health policy. Some countries, however, do have such a policy in draft form, but it has yet to be approved by the government.

## 2. Year of initial formulation of the mental health policy

Years	Countries (%)
Up to 1960	6.4
1961 – 1970	0.9
1971 – 1980	5.5
1981 – 1990	22.7
After 1990	57.3
Information not available	7.2

N = 110

## 3. Year of initial formulation of the mental health policy since 1990

Years	Countries (%)
1991 – 1992	17.5
1993 – 1994	20.6
1995 – 1996	12.7
1997 – 1998	20.6
1999 – 2000	27.0
2001	1.6

N = 63

Some 57.3% of countries have formulated their policies in the last decade. Of these, about half have done so in the last five years.

Most countries that report having a policy, also have all the essential components incorporated into them. Treatment issues are covered by 97.2% of countries, prevention by 95.3% of countries, rehabilitation by 93.4% of countries, promotion by 89.5% of countries and advocacy by 80.2% countries. Intersectoral collaboration, collaboration with NGOs, provision of social assistance, human resource development, improvement of community care facilities especially for the underserved (e.g., Maoris in New Zealand) are some of the other components also included in the policies of some countries.

There was a significant association between the presence of a mental health policy and that of a number of different variables: substance abuse policy ( $X^2=41.8$ ,  $p<0.01$ ), a national mental health programme ( $X^2=31.6$ ,  $p<0.01$ ), disability benefits ( $X^2=12.1$ ,  $p<0.01$ ), primary care training facilities in mental health ( $X^2=22.9$ ,  $p<0.01$ ), community care facilities in mental health ( $X^2=7.80$ ,  $p<0.01$ ) and presence of NGO activities in mental health ( $X^2=11.2$ ,  $p<0.01$ ).

Countries should be assisted in the development of mental health policies. Old policies should be revised, bearing in mind the current situation of the country. Countries with limited resources should develop policies that will help them to achieve realistic goals and improve their mental health facilities. Countries without a policy can seek help by studying policies developed by other countries and by adapting them to their own needs. The World Health Organization also provides technical support to assist with the development of comprehensive mental health policies (WHO, 2001d).

The data on mental health policies have several limitations. Many countries, e.g., in the European Region, might not have a stated policy, but may have a well-developed action plan for mental health. This could account for the seemingly low figure given for the presence of mental health policies in the European Region. While some countries, e.g., the USA., do not have a policy at the national level, they may have mental health policies and programmes at state or provincial levels. These have not been taken into account in the present analysis. Although a policy is considered to be an essential step towards providing appropriate mental health services, some countries, which have reported an absence of mental health policies, may still have excellent mental health services. Also, data is not available about the degree to which policies or plans have been implemented. So, it may be possible that although a country reports having a mental health policy, because of incomplete implementation the benefits of the policy may have failed to reach most of the population. Finally, detailed information is not available about the contents of the policy. Some countries, where policies were initially formulated early on, have recently updated them. The present data refers only to the year when they were initially formulated.

## National Mental Health Programme

### DEFINITIONS

- *National mental health programme*: a national plan of action that includes the broad and specific lines of action required in all sectors involved to give effect to the policy. It describes and organizes actions aimed at the achievement of the objectives. It indicates what has to be done, who has to do it, during what time frame and with what resources.
- *Community-based care*: any type of care, supervision and rehabilitation of mental patients outside the hospital by health and social workers based in the community.

A mental health programme helps to prioritize mental health issues in a country. It provides time frames and budgetary support for the programmes. A country often has one national mental health programme that provides direction for the development of mental health in the country. At times these programmes also lend support to other specific populations like children and adolescents, the elderly, refugees, indigenous people, etc., or to issues like HIV and mental health, domestic violence, etc. Some countries do not have a national programme but have plans for the development of specific aspects of mental health. Again, some of these plans/programmes are not national but are at state or provincial levels. Nonetheless, the purpose of a programme is served.

## 4. Presence of national mental health programmes in each WHO Region and the world

WHO Regions	Countries (%)	Population covered* (%)
Africa	73.9	79.3
Americas	80.6	95.5
Eastern Mediterranean	86.4	94.6
Europe	55.1	77.0
South-East Asia	80.0	98.4
Western Pacific	59.3	98.8
World	69.7	92.8

N = 185 \*population according to WHR 2000

In the world 69.7% of countries, accounting for a population of 92.8%, have a national mental health programme.

## 5. Year of initial formulation of the national mental health programme

Years	Countries (%)
Up to 1960	3.2
1961 – 1970	2.3
1971 – 1980	5.4
1981 – 1990	28.7
After 1990	53.5
Information not available	6.9

N = 129

## 6. Year of initial formulation of the national mental health programme since 1990

Years	Countries (%)
1991 – 1992	11.6
1993 – 1994	8.7
1995 – 1996	15.9
1997 – 1998	23.2
1999 – 2000	36.2
2001	4.3

N = 69

Some 53.5% of the programmes were formulated in the last decade. Of these, 63.7% were formulated in the last 5 years.

## 7. Countries in each WHO Region where the national mental health programme was formulated after 1990\*

WHO Regions	1991-2001
Africa	65.6 %
Americas	56.5%
Eastern Mediterranean	26.3%
Europe	70.8%
South-East Asia	42.9%
Western Pacific	66.7%

\*from all countries with a national mental health programme

Although in the European Region only 55.1 % of countries have a programme, most of these programmes (70.8%) have been formulated in the last decade. On the other hand, although 86.4 % of countries in the Eastern Mediterranean Region have a programme almost three quarters of those were formulated before 1990.

It should be borne in mind that the low figures in the European Region may be due to the fact that many countries do not have a national mental health programme, but instead, only have a plan for specific aspects of mental health and often at provincial levels. It is also possible that some of the programmes reported by countries, although formulated prior to 1990, have been revised and updated in the last decade. It is essential to revise the programmes as needs and management issues change over the year. Almost 11 % of the programmes date from before 1980 and it is unlikely therefore that “de-institutionalization” would figure prominently among them. Moreover, since 1980, newer psychotropic drugs have been developed that have enabled patients to function within the community rather than being kept in institutions.

In countries like Hungary and Iceland, mental health programmes form part of a larger national health plan. Most programmes have incorporated in them de-institutionalization and community-based care. Intersectoral cooperation as well as management of specific disorders are other common objectives. Countries like Norway and the Netherlands, have well defined programmes. However, some less developed countries with limited resources like Chile, Egypt, Jordan, India, Mexico, Philippines also have established programmes. In the African Region, Niger has recently developed a programme, Ghana updated its programme in 2000 and Zambia is in the process of developing one.

The most important component of any national mental health programme is the establishment of community care facilities for mental health patients. With newer treatment facilities it has become easier to keep patients suffering from mental disorders in the community. Keeping patients in the community also helps to remove the stigma attached to mental health and psychiatric institutions and asylums.

## 8. Presence of community care for mental health in each WHO Region and the world

WHO Regions	Countries (%)
Africa	54.3
Americas	71.0
Eastern Mediterranean	54.5
Europe	72.3
South-East Asia	50.0
Western Pacific	66.7
World	63.4

N = 183

Community care facilities exist in only 63.4 % of countries, covering 79.9 % of the world's population. In the African, Eastern Mediterranean and South-East Asia Regions, such facilities are present in about half the countries. The population coverage is not uniform and is often restricted to a few areas within the country. This is the case in China, India, Paraguay and Zambia.

## 9. Presence of community care in each income group of countries

Income Group of Countries*	Countries (%)
Low	48.3
Lower Middle	50.9
Higher Middle	77.1
High	94.3

N = 183 \*groups are based on GNP/capita of the countries: low (<\$755), lower middle (\$756-\$2 995), higher middle (\$2 996-\$9 265), high (>\$9 266). Source: World Bank, 2000

Across different income groups, community care facilities in mental health are present in 48.3 % of the low income countries and in 94.3 % of the high income countries.

There were also significant differences between income group and the presence of community care facilities within countries ( $X^2=25.7$ ,  $p<0.01$ ).

Traditional healers are part of community care in many countries such as Cambodia, Guinea, Niger, Nigeria, Senegal. Countries like Australia, Canada, Finland, Norway, the UK, the USA, among others, have well established community care facilities. Other countries like Barbados, Ghana, Qatar have also developed community care facilities. Some countries, however, while benefiting from a programme for community care, find it difficult to establish it throughout the country because of lack of human and financial resources.

Examples of available community care facilities include day-care centres, therapeutic and supervised residential services, crisis residential services, sheltered homes, clubhouses, community mental health services for children and adolescents or the elderly, agricultural psychiatric rehabilitation villages, etc. Comprehensive community care facilities, including the majority of those mentioned above, are found only in the high income countries. The majority of the low income countries and countries belonging to the African, South-East Asia and Western Pacific Regions have limited resources and can afford only a few of these facilities and then only in limited areas.

It is essential that countries start developing community care facilities. Both the public and private sectors should assist with this. Non-governmental organizations too can play an important role.

Some of the European countries that have reported not having a national programme, do have well-developed action plans at state or provincial levels. These are not accounted for in the overall figures. It is possible that some countries that do not appear to have a national mental health programme, may have individual programmes directed at specific areas of need. The data presented here refer only to the initial formulation of the programme and not to revisions or updates. The information given here pertains only to the existence of the programmes and not to their implementation. In some countries, community care facilities may only be available in a few areas. Or, they are available as pilot projects and not throughout the whole country as reported, e.g., in India. Further information is required about the quality of care provided through community facilities and the type of personnel involved in providing mental health care at the community level.

## Mental Health Legislation

### DEFINITIONS

- *Mental health legislation*: legal provisions for the protection of the basic human and civil rights of people with mental disorders and deals with treatment facilities, personnel, professional training and service structure. Mental health legislation includes provisions concerned with the restraint and protection of individual patients, regulation of compulsory admission, discharge procedures, appeals, protection of property, etc.
- *Disability benefits*: benefits that are payable, as part of a legal right, from public funds in cases of mental disorders that reduce a person's capacity to function.

Mental health legislation makes legal provisions for the protection of the basic human and civil rights of people with mental disorders. It deals with treatment facilities, personnel, professional training and service structure. It includes provisions for dealing with restraint and protection of individual patients, regulations for compulsory admission, discharge procedures, appeals, protection of property, etc. Earlier legislation tried to isolate dangerous mentally disordered patients from the community by formulating laws which allowed them to be incarcerated in asylums. Currently, the focus of legislation is more towards ensuring consistency with international human rights obligations. It covers right to treatment, parity in services, entitlements, housing, employment, social support and other similar matters.

#### 10. Presence of law in the field of mental health in each WHO Region and the world

WHO Regions	Countries (%)	*Population coverage (%)
Africa	71.1	67.3
Americas	67.9	87.4
Eastern Mediterranean	57.1	74.4
Europe	91.7	89.2
South-East Asia	70.0	95.8
Western Pacific	76.0	13.8
World	75.3	65.8

N = 170 \*population according to WHR 2000

In the world, 75.3% of countries accounting for 65.8% of the population have laws in the field of mental health. In the Eastern Mediterranean Region only 57.1% of countries have laws in the field of mental health compared with 91.7% of countries in the European Region.

#### 11. Year of initiation of the latest law in the field of mental health

Years	Countries (%)
Up to 1960	15.0
1961 – 1970	9.4
1971 – 1980	10.2
1981 – 1990	11.7
After 1990	50.8
Information not available	2.9

N = 128

#### 12. Year of initiation of the latest law in the field of mental health since 1990

Years	Countries (%)
1991 – 1992	13.8
1993 – 1994	7.7
1995 – 1996	12.3
1997 – 1998	32.3
1999 – 2000	30.8
2001	3.1

N = 65

#### 13. Countries in each WHO Region with initiation of the latest law in the field of mental health after 1990\*

WHO Regions	1991 – 2001
Africa	34.6%
Americas	55.6%
Eastern Mediterranean	41.6%
Europe	74.4%
South-East Asia	16.7%
Western Pacific	42.1%

\*from all countries with laws in mental health

More than half of the existing legislation is recent and has been enacted since 1990. Of this, 66.2% was enacted after 1996. Whereas, in the European Region 74.4% of the legislation was enacted in the last decade, in the South-East Asia Region the figure is only 16.7%. What is striking, is that 15% of the legislation dates from before 1960, when the majority of the current effective methods for treating mental disorders were not available.

Countries have various types of mental health legislation. While some countries have well-defined mental health acts with provisions for human rights, admission and discharge rules, treatment facilities, etc., others have laws related to particular aspects of mental health such as psychiatric services, admissions and discharges rules, involuntary treatment, laws related

to offenders with mental disorders, etc. Some countries like Cuba, Hungary, Iceland, Spain include mental health legislation within their laws on general health. Some of the legislation in countries like Jordan, Niger, Uganda, the UK, Zambia, is being revised. In countries like Australia and Canada, laws are promulgated by the different states or provinces. In Italy, application of the national law on mental health is defined by regional laws and decided at local level.

Although more information is required to make a complete assessment of existing legislation, it is clear that the laws are not comprehensive enough. Legislation needs to be updated and revised on a regular basis keeping in mind the people's requirements. Consumers, service providers, policy-makers should all be actively involved in drafting or revising legislation to make it comprehensive and in line with international norms.

Disability benefits for patients with mental disorders are an issue that must be addressed sooner rather than later. While disability benefits for physical illnesses exist in most countries, disability benefits for mental illnesses do not. Even when they do, they are often inadequate, difficult to obtain and those affected are often unaware that they exist.

#### 14. Presence of disability benefits in each WHO Region and the world

WHO Regions	Countries (%)
Africa	46.5
Americas	87.1
Eastern Mediterranean	75.0
Europe	98.0
South-East Asia	90.0
Western Pacific	61.5
World	75.4

N = 179

Disability benefits are reported to exist in 75.4% of countries covering a population of 93.2%. They exist in only 46.5% of countries in the African Region compared with 98% of countries in the European Region.

#### 15. Presence of disability benefits in each income group of countries.

Income Group of Countries*	Countries (%)
Low	58.6
Lower Middle	79.2
Higher Middle	73.5
High	100

\*World Bank, 2000

Only 58.6% of countries in the low income group provide disability benefits for mental health, compared with all countries in the high income group. There were also significant differences for this comparison ( $X^2=20.2$ ,  $p<0.01$ ).

Knowledge about the existence of these benefits is not uniform across all countries, with the result that the population actually benefiting from them is even lower. Developed countries like Austria, France, Germany, Spain, the UK, the USA, have well developed disability benefits in their laws. Most of the developing countries provide benefits in the form of small monetary help, paid leave (if employed) for a limited period, or early retirement with a pension. However, often the procedures for obtaining them are tedious and they are only available to those with severe chronic mental disorders. Because of the absence of uniform assessment patterns for gauging disabilities, it becomes difficult to judge the severity of disorders and often the needy have to do without disability benefits. This creates difficulties for patients with mental disorders as the course of illness often fluctuates and assessments made at a time when the illness may be mild, generate false impressions that there is little or no disability. What is often overlooked is that psychiatric patients often require long-term maintenance therapy which can itself be the source of considerable financial strain for the patients and their families. The provision of adequate disability benefits becomes more important for those patients. Furthermore, patients may also find themselves without jobs if their illness becomes prolonged. Benefits should therefore be made available to them to cover the period of unemployment. Benefits should also be provided in the form of special training and employment opportunities.

The data on legislation and disability benefits have certain limitations. Some countries do not have separate mental health legislation, although some issues may be covered as a part of wider health legislation. Details about specific components of the laws on mental health are not available. Some laws are comprehensive, while others cover only a few of the necessary

components. Some of the legislation reported by countries may be those related to forensics or may be a part of general health legislation. Information on the degree of implementation of the legislation or the extent and effectiveness of it is not available. Some countries have a number of laws on mental health but only the most recent law and its year of enactment were mentioned. Although many countries report having disability benefits for people with mental disorders, information on the exact kind of disability benefits and their coverage is not available from all countries surveyed. Thus, information about the type of benefits provided, i.e., whether monetary or service-related benefits, or about the sector of the population that benefits, i.e., whether it be all citizens or government employees or employees in the organized sector, is lacking. Information is also required on the mental disorders that are covered by the disability benefits, and about the duration for which persons affected by mental disorders are entitled to receive them. Qualitative data are also required to demonstrate the extent to which the general population is aware of the availability of the benefits. Without this information, having disability benefits is meaningless.

## Substance Abuse Policy

### DEFINITION

- *Substance abuse policy*: a specifically written document of the government or Ministry of Health containing goals of prevention and treatment activities related to the use, abuse and dependence of alcohol, prescription and non-prescription including illicit drugs.

A substance abuse policy is vital to facilitate the planning and improvement of services for the management of people suffering from substance use disorders. The existence of a policy helps to prioritize issues related to substance use and provides direction to governmental or non-governmental organizations to work towards a common goal – the improvement of the services and resources directed towards helping patients affected by substance use disorders. The policy should be comprehensive enough to address the existing problems of the country and should cover both alcohol and illicit drugs.

### 16. Presence of a substance abuse policy in each WHO Region and the world.

WHO Regions	Countries (%)
Africa	52.2
Americas	71.0
Eastern Mediterranean	81.0
Europe	85.7
South-East Asia	80.0
Western Pacific	53.8
World	69.4

N = 183

A substance abuse policy exists in 69.4% of countries of the world, covering a population of 77.7%. However, fewer countries in the African Region (52.2%) and Western Pacific Region (53.8%) have a policy. Almost 30% of countries in the Region of the Americas do not have a substance abuse policy though they have the highest prevalence of both alcohol and drug related disorders, as was found in the GBD, 2000 analysis.

### 17. Year of initial formulation of the substance abuse policy.

Years	Countries (%)
Up to 1960	1.6
1961 – 1970	3.9
1971 – 1980	7.1
1981 – 1990	22.8
After 1990	55.1
Information not available	9.5

N = 127

### 18. Year of initial formulation of the substance abuse policy since 1990

Years	Countries(%)
1991 – 1992	5.7
1993 – 1994	10.0
1995 – 1996	25.7
1997 – 1998	27.1
1999 – 2000	30.0
2001	1.4

N = 70

### 19. Countries in each WHO Region that formulated a substance abuse policy after 1990\*

WHO Regions	1991-2001
Africa	63.2 %
Americas	57.9%
Eastern Mediterranean	43.8%
Europe	73.8%
South-East Asia	57.1%
Western Pacific	41.7%

\*from all countries with a substance abuse policy.

The last decade saw the formulation of 55.1% of the policies. Of these, 57.5% were formulated in the last 5 years. In the European Region, 73.8% of the policies were formulated in the last decade compared to only 41.7% and 43.8% of the policies in the Western Pacific and Eastern Mediterranean Regions, respectively.

Some European Region countries like the Netherlands and Luxembourg have policies which outline drug substitution and harm-reduction programmes. Poland's policy outlines different types of care facilities.

A substance abuse policy needs to be developed in those countries which currently lack one. In other countries, where the policies are not comprehensive, they should be revised. When revising policy, policy-makers should take account of current needs and involve all interested parties in the process.

While some countries may have reported no policy, they may actually have individual plans or programmes for dealing with drug abuse or dependence. In spite of our efforts, it is possible that some countries may have reported the existence of substance abuse policies because they have legislation on substance abuse. This could be because a number of countries do have narcotics related legislation. However, specific details about the substances covered by substance abuse policy, the dates on which the policies were revised, and the extent of their implementation are not available.

## Therapeutic Drugs

### DEFINITIONS

- *Therapeutic drug policy*: a written commitment, endorsed by the Minister of Health or the Cabinet, to ensure accessibility and availability of essential therapeutic drugs. It contains measures for regulating the selection, purchase, procurement, distribution and use of essential and appropriate drugs, including those for mental and neurological disorders. It can also specify the number and types of drugs to be made available to health workers at each level of the health service according to the functions of the workers and the conditions they are required to treat. Under the national policy, drugs may be supplied free of charge to all or selected groups.
- *Essential list of drugs*: the officially approved list of essential drugs that the country has adopted. It is usually adapted from the WHO Model List of Essential Drugs.

A therapeutic drug policy ensures accessibility to and availability of essential therapeutic drugs. It includes measures for regulating the selection, purchase, procurement, distribution and use of essential and appropriate drugs, including those for mental and neurological disorders. It can also specify the number and types of drugs to be made available to health workers at each level of the health service according to the functions of the workers and the conditions they are required to treat. An essential drugs list provides a list of drugs that are considered by the country as essential.

## 20. Presence of a therapeutic drug policy/essential list of drugs in each WHO Region and the world

WHO Regions	Therapeutic Drug Policy/ Essential List of Drugs (%)
Africa	95.7
Americas	86.7
Eastern Mediterranean	95.2
Europe	79.2
South-East Asia	100
Western Pacific	84.6
World	88.4

N = 181

Some 88.4 % of countries in the world, covering a population of 90.8%, reported the existence of a therapeutic drug policy or essential list of drugs. In the European Region 79.2 % of countries have either one or other of them. All countries in the South-East Asia Region have either a policy or an essential list of drugs.

## 21. Year of initial formulation of the therapeutic drug policy/essential list of drugs.

Years	Countries (%)
Up to 1960	1.2
1961-1970	1.3
1971-1980	9.4
1981-1990	15.0
After 1990	50.0
Information not available	23.1

N = 160

## 22. Year of initial formulation of the therapeutic drug policy/essential list of drugs since 1990.

Years	Countries (%)
1991-1992	11.3
1993-1994	15.0
1995-1996	22.5
1997-1998	28.8
1999-2000	21.3
2001	1.3

N = 80

Half of the policies or essential lists of drugs were formulated in the last decade. Of these, 25.6 % were formulated in the last 5 years.

Information about availability, most common basic strength and cost of a specific list of drugs was sought.

## 23. Availability of therapeutic psychotropic drugs in primary care.

Drug	Countries (%)
Carbamazepine (N = 176)	91.5
Ethosuximide (N = 176)	39.8
Phenobarbital (N = 176)	96.6
Phenytoin (N = 175)	80.6
Sodium Valproate (N = 174)	68.4
Amitriptyline (N = 175)	88.6
Chlorpromazine (N = 177)	92.1
Diazepam (N = 176)	97.7
Fluphenazine (N = 175)	69.7
Haloperidol (N = 175)	91.4

(continued)

Drug	Countries (%)
Lithium (N = 174)	67.8
Biperiden (N = 175)	46.3
Carbidopa (N = 170)	51.2
Levodopa (N = 171)	63.2

N = 170-176

Among anti-epileptics, phenobarbital is available in 96.6 % of countries and phenytoin in 80.6 % of countries. Amitriptyline, an anti-depressant, is available in 88.6 % of countries. Among anti-psychotics, chlorpromazine is available in 92.1 % of countries but fluphenazine in only 69.7 % of countries. Lithium, a mood stabilizer, is available in 67.8 % of countries. Carbamazepine and sodium valproate, which although are anti-epileptics, can also act as mood stabilizers and are available in 91.5 % and 68.4 % of countries, respectively. Anti-Parkinson drugs are available in a lesser number of countries, with biperiden available in only 46.3 % of countries.

Although the availability reported by countries is high, it should be kept in mind that these drugs are neither available in all primary care centres of a country nor are they easily available at all times. Thus, effectively, the availability of these drugs would be much lower than that reported.

## 24. Availability of three\* essential therapeutic psychotropic drugs at primary care level in each WHO Region and the world

WHO Regions	Countries (%)
Africa	71.1
Americas	90.0
Eastern Mediterranean	78.9
Europe	77.8
South-East Asia	88.9
Western Pacific	88.9
World	80.6

N = 175 \*phenytoin, amitriptyline and chlorpromazine

In the world, 80.6 % of countries report having each of the three drugs: amitriptyline (an anti-depressant), chlorpromazine (an anti-psychotic) and phenytoin (an anti-epileptic). In the African Region all three of these drugs are available in 71.1 % of countries.

The cost of the aforementioned three drugs varies widely within different WHO Regions and income groups. In order to make a simple comparison, the cost of drugs for treating mental disorders for one year using an average maintenance dose was calculated for all countries.

## 25. Comparison of median per year expenditure for treating depression with Amitriptyline (150mg/day) within different WHO Regions

WHO Regions	Median cost (USD)
Africa	30.66
Americas	53.66
Eastern Mediterranean	24.09
Europe	72.27
South-East Asia	35.26
Western Pacific	49.60

26. Comparison of median per year expenditure for treating psychotic disorders with Chlorpromazine (400mg/day) within different WHO Regions

WHO Regions	Median cost (USD)
Africa	40.88
Americas	91.98
Eastern Mediterranean	34.60
Europe	110.38
South-East Asia	28.47
Western Pacific	51.03

27. Comparison of median per year expenditure for treating epilepsy with Phenytoin (300mg/day) within different WHO Regions.

WHO Regions	Median cost (USD)
Africa	20.59
Americas	57.49
Eastern Mediterranean	33.18
Europe	33.73
South-East Asia	22.34
Western Pacific	42.21

Across different WHO Regions, the cost of treatment for one year using amitriptyline (150 mg/day) varies from \$24.09 in the Eastern Mediterranean Region to \$72.27 in the European Region; for chlorpromazine (400 mg/day), the cost varies from \$28.47 in the South-East Asia Region to \$110.38 in the European Region; and for phenytoin (300 mg/day), the cost varies from \$20.59 in the African Region to \$57.49 in the Region of the Americas.

28. Comparison of median per year expenditure for treating depression with Amitriptyline (150mg/day) in different income groups of countries

Income Group of Countries*	Median cost (USD)
Low	50.37
Lower Middle	40.41
Higher Middle	39.97
High	90.45

\*World Bank 2000

29. Comparison of median per year expenditure for treating psychotic disorders with Chlorpromazine (400mg/day) in different income groups of countries.

Income Group of Countries*	Median cost (USD)
Low	35.48
Lower Middle	34.24
Higher Middle	89.50
High	156.15

\*World Bank 2000

30. Comparison of median per year expenditure for treating epilepsy with Phenytoin (300mg/day) in different income groups of countries

Income Group of countries*	Median cost (USD)
Low	19.16
Lower Middle	27.81
Higher Middle	44.13
High	37.99

\*World Bank 2000

Across different income groups the median cost for one year of treatment with amitriptyline (150 mg/day) varies from \$39.97 in the higher middle income group to \$90.45 in the high income group; for chlorpromazine (400mg/day), the cost varies from \$34.24 in the lower middle income group to \$156.15 in the high income group; and for phenytoin (300mg/day), the cost varies from \$19.16 in the low income group to \$37.99 in the high income group. From the analysis of cost it is apparent that low income countries which have a GNP/capita that is at least one-twelfth that of high income countries pay only half the cost for treatment of depression (with amitriptyline) and epilepsy (with phenytoin) and one-fourth of the cost for the treatment of psychosis (with chlorpromazine).

A therapeutic drug policy or essential list of drugs is important since without it, a country will not have an overview of the number and type of drugs it requires. A list of essential drugs makes it easy for institutions to procure them and at relatively reduced prices. Presence of a therapeutic drug policy also helps the government to decide on the number and type of drugs it needs to dispense at various levels of care – primary, secondary and tertiary.

In some countries like Jordan, Poland, etc., drugs are reimbursed at the primary level. A few countries also mentioned availability of drugs besides those about which information was sought, particularly anti-Parkinson drugs. Anti-depressants like SSRIs, and atypical anti-psychotics are also included in the list of essential drugs in some countries.

Information on how many and which psychotropic therapeutic drugs are included in the essential lists of drugs, is unavailable. In most countries availability of drugs at primary level is restricted to some primary care centres only. The availability of therapeutic drugs even in those primary care centres may not be uniform at all times and it is possible that in some countries the drugs listed as available are only available inconsistently. Some countries partially or wholly subsidize the cost of drugs at primary care level but, again, the extent to which this is done is not known. Data on the cost of drugs are not available from some countries, hence the present data may not be representative of the entire WHO Regions. Prices have been converted directly from local currencies to USD, without consideration of purchasing power, which may differ markedly between countries. Wherever possible, the conversion rate to USD was based on the Official WHO/UN Exchange Rates (as of November 2000). The conversion was not meant to be exact. The cost of the drugs reported may not be the official government prices. The cost of drugs as reported here may have changed between the time it was reported and the time of this publication. Attempt was made to quote the prices of 100 units for all the drugs. However, the cost of fluphenazine decanoate injection (25 mg) has been quoted per injectible unit. Though every attempt was made to report the correct cost, there may be errors that need to be corrected based on further information. No attempt was made to corroborate the data with commercial drug prices' databases. The information presented in this project, therefore, is based on the best information that was available to the respondents at the time of completing the questionnaire.

## Budget for Mental Health Care

### DEFINITION

- *Specified budget for mental health:* the regular source of money, available in a country's budget, allocated for actions directed towards the achievement of mental health objectives.

Whether it be for the implementation of mental health policies or programmes or the establishment of psychiatric care facilities, it is essential to know the amount of money available. The purpose of having a mental health budget is precisely to have this information.

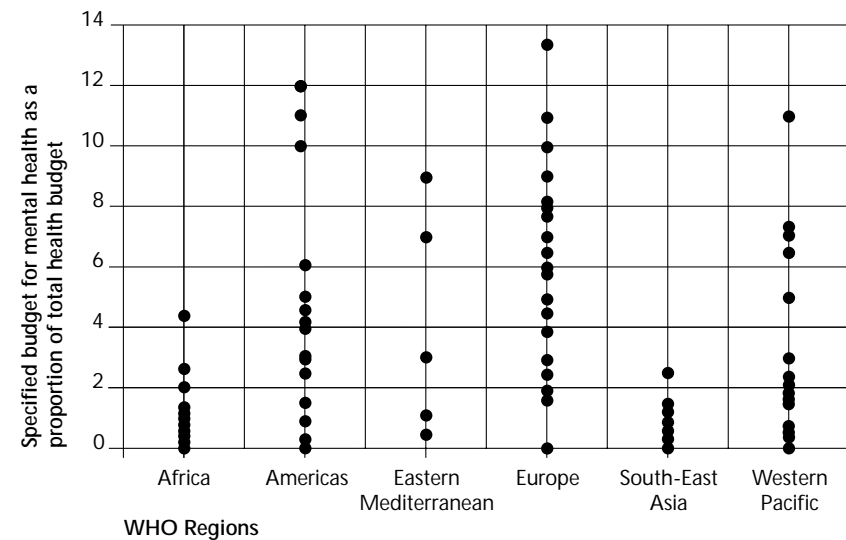
31. Presence of a specified budget for mental health care in each WHO Region and the world.

WHO Regions	Countries (%)
Africa	62.2
Americas	92.6
Eastern Mediterranean	80.0
Europe	72.3
South-East Asia	66.7
Western Pacific	63.0
World	72.0

N = 175

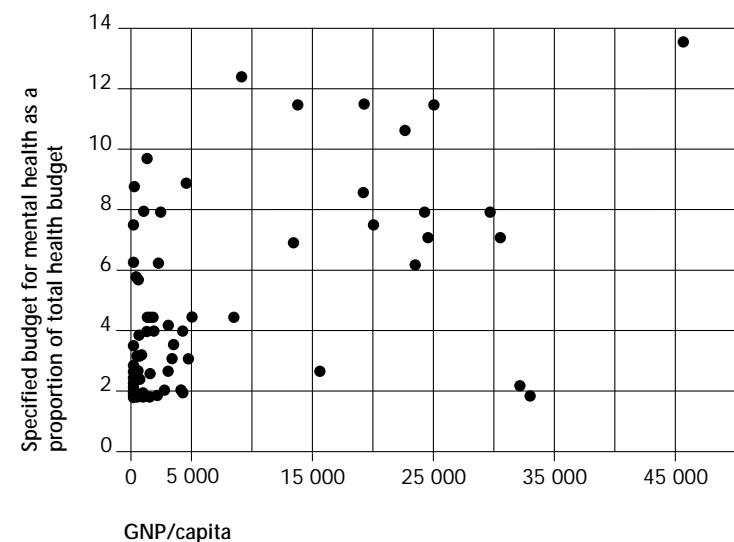
In spite of the importance of a separate mental health budget within the total health budget, 28% of countries reported not having a specified budget for mental health care. In the Regions of Africa, South-East Asia and Western Pacific, such a budget is present in 62.2%, 66.7% and 63% of countries. On the other hand, 92.6% of countries in the Americas Region have a specified budget for mental health care.

### 32. Specified budget for mental health as a proportion of total health budget in each WHO Region (N = 91)



Although only 91 countries have provided information on the actual budget for mental health, this nevertheless covers about 4.5 billion people. Of the 91 countries 36.3%, covering a population of more than 2 billion, spend less than 1% of the total health budget on mental health. In the Regions of Africa and South-East Asia, 78.9% and 62.5% of countries, respectively, spend less than 1% of their health budget on mental health care. More than 54% of countries in the European Region spend more than 5% of their health budget on mental health care.

### 33. Specified budget for mental health as a proportion of total health budget by GNP/capita (USD). (N = 70)



Among low income countries, 61.5% accounting for a population in excess of 1.6 billion, spend less than 1% of their budget on mental health care. However, even among high income countries, 15.8% accounting for a population in excess of 130 million people, spend less than 1% of their health budget on mental health care.

Many European Region countries report that while they do not have a national budget specifically for mental health care, they do allocate budgets to each province or state under their mental health programmes. In many countries mental health is a part of the primary health care system making it difficult to ascertain the budget for mental health care.

Mental disorders are estimated to affect about 450 million people in the world and account for 12.3% of the global burden of disease (WHO, 2001a). Recent GBD 2000 analyses show that the aggregate point prevalence of selected mental disorders in adults is about 10% (WHO, 2001a). Even considering the limitations of the current data, it is obvious that countries spending less than 1% of their total health budget on mental health care need to substantially increase it. This increase cannot be achieved immediately but should be done in a series of stages over a period of some years. With an increase in budget would come more programmes related to mental health, better community care facilities and better treatment facilities.

The number of countries that reported a specified budget for mental health as a proportion of their total health budget is relatively small. Many countries, especially in the European Region, do not have a separate mental health budget. However, they make financial allocations for mental health within the overall health budget at federal or state level. Some countries have a federal system where individual states are responsible for health expenditure. These countries were not able to provide aggregate figures. It is also possible that some countries have provided the budget allocations for their national mental health programmes. Again, some countries like Austria were unable to provide specific information about the mental health budget as mental health care is fully integrated within the primary care system, as advocated by WHO, and no separate budget exists for mental health. Information is also lacking about budget allocations to government or non-governmental sectors; for rural or urban sectors; and distribution of budgets for different services and resources. In view of all these limitations the data on mental health budgets should be viewed as preliminary and indicative, even at the country level.

## Methods of Financing Mental Health Care

### DEFINITIONS

- *Out-of-pocket payment*: money spent by the consumer or the consumer's family as the need arises.
- *Tax based funding*: money for mental health services raised through taxation: either through general taxation, or through taxes earmarked specifically for mental health services.
- *Social insurance*: everyone above a certain income level is required to pay a fixed percentage of their income to a government-administered health insurance fund. In return, the government pays for part or all of the consumer's mental health services, should they be needed.
- *Private insurance*: the health care consumer voluntarily pays a premium to a private insurance company. In return, the insurance company pays for part or all of the consumer's mental health services, should they be needed.
- *External grants*: money provided to countries by other countries or international organizations.

The most important source of financing mental health has been reported by 171 countries.

### 34. Methods of financing\* mental health care in each WHO Region and the world

WHO Regions	Mode of finance	Most common method of financing Countries (%) <sup>1</sup>	Second most common method of financing Countries (%) <sup>2</sup>
Africa	Out-of-pocket payment	35.9	42.9
	Tax Based	53.9	19.0
	Social insurance	0	14.3
	Private insurance	5.1	14.3
	External Grants	5.1	9.5
Americas	Out-of-pocket payment	13.3	30.0
	Tax Based	66.7	25.0
	Social insurance	16.7	25.0
	Private insurance	3.3	10.0
	External Grants	0	0
Eastern Mediterranean	Out-of-pocket payment	22.2	61.5
	Tax Based	66.6	15
	Social insurance	5.6	7.7
	Private insurance	0	15.4
	External Grants	5.6	0

(continued)

WHO Regions	Mode of finance	Most common method of financing Countries (%) <sup>1</sup>	Second most common method of financing Countries (%) <sup>2</sup>
Europe	Out-of-pocket	0	28.9
	Tax Based	50	28.9
	Social insurance	50	26.4
	Private insurance	0	15.8
	External Grants	0	0
South-East Asia	Out-of-pocket payment	30.0	50.0
	Tax Based	70.0	25.0
	Social insurance	0	0
	Private insurance	0	0
	External Grants	0	25.0
Western Pacific	Out-of-pocket payment	11.5	33.3
	Tax Based	73.1	20.0
	Social insurance	7.7	26.7
	Private insurance	0	13.3
	External Grants	7.7	6.7
World	Out-of-pocket payment	16.4	37.4
	Tax Based	60.2	23.5
	Social insurance	18.7	21.7
	Private insurance	1.8	13.1
	External Grants	2.9	4.3

<sup>1</sup>(N = 171) <sup>2</sup>(N = 115) \*based on information provided by countries

World-wide, out-of-pocket payment is the most important method for financing mental health care in 16.4% of countries. In 60.2% of countries the most important method is tax based; in 18.7% of countries: social insurance; in 1.8% of countries: private insurance; and in 2.9% of countries external grants from international organizations and other countries. Across all Regions, tax based financing is the most important financing method in half to almost three-quarters of the countries. Out-of-pocket payment is the most important method of financing in 35.9% of countries in the African Region, in 30% of countries in the South-East Asia Region and in 22.2% of countries in the Eastern Mediterranean Region. Out-of-pocket payment is not the primary method of financing mental health in any country in the European Region. In the European Region social insurance is the primary method of financing in 50% of countries and in the Americas Region in 16.7% of countries, compared to none in the African and South-East Asia Regions and only 7.7% and 5.6% of countries in the Regions of the Western Pacific and Eastern Mediterranean, respectively. Private insurance and external grants are primary sources of financing in very few countries across the world.

Of the 115 countries that provided details on the second most important method of financing mental health care, 37.4% of countries use out-of-pocket payment, 23.5% tax based, 21.7% social insurance, 13.1% private insurance and 4.3% external grants. Out-of-pocket payment is the second most used method of financing mental health care in 42.9% of countries in the African Region, 30% of countries in the Region of the Americas, 61.5% of countries in the Eastern Mediterranean Region, 28.9% of countries in the European Region, 50% of countries in the South-East Asia Region and 33.3% of countries in the Western Pacific Region. Social insurance, as the second most important method of financing is used by 25% of countries in the Region of the Americas and more than 26% of countries in the European and Western Pacific Regions. Importantly, 14.3% of countries in the African Region report using social insurance as the second most common method of financing mental health. In the South-East Asia Region, no country uses social insurance to finance mental health care, not even as the second most common method of financing.

The methods of financing across different income groups also vary.

### 35. Primary method of financing\* mental health care in each income group of countries

Income Group of Countries**	Mode of finance	Most common method of financing Countries (%) <sup>1</sup>	Second most common method of financing Countries (%) <sup>2</sup>
Low	Out-of-pocket payment	39.6	37.9
	Tax Based	52.8	34.5
	Social insurance	0	13.8
	Private insurance	3.8	6.9
	External Grants	3.8	6.9
Lower Middle	Out-of-pocket payment	12.0	42.4
	Tax Based	64.0	12.1
	Social insurance	18.0	30.3
	Private insurance	0	9.1
	External Grants	6.0	6.1
Higher Middle	Out-of-pocket payment	0	44.0
	Tax Based	70.6	20.0
	Social insurance	29.4	16.0
	Private insurance	0	16.0
	External Grants	0	4.0
High	Out-of-pocket payment	2.9	25.0
	Tax Based	55.9	28.6
	Social insurance	38.3	25.0
	Private insurance	2.9	21.4
	External Grants	0	0

<sup>1</sup>(N = 171) <sup>2</sup>(N = 115) \*based on information provided by countries. \*\*World Bank 2000

Across different income groups, tax based care is the primary method of financing mental health in all countries irrespective of their income. Out-of-pocket payment is the primary method in 39.6% of low income countries compared to none in the higher middle income countries and only 2.9% in the high income countries. Social insurance is the primary method in 38.3% of high income countries, 29.4% of higher middle income countries and 18% of lower middle income countries. No low income country uses social insurance as its primary method of financing mental health care. Private insurance and external grants are used by a limited number of countries. Across different income groups, out-of-pocket payment is the second most important financing method in 37.9% of low income countries, 42.4% of lower middle income countries, 44% of higher middle income countries and 25% of high income countries. Taxes are an important secondary method of financing in 34.5% of low income countries, 12.1% of lower middle income countries, 20% of higher middle income countries and 28.6% of high income countries. Social insurance is an important secondary financing method in only 13.8% of low income countries. Private insurance is the second most important method in 21.4% of countries belonging to the high income group and 16% of countries belonging to the higher middle income group.

The most relevant point to emerge is that although tax based financing is the most important method of financing in the mental health sector, out-of-pocket payment is also a major method of financing. However, this is not a satisfactory method. Unfortunately, it is a common method in low income countries and in some of the poorest Regions of the world – the African, Eastern Mediterranean and South-East Asia Regions. Social insurance and private insurance is more important in the European Region and high income countries. Insurance plays almost no part in financing mental health care in the South-East Asia Region and a minimal part in the Regions of Africa and Western-Pacific. In the Region of the Americas, although tax based financing is the most important, out-of-pocket payment and both social and private insurance are also important methods of financing mental health care.

As in any other health care system, mental health care can be financed by different methods such as taxes, out-of-pocket payment, social and private insurance and external grants. Out-of-pocket payment should be avoided since severe mental disorders can lead to huge financial expenditure which individuals and families may have difficulty paying on their own. Mental health care should, for preference, be tax based or insurance dependent. Private health insurance is generally more restrictive in the coverage of mental illness than in the coverage of somatic illness (DHSS, 1999). Private insurers fear long-term psychotherapy and other long-term mental health care and so either refuse to support treatment of mental disorders or do so only by imposing numerous restrictions. Either the amount paid is less or the premium is very high. At

times co-payments have to be made too. Social insurance and tax based care can help to reduce this problem. Social insurance and tax based government services while being cheaper can, at times, lead to poorer quality of care. Therefore, appropriate measures to assess quality should be taken. Research on managed care has shown that although it reduces the cost of mental health services it may ultimately contribute to lowered access and quality of care (DHSS, 1999). Some poorer countries with almost negligible mental health resources may need financial support from international organizations or other countries to help establish a mental health service system.

Low income countries and countries belonging to Regions where a major portion of mental health care is financed through out-of-pocket payment, should try to shift the burden of expenditure to taxes and insurance.

The information on the sources of financing for mental health care as presented here has several limitations and should be considered both preliminary and indicative. It is derived only from governmental sources, pertains only to the "most important" method of financing and is not supported at present by actual numbers. Although working definitions of the terms used were provided, it is possible that some countries may not have used them accurately when providing information. Since mental health financing is a relatively new area of investigation most countries do not have the information required to accurately provide data on this. The ratings provided are the estimates of the respondents and are at best approximations. They are not based on available statistics. There is also a lack of information about the proportion of each category of financing for mental health care. This is because this project only sought information ranked by order of importance on each source of financing. It is hoped that in future as countries become more aware of this issue, more accurate and definitive information on mental health financing sources will be available. In some countries traditional healers are responsible for community care in mental health in rural settings. It is difficult to assess their relative contribution to overall mental health care.

## Mental Health in Primary Care and Training

### DEFINITIONS

- *Mental health in primary care*: the provision of basic preventive and curative mental health at the first level of the health care system. Usually this means that care is provided by a non-specialist who can refer complex cases to a more specialized mental health professional.
- *Training of primary care personnel*: the provision of essential knowledge and skills in identification, prevention and care of mental disorders to primary health care personnel.

Primary care provides: (1) the first level at which help is sought from the medical system; (2) continuing care for common disorders; and (3) coordination of the different types of health care and social services (Üstün and Von Korff, 1995). Primary care provides for basic preventive and curative mental health. This usually means that care is provided by non-specialists who can refer complex cases to a more specialized mental health professional. Though many people suffer from mental illnesses, the number requiring specialized mental health care is much lower. Thus, most patients suffering from mental health related problems, including some with more serious mental disorders, can be easily managed at the primary care level, provided that basic treatment facilities are available and that the personnel, i.e. doctors, nurses, assistants, are suitably trained.

### 36. Presence of mental health care facilities and treatment facilities for severe mental disorders in primary care in each WHO Region and the world.

WHO Regions	Presence of Mental Health Care in Primary Care (%) <sup>1</sup>	Presence of Treatment Facilities for Severe Mental Disorders in Primary Care (%) <sup>2</sup>
Africa	82.6	56.5
Americas	96.8	66.7
Eastern Mediterranean	77.3	50.0
Europe	95.9	65.3
South-East Asia	80.0	44.4
Western Pacific	77.8	55.6
World	87.0	59.1

<sup>1</sup>N = 185 <sup>2</sup>N = 181

### 37. Presence of mental health care facilities and treatment facilities for severe mental disorders in each income group of countries.

Income Group of Countries*	Presence of Mental Health Care in Primary Care (%) <sup>1</sup>	Presence of Treatment Facilities for Severe Mental Disorders in Primary Care (%) <sup>2</sup>
Low	77.0	51.7
Lower Middle	87.0	46.3
Higher Middle	94.3	66.7
High	97.1	85.3

<sup>1</sup>N = 185 <sup>2</sup>N = 181 \*World Bank, 2000

Mental health facilities at primary level are reported to be present in 87 % of countries and to cover 97 % of the world's population. However, in actual fact, the population coverage is lower, as primary care services are not distributed evenly across all countries. They are available in more than 77 % of countries in the Eastern Mediterranean and Western Pacific Regions and in around 96 % of countries in the Americas and European Region. Across income groups they are present in 77 % of low income countries and 97.1 % of high income countries.

In a separate question, respondents were asked about the availability of treatment facilities for severe mental disorders in primary care settings. These were reported to be available in only 59 % of countries in the world covering 51 % of the population. The actual population coverage is in fact lower since it is not uniform. Such facilities are available in only 44.4 % of countries in the South-East Asia Region. Even in the Regions of Europe and Americas, they are available in only 65.3 % and 66.7 % of countries. Across different income groups they are available in 51.7 % of low income countries, 46.3 % of lower middle income countries and 85.3 % of high income countries.

### 38. Presence of training facilities for primary care personnel in mental health in each WHO Region and the world

WHO Regions	Countries (%)
Africa	54.3
Americas	41.9
Eastern Mediterranean	77.3
Europe	61.7
South-East Asia	90.0
Western Pacific	55.6
World	59.0

N = 183

It is not sufficient to have an infrastructure for mental health care at the primary level without having adequately trained staff to detect mental health problems and manage them effectively. In the world, 59 % of countries have some training facilities for primary care personnel in the field of mental health. Whereas 90 % of countries of the South-East Asia Region have some training facilities, the same are available in only 41.9 % of countries in the Region of the Americas.

### 39. Presence of training facilities for primary care personnel in mental health in each income group of countries

Income Group of Countries*	Countries (%)
Low	57.4
Lower Middle	63.0
Higher Middle	51.4
High	63.6

N = 183 \*World Bank, 2000

Training facilities are available in 57.4 % of low income countries and 63.6 % of high income countries.

A Kruskal-Wallis one way ANOVA revealed that there was a significant relationship between the presence of primary care activities in mental health and the number of psychiatrists ( $X^2= 22.8$ ,  $p<0.01$ ) and the number of psychiatric nurses ( $X^2= 19.7$ ,  $p<0.01$ ). Primary care treatment facilities for mental disorders also showed a significant relationship with the number health professionals; psychiatric nurses ( $X^2= 7.3$ ,  $p<0.05$ ), psychologists ( $X^2= 10.7$ ,  $p<0.01$ ), and social workers ( $X^2= 4.1$ ,  $p<0.01$ ). In all cases there were a greater number of professionals when primary health care and treatment facilities were available.

Mental health care facilities in primary care are an integral part of the system in countries like Australia, Austria, Italy, Netherlands, the UK, the USA. Some less developed countries like Barbados and Jamaica have also made efforts to integrate mental health into primary care. Some large countries like China and India have mental health care facilities at the primary care level, but in only a few selected centres. Although actual treatment of severe disorders is not available in most countries, follow-up of patients once they have been diagnosed and prescribed medicines, is taken up at primary care level in some countries.

Training facilities for primary care professionals are limited. High income countries of the Regions of Europe and Americas have regular training programmes for doctors, nurses and social workers working at primary care level. Some other countries like Cambodia, Pakistan, Botswana, Lesotho have also developed training facilities for primary care professionals. Most other countries have irregular training programmes where seminars or workshops are held and some primary care personnel provide information on the detection and management of mental disorders. These schedules are neither comprehensive nor regular. The reason for irregular training programmes could be a lack of resources and funds.

Overall about a quarter of patients in primary health care suffer from mental disorders (Goldberg & Lecrubier, 1995). The majority of the disorders can be managed effectively at primary care level if adequate resources are made available. Shifting mental health care to primary level also helps to reduce stigma and improves early detection and treatment facilities. Shared infrastructure leads to cost-efficiency and savings; use of community resources can partly offset the limited availability of mental health resources (WHR, 2001a). Integration of mental health into primary care has been found to be useful in countries like Cambodia, India, Iran, Jamaica, Nepal and Zimbabwe. For an effective mental health care delivery system it is essential that primary care professionals are trained adequately to detect disorders and prescribe appropriate psychotropic drugs; that psychotropic drugs are made available at primary level; that primary centres are easily connected with secondary and tertiary care centres; that adequate monitoring systems are in place; and that funds are redistributed from the tertiary to the secondary and primary levels.

Although a large number of countries have reported mental health as an integral part of primary care level, the actual implementation of this at ground level is highly uneven. Often the facilities are restricted to particular areas where specific projects are in place and do not extend to the whole country. Treatment facilities for severe mental disorders in primary care settings across different countries also vary greatly. The quality of care provided was not ascertained through this exercise. More information is required about the different personnel involved in the primary care of psychiatric patients. Whereas in some countries primary care is essentially provided by medical assistants, nurses or other primary care workers, in other countries it is provided by primary care doctors. Training also varies across countries. While some have regular and more comprehensive programmes for different types of personnel, others do not. The data, however, do not reflect these differences in quality and coverage of training activities. Some countries might not have reported having regular training facilities for primary care workers because the latter may have been trained in mental health before their job placements or there may be local facilities for training.

## Psychiatric Beds

### DEFINITION

- *Psychiatric bed*: bed maintained for continuous use by patients with mental disorders. These beds are located in public and private psychiatric hospitals, general hospitals and hospitals for the elderly and children.

The mean number of psychiatric beds in the world per 10 000 population is 4.36 (standard deviation (S.D.) 5.47, median 1.6).

#### 40. Median number of psychiatric beds per 10 000 population in each WHO Region and the world

WHO Regions	Median per 10000 population
Africa	0.34
Americas	3.30
Eastern Mediterranean	0.79
Europe	8.70
South-East Asia	0.33
Western Pacific	0.98
World	1.60

N = 183

The median figures per 10 000 population vary from 0.33 in the South-East Asia Region to 8.7 in the European Region.

#### 41. Median number of psychiatric beds per 10 000 population in each income group of countries

Income Group of Countries*	Median per 10 000 population
Low	0.24
Lower Middle	1.40
Higher Middle	5.40
High	8.70

N = 183 \*World Bank 2000

The distribution of psychiatric beds across different income countries also varies. The mean and median figures per 10 000 population in low income countries are 1.03 and 0.24, respectively, compared with 9.48 and 8.7, respectively, in high income countries.

There are approximately 1.85 million psychiatric beds in the world and 65.1% of them are in mental hospitals.

#### 42. Approximate proportion of psychiatric beds in different settings in each WHO Region and the world

WHO Regions	Mental Hospitals (%)	General Hospitals (%)	Others* (%)
Africa	78.0	12.8	9.2
Americas	47.6	16.8	35.6
Eastern Mediterranean	74.7	11.2	14.1
Europe	70.5	10.1	19.4
South-East Asia	84.0	13.6	2.4
Western Pacific	69.3	22.7	8.0
World	65.1	15.9	19.0

\*includes private and military hospitals, hospitals for special groups of population, long-term rehabilitation centres.

Across different Regions, South-East Asia has 84% of its psychiatric beds in mental hospitals compared with 47.6% in the Americas. In the European Region 70.5% of the psychiatric beds are in mental hospitals. The Western Pacific Region has the highest proportion of psychiatric beds in general hospitals (22.7%), followed by the Americas with 16.8% of their total psychiatric beds in general hospitals. The Americas also have 35.6% of their total psychiatric beds in settings other than mental or general hospitals. These include military hospitals, private set-ups, long-term rehabilitation centres, among others.

#### 43. Approximate proportion of psychiatric beds in mental hospitals in each income group of countries.

Income Group of Countries*	Mental Hospitals (%)
Low	86.1
Lower Middle	79.9
Higher Middle	66.8
High	55.6

N = 183 \*World Bank, 2000

In low income countries 86.1% of the beds are in mental hospitals. Even, in high income countries the figure is 55.6%.

#### 44. Distribution of psychiatric beds per 10000 population in each WHO Region and the world.

WHO Regions	Countries % (Population covered %)			
	0-1	1.01 – 5	5.01 – 10	>10
Africa	76.1 (82.5)	19.6 (17.3)	4.3 (0.2)	-
Americas	22.6 (20.0)	35.5 (34.9)	19.4 (41.1)	22.6 (4.0)
Eastern Mediterranean	54.5 (63.2)	36.4 (36.0)	9.1 (0.8)	-
Europe	-	22.4 (21.7)	38.8 (44.4)	38.8 (33.9)
South-East Asia	75.0 (94.6)	25.0 (5.4)	-	-
Western Pacific	51.9 (86.6)	29.6 (2.7)	7.4 (0.2)	11.1 (10.6)
World	40.4 (64.9)	26.8 (14.7)	16.9 (12.0)	15.8 (8.4)

N = 183

In 40.4% of countries covering 64.9% of the population there is less than one psychiatric bed per 10 000 of the population. In the South-East Asia Region 94.6% of the population has access to less than one bed per 10 000 population. In the Regions of Africa and the Western Pacific, 82.5% and 86.6% of the population, respectively, have access to less than one bed per 10 000 population. In the European Region 21.7% of the population has access to less than 5 psychiatric beds per 10 000 population.

#### 45. Distribution of psychiatric beds per 10 000 population in each income group of countries

Income Group of Countries*	Countries % (Population covered %)			
	0-1	1.01 – 5	5.01 – 10	>10
Low	78.3 (95.1)	15.0 (2.1)	6.7 (2.9)	-
Lower Middle	37.7 (70.1)	37.7 (18.8)	15.1 (3.7)	9.4 (7.3)
Higher Middle	17.1 (17.9)	31.4 (53.1)	25.7 (17.7)	25.7 (11.3)
High	2.9 (0.1)	25.7 (14.0)	28.6 (54.0)	42.9 (31.9)

N = 183 \*World Bank, 2000

In 78.3% of low income countries covering a population 95.1%, there is less than one psychiatric bed per 10 000 population. In high income countries more than 14% of the population has access to less than 5 psychiatric beds per 10 000 population.

A Kruskal-Wallis one way ANOVA revealed that there was a significant relationship between income groups and the number of psychiatric beds ( $X^2=79.1$ ,  $p<0.01$ ). Where income group was larger, so were the number of available beds.

Across all countries, the aim is to shift psychiatric care from “mental institutions and asylums” to community care. This shift has not been possible in most countries. However, in quite a few countries, general hospitals are being equipped with wards to manage patients with mental disorders. The primary reasons for not being able to make the transition from psychiatric hospitals to community based care are lack of professionals, funds and other resources.

The process of de-institutionalization was started in Italy in 1978. Other countries like USA and UK have de-institutionalized gradually though both have found that de-institutionalization without adequate community care facilities leads to homeless, neglected psychiatric patients. On the other hand, in countries like Sweden, psychiatric service units in a particular catchment area are responsible for comprehensive psychiatric care for the whole population belonging to that area. The result has been a reduction of inpatient admissions and an increase in community-based treatment. This form of care is also seen in Denmark and Finland. In Spain, integration of mental health into general health started in the 1980s. De-institutionalization has also been started in countries like Burkina Faso, Croatia, Czech Republic, Jamaica, Iran, Lithuania, among others.

Community care is the most appropriate set-up for treating patients with mental disorders. However, not all patients can be treated in the community and inpatient facilities in hospitals are essential for managing patients with acute mental disorders. Although currently most of the psychiatric beds are in mental hospitals, efforts should be made to gradually reduce their numbers and create more facilities in general hospitals and long-term community rehabilitation centres.

There are some limitations in the data for psychiatric beds. The total number of beds reported by countries may have certain inaccuracies. The number of beds reported in general hospital settings, private hospital settings or other settings may be incomplete for some countries due to the absence of definite data. The category of “other beds”, includes beds in private hospitals, military hospitals, hospitals for special populations and long-term rehabilitation centres. No information was available on beds in chronic care versus acute care. Some countries may also have reported beds allocated for neurology within the category of psychiatric beds. Information on the distribution of beds in rural and urban settings or for the number of beds for adult, geriatric and child psychiatry is also not available.

## Professionals

Mental health professionals form the backbone of the mental health care delivery system. Their input is required not only in patient care but also in policy advice, administration and for training other personnel. The lack of psychiatrists and other mental health professionals is an important barrier to providing treatment and care. Psychiatric nurses, psychologists and social workers along with psychiatrists are an important part of both hospital-based and community-based mental health care.

#### 46. Mental health and related professionals per 100 000 population in the world

Professionals	Mean	Median	Standard Deviation (SD)
Psychiatrists	3.96	1.0	5.94
Psychiatric Nurses	12.63	2.0	26.58
Neurologists	1.99	0.2	3.6
Neurosurgeons	0.48	0.12	0.7
Psychologists working in mental health	6.43	0.4	16.29
Social Workers working in mental health	8.64	0.3	25.37

#### 47. Mental health and related professionals in each WHO Region and the world

WHO Regions	Mental health and related professionals					
	Psychiatrists (N = 182)*	Psychiatric Nurses (N = 164)*	Neurologists (N = 152)*	Neurosurgeons (N = 151)*	Psychologists working in mental health (N = 164)*	Social Workers working in mental health (N = 147)*
Africa	1 196	11 785	387	293	2 317	8 748
Americas	52 903	33 048	13 061	6 762	91 683	102 697
Eastern Mediterranean	2 582	7 955	1 174	1 061	2 387	2 102
Europe	77 242	285 604	29 541	7 294	46 509	91 950
South-East Asia	5 016	13 323	797	896	907	3 610
Western Pacific	26 593	119 409	4 129	7 823	3 216	20 670
World	165 532	471 124	49 089	24 129	147 019	229 777

\*N = the number of countries reporting for each category of professionals.

From the above two tables it is obvious that not only is there a shortage in the number of professionals in the world as a whole, but there is also a wide variation in the number of professionals among different WHO Regions with the Regions of Africa, South-East Asia and Eastern Mediterranean, especially, lacking adequate numbers of different mental health professionals. The number of professionals given in Table 47 is based only on the number of countries that reported for each category of profession, hence the regional and world figures should be viewed as approximations.

## Psychiatrists

### DEFINITION

- *Psychiatrist*: a medical doctor who has had at least two years of post-graduate training in psychiatry at a recognized teaching institution. This period may include training in any sub-speciality of psychiatry.

#### 48. Median number of psychiatrists per 100 000 population in each WHO Region and the world

WHO Regions	Median per 100 000 population
Africa	0.05
Americas	1.60
Eastern Mediterranean	0.95
Europe	9.00
South-East Asia	0.21
Western Pacific	0.28
World	1.00

N = 182

The median number of psychiatrists per 100 000 population varies from 0.05 in the African Region to 9.0 in the European Region.

#### 49. Median number of psychiatrists per 100 000 population in each income group of countries

Income Group of Countries*	Median per 100 000 population
Low	0.06
Lower Middle	0.90
Higher Middle	2.40
High	9.00

N = 182 \*World Bank 2000

The median figure for low income countries is 0.06 per 100 000 population and that in the high income countries is 9.0 per 100 000 population.

There are approximately 1 200 psychiatrists for 626 million people in the African Region compared to more than 77 000 psychiatrists for 841 million people in the European Region.

#### 50. Distribution of psychiatrists per 100 000 population in each WHO Region and the world

WHO Regions	Countries % (Population covered %)			
	0-1	1.01 – 5	5.01 – 10	>10
Africa	95.7 (88.7)	4.3 (11.3)	-	-
Americas	33.3 (6.3)	46.7 (47.5)	3.3 (1.4)	16.7 (44.7)
Eastern Mediterranean	59.1 (91.3)	40.9 (8.7)	-	-
Europe	4.1 (8.2)	18.4 (11.5)	40.8 (40.2)	36.7 (40.2)
South-East Asia	100 (100)	-	-	-
Western Pacific	69.2 (87.9)	19.2 (3.2)	7.7 (7.8)	3.8 (1.1)
World	52.7 (69.2)	21.4 (10.7)	12.6 (8.1)	13.2 (12.0)

N = 182

In 52.7 % of countries covering 69.2 % of the world's population there is less than one psychiatrist per 100 000 population. All countries in the South-East Asia Region and 95.7 % of countries (covering 88.7 % of the population) in the African Region have less than one psychiatrist per 100 000 population.

#### 51. Distribution of psychiatrists per 100 000 population in each income group of countries.

Income Groups	Countries % (Population covered %)			
	0-1	1.01 – 5	5.01 – 10	>10
Low	86.7 (96.5)	8.3 (1.0)	5.0 (2.5)	-
Lower Middle	62.3 (82.9)	20.8 (7.1)	11.3 (2.4)	5.7 (7.6)
Higher Middle	32.4 (6.1)	41.2 (73.5)	11.8 (10.9)	14.7 (9.6)
High	-	25.7 (6.9)	28.6 (36.0)	45.7 (57.1)

N = 182

In low income countries, 86.7 % of the countries covering 96.5 % of the population, have less than one psychiatrist per 100 000 population. Even when available, most psychiatrists are based in large cities and large populations living in rural areas have no access to them.

The data on the number of psychiatrists have certain limitations. Some countries were unable to provide an accurate number of psychiatrists, especially those working in the private sector. Since the source of information in some countries was the national association of psychiatrists, it is possible that psychiatrists who are not members of these associations have not been included. The distribution of psychiatrists within countries is also very uneven with the majority concentrated in urban areas. This distribution creates even greater disparity in their availability than is apparent from the average figures. There are also regional differences in the availability of psychiatrists within a country and this is not reflected in the data.

## Psychiatric Nurses

### DEFINITION

- *Psychiatric nurse*: a graduate of a recognized, university-level nursing school with a specialization in mental health. Psychiatric nurses are registered with the local nursing board (or equivalent) and work in a mental health care setting.

#### 52. Median number of psychiatric nurses per 100 000 population in each WHO Region and the world

WHO Regions	Median per 100 000 population
Africa	0.20
Americas	2.70
Eastern Mediterranean	0.50
Europe	27.50
South-East Asia	0.16
Western Pacific	1.10
World	2.00

N = 164

The median number of psychiatric nurses per 100 000 population varies from 0.16 in the South-East Asia Region to 27.5 in the European Region.

#### 53. Median number of psychiatric nurses per 100 000 population in each income group of countries

Income Group of Countries*	Median per 100 000 population
Low	0.16
Lower Middle	1.00
Higher Middle	5.70
High	33.50

N = 164 \*World Bank 2000

Low income countries have a median of 0.16 per 100 000 population, whereas in high income countries the value is 33.5 per 100 000 population.

The Eastern Mediterranean Region has about 8 000 psychiatric nurses for 485 million people, compared with the European Region which has approximately 285 000 psychiatric nurses for 841 million people.

#### 54. Distribution of psychiatric nurses per 100 000 population in each WHO Region and the world

WHO Regions	Countries % (Population covered %)			
	0-1	1.01 – 10	10.01 – 50	>50
Africa	66.7 (48.9)	33.3 (51.1)	-	-
Americas	44.0 (38.0)	32.0 (55.7)	20.0 (6.2)	4.0 (0.1)
Eastern Mediterranean	52.4 (73.3)	23.8 (21.1)	23.8 (5.5)	-
Europe	7.9 (0.8)	18.4 (12.0)	55.3 (38.1)	18.4 (49.1)
South-East Asia	77.8 (94.6)	11.1 (1.3)	11.1 (4.1)	-
Western Pacific	50.0 (6.8)	34.6 (84.1)	3.8 (0.2)	11.5 (8.9)
World	45.7 (43.8)	27.4 (40.8)	20.1 (6.8)	6.7 (8.6)

N = 164

In the South-East Asia and Eastern Mediterranean Regions 94.6 % and 73.3 % of the population, respectively, have access to less than one psychiatric nurse per 100 000 population.

### 55. Distribution of psychiatric nurses per 100 000 population in each income group of countries

Income Group of Countries*	Countries % (Population covered %)			
	0-1	1.01 – 10	10.01 – 50	>50
Low	71.2 (83.0)	22.0 (14.2)	6.8 (2.7)	-
Lower Middle	51.1 (14.5)	26.7 (73.1)	20.0 (5.0)	2.2 (7.4)
Higher Middle	26.7 (43.0)	43.3 (30.1)	26.7 (26.9)	3.3 (0.1)
High	6.7 (0.1)	23.3 (43.8)	40.0 (15.2)	30.0 (40.9)

N = 164 \*World Bank, 2000

In 71.2% of low income countries (covering 83.0% of population) there is less than one psychiatric nurse per 100 000 population. Almost 44% of the population in high income countries has less than 10 psychiatric nurses per 100 000 population.

### 56. Comparison of mean number of psychiatrists to psychiatric nurses per 100 000 population in each WHO Region and the world

WHO Regions	Mean number of Psychiatrists per 100 000 population	Mean number of Psychiatric Nurses per 100 000 population
Africa	0.19	1.55
Americas	4.91	13.47
Eastern Mediterranean	1.33	6.45
Europe	9.90	33.51
South-East Asia	0.27	2.29
Western Pacific	1.85	9.06
World	3.96	12.63

The ratio of psychiatrists to psychiatric nurses in the Americas and European Regions are 1:3, compared with a ratio of 1:8 in the Regions of Africa and South-East Asia.

Psychiatric nurses play an important role in community care. Even among developing countries like Botswana, Fiji, Ghana, Jamaica, and Tanzania, community psychiatric nurses contribute significantly to mental health care.

Many of the limitations of the data on psychiatric nurses are similar to those for psychiatrists. However, there are some more specific limitations for this data. The total number of psychiatric nurses in some countries may actually be less as some countries may have reported general nurses, who work in psychiatric facilities, as psychiatric nurses, even though they may not have psychiatric nursing training. Some countries were unable to provide data on psychiatric nurses as they do not have a separate register for different categories of nurses.

## Neurologists & Neurosurgeons

### DEFINITIONS

- *Neurologist*: a medical doctor who has at least two years of post-graduate training in neurology at a recognized teaching institution.
- *Neurosurgeon*: a medical doctor who has at least two years of post-graduate training in neurosurgery at a recognized teaching institution.

### 57. Median number of neurologists and neurosurgeons per 100 000 population in each WHO Region and the world

WHO Regions	Median number of neurologists <sup>1</sup> per 100 000 population	Median number of neurosurgeons <sup>2</sup> per 100 000 population
Africa	0.02	0.01
Americas	0.50	0.70
Eastern Mediterranean	0.30	0.20
Europe	4.25	1.00
South-East Asia	0.02	0.02
Western Pacific*	0.00	0.00
World	0.20	0.12

<sup>1</sup>N = 152 <sup>2</sup>N = 151

\*the median numbers for the Western Pacific Region are 0 as a number of the smaller countries do not have these professionals.

In the Western Pacific Region the median number of neurologists or neurosurgeons per 100 000 population are both zero, because many Pacific islands in this Region do not have any neurologists or neurosurgeons. The mean figures for this Region are 0.67 per 100 000 population (neurologists) and 0.42 per 100 000 population (neurosurgeons). The median figures are also low in the African Region (0.02 neurologists and 0.01 neurosurgeons per 100 000 population) and in the South-East Asia Region (0.02 per 100 000 population for both groups of professionals). Even, in the European Region which has the highest number of these professionals, the median figures per 100 000 population for neurologists and neurosurgeons are 4.25 and 1.0, respectively.

### 58. Median number of neurologists and neurosurgeons per 100 000 population in each income group of countries

Income Group of Countries*	Median number of neurologists <sup>1</sup> per 100 000 population	Median number of neurosurgeons <sup>2</sup> per 100 000 population
Low	0.03	0.01
Lower Middle	0.3	0.2
Higher Middle	0.5	0.31
High	3.0	1.0

<sup>1</sup>N = 152 <sup>2</sup>N = 151 \*World Bank 2000

The median figures per 100 000 population in low income countries are 0.03 (neurologists) and 0.01 (neurosurgeons). The corresponding figures for high income countries are 3.0 (neurologists) and 1.0 (neurosurgeons).

### 59. Distribution of neurologists per 100 000 population in each WHO Region and the world

WHO Regions	Countries % (Population covered %)			
	0-0.1	0.11 – 1	1.01 – 5	>5
Africa	86.7 (88.0)	13.3 (12.0)	-	-
Americas	15.4 (2.4)	53.8 (9.8)	30.8 (87.8)	-
Eastern Mediterranean	38.9 (56.8)	50.0 (42.3)	11.1 (0.9)	-
Europe	-	15.9 (20.3)	38.6 (51.4)	45.5 (28.3)
South-East Asia	88.9 (95.9)	11.1 (4.1)	-	-
Western Pacific	65.2 (11.1)	17.4 (39.7)	13.0 (48.5)	4.3 (0.7)
World	46.7 (55.2)	22.4 (16.4)	17.1 (23.5)	13.8 (4.9)

N = 152

All countries in the African and South-East Asia Regions have less than one neurologist per 100 000 population.

60. Distribution of neurosurgeons per 100 000 population in each WHO Region and the world

WHO Regions	Countries % (Population covered %)			
	0-0.1	0.11 – 0.5	0.51 – 1	>1
Africa	88.9 (88.3)	8.9 (11.7)	2.2 (0.1)	-
Americas	7.1 (0.1)	35.7 (7.7)	28.6 (3.2)	28.6 (89.1)
Eastern Mediterranean	27.8 (19.6)	50.0 (76.0)	16.7 (4.2)	5.6 (0.2)
Europe	10.0 (0.6)	7.5 (2.6)	52.5 (49.8)	30.0 (46.9)
South-East Asia	77.8 (95.9)	22.2 (4.1)	-	-
Western Pacific	72.0 (49.5)	12.0 (2.5)	8.0 (4.8)	8.0 (43.3)
World	49.7 (55.9)	17.2 (13.5)	20.5 (8.9)	12.6 (21.7)

N = 151

All countries in the Regions of Africa and South-East Asia have less than one neurosurgeon per 100 000 population. More than 90% of countries in the Western Pacific and Eastern Mediterranean Regions also have less than one neurosurgeon.

The number of neurologists and neurosurgeons is grossly inadequate and more training facilities for these groups of professionals should be developed. Many mental disorders are at the interface of psychiatry and neurology and it is for those disorders that the technical expertise of neurologists and neurosurgeons is most required. Besides these, there are disorders like epilepsy, Alzheimer's, Parkinson's, which require the involvement of psychiatrists, neurologists and neurosurgeons. Moreover, in some areas, due to the absence of neurologists or neurosurgeons, psychiatrists have to manage neurological cases and vice versa.

Some of the limitations of the data on these professionals are similar to those for other professions as highlighted earlier, especially those related to urban and rural variations. Information on neurologists and neurosurgeons in the private sector may not have been reported accurately by some countries. Some countries may have reported information on neurologists and neurosurgeons based on membership figures from professional associations, thereby excluding some neurologists and neurosurgeons who are not members of those associations.

## Psychologists working in Mental Health

### DEFINITION

- *Psychologist working in mental health*: a graduate from a recognized, university-level school of psychology with a specialization in clinical psychology. These psychologists are registered with the local board of psychologists (or equivalent) and work in a mental health setting.

61. Median number of psychologists working in mental health per 100 000 population in each WHO Region and the world

WHO Regions	Median per 100 000 population
Africa	0.05
Americas	2.80
Eastern Mediterranean	0.20
Europe	3.00
South-East Asia	0.02
Western Pacific	0.03
World	0.40

N = 164

The median number of psychologists per 100 000 population varies from 0.02 in the South-East Asia Region to 3.0 in the European Region and 2.8 in the Region of the Americas.

62. Median number of psychologists working in mental health per 100 000 population in each income group of countries

Income Group of Countries*	Median per 100 000 population
Low	0.04
Lower Middle	0.60
Higher Middle	0.70
High	26.70

N = 164 \*World Bank 2000

The median distribution per 100 000 population in low income countries is 0.04 compared to 26.7 in high income countries.

63. Distribution of psychologists working in mental health per 100 000 population in each WHO Region and the world

WHO Regions	Countries % (Population covered %)			
	0-1	1.01 – 10	10.01 – 50	>50
Africa	95.7 (93.4)	4.3 (6.6)	-	-
Americas	41.7 (7.3)	33.3 (10.9)	25.0 (81.8)	-
Eastern Mediterranean	90.9 (86.1)	4.5 (13.8)	4.5 (0.2)	-
Europe	31.7 (46.4)	34.1 (41.6)	19.5 (8.0)	14.6 (4.0)
South-East Asia	88.9 (99.9)	11.1 (0.1)	-	-
Western Pacific	77.3 (89.4)	18.2 (9.2)	4.5 (1.4)	-
World	68.3 (78.4)	18.3 (11.1)	9.8 (9.9)	3.7 (0.6)

N = 164

In the world there is less than one psychologist per 100 000 population in 68.3% of countries, accounting for 78.4% of the world's population. Almost the entire population of the South-East Asia Region and 93.4% of the population of the African Region have access to less than one psychologist per 100 000 population.

64. Distribution of psychologists per 100 000 population in each income group of countries

Income Group of Countries*	Countries % (Population covered %)			
	0-1	1.01 – 10	10.01 – 50	>50
Low	98.3 (99.9)	1.7 (0.1)	-	-
Lower Middle	70.2 (82.9)	23.4 (14.7)	6.4 (2.4)	-
Higher Middle	65.5 (45.9)	31.0 (52.7)	3.4 (1.4)	-
High	10.0 (0.8)	30.0 (33.2)	40.0 (61.8)	20.0 (4.1)

N = 164 \*World Bank, 2000

Among low income countries, almost all the population has access to less than one psychologist per 100 000. The number of psychologists actually working in the field of mental health may be less than that reported by countries as some may have included in their figures psychologists working in all health and related sectors.

Psychologists working in mental health or clinical psychologists are important members of mental health care teams. At times they are the first members of the team contacted by a patient for treatment of mental disorders. The role of psychologists is not only in diagnostics but also in therapy and rehabilitation. Counselling and psychotherapy, as well as diagnostic psychological tests to ascertain illnesses, are some of the activities that they are involved in mental health. There is a need to train more psychologists specifically for work in the field of mental health.

As with psychiatrists, some of the limitations of the data on psychologists are similar. However, there are some additional limitations. Although the definition of "psychologist" was provided to countries, some countries may have used a wider definition that includes all psychologists in the country and not simply those working in mental health settings. Information from some countries could not be analysed as they were unable to provide the specific number of psychologists working in mental health out of the total number of psychologists in the country. No information is available on the number of psychologists working in psycho-diagnostics or in therapeutics or rehabilitation settings.

## Social workers working in mental health

### DEFINITION

- *Social workers working in mental health*: a graduate from a recognized, university-level school of social work, registered with the local board of social workers (or equivalent) and working in a mental health setting.

Social workers are important for mental health care delivery. They play an important role in the management of patients and especially in rehabilitation and community care.

### 65. Median number of social workers working in mental health per 100 000 population in each WHO Region and the world

WHO Regions	Median per 100 000 population
Africa	0.04
Americas	1.90
Eastern Mediterranean	0.40
Europe	2.35
South-East Asia	0.05
Western Pacific	0.13
World	0.30

N = 147

The median number of social workers working in mental health per 100 000 population varies from 0.04 in the African Region to 2.35 in the European Region.

### 66. Median number of social workers working in mental health per 100 000 population in each income group of countries

Income Group of Countries*	Median per 100 000 population
Low	0.03
Lower Middle	0.30
Higher Middle	1.42
High	25.50

N = 147 \*World Bank 2000

The median figures per 100 000 population are 0.03 in low income countries and 25.5 in high income countries.

### 67. Distribution of social workers working in mental health per 100 000 population in each WHO Region and the world

WHO Regions	Countries % (Population covered %)			
	0-1	1.01 – 10	10.01 – 50	>50
Africa	86.7 (91.8)	8.9 (1.8)	4.4 (6.4)	-
Americas	38.1 (26.5)	33.3 (3.6)	23.8 (69.3)	4.8 (0.7)
Eastern Mediterranean	71.4 (92.8)	23.8 (7.1)	4.8 (0.2)	-
Europe	43.3 (63.2)	20.0 (16.2)	13.3 (0.8)	23.3 (19.8)
South-East Asia	87.5 (85.7)	12.5 (14.3)	-	-
Western Pacific	54.5 (31.0)	36.4 (49.3)	9.1 (19.8)	-
World	63.9 (71.9)	21.1 (13.9)	9.5 (11.6)	5.4 (2.6)

N = 147

In about 64 % of countries, accounting for about 72 % of the world's population, there is less than one social worker per 100 000 population. In the African and Eastern Mediterranean Regions more than 90 % of the population has access to less than one social worker per 100 000 population, compared to 26.5 % of the population in the Americas. Even in Europe, 63.2 % of the population has less than one social worker per 100 000 population.

### 68. Distribution of social workers per 100 000 population in each income group of countries

Income Group of Countries*	Countries % (Population covered %)			
	0-1	1.01 – 10	10.01 – 50	>50
Low	94.4 (90.4)	5.6 (9.6)	-	-
Lower Middle	70.7 (84.8)	19.5 (1.5)	9.8 (13.6)	-
Higher Middle	46.4 (51.5)	39.3 (25.8)	10.7 (21.8)	3.6 (0.9)
High	4.2 (0.3)	37.5 (37.1)	29.2 (46.5)	29.2 (16.1)

N = 147 \*World Bank, 2000

In low income countries, 90.4 % of the population has less than one social worker per 100 000 population. In high income countries, 37.4 % of the population has less than 10 social workers per 100 000.

The actual number of social workers working in mental health may be lower as some countries may have provided information on all social workers working in health related departments, and not necessarily just in mental health.

It is apparent that the number of social workers should be increased. This is particularly important as a growing number of patients are gradually being shifted from hospital-based care to community-based care. Rehabilitation centres also need more social workers.

One of the primary limitations of this data was the interpretation of the definition by different countries. Some countries may have reported social workers working in any health department, although the glossary definition specified that they should be working in a mental health setting. This may have led to over-reporting of social workers in the mental health sector. Information from some countries could not be analysed as they were unable to provide the specific number of social workers working in mental health as a proportion of the total number of social workers in the country. No information is available on the number of social workers in the different mental health settings, e.g., inpatient, outpatient and community services or rural-urban settings.

## Programmes for special populations and NGOs

### DEFINITIONS

- *Programmes for special populations*: programmes that address the mental health concerns, including social integration, of the most vulnerable and disorder-prone groups of population such as refugees, people affected by natural and man-made disasters, indigenous people and minorities. Special populations also include people who need special care such as the elderly and children.
- *Non-governmental organizations (NGOs)*: voluntary organizations, charitable groups, service-user or advocacy groups, or professional associations.

### 69. Presence of mental health programmes for special populations in the world

Mental Health Programmes for Special Populations	Countries (%)
Minority Groups	17.3
Refugees	28.3
Disaster Affected Populations	37.2
Indigenous People	15.1
Elderly Persons	47.8
Children	59.9

N = (179 – 182)

Programmes for indigenous people are to be found in 15.1 % of countries, programmes for minority groups in 17.3%, programmes for refugees in 28.3%, programmes for disaster-affected populations in 37.2%, programmes for elderly persons in 47.8% and programmes for children in 59.9 % of countries.

**70. Regional distribution of mental health programmes for children in comparison to the percentage of child population in each WHO Region and the world**

WHO Regions	Countries* (%)	0-14 years population (%)
Africa	37.8	44.1
Americas	74.2	27.8
Eastern Mediterranean	68.2	39.6
Europe	77.1	19.7
South-East Asia	60.0	33.2
Western Pacific	42.3	25.2
World	59.9	30.0

\*N = 182

With 44.1 % of its population made up of children below 14 years, the African Region only has programmes for children in 37.8 % countries, compared to the European Region where 77.1 % of countries have a programme. In the European Region, children below the age of 14 years account for 19.7 % of the total population. Programmes for children are also limited in the Western Pacific Region where only 42.3 % of countries have such programmes.

**71. Availability of mental health programmes for children in each income group of countries**

Income Group of Countries*	Countries (%)
Low	39.0
Lower Middle	60.4
Higher Middle	65.7
High	88.6

N = 182 \*World Bank, 2000

Whereas 88.6 % of high income countries have a programme for children, only 39.0 % of low income countries have one.

**72. Regional distribution of mental health programmes for the elderly in comparison with the percentage of elderly population in each WHO Region and the world**

WHO Regions	Countries* (%)	60+ years population (%)
Africa	17.8	4.8
Americas	67.7	11.0
Eastern Mediterranean	54.5	5.5
Europe	62.5	18.4
South-East Asia	60.0	7.4
Western Pacific	38.5	10.8
World	47.8	10.0

\*N = 182

Programmes for the elderly are found in even fewer countries. They range from being present in 17.8 % of countries in the African Region and 38.5 % of countries in the Western Pacific Region, to being present in 67.7 % of countries in the Region of the Americas.

**73. Availability of mental health programmes for the elderly in each income group of countries**

Income Group of Countries*	Countries (%)
Low	18.6
Lower Middle	45.3
Higher Middle	57.1
High	91.4

N = 182 \*World Bank, 2000

Programmes for the elderly are present in 91.4 % of high income countries and in only 18.6 % of low income countries.

Even in countries where there are special programmes for these populations, they are neither uniform in quality nor in coverage. Most developing countries only have programmes available in a few specialized centres or areas. Some countries have also reported other types of programmes. Programmes related to suicide prevention and research are to be found in Ireland, Slovenia, Sweden. School mental health programmes are found in some countries like Oman, Qatar, UAE, etc. In Finland and the Netherlands, programmes are community-based and often intended for specific disorders.

Often, the government is unable to provide all the services required for mental health needs. Private sector and non-governmental organizations (NGOs) can step in and help to supplement the work done by governments.

**74. Presence of NGO activity in mental health in each WHO Region and the world**

WHO Regions	Countries (%)
Africa	93.5%
Americas	90.3%
Eastern Mediterranean	80.0%
Europe	91.8%
South-East Asia	80.0%
Western Pacific	77.8%
World	88.0%

N = 183

NGOs are involved in the mental health sector in 88 % of countries across the world. Across the Regions, availability varies from 77.8 % in countries in the Western Pacific Region to 93.5 % in the African Region.

**75. Presence of NGO activity in mental health in each income group of countries**

Income Group of Countries*	Countries (%)
Low	86.9
Lower Middle	85.2
Higher Middle	91.2
High	91.2

N = 183 \*World Bank, 2000

Across the different income groups the figure varies from 85.2 % in the lower middle income countries to 91.2 % in the higher middle and high income countries.

Among the various activities carried out by NGOs in different countries, advocacy is carried out in 79.4 % of countries, promotion in 80.0 % of countries, prevention in 73.8 % of countries, treatment in 51.3 % of countries and rehabilitation in 83.1 % of countries.

The quality of services provided by NGOs varies from country to country. The types of NGOs also vary. Whereas some deal with broader issues related to mental health in general, others are more specific and deal with particular disorders like Alzheimer's, schizophrenia, drug and alcohol related disorders, etc. Rehabilitation, advocacy and mental health promotion are the most common areas in which NGOs are involved. Treatment of mental disorders is not an area that is pursued by NGOs actively.

NGOs have a prominent role in mental health, especially given that resources in governmental set-ups in the majority of countries are inadequate. NGOs can play a role not only in the management of patients but also in areas concerning the families of patients with mental disorders. They should be actively involved in policy-making and help governments to frame policies while bearing in mind the current needs of the people. NGOs can be supported financially through private, semi-government or government funding, at least, when they are in the process of being set up.

Although many countries reported the existence of specific programmes, information on the type and quality of the programmes is not available. Some countries may not have specific programmes, but do have psychiatric facilities catering for special groups. Some countries may have had problems in interpreting the definition of special programmes for sub-populations as they differed from those in their own country. Some countries also had difficulty identifying sub-populations present within their country. Information is also lacking about the degree of implementation of the different programmes when available. Although many countries have reported NGO activities in mental health, it is not clear to what extent they cover the population. Information on the quality and coverage of services of NGOs is lacking. Some of the NGOs mentioned are actually international NGOs working in countries and not necessarily local NGOs.

## Mental Health Information Gathering Systems

### DEFINITIONS

- *Annual reporting system*: the preparation of information covering health and health services functions and the use of allocated funds for each year by the government.
- *Information/data collection system*: an organized information gathering activity for service data. It usually incorporates patient admission or discharge rates, outpatient contacts, community contacts and patients subject to mental health legislation.
- *Epidemiological studies*: research studies focusing on extent and nature of mental disorders.

#### 76. Presence of mental health reporting systems in each WHO Region and the world

WHO Regions	Countries (%)
Africa	52.3%
Americas	67.7%
Eastern Mediterranean	75.0%
Europe	89.8%
South-East Asia	90.0%
Western Pacific	74.1%
World	72.9%

N = 181

Across the world, annual mental health reporting systems exist in 72.9% of countries. In the Regions of South-East Asia and Europe, 90% of countries have some form of annual mental health reporting system, compared with only 52.3% of countries in the African Region.

#### 77. Presence of mental health reporting systems in each income group of countries

Income Group of Countries*	Countries (%)
Low	60.0
Lower Middle	72.2
Higher Middle	78.8
High	91.2

N = 181 \*World Bank 2000

Across income groups, 60% of low income countries have an annual mental health reporting system compared with 91.2% of high income countries.

Epidemiological studies at national level are expensive and can be afforded only by the high income countries, however, even then, low income countries can carry out epidemiological studies covering a limited but representative population. Data from a number of such small studies can then be aggregated and used. However, it should follow internationally accepted methods to enable comparison with other studies.

#### 78. Presence of an epidemiological study or data collection system in mental health in each WHO Region and the world

WHO Regions	Countries (%)
Africa	42.2
Americas	58.1
Eastern Mediterranean	54.5
Europe	73.5
South-East Asia	50.0
Western Pacific	51.9
World	56.5

N = 184

A data collection system or an epidemiological study exists in only 56.5% of countries world-wide. Across the different Regions, they are present in 73.5% of the European Region but only in 42.2% of the African Region. All the other Regions have figures varying between 50-60%.

#### 79. Presence of an epidemiological study or data collection system in mental health in each income group of countries

Income Group of Countries*	Countries (%)
Low	43.3
Lower Middle	50.0
Higher Middle	68.6
High	77.1

N = 184 \*World Bank 2000

Across income groups, a data collection system or an epidemiological study is found in 43.3% of low income countries and in 77.1% of high income countries.

Most countries that reported a data collection system or epidemiological study have a system for collecting patient related data from hospitals and other institutions. These are not community-based registers and often mental disorders are reported without providing information on diagnosis, treatment, follow-up care, etc. Epidemiological studies are very few in poor and developing countries and at times the methodology is different from accepted international standards. Therefore, they are difficult to compare with epidemiological studies carried out in other countries.

A mental health reporting system, data collection system or epidemiological study provide insight into existing mental health situations and help in making necessary improvements. Information on services, resources and mental health indicators provides direction for future programmes and allocation of funds. Thus, it is extremely important for countries to have an effective information gathering system in place.

Information about the quality or extent of coverage of mental disorders in reporting systems is not available. Hence, it is not possible to judge whether a reporting system is adequate or needs improvement. Often the only information on mental health reported in the annual health bulletins of countries refers to the prevalence of "mental disorders without clarifying the particular type of mental disorder or the diagnostic system followed. Data collection varies enormously between different countries. Details of the methods and types of data collection are not available at present. Epidemiological studies also vary enormously in size and quality. More information on these is not available at present.

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