WHO- AIMS

WHO-AIMS REPORT ON

# MENTAL HEALTH SYSTEM

# IN SUDAN


MINISTRY OF HEALTH
SUDAN

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*A report of the assessment of the mental health system in Sudan using the World Health Organization - Assessment Instrument for Mental Health Systems (WHO-AIMS).*

*Khartoum, Sudan*

*2009*

World Health Organization

**MINISTRY OF HEALTH**
**SUDAN**

*WHO, Sudan office*
*WHO, Regional Office*
*WHO Department of Mental Health and Substance Abuse (MSD)*

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Please refer to WHO-AIMS (WHO, 2005) for full information on the development of WHO-AIMS at the following website.
http://www.who.int/mental_health/evidence/WHO-AIMS/en/index.html

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The WHO-AIMS project is coordinated by Shekhar Saxena.

## Executive Summary

The World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS) was used to collect information on the mental health system in Sudan. The goal of collecting this information is to improve the mental health system and to provide a baseline for monitoring the change. This will enable Sudan to develop information-based mental health plans with clear base-line information and targets. It will also be useful to monitor progress in implementing reform policies, providing community services, and involving users, families and other stakeholders in mental health promotion, prevention, care and rehabilitation.

Sudan's mental health policy was reformulated in 2006-2008. The last version of mental health legislation dates back to 1998 and requires updating. No national human rights review body exists. Review/inspection of human rights protection of patients in mental hospitals is sporadic and inconsistent. None of the mental health staff working in mental hospitals received any training on human rights.

Everyone has free access (at least 80%) to essential psychotropic medicines in psychiatric emergencies only. For those that pay out of pocket, the cost of antipsychotic medication is 27% and of antidepressant medication is 18% of the minimum daily wage (approximately 1 US$ per day for antipsychotic medication and 0.41 US$ per day for antidepressant medication) . There are no social insurance schemes. Worker's insurance scheme benefits a small proportion of the population.

In Sudan**,** the mental health system has most types of mental health facilities; however most of them need to be strengthened and developed further in terms of staff, treatment facilities and living facilities. There is an imbalance in favor of mental hospital inpatient care. The vast majority of financial resources and a substantial part of human resources are directed towards mental hospitals. Few facilities are devoted to children and adolescents.

The users treated in outpatient facilities are primarily diagnosed with mood disorders (47%) schizophrenia and related disorders (16%), however, collection of such data is poor. The average number of contact with the mental health facilities is 1.47. None of these facilities provide active follow-up care in the community, and there are no mental health mobile teams. In terms of available treatments in outpatient facilities, percentage of patients receiving psychosocial treatments is unavailable. All (100%) mental health outpatient facilities have at last one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic medicines) available in the facility or in a near-by pharmacy all year round. However, such medications are not provided free of charge except in case of psychiatric emergencies. Access to mental health facilities is unevenly distributed across the country, favoring those living in or near the capital city.

Primary health care staff training on mental health issues is weak, as is interaction between the primary health and mental health system. There is only one pilot scheme of integration of mental health with general health care in the Gazira state.

The total number of human resources working in mental health facilities or private practice per 100,000 population is 0.92. There is one family association' and consumer association in the country that were started recently.

There are formal links between the mental health sector and other sectors, but many of the critical links are weak or not developed (e.g., links with the welfare, housing, judicial, work provision, education sectors). There are no coordinating bodies to oversee public education and awareness campaigns on the mental health issues. There is no legislative or financial support for people with mental disorders.

The Ministry of Health publishes an annual report on the statistics of 5 clinical conditions. There have been 19 research articles on mental health published in indexed journals during the last 5 years. Some research on epidemiological and non-epidemiological clinical/questionnaires assessments of mental disorders and services has been conducted by non-governmental and international organizations.

Data relating to treatment contacts of person with mental illness are collected and complied with a variable extent. The mental health information system does not cover all relevant information in all facilities.

# WHO-AIMS COUNTRY REPORT FOR SUDAN

## Introduction

With an area of 2 506 000 km2, Sudan is the largest country in Africa. The heart of the country, in terms of population, lies at the confluence of the Blue and White Niles. The conurbation of the three towns, Khartoum, Khartoum North and Omdurman, is situated there and contains almost 20% of the population. The total population of Sudan is estimated to be 38 million (source of data 2008). The urban population is 36% of the total population. About 2.2 million are still entirely nomadic. There are about 19 major ethnic groups and a further 597 subgroups. Of the total population 42% are below 15 years, and 4% are above the age of 65 years (source of data 2001). In 2000, the total adult literacy rate and the female adult literacy rate were estimated at 50% and 49%, respectively. The crude death rate is 11.5 per 1000 population and the crude birth rate is 37.8 per 1000 population (data source 2004). The infant mortality rate is estimated at 68 per 1000 live births, and under-5 mortality rate is estimated to be 104 per 1000 live births. Total life expectancy at birth was 56.6 years in 2000. Maternal mortality ratio is estimated at 50.9 per 10 000 live births (2000).

The per capita gross national product in 2004 was US$ 578. The per capita Ministry of Health expenditure was US$ 2.1 in 2004. The Ministry of Health expenditure represented 1.6 % of the country's budget in 2006 while the expenditure on mental health is unknown.

In 2003, there were 1.8 physicians, 0.07 dentists, 5.1 nurses/midwives and 7.1 hospital beds per 10,000 of the population, respectively. Health has been declared the first national priority after security. The health policies give priority to family health and reduction in morbidity and mortality rates among mothers and children; encourage community involvement in the planning, implementation and supervision of the health services; reinforce primary health care and the delivery of its integrated components through the area health system; encourage scientific research into the more pressing health problems, including environmental pollution, endemic and epidemic diseases and malnutrition; seek improvement of the managerial skills of personnel at all levels; and emphasize coordination between health-related ministries and departments.

The design of the health care system in Sudan is based on primary health care and the "health area" concept, which is conceived as a decentralized health care system able to integrate, at district level, the existing vertical programmes, including preventive, curative and promotional activities. At village level, primary health care units represent the first level of contact between the community and the health services. Secondary health care is available in small towns through rural hospitals and urban health centres. Tertiary health care services comprise provincial, regional, university and specialist hospitals.

Committees for health have been established at both village and national levels. These committees are involved in planning, execution, resource finding and allocation as well

as supervision of health services in their localities. The committees are supported by national laws and regulations and are effective, powerful bodies. Nongovernmental organizations play a recognized role in the delivery of health care. The Ministry of Health has invited them to participate in planning sessions and meeting at national and local levels.

The health services suffer from acute shortages in trained personnel. There are no health human resources plans, and universities and other training institutions work in isolation from the Ministry of Health. Training and education are thus not directed towards the meeting of national needs.

The country is a low income group country based on World Bank 2004 criteria. The life expectancy at birth is 54.9 years for males and 59.3 years for females. The healthy life expectancy at birth is 47 years for males and 50 years for females. The literacy rate is 70.8% for men and 49.1% for women (Mental Health Atlas, WHO, 2005).

There are 72 hospital beds and 19 physicians per 100,000 populations in the public sector. In terms of primary care, there are 2031 primary health care clinics. These data are available only for the public sector. Health resources are strongly centralized in spite of decentralization policy, i.e. 72% of physicians are based in the main city, and the surrounding region, both of which congregate 16% of the country population (2004 Census).

The mental health system is hospital based. For the last 5 years efforts have been made to shift attention to the community, but with limited success. Overall, mental health system resources are scarce and centralized.

Data was collected in 2007 and is based on the year 2006.

## Domain 1: Policy and Legislative Framework

### Policy, plans, and legislation

Sudan's mental health policy was last revised in 2008 and includes the following components:
(1) developing a mental health component in primary health care, (2) human resources, (3) involvement of users and families, (4) advocacy and promotion, (5) human rights protection of users, (6) equity and access to mental health services across different groups, (7) quality improvement, (8) financing and (9) monitoring system. An essential medicines list is present in the country that included all categories of psychotropic medicines.

The last revision of the mental health plan took place in 2002 It included all the components of the mental health policy, and also the additional component of reforming mental hospitals to provide more comprehensive care. There is no disaster/emergency preparedness plan for mental health. The mental health legislation was established in 1998 and is currently under revision. A mental health act has been drafted and is waiting for approval from the parliament. The following components are included in the proposed legislation: access to mental health care including access to the least restrictive care, rights of mental health services consumers, family and other care givers, competency, capacity and guardianship issues for people with mental illness, voluntary and involuntary treatment, law enforcement and other judicial system issues for people with mental illness.

### Financing of mental health services

The percentage of expenditures on mental health in Sudan is unknown. However, available funds are mainly oriented towards mental hospitals. There are no social insurance schemes and psychotropic medication is available free only in emergency psychiatric care. The cost of the cheapest antipsychotic medication is 27% of the daily minimum wages and cost of cheapest antidepressant medication is 18% of the one day minimum wage.

### Human rights policies

None of the mental health workers receive special training in human rights.

## Domain 2: Mental Health Services

### Organization of mental health services

A national mental health authority exists under the umbrella of preventive medicine and primary health care at the federal level. However, it needs strengthening. It provides advice to the government on mental health policies and legislation. It is also involved in service planning, management and co-ordination. Mental health services are not available at the primary level, or organized in primary health care service packages. The main strategic goal is to introduce care for mental health at the general service level, especially at the primarily level. None of the mental hospitals are organizationally integrated with mental health outpatient facilities.

### Mental health outpatient facilities

There are 17 outpatient facilities of which 6% are exclusively for children (Gazera & Khartoum state). These facilities treat 110 users per 100,000 population. Of all of the users treated in mental outpatient facilities 48% are female. The proportion of children and adolescents among users is 8%.

The users treated in outpatient facilities are primarily diagnosed with schizophrenia (16%), mood (affective) disorders (47%) and neurotic, stress and somatoform disorders (10%). None of the outpatient facilities provide follow-up care in the community, nor do any have mental health mobile teams. There is a lack of information regarding the patients' records in the health facilities. Also, the information available often does not reflect the real situation of the current problems. Moreover, there still is a great cultural barrier in seeking medical advice - most of patients go to traditional healers, especially in the rural areas.

The average number of contacts per user is 1.47. None of the mental health outpatient facilities provide routine follow-up or community care. There are no mobile clinic teams that provide regular mental health care outside of the mental health facility.

All mental health outpatient facilities have at least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic medicines) available in the facility.

### Day treatment facilities

There are no day treatment facilities available in the country.

### Community – based psychiatric inpatient units

There are 9 community based inpatient units available in the country for a total of 0.9 beds per 100, 0000 population. None of these beds are reserved for children and

adolescents; 46% of the admissions to community–based psychiatric inpatient units are female and 2% are children / adolescent.

The primary diagnoses of admissions to community–based psychiatric inpatient units include schizophrenia (32%), mood disorders (17%), personality and behaviour disorders (15%) and neurotic, stress and somatoform disorder (11%).

On average, patients spend 10 days in community-based psychiatric inpatient units per discharge. The proportion of involuntary admissions to community-based psychiatric inpatient units is 17% while 11-20% of the patients were restrained or secluded at least once in the past year.

Community based psychiatric inpatient units had at least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic medicines) available in the facilities or near by pharmacy.

**Community residential facilities**

There are 7 community residential facilities available in the country for a total of 1.75 beds/places per 100,000 population. These facilities treat 1.79 patients per 100,000 population. 43% of the patients are female and 37% are children. No beds are reserved for children and adolescents. On an average, patients spend 39 days in community residential facilities.

**Mental hospitals**

There are two mental hospitals available in the country for a total of 0.86 beds per 100,000 population. These facilities are organizationally integrated with mental health outpatient facilities. None of these beds in mental hospitals are reserved for children and adolescents only. Thirty percent of patients treated are female and 13% are children and adolescents. The patients admitted to mental hospitals primarily belong to the following diagnostic group: mental and behavioral disorders due to psychoactive substance use (10%), schizophrenia and related illnesses diagnostic group (15%), mood disorders (22%), neurotic stress-related and somatoform disorders (18%), disorders of adult personality and behaviour (11%) and others, such as mental retardation, epilepsy (24%). 24% of the patients were admitted involuntarily and 11-20% of the patients were restrained or secluded. The occupancy rate of these hospitals is 20%.

The average number of days spent in mental hospitals is 35 days. All patients spend less than one year in mental hospitals. Some (21-50%) patients in mental hospitals received one or more psychosocial interventions in the last year. All mental hospitals have at least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic medicines) available in the facility. However, such medications are not provided free of charge except in the case of psychiatric emergencies. The number of beds has increased by 62 % in the last five years.

## Forensic inpatient facilities

All forensic beds are in prison mental health facilities. Involuntary admission is common but the use of restraints or seclusion is sporadic. There are a total of 200 beds (0.5 per 100,000 of the total population). Forensic facilities treated 0.76 per 100,000 population, 66% stay less than one year, and no one stays more than 10 years .

## Other residential facilities

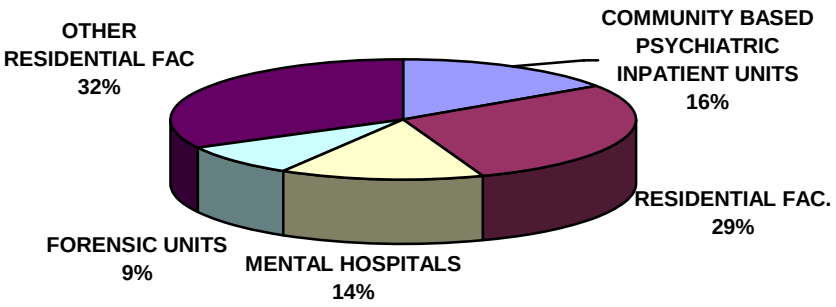
There are 7 community-based residential facilities in Sudan (more than 7, but the most important are 7 traditional healer centers) with an estimated total of 760 beds.

In Sudan the traditional healing methods are shaped by the religious, spiritual and cultural factors of different ethnic population groups. The practice is common in urban as well as rural populations. Traditional healers may require long stay of patients and this may prevent early detection of disease and early medical intervention by modern psychiatry. However, attempts have been made to promote reciprocal communication and intervention with traditional healers; there are many traditional healing centers.

## Human rights and equity

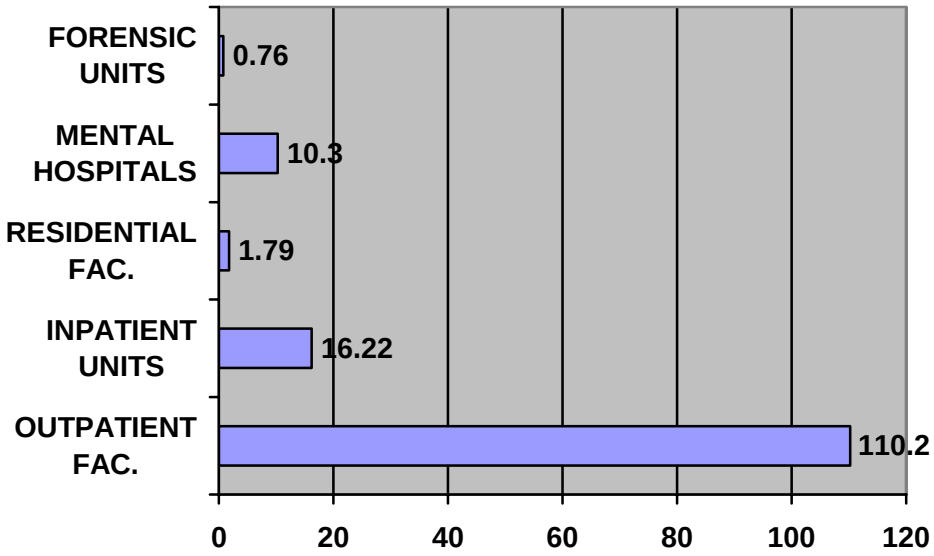
All mental hospitals and the majority of inpatient and outpatient facilities in the country are located in Khartoum City, the largest city in Sudan. Such a distribution of facilities prevents access to mental health services for rural users. Inequity of access to mental health services for other minority users (e.g., linguistic, ethnic, religious minorities) is unknown.

**GRAPH 2.1 - BEDS IN MENTAL HEALTH FACILITIES AND OTHER RESIDENTIAL FACILITIES**




The majority of beds in the country are provided by other residential facilities (facilities outside the mental health system), followed by community residential facilities.

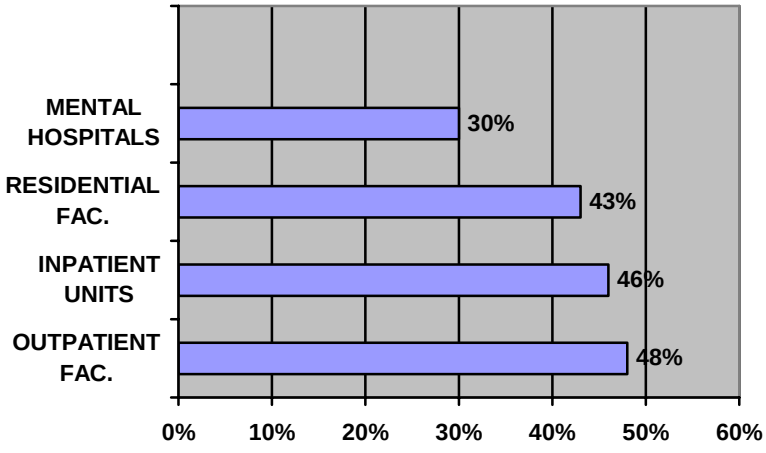
**GRAPH 2.2 - PATIENTS TREATED IN MENTAL HEALTH FACILITIES (rate per 100.000 population)**




**Note**: In this graph the rate of admissions in inpatient units is used as proxy of the rate of users treated in the units. The number of patients in forensic beds on December 31 is used as a proxy for patients treated in forensic units.

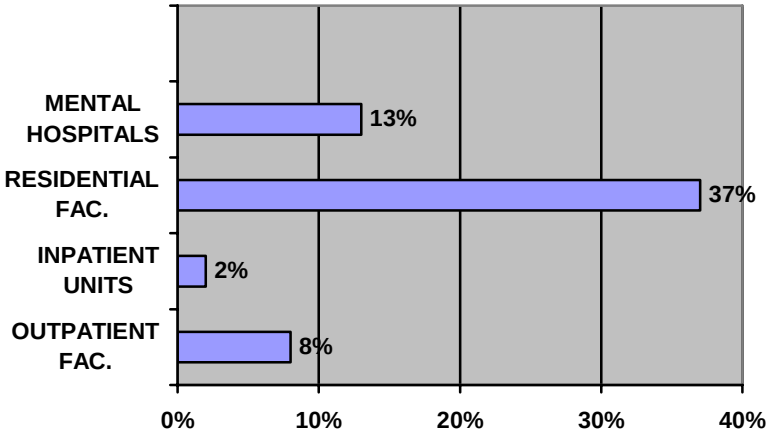
The majority of the users are treated in outpatient facilities followed by community-based psychiatric inpatient units and mental hospitals.

**GRAPH 2.3 - PERCENTAGES OF FEMALE USERS TREATED IN MENTAL HEALTH FACILITIES**



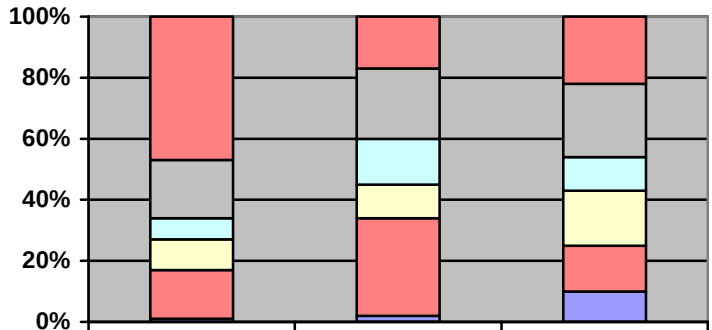
Female users represent over 40% of the total number of users of all mental health facilities in the country. The proportion of female users is highest in inpatient units and outpatient facilities and lowest in mental hospitals.

**GRAPH 2.4 - PERCENTAGE OF CHILDREN AND ADOLESCENTS TREATED IN MENTAL HEALTH FACILITIES AMONG ALL USERS**




The percentage of users that are children and/or adolescents varies substantially from facility to facility (Graph 2.4). The proportion of children users is highest in residential facilities, followed by mental hospitals.

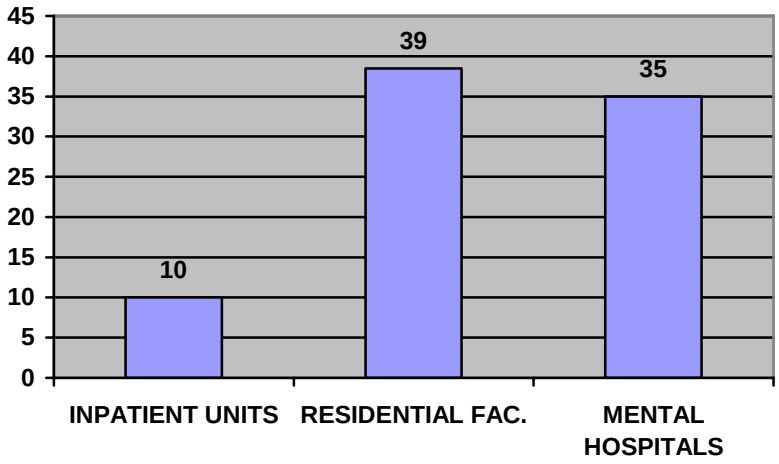
**GRAPH 2.5 - PATIENTS TREATED IN MENTAL HEALTH FACILITIES BY DIAGNOSIS**



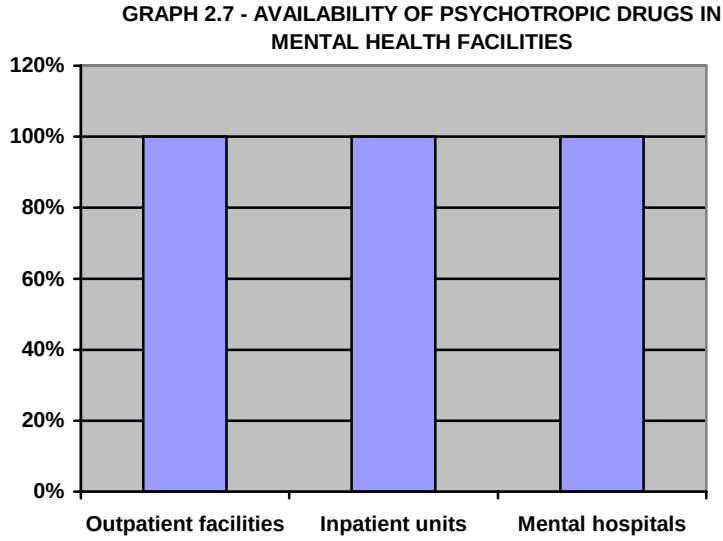

| | OUTPATIENT FAC. | INPATIENT UNITS | MENTAL HOSPITALS |
|---|---|---|---|
| MOOD DISORDERS | 47% | 17% | 22% |
| OTHERS | 19% | 23% | 24% |
| PERSONALITY DIS. | 7% | 15% | 11% |
| NEUROTIC DIS. | 10% | 11% | 18% |
| SCHIZOPHRENIA | 16% | 32% | 15% |
| SUBSTANCE ABUSE | 1% | 2% | 10% |

The distribution of diagnoses varies across facilities (Graph 2.5): in outpatient facilities mood disorders and other disorders are most prevalent, in inpatient units, schizophrenia and other disorders diagnoses are most common, and in mental hospitals mood disorders and "other" diagnoses are most frequent.

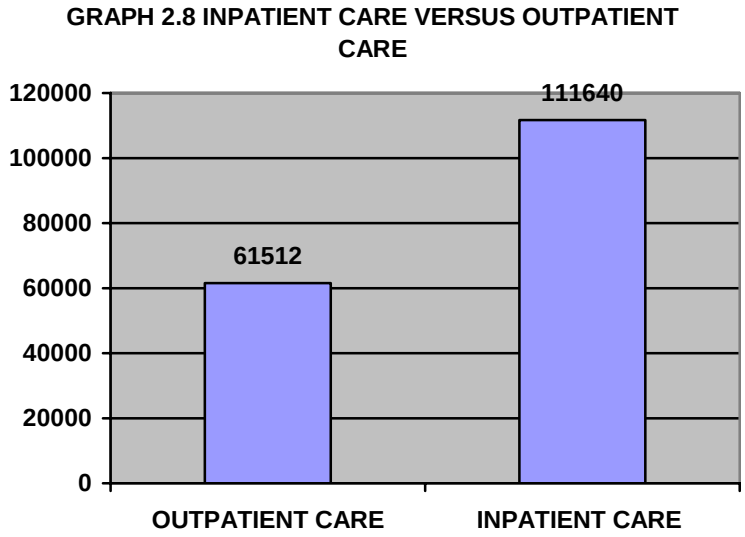
**GRAPH 2.6 - LENGTH OF STAY IN INPATIENT FACILITIES (days per year)**




The longest length of stay for users is in community residential facilities, followed by mental hospitals and then community-based psychiatric inpatient units




Psychotropic drugs are mostly widely available in all mental health facilities (i.e. mental hospitals, inpatient units and outpatient mental health facilities).




The ratio between outpatient/day care contacts and days spent in all the inpatient facilities (mental hospitals, residential facilities and general hospital units) is an indicator of the extent of community care: in this country the ratio is 0.55.This means that there is less than one outpatient contact per day spent in inpatient care.

## Domain 3: Mental Health in Primary Health Care

### Training in mental health care for primary care staff

2% percent of the training for medical doctors is devoted to mental health, in comparison to 4 % for nurses. In terms of refresher training on mental health, such a program has only sporadically been organized to provide refresher training to primary health care doctors, nurses and non-doctor/non-nurse. However, it has only been given to 20 doctors from various states during 2006 and none of the primary health workers received such training.

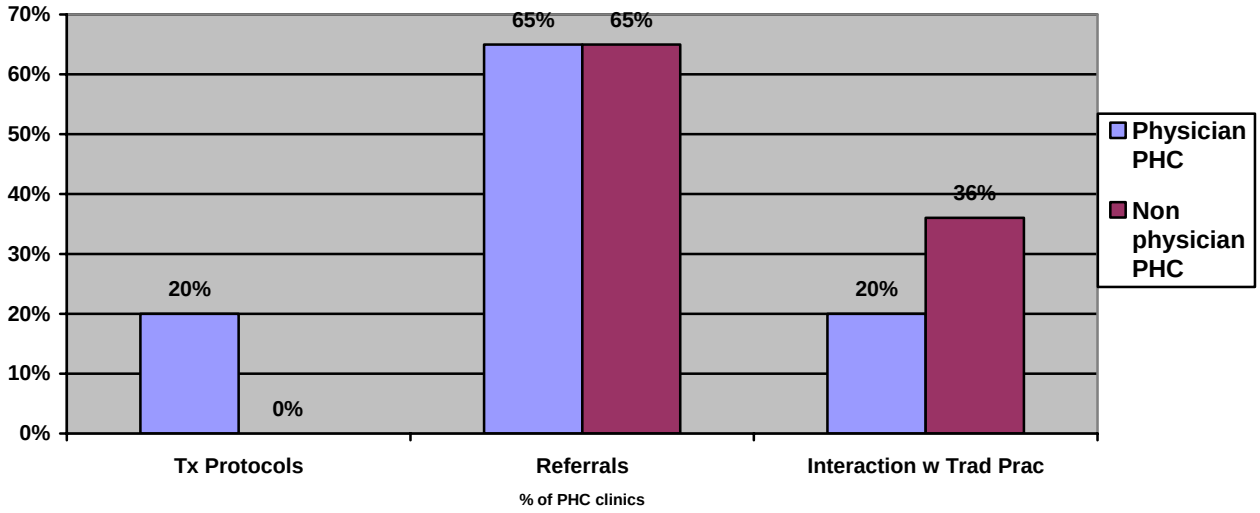
### Mental health in primary health care

Both physician based primary health care (PHC) and non-physician-based PHC clinics are present in the country. However, data collected are not sorted as such. A few (<20%) primary health care clinics have assessment and treatment protocols for key mental health conditions available. In comparison, none of the clinics in non-physician-based primary health care have these protocols.

The majority (51-80%) of the primary health care clinics make at least one monthly referral to a mental health professional. The percentage of referrals from non-physician based primary health care clinics to a higher level of care (e.g., mental health professional or physician-based primary health clinic) is the majority (51-80% of clinics).

As for professional interaction between primary health care staff and mental care staff, a few (<20%) of the physician PHC facilities have had interaction with a complementary /alternative/ traditional practitioner, in comparison to some (21-50%) of the non-physician based primary health care clinics.

**GRAPH 3.2 - COMPARISON OF PHYSICIAN BASED PRIMARY HEALTH CARE WITH NON-PHYSICIAN BASED PRIMARY HEALTH CARE**




## Prescription in primary health care

Nurses are not allowed to prescribe psychotropic medications in any circumstance, but psychiatric medical assistants are allowed to prescribe medications in some situations. Primary health care doctor are allowed to prescribe only essential psychotropic medications. As for availability of psychotropic medicines, none of the PHC clinics have at least one psychotropic medicine of each therapeutic category (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic) on a continuous basis in comparison to a few (1-20%) clinics of the non-physician-based clinics.

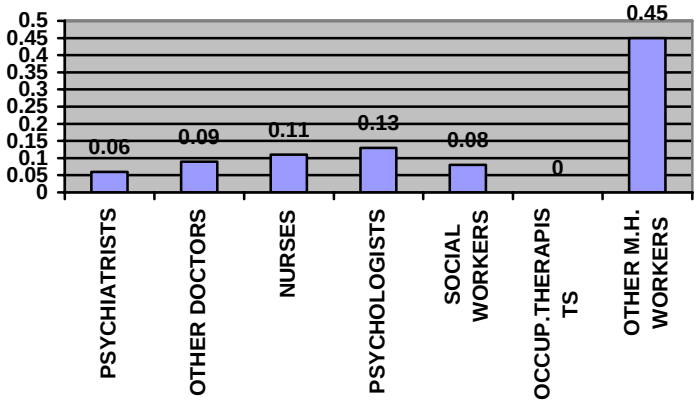
## Domain 4: Human Resources

**Number of human resources in mental health care**

The total number of human resources working in mental health facilities or private practice per 100,000 population is 0.92. The breakdown according to profession is as follows: 0.06 psychiatrists, 0.09 other medical doctors, .12 nurses, 0.13 psychologists, .08 social workers, and 0.45 other health workers. Twenty-four psychiatrists work for the Ministry of Health in mental health facilities, while 42 work in other sectors such as higher education. Fifty Percent of the psychologists, social workers, nurses and medical assistants work only in the government administered mental health facility, 21% work in the non government or private setting and 29 percent work in the both. Private practice is largely unregulated, especially in the case of psychologists and social workers. Figures provided are best estimates based on official registration and data from professional associations & Annual health statistical report 2007.

There is an uneven distribution of human resources in favor of mental hospitals and the capital city Khartoum. Only **6** of the 25 states have psychiatric treatment facilities.

**GRAPH 4.1 - HUMAN RESOURCES IN MENTAL HEALTH**
**(rate per 100.000 population)**



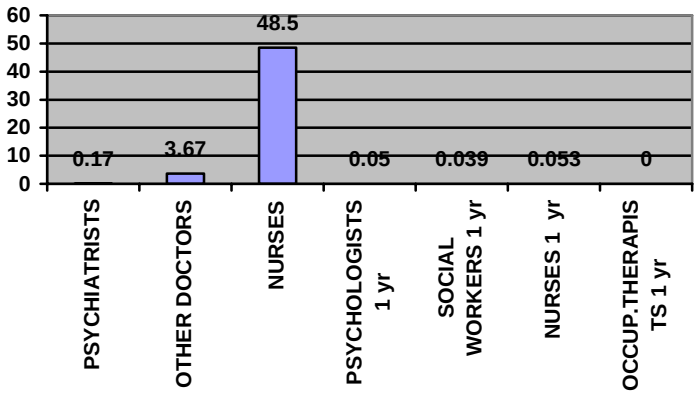

Regarding the workplace, since all out-patient facilities are subdivisions of inpatient facilities all psychiatrist working in government facilities work in both out and in patient units. Ten psychiatrists work part-time in the mental hospitals. As for other staff medical doctors (i.e., those not specialized in mental health), there are 35 non-specialized doctors working in mental health facilities in the country. Non nurses (with diplomas only) were working in mental hospitals. As for other mental health professionals, there are 50 psychologists and social workers working in mental hospitals. There are no occupational therapists.

The density of psychiatrists in or around the largest city is 4.49 times greater than the density of psychiatrists in the entire country. The density of nurses is 4.9 times greater in the largest city than the entire country.

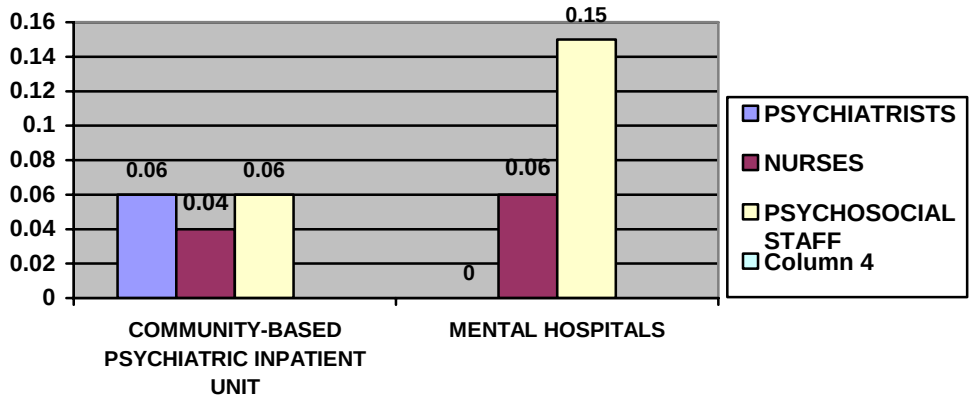
## Training professionals in mental health

The number of professionals graduated 2008 in academic and educational institutions per 100,000 is as follows: 0.17 psychiatrists, 3.6 medical doctors, 48.5 nurses - none of the nurses have at least 1 year training in mental health care, 0.05 psychologists and 0.04 social workers with at least 1 year training in mental health care, 0.00 occupational therapists with at least 1 year training in mental health care. All or almost the majority of the psychiatrists emigrate from the country within five years of the completion of their training. No mental health care staff attended refresher training on the rational use of drugs, psychosocial interventions, 4% (1) psychiatrist was trained in child/adolescent mental health issues in an at least two days refreshing training.

**GRAPH 4.2 - PROFESSIONALS GRADUATED IN MENTAL HEALTH (rate per 100.000 population)**



GRAPH 4.3 - AVERAGE NUMBER OF STAFF PER BED




**Consumer and family associations**

There are three members of user/consumer association and 124 members of family associations. The user association has started only in the last few months; the government currently does not provide economic support for either consumer or family associations. Few mental health facilities interact with these associations. In addition, there are other NGOs in the country involved in individual assistance activities such as counseling, housing, or support groups.

## Domain 5: Public Education and Links with Other Sectors

**Public education and awareness campaigns on mental health**

There are no coordinating bodies that oversee public education and awareness campaigns on mental health and mental disorders. The promotion of public education and awareness Campaigns by government agencies, NGOs, professional associations, private trusts and Foundations and international agencies in the last five years are unknown.

**Legislative and financial provisions for people with mental disorders**

At the present time, there is no legislative or financial support for employment, provision against discrimination at work, provisions for housing, and provisions against discrimination in housing for people with mental disorders.

**Links with other sectors**

There are formal collaborations with the departments/agencies responsible for primary health care/community health, HIV/AIDS and substance abuse. One (1%) of the primary

and secondary schools have either a part-time or full-time mental health professional working in them. Few (1-20%) primary and secondary schools have school-based activities to promote mental health and prevent mental disorders.

The proportion of prisoners with psychosis and mental retardation is estimated to be less than 5% for each diagnosis. Regarding mental health activities in the criminal justice system, less than 20 % of prisons have at least one prisoner per month in treatment contact with a mental health professional. As for training, 2% police officers and 1% judges and lawyers have participated in educational activities on mental health in the last five years.

## Domain 6: Monitoring and Research

A formally defined list of individual data items that ought to be collected by all mental health facilities does exist. The extent of data collection is variable among mental health facilities. The government health department received data from all mental hospitals, 100% community based psychiatric inpatient units, and 53% mental health outpatient facilities. The data are not presented separately for the different facilities. It appears in the annual health statistical report from the national health information center in the federal ministry of health.

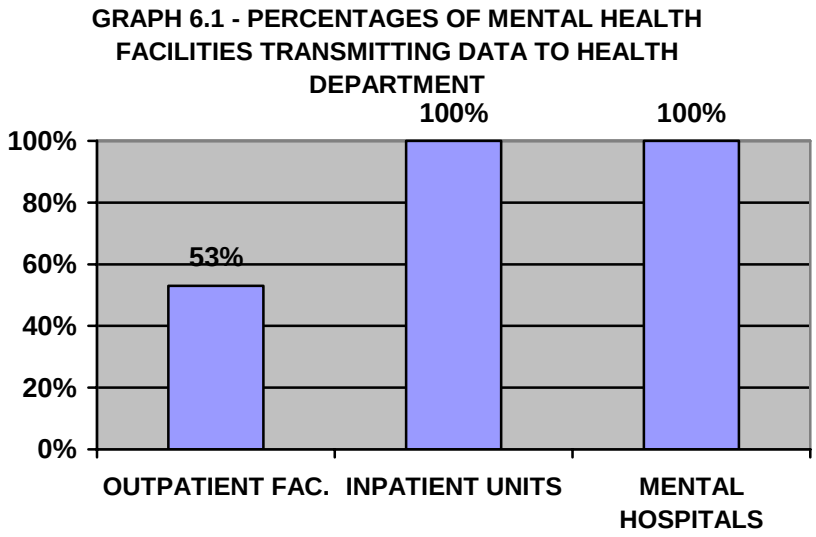
Research in Sudan is focused on epidemiological & community and clinical samples, and non-Epidemiological clinical/questionnaires assessments of mental disorders.

In terms of research, few mental health professionals (less than 20% of psychiatrists, nurses, psychologists and social workers) are involved in mental health research, as investigator or co-investigator (including dissertations and theses). There have been 19 mental health research publications in indexed journals in the past five years, which constitutes 2% of all indexed research in Sudan.

Table 6.1 - Percentage of mental health facilities collecting and compiling data by type of information

| TYPE OF INFORMATION COMPILED | MENTAL HOSPITALS | INPATIENT UNITS | OUTPATIENT FAC. |
|---|---|---|---|
| N° of beds | 100% | 100% | NA |
| N° inpatient admissions/users treated in outpatient facilities | 100% | 100% | 100% |
| N° of days spent/user contacts in outpatient facilities. | 100% | 100% | 100% |

| | | | |
|---|---|---|---|
| N° of involuntary admissions | 0% | 0% | NA |
| N° of users restrained | 0% | 0% | NA |
| Diagnoses | 100% | 100% | 100% |



In order to put the information contained above into context, comparisons with regional norms are made. Sudan, like most countries of the Eastern Mediterranean, has a mental health policy. However, in comparison to other countries, it was revised only recently. Community care for patients is limited as seen in many low and lower middle income countries. Expenditure on mental health is not specified from the total expenditure following the trend of most low and lower middle income countries. The poor involvement of primary health care services in mental health is also a feature shared with many low and lower middle income countries. In contrast, the proportion of psychiatric beds located in psychiatric hospitals to the total psychiatric beds in the country is well above the average for the region of the Eastern Mediterranean. The number of psychiatrists per 100000 population is lower than that of the majority of countries in the region of the Eastern Mediterranean, and below average as compared to the lower middle income countries in the world (Mental Health Atlas WHO, 2005).The striking aspect of the manpower distribution is the concentration of 80% of professionals in Khartoum which has about 18 % of the population of the country.

In the last few years, the number of outpatient facilities has grown significantly throughout the country. Moreover, efforts have been made to improve the quality of life and treatment of patients in mental hospitals. Some aspects of life in hospital have improved, but the number of patients has steadily grown. Unfortunately, the lack of human and financial resources to community mental health is a significant barrier to progress in the treatment of patients in the community. As a result, no significant progress has been made in provision of affordable medication, housing or employment for patients in the community.

## Next Steps in Strengthening the Mental Health System

**Domain 1**

- Improving the quality of mental health services according to the patient rights.

**Domain 2**

- Creation and the strengthening of community-based facilities (e.g., mental health outpatient facilities, community-based psychiatric inpatient units, etc.).
- Increasing availability of essential psychotropic medicines
- Improving equity of access to mental health services
- Increasing the mental health services for children and adolescents.

**Domain 3**

- Increasing the training in mental health for primary care staff.
- Integration the mental health with traditional healers

- Integration of mental health in the general services especially in primary health care.

**Domain 4**

- Increasing the numbers of psychosocial staff (e.g., social workers, psychologists, etc.).
- Development of mental health users and consumer & family association.

**Domain 5**

- Development of formal collaboration in the form of laws, administration, and programmes with (other) health and non-health sectors aimed at improving mental health ( Mental health council )
- Increasing the mental health system's links with other key sectors (e.g., department responsible for HIV, education, etc).

**Domain 6**

- Improvement of the mental health information systems.
- Development of mental health campaigns.

**SUDAN WHO-AIMS**

As a developing country, there are a number of contextual factors that need to be considered in understanding the current state of the mental health system, of Sudan including the socioeconomic situation and poverty suffered by most of the population as well as the high proportion of illiteracy, especially among women. It is also important to note that Sudan has experienced natural disasters such as drought and floods, as well as man-made disasters such as civil war and tribal conflicts.

The World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS) was used to collect information on the mental health system in Sudan. The goal of collecting this information is to improve the mental health system and to provide a baseline for monitoring the change. The results of the assessment illustrate positive areas of the mental health system as well as gaps that need to be studied and addressed. There are scarcities in mental health services at all levels, in terms of availability, accessibility and affordability. There is also a shortage of human resources and trained mental health professionals. The lack of mental health insurance schemes and the unequal distribution f mental health services, in favor of the capital city is also a concern. The budget allocated for mental health services is not known, and could not determined.

One of the biggest challenges is to introduce mental health services at the primary health care level, in order to increase the accessibility and availability of mental health care. Integration of mental health may help in fighting against social stigma as stigmatization against people with mental disorders is deeply rooted in Sudan. With regard to policies and laws on mental health, after a long waiting period, a national mental health policy was developed and is now in the process of being translated into the form of a strategic plan.

Protection of human rights with regards to the person with mental disorders it is untouched area, with little training available. Availability of data and research on health is severely limited for all aspects of health in the Sudan. However, for mental health the situation is worse as there are no studies to determine the magnitude of the problem.

Mental health has not received enough attention and priority until very recently. However, there are currently a number of ambitious programmes are in the pipeline.