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REPORT ON

MENTAL HEALTH SYSTEMS

IN

CENTRAL AMERICA AND DOMINICAN REPUBLIC

World Health Organization

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REPORT ON THE MENTAL HEALTH SYSTEMS IN CENTRAL AMERICA AND DOMINICAN REPUBLIC

Report on the Assessment of the Mental Health Systems in Central American countries and Dominican Republic using the World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS)

2009

World Health Organization

Pan American Health Organization

Regional Office of the World Health Organization

Pan American Health Organization (PAHO/WHO)
Department of Mental Health and Substance Abuse / WHO

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AIMS team includes Benedetto Saraceno, Shekhar Saxena (Coordinator), Tom Barrett, Antonio Lora, Mark van Ommeren, Jodi Morris, and Grazia Motturi.

For any further information, please refer to WHO-AIMS (WHO, 2005), the following website:
http://www.who.int/mental_health/datosprobatorios/WHO-AIMS/en/index.html

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Presentation

The World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS) consists of a tool and methodology that have been developed by the World Health Organization (WHO) for collecting essential data on the mental health programs and services of a country. This instrument is being used in most of Latin American and Caribbean countries with the technical cooperation of the PanAmerican Health Organization (PAHO).

The intensive work developed together with national authorities from Central America and Dominican Republic allowed the completion of the assessment process in the entire subregion. This document summarizes the descriptive information of the mental health systems in the seven countries and provides a reliable baseline for documenting future improvements and progresses.

The ministries of health of the countries have been able to better identify their strengths, weaknesses and priorities in order to address the improvement of services; we also have a more accurate vision at regional and subregional level that will guide the technical collaboration. PAHO has clearly stated its commitment to cooperate with State Members for restructuring mental health care, and this assessment exercise is an essential step in this process.

Mental disorders represent 22% of the total burden of disease in Latin America and the Caribbean. An efficient mental health system is fundamental for reducing this high burden that translates into morbidity, mortality and disability; as well as for closing the large gap in terms of affected patients who are not receiving any kind of treatment.

An important conclusion of the report is that mental health systems in most of these countries do not satisfactorily respond to the population needs. Mental hospitals continue to be – in a large extent – the core of mental health care, absorbing a considerable amount of available resources. The development of the mental health component in Primary Health Care is still limited and health workers at this level don't have problem-solving capacity to address this kind of problems. However there are positive experiences in the subregion that may be used as an example to follow in this field.

I would like to express our acknowledgement to the teams that developed this work and especially to the national authorities of the Ministries of Health for the support provided to this initiative. This assessment would not have

been possible without the support of PAHO/WHO Representations in each country, as well as the systematic cooperation of the Department of Mental Health and Substance Abuse of the World Health Organization. We are also thankful with other many actors who played a significant role in the countries.

The challenge is now to transform this assessment in a working tool for planning and implementing new actions. The final goal is to achieve true improvements in the lives of those persons affected by mental disorders in the Central American region.

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Introduction

The mental health situation in Central America and Dominican Republic is complex and has been influenced by a number of political and social factors. The history of the sub-region has been marked by numerous traumatic events such as natural disasters and bloody armed conflicts. These events have left individuals and communities with lasting psychopathological and psychosocial wounds and scars. This situation has also contributed to family dysfunction and occupational disability with serious economic losses. The impact of these events is heightened by the fact that they have occurred, and continue to occur, in a context of marked poverty. These adverse conditions, on top of the social exclusion of selected indigenous and rural population groups, perpetuate a vicious cycle of poverty and suffering. The frequency of mental disorders increases inversely with socioeconomic status and this situation obstructs any efforts by the most vulnerable population groups to break the cycle of poverty.

The growing burden of mental disorders in Latin America and the Caribbean has become too large to ignore. A PAHO review (2005) of epidemiological studies on community-based mental disorders conducted between 1980 and 2004 revealed an average one year prevalence estimate of 1% for non-affective psychoses, 4.9% for major depression, and 5.7% for alcohol abuse or dependence. The treatment gap or the ratio of people with mental disorders who do not receive any medical care is very high; over one third of individuals with non-affective psychosis, over half with an anxiety disorder, and three-fourths with alcohol abuse or dependence, did not receive mental health care from either specialized or general health services.

In 1990, mental and neurological disorders accounted for an estimated 8.8% of the total burden of all diseases in Latin America and the Caribbean, an estimate based on the WHO model of Disability Adjusted Life Years (DALYs). By 2002, this figure had more than doubled to 22.2%.

Despite this situation, mental health systems in almost all Central American countries and Dominican Republic are a long way from meeting current needs. Psychiatric hospitals in many of these countries remain, to a large extent, the primary mode of mental care, absorbing a sizeable proportion of mental health resources. The participation of primary health care in the delivery of mental health services is limited. In addition, primary care providers are inadequately trained to effectively handle psychosocial problems.

The World Health Report 2001 titled: *Mental Health: New Understanding, New Hope*. Based on scientific evidence, this report documented the huge impact of mental disorders on the Global Burden of Disease and highlighted the importance of addressing mental health issues around the world. More recently, in the year 2008, the World Health Organization (WHO) presented the Mental Health Gap Action Program (mhGAP). This program provides a clear and coherent set of activities to extend and improve mental care of people with mental, neurological and drug abuse conditions.

PAHO/WHO provides technical support to most Latin American and the Caribbean countries, especially for the development of national health policies and plans and the restructuring of mental health services. The Declaration of Caracas (1990), the Resolutions of the PAHO/WHO Directing Council (1997 and 2001), and the Principles of Brasilia (2005) are examples of programmatic supporting documents and guide to these efforts.

This assessment process represents a very important step within PAHO/WHO regional technical cooperation strategy in the field of mental health. This report summarizes the most relevant information collected for the Spanish-speaking Central American countries and the Dominican Republic. Data is presented for all six domains of the WHO-AIMS: Policy and Legislative Framework; Mental Health Services; Mental Health in Primary Care; Human Resources; Public Education and Links with Other Sectors; and Monitoring and Research.

Methodology

Assessment Instrument for Mental Health Systems (WHO-AIMS)

The World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS)[1] was developed in order to provide a tool for countries to be able to monitor their mental health systems. This WHO tool is used to collect essential information on the mental health system of a country or region. The goal of collecting this information is to improve mental health systems and to provide a baseline for monitoring the change. For the purpose of WHO-AIMS, a mental health system is defined as the structures and activities whose primary purpose is to promote, restore, or maintain mental health. WHO-AIMS is primarily intended for assessing mental health systems in low and middle-income countries, but is also a valuable assessment tool for high resource countries.

The 10 recommendations to promote improvements in mental health services issued in the *World Health Report 2001* are the foundation for WHO-AIMS. This instrument assesses key components of mental health systems and identifies their main weaknesses and strengths. WHO-AIMS consist of 6 Domains with 28 subsections and 155 items. All the sections are evaluated in order to have a complete picture of a mental health system.

Data are collected at the national, department, provincial/district, and local level (center, unit, or service). All relevant data sources are utilized in order to maximize the accuracy of the information.

WHO-AIMS' findings can be used to advocate for mental health reforms, to develop plans and programs, to monitor change, and to evaluate progress.

Data Collection:

Work began in 2005 with the first workshop held in Managua (Nicaragua), where the WHO-AIMS instrument was presented and its application discussed with Nicaragua, El Salvador and Guatemala. The respective Ministries of Health gave their consent to the study and committed their support. Subsequently, the instrument was presented to the other Central American countries and each country agreed to participate in this project.

[1] Saxena S.et al (2007).WHO's Assessment Instrument for Mental Health Systems: Collecting Essential Information for Policy and Service Delivery. Psychiatry services. 58 : 6, 816-821

The next step was to train a technical team from each country in the application of WHO-AIMS. The team was made up of a national consultant hired by PAHO/WHO, the national mental health coordinator of the Ministry of Health, and the mental health consultant of the PAHO/WHO Representative Office in the country. When needed, each country included other specialists or staff.

The consultant in charge of compiling the information and executing WHO-AIMS had six months to do the work. During that time, he was regularly in contact with the technical team that monitored and guided the process.

At the conclusion of the data collection phase, a national workshop was held to discuss and validate the results. The data were examined and discussed by officials and prominent professionals from the public sector and other organizations. The data was then analyzed and summarized in country analytical reports which were jointly published by PAHO/WHO and the respective Ministry of Health.

Data from each country was reviewed by staff in the PAHO Mental Health Regional Program and Mental Health and Substance Abuse Department at the WHO headquarters in Geneva (Switzerland). During this stage, some inconsistencies and possible errors were detected and national teams reviewed and corrected the document's final version. Also, the Ministry of Health approved the data before it was published. However, since PAHO and WHO are not directly responsible for the data collection, PAHO/WHO cannot independently verify the accuracy of any of the data presented in this report.

Data was collected from the nations of Nicaragua, Guatemala and El Salvador in 2005, from Panama and the Dominican Republic, in 2006, and from Honduras and Costa Rica in 2007. The data is based on the information provided by the public sector, consisting of each country's Ministries of Health and Social Security institutions. Information from the private sector could not be collected in most countries. Data is not included in those sections of the instrument where the majority of the countries were not able to collect the information.

Sociodemographic information

Table 1 summarizes several sociodemographic aspects of the countries and highlights some unique aspects of each country. Guatemala is the country with the largest population and also with the largest indigenous population, especially of Maya origin. El Salvador has the highest population density (332 inhabitants per Km^2) in the subregion, and Panama has the largest population over 65 years of age (5.9% of the population over 65 years in 2005). Guatemala and Honduras have the lowest life expectancy and Costa Rica and Panama the highest. The lowest per capita income is for Honduras and Nicaragua.

Table 1 – Sociodemograpfic aspects

Countries	Population 2007	Life expectancy 2007	Literacy population (> 15 a.) (%)	GBP (ppa) ($) 2005
Guatemala	13.354.000	70.3	69.1	4410
El Salvador	6.857.000	71.9	80.6	5120
Nicaragua	5.603.000	72.9	76.7	3650
Panama	3.343.000	75.5	93.1	7310
Honduras	7.106.000	70.2	80	2900
Dominican Republic	9.760.000	72.2	87	7150
Costa Rica	4.468.000	78.8	94.9	9680

Analysis of results

Domain 1 - Policy and Legislative Framework

The instrument assesses information on when countries last updated mental health policies, plans, mental health legislation, and mental health disaster and contingency plans. Table 2 shows that all the countries have a mental health plan which means progress and expresses commitment to mental health issues. Although four countries did not have an explicit mental health policy, mental health plans often had a general framework that addresses the policy issues. Occasionally, the difference between policy and plan is not clear. However, the positive element is that three (Guatemala, El Salvador and Panama) of these four countries have now updated their mental health policy.

It is also evident that most of the countries have updated programs for mental health protection in the event of natural disasters and emergencies.

Table 2 – Plans and legislation for each country

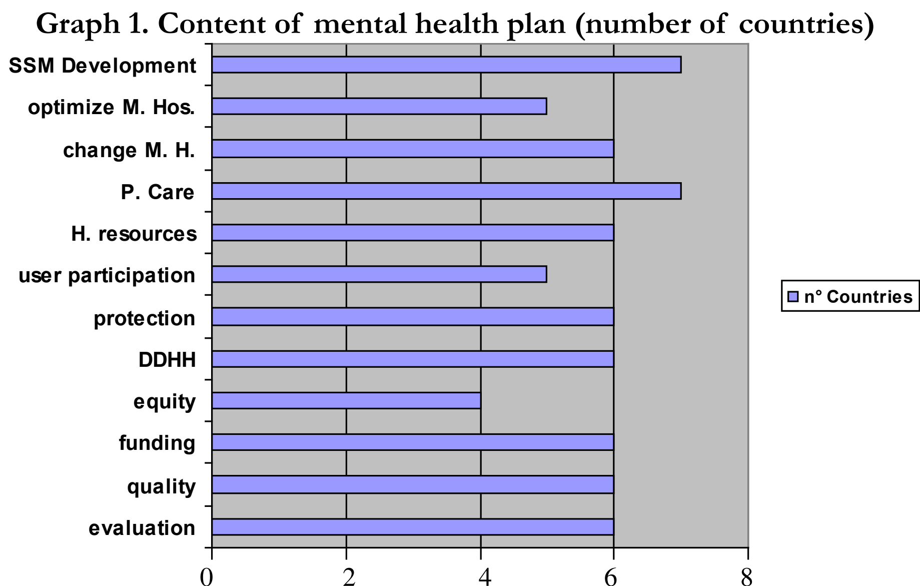
	Costa Rica	El Salvador	Panama	Guatemala	Nicaragua	Honduras	Dominican Republic
Year of last version of mental health policy	2006	NC	NC	NC	NC	2001	2006
Year of last version of the mental health plan	2004	2005	2003	1997	2004	2007	2006
Year of last version of a disaster/ emergency preparedness plan for mental health in emergencies	NA	2004	2005	2004	2004	2001	2006
Year of last version of mental health legislation	1999	NC	2003	NC	NC	1999	2006

NC = Not Current (over ten years old or no existing plan)

The mental health plans in almost all the countries appear to be quite comprehensive as they cover most of the WHO suggested elements (Graph 1). The three areas that are sometimes not addressed in some of these countries are downsizing of the mental hospitals (2 countries: Guatemala and Honduras), involvement of consumers and family members (2 countries: Honduras and El Salvador), and equity of access (3 countries: Guatemala, Panama and Honduras).

Honduras had the lowest number of recommended components in its mental health plan. All participating countries reported the inclusion of all WHO recommended psychotropic medicines on their essential medicines list.

Graph 1. Content of mental health plan (number of countries)



Note. SSM development =Organization of services: developing community mental health services; optimize m. hos = downsizing large mental hospitals; change m.h. = reforming mental hospitals to provide more comprehensive care, etc.

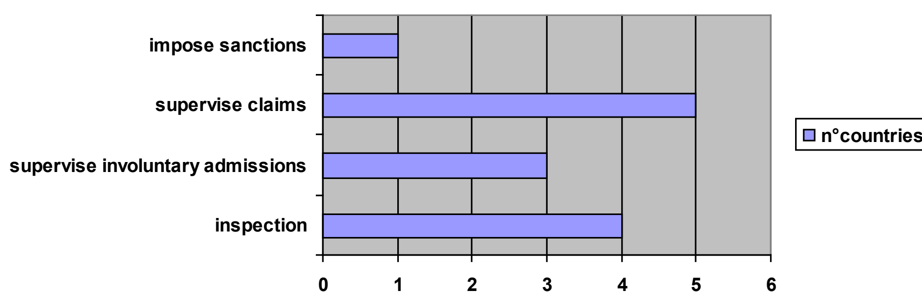
Graph 2 shows that most countries (5 of 7) have some kind of external review body on human rights. These entities can review involuntary admission and discharge procedures and review complaints. However, they do not conduct these reviews regularly and not on case basis. These institutions often called Attorney General Office or Ombudsman and do not have executive authority to dictate mandatory measures or sanctions; only the review body in Costa Rica is authorized to impose sanctions.

Both mental hospitals in Costa Rica, and one of two in Guatemala, have at least one annual external review/inspection of human rights protection of patients. This is 27% of all mental hospitals in participating countries. None of the community-based, inpatient, psychiatric units and community residential facilities has at least one annual, external review of human rights protection of patients.

In the past two years, 6 of the 11 mental hospitals have had at least one working session on human rights protection of patients. Four of these hospitals reported

100% hospital worker participation. Two of the community-based inpatient psychiatric units and community residential facilities have human rights training for staff. Both of these facilities with training are in the Dominican Republic. But in general, there are no regular or systematic training processes in the field of human rights for workers in mental health services or facilities.

Graph 2. Human Rights Protection: functions of human rights bodies



Five of seven countries reported the coverage of all mental disorders and mental health problems of clinical concern by social insurance schemes. The Dominican Republic reported some coverage and Nicaragua reports no coverage. Costa Rica and Panama are the only two countries that have Social Security institutions that cover the majority of the population; coverage in the rest of the countries is very low.

An average of 27% of the total population in these seven countries has free access to essential psychotropic medicines. This means that at least 80% of the cost of these medications is covered for this proportion of the population.

The average percentage of the health budget devoted to mental health in these countries is 1.6%. There is an important gap if compared with the global burden of disease associated with mental disorders (approx 22% in Latin America and the Caribbean). Also, the vast majority of this money is devoted to mental hospitals. Approximately 90% of the total mental health expenditure is on the mental hospitals in Guatemala, El Salvador, Nicaragua and Honduras. Panama and Dominican Republic have the best situation in this indicator with 44% and 50% respectively, of their mental health budget devoted to mental hospitals. See table below (table 3).

Table 3 – Mental health expenditures

	Percentage of Health Budget Spent on Mental Health	Percent of Mental Health Expenditures Spent on MH Hospitals
Costa Rica	2.9%	67%
Honduras	1.6%	88%
Guatemala	1.4%	90%
Rep. Dominicana	0.4%	50%
Nicaragua	0.8%	91%
El Salvador	1.1%	92%
Panamá	2.9%	44%
Averages	*1.6%*	*75%*

Domain 2 - Mental Health Services

All participating countries reported the existence of a national mental health authority that provides advice to the government on mental health policies/ legislation and is involved in service planning, management, coordination, and the monitoring and quality assessment of mental health services. Also, all participating countries reported the existence of sectorized service areas (or regionalized) as a way to organize mental health services.

A total of 389,262 users were treated within mental health outpatient facilities in the seven participating countries, with an average of 55,609 users per country. This comes to a rate of 803.95 users treated per 100,000 general population.

Table 4 – Users treated in outpatient facilities per 100,000 general population

	Costa Rica	Honduras	Guatemala	Dominican Republic	Nicaragua	El Salvador	Panama	Total
Outpatients per 100,000 General Population	1916.31	1579.97	781.55	265.53	145.06	627.28	587.83	803.95

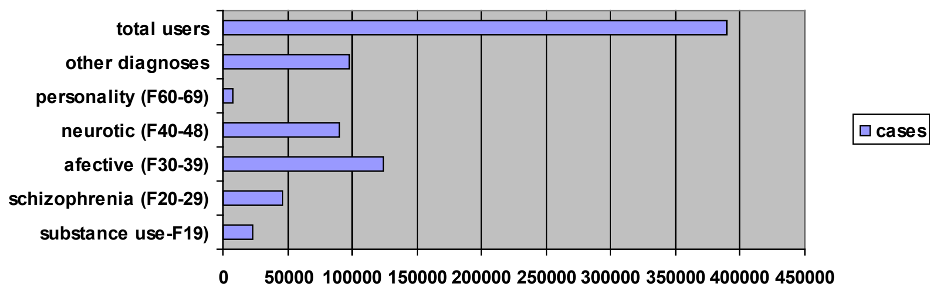
Six of the seven countries reported the gender of mental health consumers. On average, 60% of consumers treated through mental health outpatient facilities were female and 6% of users treated through mental health outpatient facilities were 17 years of age or younger.

There were 995,685 outpatient contacts provided in the previous year through mental health outpatient facilities with a total of 290,001 users treated (users

in Guatemala were not included since the number of contacts is unknown), which gives an average of 3.43 contacts per user. This data included six of the seven participating countries.

Graphs 3 and 4 demonstrate that the most prevalent diagnosis in all facilities (outpatient and inpatient) is that of a mood disorder. The second most prevalent diagnosis varies for each facility; it is the neurotic group in outpatient facilities, other organic disorders group in community-based inpatient units, and schizophrenia group in mental hospitals.

Graph 3. Diagnosis in Outpatient Facilities



Graph 4. Diagnosis of hospitalized patients (mental hospital and general hospital)

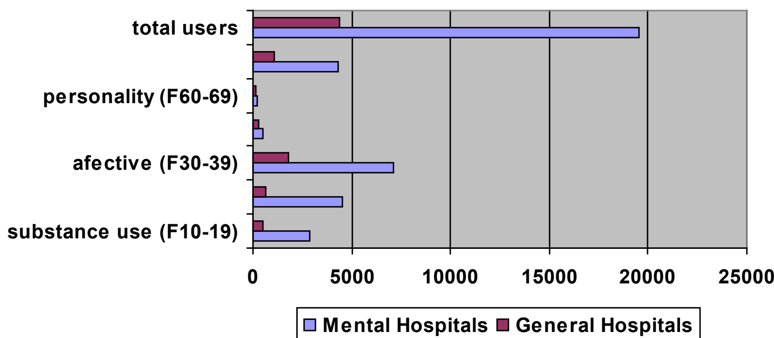


Table 5 breaks down the facilities or mental health services by categories and countries. Worth to mention is that 15 of the 343 mental health outpatient facilities (4.4%) are for children and adolescents only. Thirty-one of 311 mental health outpatient facilities (9.9%) in six of the seven countries provide routine follow-up community care to people with mental disorders.

Of the total 14 mental health day treatment facilities in six of the seven participating countries, 5 are located in Nicaragua. El Salvador does not have

mental health day treatment facilities. In the six countries with mental health day treatment facilities, 52.6% of users treated are female. The users were present on an average of 66 days at day treatment facilities.

A total of 48 psychiatric inpatient units in general hospitals were reported by five of the seven participating countries, with El Salvador and Honduras reporting no such units. Twenty-six of these inpatient units are located in Costa Rica. There are 399 beds available in these units, equaling a rate of 1.17 beds per 100,000 population. Of the 27,316 admissions to these units, 56% were female. Three countries did not collect data on length of stay in these facilities, while four (Panama, Nicaragua, Guatemala, and Costa Rica) of the seven countries did report this information. Within these four reporting countries, discharged patients spent an average of 11.4 days in community-based inpatient units in the previous year.

Most participating countries report not having community residential facilities. There are a total of 67 community residential facilities in 3 countries, with 1 such facility in the Dominican Republic. There are 1,432 beds/places in these facilities, ie 7.7 beds/places per 100,000 general population overall. However, when evaluating the characteristics of these reported facilities, the majority of them belongs to the private sector and basically admit elderly patients with mental disorders or people with intellectual disability.

There are 2,624 beds in mental hospitals ie 5.4 beds per 100,000 general population. Forty-eight percent of patients treated in mental hospitals are female. Only El Salvador and Panama reported information on involuntary admissions. In these countries there were a total of 2,020 involuntary admissions or 42% of the total admissions.

In general, none of the countries had regular mechanisms to collect information on involuntary admissions of people with mental disorders.

Table 5 – Mental health facilities in each country

	Mental Hospitals	MH Outpatient Facilities	Day Treatment Facilities	Community-based Psychiatric Inpatient Units	Community Residential Facilities
Costa Rica	2	38	2	26	35
Dominican Republic	1	56	1	9	1
El Salvador	2	49	0	0	0
Guatemala	2	32	2	2	0
Honduras	2	31	1	0	0
Nicaragua	1	34	5	3	31
Panama	1	103	3	8	0
TOTAL	**11**	**343**	**14**	**48**	**67**

Table 6 shows that two countries reported an estimate of twenty percent or higher of patients admitted to mental hospitals who are physically restrained or secluded at some time during their stay. In two of the countries this information is unknown (Nicaragua and Guatemala). This information is estimation since no regular mechanisms exist to collect this information in any of the countries.

Table 6 – Physical restraint and seclusion in mental hospitals

Percentage of patients who were physically restrained or secluded patients at least once in the last year in mental hospitals						
	Over 20%	**11-20 %**	**6-10%**	**2-5%**	**0-1%**	**Unknown**
Number of countries	2 Costa Rica Panama	1 Dominican Republic	1 El Salvador	1 Honduras	0	2 Nicaragua Guatemala

There are 64 residential facilities specifically for people with substance abuse problems in six of the seven participating countries. In four countries with data available, there are a total of 1,861 places/beds in residential facilities specifically for people with substance abuse problems, with Panama reporting no such places/beds and the Dominican Republic reporting 1,522 places/beds.

The availability of at least one psychotropic medicine of each therapeutic category was reported in all eleven mental hospitals (100%), 37 out of 48 (77%) psychiatric inpatient units in general hospitals, and 221 out of 343 (64.4%) mental health outpatient facilities.

Six countries reported rural users being substantially under-represented in their use of outpatient services and Costa Rica reported rural users being roughly equally represented.

Table 7 shows that there are significant differences between government and for-profit health facilities with regard to the average time spent with a psychiatrist in almost all of these countries.

Table 7 – Differences between government-administered and for-profit mental health care facilities

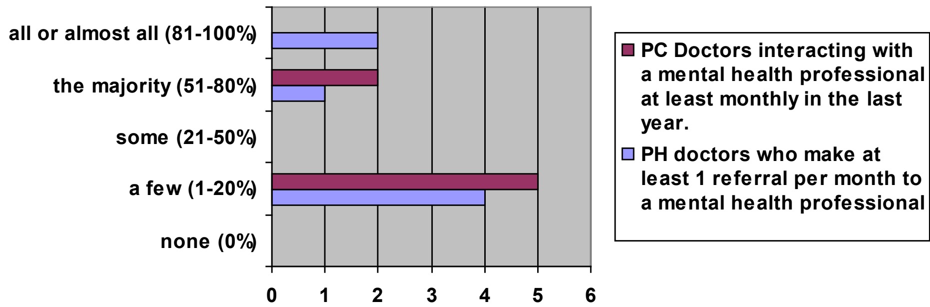
Evaluated aspect	On average a substantial difference (greater than 50%)	
	YES	NO
Average duration of the waiting list for an initial non-emergency psychiatric outpatient appointment	• Nicaragua • Honduras • Dominican Republic • Costa Rica	• Panama • Guatemala • El Salvador
Average number of minutes of an outpatient consultation with a psychiatrist	• Panama • El Salvador • Nicaragua • Honduras • Dominican Republic • Costa Rica	• Guatemala

Domain 3 - Mental Health in Primary Care

Assessment and treatment protocols for key mental health conditions are not available in physician-based primary health care (PHC) clinics in four participating countries, in 1-20% of the PHC clinics in Guatemala and El Salvador, and in 51-80% of such clinics in Costa Rica.

Graph 6 shows that in most countries a few doctors make one referral per month to a mental health professional and a few primary care doctors interact with mental health professionals monthly. The countries with the most interaction between medical doctors and mental health professionals are Costa Rica and Panama.

Graph 6. Referrals and Interactions between primary health care doctors and mental health professionals



Primary health care doctors are allowed to prescribe psychotropic medicines in all participating countries - without restrictions in four of the participating countries and with restrictions in three of the countries. However, in most Central American countries and the Dominican Republic, the problem lies in the availability of psychotropic medication.

Table 8 shows that most of the primary care clinics in six of the countries are without sufficient psychotropic medications.

Table 8 – Availability of medicines to primary health care patients in physician-based primary health care

Physician-based primary health care clinics in which at least one psychotropic medicine of each therapeutic category is available in the facility or in a nearby pharmacy all year long					
	0 %	**1-20 %**	**21-50%**	**51-80%**	**81-100%**
Number of Countries	2 Nicaragua Guatemala	2 Honduras Dominican Republic	2 Panama El Salvador	0	1 Costa Rica

Table 9 shows the proportion (%) of undergraduate training hours devoted to Psychiatry and Mental Health-related subjects in Nursing and Medicine Schools. The average number of training hours is 6.5% of the total training hours in Nursing Schools and 3.3% of total training hours in the Medicine Schools It is evident that insufficient number of hours are devoted to mental health in the training of doctors and nurses.

Table 9 – Mental Health Training in Nursing Schools

Country	Proportion (%) of undergraduate training hours devoted to Psychiatry and Mental Health-related subjects in Nursing Schools	
	Nursing Schools	Medicine Schools or Faculties
Costa Rica	9	3
Dominican Republic	4	3
El Salvador	4	7
Guatemala	3	1
Honduras	7	5
Nicaragua	7	2
Panama	12	2
Average	**6.5**	**3.3**

Table 10 shows that very few physicians, nurses, and health care workers in PHC are receiving refresher training defined as at least 16 hours of mental health training per year. El Salvador and Dominican Republic have the most number of doctors receiving refresher training; Guatemala does not have information in this respect. Regardless of the above, all countries need to develop regular training programs in mental health for PHC workers.

Table 10 – Proportion of PHC doctors, PHC nurses and non-doctor/non-nurse primary PHC workers with at least two days of refresher training in psychiatry/mental health in the last year

Country	PHC Personnel		
	% physicians	% nursing	% health care workers
Costa Rica	3	Unknown	Unknown
Dominican Republic	12	0	39
El Salvador	16	13	15
Guatemala	Unknown	Unknown	Unknown
Honduras	4	2	Unknown
Nicaragua	4	0	0
Panama	7	Unknown	Unknown
Average	**7.7**	**3.8**	**18**

Assessment and treatment protocols are not available in any (0%) of the non-physician-based primary health care clinics in four participating countries (Costa Rica, Panama, Nicaragua, and Honduras) and are only available in 1-20% of such clinics in two countries (El Salvador and Guatemala). The Dominican Republic does not have this data.

El Salvador was the only country to report primary health care nurses having authorization to prescribe and/or continue prescription of psychotropic medicines, although with restrictions. The other six countries reported no such authorization.

Five countries reported no physician-based primary health care clinics interacting with complimentary/alternative/traditional practitioners at least once in the last year. Only Panama and Nicaragua reported a few (1-20%) clinics interacting with such practitioners. Five countries reported no non-physician-based primary health care clinics interacting with these practitioners at least once in the last year and one country reported a few (1-20%) clinics interacting with such practitioners. All seven countries reported no mental health facilities interacting with complimentary/alternative/traditional practitioners (at least once in the last year).

Domain 4 - Human Resources

Human resources: rates of professionals in mental health

Table 11 shows the rates of psychiatrists, nurses and psychologists per 100,000 population. There are large discrepancies across the Central American countries in the number of available mental health professionals; for example, Panama has the highest rate of psychiatrists per capita (3.46) and Guatemala has the lowest rate (0.57), which means there is a six fold difference between these two countries. There is a nine fold difference between the number of psychologists in the Dominican Republic (3.17) and Guatemala (0.35).

In general, it is evident that Panama and Costa Rica show the best indicators in terms of human resources devoted to mental health.

Also, there are differences in the degree of specialization. For example, the training for psychiatrists can vary from 3 to 4 years according to the country and there is no specialized training for child psychiatrists in the majority of the countries. There are also large differences in nurse training as countries can have 2 to 4 different professional levels with the highest being the nurses with a nursing degree and the lowest being the auxiliary or nurse aide.

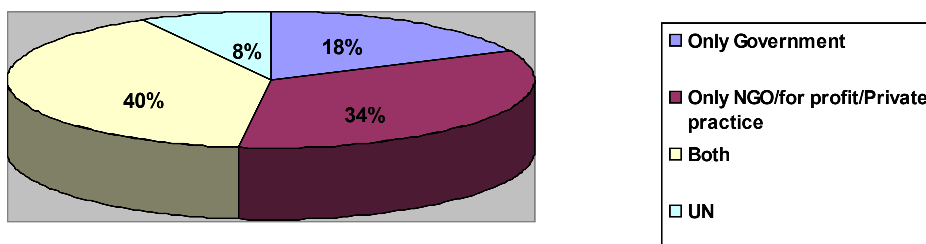
Table 11 – Human resources: rates of professionals in mental health per 100,000 population

Country	Psychiatrists	Psychologists	Nurses
Costa Rica	3.06	1.88	4.13
Dominican Rep.	2.07	3.17	1.61
El Salvador	1.39	1.68	2.11
Guatemala	0.57	0.35	1.28
Honduras	0.81	0.77	2.58
Nicaragua	0.90	2.11	1.7
Panama	3.46	2.99	4.38
Average	**1.75**	1.85	2.54

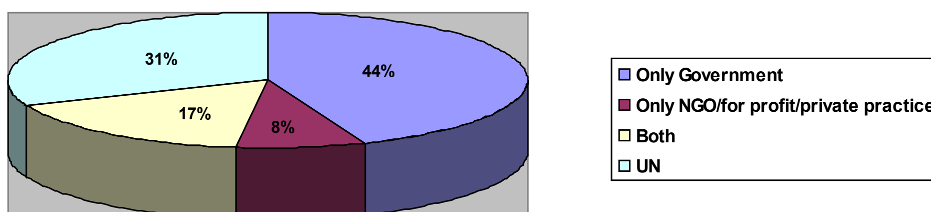
Mental Health Professionals working in different settings

As evidenced by the subsequent graphs (7 and 8), most psychiatrists work in the private sector or work for both the government and the private sector while most psychosocial professionals (psychologists, social workers, and others) work for the government. The psychiatrists often work in more than one sector (public and private) this may be due to the demand or need these professionals have and the existence of low salaries that lead them to look for complementary jobs or income sources.

Graph 7. Proportion of psychiatrists working in various mental health sectors

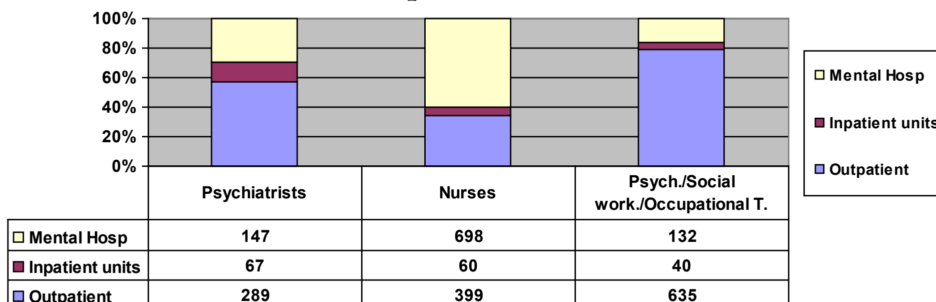


Graph 8. Psychologists/social workers/nurses/ot working in various mental health sectors



This next graph (9) shows that nursing professionals predominate in mental hospitals, while psychiatrists, psychologists, social workers, and occupational therapists are more represented in outpatient facilities.

Graph 9. Percentage of staff that work at mh/outpatient facilities/ inpatient units



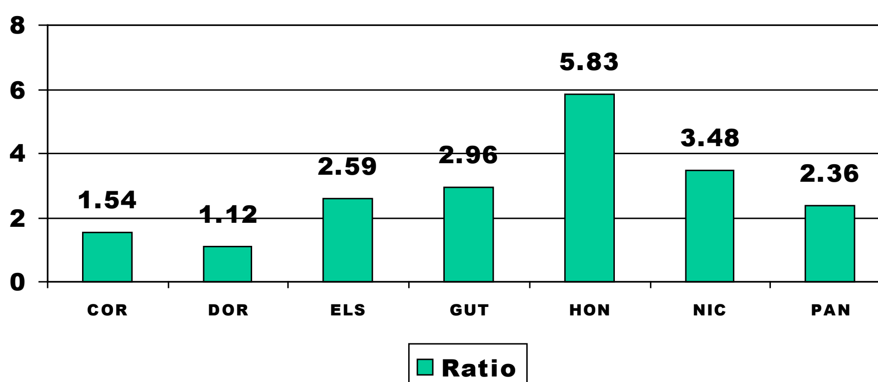
	Psychiatrists	Nurses	Psych./Social work./Occupational T.
Mental Hosp	147	698	132
Inpatient units	67	60	40
Outpatient	289	399	635

<u>Mental Health professionals working in or near the largest city of the countries</u>

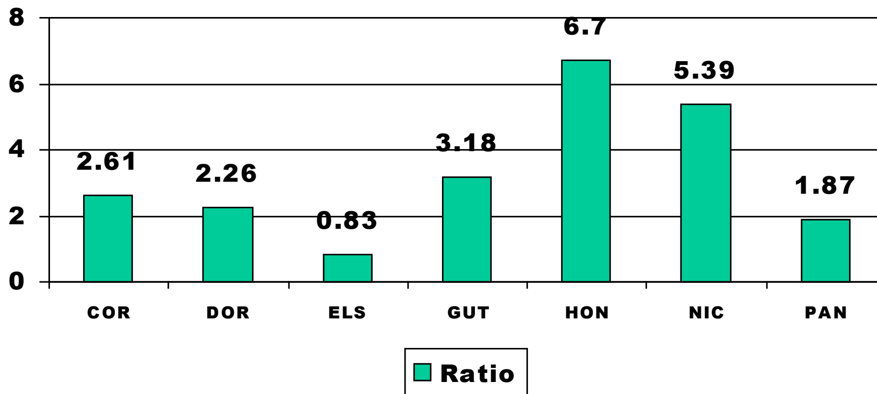
Graphs 10 and 11 demonstrate that the concentration of human resources is in the urban areas of the countries. The highest ratio indicate the countries that have a greater difference between urban and rural areas (for the first).

The countries with the largest discrepancy of psychiatrist and nurses between urban and non-urban areas are Honduras and Nicaragua. In Honduras, the number of psychiatrists per capita is almost six times greater in the largest city compared to the entire country. The countries with the least discrepancy for psychiatrists are the Dominican Republic and Costa Rica; and the countries with the least discrepancy for nurses are El Salvador and Panama.

Graph 10. Ratio of psychiatrists working in or near the largest city per 100,000 people compared to the ratio in the entire country



Graph 11. Number of nurses per capita in larger cities compared to the number of nurses per capita in the entire country



Education and training

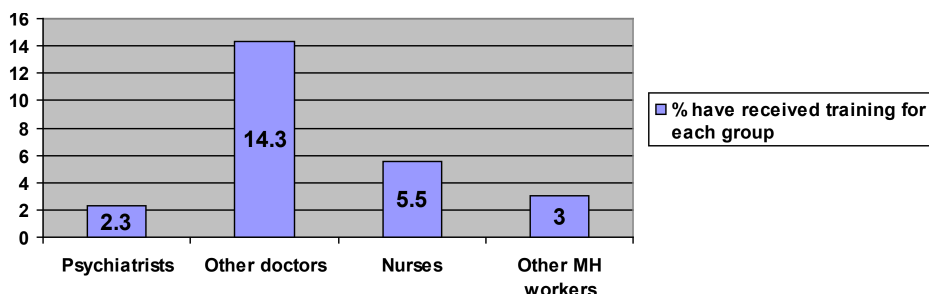
There is a higher rate of graduating doctors in Costa Rica, the Dominican Republic and Panama. Higher rates of graduating nurses are found in Costa Rica and Guatemala. Costa Rica and Panama have the highest rates of graduating psychiatrists in the last year.

Table 12 – Rate of professionals that have graduated in last year by profession by country per 100,000

	COR	DOR	ELS	GUT	HON	NIC	PAN
Doctors	17.4	15.2	7	2	2.6	4.5	13.3
Nurses	9	3.7	2.7	7.1	0.8	4.2	4.5
Psychiatrists	0.1	0.07	0.08	0.04	0.05	0.01	0.15

Graph 12 indicates that professionals who have received refresher training on the rational use of psychotropic drugs make up only a small portion of the total health care work force. Other medical doctors (14.5 %) and nurses (5.5 %) are more likely to have received such a training while psychiatrists (2.3%) are least likely to have had a training in the rational use of psychotropic drugs.

Graph 12. % professionals who have received 2 days of refresher training in rational use of psychotropics drugs within the last year



Migration of psychiatrists

It was estimated that between 1 and 20% of newly certified psychiatrists migrated to other countries within five years of completing training in 4 of the Central American nations. In two Central American countries (El Salvador and Honduras) none of newly certified psychiatrists migrated to other countries.

Consumer and family members associations

There are a total of 747 mental health users who are members in consumer associations and another 292 individuals involved in family associations in all the seven participating countries. The small number of user and family associations is a weakness of the mental health system. The government of the participating countries does not provide financial or any other form of support to the family or consumer associations.

Domain 5 - Public Education and Links with Other Sectors

Public education and awareness campaigns on mental health

Five of the seven countries have coordinating bodies for public education and awareness campaigns on mental health. The agencies promoting public health issues range from international agencies to governmental institutions, such as the Ministry of Health or Departments of Public Education and Health Services. Professional associations and private trusts are active in the mental health sector in four of the seven countries, while two countries indicated that the involvement of private trusts is unknown and one country reported the same for professional associations.

Provisions for legal and social protection

Nicaragua, Panama, El Salvador and the Dominican Republic have provisions in place that legally bind employers to hire a percentage of employees with disabilities, however, these legislative provisions are not enforced. Honduras and Guatemala do not have any legislative provision for employment of individuals with disabilities. However, Costa Rica has such provisions in place and the provisions are enforced.

Legislative provisions to prevent discrimination at work on account of mental disorders exist but are not enforced in four of the participating countries. Three countries reported that no such provisions exist.

Legislative or financial provisions concerning priority for those with severe mental disorders in state housing and in subsidized housing schemes do not exist in any of the participating countries.

Collaborative programs and links with other sectors

All countries reported formal collaborative programs with the primary health care and substance abuse agencies. Most of the countries (6 out of 7) have links with reproductive health and child and adolescent health agencies.

Housing and employment programs were not as well represented, as 4 countries reported no formal collaboration programs with employment agencies and 5 countries reported none with housing agencies. Only Guatemala and Costa Rica have collaborative programs with all the listed health and non-health agencies/departments.

There are no mental health facilities with access to programs providing outside employment in any of the participating countries.

Table 13 – Formal collaborative programs with health and non-health agencies/departments

Health Organizational Unit or other collaborative sectors	Number of countries	
	Yes	No
1. Primary health care/ community health	7	
2. HIV/AIDS	6	1 (Nicaragua)
3. Reproductive health	6	1 (Nicaragua)
4. Child and adolescent health	6	1 (Nicaragua)
5. Substance abuse	7	
6. Child protection	6	1 (Nicaragua)
7. Education	5	2 (Honduras, Dominican R.)
8. Employment	3	4 (Nicaragua, Honduras, Donminican R., Panama)
9. Housing	2	5 (Nicaragua, Honduras, Dominican R., Panamá, ElSalvador)
10. Welfare	5	2 (Nicaragua, Honduras)
11. Criminal justice	5	2 (Nicaragua, Honduras)
12. The elderly	5	2 (Nicaragua, Honduras)
13. Other departments/Agencies (specify in comments section)	5	2 (Honduras) (El Salvador unknown)

The total number of primary and secondary schools is 36,182 with only 3,334 employing mental health workers (9%) on full time or part time basis. This figure shows that the majority of schools do not employ mental health workers. Nicaragua and the Dominican Republic have the highest percentage (12% and 16% respectively) of schools with mental health workers.

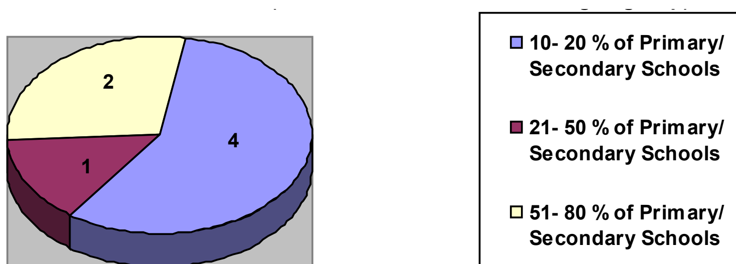
The following table shows the distribution by country.

Table 14 – Numbers of schools with mental health workers by country

Country	Total number of schools	Number of schools with mental health professionals	%
Panama	3295	24	0.7%
Nicaragua	6946	829	12%
Guatemala	1932	41	2%
El Salvador	6122	31	0.5%
Honduras	UN		
Dominican R.	13860	2264	16%
Costa Rica	4026	145	3.6%
Total	**36181**	**3334**	**9.21 %**

Despite not having regular mental health professional services, the existence of mental health promotion program in schools are reported Two countries (El Salvador and Costa Rica) have the largest proportion of schools (51-80%) with these programs. Only one country (Nicaragua) reports having mental health programs in less than the 20% of its schools.

Graph 13. Proportion of schools with programs to promote mental health and to prevent mental illnesses (number of countries according to group)



10-20 % of Primary/ Secondary schools	21-50 % of Primary/ Secondary schools	51-80 % of Primary/ Secondary schools
Nicaragua	Panama	El Salvador
	Guatemala	Costa Rica
	Honduras	
	Dominican Republic	

Table 15 shows the percentage of police officers who received some kind of educational or training activity in mental health within the five years preceding this study. Panama has the greatest percentage of police officers with education on mental health (51-89%).

Table 15 – Percentage of police officers who have had mental health education in the last 5 years

%	0%	1-20 %	21-50 %	51-80 %
Countries	Guatemala Honduras	Nicaragua El Salvador	Dominican Republic Costa Rica	Panamá

Table 16 shows the percentage of judges and lawyers who have had mental health education within the five years preceding this study. Only Costa Rica reports that between 21 and 50% of judges and lawyers have had health education in the last five years. In the rest of the countries the estimate is low (between 1 and 20%).

Table 16 – Percentage of judges and lawyers who have had mental health education in the last 5 years

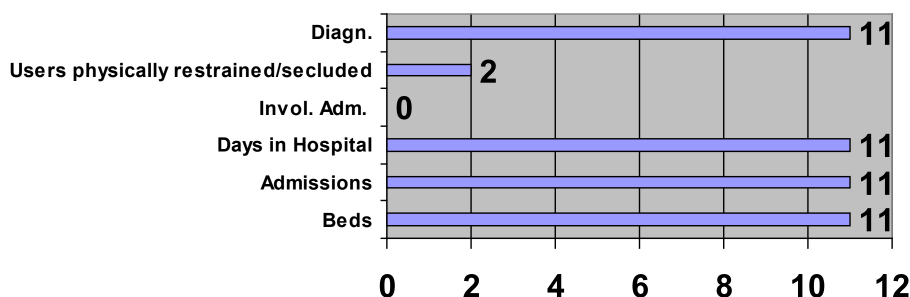
0%	1-20 %	21-50 %
Honduras	Panama Nicaragua Guatemala El Salvador Dominican Republic	Costa Rica

Four of the participating countries reported a few prisons (1% - 20%) with at least one prisoner per month in treatment contact with a mental health professional, either inside or outside of the prison. The other three countries report that between 21% and 80% of prisons have at least one prisoner per month in contact with a mental health professional.

Domain 6 - Monitoring and Research

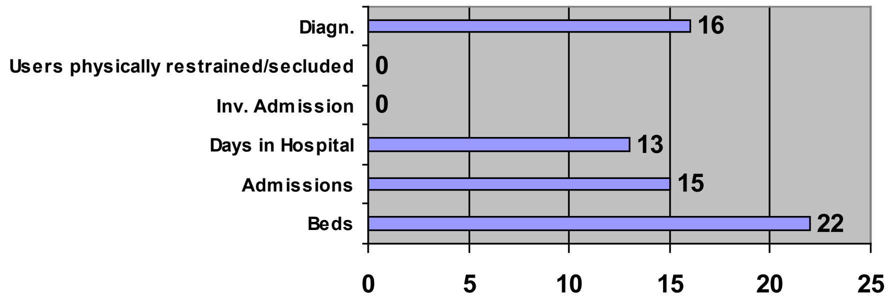
Graph 15 shows the number of mental hospitals in all the countries that routinely collect various types of information. All mental hospitals collected data on diagnoses, number of beds, inpatient admissions, and days spent in hospital. Virtually none of the mental hospitals collect data on the number of users who are physically restrained/secluded or on the number of involuntary admissions.

Graph 14. Number of mental hospitals routinely collecting and compiling data by type of information



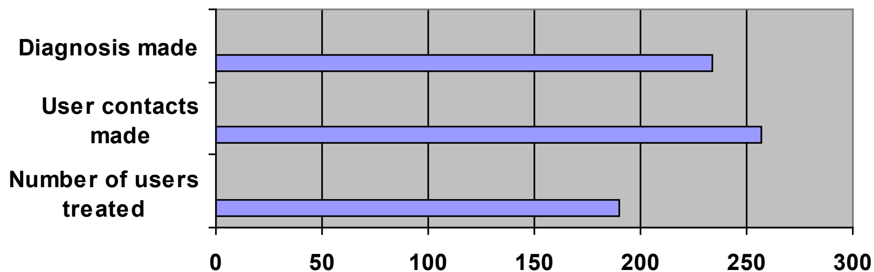
Data collection in inpatient units (Graph 15) illustrates that information on involuntary admissions and the number of users who are physically restrained or secluded is not collected in any of the units. This data collection deficiency indicates a problem with regard to the monitoring of the protection of human rights in these institutions.

Graph 15. Number of mental health impatient units collecting and compiling data by type of data



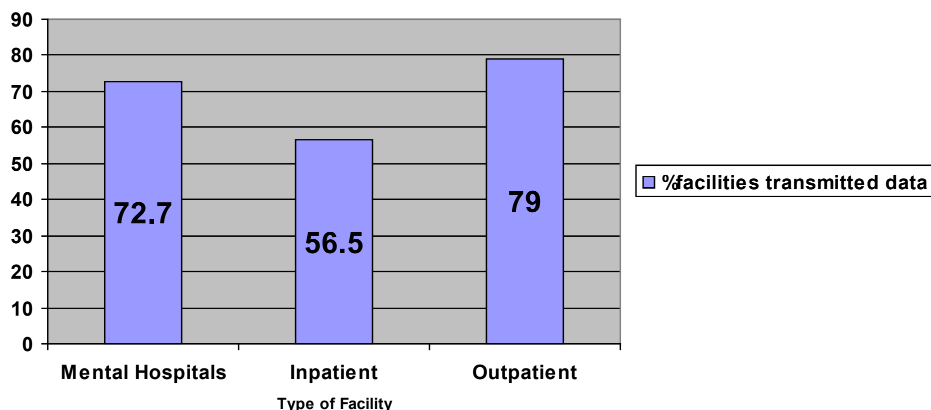
There are 343 mental health outpatient facilities (any external consultation service where specialized mental health care is provided). Most of the facilities collect information on diagnosis, the number of users, and the number of user contacts. Data concerning the number of users is more difficult to collect and is not always reliable.

Graph 16. Number of mental health outpatient facilities collecting and compiling data by type of information



Most outpatients units and mental hospitals (more than 70%) transmitted data to the governmental services Only 56.5% of psychiatric hospital units in general hospitals transmitted this information.

Graph 17. Data transmission from facilities to the central services



Publications

According to PubMed, only 31 of 16,523 Central American and Dominican Republic health publications in the last five years were devoted to mental health issues. This represents 0.18% of the total publications.

Limitations

All seven of the participating countries have limitations and weaknesses in their information systems, which presented a barrier to collecting optimal information. This issue has to be addressed by the Ministries of Health in the countries in the immediate future.

While the best attempts have been made to collect and report the most accurate information, some countries could not obtain information required for some of the items. This restrained us from drawing conclusions on the items which included extensive missing information or unreliable data. Also, data was collected from different sources in order to obtain the information required. This report should be considered as an analysis of the best information available to WHO/PAHO, but not as the official viewpoint of the member countries.

Conclusions

All of these seven Central American countries have developed their mental health systems to different levels and in accordance with their particular conditions and the priority assigned to public health policies. The existence of national mental health plans in all the countries is positively acknowledged. It provides them the operational and strategic framework for the development of mental health services, however, the challenge seems to be the actual implementation of these plans.

There are weaknesses in the available portfolio of mental health services. The health care model is still very much centralized in the mental health; the great majority of resources are allocated to institutions (usually the asylum model). Mental health services in general hospitals, day treatment hospitals and community residential facilities are very limited or even non existent in some countries.

We agree that a basic strategy should be the development of the mental health component in Primary Health Care, however, in practice the integration of mental health services into primary care has been poor.. A very low percentage of PHC doctors and nurses receive minimum mental health training or refresher training. Usually there are no treatment protocols for PHC and most of the primary health care facilities do not have sufficient psychotropic medications available on a continual basis throughout the year.

A significant problem is related to human and financial resources, which are insufficient and poorly distributed (a high percentage of available resources are in capital cities and urban areas). It is important to note that Panama and Costa Rica have a more favorable situation in terms of human resources devoted to mental health.

The movement of users and family members is still weak and memberships in these associations are low. Also, relations between these associations and the public sector are poor and their effective participation in the design and implementation of mental health plans is almost inexistent.

There are mental health education and promotion programs in most of these seven countries, but coverage (especially in public schools) is very inconsistent. Very few schools have mental health professionals. With a few exceptions, workers from other sectors have not received regular information or training in mental health on a regular basis (e.g. police officers, judges and lawyers).

In general, there are links between national mental health programs and other organizational units within the health sector and with other sectors. There are very few mental health investigations and publications for these seven countries.

Altogether, there has been progress in developing mental health systems in these countries, but there is much work to be done. The priorities for the next five years should include:

1. Strengthening the implementation of mental health national policies and plans at the country level.
2. Improving funding of mental health programs and services. Modify the current structure of the expenses (centralized in mental hospitals) so that more resources are devoted to mental health outpatient services, PHC, and community-based services.
3. Developing more extensive, decentralized mental health services in the community including outpatient facilities, inpatient units in general hospitals, residential services and others.
4. Re-structuring existing mental hospitals; it is necessary to reduce the number of severe psychiatric patients treated in mental hospitals and reduce their lengths of stay in these facilities; many of these patients have lived there for long periods of time.
5. Favor the admission of patients with mental disorders, when necessary, to mental health units in general hospitals.
6. Increasing the mental health training for primary care providers and increasing the availability of psychiatric medications in primary care facilities.
7. Strengthening the human resources in mental health including working in pre and post graduate training for mental health professionals and technicians.
8. Supporting consumer and family members associations by strengthening their direct participation in the design and implementation of Mental Health Plans.
9. Continuing to work in human rights protections for people with mental disorders by increasing the oversight of hospital practices.
10. Improving information collection and dissemination systems.

Recommendations

There are some essential documents that can help to guide the process for restructuring mental health services:

- The Declaration of Caracas
- The Resolutions of the PAHO/WHO Directing Council (1997 and 2001)
- The World Health Report – 2001
- The Principles of Brasilia (2005)
- The Mental Health Gap Action Program (mhGAP)

The 10 recommendations of the World Health Report (WHO, 2001) continue to be used as an action guide:

1. Provide treatment for mental disorders in Primary Care.
2. Ensure greater availability of psychotropic drugs.
3. Give care in the community.
4. Health education.
5. Involve communities, families, and consumers.
6. Establish national policies, programmes, and legislation.
7. Develop human resources.
8. Establish links with other sectors.
9. Monitor community mental health.
10. Support more research.

In November-2005, the "Regional Conference for the Reform of the Mental Health Services: 15 years after Caracas" held in Brasilia, approved the "Regulatory Principles for the Development of Mental Health Care in the Americas." In this Conference, the main elements of the Declaration of Caracas (1990) were reiterated and it was noted that mental health services would face new technical and cultural challenges. The final declaration constitutes another guide for the work.

The following are recommendations for action in the short, medium, and long term for these countries.

<u>In the short-term:</u>

1. Reformulate National Mental Health Policies that will serve as a strategic framework for operational plans and targeting priorities.

2. Ensure access to psychiatric medications for low-income populations, prioritizing the provision of free or subsidized drugs in primary health care centers and outpatient mental health services.
3. Establish agreements between the Ministries of Health and Human Rights Offices to ensure regular inspections (especially in mental hospitals) and to guarantee that the human rights of the mentally ill are safeguarded.
4. Strengthen and increase the number of community mental health services and ensure adequate human and financial resources for them.
5. Shift resources from the mental hospitals to community-based mental health programs.
6. Ensure mental health care for children and adolescents.
7. Design and implement a regular training program for PHC workers that ensures at least 80% of personnel are trained within the less time possible.
8. Strengthen information and epidemiological surveillance systems.

In the medium to long-term:

Policy and Legislative Framework

1. Propose the necessary reforms for updating mental health legislation to make it consistent with current international standards.
2. Increase the mental health budget, some Central American countries such as Panama and Costa Rica have been able to devote 3% of their general health budget to mental health. Furthermore modifying the budget in the mental health system to ensure that community-based outpatient services are prioritized over psychiatric hospitals services.

Mental Health Services

3. Decentralize consultations from psychiatric hospitals to outpatient services.
4. Promote the opening of psychiatry services in the principal general hospitals of each country, especially departmental and regional hospitals.
5. Develop day centers linked to outpatient mental health services or the psychiatric services of general hospitals.
6. Open and strengthen forensic units in the countries for patients with mental disorders who are charged with criminal or delinquencies offenses.
7. Implement mechanisms and actions to facilitate equitable access to services by users in rural or marginal areas and for all underserved populations including indigenous communities and other ethnic, cultural, and linguistic minorities.

Mental Health in Primary Health Care

8. Approve mental health standards and treatment protocols for the most common mental disorders in PHC.

Human Resources

9. Design a program for the education and requalification of human resources specializing in mental health care; set short-, medium- and long-term goals.
10. Establish strategies for the allocation of human resources in order to ensure mental health services for rural areas.

Health Education and Links with Other Sectors

11. Establish agreements between the Ministries of Education and Health to ensure the gradual hiring of mental health professionals in public primary and secondary schools, and encourage the private sector to do likewise. At the same time, train teachers and PHC workers so that together they take action to promote mental health and reduce the incidence of psychological disorders in children.
12. Support the organizations of users and family members, encouraging their active participation in mental health plans and programs.

Evaluation and Research

Form working groups in each country and inter-countries to promote multi-centric research, ensuring the participation of universities and public institutions. Research should be based on detected needs and priorities.

The World Health Organization Instrument for Mental Health Systems (WHO-AIMS) is a tool developed by the WHO for collecting essential information on the mental health system of a country or region. The final goal of collecting this information is to improve mental health systems and to provide a baseline for monitoring the change.

The seven Spanish-speaking Central American countries and the Dominican Republic used the WHO-AIMS tool during the period 2005 – 2007, to assess the various components of their mental health system. The Ministries of Health agreed to the conduction of this work and were actively involved in its implementation. PAHO / WHO representation in the countries, the PAHO / WHO Regional Unit of Mental Health, and WHO Department of Mental Health and Substance Abuse provided technical support throughout the process.

This document contains the Final Report that summarizes the results of the assessment in the seven countries. From this report, we can infer the major mental health limitations and problems faced by this subregion. It also demonstrates the progress made in the mental health arena in past years as well as the feasibility of reorganizing mental health services.