MINISTRY OF HEALTH
REPUBLIC OF GHANA

the Kintampo project

The mental health system in Ghana

Full Report

Based on a survey conducted in 2012 using the World Health Organisation Assessment Instrument for Mental Health Systems (WHO-AIMS) for the year 2011. Published on behalf of The Ghana Ministry of Health by the Kintampo Project.

Authors

Dr Mark Roberts
Professor Joseph B Asare
Caroline Mogan
Dr Emmanuel T Adjase
Dr Akwasi Osei

Published: June 2013

www.moh-ghana.org

www.thekintampoproject.org

The mental health system in Ghana

Full report from the survey conducted using the World Health Organisation Assessment Instrument for Mental Health Systems (WHO-AIMS) during 2011. Published in June 2013.

All contents © The Kintampo Project 2013, all rights reserved.

Note: data in this report will be subject to academic publication by the authors.

Contents

Foreword 6
Acknowledgments 7
Executive Summary 8
Introduction 13

Results 15

1: Policy, legislative framework, financing and human rights 16
- Policy and plans 16
- Legislation 17
- Financing of mental health services 17
- Non-governmental funding for mental health in Ghana 17
- Public funding for mental health in Ghana 18
- Monitoring of human rights 18
- Access to psychotropic medicines 19
- Social insurance schemes 19
- Legislative and financial provisions for persons with mental disorders 19

2: Mental health services 20
- Preface 20
- Organisation of mental health services 20
- Outpatient services 21
- Day treatment services 21
- General hospital / clinic-based psychiatric inpatient units 22
- Long stay residential services 24
- Mental hospitals 24
- Other residential services 25
- Legal status of admissions to mental health services 25
- Equity of distribution of inpatient beds 25
- Number of patients treated 26
- Mental Health Services: Summary charts and tables 27

3: Mental health in primary health care 34
- Training in mental health care for primary care staff 34
- Mental health service provision in primary health care 35
- Informal primary health care (faith-based and traditional practitioners) 35
- Prescription in primary health care 36

4: Human resources 37
- Staff working in mental health services 37
- Training mental health practitioners 43
- Consumer associations, family associations, NGOs and other mental health projects / programmes 43

5: Public education and links with other sectors 46
- Public education and awareness campaigns on mental health 46
- Links with other sectors 46

6: Monitoring and research 47
- Mental health data set 47
- Research 47

7: Strengths and weaknesses of the mental health system 48
- Strengths of the mental health system 48
- Weaknesses of the mental health system 49

8: Comparison of Ghana with other low and middle income countries 52

About the Kintampo Project

Formed in 2007, the Kintampo Project is a partnership between the College of Health, Kintampo (Ghana) and Southern Health NHS Foundation Trust in Hampshire (UK).

The Project is increasing the community mental health workforce in Ghana by training new health professionals, and ensuring sustainability by supporting graduates with professional development.

In 2013, the health workers trained by the Kintampo Project accounted for 17% of the overall trained mental health workforce in Ghana.

The Kintampo Project also lobbies the Ghanaian Government on mental health issues and works to better understand mental health provision in Ghana.

www.thekintampoproject.org

Presence of a mental health policy or plan 53
Spending on mental health 54
Outpatient treatment rates 54
Patients treated in psychiatric day services 55
Psychiatric beds in hospitals and clinics 55
Admissions to psychiatric beds in hospitals and clinics 56
The balance of nursing to non-nursing staff in hospital and clinic inpatient units 57
Beds in mental hospitals 58
The balance of nursing to non-nursing staff in mental hospitals and the ratios of staff to beds 59
Long stay ('residential') facilities 60
Beds in other residential services 60
The cost of medication 61
The total number of mental health workers 61
The number of psychiatrists needed for 24.2 million people 62
The number of other staff needed for 24.2 million people 62
Refresher training 64
Patients treated 64

9: Next steps in strengthening the mental health system 65

Top level priorities 65
Detailed next steps 66

References 69

Appendix A: *About the WHO-AIMS* 70

Appendix B: *Glossary of terms and definitions* 71

Appendix C: *Regional data collectors* 74

Abbreviations

CHAG	Christian Health Association of Ghana
CHRAJ	Commission on Human Rights and Administrative Justice
CMHO	Community Mental Health Officer
CoHK	College of Health and Wellbeing, Kintampo
CPN	Community Psychiatric Nurse
CPO	Clinical Psychiatric Officer
GDP	Gross Domestic Product
GHS	Ghana Health Service
LAMICs	Low- and middle-income countries
LICs	Low income countries
LMICs	Low-middle income countries
mhGAP	Mental Health Gap Action Programme
MICs	Middle income countries
PHC	Primary Health Care
USD	United States Dollars
VSO	Voluntary Service Overseas
WHO-AIMS	World Health Organisation Assessment Instrument for Mental Health Systems
WTE	Whole time equivalent

Foreword

This current survey is particularly important as it has been done at a time when a new mental health act has been enacted..."

For the first time we have a comprehensive assessment and evaluation of mental health services in Ghana based on a national survey using a standard instrument. WHO-AIMS was the instrument for this comprehensive survey. This instrument had earlier been used here but it was limited in scope and the findings generalised.

This current survey is particularly important as it has been done at a time when a new mental health act has been enacted and the country is preparing towards its implementation. It is therefore important to have a baseline survey to enable us measure our progress after some time of implementation.

For another reason a new cadre of mental health personnel has been produced, Clinical Psychiatric Officers (Physician Assistants in Psychiatry) and Community Mental Health Officers, to bolster the staff strength and fill gaps in our staffing situation. This survey will enable measurement of our success and contribution to care as a result of the introduction of these programmes.

This work is deeply appreciated and is further evidence of fruitfulness in collaboration with Southern Health NHS Foundation Trust in the UK, spearheaded by Dr Mark Roberts and the Kintampo Project.

May this survey mark the turn around of mental health care for the better in the country."

Dr Akwasi Osei

Chief Psychiatrist
Mental Health Authority

Acknowledgments

This report is produced from a survey of the mental health system of Ghana conducted in 2012 using the World Health Organisation Assessment Instrument for Mental Health Systems (WHO-AIMS). The survey was coordinated by Professor. JB Asare (WHO-AIMS in-country Focal Point), Caroline Mogan (WHO-AIMS Project Manager and Lead Researcher), Abena Anokyewaa Sarfo (WHO-AIMS Research Assistant), Dr Mark Roberts (UK Lead, The Kintampo Project), Dr ET Adjase (Director, Kintampo College of Health) and Dr Akwasi Osei (Chief Psychiatrist of Ghana Health Service).

The WHO-AIMS survey would not have been possible without the generous financial support of the Ghana Ministry of Health and the UK Health Partnership Scheme. The Health Partnership Scheme is funded by the UK Department for International Development (DFID) and managed by the Tropical Health & Education Trust (THET). We are grateful for the continuous collaboration of the Ministry of Health, Ghana Health Service, mental health practitioners throughout Ghana, Ministry of Education, Ghana Police Service and Ghana Prisons Service. We thank all Regional Directors of Ghana Health Service, The Chief Director of The Ministry of Health and the Honourable R Mettle-Nunoo Deputy Minister for Health.

We thank senior stakeholders who reviewed the report: Dr Armah Arloo (Director, Ankaful Psychiatric Hospital), Dr Koku Awoonor-Williams (Regional Director, Ghana Health Service, Upper East Region), Ms Amina Bukari (National Coordinator, Community Psychiatric Nurses), Dr Anna Puklo-Dzadey (Director, Pantang Hospital), Dr Techie-Jones (Psychiatrist, Regional Hospital, Brong-Ahafo Region), Mr Lance Montia (Former Country Director, BasicNeeds), Mr Joseph Nuertey (Regional Director, Ghana Health Service, Volta Region), Dr Angela Ofori Atta (Clinical Psychologist, University of Ghana Medical School), Dr Sammy Ohene (Senior Lecturer in Psychiatry, University of Ghana Medical School) and Mr Peter Yaro (Executive Director, BasicNeeds Ghana).

We thank the Community Mental Health Officers and mental health preceptors who assisted in the data collection, a full list of those involved can be seen in Appendix C.

Specific thanks are extended to the College of Health and Wellbeing, Kintampo without which the survey would not have been possible. The College provided administrative support throughout, conducted training for data collectors, arranged meetings, conferences, travel and much more

The document was designed by Tom Westbury, Kintampo Project Communications Manager.

The World Health Organisation Assessment Instrument for Mental Health Systems (WHO-AIMS), the primary data collection method for this assessment, was developed by the Mental Health Evidence and Research team of the Department of Mental Health and Substance Abuse, World Health Organisation (WHO), Geneva, in collaboration with colleagues inside and outside of the WHO. For full information on the WHO-AIMS instrument please see Appendix A, or refer to the following website:

www.who.int/mental_health/evidence/WHO-AIMS

Executive Summary

The World Health Organisation Assessment Instrument for Mental Health Systems (WHO-AIMS) was used to collect information on the mental health system in Ghana for the year 2011 and to prepare a preliminary report. Discussions with senior stakeholders enhanced data quality and aided interpretation of the findings to produce this full in-country detailed report. A small amount of extra data was added for the year 2012 where this was relevant (eg the passing of the Mental Health Act).

- All 216 districts in Ghana were surveyed.
- All data is for 2011 unless stated otherwise.

1: Policy, legislative framework, financing and human rights

Policy and plans
A mental health policy (1996) and plan (2007-2011) existed. Emergency and disaster plans for mental health did not exist.

Legislation
A new Mental Health Act 846 2012 was passed in 2012 and was awaiting Government to establish the Mental Health Board.

Financing of mental health services
Mental health had a ring-fenced budget of 1.4% of total governmental health expenditure.

Monitoring of human rights
A national human rights review body existed and all three national mental hospitals had been inspected in 2011. Staff refresher training in human rights was very sparse.

Access to psychotropic medicines
Everyone had free access to essential psychotropic medicines from hospitals / pharmacies when they were available. A one day supply of the cheapest antipsychotic or antidepressant was costing 30% of the daily minimum wage and phenobarbitone for epilepsy was 16% of the daily minimum wage.

Social insurance schemes
Mental disorders were not covered by social insurance schemes

Legislative and financial provisions for persons with mental disorders
Very little protection was available

2: Mental health services

Organisation of mental health services
There was no national or regional mental health body to provide advice to the government on mental health policies and legislation. There was no organisation of services into catchment / service areas.

Although there was no national organizational body for mental health, the responsibility for national organization of mental health services was vested in the Chief Psychiatrist as the national head who also served to directly advise the Minister for Health on mental health. There was also a focal person for mental health located in the Institutional Care Division of the Ghana Health Service, to coordinate mental health care in the Ghana Health Service institutions. The Chief Psychiatrist also coordinated

planning and organization of mental health activities at the national level. At the regional and district levels the Regional and District Coordinators of Community Psychiatric Nursing served as the coordinators.

Outpatient services
There were 123 outpatient units and one day treatment unit. In terms of number of services (not size of service), Upper West Region had the most outpatient services per 100,000 of its population and Ashanti Region had the fewest.

The total number of outpatients treated in 2011 was 57,404.

Day treatment services
There was one day treatment service (Damien House in Western Region).

Inpatient services
The summary details of all the inpatient services can be seen in Table A.

Women and children
Women comprised 32-54% of those treated and children around 1-10%. Mental hospitals had wards segregated by sex. There were 15 beds reserved solely for children.

Diagnoses across the facilities
The range of diagnoses across all facilities was:

Diagnosis	Range
Schizophrenia, schizotypal and delusional disorders	21 – 32%
Mood disorders	6 – 19%
Neurotic and stress related disorders	0 – 8%
Psychoactive substance related disorders	7 – 26%
Disorders of adult personality and behaviour	0 – 1%
Others or no diagnosis made	10 – 58%

Availability of medication
At least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic) was available all year long in 40% of outpatient facilities, 57% of hospital inpatient units and 100% of the mental hospitals.

Average length of stay in 2011
The average length of stay in hospital beds was:

Facility	Average length of stay
3 mental hospitals	23 days (figure based on 1 hospital only)
7 inpatient units	16 days
4 community residential units	365 days

Forensic services
There were 79 dedicated inpatient beds for forensic patients but there was serious overcrowding.

Human rights and equity
In 2011, 2-8% of in-patients were detained on a legal order and 10-20% of in-patients were restrained (mechanical and/or non-mechanical) or secluded. Greater Accra Region had 7.23 times more beds, 4.28 times more psychiatrists and 4.44 times more nurses than the rest of the country despite only 16% of the 24.2 million population living in that Region. Most services were in or near large cities.

TABLE A
Inpatient services in Ghana in 2011

	No of beds*	% of all beds	beds / 100,000 population
3 mental hospitals	1,322	85.1%	5.42
7 inpatient units (in general hospitals and clinics)	120	7.7%	0.49
4 community residential units	112	7.2%	0.45
TOTAL	**1,554**	**100%**	**6.36**

*In this report we have referred to the number of 'beds' available in the various facilities rather than actual spaces available for patients, which is often a higher number than the number of beds. We refer to beds because the results we report are based on the WHO-AIMS survey we conducted in 2011 and the WHO-AIMS specifically looks at physical beds, not actual ward / hospital occupancy. So it is important to acknowledge that in this report 'bed' just means physical beds and 'bed' does not reflect the capacity (which is the number of patients originally allotted to be accommodated in the ward) or the actual number of patients being treated at any time.

Number of patients treated in 2011
The number of patients treated across all available facilities was:

123 outpatient units	57,404
1 day treatment unit	18
7 inpatient units	2,255
3 mental hospitals	7,993
4 community residential units	122
TOTAL	67,792

Greater Accra had the most staff and treated the most outpatients per 100,000 of their population whereas Ashanti had the fewest and treated the fewest patients (per 100,000). Upper East and Upper West were not well supplied with staff but both treated a high proportion of their populations, particularly Upper East suggesting high efficiency and productivity in these regions.

3: Mental health in primary health care

Training in mental health care for primary care staff
Mental health accounted for the following per centages of various training courses:

Medical students	3%
Nurse students	10%
Community health workers trained at the College of Health and Well Being in Kintampo	14%

No primary health care staff received mental health refresher training in 2011.

Mental health service provision in primary health care
Less than 20% of physician-based primary health care clinics had assessment and treatment protocols available for key mental health conditions. There was no data available on referral rates from PHC to mental health staff.

Informal primary health care
Ten faith-based and 10 traditional practitioners treating 1,253 and 749 mentally ill people respectively were sampled. The practitioners identified some patients as having diagnoses similar to those found in the western practitioner samples. Fifty six per cent of faith based practitioners administered medications. Restraint (mechanical and/or non-mechanical) was used on 41-57% of patients. Some facilities referred cases to psychiatric services.

Prescription in primary health care
Over 80% of physician-based PHC clinics had access to at least one psychotropic medicine of each therapeutic category.

TABLE B
The number of staff in mental health care in 2011

Mental health trained staff	
Mental health nurses (RMNs)	1,068
Community Mental Health Officers	72
Psychologists	19
Psychiatrists	18
Subtotal	**1,177**
Staff working in mental health but not specifically trained in mental health	
Others eg. Medical Assistants, auxiliaries, paraprofessional counsellors, non-doctor primary health care workers, health assistants etc	474
Other nurses (SRN, ENs)	180
Other medical doctors	31
Social workers	21
Occupational therapists (VSO)	4
Subtotal	**710**
Grand TOTAL	1,887

4: Human resources

Staff working in mental health services

See Table B: the number of staff in mental health care in 2011.

There were 1,887 staff working in mental health services. Sixty two per cent (1,177) of the 1,887 were specifically trained in mental health and 710 (38%) were staff working in mental health but not specifically trained in mental health.

Training mental health practitioners

In 2011 the following professionals trained in mental health:

Profession	Number
Nurses with > 1 year training in mental health care	334
Community Mental health Officers (1 year diploma in Community Mental Health)	72
Psychologists with > 1 year training in mental health care	5
Psychiatrists	1
Social workers > 1 year training in mental health care	0
Occupational therapists > 1 year training in mental health care	0

Consumer and family associations

There were some consumer associations but no family associations.

5: Public education and links with other sectors

Between 1-20% of schools were actively promoting good mental health. Less than 2% of prisoners had contact with a mental health professional. There was no mental health training for police, lawyers, judges.

6: Monitoring and research

There was a mental health information system. One per cent of health related research was on mental health.

7: Comparison of Ghana with other low and middle income countries

In 2011 Ghana was a lower-middle income country (LMIC) so LMICs are the comparator. However, LMICs as a group do not have good mental health services so their levels of service are probably not a good target to aim for. Upper-middle income countries UMICs have better services and should probably be the long term target to aim for which means gauging the best trajectory to set in order to achieve these longer term goals.

Spending on mental health

Spending on mental health was less than half that of other LMICs. To reach median levels for UMICs a 35 fold increase will be needed.

Outpatient treatment rates

Treatment rates were one third (33%) that of LMICs. The rates were similar to that of low income countries (LICs).

Patients treated in psychiatric day services

Day treatment rates were very low. To reach median LMIC levels a 92 fold increase is needed.

Psychiatric beds in hospitals and clinics

Provision was nearer that of LIC countries than LMICs. To reach LMIC level, beds must be increased from 120 to 278, ie average 28 per region. UMIC levels would be 220 beds per region.

Admissions to psychiatric beds in hospitals and clinics

Ghana admits fewer patients per 100,000 population than LICs even though Ghana was a LMIC in 2011.

The balance of nursing to non-nursing staff in hospital and clinic inpatient units

In Ghana this service provision is dominated by nurses far more than for most other countries as there are not enough specialists.

Beds in mental hospitals

Ghana has almost the same number of mental hospital beds per 100,000 population as other LMICs. There is a trend upwards as countries become more prosperous so Ghana should redistribute beds across the country but be careful about any overall reduction. UMICs have three times more mental hospital beds than Ghana. The trend continues upwards for HICs.

The balance of nursing to non-nursing staff in mental hospitals and the ratios of staff to beds

Ghana has more than one nurse for every two beds in the mental hospitals which is far more than other

countries. This, rather than indicating better service, is because many wards do not have the requisite number of beds that the ward can contain, and there are patients on the floor. As countries become more prosperous there is a downward trend in staff:bed ratios. Other LMICs have more mental hospital psychiatrists and 'psychosocial staff' than Ghana.

Long stay ('residential') facilities
In 2011 Ghana treated 112 patients in long stay services which is fewer than LICs. To reach LMIC levels Ghana needs to treat 224 such patients / year and to reach UMIC levels means treating 1020 / year. Length of stay in UMICs is four times longer than in Ghana in 2011.

Beds in other residential services
Ghana is far behind on this, compared to other countries, and needs to start a very steep trajectory to increase beds in these services. The number of beds Ghana would expect for a population of 24.2 million if it was a UMIC would be a staggering 19,185. These services are a hallmark of UMICs and high income country services, representing service diversity and high levels of care and support for vulnerable and disabled members of the population.

The cost of medication
Medication in Ghana is more costly than in other countries.

The total number of mental health workers
In 2011 Ghana had fewer mental health trained staff per 100,000 population than other LMICs. To draw even with other LMICs Ghana needs 377 more mental health trained staff (based on 2011 figures) but any aim to reach UMIC levels will need 7,226 more.

The number of psychiatrists needed for 24.2 million people
Ghana had 18 psychiatrists which is LIC level. LMIC level would be 130 and a trajectory to reach UMIC level would require 491 psychiatrists in all for a population of 24.2 million.

The number of other staff needed for 24.2 million people
In all cases apart from nursing, Ghana lags a long way behind the projected numbers that would be expected.

Refresher training
Ghana's levels of refresher training for mental health staff are considerably less than even LICs.

Patients treated
The number of patients treated in Ghana in 2011 was lower than found in LICs. To reach LMIC level treatment rates need to be 2.2 times higher and the trajectory to eventually reach UMIC levels is even steeper.

Introduction

Ghana is a tropical country situated on the west coast of Africa. It shares boundaries with Togo to the east, La Cote D'Ivoire to the west, Burkina Faso to the north and the Gulf of Guinea to the south. The country covers 238,533 square kilometres. The population in 2010 was 24,392,000 with 51% living in urban areas.[1] Figures were not available for 2011 at the time this report was published.

Ghana is one of the leading world exporters of cocoa and is a significant exporter of other valuable commodities including gold and timber. A recent discovery of oil in the Gulf of Guinea could make Ghana an important oil producer and exporter in the next few years.

In 2010, 37.3% of the population was less than 15 years old, 6.7% was above age 60 and 4.1% was above age 64. The life expectancy was 57 years for males and 64 years for females.[2] The literacy rate was 67.3%.[3]

English is the official language of Ghana and is universally used in schools in addition to nine other local languages. The most widely spoken local languages are Akan, Ewe, Ga, Dagomba.[4]

Traditional religions accounts for two-fifths of the population. The Christian population also accounts for two-fifths of the total population and includes Roman Catholics, Baptist, Protestants, etc. The Muslim population (12% of the total) is located mainly in the northern part of the country.[4]

Health care delivery in Ghana is provided by both public and private sectors. The Ministry of Health exercises control over the whole system including policy formulation, monitoring and evaluation. Under the public health system, the service delivery is undertaken largely by Ghana Health Service, teaching hospitals and the Christian Health Association of Ghana (CHAG). In addition to that, other quasi- and non-government institutions, religion-based and statutory bodies are also involved in health service delivery. Total health expenditure in 2011 was 7.8% of GDP. Per capita expenditure on health was US$114.

Ghana's mental health sector is funded primarily by government and is supplemented to a small extent by internally generated funds and donations.

The history of Ghana's GNI can be seen in Table C below (Ghana rebased in 2010 and the table reflects the figures after rebasing). In 2011, Ghana officially became a low middle income country as per the World Bank definitions in Table D.

TABLE D

World Bank definitions of country income

Category	Gross National Income per capita
low income	< $1,025
lower middle income	$1,026 - $4,0352
upper middle income	$4,036 - $12,475
high income	>$12,476

TABLE C

The history of Ghana's per-capita Gross National Income (GNI) [5]

2004	2005	2006	2007	2008	2009	2010	2011
$390	$460	$600	$810	$1,160	$1,190	$1,250	$1,410

The basic WHO-AIMS data in this report has also been used to produce a shorter WHO-AIMS Ghana report which forms part of the international WHO-AIMS country series and is available on the World Health Organisation website.

This WHO-AIMS follows on from a previous survey of the Ghana mental health system for the year 2005[6]. The earlier survey used WHO-AIMS methods but was limited in scope and the findings generalised, so the 2005 survey is not generally compared with the 2011 survey findings.

Notes

Rates in this report that are expressed as rates per 100,000 of the population refer to all age groups (birth to death) and both sexes ie the whole population.

Regional population figures for 2011 are not available, so 2010 census figures are used.

Data collection

The WHO-AIMS was used to collect, analyse, and report data on the mental health system and services for all districts of the ten regions of Ghana. Data was collected in 2012, based on the year 2011. The data collection phase was May-June 2012. Where a one-off event happened in 2012 before or during the data collection which had a significant impact on the mental health system, such as the passing of the Mental Health Act 846 2012, it was included, but otherwise all data is for 2011.

Process

1. The need to conduct the WHO-AIMS in Ghana was identified by the Ministry of Health and leaders of the Kintampo Project. Official sanction to conduct the survey was given by the Minister of Health.
2. The WHO-AIMS was used and the questions in it were divided into thirteen separate surveys, each targeting specific respondents. The item number, characteristic, and salient content of the questions were maintained. Each questionnaire targeted one of the following respondents:
    - Chief Psychiatrist
    - Director / Nurse Manager / Principal Nursing Officer of each mental hospital
    - Director / Nurse Manager / Principal Nursing Officer of each outpatient service
    - Head of each general hospital with an inpatient psychiatric service
    - Head of each private psychiatric service
    - Head of each community residential service
    - Chief Pharmacist
    - Head of Finance at Ghana Health Service / mental hospitals
    - Director of Family / Public Health at GHS
    - Head of Nursing and Midwifery Council / Medical and Dental Council / Directors of Nursing / Medical Schools
    - Director of Policy, Planning, Monitoring and Evaluation at MoH
    - Officer in Charge of Ghana School Health Education Programme
    - Director of Health, Ghana Police Service
    - Officer in Charge of Statistics, Ghana Prison Service
3. Ten pairs of data collectors (one pair for each region) were formed. Each pair consisted of one CoHK preceptor Community Psychiatric Nurse (CPN) and one Community Mental Health Officer (CMHO). The pairs were all then trained to assist in the WHO-AIMS data collection for their region.
4. Interviews were scheduled with each of the aforementioned respondents and conducted by Lead Researcher, Research Assistant or CPN / CMHO data collector pairs.
5. Data was entered into the WHO-AIMS 2.2 Excel spread sheet and discussed with the in-country Focal Point.
6. The lead Researcher prepared and circulated draft reports to the in-country Focal Point, UK Project Coordinator and Chief Psychiatrist for comments.
7. Where information is lacking the Delphi technique was used.
8. Once the initial draft WHO-AIMS report was ready, findings and further analyses were disseminated to key stakeholders in Ghana for consultation, refinement and contextualisation.

Results

1 Policy, legislative framework, financing and human rights

Overview

This section covers:

- Policy and plans
- Legislation
- Financing of mental health services
- Non-governmental funding for health in Ghana
- Public funding for mental health in Ghana
- Monitoring of human rights
- Access to psychotropic medicines
- Social insurance schemes
- Legislative and financial provisions for persons with mental disorders

Policy and plans

Well-defined mental health policies and plans help in the implementation and maintenance of good governance and leadership. Thus, the existence of a clear mental health policy and plan are important for improving the organisation and quality of mental health services.

In 2011, there was a mental health policy in place dated 1996. it did not cover the integration of mental health into primary care nor the protection of human rights of the users, but it did include the following components:

1. Organisation of services, developing community mental health services
2. Human resources
3. Involvement of patients and families
4. Advocacy and promotion
5. Equity of access to mental health services across different groups
6. Financing
7. Quality improvement
8. A monitoring system

The policy contained a list of essential medicines which had last been revised in 2004. The listed medicines included:

1. Antipsychotics
2. Anxiolytics
3. Antidepressants
4. Mood stabilizers

5. Antiepileptic drugs

The mental health plan was last revised in 2007 ('2007-2011 Mental Health Strategy').

The 2007-2011 Mental Health Strategy contained a budget, timeframe and specific goals although by 2011, lack of funds had prevented many of the goals being reached.

In 2011 there was no emergency / disaster preparedness plan for mental health.

Legislation

Legislation is a key component of good governance and the upholding of human rights. In 2011 Ghana was on the path to developing a strong legislative position.

In 2011 the 'in-force' mental health legislation was the Mental Health Decree NRCD 30 which was enacted in 1972. The legislation focuses on:

1. Voluntary and involuntary treatment
2. Law enforcement and other judicial system issues for people with mental illness
3. Mechanisms to oversee involuntary admission and treatment practices
4. Mechanisms to implement the provisions of mental health legislation

The Mental Health Decree NRCD 30 was never fully implemented.

In 2012 a revised Mental Health Law was passed: the Mental Health Act 846 2012. This new Act was drafted between 2004 and 2006 (and continued to be modified until it was passed in 2012) with World Health Organisation (WHO) experts and consultants from South Africa, Zimbabwe, Canada, USA and Switzerland. It received presidential assent in May 2012, ready for the establishment of a Mental Health Board and production of a Legislative Instrument. It became law on 1st December 2012.

The new Law became necessary as it was recognised that the 1972 legislation, even if now fully implemented, was outdated as it no longer accorded with best practice standards for mental health practice and legislation. The new Mental Health Act focuses on improving the access to care for people with mental illness or epilepsy including the poor and vulnerable, safeguarding human rights and promoting participation in restoration and recovery. Although epilepsy is recognized in Ghana as elsewhere to be a neurological disorder rather than a mental disorder, it is treated by psychiatrists in Ghana for convenience on account of shared attributes of stigma and local belief systems. The law provides for the integration and regulation of spiritual and traditional mental health practices in Ghana. It supports decentralisation of mental health care and places emphasis on community rather than institutional care.

Financing of mental health services

The total amount spent on mental health, as for any health care sector, is hard to calculate exactly. Spending was being incurred via many routes including:

1. Direct government capital and revenue spending on mental health
2. Indirect government capital and revenue spending on services provided via district level primary and secondary care and via teaching hospitals
3. Privately funded mental health care
4. Internationally funded programmes
5. Traditional and faith-based healer-provided mental health care
6. Out-of-pocket expenses paid by patients and their families

Items such as 5 and 6 cannot be calculated. Figures for 2, 3 and 4 are hard to source.

Non-governmental funding for mental health in Ghana

Ghana was receiving some funds and services from international development partners. NGOs were purchasing some medicines when hospitals ran out of government allocation.

Mental health services were not generating significant revenue, since most patients were too poor to pay fees and by government policy mental health care was supposed to be free. As a result, internally generated funds were usually relatively small.

Mental health care was being purchased directly by some patients and their families via private services

and the traditional / faith-based practitioner systems. Some patients were buying their own medicines when government supplies were short. The amount spent these ways was not calculated.

Public funding for mental health in Ghana

Figures from the Ministry of Health for 2011 showed a ring-fenced mental health budget for the three mental hospitals of GhC 4,516,163 (without staff salaries and capital investment). However, the *de facto* spending on mental health in 2011 was GhC 5,656,974 because the funding that was initially approved was substantially much lower than what was actually required and the hospitals had to go for more releases. Almost 100% of the ring-fenced budget was being spent on the three mental hospitals.

The total spent by Government on health in 2011 was GhC 398,857,000 thus the spending on mental health was a minimum of 1.4% of the total health budget (Figure 1.1).

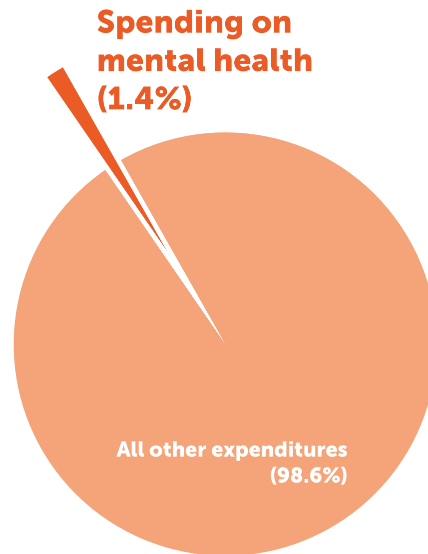
In terms of estimating spending outside of the three mental hospitals, it is perhaps relevant to note that 84.6% of all designated psychiatric beds (ie all beds in the mental hospitals, general hospitals, private clinics, rehabilitation units) were in the mental hospitals and 66% of all mental health staff were working in the mental hospitals, so spending outside the mental hospitals may be around one-fifth to one-third of the amount spent on the mental hospitals.

Monitoring of human rights

The protection of the human rights of users of mental health services includes:

- providing the least restrictive care possible
- ensuring informed consent is obtained from patients before treatment
- respecting confidentiality, privacy and autonomy
- keeping use of physical restraint and seclusion to a minimum and ensuring that physical restraint, if used, does not physically harm the patient
- providing appeals and complaints processes

FIGURE 1.1
Ghana Health Service spending on Mental Health (2011)



- providing both voluntary and compulsory admission procedures
- ensuring staff are respectful and provide safe care
- providing an environment in which property and person are safe and secure

In 2011 a Commission on Human Rights and Administrative Justice (CHRAJ) was functioning on a national level to assess the human rights and protection of mental health patients. CHRAJ had the authority to oversee regular inspections of mental health facilities but it did not have the authority to review involuntary admissions / discharge procedures nor could it impose sanctions. Although the 1972 Mental Health Decree does have complaints investigation procedures, these were never put in place.

In 2011, all three mental hospitals in Ghana had at least one external review / inspection of human rights protection of their patients by CHRAJ. Psychiatric inpatient units in general hospitals / clinics and community residential units were not inspected.

There was some training on human rights for staff, as evidenced by the finding that in 2011 staff from one of the three mental hospitals had completed at least one day training, meeting or other type of working session on human rights / protection of patients in the preceding two years. However, staff from the other two mental hospitals had not received any

training. None of the staff from psychiatric inpatient units in general hospitals / clinics or the community residential units had received any training on human rights.

Access to psychotropic medicines

Access to medication is critical in providing mental health care and an important human right to be upheld. Supplies of medication can be intermittent in low income countries which is particularly dangerous as there is clear unquestionable research evidence that sudden stopping of medication is likely to both cause relapse of mental illnesses and worsen the long term outlook for sufferers.

Everyone had free access to essential psychotropic medicines in 2011 when they were available in hospitals / pharmacies. However, due to supply shortages patients did have to purchase medication privately without means of gaining a refund. For those who were paying out-of-pocket, the cost of one day's supply of the cheapest antipsychotic medication in 2011 was 30% of the daily minimum wage. The cost of one day's supply of the cheapest antidepressant medication was 27% of the daily minimum wage. The cost of one day's supply of phenobarbitone for epilepsy was 16% of the daily minimum wage.

Social insurance schemes

A social insurance scheme is a source of funding in which people earning above a certain amount transfer a fixed per centage of their income to a government-administered health fund and in return, the government pays for a part or all of their mental health care.

A national social insurance scheme existed in Ghana in 2011 but no mental disorders were covered by it as mental health care was being provided free of charge by government. Ironically this was putting psychiatric patients in a difficult position because the free mental health care and financial poverty faced by the mentally ill meant psychiatric patients were excluded from social insurance schemes. However, physical health care was to be provided via the social insurance schemes, so psychiatric patients who developed physical healthcare needs were struggling to get their non-mental health care needs met. Furthermore it meant that if the drugs were not available at the mental health facilities then patients were to purchase them out-of-pocket without refund. Since mental health facilities were not widespread and patients were having to travel long distances to access care, a lot of other hidden costs were also being incurred, such as transportation costs, cost of productivity loss to the carers who have to stop work and travel with the patients to access care.

Legislative and financial provisions for persons with mental disorders

In 2011, there was no legislative or financial support for the following:

- legal obligations for employers to hire a certain per cent of disabled employees
- protection from discrimination (dismissal, lower wages) solely on account of mental disorder
- priority in state housing and in subsidised housing schemes for people with severe mental disorders
- protection from discrimination in allocation of housing for people with severe mental disorders.

No mental health services had access to programs outside the mental health facility that provided outside employment for patients with severe mental disorders. One community residential facility (Cheshire Home in the Ashanti Region) provided on-site training and workshops for its patients to learn certain trades whilst residing at the unit. Items produced were sold to visitors.

2 Mental health services

Overview

This section covers:

- Organisation of mental health services
- Outpatient services
- Day treatment services
- General hospital / clinic based psychiatric inpatient services
- Long stay residential services
- Mental hospitals
- Other residential services
- Legal status of admissions to mental health services
- Equity of distribution of inpatient beds
- The number of patients treated
- Summary charts and tables

Preface

A mental health system needs buildings / facilities and staff. This section is mainly about the buildings and the facilities.

The data in this section is presented as both absolute numbers and in some instances also as a rate per 100,000 of the population. Where it is presented as a rate per 100,000, the population used is all people, ie: male, female, old and young. In some instances figures are presented as regional rates per 100,000 as the population size of each region is different so regional figures can be better compared.

There is often a statement about provision of services for women and for children under age 17. This is because the data from the WHO-AIMS survey contains specific questions about this in order to assess equity of service provision.

Organisation of mental health services

In 2011 Ghana did not have a governing national or regional mental health body, the functions were vested in the chief psychiatrist. Service planning, monitoring and quality assessment of mental health services were lacking. Mental health services were not organized into catchment / service areas.

Alhough there was no national organizational body for mental health, the responsibility for national organization of mental health services was vested in the Chief Psychiatrist as the national head who also

served to directly advise the Minister for Health on mental health. There was a focal person for mental health located in the Institutional Care Division of the Ghana Health Service, to coordinate mental health care in the Ghana Health Service institutions. The Chief Psychiatrist also coordinated planning and organization of mental health activities at the national level. At the regional and district levels the Regional and District Coordinators of Community Psychiatric Nursing served as the coordinators.

Outpatient services

There were 123 mental health outpatient services in the country (see Table 2.1).

There were no services exclusively for children and adolescents although 14% of all those treated in mental health outpatient units were children and adolescents.

In 2011, 57,404 patients were treated in outpatients (this figure is for individual patients treated, it does not include follow up appointments ie people have been counted once only). This equates to 237 patients per 100,000 general population overall.

Fifty four per cent of the patients were female.

The diagnoses in outpatients were primarily:

- schizophrenia, schizotypal and delusional disorders (25%)
- mood disorders (10%)
- neurotic disorders and stress related disorders (8%)
- mental and behavioural disorders due to psychoactive substance use (7%)
- disorders of adult personality and behaviour (1%)
- "other" diagnoses such as epilepsy, organic mental disorders, mental retardation (39%)
- no diagnosis (10%)

The average number of contacts per patient was 4.99. Eighty-eight per cent of outpatient services were providing clinic-based follow-up (ie patients may be asked to return for a review) and 59% provided additional services via extension clinics located away from the main outpatient unit. Approximately 20% of patients received psychosocial interventions. Examples of the psychosocial interventions include: psychotherapy; counselling; activities with families; psycho-educational treatments; the provision of social support; rehabilitation activities e.g. leisure and socializing activities, interpersonal and social skills training, occupational activities, vocational training, sheltered employment activities.

Forty per cent of the outpatient services had at least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic) available on site or at a near-by pharmacy all year round.

Day treatment services

Day treatment services are a mid-way provision for patients who need quite a lot of daytime support but who do not need full inpatient care. They are an

TABLE 2.1

The number of outpatient services in Ghana, by region

Region (highest resourced at the top)	Services / 100,000 of population in the region	Number of services	Population in the region
Upper West	1.03	7	677,763
Eastern	0.80	21	2,596,013
Upper East	0.78	8	1,031,478
Northern	0.60	15	2,468,557
Greater Accra	0.59	23	3,909,764
Western	0.52	12	2,325,597
Volta	0.48	10	2,099,876
Brong Ahafo	0.35	8	2,282,128
Central	0.33	7	2,107,209
Ashanti	0.25	12	4,725,046

important 'step down' for patients rehabilitating back into the community and they are also for patients who have enough family support to get through a period of mental illness without having to be admitted to hospital.

Ghana had one day treatment service in 2011, Damien House Rehabilitation Centre, located in Fijai, near Takoradi in the Western Region. Damien House is a private facility run by the Catholic Church and was providing patients with a structured daily programme which included pastoral care, psycho-education, psychomotor skills, occupational therapy and leisure activities such as games and crafts. It was staffed by one therapist, one psychiatric nurse and one hospital assistant. In 2011 the service treated 18 patients, three of which were successfully discharged. One fifth (22%) of the patients treated in the day treatment service were females. None were 17 years or younger. On average, patients spent 239 days attending the day treatment unit.

General hospital / clinic-based psychiatric inpatient units

Although most inpatient beds in the country are in the three large mental hospitals there are some beds in the regional general hospitals, some in government clinics and some in private clinics – these are collectively referred to here as 'general hospital / clinic based psychiatric inpatient units' (or beds).

There were seven general hospital / clinic based psychiatric inpatient units in 2011 providing a total of 120 beds (0.50 beds per 100,000 population). The details of the units can be seen in Table 2.2.

The location of the units can also be seen pictorially in Figure 2.1.

Forty seven per cent of the admissions were female and in spite of there being no beds reserved solely for children and adolescents, three per cent of the patients treated in them in 2011 were 17 years or younger.

The diagnoses of admissions were primarily:

- schizophrenia, schizotypal and delusional disorders (21%)
- mental and behavioural disorders due to psychoactive substance use (9%)
- mood disorders (6%)
- 'other' diagnoses such as epilepsy, organic mental disorders, mental retardation (6%)
- neurotic disorders or disorders of adult personality (0%)
- no diagnosis (58%)

On average, patients spent 16 days in hospital per admission.

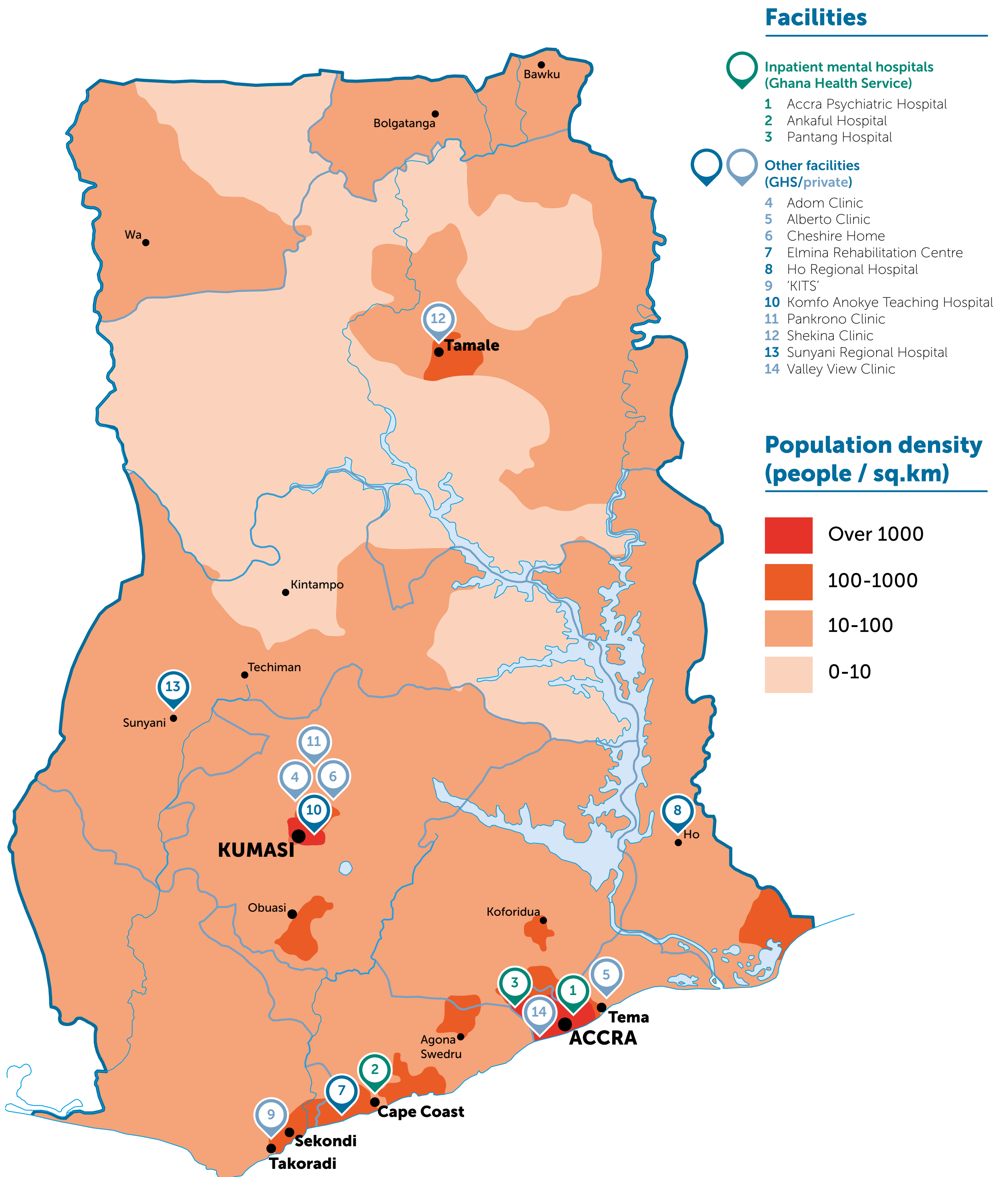
Records of physical restraint and seclusion were available at four of the seven units. These indicated that approximately 10% of patients in the units were physically restrained (mechanical and/or non-mechanical) or secluded in 2011.

Some patients (21-50%) in general hospital / clinic based psychiatric inpatient units received one or more psychosocial interventions in 2011. Fifty seven per cent of the units had at least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic) available all year long.

TABLE 2.2
List of hospital / clinic-based inpatient services showing location, region and number of beds

Name of unit (largest first)	Location	Region	No of beds	Type of unit
Valley View Clinic	Dzowulu	Greater Accra	42	Private
Adom Clinic	Kumasi	Ashanti	17	Private
Sunyani Regional Hospital	Sunyani	Brong Ahafo	17	Government
Komfo Anokye Teaching Hospital	Kumasi	Ashanti	15	Government
Pankrono Clinic	Kumasi	Ashanti	12	Private
Ho Regional Hospital	Ho	Volta	10	Government
Alberto Clinic	Tema	Greater Accra	7	Private
Total			**120**	

FIGURE 2.1
Map of Ghana showing population density and location of mental health facilities



Long stay residential services

These are long stay ('residential') units based away from the psychiatric inpatient units and mental hospitals. They have inpatient beds.

In 2011 there were four long stay residential units available in the country as illustrated in Table 2.3. They provided 112 beds (0.46 beds per 100,000 population).

No beds were reserved solely for children and adolescents although 2% of patients treated in them in 2011 were 17 years or younger. Forty six per cent of the patients were female.

The services treated 112 patients in 2011 (0.46 per 100,000 population). The average length of stay was 365 days.

Mental hospitals

These are large institutional hospitals with in-patient services dedicated to mental health care.

Beds

There were three mental hospitals in 2011 with a total of 1,322 beds (5.5 beds per 100,000 population).

Important note: 'beds' refer to available physical beds rather than 'capacity'. Capacity reflects the number of patients that are accommodated and it varies depending on demand; it can be much higher than the number of available physical beds.

The distribution of beds between the mental hospitals can be seen in Table 2.4.

However, in 2011 there were far more patients in the mental hospitals than there were beds. Indeed, in 2011 Accra Psychiatric Hospital had around 1,200 patients on admission, Pantang had around 450 and Ankaful had 300.

Between 2006-2011, the number of beds in the mental hospitals decreased by 13% but it is important to note that this was not due to a planned reduction, it was simply because 'beds' had broken and could not be replaced due to lack of funds. This did not mean that fewer patients were treated.

Location

All the hospitals were located in cities on the south coast as illustrated in Figure 2.1.

Diagnoses

There were 7,993 admissions to the mental hospitals in 2011 of which 32% were female. The diagnoses of admissions to mental hospitals were as follows:

- schizophrenia, schizotypal and delusional disorders (32%)
- mental and behavioural disorders due to psychoactive substance use (26%)
- mood disorders (19%)
- 'other' diagnoses such as epilepsy or organic mental disorders (12%)
- neurotic, stress related disorder (1%)
- personality disorder (0%)
- no diagnosis (10%)

Length of stay

Accurate data about length of stay in the three mental hospitals was difficult to obtain due to insufficient record keeping and a high turnover of patients. However, based on data for 4,397 cases from Pantang and Ankaful hospitals, length of stay was:

<1yr	77% of patients
1-4yrs	11%
5-10yrs	5%
>10yrs	7%

TABLE 2.3
Long stay residential units in Ghana

Name of service	Location	Region	No of beds	Type
Cheshire Home	Kumasi	Ashanti	55	Private
'KITS'	Takoradi	Western	34	Private
Shekina Clinic	Tamale	Northern	13	Private
Elmina Rehabilitation Centre	Elmina	Central	10	Government
Total			**112**	

TABLE 2.4
Distribution of beds in the mental hospitals

Name of mental hospital	Location	Region	No of beds	Type
Accra Psychiatric Hospital	Accra	Greater Accra	600	Government
Pantang Hospital	Accra	Greater Accra	441	Government
Ankaful Hospital	Cape Coast	Central	281	Government
Total			**1,322**	

Records for the cumulative number of days that patients spent in hospitals were unavailable due to the record keeping reasons, but figures based on the data from 2,753 cases at Pantang Hospital showed an average of 23.6 days spent in mental hospitals per patient (this figure includes long stay and 'abandoned' patients).

Treatment

Around 19% of patients in mental hospitals had received one or more psychosocial interventions in the preceding year.

All the mental hospitals had at least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic medicines) available all year long. However, newer medicines (such as Olanzapine) would usually become depleted meaning that patients would have to continue on medications that they had not been initially prescribed.

Seclusion and restraint

None of the mental hospitals kept records on the number of patients who were restrained (mechanical and/or non-mechanical) or secluded. Estimated figures showed that over 20% of patients were restrained or secluded in 2011.

Other services

All the mental hospitals were organisationally integrated with mental health outpatient services.

Accra Psychiatric Hospital had a children's ward containing 15 beds. However, children would also be accommodated in the other two hospitals if the need arose. In 2011, 1% of patients treated were 17 years or younger.

There were 79 dedicated inpatient beds for forensic patients across the three mental hospitals, representing approximately 6% of the total beds. In 2011, 148 admissions were classed as 'forensic' admissions (less than 2% of all admissions).

Accra Psychiatric Hospital had 18 beds dedicated to old age patients.

Other residential services

Other residential services included 10 services across the 10 regions for children under 17 with intellectual disabilities and one private school for children with intellectual disabilities in Accra.

There were two private residential services for people with substance abuse and one psychiatric hospital in Accra that had a 'detoxification' unit.

Apart from the 18 beds in Accra Psychiatric Hospital for old age patients, there were no other specialised mental health services for older people, or people with conditions such as dementia.

Legal status of admissions to mental health services

Eight per cent of all admissions to general hospital / clinic based psychiatric inpatient units and 2% of all admissions to mental hospitals were legally sanctioned involuntary admissions. The remaining patients were either voluntary or admitted against their will without the use of legislation but with proxy consent by their relatives, and that was still considered to be 'voluntary'.

Equity of distribution of inpatient beds

The density of psychiatric beds in and around Accra was 7.23 times the density of beds in the rest of the country.

The solely 'coastal' and city based location of the hospitals prevented easy access for rural populations and those living away from the coast.

Number of patients treated

In this report we document the number of patients treated but we do not express our findings in terms of a 'treatment gap'. The data on patients treated form part of the summary charts below. We also express treatment findings as a treated prevalence rate, which can be seen in section 7 where findings in Ghana are compared with those of other countries.

In the past a concept of 'treatment gap' has been common.

In its simplest terms, the 'treatment gap' would be calculated by:

1. Counting the number of people treated in a year (ie 67,780 for Ghana in 2011)
2. Calculating the number of people in the population who would be expected to have a mental disorder (commonly thought to be around 10% with very little variation from country to country) - Ghana had a population of approximately 24.2 million, so this would mean approximately 2.42 million people with a mental disorder in Ghana
3. Calculating the per centage the mentally disordered people who have been treated ie 67,780/2.42 million x 100 = 2.8%. The 'treatment gap' is therefore 100% minus 2.8% = 97.2%.

However, it is not so simple as this and the concept is not used in this report.

Why is the concept of 'treatment gap' not used in this report?

The weakness is the prevalence figure of 10% for mental disorders which is only a very rough estimate, and at best, is only an average which cannot reflect the true situation in any one country. It is therefore potentially misleading. Prevalence figures from across the world are based on research studies which use different methodologies. Some of the main problems in comparing and 'summarising' study results include:

- some studies use patient self-report whereas others use semi-structured interviews
- sample sizes vary a great deal
- definition and thresholds for mental disorder are not the same across studies
- studies express results in different ways such as: lifetime prevalence, period prevalence, point prevalence and these cannot be compared 'like for like'

To illustrate: a WHO global survey of 26 counties across the world (Africa is represented by Nigeria and South Africa) using the International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual of Mental Disorders (DSM) has published on the first 14 countries to complete and has reported one year period prevalence rates across the 14 countries as follows[7]:

- anxiety disorders (2.4% to 18.2%)
- mood disorders (0.8% to 9.6%)
- substance misuse disorders (0.1%–6.4%)
- impulse-control disorders (0.0%–6.8%)

It can be seen that the prevalence figures vary enormously across the countries, there is no simple 10%.

The same study also measured the prevalence rates for severity of the disorders and found a very wide variation, as follows:

- mild (1.8%–9.7%)
- moderate (0.5%–9.4%)
- serious (0.4%–7.7%)

The above differences are not necessarily due to true differences in prevalence alone, as much of the variation is thought to be due to study design and limitations.

There have been no comprehensive surveys of the prevalence of mental disorder in Ghana. The nearest similar country to conduct such a survey was Nigeria in 2001-2003.[8] This study, however, was only for anxiety, mood disorders and substance abuse. The Nigerian results show low prevalence rates compared to other countries and this is thought to have been falsely low due to methodological issues.

Finally, prevalence figures from other countries are not for populations with the same demographic profile as Ghana for per centage of children, women, elderly etc in the population.

Overall therefore we believe that for this report a 'treatment gap' statistic could be misleading, especially bearing in mind that mental disorders are so common that over a third of people in most countries could be diagnosed to have one at some time in their life.[9]

The previous parts of this section on mental health services give data on each type of service provision: outpatients, inpatients, residential services etc. This summary section now compares, analyses and illustrates the data in more detail.

Mental Health Services: Summary charts and tables

Inpatient services: the high proportion of beds in mental hospitals

The pie chart in Figure 2.2 illustrates the dominance of the mental hospitals in providing inpatient care in 2011. There were very few inpatient beds in the rest of the country. Inpatient services were very much segregated and provided by the three large mental hospital institutions. It should be noted that although some regions (eg Upper West and Upper East) do not have any dedicated psychiatric beds, in practice some psychiatric patients do receive inpatient treatment in such regions as they are admitted to ordinary hospital beds, but numerical data on this was not available.

Inpatient services: the very unequal distribution of beds across the regions

The distribution of beds across the regions can be seen in Table 2.5 which gives both the absolute numbers of beds in each region and then recalculated figures to take account of the population size of each region. The last column in the table shows the number of beds in each region for every 100,000 people in the region. These figures can be used to compare bed supply for all the regions. This is also represented pictorially in Figure 23.

It can be seen that Greater Accra and Central Regions, where the mental hospitals are, have the best supply, however the results after that are interesting as they show the next five regions in the table have fairly similar, albeit very low, supplies (0.48–2.10 beds / 100,000 population). After that it can be seen that three regions have no dedicated psychiatric beds at all. Two of these are also the farthest regions away from Greater Accra and Central meaning that any patient in these regions needing admission to a mental hospital bed would have to travel and be a very long way from home and family.

FIGURE 2.2
The distribution of the 1,544 psychiatric beds in Ghana

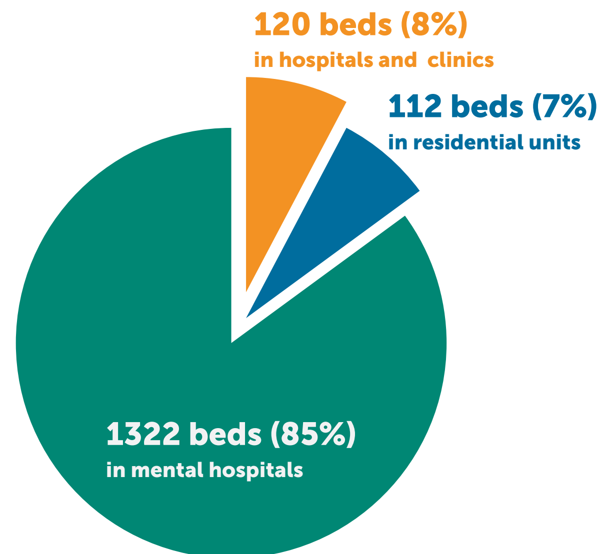


FIGURE 2.3
Inpatient beds per 100,000 population, by region

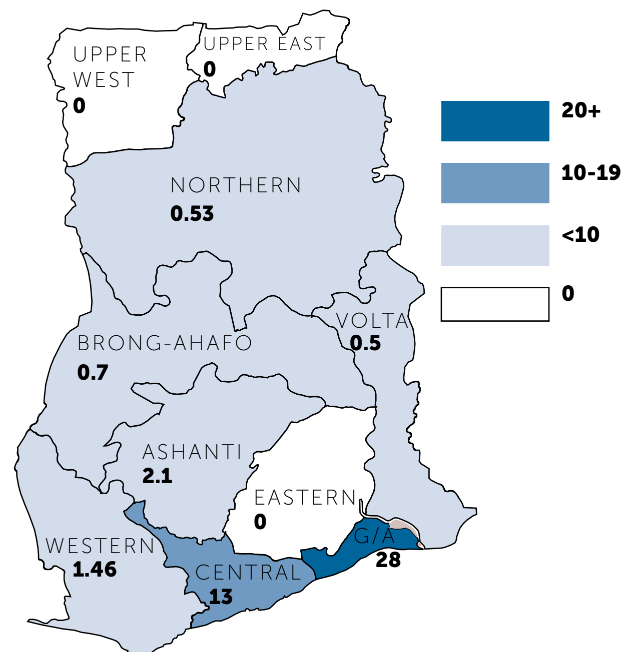


TABLE 2.5
The number of beds per region adjusted for population size

Region (highest resourced at the top)	No of gen hosp / clinic beds	No of mental hospital inpatient beds	No of residential beds	Total beds per region	Population in the region	Total beds / 100,000 population in the region
Greater Accra	49	1,041	0	1,090	3,909,764	27.88
Central	0	281	10	291	2,107,209	13.81
Ashanti	44	0	55	99	4,725,046	2.10
Western	0	0	34	34	2,325,597	1.46
Brong Ahafo	17	0	0	17	2,282,128	0.74
Northern	0	0	13	13	2,468,557	0.53
Volta	10	0	0	10	2,099,876	0.48
Eastern	0	0	0	0	2,596,013	0
U/E	0	0	0	0	1,031,478	0
U/W	0	0	0	0	677,763	0
Total	**120**	**1,322**	**112**	**1,554**	**24,223,432**	**6.42**

TABLE 2.6
The number of beds in each unit, the percentage as a whole and the number of beds / 100,000 population

Name of service	Location	Region	No of beds	Type	% of all beds	No of beds / 100,000*
Mental hospitals						
Accra Psychiatric Hospital	Accra	G. Accra	600	Government	38.9	2.46
Pantang Hospital	Accra	G. Accra	441	Government	28.6	1.81
Ankaful Hospital	Cape Coast	Central	281	Government	18.2	1.15
Total			**1,322**		**85.1**	**5.42**
General hospital / clinic based psychiatric inpatient units						
Valley View Clinic	Dzowulu	G. Accra	42	Private	2.7	0.17
Adom Clinic	Kumasi	Ashanti	17	Private	1.1	0.07
Sunyani Regional Hospital	Sunyani	B. Ahafo	17	Government	1.1	0.07
Komfo Anokye Teaching Hospital	Kumasi	Ashanti	15	Government	1.0	0.06
Pankrono Clinic	Kumasi	Ashanti	12	Private	0.8	0.05
Ho Regional Hospital	Ho	Volta	10	Government	0.6	0.04
Alberto Clinic	Tema	G. Accra	7	Private	0.4	0.03
Total			**120**		**7.7**	**0.49**
Community residential services						
Cheshire Home	Kumasi	Ashanti	55	Private	3.5%	0.22
'KITS'	Takoradi	Western	34	Private	2.2	0.14
Shekina Clinic	Tamale	Northern	13	Private	0.8	0.05
Elmina Rehabilitation Centre	Elmina	Central	10	Government	0.6	0.04
Total			**112**		**7.2**	**0.45**
Grand total			1,544		100	6.36

*This is for the whole population (24.2 million)

Inpatient services: full details of the location of beds and staff

This can be seen in Tables 2.6 and 2.7 which bring together a full list of the location and staffing of all the inpatient services in the country.

The data in Table 2.7 shows the staffing ratios for the inpatient services to allow comparison with the bed numbers. It can be seen that the units with the highest staffing levels (this is simply the number of mental health trained plus non-mental health trained staff as further detailed breakdown for each unit is not available) are the Shekina Clinic in Tamale (staff:bed ratio of 2.46) and Komfo Anokye Teaching Hospital (2.20), whereas for example the staff:bed ratio of Accra Psychiatric Hospital is 0.75 and Sunyani Regional Hospital psychiatric unit is 1.06.

The number of patients treated

The number of patients treated is critical: it is the end product of all the facilities and staffing. Such figures are useful to compare over time and can also be compared across regions and between countries.

The figures in Tables 2.8–2.10 are true figures, not estimates or projections (except for one figure for the mental hospitals). The figures are for the whole country, they are not extrapolations based on a sampling method, they are the true numbers reported in 2011. Some patients attend hospital or outpatients several times in a year for treatment of the same condition, ie the person might have had a relapse or just be re-attending for follow up but care was taken when collecting these figures not to count repeat attendances for follow up for the same problem.

TABLE 2.7

The number of inpatient beds in hospitals and the number of staff in each establishment

Name of service	Location	Region	No of beds	% of all beds	No of staff	% of all inpatient staff	Ratio of staff:beds
Mental hospitals							
Accra Psychiatric Hospital	Accra	G. Accra	600	38.9	451	32.4	0.75
Pantang Hospital	Accra	G. Accra	441	28.6	464	33.4	1.05
Ankaful Hospital	Cape Coast	Central	281	18.2	323	23.2	1.15
Total			**1,322**	**85.1**	**1,238**	**89.0**	**0.93**
General hospital / clinic based psychiatric inpatient units							
Valley View Clinic	Dzowulu	G. Accra	42	2.7	26	1.8	0.61
Adom Clinic	Kumasi	Ashanti	17	1.1	8	0.6	0.47
Sunyani Regional Hospital	Sunyani	B. Ahafo	17	1.1	18	1.3	1.06
Komfo Anokye Teaching Hospital	Kumasi	Ashanti	15	1.0	33	2.3	2.2
Pankrono Clinic	Kumasi	Ashanti	12	0.8	7	0.5	0.58
Ho Regional Hospital	Ho	Volta	10	0.6	7	0.5	0.7
Alberto Clinic	Tema	G. Accra	7	0.4	7	0.5	1.0
Total			**120**	**7.7**	**106**		**0.88**
Community residential services							
Cheshire Home	Kumasi	Ashanti	55	3.5%	7	0.5	0.13
'KITS'	Takoradi	Western	34	2.2	1	0.1	0.03
Shekina Clinic	Tamale	Northern	13	0.8	32	2.3	2.46
Elmina Rehabilitation Centre	Elmina	Central	10	0.6	6	0.4	0.6
Total			**112**	**7.2**	**46**		**0.41**
Grand total			1,544	100	1,390		0.90

The total number of patients treated in 2011 was 67,732, which is 0.28% of the population. The totals for each type of service are: 57,404 patients treated in outpatient services, 18 in day treatment services, 2,255 in general hospital / clinic inpatient beds, 7,933 in the mental hospitals and 122 in residential services.

Table 2.8 presents all the data on patients treated for each region in both absolute numbers and rates per 100,000 population to allow comparison across the regions. Table 2.8 is complex and to help analyse it table 2.9 shows an extract from series 1, column 3. Table 2.9 is the number of patients treated in

TABLE 2.8

The type of unit, the number of patients treated, the percentage as a proportion of the whole and the rate per 100,000 of the regional population

		Series 1 Outpatient services			Series 2 Day treatment services			Series 3 General hospital / clinic inpatient units			Series 4 Mental hospitals			Series 5 Long stay residential units			Series 6 Total		
Row	Region and Population	Outpatient services	Percentage as a proportion off all patients treated	Rate / 100,000 population	Day treatment services	Percentage as a proportion off all patients treated	Rate / 100,000 population	General hospital / clinic inpatient units	Percentage as a proportion off all patients treated	Rate / 100,000 population	Mental hospitals	Percentage as a proportion off all patients treated	Rate / 100,000 population	Community based residential services	Percentage as a proportion off all patients treated	Rate / 100,000 population	Total	Percentage as a proportion off all patients treated	Rate / 100,000 population
1	Ashanti 4,725,046	5,021	7.41	106.1	-	-	-	453	0.67	9.59	-			55	0.08	1.2	5,529	8.16	117.0
2	Brong Ahafo 2,282,128	4,794	7.08	210.1	-	-	-	298	0.44	13.1	-			-			5,092	7.52	223.1
3	Central 2,107,209	7,788	11.50	369.6	-	-	-	-	-	-	1644	2.43	78.0	10	0.01	0.5	9,442	13.94	448.1
4	Eastern 2,596,013	6,003	8.86	231.2	-	-	-	-	-	-	-			-			6,003	8.86	231.2
5	Greater Accra 3,909,764	16,854	24.88	431.0	-	-	-	1,349	1.99	34.5	63494	9.37	162.4	-			24,552	36.25	627.9
6	Northern 2,468,557	3,784	5.59	153.3	-	-	-	-	-	-	-			13	0.02	0.5	3,797	5.61	153.9
7	Upper East 1,031,478	3,828	5.65	371.3	-	-	-	-	-	-	-			-			3,828	5.65	371.3
8	Upper West 677,763	1,796	26.52	265.3	-	-	-	-	-	-	-			-			1,796	2.65	265.3
9	Volta 2,099,876	2,514	3.71	119.7	-	-	-	155	0.23	7.4	-			-			2,669	3.94	127.1
10	Western 2,325,597	5,022	7.41	216	18	0.03	0.7	-	-	-	-			34	0.05	1.5	5,074	7.49	218.2
11	Total 24,392,000	57,404	84.8	235.3	18	-	-	2,255	3.33	9.3	7,933	11.71	32.5	122	0.18	0.5	67,732	100	277.6

outpatients in each region expressed as the number per 100,000 of the population in the region. It can be seen that there is a fourfold difference between those treating the most and the least (Greater Accra 431 / 100,000 and Ashanti 106 / 100,000).

Table 2.10 is an extract from Table 2.8, series 6 column 3 and shows the total number of patients treated in each region for all facilities and services. This is also represented pictorially in Figure 2.4. It is interesting to see that Upper West and Upper East have treatment rates approaching Greater Accra and Central despite having no in-patient beds.

It is of note that although the Ashanti Region has a large and relatively urban population which might mean treatment can be provided without the need to travel long distances, this region has the lowest treatment rates.

FIGURE 2.4
Patients treated per 100,000 population, by region

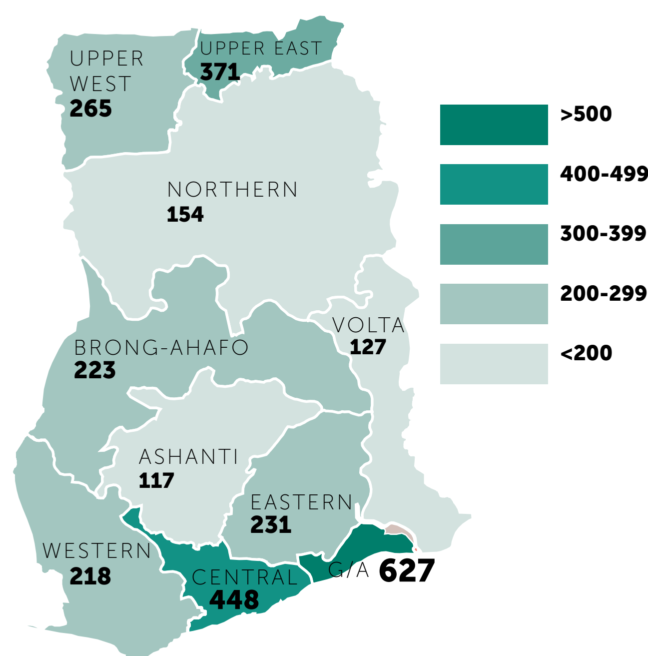


TABLE 2.9
The number of patients treated in outpatients per 100,000 population (regionally adjusted)

	Region (most outpatients seen to fewest)	Number of outpatients treated per 100,000 population (regionally adjusted)
1	Greater Accra	431
2	Upper East	371
3	Central	370
4	Upper West	265
5	Eastern	231
6	Western	216
7	Brong Ahafo	210
8	Northern	153
9	Volta	120
10	Ashanti	106

TABLE 2.10
Total number of patients treated in all services per 100,000 population (regionally adjusted)

	Region (most patients seen overall to fewest)	Total number of patients treated per 100,000 population
1	Greater Accra	627
2	Central	448
3	Upper East	371
4	Upper West	265
5	Eastern	231
6	Brong Ahafo	223
7	Western	218
8	Northern	154
9	Volta	127
10	Ashanti	117

Female patients

Female patients make up approximately 51% of the population in all mental health services in the country. The proportion of female patients is highest in outpatient services, general hospital / clinic based psychiatric inpatient units and long stay residential services (Figure 2.5). It is lowest in mental hospitals and day treatment services where there are fewer female than male beds.

Medication

Psychotropic drugs are mostly available in mental hospitals, followed by general hospital / clinic based inpatient mental health facilities and then outpatient units (Figure 2.6).

Diagnoses

The distribution of diagnoses varies across facilities. In general hospital / clinic based psychiatric inpatient units and mental hospitals, schizophrenia and substance abuse are the most common diagnoses; whereas in outpatient services, 'other' diagnoses such as epilepsy are most common (Figure 2.7)

FIGURE 2.5
Percentages of female patients treated in mental health facilities

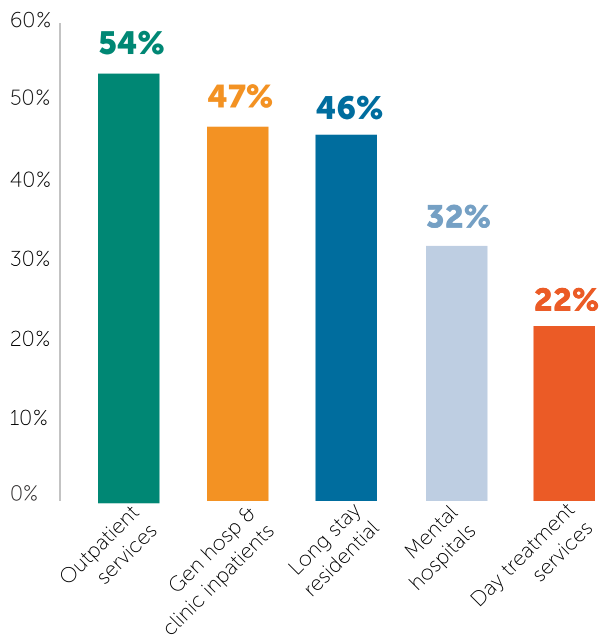


FIGURE 2.6
Availability of psychotropic medication

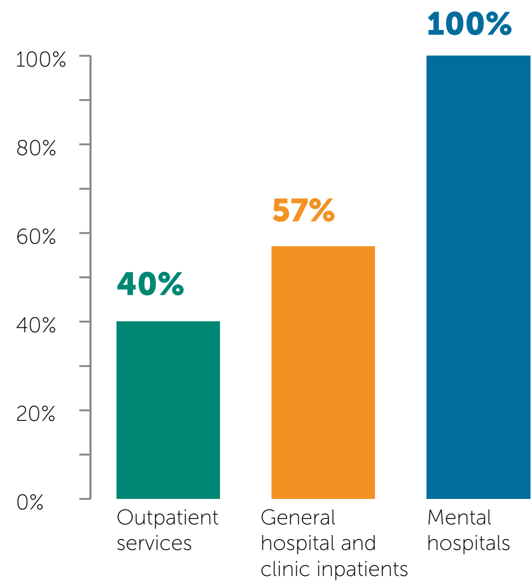
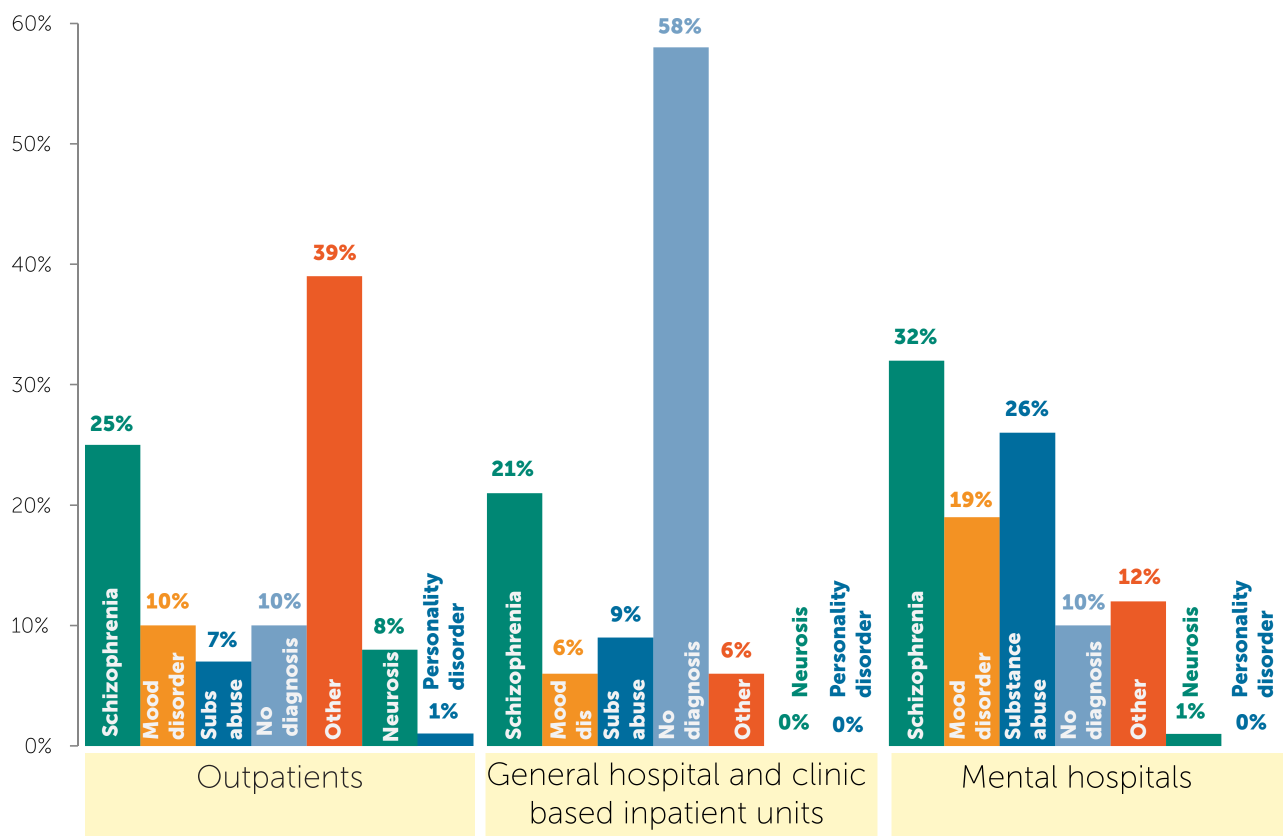


FIGURE 2.7
Diagnoses of patients treated in mental health facilities



3 Mental health in primary health care

Overview

This section covers:

- Training in mental health care for primary care staff
- Mental health service provision in primary health care
- Informal primary health care
- Prescription in primary health care

Psychiatric care is provided across all settings from primary care / Community-based Health Planning and Services (CHPS) level, to district services to the specialist mental hospitals. In most countries the bulk of psychiatric care is provided at the primary level, cases only being referred further on as they increase in severity and complexity. Primary care practitioners underpin mental health services and good integration is essential.

Training in mental health care for primary care staff

The per centage of training that courses devote to mental health was least for doctors and most for community health workers as can be seen in Table 3.1.

Ghana Health Service reported that no primary health care staff received refresher training in mental health in 2011. However, BasicNeeds Ghana reported that 43 'other health workers' (mainly community health nurses) in the seven districts of the Brong-Ahafo Region attended 'essential skills for mental health care', including gender violence and HIV / AIDS in November 2011.

Mental health service provision in primary health care

Both physician based primary health care (PHC) and non-physician based PHC clinics were available in 2011.

Around 1-20% of the clinics had assessment and treatment protocols available for key mental health conditions, in the form of 'Standard Treatment Guideline' booklets.

There were no formal avenues for professional interaction between primary health care staff and other mental health care providers so it was unknown how many PHC doctors had interactions or made referrals to mental health professionals in 2011. However, it was estimated that between 21-50% of non-physician based PHC providers would make referrals to higher levels of care at least once per month.

There were no formal avenues for interaction between PHC staff (both physician based and non-physician based) and complimentary / alternative / traditional practitioners.

Informal primary health care (faith-based and traditional practitioners)

People in Ghana, especially those from rural areas, will often visit traditional and faith based practitioners before or after seeking medical advice from the government health system. A sample of these facilities were surveyed.

Ten faith-based and 10 traditional practitioners, one of each from each region, were identified (the practitioners were identified by word of mouth; they were not a randomised selection) and interviewed to provide a snapshot of this type of informal community care. All the practitioners reported treating both mentally ill and non-mentally ill patients.

Faith-based facilities

Across the 10 faith-based facilities, 1,253 patients were treated in 2011. Of all patients treated in these facilities 37.5% were female which was contrary to the expectation that more women attend faith-based healers than men. Eight per cent were children or adolescents. The average number of contacts per patient was 1.18.

When we described schizophrenia, mood disorder, epilepsy, drug and alcohol abuse the practitioners said they saw these and when asked about other problems they saw they mentioned "witchcraft" and "spiritual attack". Alongside spiritual practices (details of the types of 'spiritual practices' were not collected) 56% of faith-based healers also administered medication which they reported buying in pharmacies, and 22% offered herbal remedies. Out of all of the patients treated, 57.5% were restrained at least once across eight facilities. The remaining two facilities reported they did not use restraint or seclusion.

Practitioners in one of the 10 facilities had received some training in psychiatric care in 2011. This had been provided by Tamale Teaching Hospital in the Northern Region and by the NGO BasicNeeds.

Two facilities made referrals to psychiatric services in 2011.

Traditional practitioners

Across the 10 traditional practitioner facilities, 749 patients were treated. Thirty nine per cent of attendees were female and 8% were children or adolescents. The average number of contacts per patient was 1.19.

As in the faith-based facilities, when we described schizophrenia, mood disorder, epilepsy, drug and alcohol abuse, traditional practitioners said they saw these.

TABLE 3.1
The percentage of training devoted to mental health

Practitioner type	How much of the training course is on mental health
Medical students	3%
State Registered Nurses (SRNs)	10%
Community health workers trained at the College of Health and Well Being in Kintampo	14%

Alongside herbal remedies, 40% used "rituals" (details of the "rituals" were not collected) and 30% used spiritual practices. Out of all of the patients treated, 41.1% were restrained at least once in nine of the facilities.

Staff from one of the traditional healing facilities had received training in 2011 from staff from Pantang Hospital on patient care and facility maintenance.

Two facilities made referrals to psychiatric services in 2011.

Prescription in primary health care

Primary care nurses and non-doctor/non-nurse primary health care workers, by policy were not allowed to prescribe psychotropic medications under any circumstances.

Primary health care doctors were allowed to prescribe psychotropic medications without restrictions as were Medical Assistants and Community Psychiatric Nurses.

At least one psychotropic medicine of each therapeutic category (anti-depressant, anti-psychotic, mood stabilizer, anxiolytic and anti-epileptic) was available all year round at 81-100% of the physician based PHC clinics and 1-20% of the non-physician based PHC clinics.

4 Human resources

Overview

This section covers:

- Staff working in mental health services
- Training mental health practitioners
- Consumer associations, family associations, non-government organisations (NGOs) and other mental health projects and programmes

Staff working in mental health services

How many staff were there?

In 2011 there were 1,887 clinical staff working in mental health care across all establishments ie all outpatient and inpatient services. The figures in the table illustrating this (Table 4.2) are not whole-time equivalents (WTEs) so in fact the WTE number would be lower as some staff (eg non-psychiatrist medical doctors working in psychiatry) were not whole-time in mental health and there is some, though minimal, double counting.

WHO figures for the total workforce in Ghana show 24,974 nursing and midwifery personnel in 2008 and 2,033 physicians in 2009.[10] The per centage of this workforce working in mental health is shown in Table 4.1.

TABLE 4.1

The medical and nursing workforce in Ghana, and the proportion working in mental health (note: only 18 of the 49 doctors are psychaitrists and the rest are not whole time in mental health)

Type of practitioner	Total number in Ghana	Number working in mental health	% working in mental health
All nurses	29,974	1,256	4.2%
All doctors	2,033	49	2.4%

What type of staff were there most and least of?

The breakdown of staffing by profession can be seen in Table 4.2 and Figure 4.1. Sixty two per cent (1,177) of the staff in the country were trained mental health workers and the largest group of staff by a considerable margin was RMN (Registered Mental Nurse) nursing staff. Community Mental Health Officers were the next largest trained group and in fact these are likely to increase as over 100 were being trained / year in Kintampo as of 2011 onwards. The scarcest staff were psychiatrists and psychologists and there was a complete absence of occupational therapists working in psychiatric services apart from four overseas volunteers (VSOs).

What services were the staff working in ?

The distribution of staff in the different facilities can be seen in Tables 4.3 and 4.4. The figures in the tables show which services staff were working in however it is important to note that some staff were working in more than one establishment so there will have been some double counting eg a psychiatrist could work in both inpatients and outpatients. This means that the figures in Table 4.3 do not add up to the same as the total number of mental health staff in the country, although they are very similar (and as mentioned earlier, even the figures in Table 4.2 do not exactly equate to WTEs).

TABLE 4.2
The number of staff working in mental health in Ghana, by discipline, in 2011

	Total Number	No. per 100,000 of popn
Mental health trained staff		
Mental health nurses (RMNs)	1,068	4.43 / 100,000
Community Mental Health Officers	72	0.30 / 100,000
Psychologists	19	0.08 / 100,000
Psychiatrists	18	0.07 / 100,000
Subtotal	**1,177**	**4.88 / 100,000**
Staff working in mental health but not specifically trained in mental health		
Others*	474	2.00 / 100,000
Other nurses (SRN, ENs)	180	0.75 / 100,000
Non psychiatric medical doctors	31	0.13 / 100,000
Social workers	21	0.09 / 100,000
Occupational therapists**	4	0.02 / 100,000
Subtotal	**710**	**2.95 / 100,000**
Grand TOTAL	1,887	7.83 / 100,000

*eg. Medical Assistants, auxiliaries, paraprofessional counsellors, non-doctor primary health care worker, health assistants etc
**The Occupational therapist in 2011 were all foreigners working for VSO (Voluntary Services Overseas)

FIGURE 4.1
The total number of mental health staff in 2011

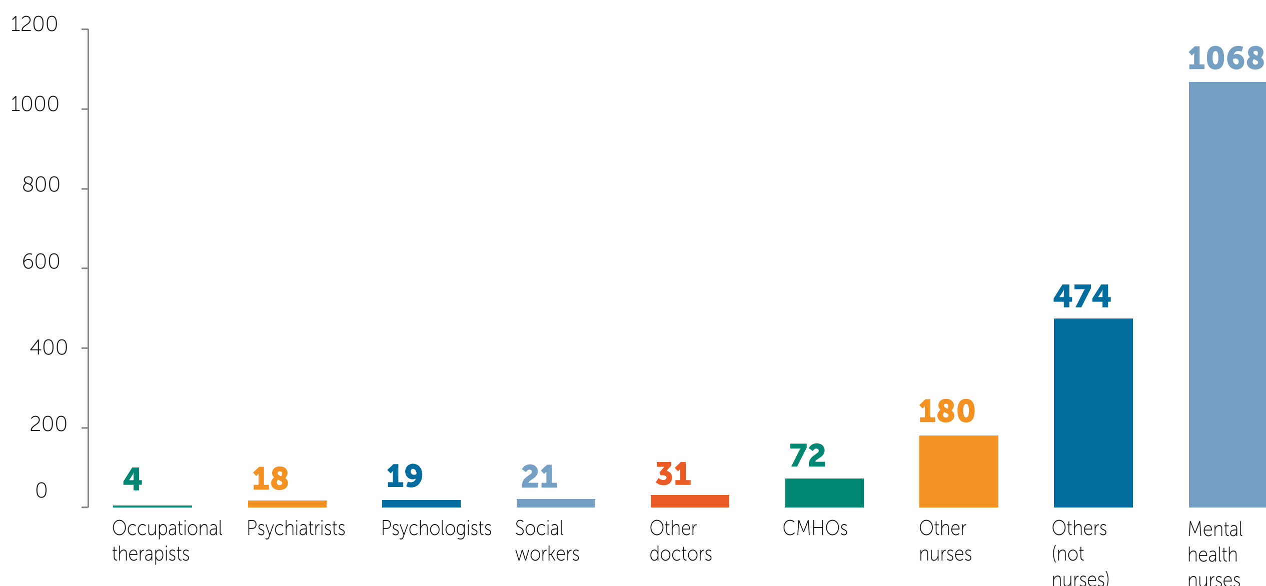


TABLE 4.3
The distribution of staff across facilities (absolute numbers)

Staff in outpatients	Psychiatrists	Medical doctors	SRNs	RMNs	ENs	Psychologists	SWs	OTs	Other	Total
Ashanti	1	0	0	36	5	0	0	0	5	47
Brong Ahafo	1	0	1	17	0	1	1	2	11	34
Central	1	7	0	30	3	1	3	0	15	60
Eastern	0	0	1	33	8	1	0	0	4	47
Greater Accra	4	6	16	92	5	9	5	0	23	160
Northern	0	6	10	16	4	0	0	0	40	76
Upper East	0	0	0	14	0	0	0	0	3	17
Upper West	1	0	1	8	0	0	2	0	4	16
Volta	1	0	1	17	3	0	2	0	1	25
Western	0	1	1	24	1	0	0	0	7	34
Total	**9**	**20**	**31**	**287**	**29**	**12**	**13**	**2**	**113**	**516**
Staff in general hospital / clinic based inpatient units										
Ashanti – Adom Clinic	1	1	0	1	0	0	0	0	5	8
Ashanti – KATH	2	4	0	14	0	4	0	0	9	33
Ashanti – Pankrono Clinic	1	0	0	1	3	0	0	0	2	7
Brong Ahafo – Sunyani Regional Hospital	1	0	1	10	0	1	0	0	5	18
Greater Accra – Alberto Clinic	1	0	2	0	0	0	0	0	4	7
Greater Accra – Valley View Hospital	2	0	7	5	10	2	0	0	0	26
Volta – Ho Regional Hospital	1	0	1	2	0	0	2	0	1	7
Totals	**9**	**5**	**11**	**33**	**13**	**7**	**2**	**0**	**26**	**106**
Staff in mental hospitals										
Accra Psychiatric	4	4	0	280	63	1	4	0	95	451
Pantang	2	1	5	291	20	1	2	1	141	464
Ankaful	2	0	0	177	12	1	0	1	130	323
Totals	**8**	**5**	**5**	**748**	**95**	**3**	**6**	**2**	**366**	**1,238**
Staff in long stay residential facilities										
Ashanti – Cheshire Homes	0	0	0	1	0	0	0	0	6	7
Central – Elmina	0	0	0	1	0	0	0	0	5	6
Northern – Shekina	0	1	2	0	0	0	0	0	29	32
Western (KITS)	0	0	0	0	0	0	0	0	1	1
Totals	**0**	**1**	**2**	**2**	**0**	**0**	**0**	**0**	**41**	**46**
Overall total no of staff	26	31	49	1,070	137	22	21	4	546	1,906

TABLE 4.4

The distribution of staff across facilities, per 100,000 population

Staff in outpatient services (rates per 100,000 population – regionally adjusted)	Psychiatrists	Medical doctors	SRNs	RMNs	ENs	Psychologists	SWs	OTs	Other	Total
Ashanti	0.02	-	-	0.76	0.11	-	-	-	0.11	0.99
Brong Ahafo	0.04	-	0.04	0.74	-	0.04	0.04	0.09	0.48	1.49
Central	0.05	0.33	-	1.42	0.14	0.05	0.14	-	0.71	2.85
Eastern	-	-	0.04	1.27	0.31	0.04	-	-	0.15	1.81
Greater Accra	0.10	0.15	0.41	2.35	0.13	0.23	0.13	-	0.59	4.09
Northern	-	0.24	0.41	0.65	0.16	-	-	-	1.62	3.08
Volta	-	-	-	1.36	-	-	-	-	0.29	1.65
Western	0.15	-	0.15	1.18	-	-	0.30	-	0.59	2.36
Upper East	0.05	-	0.05	0.81	0.14	-	0.10	-	0.05	1.19
Upper West	-	0.04	0.04	1.03	0.04	-	-	-	0.30	1.46
Total	**0.04**	**0.08**	**0.13**	**1.18**	**0.12**	**0.05**	**0.05**	**0.01**	**0.47**	**2.13**
Staff in general hospital / clinic based inpatient units (rates per 100,000 population – nationally)										
Ashanti – Adom Clinic	-	-	-	-	-	-	-	-	0.02	0.03
Ashanti – KATH	0.01	0.02	-	0.06	-	0.02	-	-	0.04	0.14
Ashanti – Pankrono Clinic	-	-	-	-	0.01	-	-	-	0.01	0.03
Brong Ahafo – Sunyani Regional Hospital	-	-	-	0.04	-	-	-	-	0.02	0.07
Greater Accra – Alberto Clinic	-	-	0.01	-	-	-	-	-	0.02	0.03
Greater Accra – Valley View Hospital	0.01	-	0.03	0.02	0.04	0.01	-	-	-	0.11
Volta – Ho Regional Hospital	-	-	-	0.01	-	-	0.01	-	-	0.03
Totals	**0.04**	**0.02**	**0.05**	**0.14**	**0.05**	**0.03**	**0.01**	**-**	**0.11**	**0.44**
Staff in mental hospitals (rates per 100,000 population – nationally)										
Accra Psychiatric	0.02	0.02	-	1.16	0.26	-	0.02	-	0.39	1.86
Pantang	0.01	-	0.02	1.20	0.08	-	0.01	-	0.58	1.92
Ankaful	0.01	-	-	0.73	0.05	-	-	-	0.54	1.33
Totals	**0.03**	**0.02**	**0.02**	**3.09**	**0.39**	**0.01**	**0.02**	**0.01**	**1.51**	**5.11**
Staff in community residential facilities (rates per 100,000 population – nationally)										
Ashanti – Cheshire Homes	-	-	-	-	-	-	-	-	0.02	0.03
Central – Elmina	-	-	-	-	-	-	-	-	0.02	0.02
Northern – Shekina	-	-	0.01	-	-	-	-	-	0.12	0.13
Western (KITS)	-	-	-	-	-	-	-	-	-	-
Totals	**-**	**-**	**0.01**	**0.01**	**-**	**-**	**-**	**-**	**0.17**	**0.19**

NOTE: Figures are rounded to two decimal places so cells with the value '1' (eg one member of staff) have become 0.

FIGURE 4.2
Staffing in general hospital and clinic inpatient units

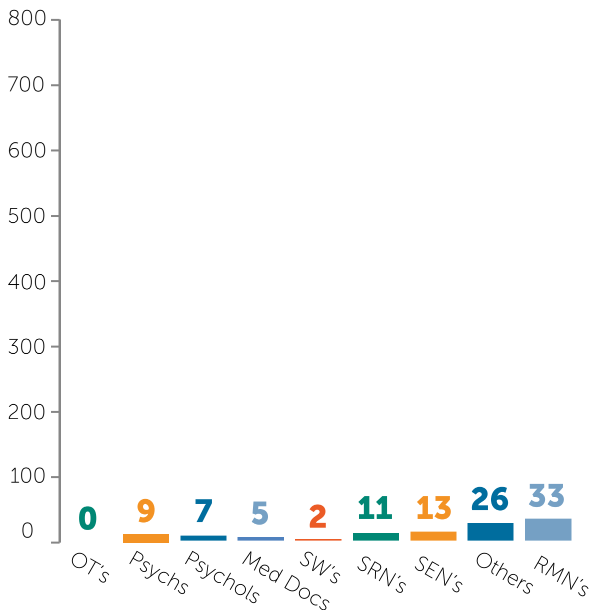
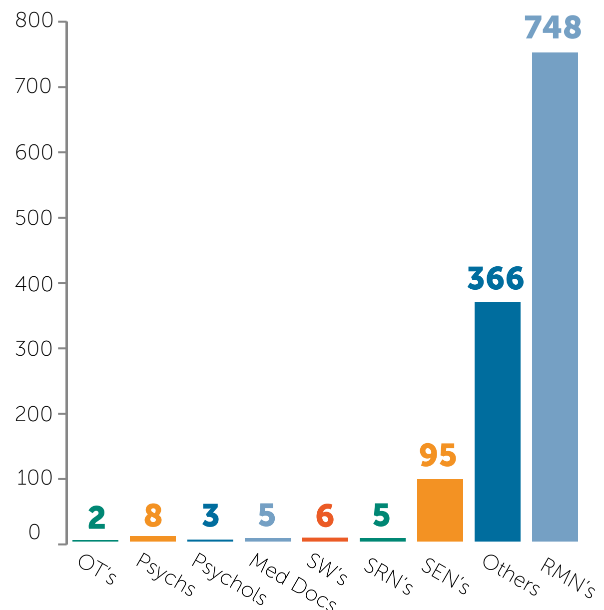


FIGURE 4.3
Staffing in mental hospitals



There were 1,390 staff working in inpatient units compared to only 516 for outpatient services meaning that only 27% of all staff were working in outpatient services.

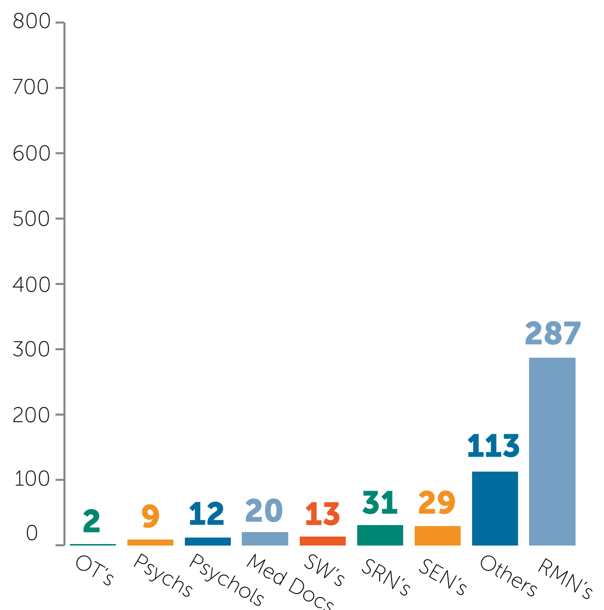
Staffing for inpatient services

There were 1,238 staff working in the three large coastal mental hospitals compared to 152 in all other inpatient services, meaning the number of staff working in the mental hospitals was eight times more than that for other inpatient services.

The distribution of staff in the various types of inpatient facility can be seen in Figures 4.2 and 4.3. It can be seen that relatively few staff were working in inpatient units other than the mental hospitals.

An analysis of the figures for the 106 staff working in the non-mental hospital inpatient units shows a major focus on just two cities with 81 (76%) of the 106 working in either Accra or Kumasi leaving only 25 staff working in other towns/cities. Table 4.4 illustrates staffing density in the inpatient services.

FIGURE 4.4
Staffing in outpatient services



Staffing for outpatient services

The regional analysis of staff working in outpatient services can be seen in Table 4.4 where population adjusted figures are shown for staff working in outpatients in each region. The best served region in terms of outpatient facilities was the same as that best served for inpatient beds ie Greater Accra. Table 4.4 can be read along with Table 2.9 to compare the regionally adjusted number of patients treated in outpatients per 100,000 population with outpatient staffing levels.

FIGURE 4.5
Psychiatrists per 1m population, by region

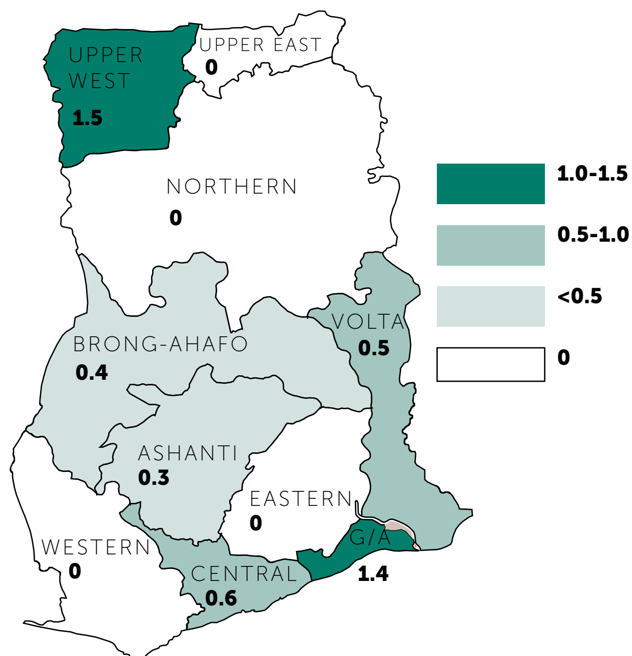


Figure 4.4 shows the type of staff working in outpatients. This can be compared with figures 4.2 and 4.3 which show the type of staff working in the inpatient services.

Distribution of staff across regions

Table 4.5 shows a breakdown of staffing density (psychiatrists, RMNs and all staff combined) across the 10 regions of Ghana. The figures are presented as rates per 100,000 population and they are regionally adjusted for population size. The figures are also illustrated pictorially on the country maps Figures 4.5 (psychiatrists per million population) and 4.6 (all staff). There is no pictorial representation for RMNs as they make up the largest professional group and their distribution is almost identical to the 'all staff' group (Figure 4.6). However, there is one interesting anomaly as the Northern Region staffing is made up more from 'other staff' than RMNs than is the case in the other regions.

The distribution of staff between urban and rural areas was disproportionate. The density of psychiatrists in and around Accra was 4.28 times greater than the density of psychiatrists in the entire country. The density of nurses was 4.44 times greater in Accra than the entire country.

FIGURE 4.6
Mental health staff per 100,000 population, by region

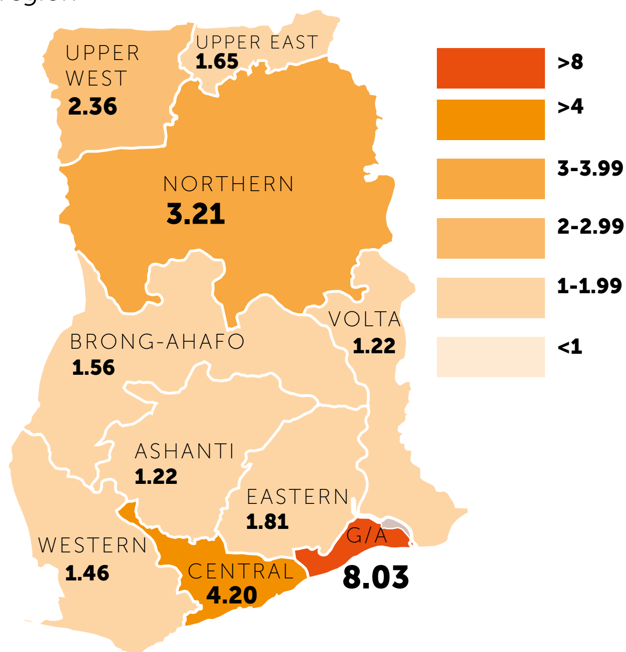


TABLE 4.5
The distribution of staff across the regions (rates per 100,000 - regionally adjusted)

Region	Psychiatrists	RMNs	All staff
Ashanti	0.03	0.82	1.22
Brong Ahafo	0.04	0.78	1.56
Central	0.06	2.15	4.2
Eastern	0.00	1.27	1.81
Greater Accra	0.14	4.73	8.03
Northern	0.00	0.65	3.21
Upper East	0.00	1.36	1.65
Upper West	0.15	1.18	2.36
Volta	0.05	0.82	1.22
Western	0.00	1.03	1.46
All	0.04	1.18	2.13

Training mental health practitioners

The WHO AIMS has specific questions on the number of health professionals (this refers to all health professionals, not just mental health professionals) that graduated in 2011 in academic and educational institutions. The survey only covers the professions listed in Table 4.6 below.

In 2011, 2,566 health professionals of the types listed were trained. The breakdown can be seen in Table 4.6.

Community Mental Health Officers were a new diploma level workforce being trained at The College of Health and Wellbeing in Kintampo since 2010 to help develop community mental health services along with CPNs.

A second new workforce was also being trained in Kintampo: The Degree in Community Medicine and Clinical Psychiatry producing Clinical Psychiatric Officers (CPO) to assist psychiatrists.

The first CPOs started work in January 2013. They practice independently where there are no psychiatrists, or they complement psychiatrists where there are.

TABLE 4.6
Selected health workers trained in 2011

Practitioner	Number produced in 2011
Registered Mental Health Nurses (RMNs)	334
Community Mental Health Officers	72
Clinical Psychologists	5
Psychiatrists	1
Social Worker with at least 1 year training in mental health care	nil
Occupational therapist with at least 1 year training in mental health care	nil
Medical students graduating to become doctors	238
State Registered Nurses (SRNs)	1,871

NOTE: This table is limited mainly to those practitioners enquired about when administering the WHO-AIMS instrument.

Consumer associations, family associations, NGOs and other mental health projects / programmes

In 2013 these included:

- Mental Health Society of Ghana (MEHSOG)
- The Ghana Mental Health Association
- MindFreedom Ghana
- Alcoholics Anonymous Ghana
- The Epilepsy Society of Ghana
- BasicNeeds Ghana
- Psycho-Mental Health International
- The Kintampo Project
- Ghana Mental Health Educators in The Diaspora (GMHED)
- WHO / MoH / GHS “Fight against epilepsy Ghana Initiative”
- Ghana Organisation against Foetal Alcohol Syndrome (GOFAS)

Mental Health Society Of Ghana

MEHSOG is a membership based association registered as a mental health advocacy NGO. It consists of mental health and epilepsy patient members across Ghana. It was inaugurated in Accra in November 2009. It has its national secretariat in Accra. MEHSOG represents the needs and rights of people with mental illness or epilepsy in Ghana. There were 18,320 members in 2011.

The Society states its aims as “To bring all people with mental illness and epilepsy, including people who have experienced one form of mental illness and/or epilepsy in Ghana into a unified and representative association. To promote the socioeconomic wellbeing of people with mental illness and/or epilepsy. To cooperate with like minded associations and bodies as well as with the Government of Ghana and advocate in pursuit of the advancement of mental health.”

www.mehsog.org

The Ghana Mental Health Association

The Ghana Mental Health Association is an umbrella group of NGOs and persons in mental health led by their President, who in 2011 was the Rev. Godson King Akpalu. The Association advocates for the mentally ill and is involved with awareness creation, seeking for the welfare of the mentally ill and influencing policy direction.

MindFreedom

MindFreedom Ghana is an affiliate of MindFreedom International, a non-profit organisation. MindFreedom International "seeks to win human rights and alternatives for people 'labelled' with psychiatric disabilities."

www.mindfreedom.org/as/act-archives/inter/mfghana

Alcoholics Anonymous Ghana

Alcoholics Anonymous Ghana is the Ghana branch of the International AA fellowship.

AA report they are "a self-supporting fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from alcoholism. The only requirement for membership is a desire to stop drinking. There are no dues or fees for membership. AA is not allied with any sect, denomination, politics, organisation or institution". The AA primary purpose is "to help people stay sober and help other alcoholics to achieve sobriety".

www.aaghana.atspace.org

The Epilepsy Society of Ghana

This is the Ghana chapter of the International League Against Epilepsy which was founded in 1909 and is an organisation of more than 100 national chapters. The League is "an association of physicians and other health professionals working towards a world where no persons' life is limited by epilepsy. The goals and mission are to ensure that health professionals, patients and their care providers, governments, and the public world-wide have the educational and research resources that are essential in understanding, diagnosing and treating persons with epilepsy".

The Ghana President in 2011 was Dr Sammy Ohene, Dept of Psychiatry, University of Ghana Medical School

www.ilae.org/visitors/chapters/chapter-select.cfm?pick_list=Ghana

BasicNeeds Ghana

BasicNeeds is an NGO "working with people suffering from mental and neurological illnesses, in remote rural countryside to urban slums, in Africa and Asia". It was established in the United Kingdom in 1999 by Chris Underhill and "is based on a philosophy of building inclusive communities for mentally ill people to realise their own rights". BasicNeeds Ghana, a branch of the international group, was formed in Ghana in 2002, with the vision that "People with mental illness or epilepsy live in dignity and satisfy their basic needs and exercise their basic rights". The organisation in Ghana works to develop and implement initiatives that directly involve people with mental illness or epilepsy, and their families and communities and other organisations to enhance self-determination and influence public opinion and decision-making on mental health and development.

In 2013 BasicNeeds Ghana operated three area programmes: the three regions of the north; Accra in the Greater Accra Region, and mid- Ghana (Brong-Ahafo and Ashanti regions). In the north, they have created two ("Ti Sampa") drop-in centres, for mentally ill people, one in Tamale and one in Wa, and in Accra they have created a similar facility in Ussher Fort Polyclinic.

BasicNeeds supports MEHSOG.

In 2013 BasicNeeds-Ghana was headed by an Executive Director, Mr Peter Yaro.

www.basicneeds.org/ghana

Psycho-Mental Health International

Psycho-Mental Health International is an NGO made up from retired serving nurses and nursing assistants who provide mental health promotion and prevention activities including for alcohol and substance abuse in churches, schools and communities. They are usually invited to activities by schools and public spirited organisations who sponsor them.

The Kintampo Project

The Kintampo Project is a charity based UK initiative working with The College of Health and Wellbeing in Kintampo to produce Community Mental Health Officers and Clinical Psychiatric Officers. The project started in 2006 and will run until 2017 by which time it will have produced over 700 new mental health workers for Ghana.

The UK lead is Dr Mark Roberts, Consultant Forensic Psychiatrist, Southern Health NHS Foundation Trust, Fareham, Hampshire, PO17 5NA, UK mark.roberts@thekintampoproject.org

The Ghana lead is Dr ET Adjase, Director, College of Health and Wellbeing, Kintampo

www.thekintampoproject.org

Mental Health Educators in the Diaspora (MHED)

MHED is an international diaspora volunteering initiative made of a multidisciplinary faculty of mental health educators in the diaspora, who are committed to advancing and raising the profile of mental health education in Ghana and other countries in the West African sub-region, through teaching, learning, service provision and research.

The President is Dr Victor C K Doku
victordoku2003@yahoo.co.uk
korley@doctors.org.uk

Ghana mhGAP Epilepsy Initiative

The Ghana mhGAP Epilepsy Initiative is a WHO / MoH / GHS programme which started in 2011/12 to improve access to care and services for people with epilepsy in Ghana. The objectives are to:

- Develop and engage in the strategy for delivering epilepsy care
- Promote training of all professional health care providers, making them competent in diagnosing and treating epilepsy
- Improve awareness of community groups to decrease stigma and increase demand for epilepsy care
- Integrate provision of care and services for epilepsy within the primary health care system
- Monitor and evaluate the project and disseminate new ideas and knowledge

In 2013 pilot implementation was taking place in two sites: one in the south Ashiedu-Keteke an urban deprived area in the Greater Accra Region and one in Tolon-Kumbungu, a rural area in the Northern Region. The initiative was expected to be scaled up to cover six districts during the four year period from initiation and ultimately across the whole country.

In 2013 the lead person for the Initiative was Dr. Cynthia Sottie, focal person on mental health in the Ghana Health Service.

Ghana Organisation against Foetal Alcohol Syndrome (GOFAS)

Ghana Organisation against Foetal Alcohol Syndrome (GOFAS) was established in 2009 to create awareness on the dangers of alcohol consumption by pregnant women.

The Chief Executive is Ms Amanorbea Doodoo.

5 Public education and links with other sectors

Overview

This section covers:

- Public education and awareness campaigns on mental health
- Links with other sectors

Public education and awareness campaigns on mental health

In 2011 there was no overall coordinating body for public education and awareness campaigns on mental health, although it was overseen by a number of different organisations including the Ghana Mental Health Association.

Government agencies, NGOs, professional associations, and international agencies had promoted public education and awareness campaigns in the preceding five years. The campaigns had targeted the general population and women. There had also been public education and awareness campaigns targeting professional groups including health care providers and those working in the complimentary / alternative / traditional sectors.

Links with other sectors

Links with other sectors are important for mental health provision in order to coordinate work and synergise combined efforts.

Education

Support for child and adolescent health was linked to primary or secondary (high) schools through either part-time or full-time mental health professional working in the schools.

School-based activities to promote mental health and prevent mental disorders were present in 1-20% primary and secondary schools, this usually being provided through Community Mental Health Nurse teaching sessions.

Prisons

International research shows high levels of mental disorder in prisoners, so links with prisons are particularly important in mental health.

The degree of linkage as measured by prisons having had at least one prisoner per month in treatment contact with a mental health professional was low at only 1-20%.

Training on mental health in the criminal justice system was undetectable in 2011. The prevalence of having participated in any educational activities on mental health in the preceding five years was 0% for police officers and 0% for judges and lawyers.

6 Monitoring and research

Overview

This section covers:

- Mental health data set
- Research

Mental health data set

A formally defined list of data items to be collected by all mental health services existed. The extent of data collection and compilation varied (Table 6.1). The Ministry of Health, Ghana received some data from mental health services in 2011, although no official report using the data was published.

Research

In terms of research, 1% of all health publications from the country identified by a PubMed search between 2006-2011 were on mental health. The research focused mainly on policy, programmes and financing/economics (38%). Other papers included services research (29%), epidemiological studies in clinical samples 19%, epidemiological studies in community samples (9%) and psychosocial interventions (5%).

TABLE 6.1

Percentage of mental health services collecting and compiling data by type of information

	Mental Hospitals	Other Inpatient Units	Outpatient Services
N° of beds	100%	100%	N/A
N° inpatient admissions/patients treated in outpatient facilities	100%	100%	0%
N° of days spent/patient contacts in outpatient facilities	67%	0%	100%
N° of involuntary admissions	100%	71%	0%
N° of patients restrained	0%	57%	0%
Diagnoses	100%	86%	96%

7 Strengths and weaknesses of the mental health system

Overview

This section covers:

- Strengths of the mental health system
- Weaknesses of the mental health system

In this chapter the strengths and weaknesses of the mental health system as found in the WHO-AIMs survey are analysed. The WHO-AIMS examines the mental health system via 6 domains so these are used to structure this analysis. The domains equate to sections 1-6 in the results parts of this report.

Strengths of the mental health system

The main strength of the mental health system in Ghana is the presence of a long established service with staff working across the country in outpatient departments and hospitals. The service is led by an able chief psychiatrist supported by other senior leaders. There are 3 large fully active mental health hospitals and a new mental health act has been passed which will refocus mental health services into the community and bring in robust structures for protection of human rights. Specifically, the provisions of the new Act include:

- Improving access to in-patient and out-patient mental health care in the communities in which people live.
- Human rights protection through regulation of mental health practitioners in both the public and private sectors and traditional healers too, everywhere in communities and hospitals.
- Combating of discrimination and stigmatization against people with mental illness and promoting their human rights.
- Promoting voluntary treatment

- Clearly defining and limiting the circumstances under which treatment may be given to people with mental disorders without their consent.

Strengths in domain 1: Policy and Legislative Framework

- There are documented Mental Health Programmes with activities which are championed by the Chief Psychiatrist.
- Mental Health service planning takes place and 5 year mental health plans are produced.
- A budget line for mental health exists at the Ministry of Health even though it is not sufficient.
- Government provides free treatment and accommodation for the mentally ill.
- Psychotropic medication is available.
- The country passed a new modern Mental Health Act in 2012.
- Hospitals have been inspected for Human Rights monitoring and some staff have had training.
- Standard treatment guidelines are available
- A national formulary which includes psychoactive medication is available.
- Government recognises the mental health needs of the population and is supporting mental health service improvement.

Strengths in domain 2: Mental Health Services

- Mental health is to some extent decentralized
- There are some facilities for helping people with mental health problems in outpatients, inpatients and in the community. There are also traditional treatments for the mentally ill which are safe for some disorders.
- Structures for providing mental health treatment and aftercare in the community are available.
- A five-tier decentralised health system exists which mental health can integrate with.

Strengths in domain 3: Mental Health in Primary Health Care

- Primary care practitioners are providing mental health services.
- Working relationships exist with faith based and traditional healers.

Strengths in domain 4: Human Resources

- There are some psychiatrists, although very few.
- A range of practitioners exist including psychologists
- Institutions for training doctors and nurses are available even to postgraduate level
- Training programmes are in place producing middle level specialists in mental health
- Opportunities exist in Ghana for postgraduate specialisation in mental health.

Strengths in domain 5: Public education and links with other sectors

- Links exist with overseas mental health specialists and services, particularly in the UK and US.
- NGOs for mental health and service user organisations exist.

Strengths in domain 6: Monitoring and Research

- Mental health service informatics is good enough to be able to produce data for assessing the system (for example this report).
- Research on mental health is taking place.

Weaknesses of the mental health system

The main weakness is that government spending on mental health is very low. The bulk of the services are centred on the heavily populated capital city of Accra leaving much of the rest of country with only very sparse provision. Development of the mental

health system has been neglected despite pressure and campaigning from able mental health leaders in the country and the mental health law passed in 1972 was never actually implemented. Service provision is dominated by nurses with few other professional groups present in any number. When compared to other LIC and LMIC countries Ghana is at the LIC level although it became officially LMIC in 2011.

Weaknesses in domain 1: Policy and Legislative Framework

- Insufficient funding has compromised effective service delivery particularly area coverage.
- There is a lack of regional and district management structures for mental health with multiple negative consequences including very inadequate systems for planning, monitoring, service and quality improvement.
- The system is too strongly focused on inpatient care.
- There is very little use of legislation to regulate detention of patients thus widespread breaching of human rights.
- The supply of psychotropic medications is not consistent or uniform in coverage.
- There is a lack of policy and regulation concerning the practice of psychiatry by faith based practitioners.
- There is insufficient use of clinical guidelines even where they exist.
- There is inadequate legal and financial support for people with mental disorders in the areas of employment and housing.
- There is only low potential for Internally Generated Finds (IGF) as service users are usually poor.

Weaknesses in domain 2: Mental Health Services

- Insufficient in-patient facilities in the Regions and Districts has put burden on families who have to travel long distances in search of treatment.
- There is overcrowding in some of the inpatient facilities.
- There is a very low level of community based rehabilitation facilities.
- Management of substance abuse is deficient outside psychiatric institutions.
- There is inequitable distribution of resources such that nearly all the resource is provided via 3 hospitals located in large urban centres in the south.
- The few rehabilitation units which exist are 'blocked' by long stay patients.
- There are high rates of restraining (mechanical and/or non-mechanical) and secluding disturbed patients.
- Patients are being secluded and restrained when not formally detained.
- Supply of community mental health facilities (eg office and clinic space) and resources (eg medication supplies and transport) to support community mental health practice is very insufficient.
- There is a lack of services specifically for children.
- There is only one day treatment centre in the country whereas there should be several hundred.
- The number of community based psychiatric inpatient units is very inadequate.
- The number of community residential facilities is very inadequate.
- There are insufficient specialist services, particularly in the case of children, old age, learning disabilities, forensic, substance misuse.

Weaknesses in domain 3: Mental Health in Primary Health Care

- Mental health services have to be provided by inadequately trained staff, such as generic health workers.
- There is a lack of referral systems for healthcare workers to know how to refer cases into the mental health system.
- Traditional practitioners are restraining patients without legal authority to do so, which is breaching human rights.

Weaknesses in domain 4: Human Resources

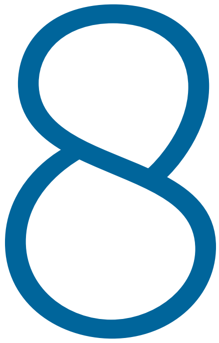
- There is insufficient manpower particularly, psychiatrists, psychologists, occupational therapists, workers trained for community mental health practice and psychiatric social workers.
- There are insufficient incentives for staff working for mental health.
- Mental health staff and primary health care workers are hardly doing any refresher training at all.
- There is hardly any training of mental health workers on human rights.
- The balance of treatment for patients is too strongly focussed on medication rather than psychosocial interventions and prevention.
- The amount of postgraduate training taking place in psychiatry for doctors is very low.
- Very few doctors choose to specialize in mental health.

Weaknesses in domain 5: Public education and links with other sectors

- There is insufficient public education which is likely to adversely affect acceptance of the mentally ill in the community and their rehabilitation.
- There is no coordination of public education / awareness raising campaigns etc. for mental health.
- Criminal justice personnel have had no mental health training.
- There is inadequate information on the prevalence of mental health problems in prisons.

Weaknesses in domain 6: Monitoring and Research

- The mental health information system is not adequate, it is not being used consistently enough and data is not being aggregated and reported.



Comparison of Ghana with other low and middle income countries

Overview

This section covers:

- Presence of policy or plan
- Spending on mental health
- Outpatient treatment rates
- Patients treated in day services
- Beds in hospitals and clinics
- Hospitals and clinic admissions
- Staffing in hospitals and clinics
- Beds in mental hospitals
- Staffing in mental hospitals
- Long stay ('residential') facilities
- Beds in other residential services
- Cost of medication
- Total number of staff in Ghana
- Number of psychiatrists needed
- Number of other staff needed
- Refresher training
- Patients treated

Over 85 countries have conducted the WHO-AIMS project since its introduction[11]. As the WHO-AIMS tool is standardised data from other countries can be directly compared with the findings in Ghana. In 2009 the World Health Organisation published an analysis of data from WHO-AIMS surveys completed in 42 low and middle income countries between 2005–2008[12] and we now directly compare Ghana with these 42 countries. The 42 countries are listed in Table 8.1.

WHO also uses a second mental health data collection system to produce worldwide data for the WHO Mental Health Atlas series.[10] The Atlas was last updated in 2011 using data collected from 184 countries and in some instances our findings are compared against this data too. The difference between this data and the WHO-AIMS data however is that whilst the Mental Health Atlas surveys use very similar concepts and domains to the WHO-AIMs there are some slight differences and the data collection method for The Atlas is not as detailed and searching as the WHO-AIMS tool. Nonetheless valid comparisons can be made.

When comparing WHO-AIMS data the usual method is to try to compare like for like in economic terms using World Bank groupings of countries into low, lower-middle, upper-middle and high income groupings. The definitions for these income groupings are illustrated earlier in this report. Ghana became a low-middle income country in 2011.

There is an important point to note in this section, regarding statistical methodology. When figures are given for a group of countries (eg the number of beds available across all low-middle income countries), a single figure will be given but the figure is **not** the average (the mean) of the findings from the countries, rather the figure used is the 'median'.

TABLE 8.1

Countries and income categories of the 42 countries in the 2005-2008 WHO analysis[12]

Low	Lower-middle	Upper-middle
Afghanistan, Bangladesh, Burundi, Eritrea, Ethiopia, India (state of Uttarkhand), Mongolia, Nepal, Nigeria, Timor-Leste, Uganda, Uzbekistan, Viet Nam	Albania, Azerbaijan, Bhutan, the Congo, Dominican Republic, Egypt, El Salvador, Georgia, Guatemala, Iran, Iraq, Kosovo, Maldives, Republic of Moldova, Morocco, Nicaragua, Paraguay, the Philippines, Sri Lanka, Thailand, Tunisia, Ukraine, West Bank and Gaza Strip	Chile, Latvia, Panama, South Africa, Uruguay

The median is the middle value and is used to make sure results are not biased by any very abnormal outlier results. For example if there were eight low-middle income countries in a comparison group and seven had two beds per 100,000 population but one was very unusual and had 100 beds per 100,000 then the average (mean) number of beds would be 2+2+2+2+2+2+2+100 = 114/8 = 14.25. This result of 14.25 beds / 100,000 population would be misleading. To avoid this figures are expressed as the 'median' which is the middle value, so the median of 2+2+2+2+2+2+2+100 is 2.

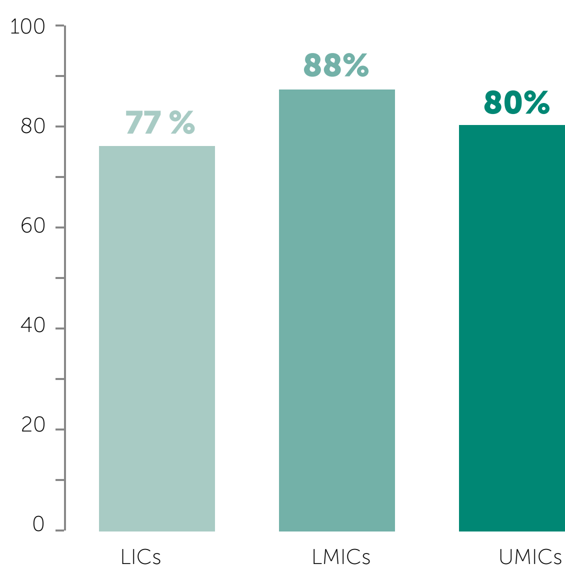
This section follows the general pattern of the rest of the report so it starts with policy, finance and legislative matters, then moves on to services / facilities, staffing etc.

Presence of a mental health policy or plan

Like most other countries, Ghana has both a policy and plan. In figure 8.1 a slight increase will be noted in the presence of a policy / plan with income level although there isn't much difference between the countries of different income levels. Perhaps the presence of a policy or plan alone has little impact on whether the mental health system develops as it is likely to be the implementation that matters.

FIGURE 8.1

The percentage of countries with a mental health plan or policy[12]



Spending on mental health

When comparing spending on mental health across countries currency is expressed as USD($).

In 2011 Ghana was spending 0.23GhC per person which at that time was equivalent to 0.12USD.

Figure 8.2 illustrates that regrettably Ghana's spending of 0.12USD per person was very low when compared to other countries.[12] Ghana's spending was less than half the median amount being spent by other low-middle income countries (LMICs) in 2005-2009.

Many low-middle income countries in the comparison group have poor mental health services so their level of spending would probably be an inadequate target to aim for. Figure 8.2 reveals a very large gap between median spending in low-middle and upper-middle income countries (UMICs).

In order to reach the median for upper-middle income countries Ghana will eventually need to increase spending on mental health to 35 times the current amount: ie from approximately 5.6 million GhC per annum to 197 million GhC per annum based on a population of 24.2 million. This is probably a more equitable target and trajectory to aim for in order to eventually provide mental health services commensurate with country income when upper-middle income level is reached.

Outpatient treatment rates

This is illustrated in Figure 8.3. Ghana treated 236 patients / 100,000 which is only one-third of the median for LMICs.[12] Ghana's level of outpatient treatment is much more similar to that of a LIC which is perhaps a reflection of the funding for mental health which is only just higher than LIC levels.

There is a need to open more outpatient facilities in both newly created and old districts.

FIGURE 8.2

Government mental health spending per capita (USD)

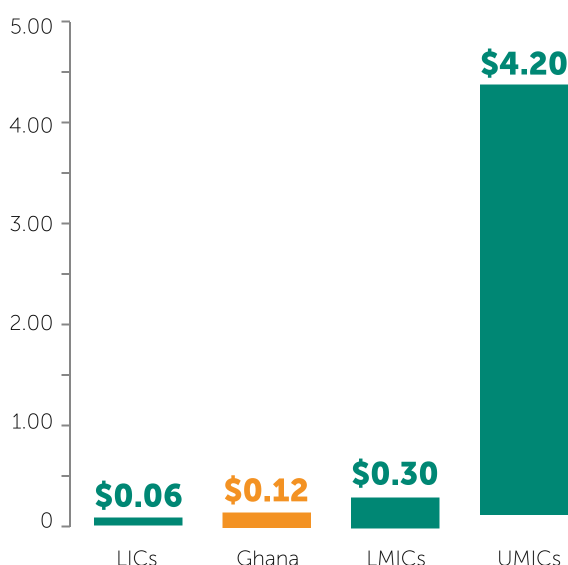
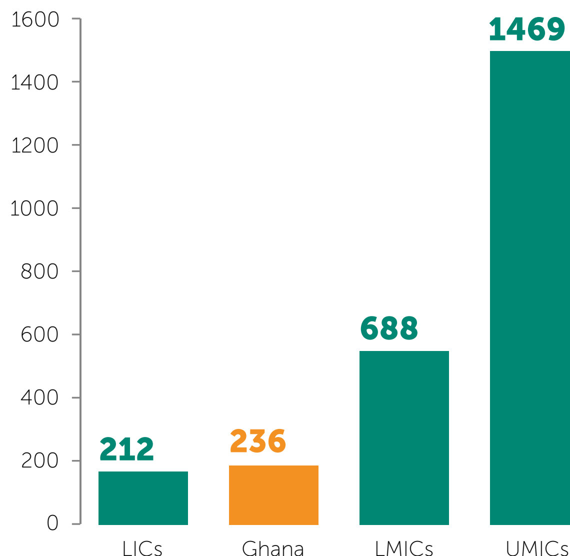


FIGURE 8.3

Patients treated in outpatients per 100,000 population



Patients treated in psychiatric day services

The presence of day treatment services in a country shows flexibility and a level of sophistication in the mental health service provision.

This is illustrated in Figure 8.4. In 2011 Ghana treated 18 day patients which equates to 0.07 / 100,000 population. This is an extremely low number compared to other countries.[12]

To reach LMIC level there would need to be an increase from the current 18 patients treated in day services to approximately 1,670, this being a 92 fold increase. There would then be a further large jump to get to UMIC level, which would require Ghana to treat 5,000 day patients per year, an increase from current levels of 280 fold.

If the policy of decentralisation and community care could be pursued, with less reliance on institutional care, then day hospitals could be a cheaper option for providing treatment with the added benefit of the introduction of increasing service flexibility.

Psychiatric beds in hospitals and clinics

This is illustrated in Figure 8.5. Ghana has just 120 inpatient beds that are not in the mental hospitals. This equates to 0.5 beds / 100,000 of the population which is less than half the number of beds of other LMICs.[12]

Ghana's provision is much nearer the level of provision of the LIC countries (in 2005–2008). To reach LMIC level Ghana would need to increase these beds from 120 to 278, ie to an average of 28 per region. However, also note that there is a very large increase up to UMICs for which Ghana would eventually need to be aiming for approximately 2,200 beds (non-mental hospital), ie an average of 220 per region. The median for the LMIC countries is probably not commensurate with particularly good mental health services hence the large increase to get to the UMIC level. Perhaps therefore, Ghana should be looking to do better than aim for the LMIC level alone although it would presumably be a good start to achieve LMIC median levels.

Although there would need to be 28–220 non-mental hospital beds per region, the geographic and population sizes of the regions vary quite considerably. The population of Ashanti Region is seven times greater than Upper West Region. Table 8.2 illustrates how many beds would be needed in each region based on population sizes.

FIGURE 8.4
Patients treated in psychiatric day treatment services per 100,000 population

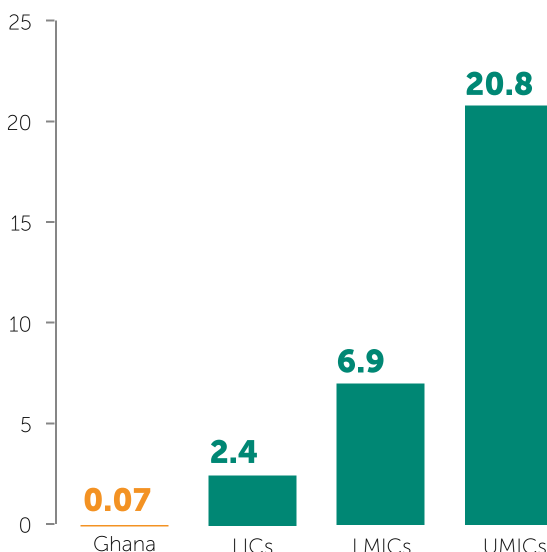
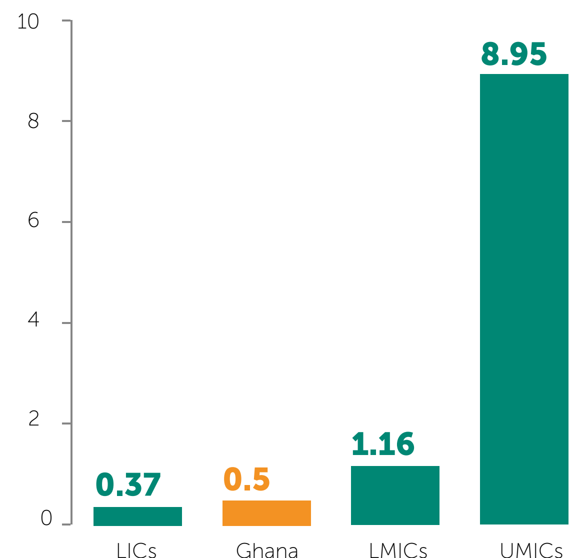


FIGURE 8.5
Psychiatric beds in hospital and clinic based services per 100,000 population

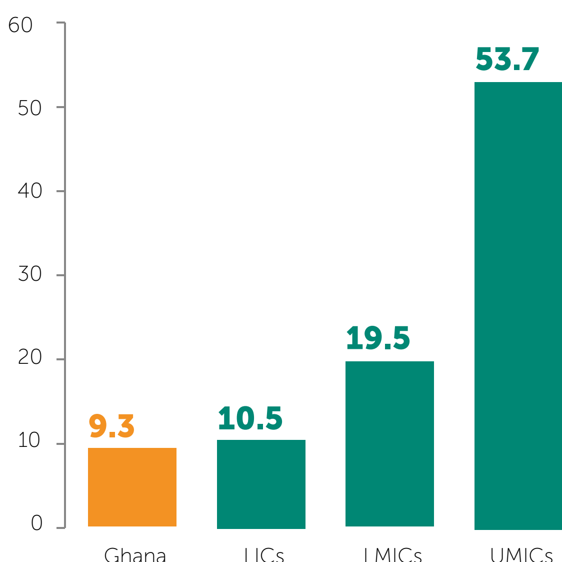


The findings here would fit with a decentralisation policy as this would create beds in the regions. It would also mean accelerated human resource development and opportunities in the mental health sector across the whole of Ghana, rather than just in the few parts of the country where mental health services are currently concentrated.

Note: Since the 2011 survey, Eastern Region which had no inpatient beds at the time, has brought 22 beds formerly allocated for mental health, back into use for mental health patients.

FIGURE 8.6

Admission rates to psychiatric beds in hospital and clinic based services per 100,000 population



Admissions to psychiatric beds in hospitals and clinics

This is illustrated in Figure 8.6. Similar to the low number of psychiatric beds in the non-mental hospital units the overall admissions are very low in Ghana. The admission rate for Ghana is less than for LICs[12] even though Ghana was a LMIC in 2011. To achieve LMIC levels the admission rate would need to double but the next step up is large, so as a LMIC country Ghana should perhaps also be aiming for a trajectory to achieve UMIC levels in time which would mean a six-fold increase on current admission rates. Of course as noted earlier UMIC countries with more sophisticated mental health services supplement their hospital admissions by day hospital treatment levels of almost 300 times greater than that provided in Ghana.

TABLE 8.2

The population adjusted number of beds needed to meet increased bed provision across the regions

Region	Population	Current number of beds	LMIC levels	UMIC levels
Ashanti	4,725,046	44	54	429
Brong Ahafo	2,282,128	17	26	207
Central	2,107,209	0	24	191
Eastern	2,596,013	0	30	236
Greater Accra	3,909,764	49	45	355
Northern	2,468,557	0	28	224
Upper East	1,031,478	0	12	94
Upper West	677,763	0	8	62
Volta	2,099,876	10	24	191
Western	2,325,597	0	27	211
Total	24,223,431	120	278	2200

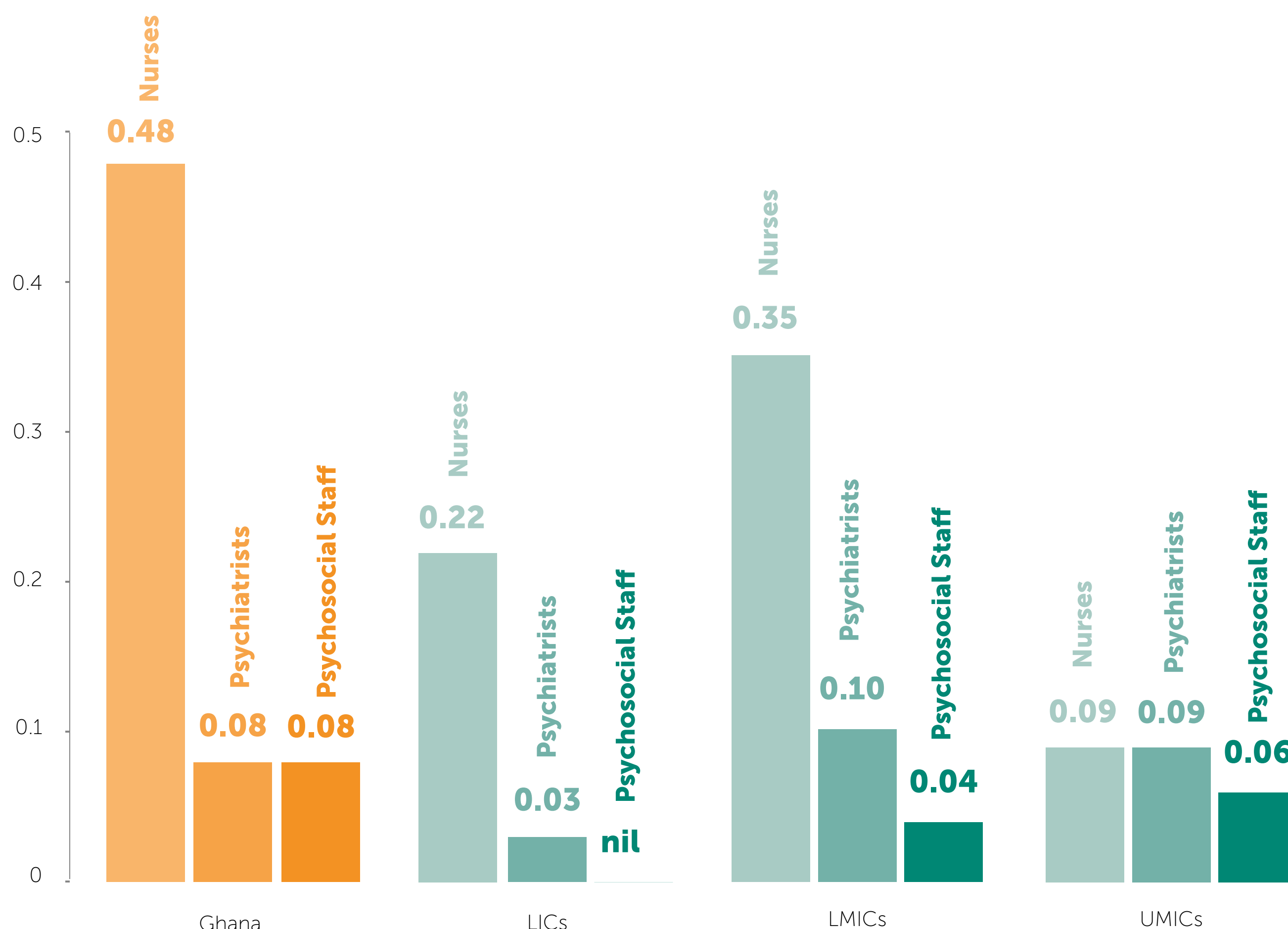
The balance of nursing to non-nursing staff in hospital and clinic inpatient units

Figure 8.7 shows the type of staff which predominate in the general hospital and clinic based inpatient units. It can be seen that as countries move into the UMIC bracket[12] not only does the staff:bed ratio decrease but also the balance of staff changes as doctors begin to be far less outnumbered by nurses. This may be because community and day services become more developed so more nurses work there.

Ghana does not have enough psychiatric specialists and consequently its hospital and clinic based inpatient services are particularly dominated by nurses.

FIGURE 8.7

Ratio of staff to beds in hospital and clinic based inpatient units



Beds in mental hospitals

Ghana has approximately the same number of mental hospital beds per 100,000 population as other LMICs.[12] However, Figure 8.8 shows an interesting trend upwards in mental hospital beds as countries become more prosperous.

Ghana has a plan to reduce mental hospital beds, perhaps to try to 'release' funds to develop services in the rest of the country, but the data in Figure 8.8 would suggest that this plan will need some revision as reducing mental hospital beds will move Ghana back down towards LIC supply levels and will not be a move towards the three-fold increase needed on current levels to begin to get to UMIC mental hospital bed levels. The trend upward continues too as data from the WHO survey of 184 countries published in 2011 shows a figure for high income countries of 30.9 mental hospital beds per 100,000 population.[10]

It might be argued that certainly the mental hospitals that are currently in Accra and Cape Coast should have fewer beds as there should at least be a redistribution of the beds across all the regions. If the mental hospital beds were to be redistributed across the regions and if the levels present in other LMIC and UMIC countries are to be achieved, the population-adjusted number of beds needed in each region would be as illustrated in Table 8.3.

In fact, if the mental hospital beds were redistributed, it probably would not be wise to build new 'mental hospitals' (providing solely mental health service as do Pantang, Ankaful and Accra Psychiatric) because mental health services are better integrated into general medical services as far as possible.

Table 8.4 combines the projected population adjusted number of mental hospitals beds for the regions with the beds that would be needed in general hospital and clinic inpatient units.

Presumably the best model would be to open regional and/or sub-regional units, plus beds in key districts too.

FIGURE 8.8
Beds in mental hospitals per 100,000 population

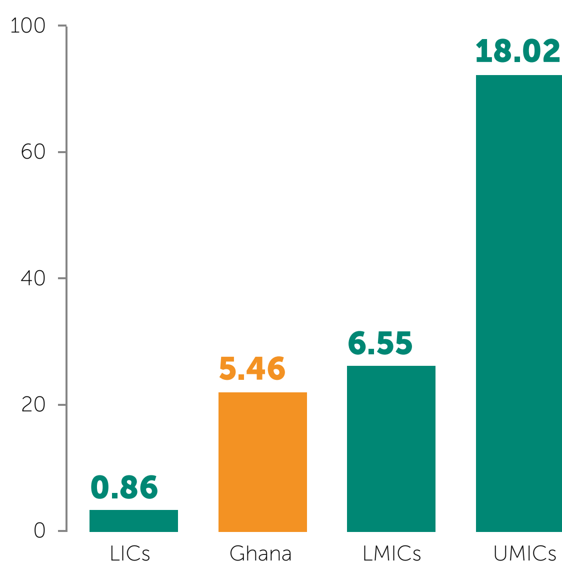


TABLE 8.3
Current and projected number of mental hospital beds adjusted for population size and redistributed by region

Region	Population	Current number of beds	LMIC levels	UMIC levels
Ashanti	4,725,046	0	309	851
Brong Ahafo	2,282,128	0	149	411
Central	2,107,209	281	138	380
Eastern	2,596,013	0	170	468
Greater Accra	3,909,764	1041	256	705
Northern	2,468,557	0	162	445
Upper East	1,031,478	0	68	186
Upper West	677,763	0	44	122
Volta	2,099,876	0	138	378
Western	2,325,597	0	152	419
Total	24,223,431	1322	1587	4365

TABLE 8.4

The projected population adjusted number of psychiatric beds needed for the regions combining beds that would be needed in general hospital and clinic inpatient units plus mental hospital beds

Region	Current number of beds	LMIC levels	UMIC levels
Ashanti	44	364	1281
Brong Ahafo	17	176	619
Central	281	162	571
Eastern	0	200	704
Greater Accra	1090	301	1060
Northern	0	190	669
Upper East	0	79	280
Upper West	0	52	184
Volta	10	162	569
Western	0	179	630
Total	1442	1865	6565

The balance of nursing to non-nursing staff in mental hospitals and the ratios of staff to beds

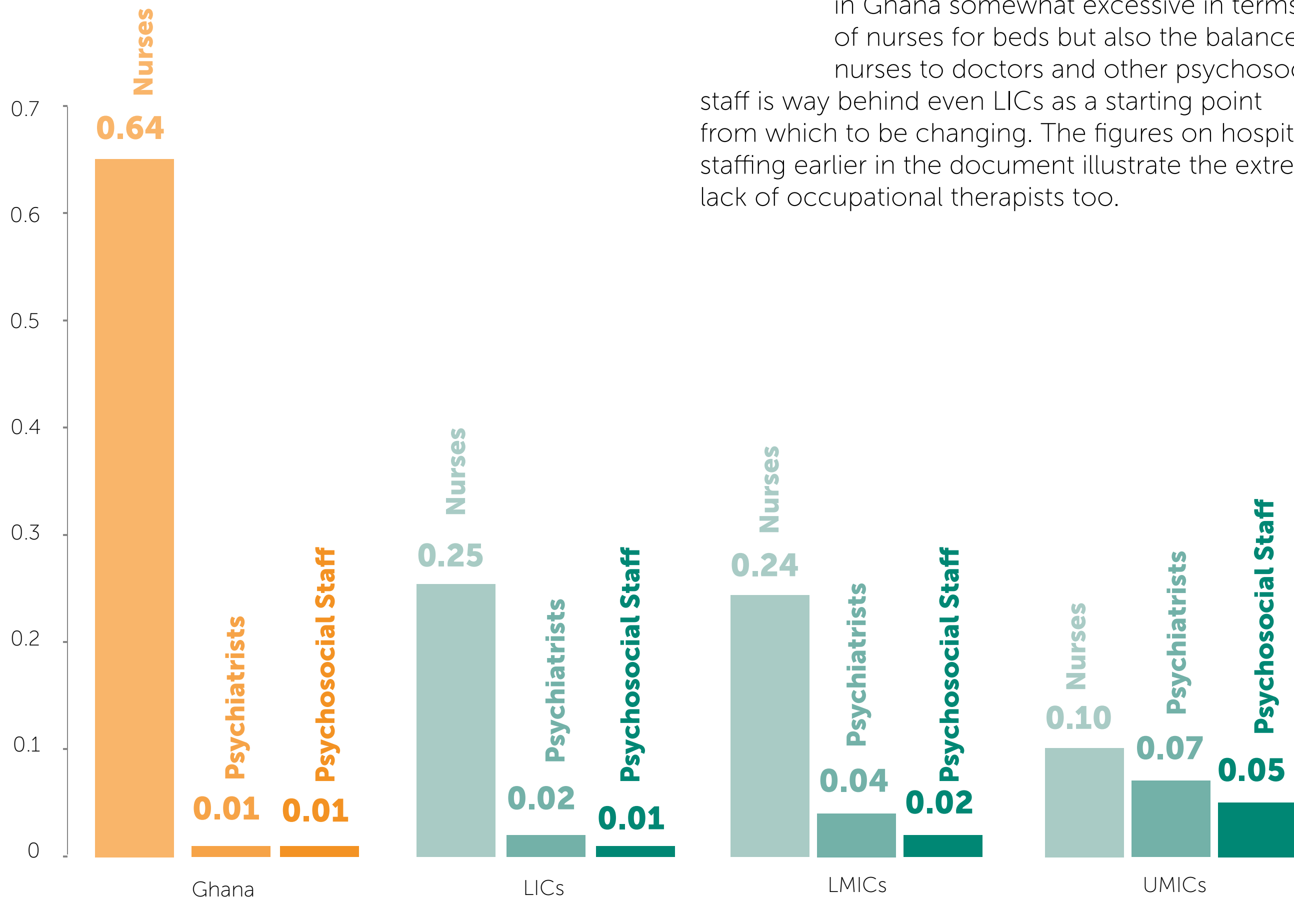
The mental hospitals are staffed by nurses, doctors and other workers. Figure 8.9 shows a strikingly high ratio of nurses to beds in Ghana's three mental hospitals compared to that found in other countries.[12] To some degree this is a falsely high ratio because the WHO-AIMS measures 'beds' rather than patients in hospitals. Ghana's mental hospitals are overcrowded and they contain many more inpatients than actual beds.

The graph shows a downward trend in staff:bed ratios as countries become more prosperous with approximately 1 nurse:4 beds in LICs and LMICs becoming 1 nurse:10 beds for UMICs. However Ghana has more than one nurse for every two beds.

The data in the graph also show an interesting trend in 'psychosocial staff' and psychiatrist ratios which increase as the nurse ratios decrease. This would suggest that not only is the staffing of the mental hospitals in Ghana somewhat excessive in terms of nurses for beds but also the balance of nurses to doctors and other psychosocial staff is way behind even LICs as a starting point from which to be changing. The figures on hospital staffing earlier in the document illustrate the extreme lack of occupational therapists too.

FIGURE 8.9

Ratio of staff:beds in mental hospitals for various professions



Long stay ('residential') facilities

Figure 8.10 illustrates that as countries prosper more patients are treated in long stay services.

In 2011 Ghana treated fewer patients in long stay services than LICs[12] and far fewer than that found in LMICs. The trend upwards would suggest that Ghana should at least be planning to boost long stay services to no less than twice the current level.

It might be argued that more patients will be treated if 'turnover' is increased (ie reduce the length of stay), but looking at other counties, the average length of stay was 187 days for LICs but 1,446 days for UMICs, so the trend is for increasing length of stay, not a reduction. The implication is that far more beds / services will be needed in Ghana.

The average length of stay for residential facilities in Ghana was 365 days, so it is posiible to calculate that the trajectory for Ghana when aiming for UMIC levels will be to achieve 4056 beds. In 2011 there were just 112 beds.

Beds in other residential services

Figure 8.11 illustrates the number of 'psychiatric' beds other residential services.

Ghana has 10 units for mentally impaired children, three units for substance abuse and 18 beds for old age patients. The data for the number of beds in each unit were unfortunately not collected, however working backwards, if ones assumes Ghana to have bed provision in these services commensurate with a LMIC, there should be 2,657 such beds in the country, which would mean an average of 203 beds in each of the units in which we didn't count the beds. It seems unlikely that there are thirteen 200 bed units we don't know of in Ghana, so it would seem safe to conclude that in Ghana the number of residential beds was well below the level one would expect in a LMIC.

The graph shows a big jump between LMICs and UMICs[12] which would mean Ghana needs to start a very steep trajectory to increase beds in these services. The number of beds Ghana would expect for a population of 24.2 million if it was a UMIC would be a staggering 19,185. In truth, these services are a hallmark of UMICs and high income country service's and they represent service diversity with high levels of care and support for vulnerable and disabled members of the population.

FIGURE 8.10
The number of patients treated per year in long stay units per 100,000 population

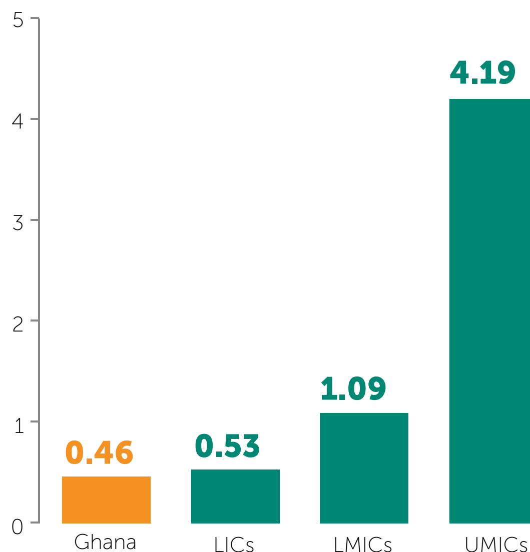
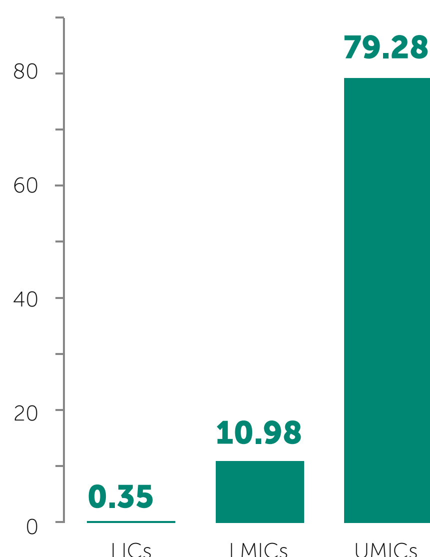


FIGURE 8.11
The number of 'psychiatric' beds other residential services per 100,000 population



The cost of medication

Psychiatric medication is expensive in Ghana.

Figure 8.12 below illustrates the price of one day's supply of medication as a percentage of the daily minimum wage. The countries for the comparison data cover the continents of Asia, Africa, the Americas, Eastern Mediterranean, Western Pacific and parts of Europe.[12] Interestingly this 2005–2008 WHO data showed a trend for higher prices in all African countries compared to elsewhere in the world.

The total number of mental health workers

In 2011 Ghana had 4.88 staff (mental health trained) per 100,000 population. In Figure 8.13 it can be seen that this was below the level for other LMICs reporting between 2005-2008.[12]

A plan to achieve LMIC levels would be a start in Ghana, but perhaps account needs to be taken of the fact that LMICs worldwide, just like Ghana, struggle to give enough priority to mental health services, so the staffing levels of other LMICs are not likely to be anywhere near 'gold standard'.

The staffing levels in UMICs are likely to be nearer the required range, although the trend upwards does not stop there as the WHO survey of 184 countries[10] found high income countries to have 50.8 mental health staff / 100,000 population, which is more than double the figure for the UMICs.

To reach the low level found in other LMICs Ghana would need to increase the number of mental health workers in the country by 377 (using figures from 2011), but to set a trajectory for eventual UMIC levels would mean an increase to 9,113 which is 7,226 more staff than in 2011. Consideration should be given as to whether to simply aim for LMIC levels or whether to 'aim' for the levels that would be expected for eventual UMIC provision.

FIGURE 8.12
The percentage of the minimum wage needed to buy medication

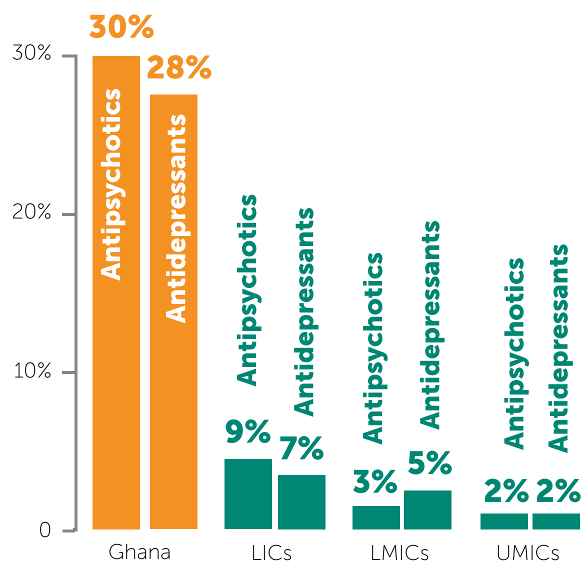
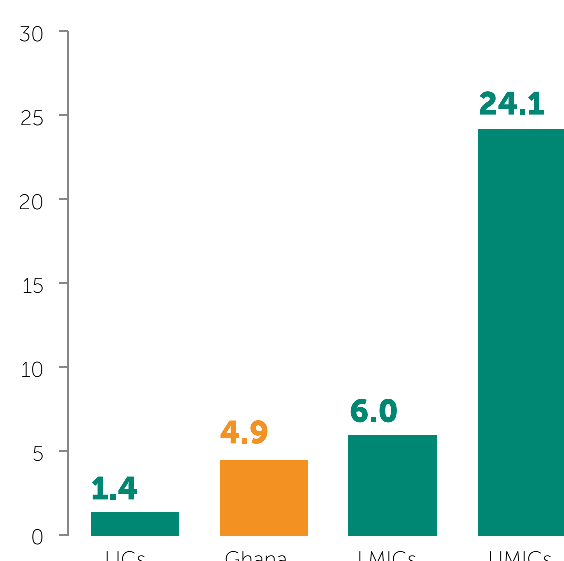


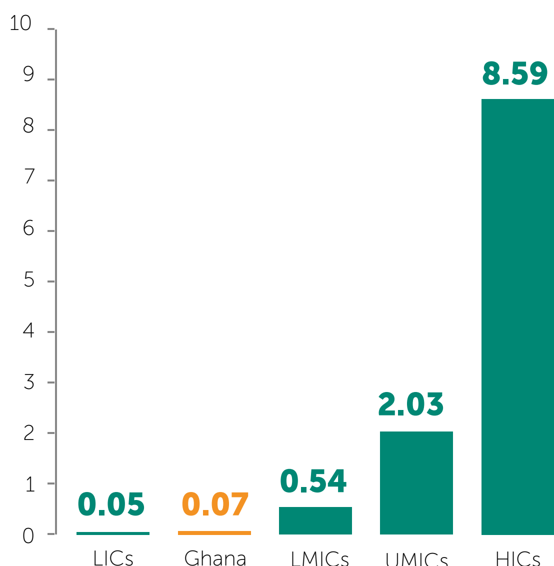
FIGURE 8.13
The total number of mental health professionals working in mental health facilities per 100,000 population



The number of psychiatrists needed for 24.2 million people

Figure 8.14 illustrates the number of psychiatrists found per 100,000 population across the country income groups using figures from the 2011 WHO survey results of 184 countries.[10] Table 8.5 calculates the projected equivalents for Ghana. In 2011 Ghana had just 18 psychiatrists so it can be seen that to reach LMIC level will mean an increase of 112 psychiatrists. Ghana became a LMIC in 2011 so could already expect near to 130 psychiatrists. As mentioned earlier, LMICs are not 'gold standard' and a progressive forward looking country will want a trajectory which 'aims' for UMICs levels which for Ghana would mean trying to achieve 491 psychiatrists for a population of 24.2 million.

FIGURE 8.14
The number of psychiatrists per 100,000 population



The number of other staff needed for 24.2 million people

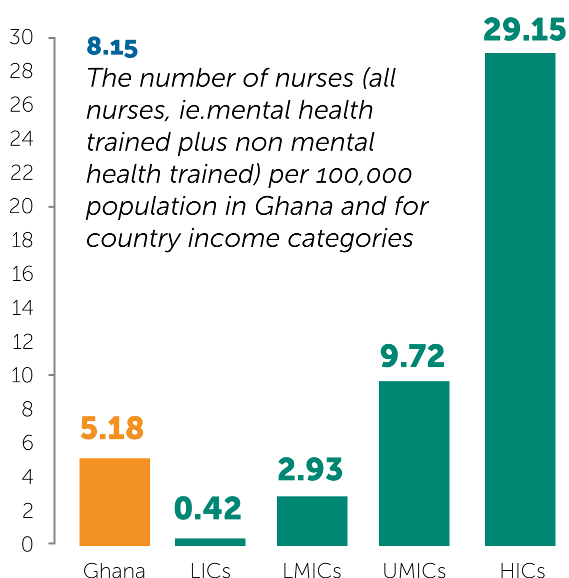
Tables 8.6 and Figures 8.15–18 illustrate the number of nurses (all nurses, ie.mental health trained plus non mental health trained), psychologists, occupational therapists and social workers[10] that were working in other countries and in Ghana in 2011 and what would be expected for Ghana according to the different income brackets.

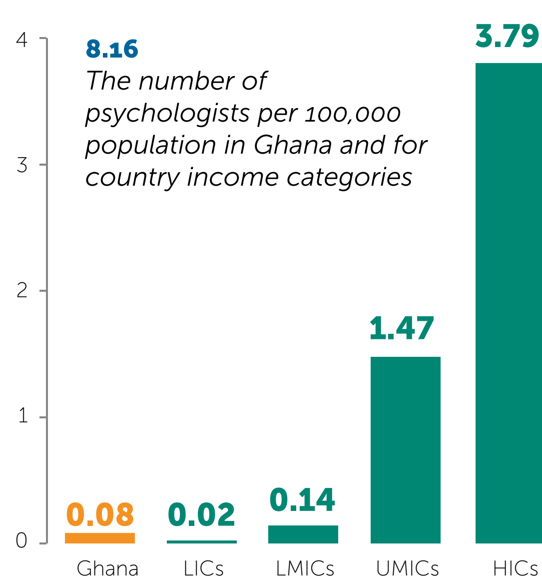
It will be seen that as countries prosper and prioritise the mental health of their populations all health worker types increase, but there are particularly steep increases for psychologists, social workers and occupational therapists, indicating growing sophistication of the services which become less reliant on nurses alone. It can be seen that in all cases apart from nursing, Ghana lags a long way behind the projected numbers that would be expected for a country aspiring to eventual UMIC category.

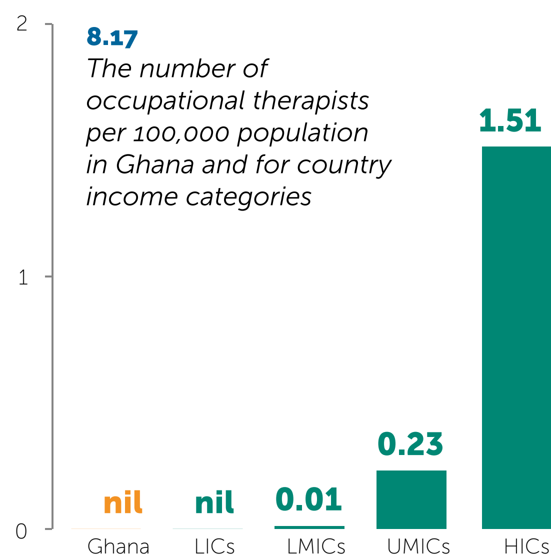
TABLE 8.5
The number of psychiatrists per 100,000 population across the income categories and the projected equivalents for Ghana.

Income group	Psychiatrists per 100,000 population	Projected number for Ghana (population 24.2 million)
Low	0.05	12
Lower-Middle	0.54	130
Upper-Middle	2.03	491
Upper	8.59	2078

FIGURES 8.15-18







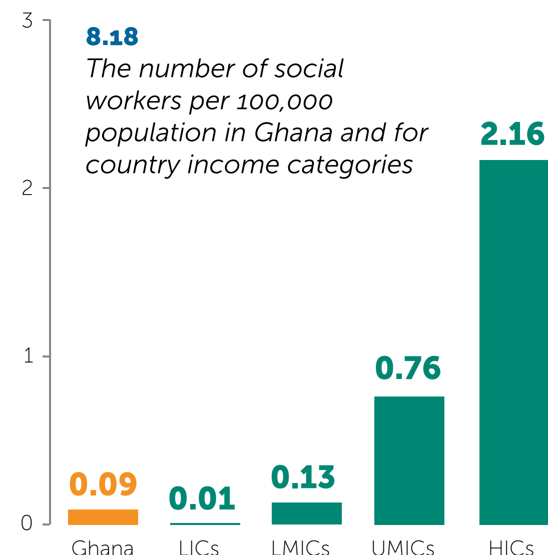


TABLE 8.6

The number of health professionals per 100,000 population across the income categories and the projected equivalents for Ghana.

	The number of each profession per 100,000 population				The number of professionals in Ghana in 2011 and the projected numbers that would equate to the levels in different income groups			
Income group	Nurses (all nurses)	Psychologists	Occupational therapists	Social workers	Nurses	Psychologists	Occupational therapists	Social workers
Ghana in 2011	5.18	0.08	0	0.09	1248	19	0	21
Low	0.42	0.02	0.00	0.01	101	5	0	2
Lower-Middle	2.93	0.14	0.01	0.13	709	34	2	31
Upper-Middle	9.72	1.47	0.23	0.76	2352	355	183	183
Upper	29.15	3.79	1.51	2.16	7054	917	365	522

Refresher training

Forty three mental health staff were reported to have received 'refresher training' in Ghana in 2011 which was 2.2% of the mental health workforce.

Figure 8.19 illustrates that 2.2% is a long way below that of other countries[12], although all the income groups had low levels compared to what one would want. This is worrying as there is clear worldwide research evidence that if staff do not keep fresh and up to date, they tend to leave for other jobs, although of course perhaps more worrying is that the quality of patient care is likely to suffer.

Patients treated

The treated prevalence rate is illustrated in Figure 8.20.

Earlier in this section data was presented on all patients treated in outpatients in 2011. The total number of patients treated across all facilities (outpatients and inpatients) in Ghana in 2011 was 67,732 which produces a treated prevalence rate for the population of 279 / 100,000.

Figure 7.20 compares Ghana's treated prevalence rate with that of other countries.[12] This very important figure is a result of all the investment in mental health in the country. The rate for Ghana of 279 patients / 100,000 population is lower than that found in LICs between 2005-2008. In 2011 Ghana was a LMIC so just to reach a similar level to other LMICs Ghana should have had treatment rates 2.2 times higher. The trajectory to eventually reach UMIC levels is even steeper.

FIGURE 8.19
The percentage of staff that had received at least 2 days of 'refresher' training in the previous year

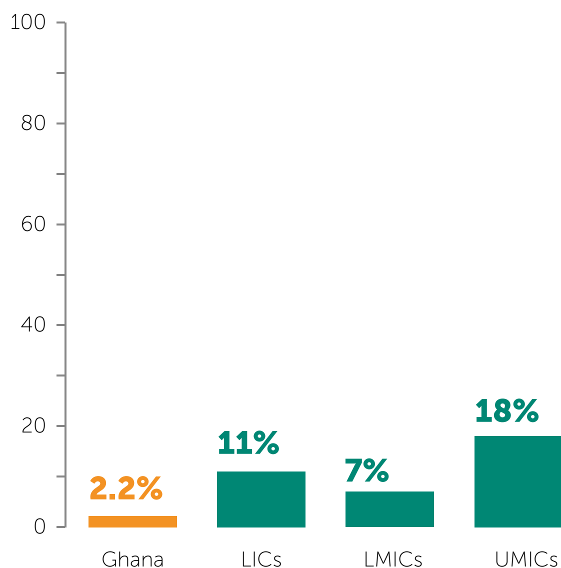
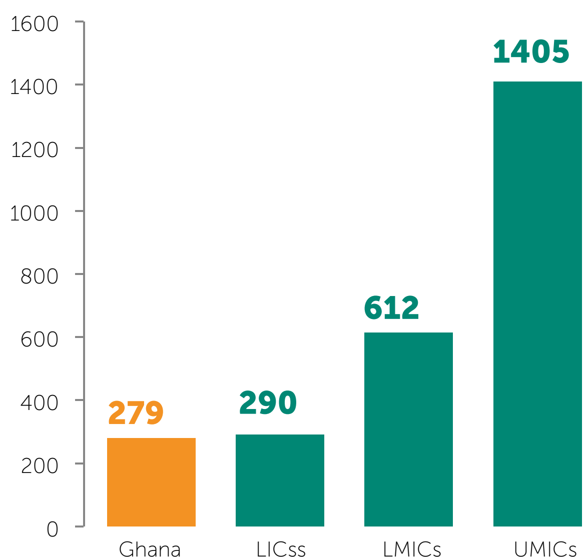


FIGURE 8.20
The treated prevalence rate for Ghana and other countries



9 Next steps in strengthening the mental health system

Overview

This section covers:

- Top level priorities
- Detailed next steps

At the time of writing this report the new Mental Health Act 846 (2012) had been passed. However, the Legislative Instrument was not ready as it was a critical time of waiting for the Mental Health Board to be established by government.

The earlier section giving comparisons with other low and lower middle income countries gives ideas on longer term needs for Ghana's mental health system. The section which follows is a direct response to the findings of the Ghana WHO-AIMS survey and it represents initial thoughts on what needs to be done. This report and these ideas will be taken forwards by the Mental Health Board in developing the mental health plan for the forthcoming years.

Top level priorities

Next steps for all domains are listed lower down, however the priorities which at this point would be most likely to assist the realisation of the detailed areas in the domains (1-6) include;

- Although the new Mental Health Act 846 of 2012 has enabled the creation of a Mental Health Authority government should now urgently appoint and establish the Mental Health Board.
- For The Mental Health Board to develop the Legislative Instrument for the Act, for Parliament.
- For Parliament to agree a budget for implementation of the Mental Health Act.
- For mental health structures described in the Act to be put in place as soon as possible

at all levels across districts, regions and nationally.

- To introduce the Act to the public and for there to be education of stakeholders.
- To commission an expert team to work in collaboration with MoH and health providers to produce evidence based mental health improvement plans with short, medium and long term goals. The plans should take into account needs in relation to the implementation of the Mental Health Act and needs from the findings of the WHO-AIMS survey in relation to Ghana's status as a lower-middle income country.
- To follow up the work of the expert team (above) with the implementation of a staged project plan which is well managed and supported by experts in project management.

Detailed next steps

The following should be taken into account when producing the mental health improvement and action plan.

Domain 1: Policy and Legislative Framework

- The budget for mental health in Ghana needs to be increased through dedicated funding which should be properly managed for the expansion of mental health services in the community
- The provisions in the Mental Health Act 846 of 2012 which make room for the following, should be specifically implemented as soon as possible in order to enhance human rights;
    1. Visiting committees to protect the rights of patients and ensure care and treatment is of the requisite standard across all facilities in the community and hospitals whether orthodox or unorthodox.
    2. Mental Health Review Tribunals to investigate complaints review the detention of patients and control the use potentially harmful interventions.
- The organizational structure of the Mental Health Authority should include a division for Quality Assurance and a division for Monitoring and Evaluation.
- Training/awareness creation and monitoring plans should be produced for the changes that will occur from the implementation of the Mental Health Act..
- In the spirit of decentralization, measures should be put in place to track funds released to the service to ensure work is integrated and monitored.
- During the initial stages of the implementation of the Act, at least for the next 5 years, selected psychotropic medication should be included in the National Health Insurance Scheme. Subsidy should be given to the new generation psychotropic drugs by the Authority.
- The Mental Health Authority should establish a system to maintain oversight of and to coordinate all the different groups working alongside government contracted and private mental health service providers in the country. These 'groups' include consumer associations, family associations, NGO's and groups and individuals from overseas. The task should include the coordination of the efforts of these 'groups' and ensuring their work is in line with the mental health strategy of the country. There should be some visibility of the different groups and what they do perhaps via a website or an easily available and regularly updated 'register'.

Domain 2: Mental Health Services

- Organized catchment areas/services should be introduced throughout the country.
- Children and adolescents are the future adult citizens of the country. They represent almost 40% of the population and accordingly require a concentrated focus for mental disorder prevention programmes as well as treatment for those who are already afflicted by mental health problems. These needs are currently outstanding and they should be urgently addressed. There should be at least one comprehensive adolescent mental health service in each region providing, in-patient, outpatient and rehabilitation facilities where counselling, social skills training and prevention programmes can be administered. Child and adolescent mental health should be considered as the first area to develop as

a specialism once all practitioners have developed the requisite basic skills in it.

- There should be at least one day treatment facility in each region. Many more than this will eventually be needed but at least one per region would be in the right direction. Day treatment facilities help to provide care-givers with some reprieve and also prevent inpatient care to some extent. They offer accessible opportunities for rehabilitation and improvement on social and communication skills.
- The discrepancy whereby mental health services are concentrated in Accra should be addressed in the implementation of the Act through decentralization and refocusing on community care.
- The paradigm shift from institutional to community care as envisaged by the Mental Health Act, calls for downsizing or total abolition of the Accra Psychiatric Hospital and the retraining of the staff for community based activities.
- The policy of de-emphasizing institutional care and the provision of mental health services in the regions and districts should be continued. This policy calls for existing staff to retrain for community mental health and other areas.
- The Mental Health Authority should pursue the provision of a forensic facility in a maximum security prison.
- Forensic wards in the psychiatric hospitals are inadequate and are staffed by nurses who have no adequate training for the job, which presents unacceptable risks to patients, staff and visitors. This should be rectified by providing proper facilities and training for all staff managing such patients.
- Specialized treatment facilities and staffing should be made available for the aged.

Domain 3: Mental Health in Primary Health Care

- In order to successfully decentralize and integrate mental health services, it is imperative that programmes are put in place to train new non-mental health workers in the Primary Health Care system and existing primary care practitioners should be provided with specific training in mental health for public education, case detection, support and referral of cases.
- The essential drug list should be updated and a policy developed to guide the availability of psychotropic drugs at various levels commensurate with levels of training of practitioners.
- Treatment protocols and algorithms should be developed for Primary Health Care providers. These should include recommended appropriate psychotropic medication for use at the Primary Health Care level. The medication in the protocols should be available at all times.
- Referral systems between primary care and mental health should be formalised with standard national procedures so that everyone knows the system and what to do. This should become possible with the establishment (via the Act) of Regional and District Mental Health Sub-Committees, although the Board will still need to lead this for it to become established.
- A series of meetings should be organized with traditional and faith based healers (non-orthodox mental health practitioners) to harmonize their integration and their practices in line with the Mental Health Act.
- Clear policy guidelines for the practice of non-orthodox mental health practitioners should be produced.
- Traditional and faith based healers should be trained on the new Mental Health Act particularly their obligations in relation to the human rights of patients.

Domain 4: Human Resources

- The human resource base should be expanded at all levels particularly, Psychiatrists, Clinical Psychologists, Psychiatric Social Workers and Occupational Therapists.
- Special incentives should be considered for mental health practitioners to improve the manpower situation. This should include incentives to attract personnel into the training facilities in the country and to recruit others from the Diaspora. This has been tried and tested to good effect in some other countries, for example in the UK where very attractive pension allowances were introduced to attract doctors to become psychiatrists and even to this day mental health staff receive a ‘risk allowance’ for working in the specialty despite the fact that

working in mental health in the UK is vastly safer than it is in Ghana.

- It is heart-warming that training of mental health personnel at different levels is ongoing locally in Ghana and the level of brain drain which was rampant years back has reduced.
- The vision and now, practice, of training middle level personnel to help cover the Regions, Districts and Sub-Districts, is in the right direction and should be supported vigorously.
- The College of Health at Kintampo should be adequately resourced for mental health training and priority should be given to training more Community Mental Health Officers and Clinical Psychiatric Officers.

Domain 5: Public education and links with other sectors

- The Mental Health Authority should ensure there is implementation of legislation to protect the mentally ill with regards to employment, accommodation and access to treatment which should include access to physical health care treatment for those who cannot afford to be part of the National Health Insurance Scheme.
- The Authority should consider the creation of centres that will employ the mentally ill, stimulating self-sufficient employment e.g Industrial Rehabilitation Centres.
- Advocacy groups apart from the Mental Health Act statutory Visiting Committees should be encouraged to set up for the benefit of the mentally ill.
- A Division or Unit should be created at the Mental Health Authority to coordinate continuous mental health promotion in the country.
- Mental health promotion and targeted efforts to reduce stigma should be pursued vigorously

Domain 6: Monitoring and research

- Health information systems and record keeping should be improved to facilitate data collection and analysis. Information systems should be properly managed and training in recording and keeping of records in line with modern techniques should be enforced. During the WHO-AIMS survey, the data collectors had to go into registers to remove double counting as practised at many centres. The trained data collectors from the regions can be deployed to train data recorders in their regions and districts.
- The Authority should organize update courses for clinicians to improve on diagnosis and recording of cases seen.
- Monitoring and evaluation systems supported by trained staff should be put in place and enabled to be effective.

References

1. Population and Housing Census (Ghana), 2010. [http://www.ghana.gov.gh/census/phc2010.pdf accessed 7 September 2012).
2. World Health Organisation (2010). Ghana: Health Statistics Profile 2010. Geneva, World Health Organisation (http://www.afro.who.int/en/ghana/country-health-profile.html accessed 7 September 2012).
3. World Health Organisation (2009). Ghana: Country Cooperation Strategy: At a Glance. Geneva, World Health Organisation. (http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_gha_09_en.pdf accessed 7 September 2012).
4. Ghana Embassy, 2012. Language and Religion. [http://www.ghanaembassy.org/index.php?page=language-and-religion accessed 7 September 2012) .
5. YCHARTS: http://ycharts.com/indicators/ghana_gni_per_capita_atlas_method accessed 30.12.12
6. Ofori-Atta, A., Reed, U. & Lund, C. (2010).A situational analysis of mental health services and legislation in Ghana: Challenges for transformation. African Journal of Psychiatry 13, pp 99-108.
7. Demyttenaere K, Bruffaerts R, Posada-Villa J, et al. (June 2004). Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organisation World Mental Health Surveys. JAMA 291 (21): 2581–90.];
8. Oye Gureje, Victor O Lasebikan, Lola Kola and Victor A Makanjuola; Lifetime and 12-month prevalence of mental disorders in the Nigerian Survey of Mental Health and Well-Being, BJP 2006, 188:465-471.
9. World Health Organisation International Consortium in Psychiatric Epidemiology: Cross-national comparisons of the prevalence and correlates of mental disorders. Bull. World Health Organ. 78 (4): 413–26. 2000.
10. World Health Organisation (2011): Global Atlas of the Health Workforce. Geneva, World Health Organisation (http://apps.who.int/globalatlas/ accessed 24 November 2012).
11. World Health Organisation. *WHO-AIMS - General Information.* http://www.who.int/mental_health/evidence/WHO-AIMS/en/ accessed 25 March 2013.
12. World Health Organisation (2009). Mental health systems in selected low- and middle-income countries: a WHO-AIMS cross-national analysis. Geneva, World Health Organisation (http://www.who.int/mental_health/publications/who_aims_cross_national_analysis/en/index.html accessed 14 March 2013).
13. The World Health Report 2001: *Mental Health: New Understanding, New Hope* (WHO 2001) Geneva, World Health Organisation.

Appendix A

About the WHO-AIMS

The World Health Organisation Assessment Instrument for Mental Health Systems (WHO-AIMS) is a tool for collecting information on the mental health system of a country or region. It has been tried and tested in many countries and has detailed instructions which standardises the way it is used. It produces data which can be compared between countries. Over 100 counties have taken part in WHO-AIMS and many detailed country reports are available on the WHO website.

The aim of collecting information with WHO-AIMS is to improve the mental health system and to provide baseline information for monitoring change.

WHO-AIMS defines 'a mental health system' as "all the activities whose primary purpose is to promote, restore or maintain mental health".

WHO-AIMS is primarily for assessing mental health systems in low and middle income countries. The data WHO-AIMS collects is structured around recommendations from The World Health Report 2001: Mental Health: New Understanding, New Hope (WHO 2001)[13] which used scientific evidence to make 10 key recommendations for building community-based mental health systems and services.

The recommendations (which guide the WHO-AIMS) were to:

1. Provide treatment for mental disorders in primary care
2. Ensure wider accessibility to essential psychotropic drugs
3. Provide care in the community
4. Educate the public
5. Involve communities, families and consumers
6. Establish national policies, programmes and legislation on mental health
7. Develop human resources
8. Link with other sectors
9. Monitor community mental health
10. Support relevant research

The full WHO-AIMS instrument is available on the WHO website at http://www.who.int/mental_health/evidence/WHO-AIMS/en/

Appendix B

Glossary of terms and definitions

Term	Definition
Bed	This is a bed that is continuously available, day and night, for patients. In this report we have we have referred to the number of available 'beds' in various facilities rather than actual spaces available for patients, which is often a higher number than the number of beds. Beds are used because the results we are reporting are based on the WHO-AIMS survey we conducted for 2011 and the WHO-AIMS specifically looks at physical beds, not actual ward / hospital occupancy. So it is important to acknowledge that in this report 'bed' is just physical beds and 'bed does not reflect the capacity (which is the number of patients originally allotted to be accommodated in the ward) or the actual number of patients at any time.
Clinical Psychologist	A professional having completed a formal training in clinical psychology at a recognized, university-level establishment. Only applies to psychologists working in mental health care.
General hospital / clinic based psychiatric inpatient unit	A psychiatric unit that provides inpatient care for the management of mental disorders within a district hospital, regional hospital or a clinic. These units provide care to patients with acute problems, and the period of stay is usually short (weeks to months). Includes: public and private non-profit and for-profit facilities; psychiatric inpatient units for children and adolescents only; psychiatric inpatient units for other specific groups (e.g. elderly). Excludes: Mental hospitals; long stay residential services; services that treat only people with alcohol and substance abuse disorder or mental retardation
GNI	GNI (also known as PPP GNI) is gross national income (GNI) converted to international dollars using purchasing power parity (PPP) rates. An international dollar has the same purchasing power over GNI as a U.S. dollar has in the United States. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI data in this report are in current international dollars.
Long stay residential services	A non-hospital, community-based unit that provides overnight beds for people with mental disorders. Usually these services serve patients with relatively stable mental disorders not requiring intensive medical interventions. Includes: Supervised housing; un-staffed group homes; group homes with some residential or visiting staff; hostels with day staff; hostels with day and night staff; hostels and homes with 24 hour nursing staff; halfway houses; therapeutic communities. Both public and private non-profit and for-profit facilities are included. Excludes: Facilities that treat only people with a diagnosis of alcohol and substance abuse disorder or mental retardation; residential facilities in mental hospitals; generic facilities that are important for people with mental disorders, but that are not planned with their specific needs in mind (e.g. nursing homes and rest homes for elderly people, institutions treating mainly neurological disorders, or physical disability problems).
Enrolled Nurse (EN)	A person who has been trained as an auxiliary nurse and has been registered by the Nurses and Midwifery Council. He or she is not considered a professional nurse

Term	Definition
Human rights protection of patients	Action related to the following issues to ensure the protection of patients' human rights: least restrictive care, informed consent to treatment, confidentiality, avoidance of restraint and seclusion when possible, voluntary and involuntary admission and treatment procedures, discharge procedures, complaints and appeals processes, protection from abuse by staff, and protection of patients property
Medical doctor	A health professional with a degree in medicine who is authorized/licensed to practice medicine under the rules of the country.
Mental and behavioural disorders due to psychoactive substance use	This is the terminology used in WHO-AIMS for drug and alcohol abuse ie using cannabis, amphetamines, heroin, Valium bought from sellers etc. and alcohol abuse /addiction
Mental health day treatment facility	A facility that typically provides care for patients during the day. The facilities are generally: (1) available to groups of patients at the same time (rather than delivering services to individuals one at a time) (2) expect patients to stay at the facilities beyond the periods during which they have face-to-face contact with staff (i.e. the service is not simply based on patients coming for appointments with staff and then leaving immediately after the appointment) (3) involve attendances that last half or one full day. Includes: day centres; day care centres; sheltered workshops; club houses; drop-in centres; employment/rehabilitation workshops; social firms. Both public and private non-profit and for-profit facilities are included. Mental health day treatment facilities for children and adolescents only and mental health day treatment facilities for other specifics groups (e.g. elderly) are also included. Excludes: Facilities that treat only people with a diagnosis of alcohol and substance abuse disorder or mental retardation without an accompanying mental disorder diagnosis; generic facilities that are important for people with mental disorders, but that are not planned with their specific needs in mind; day treatment facilities for inpatients are excluded.
Mental health legislation	Legal provisions related to mental health. These provisions typically focus on issues such as: civil and human rights protection of people with mental disorders, treatment facilities, personnel, professional training, and service structure.
Mental health outpatient facility/unit/service	A facility that focuses on the management of mental disorders and the clinical and social problems related to it on an outpatient basis. Includes: Community mental health centres; mental health ambulatories; outpatient services for specific mental disorders or for specialized treatments; mental health outpatient departments in general hospitals; mental health polyclinics; specialized NGO clinics that have mental health staff and provide mental health outpatient care (e.g. for rape survivors or homeless people). Both public and private non-profit and for-profit facilities are included. Mental health outpatient facilities for children and adolescents only and mental health outpatient facilities for other specifics groups (e.g. elderly) are also included. Excludes: Private practice; facilities that treat only people with alcohol and substance abuse disorder or mental retardation without an accompanying mental disorder diagnosis.
Mental hospital	A specialized hospital-based service that provides inpatient care and long-stay residential services for people with mental disorders. Usually these facilities are independent and standalone, although they may have some links with the rest of the health care system. The level of specialization varies considerably: in some cases only long-stay custodial services are offered, in others specialized and short-term services are also available (rehabilitation services, specialist units for children and elderly, etc.) Includes: Both public and private non-profit and for-profit facilities; mental hospitals for children and adolescents only and mental hospitals for other specifics groups (e.g., elderly) are also included. Excludes: Community-based psychiatric inpatient units; forensic inpatient units and forensic hospitals. Facilities that treat only people with alcohol and substance abuse disorder or mental retardation without an accompanying mental disorder diagnosis.

Term	Definition
Non-doctor/non-nurse primary health care worker:	A primary health care clinic staff member who provides basic health services and links with other aspects of the health care system. These staff members include medical assistants, aide-level workers, multi-purpose health workers, health assistants, community health workers, among others. The training and functions of these workers vary across countries, but are usually less than those for doctors and nurses. Doctors, nurses and other health professionals may supervise their work.
Occupational therapist	A health professional having completed a formal training in occupational therapy at a recognized, university-level school for a diploma or degree in occupational therapy.
Organisationally Integrated	Two facilities are organisationally integrated if both of the following two conditions exist: (1) A referral system between the facilities is utilized to facilitate continuity of care (2) The two work in a coordinated manner
Patient/Consumer/ Service User	A person receiving mental health care. These terms are used in different places and by different groups of practitioners and people with mental disorders, and are used synonymously in this report.
Physical Restraint	Any manual method, physical or mechanical device, material or equipment attached or adjacent to the patient's body, which he or she cannot easily remove. Using force to hold a patient and restrict movement also constitutes as restraint.
Primary health care clinic	A clinic that often offers the first point of entry into the health care system. Primary health care clinics usually provide the initial assessment and treatment for common health conditions and refer those requiring more specialized diagnosis and treatment to facilities with staff with a higher level of training.
Psychiatrist	A medical doctor who has had at least two years of post-graduate training in psychiatry at a recognized teaching institution. This period may include training in any subspeciality of psychiatry.
Psychosocial intervention	An intervention using primarily psychological or social methods for the treatment and/or rehabilitation of a mental disorder or substantial reduction of psychosocial distress. Includes: psychotherapy; counselling; activities with families; psycho-educational treatments; the provision of social support; rehabilitation activities (e.g. leisure and socializing activities, interpersonal and social skills training, occupational activities, vocational training, sheltered employment activities). Excludes: Do not include intake interviews; assessment; follow-up psychopharmacology appointments as psychosocial interventions
Public education and awareness campaign	An organized, coordinated effort to educate the public and raise their awareness about issues related to mental health using a variety of tools (e.g. media, brochures, face-to-face initiatives). Excludes: Commercial advertisements (e.g. by pharmaceutical companies); advertisements for research studies.
Refresher training in psychiatry/mental health	The provision of essential knowledge and skills in the identification, treatment, and referral of people with mental disorders. Refresher training occurs after university (or vocational school) degree training. Eight hours of training is equivalent to one day of training. Includes: In-service training. Excludes: Training exclusively in neurology
Registered Mental Health (RMN)	A health professional who has completed a requisite course of mental health nursing training and obtained Registered Mental Health Nurse status. They must be registered as a professional nurse by the Nursing and Midwifery Council and be working in a mental health setting.
Seclusion	The practice of placing a patient in a confined space alone.
Social Worker	A professional having completed a formal training in social work at a recognized, university-level school for a diploma or degree in social work. WHO-AIMS asks for information only on social workers working in mental health care.
State Registered Nurse (SRN)	A health professional who has completed formal training in General Nursing at a recognised University level school for a Diploma or Degree in Nursing.

Appendix C

Regional data collectors

REGION	Data Collector	
	Name	Title
BRONG AHAFO	Mary Lamptey	Community Psychiatric Nurse
	Isaac Adjei	Community Mental Health Officer
CENTRAL	Itheal Zortorvie	Community Psychiatric Nurse
	Ackon-Annan Joanna	Community Mental Health Officer
ASHANTI	Stephen Acheampong	Community Psychiatric Nurse
	Gifty Achigibah	Community Mental Health Officer
GREATER ACCRA	Elvis Akumoah	Community Psychiatric Nurse
	Ernestine Aryitey	Community Mental Health Officer
EASTERN	Charles Ntim	Community Psychiatric Nurse
	Gideon Kwakye	Community Mental Health Officer
VOLTA	Mr Akude	Community Psychiatric Nurse
	Gifty Manas Afetorgbor	Community Mental Health Officer
WESTERN	William Asare -Danquah	Community Psychiatric Nurse
	Jessica Amoah	Community Mental Health Officer
NORTHERN	Ibrahim Abdulai John	Community Psychiatric Nurse
	Haruna Ibrahim	Community Mental Health Officer
UPPER EAST	Jonathan Akpadago	Community Psychiatric Nurse
	Felicia Naabooya	Community Mental Health Officer
UPPER WEST	Michael Kofi Boye	Community Psychiatric Nurse
	Camilius Tengeliere	Community Mental Health Officer

www.thekintampoproject.org

Contact us

enquiries@thekintampotrust.org
+44 (0) 1329 836000

Project Lead (Ghana)
Dr E T Adjase
+233 (0)208 119 643
etadjase@gmail.com

Project Lead (UK)
Dr Mark Roberts
+44 (0)1329 836 010
mark.roberts@
thekintampotrust.org

www.thekintampoproject.org

All contents © The Kintampo Project 2013, all rights reserved.

MINISTRY OF HEALTH
REPUBLIC OF GHANA

www.moh-ghana.org

World Health Organization

www.who.int