

Access to Essential Medicines for MNS Disorders with the Greatest Burden: *Focus on Depression, Psychosis and Epilepsy*



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Introduction

- 450 million people in the world suffer from mental illness
- 350 million people suffer from depression
- 20-30% of global population has mental illness each year

Introduction...

According to WHO Reports

- Mental illness contributes 13% to GBD
- 1.2 million people die from neuropsychiatric disorders every year (*WHO, 2005*)
- 40,000 deaths attributed to mental disorders and,
- 182,000 due to use of drugs and alcohol

Introduction...

- 800,000 people commit suicide every year
- Of these, 86% is from LAMICs
- Over 50% of this occurred in 15 to 44 year age group
- 9/10 suicide due to mental illness
- There is increased risk of dying from other causes as well among the mentally ill

Treatment Gap

- > 66% of people with mental illness receive no treatment
- under-treatment occurs in all countries: in USA 67%, in Europe 74% and in Nigeria up to 98% receive no treatment
- by comparison only 8% of people with type 2 diabetes mellitus in Europe receive no care

Access to Essential Medicines

Proxy indicators

- **Availability of Mental health resources**

Global Mental Health Resources and Services

- The burden of mental disorders does not significantly vary across countries,
- However, availability of mental health resources is highly discrepant across countries
- WHO conducted a survey which covered 184 countries where 98% of the world's population live.
- This was an attempt to map mental health resources across the world

(Mental Health Atlas, 2011)

RESOURCES...

- The Survey provided the latest estimates on available resources for the treatment and prevention of neuropsychiatric disorders.
- Resources are defined in terms of
 - governance,
 - financing,
 - mental health care delivery,
 - human resources,
 - essential medicines, and
 - information systems.

(Morris J, Lora A, McBain R, Saxena S., 2012)

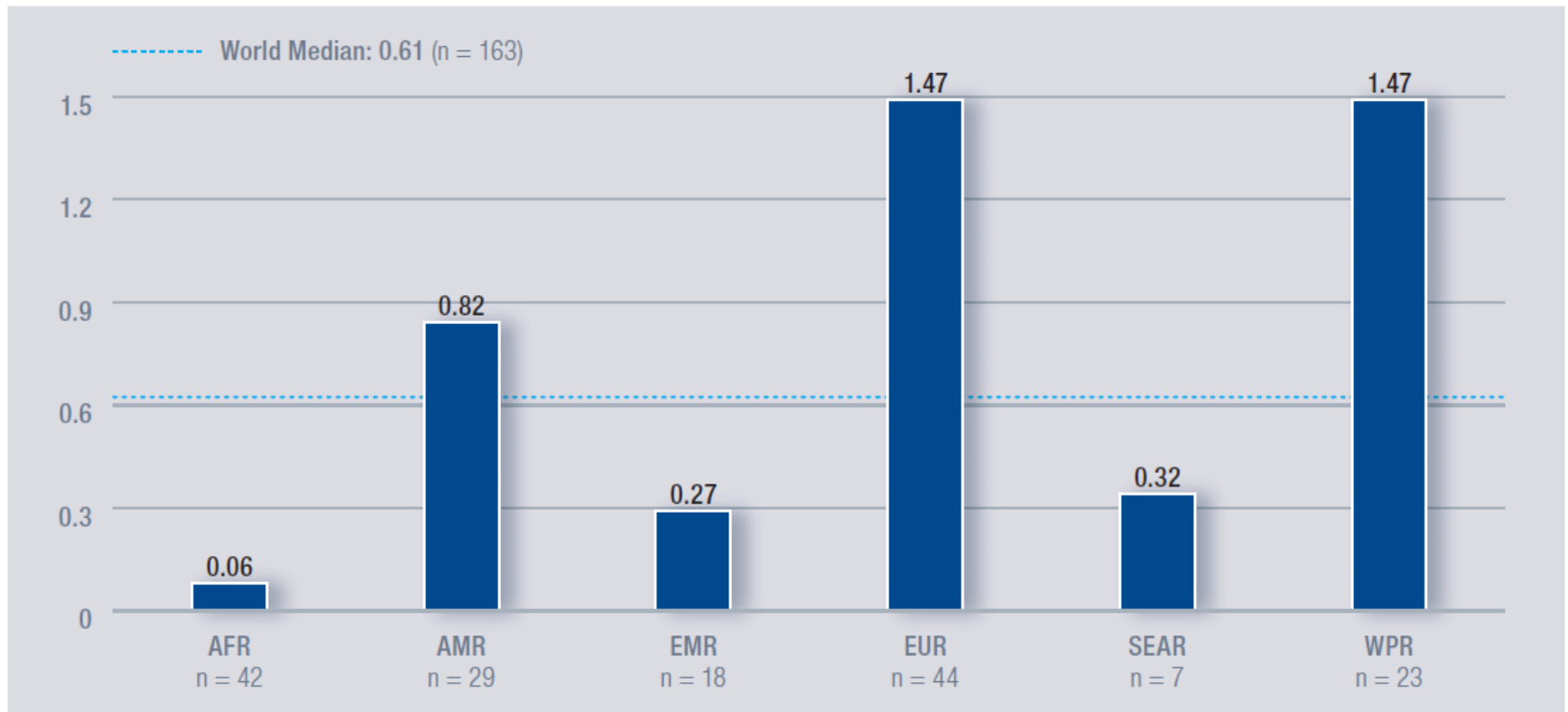
Mental Health Plan

WHO REGION	% of countries with mental health Plan
EUR	81
SEAR	80
EMR	74
AFR	67
AMR	66
WPR	62

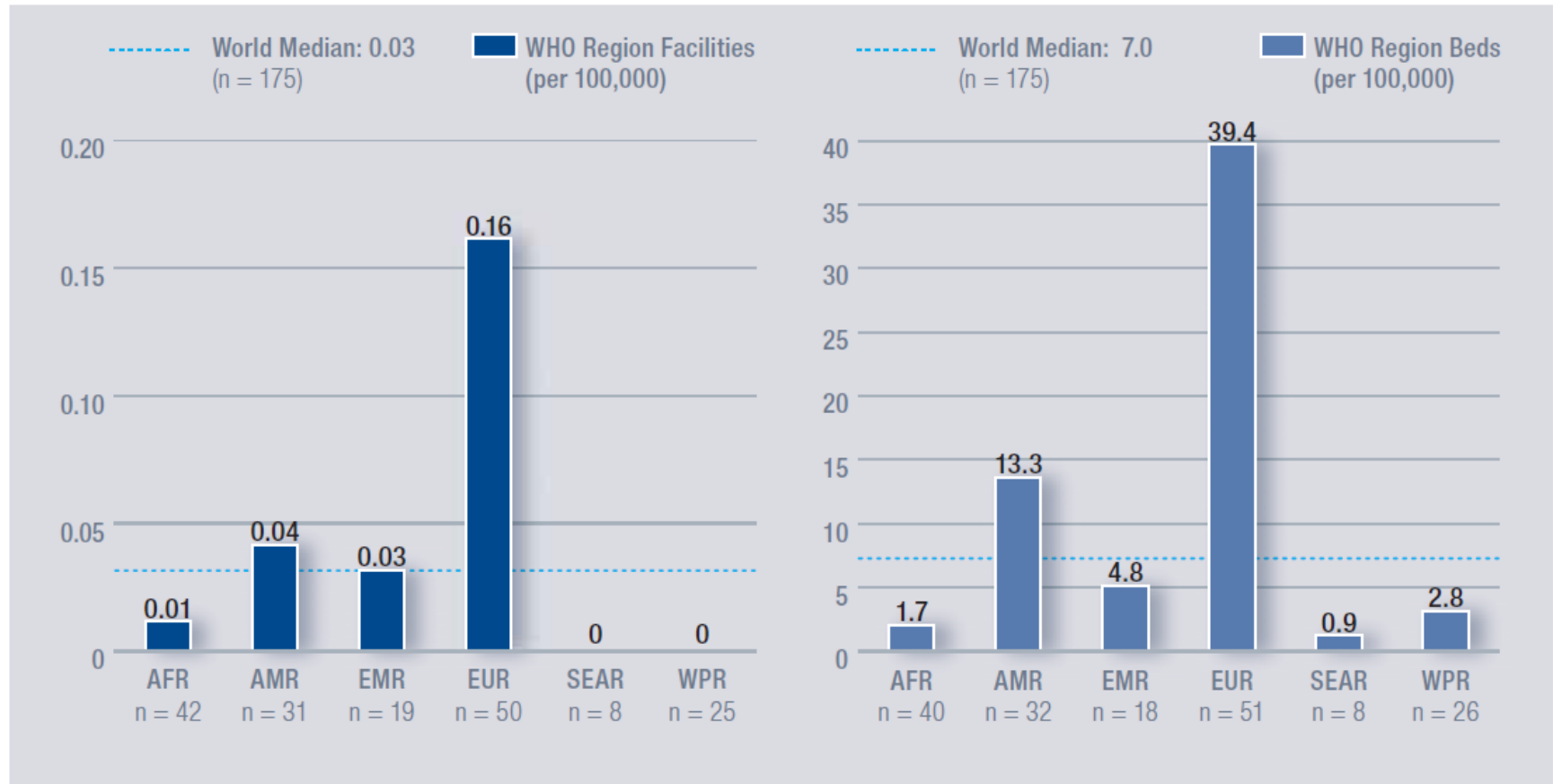
Facilities

- Globally, 63% of psychiatric beds are located in mental hospitals, and
- 67% of mental health spending is directed towards these institutions

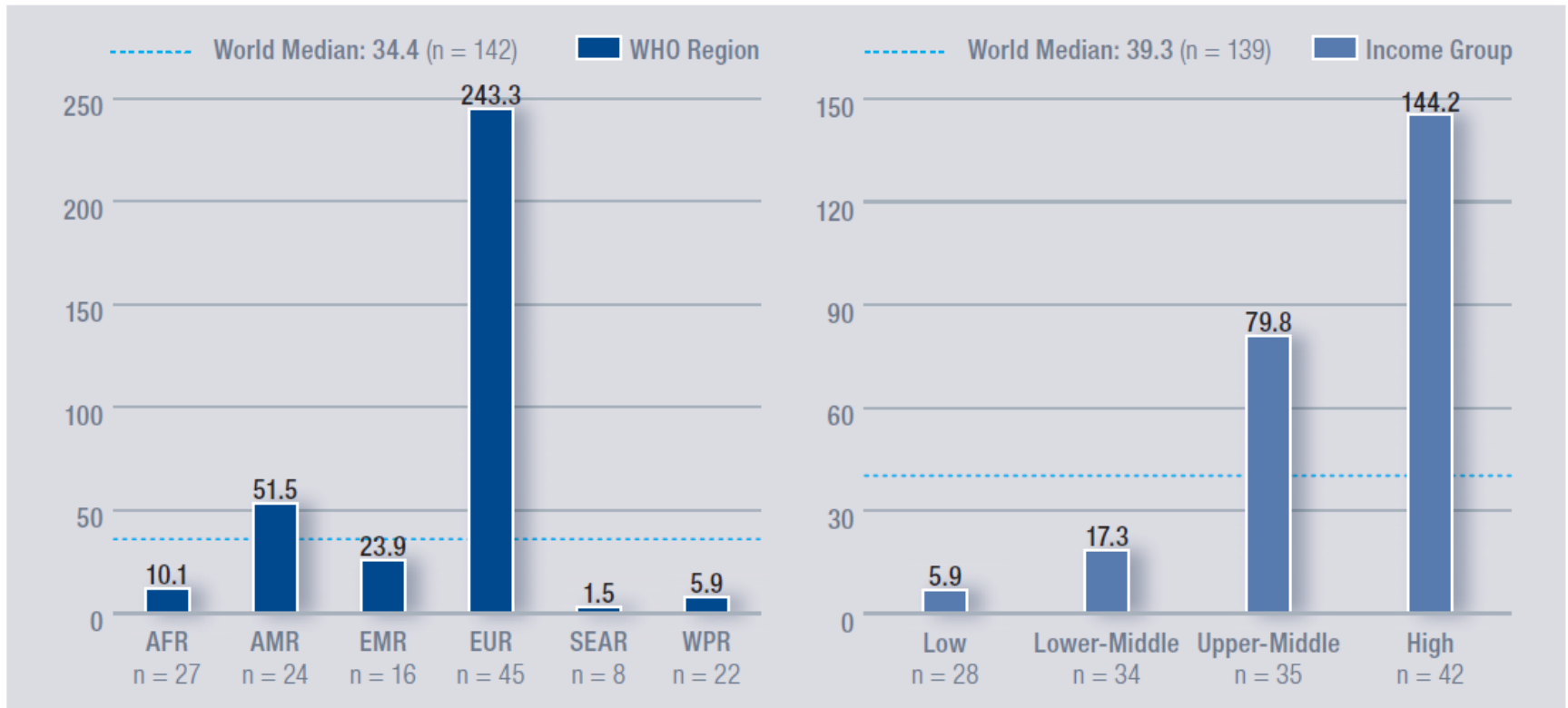
Rate of mental health outpatient facilities per 100,000 population by WHO Region



Median rate of mental hospitals per 100,000 population and beds in mental hospitals by WHO region



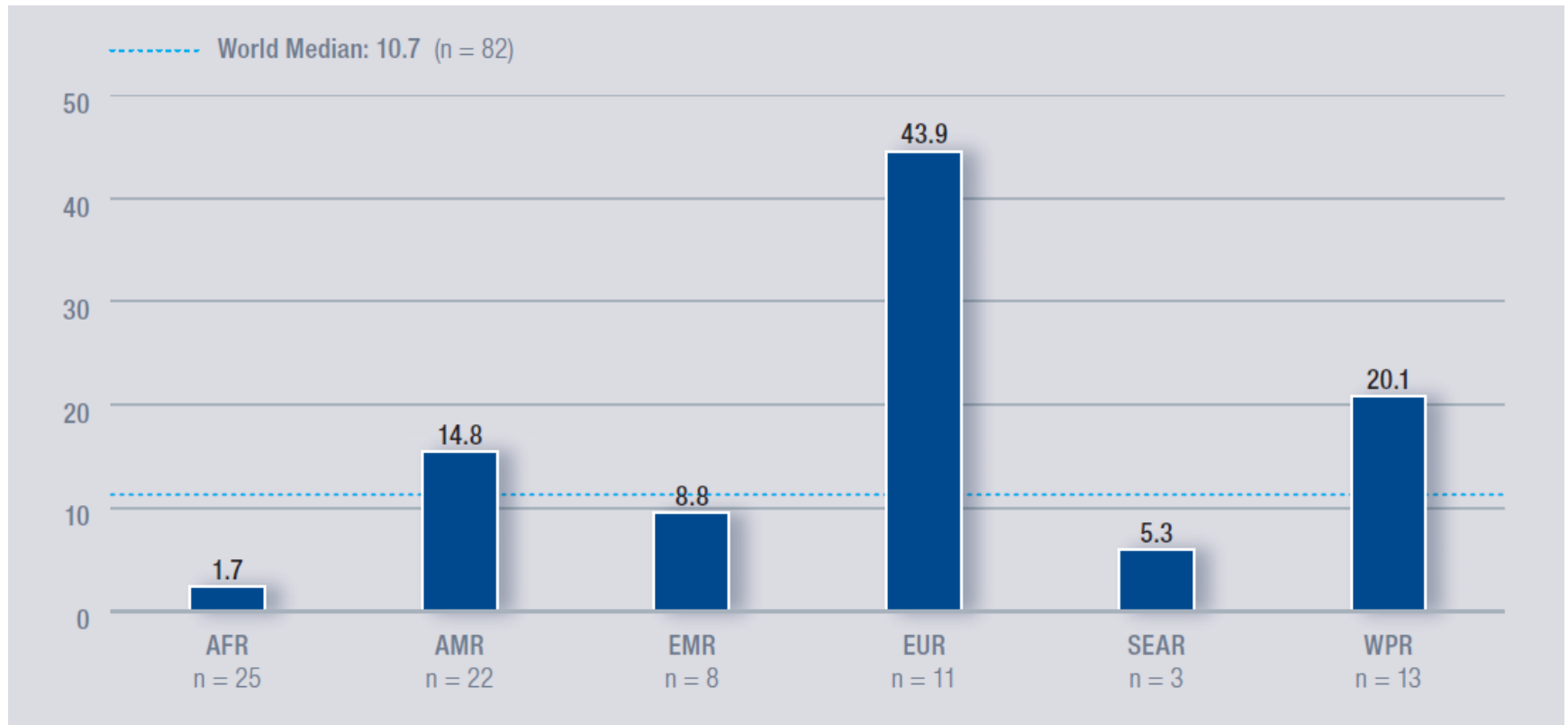
Annual rate of admissions per 100,000 population to mental hospitals by WHO region and World Bank income group



Human resource

- Across all professions, the global median rate for human resources working in the mental health sector is 10.7 workers per 100,000 population.
- This varies considerably by region with AFR having the lowest median

Total number of human resources (per 100,000 population) working in the mental health sector by WHO region



Median rate of human resources graduates in the past academic year per 100,000 population by WHO region

WHO Region	Psychiatrists	Other medical doctors	Nurses	Psychologists	Social workers	Occupational therapists
AFR n = 29 – 41	0.00	0.17	1.75	0.01	0.01	0.00
AMR n = 14 – 28	0.06	5.30	5.13	0.31	0.00	0.00
EMR n = 10 – 15	0.10	3.86	5.02	0.11	0.06	0.00
EUR n = 18 – 35	0.36	9.54	22.85	2.71	3.33	0.07
SEAR n = 6 – 10	0.02	3.35	2.96	0.01	0.06	0.02
WPR n = 14 – 21	0.03	3.58	4.88	0.00	0.00	0.00
World n = 91 – 148	0.04	3.38	5.15	0.08	0.01	0.00

Mental Health Expenditure

- Global median mental health expenditures per capita is US\$ 1.63 per year
- Mental health expenditures per capita are more than 200 times greater in high income countries compared with low income countries
- However, median gross national income (GNI) per capita is only 76 times greater in high income countries compared with low income countries,

Mental Health Expenditure

- This suggests that income level does not fully account for lower funding for mental health in low income countries
- The global median percentage of government health budget expenditures dedicated to mental health is 2.8%

(Mental Health Atlas 2011)

Mental Health Expenditure

- This level of allocation is considerably higher in EUR and EMR and is lowest in AFR and SEAR
- Proportionally, lower income countries spend a smaller percentage of their health budget on mental health
- The median percentage of health expenditures dedicated to mental health is
 - 0.5% in low income countries and,
 - 5.1% in high income countries.

Median annual expenditures (USD) on medicines for mental and behavioural disorders per 100,000 population by WHO region



Median Expenditure (USD) on Medicines for Mental and Behavioral Disorders per 100,000 Population by WHO Region

	Mood Stabilizers	Antipsychotics	Anxiolytics	Antidepressants
AFR n = 3 – 4	\$ 320	\$ 790	\$ 1,090	\$ 210
AMR n = 4 – 7	\$ 1,700	\$ 5,850	\$ 2,680	\$ 8,350
EMR n = 3 – 4	\$ 137,180	\$ 68,820	\$ 42,040	\$ 22,710
EUR n = 24 – 25	\$ 63,150	\$ 1,074,080	\$ 315,560	\$ 795,560
SEAR n = 0	–	–	–	–
WPR n = 4 – 5	\$ 5,920	\$ 17,100	\$ 20,280	\$ 209,510
World n = 41 – 44	\$ 36,140	\$ 219,640	\$ 81,640	\$ 258,120

Medicines for Mental and Behavioural Disorders

Definition:

Medicines for mental and behavioural disorders are drugs utilized to treat mental, neurological and substance abuse disorders. These drugs typically act on the central nervous system, thereby affecting brain function and altering an individual's perception, mood or cognition.

Medicines for Mental and Behavioural Disorders

- Globally, the estimated median expenditure on medicines for mental and behavioural disorders is US\$ 6.81 per person per year.
- However, the true figure is likely to be substantially lower;
- Only 49 of 184 countries (27%) reported these data, and
- Respondents were disproportionately high income countries.

(Mental Health Atlas, 2011)

PRESCRIPTION OF MEDICINES FOR MENTAL AND BEHAVIOURAL DISORDERS BY PRIMARY HEALTH CARE STAFF

- The majority of countries allow PHC doctors to prescribe for MNS
- Many countries on the other hand put variable degree of restriction
- 56% with no restrictions
- 40% with some legal restrictions
- 3% did not allow any form of prescription by PHC doctors.

Prescription...

Of countries that *do permit nurses* to diagnose and to treat mental disorders,

- 30% prohibit prescriptions by nurses;
- 65% allow prescriptions with restrictions and
- 5% allow prescriptions without restrictions.

Prescription...

In contrast, of countries that *do not permit PHC nurses to diagnose and to treat mental disorders independently,*

- 77% do not permit nurses to prescribe medicines for MNS
- 21% allow prescription with restrictions, and
- 2% allow prescription without restrictions

Ethiopian FMOH

- Health Policy
- Food, Medicine and Healthcare Administration and Control Authority (FMHACA)
- National Drug Policy
- List of Medicines for Ethiopia
- List of Essential Medicines for Ethiopia
- Mental Health Strategy since 2012

Stipulations in the Mental health strategy

In order to ensure the supply of essential drugs, FMOH will:

1. Support the revision of the essential psychotropic drugs.
2. Determine the drugs which may be prescribed at the various levels of care
3. Develop standards for the prescription and administration of psychotropic drugs.

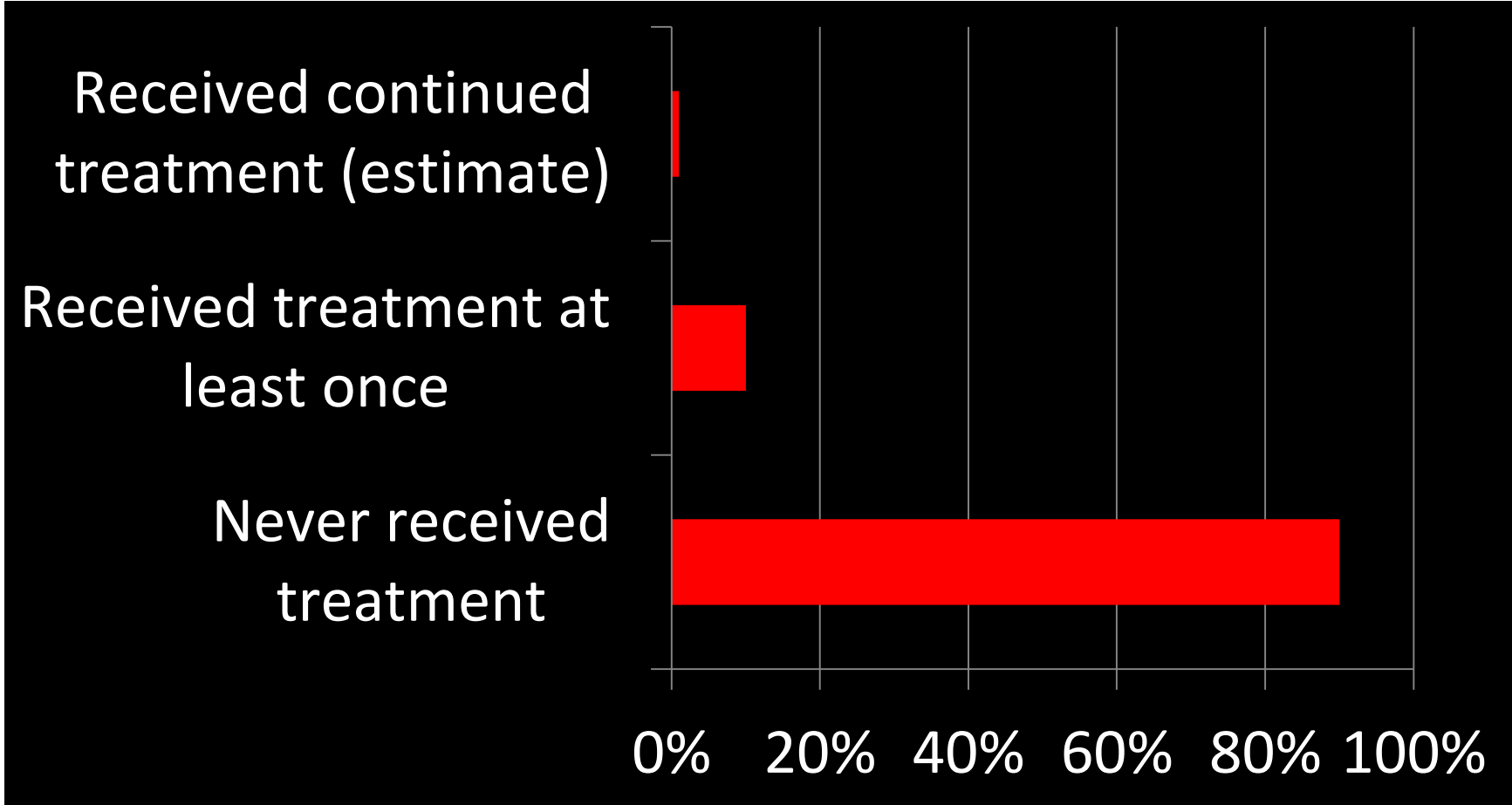
Stipulations in the Mental health strategy

4. Ensure not only the availability and sustainability but also accessibility and affordability of drugs when and where required.
5. Quantification of and use of psychotropic medications.

Treatment Gap in Butajira (Course and Outcome Study)

- **The Butajira study is the largest systematic community based study on the outcome of major disorders in Africa and possibly in the world**
- **The largest treatment naive sample since discovery of psychotropics**

Treatment history of patients(in percent)



Butajira...

- Only 10% of people with severe mental illness had ever received any psychotropic medication.
- **Medication works:** the chance of being in remission from schizophrenia for 50% or more of the follow-up time was 5X greater.

List of Essential Psychotropic Medicines for Ethiopia (2010)

Hypnotics and Anxiolytics

1. Bromazepam
2. Diazepam

Antidepressants

1. Amitriptyline
2. Fluoxetine

Anticonvulsants

1. Carbamazepine
2. Diazepam
3. Ethosuximide
4. Lorazepam
5. Phenytoin
6. Phenobarbitone
7. Sodium Valproate

List of Essential Psychotropic Medicines in Ethiopia (2010)

Antipsychotic Medicines

1. Chlorpromazine
2. Fluphenazine
Decanoate
3. Haloperidol
4. Risperidone

Mood Stabilizers

- Lithium Carbonate

Antiparkinsonian Medicines

1. Benzhexol
2. Levodopa

List of essential psychotropic medicines for Uganda

Anxiolytics

1. *Diazepam,*
2. *Chlordiazepoxide*

Antidepressants

1. Amitriptyline
2. Imipramine

Anticonvulsants

1. *Phenobarbitone,*
2. *Carbamazepine,*
3. *Phenytoin*

Anti psychotics

1. *Chlorpromazine*
2. *Haloperidol*
3. *Fluphenazine*

Mood stabilizers

1. *Carbamazepine*

- None of these medicines is produced locally
- All psychotropic medicines are free for users

Specialist prescribers of MNS medicines in Ethiopia

Region	Psychiatrist	MH Practitioners (MSc)	Nurse Practitioners (BSc)	Nurse Practitioners (DIP)	Total
Addis Ababa	34	30	39	28	129
Oromiya	5	14	10	22	50
SNNP	2	8	8	14	32
Tigray	3	3	6	8	20
Amhara	0	12	7	6	25
Harari	2	4	7	4	17
Somalia	0	1	4	1	6
Benshangul	0	1	2	1	4
Gambela	0	0	2	1	3
Diredawa	0	0	0	4	4
Afar	0	0	0	1	1
Total	46	73	85	90	294

74% of psychiatrists and 38% of other mental health workers are located in Addis Ababa where only 0.03% of the country's population lives

Special Pharmacy at Amanuel Specialized Mental Hospital

- In 1998 donation of 30,000 USD from SMRI
- Policy support
- Special account opened
- All kinds of medicines made available
- Revolving fund generated
- Medicines for MNS became available and accessible to all who needed them

Challenges

- Poor supply
- poor funding for MNS
- lack of adequate Human Resource
- interrupted supply



The 2012 World Health Assembly Resolution

Action Plan 2013-2020

- In May 2012, the Sixty-fifth World Health Assembly adopted resolution WHA65.4 on the global burden of mental disorders, and
- the need for a comprehensive, coordinated response from health and social sectors at the country level.

Action Plan 2013-2020

The Plan document acknowledges that

- basic medicines for mental disorders in primary health care is notably low in comparison to medicines available for other diseases, and**
- their use is restricted because of the lack of qualified health workers to prescribe medications**
- In addition, no trained personnel to deliver non-pharmacological interventions**
- Such factors act as important barriers to appropriate care for many persons with mental disorders**

Action Plan 2013-2020

The action plan has the following objectives:

1. to strengthen effective leadership and governance for mental health;
2. to provide comprehensive, integrated and responsive mental health and social care services in community-based settings;

Action Plan 2013-2020

Objectives...

3. to implement strategies for promotion and prevention in mental health;
4. to strengthen information systems, evidence and research for mental health

Conclusion

- Many of mental health indicators show that access to essential psychotropic medicines in SSA is very poor
- Concerted effort by governments and NGOs needs to be put to make them accessible to all who need them

Thank You

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