Global Mental Health
A new discipline reaches maturity

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Global Mental Health

A New Global Health Field Comes of Age

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GLOBAL HEALTH IS "AN AREA FOR STUDY, RESEARCH and practice that places a priority on improving health and achieving equity in health for all people worldwide."[1] Global mental health is the application of these principles to the domain of mental ill health. The most striking inequity concerns the disparities in pro-

are available for a range of mental disorders and that nonspecialist health care workers can deliver psychological treatments or multicomponent stepped care interventions for mental disorders, with large treatment effect sizes that are sustained for extended periods.[8] With severe and persistent shortages of personnel and the spiraling costs of specialist mental health care, such evidence counters the nihilistic view that nothing can be done.[9]

The recent rapid increase in the visibility of the field can be seen in several articles on global mental health that ap-

Global Mental Health in the Global Health context

- Global Health
  - "an area for study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide"

(Koplan et al, Lancet 2009)

- Global Mental Health
  - The application of these principles to the specific domain of mental ill-health
  - Concerned with any 'priority' disorder affecting the brain – ('MNS') mental, neurological and substance use disorders
  - Primary focus is reducing mental health inequalities within and between countries, particularly HIC vs. LAMIC

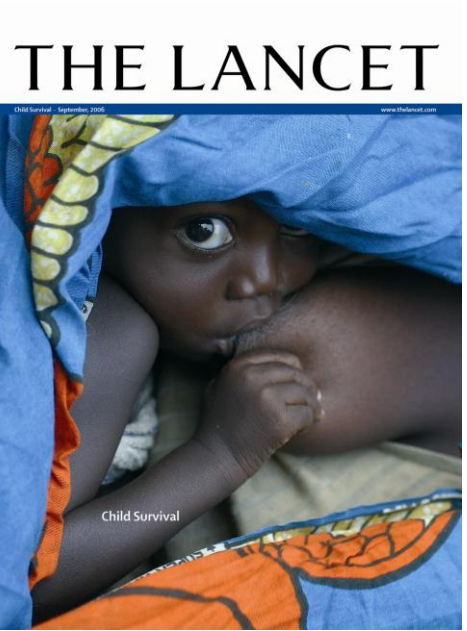
(Patel and Prince, JAMA 2010)

Global Mental Health – the rise of a new discipline

- **Lancet Series for Global Mental Health (2007)**
- **Movement for Global Mental Health (2008)**
- **PLOS Medicine Series on Packages of Care (2009)**
- **WHO Mental Health Global Action Plan (MHGAP – 2009-2010)**
- **Centre for Global Mental Health (2009)**

Global Health Series at *The Lancet*

2003	2004	2005	2006
Child Survival	Health Systems	Newborn survival	Indigenous health
		Chronic diseases I	Maternal survival
			Reproductive health

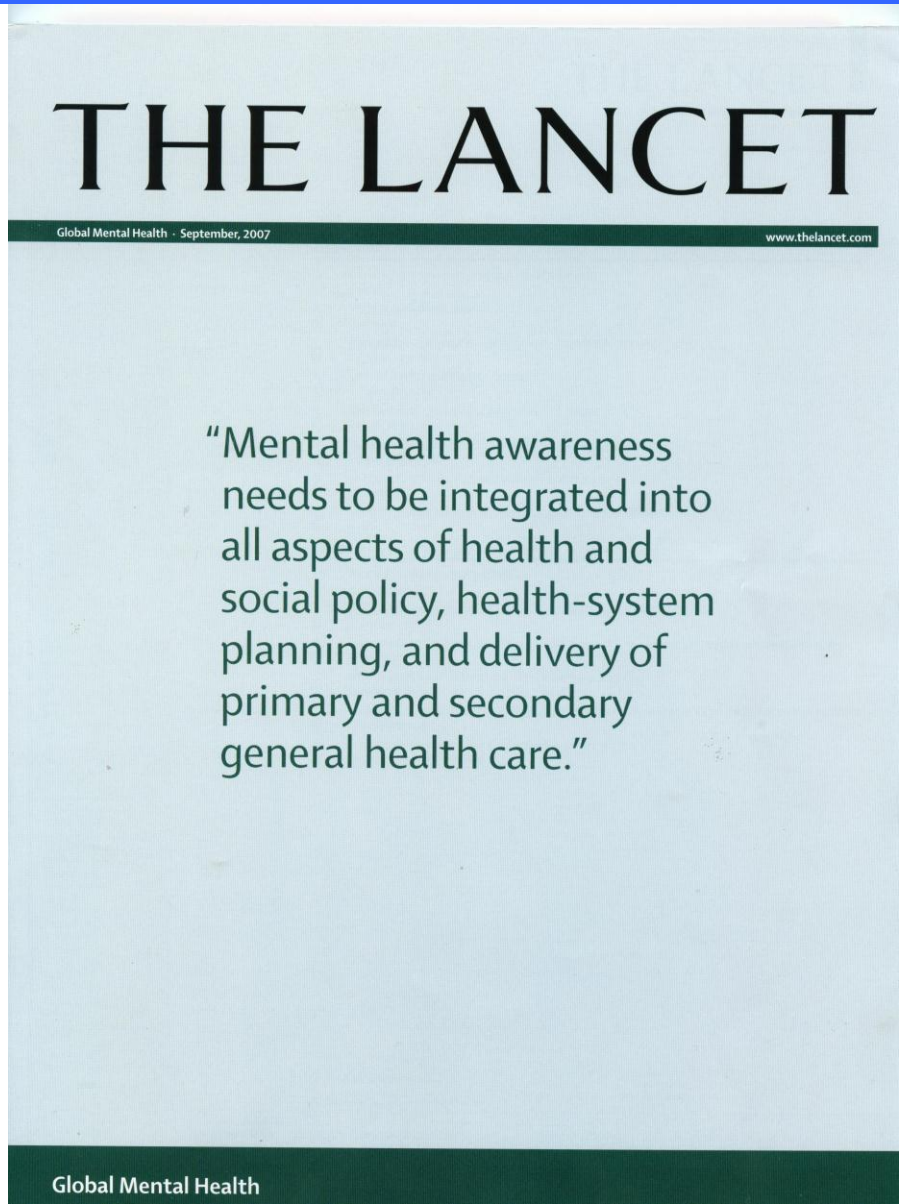


Rationale for the Lancet Series

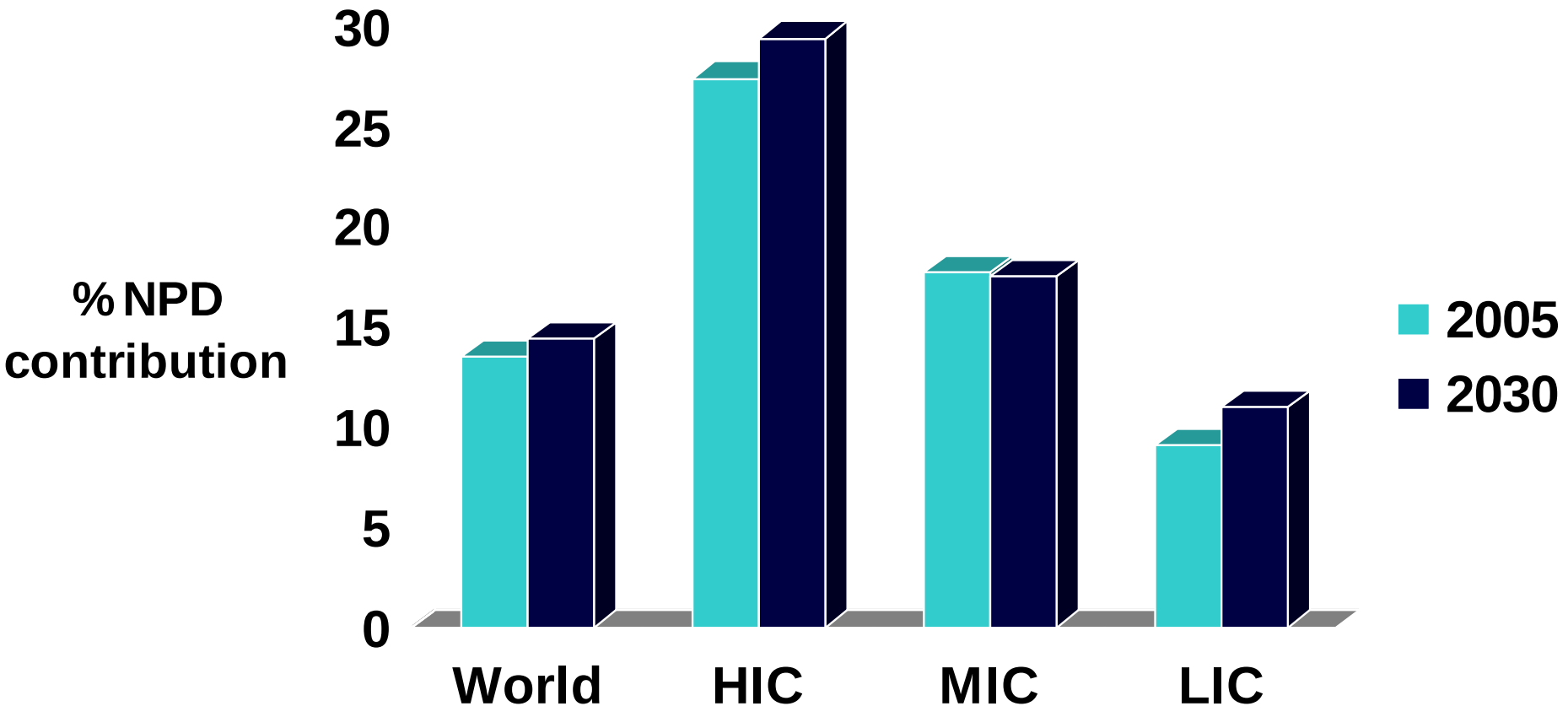
- Objective - to reinforce the need for action in mental health
- Target - the global health community
- Focus on
  - mental disorders
  - evidence published since 2001 World Health Report
  - low and middle income countries
- Empirical evidence: Systematic reviews, primary research and secondary analyses

The Lancet Global Mental Health Series

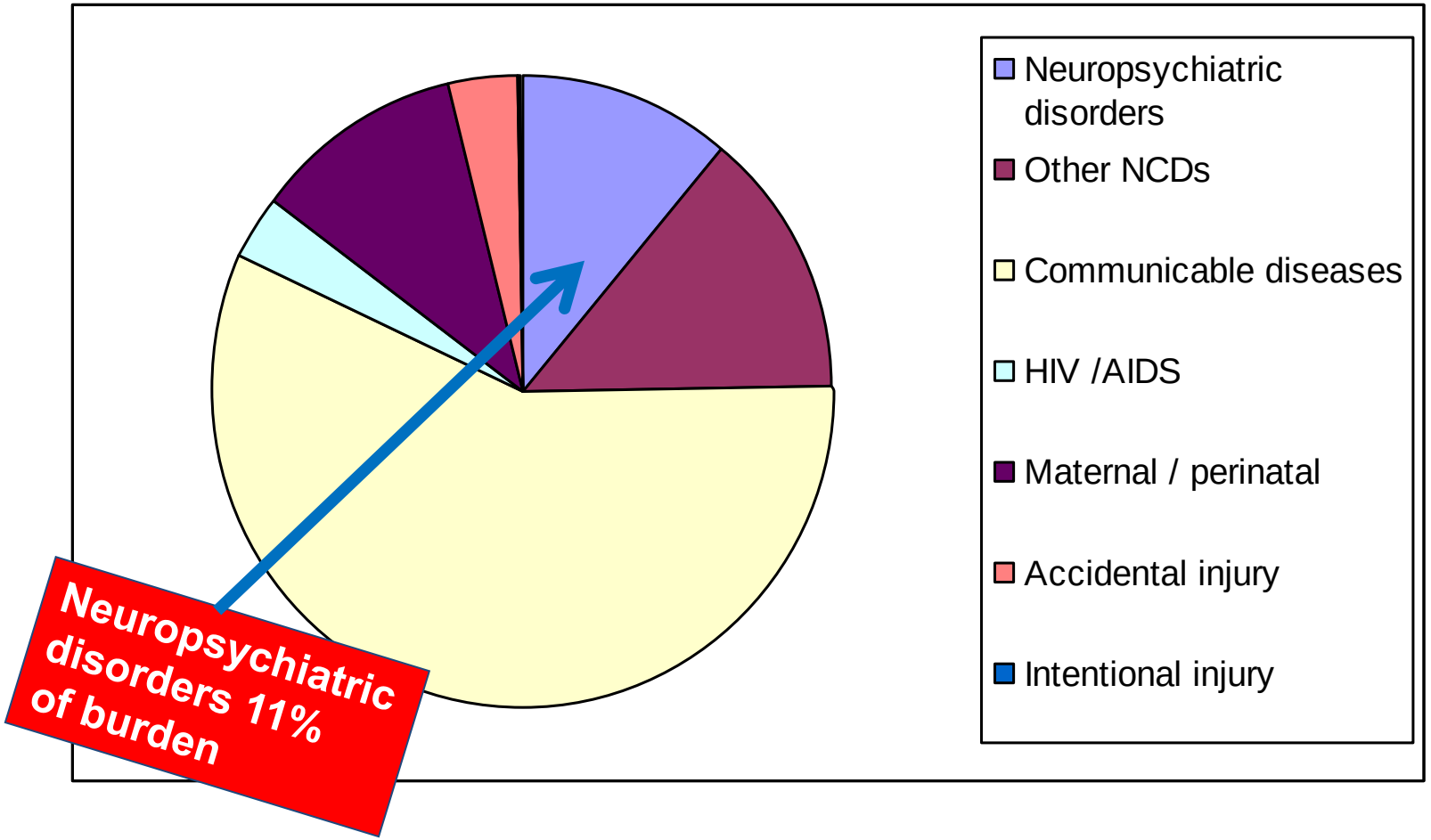
1. No health without mental health
2. Scarcity, inequity inefficiency
3. Evidence base for mental health interventions
4. Resources for mental health care
5. Barriers to progress
6. A Call for Action



Neuropsychiatric conditions and the GBD- DALYs 2005-2030



Burden of disease in Rural Ethiopia

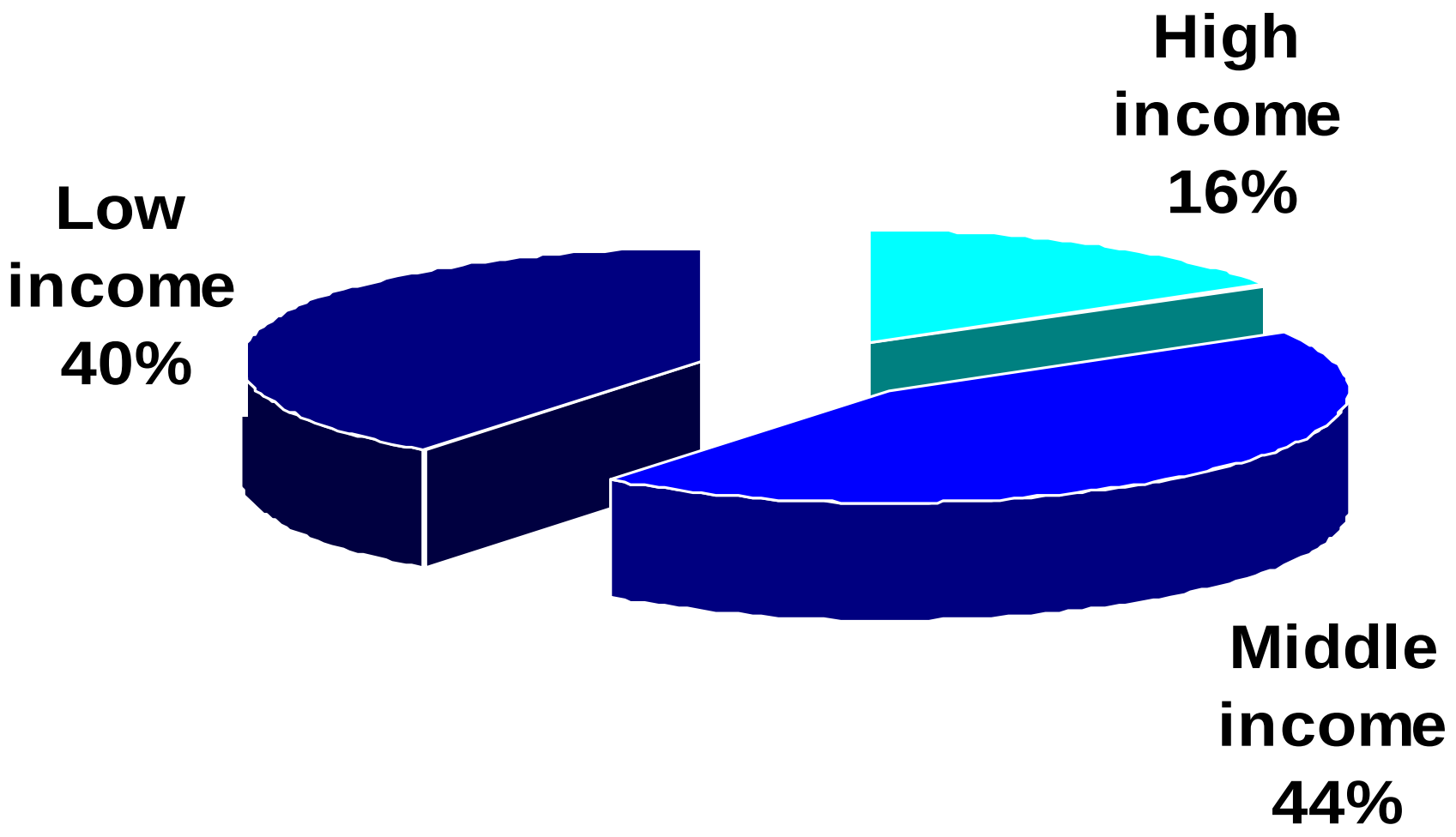


Disorders ranked by burden

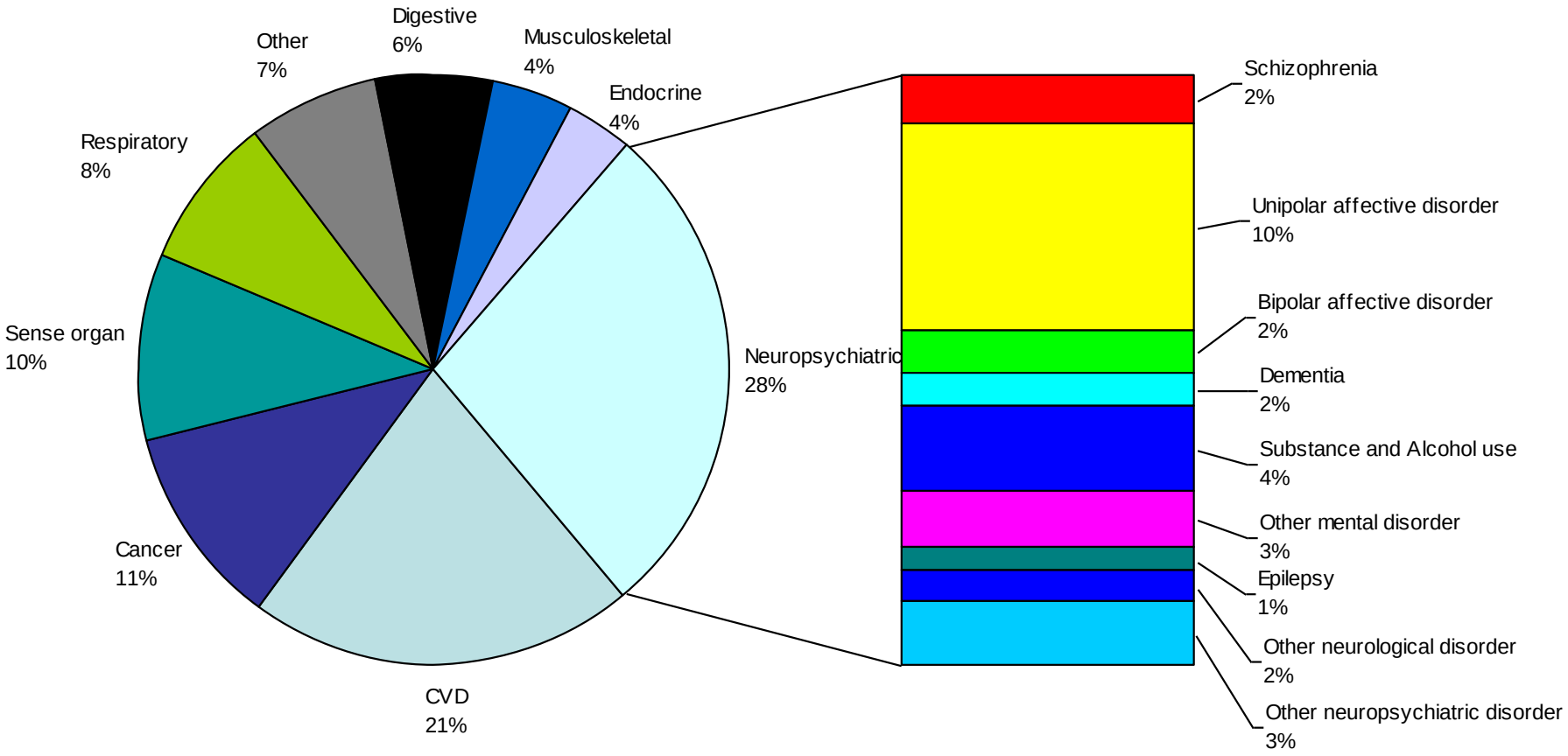
Diarrhoeal disease	12.5%
Maternal / perinatal disorders	10.6%
Malaria	10.4%
ARI	7.9%
Measles	7.3%
Tuberculosis	7.1%
Depression	**6.5%**
Schizophrenia	**4.6%**
Nephritis	4.5%
HIV/AIDS	3.5%

Abdulahi, Haile-Mariam & Kebede, 2001 Ethiopian Medical Journal

84% of the global burden of disease from neuropsychiatric conditions comes from LAMIC



The Global Burden of Mental Disorder (GBD - DALYs 2005)



Reviews 2 and 4
Resources for Mental Health

Policy and legislative infrastructure
MH services
Community resources
Human resources
Funding

Availability	**Scarcity**
Distribution	**Inequity**
Utilization	**Inefficiency**

Scarcity

Human Resources

(N=157 to 183 countries)

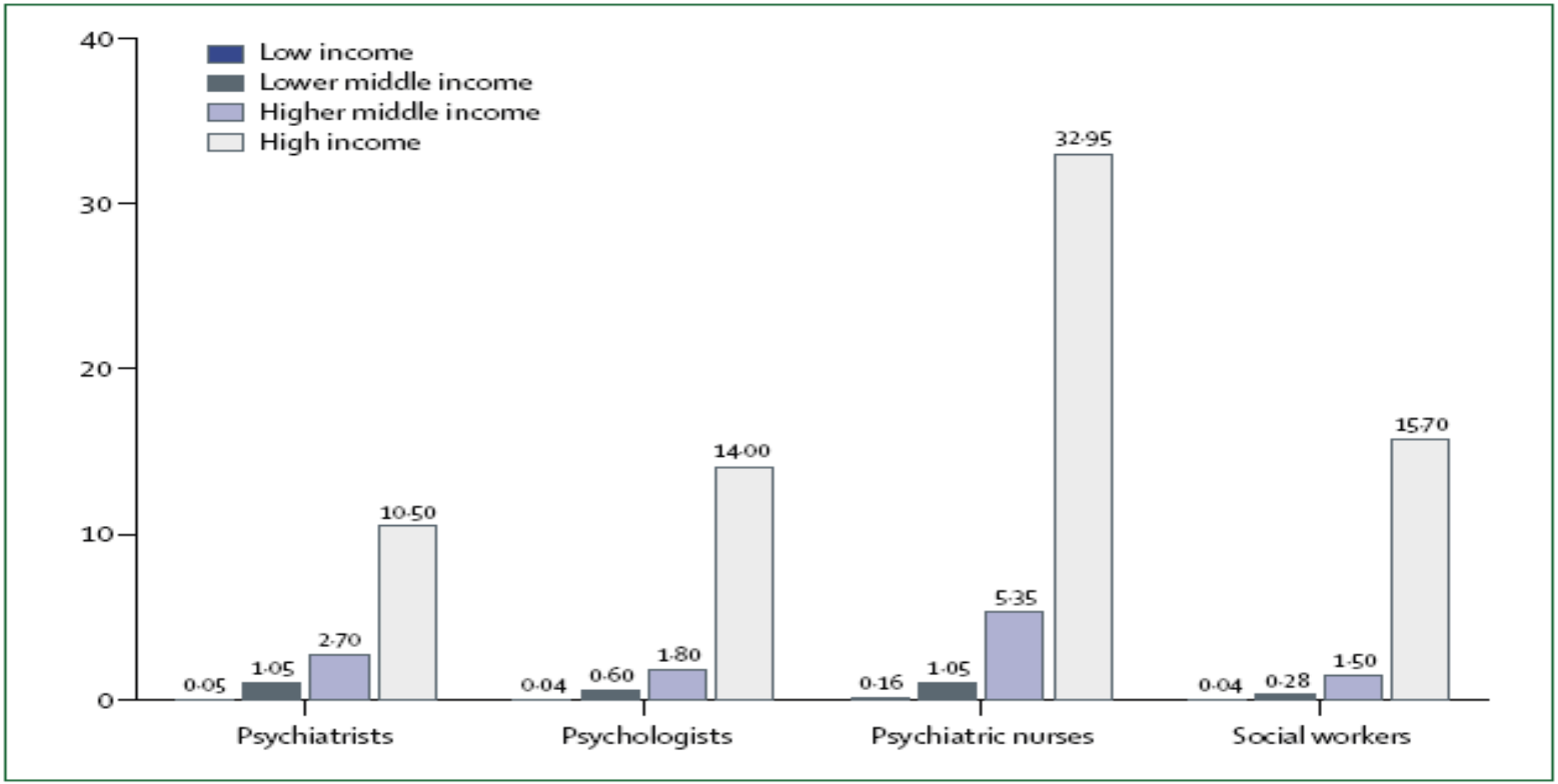
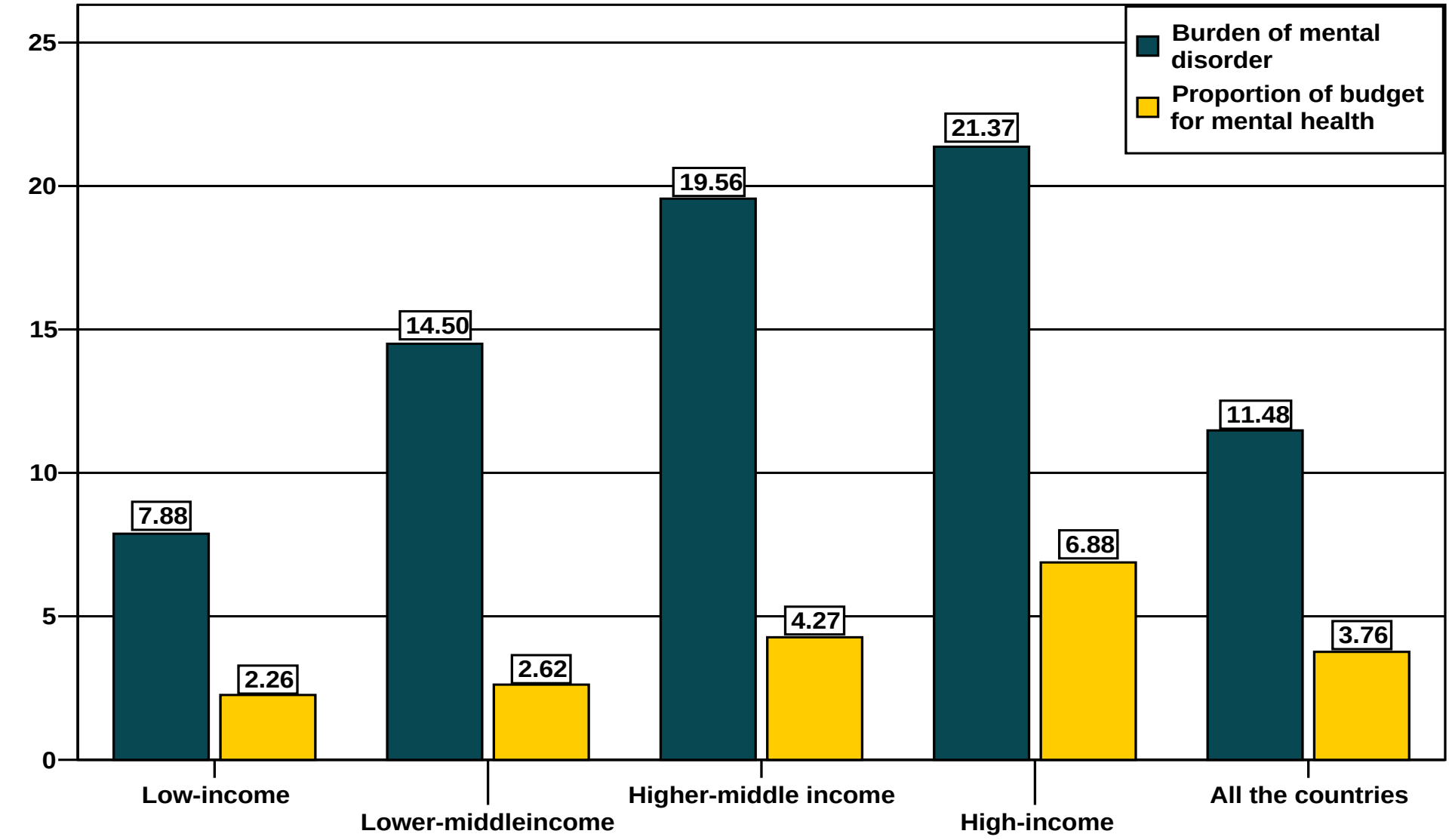


Figure 2: **Human resources for mental health in each income group of countries per 100 000 population**

Burden versus Budget



Inefficiency

- **Efficiency of use of MH resources**
  - **Centralised resources allocated to mental hospitals are not cost-effective**

    (>50% of MH budget >65% of all inpatient beds >50% of all nurses)

  - **Heavy reliance on out-of-pocket expenditure is <u>inefficient</u> and <u>unfair</u>**
    - **Often leads to catastrophic expenditure and discontinuation of treatment**

Inequity

THE HINDU, Tuesday, August 7, 2001 5

The remains of the home for mentally ill at Erwadi which was destroyed in a fire on Monday. (Right) Two mentally ill persons seen chained together in another asylum at Erwadi. — Photos: K. Ganesan

TRAGEDY STRIKES SHACKLED INMATES

25 die in T.N. asylum fire

By P. S. Suresh Kumar

RAMANATHAPURAM, AUG. 6. Twentyfive mentally ill persons, including 11 women, were killed and five suffered burns in a devastating fire which swept across a private home for mentally-ill at Erwadi, a tiny pilgrim centre 27 km. from Ramanathapuram in Tamil Nadu, early on Monday.

The fire began around 5.10 a.m. and, as the home was thatched with coconut palm fronds, the entire shed was gutted in 10 minutes, before fire tenders reached the spot.

Eyewitnesses said the fire broke out in the northern part of the shed and spread like wildfire in a short span of time. All that remained at the site were charred bodies fettered in chains and pieces of flesh, making it impossible to identify those killed.

On seeing the flames, villagers as well as pilgrims rushed to the spot and saw smoke billowing out of the shed. The entire area was steeped in darkness and they could not hear anything but the inmates' groans.

As all the inmates of the asylum were kept in fetters (the so-called "divine chains" put round the feet of the mentally-ill), they could not come out of the shed, said Najira Beham of Thirunakeswaram near Kumbakonam, who had a miraculous escape as she was able to remove the chains on her feet.

Of the 43 mentally-ill persons on the premises, 25 were killed, four reported missing and nine had a miraculous escape when the fire broke out. The five who suffered burns have been admitted to the Government Hospital, Keelakarai. Four of them have been identified as: Renuka, Maniammai, Shanthi and Noorjahan, while the identity of the other person could not be established. Erwadi and the neighbourhood are known for these private homes sheltering the mentally-ill.

Police arrested the owner of the asylum, Muhaideen Badsha, his wife Suriya Begam, and relatives Rashak and Mumtaj Begum. Though the cause of the fire was not known immediately, witnesses said it could have been due to the falling of a chimney-lamp in the shed. As there were gusty winds, the fire spread in moments. Police are also looking into the possibility of sabotage, according to Mr. Sanjeev Kumar, Deputy Inspector- General of Police, Ramanathapuram Range.

Steps have also been taken to inform the relatives of the deceased and if they do not turn up by Tuesday noon, the district administration will make arrangements to dispose of the bodies at Erwadi that evening, said Mr. S. Vijaya Kumar, District Collector.

The names of the 25 killed are: Vijalekshmi of Ramanathapuram, Nasra of Thuckalay in K.K.district, Lekshmi of Madurai, Selvi of Salem, Santhamani of Coimbatore, Rasheea of Chennai, Pattugani of Tuticorin, Sarojini of Coimbatore, Anusuya of Chennai, Gulnas of Karnataka, Vellaichamy of Virudunagar, Krishnan of Periyakulam, Sonai Muthu of Thirumayam, Babu of Villupuram, Santhankrishnan of Erode, Muruganatham of Uthamapalayam, Parthiban of Salem, Arumugham of Seerkali, Lekshmi of Coimbatore, Periyasamy of Tuticorin, Murugaraj, Samsudeen and Rajan of Coimbatore, Radhakrishnan and Thankaraj.

- Mental disorders linked to
  - Poverty (and violence, unemployment, alcohol)
  - Low education
- Human rights
  - Lack of legislation/ legislation often does not provide adequate protection
  - Imprisonment
  - Inhumane conditions of care
  - Restraints and seclusion
  - Physical and sexual abuse
  - Stigma and discrimination
  - Lack of effective advocacy
  - Human rights violations result from, and enhance inequities

Review 1 - No health without mental health

Compartmentalisation (the silo mentality)….

- Underestimates the burden of mental disorders, much of which is mediated through links with other conditions
- Misses the salience of mental health to mainstream health and human development (e.g MDGs)
- Entrenches isolation and neglect of services, and stigma of those affected

Established priorities

Mental Health

Mental Health → Child health
- Infant mortality
- Nutrition/ Growth/ Development

Mental Health → Reproductive health
- Fertility
- Pregnancy
- HIV/ AIDS

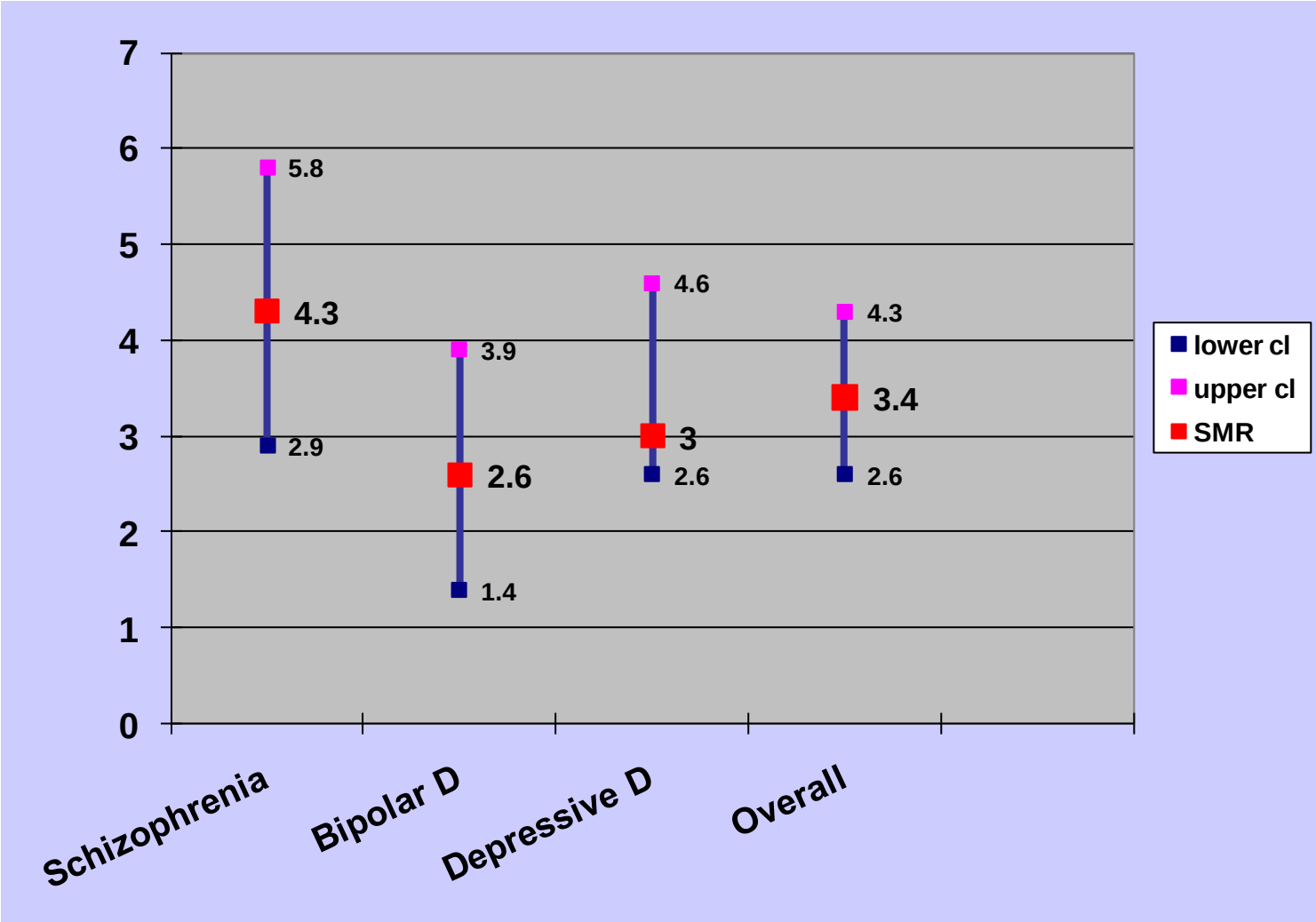
Mental Health → Infectious disease
- Control and eradication of communicable diseases
- TB
- Malaria

Mental Health

GBD underestimates contribution to mortality

- Mortality
  - 800,000 commit suicide annually, 82% in LAMIC
  - 9/10 of those that commit suicide have a mental disorder
  - Increased non-suicide mortality noted for depression, schizophrenia, bipolar disorder, dementia
    - not accounted for simply by lifestyle risk factor profile
      - biological mechanisms?
      - drug side effects?
      - limited access to care?
      - poor quality care?

Figure: Age & Sex standardised mortality (SMR) (Fekadu et al 2009)



Trends in ischaemic heart disease mortality in Western Australia (1980-1998)

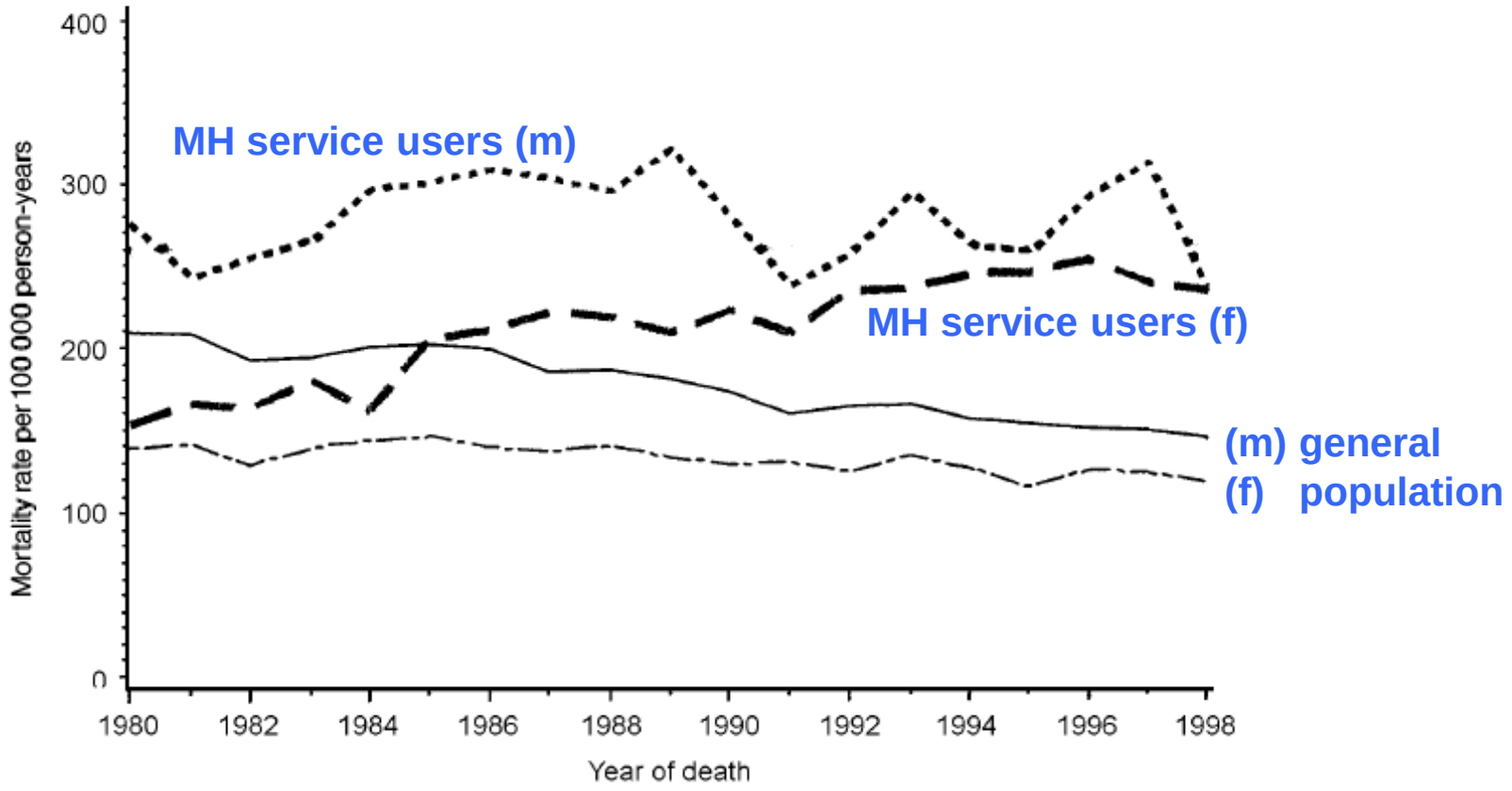


Fig. 1 Ischaemic heart disease mortality rates in Western Australia 1980–1998, total population rates (— males; - —- females) and rates in mental health service users (▪▪▪▪, males; — — —, females).

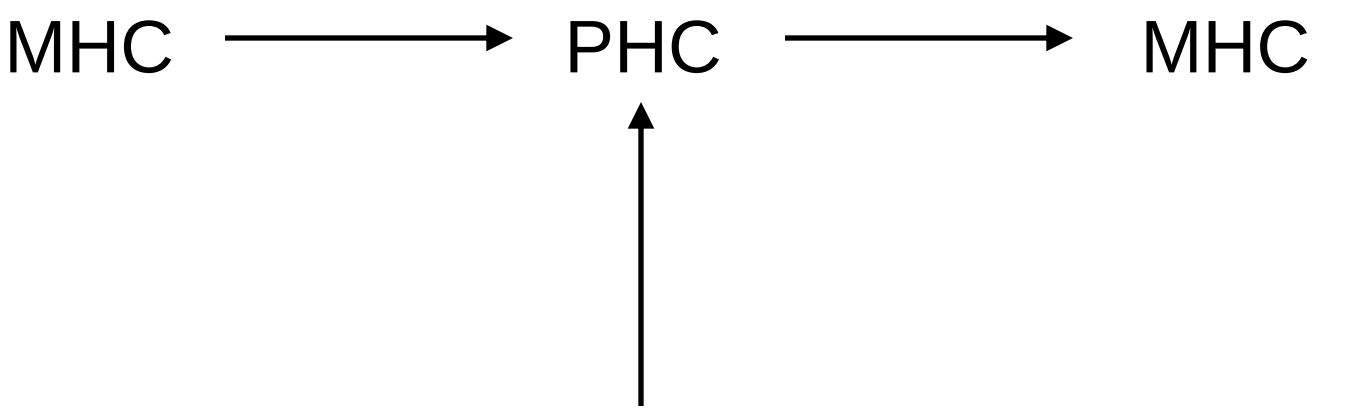
Lawrence et al, BJPsych 2003

Revascularization procedure rates for users of mental health services (by diagnosis) compared with general community

Principal psychiatric diagnosis	
Dementia	0.14 (0.07–0.26)
Alcohol/drug disorders	0.60 (0.52–0.68)
Schizophrenia	0.31 (0.21–0.45)
Affective psychosis	0.77 (0.64–0.93)
Other psychoses	0.66 (0.48–0.91)
Neurotic disorder	1.21 (1.09–1.35)
Personality disorder	0.97 (0.72–1.31)
Adjustment disorder	1.06 (0.79–1.41)
Depressive disorder	0.86 (0.64–1.15)

Lawrence et al, BJPsych 2003

Interactions between mental and physical health conditions



Reduced helpseeking

Underdetection/ undertreatment

Poor adherence

Worse prognosis

MDG 6 – combat HIV, malaria and other diseases (HIV/ AIDS)

Risk factor for infection?

- Mental disorders increase susceptibility for infection
- High seroprevalence among those with psychosis (3-7%)
- 10-20% of infected through intravenous drug use

Comorbidity

- High prevalence of depression, anxiety and cognitive impairment

Impact of comorbidity

- Depression, alcohol use disorder, cognitive impairment and psychosis reduce adherence to ART
- Depression, and cognitive impairment are associated with faster disease progression and increased mortality

HIV-TB and Depression

- Ethiopian study (Jimma)**
  - Sample of n=155 HIV/TB co-infected,
    and n=465 HIV only
- In persons co-infected with TB & HIV
  - High levels of depression in both groups but higher in co-infected:
    - 63.7% in HIV/TB co-infected, 46.7% in HIV only
  - Depression associated with lower quality of life.

Deribew et al. (2009) Health and Quality of Life Outcomes
Deribew et al. (2010) BMC Infectious Diseases

MDG 4 – reduce child mortality

1. Antenatal depression and low birth weight

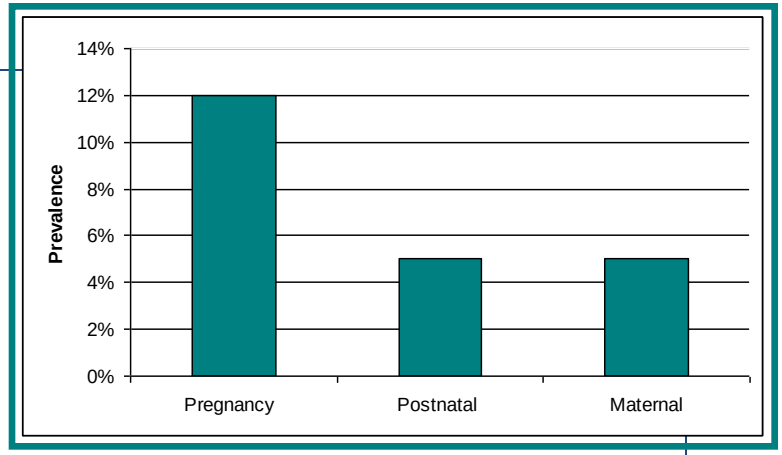
Rahman et al. 2004	Cohort	Rawalpindi	2.1 (1.1-3.3)
Patel & Prince 2006	Cohort	Goa, India	1.4 (1.0-2.1)

2. Postnatal depression and infant stunting (6-12 months)

Patel et al 2003	Cohort	Goa, India	2.3 (1.1-4.7)
Anoop et al	Case-control	Vellore, India	7.4 (1.6-38.5)
Rahman et al, 2004	Case-control	Rawalpindi	3.9 (1.9-7.8)
Rahman et al. 2004	Cohort	Rawalpindi	4.4 (1.7-11.4)

Maternal Depression (C-MaMiE)

C-MaMiE findings



- Depression found in
  - **12%** of pregnant women
  - **5%** of postnatal women
  - Around **5%** of mothers
- Suicidal thoughts in around **50%** of depressed women
- Depressed women were more likely to report that **unable to work for 15 days or more** in last month
- Depression in pregnancy was associated with **prolonged labour**

Hanlon et al. (2009) Tropical Medicine and International Health.

Postnatal experience

‘First, we quarrelled and then he started to beat me. I cried. I became angry about having a baby at that time. I was irritated. After that day, I couldn't sleep. All I did was cry. … At that time, had I been God or had I been the person who can do anything, I thought of killing her and killing myself. … Since I didn't have the guts to kill the baby or kill myself, I just thought about it.’

Rural postnatal woman from Butajira

Hanlon et al. (2009) Social Science and Medicine

In Butajira, Ethiopia…

- No association with stunting or underweight up to 12 months (Medhin et al 2010)
- No association with low birth weight, still birth, or perinatal mortality (Hanlon et al 2009)
- Significant associations with
  - Prolonged labour, delayed initiation of breast feeding (Hanlon et al 2009)
  - Diarrhoeal diseases (Ross et al 2010)
- Some suggestion of a cumulative effect of maternal depression upon infant motor development (Servili et al 2010)

Review 3 - Can mental disorders be treated?

Systematic review of treatments for mental disorders in low and middle income countries

- **86% of 11500 trials carried out in high income countries**
- **Good evidence for effective, locally feasible and affordable treatments for depression and schizophrenia**
- **Limited evidence base supporting treatments for alcohol use disorder**

Lay health workers delivering group Interpersonal therapy for depression in rural Uganda (Bolton et al, JAMA 2005, 2007)

Community health worker group interventions for depression in primary care in Chile
(Araya et al, Lancet 2003)

Community mental health workers delivering care for schizophrenia in rural India
(Chatterjee et al, Br J Psych 2003)

Lady health visitors using CBT to treat postnatal depression in rural Pakistan
(Rahman et al, Lancet, 2008)

Community health workers supporting caregivers of persons affected by dementia

(Dias et al, PLoS One, 2008)

Lay health counselors - interventions for depression in primary care in India (Patel et al, Lancet 2010)

Mental health interventions in other health conditions

Mixed results

- No clear cut effect of mental health interventions on reinfarction or survival, after heart attack
- Post-stroke depression remains difficult to prevent or treat

But..

- Psychological interventions improve diabetic control
- Group psychotherapeutic interventions on TB treatment adherence and cure (India, Ethiopia and Peru)

And..

- Mental health interventions improve mental health, quality of life and functioning in CVD, diabetes, cancer

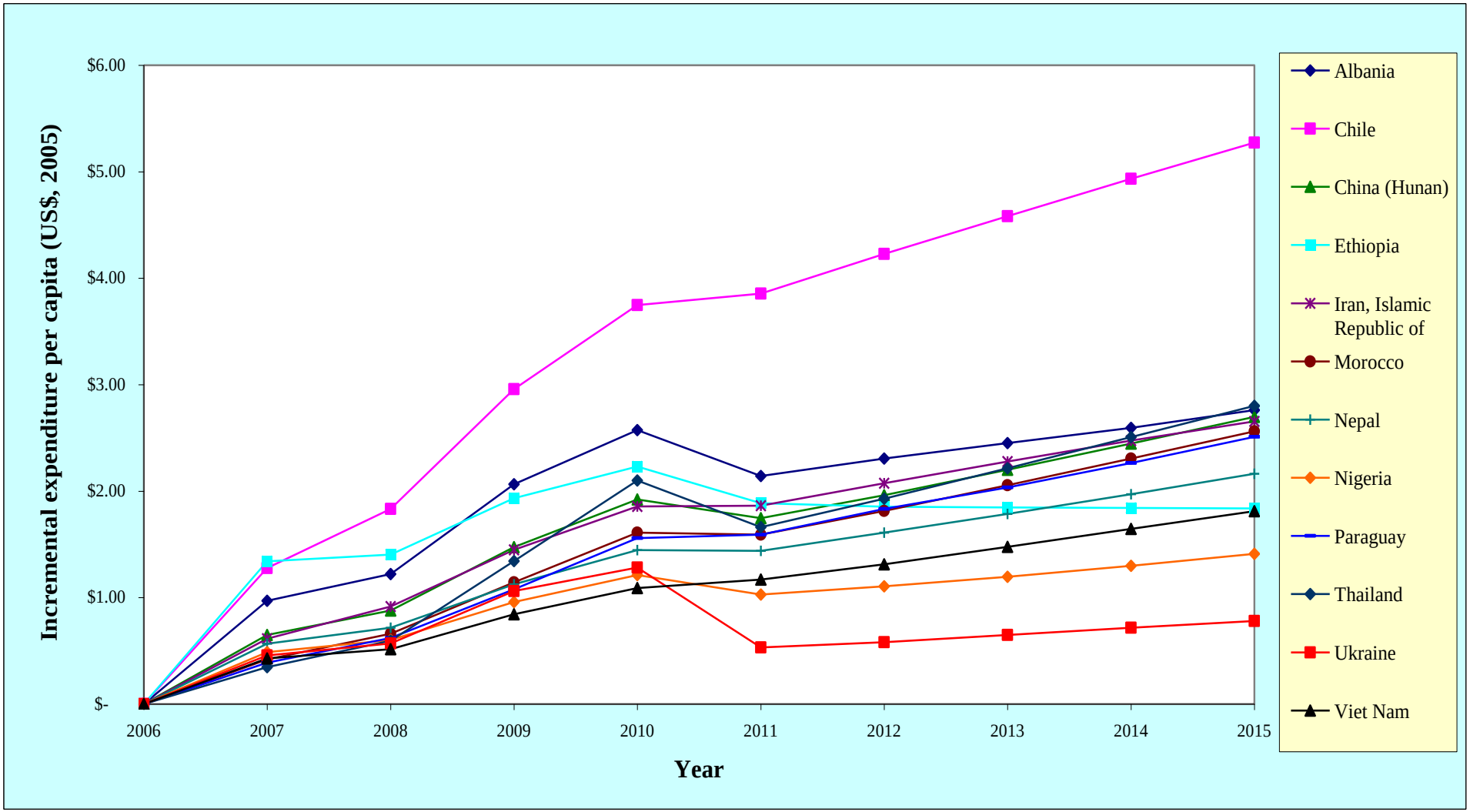
Why so little impact of evidence? -
Barriers to improving mental health services in LAMIC

- the prevailing public health priority agenda and its impact on funding;
- the complexity of and resistance to decentralizing mental health services;
- challenges in implementing mental health care in primary care settings;
- the limited number and types of human resource trained and supervised in mental health care;
- frequent lack of public health perspectives in mental health leadership (and vice versa)

Review 6: The Call for Action

- To scale up the coverage of services for mental disorders in all countries, but especially in low and middle income countries.
- Based on an evidence-based package of services for core mental disorders
- Strengthening the protection of the human rights of persons with mental disorders and their families.

How much will this evidence based package cost?



Which indicators should we use?

- Presence of official policy, programme or plan for mental health
- Specified budget for mental health as a proportion of total health budget
- Mental health and related professionals per 100,000 population
- Proportion of primary health care clinics with
  - health worker trained in MH
  - at least one psychotropic medicine of each category available locally
- Treatment gap for schizophrenia