DCP3 Disease Control Priorities

economic evaluation for health

www.dcp-3.org
info@dcp-3.org

Mental Illness in Lower-income Countries: Burden and Response

Presented by:
Dean T. Jamison
University of California, San Francisco

Johns Hopkins University
28th Annual Mood Disorders Research/Education Symposium
22 April 2014

DCP3 Disease Control Priorities

economic evaluation for health

Acknowledgements

Every presentation draws on previous work and on the ideas and inputs of colleagues. But this paper is much more than usually indebted to contributions of friends and colleagues who shared slides and ideas:

Daniel Chisholm, World Health Organization

Vikram Patel, Public Health Foundation of India and London School of Hygiene and Tropical Medicine

Theo Vos, University of Washington

DCP3 Disease Control Priorities

economic evaluation for health


THE LANCET

www.thelancet.com

Global health 2035: a world converging within a generation

The Lancet Commission on Investing in Health

Dean T. Jamison, Lawrence H. Summers, et al
December 3, 2013

DCP3 Disease Control Priorities

economic evaluation for health

"The basic mental health and neurological package contains a core set of highly cost-effective interventions that can be delivered in resource-poor settings, which have been identified by WHO. These are first-line and anti-epileptic drugs; generic anti-depressants and brief psychotherapy for depression; and older antipsychotic drugs, lithium, and psychosocial support for psychosis. Ethiopia recently launched a National Mental Health Strategy that aims to scale-up these best buy interventions in the next 5 years." - page 42

DCP3 Disease Control Priorities

economic evaluation for health

I. Burden

- In Global Burden of Disease (Theo Vos and colleagues at University of Queensland); Vikram Patel

- Economic Burden (Dan Chisholm)

www.dcp-3.org
info@dcp-3.org

Even by the most conservative estimates, about 400 MILLION people on our planet suffer from these illnesses

Mental disorders account for 7% of the global burden of disease

Depression is one of the LEADING CAUSES of the global burden of disease

Suicide is a LEADING CAUSE of death in young people

DCP3 Disease Control Priorities

Global Rankings (2010)

DALYS		YLDs		YLLs	
Ischemic heart disease	1	Low back pain	1	Ischemic heart disease	1
Lower respiratory infections	2	Major depressive disorder	2	Lower respiratory infections	2
Stroke	3	Iron-deficiency anemia	3	Stroke	3
Diarrheal diseases	4	Neck pain	4	Diarrheal diseases	4
HIV/AIDS	5	COPD	5	Malaria	5
Malaria	6	Other musculoskeletal	6	HIV/AIDS	6
Low back pain	7	Anxiety disorders	7	Preterm birth complications	7
Preterm birth complications	8	Migraine	8	Road injury	8
COPD	9	Diabetes	9	COPD	9
Road injury	10	Falls	10	Neonatal encephalopathy	10
Major depressive disorder	11	Osteoarthritis	11	Tuberculosis	11
Neonatal encephalopathy	12	Drug use disorders	12	Neonatal sepsis	12
Tuberculosis	13	Other hearing loss	13	Self-harm	13
Diabetes	14	Asthma	14	Congenital anomalies	14
Iron-deficiency anemia	15	Alcohol use disorders	15	Protein-energy malnutrition	15
Neonatal sepsis	16	Road injury	16	Lung cancer	16
Congenital anomalies	17	Bipolar disorder	17	Cirrhosis	17
Self-harm	18	Schizophrenia	18	Meningitis	18
Falls	19	Dysthymia	19	Diabetes	19
Protein-energy malnutrition	20	Epilepsy	20	Interpersonal violence	20
Neck pain	21	Ischemic heart disease	21	Drowning	21
Lung cancer	22	Eczema	22	Liver cancer	22
Other musculoskeletal	23	Diarrheal diseases	23	Fire	23
Cirrhosis	24	Alzheimer's disease	24	Chronic kidney disease	24
Meningitis	25	Tuberculosis	25	Stomach cancer	25

Institute for Health Metrics and Evaluation. (2013). GBD Compare. http://viz.healthmetricsandevaluation.org/gbd-compare/.

DCP3 Disease Control Priorities

economic evaluation for health

Mortality and Mental Disorders

GBD 2010 YLLs were attributed to the direct cause of death e.g. suicide was attributed to injuries.

In our counterfactual re-analysis:

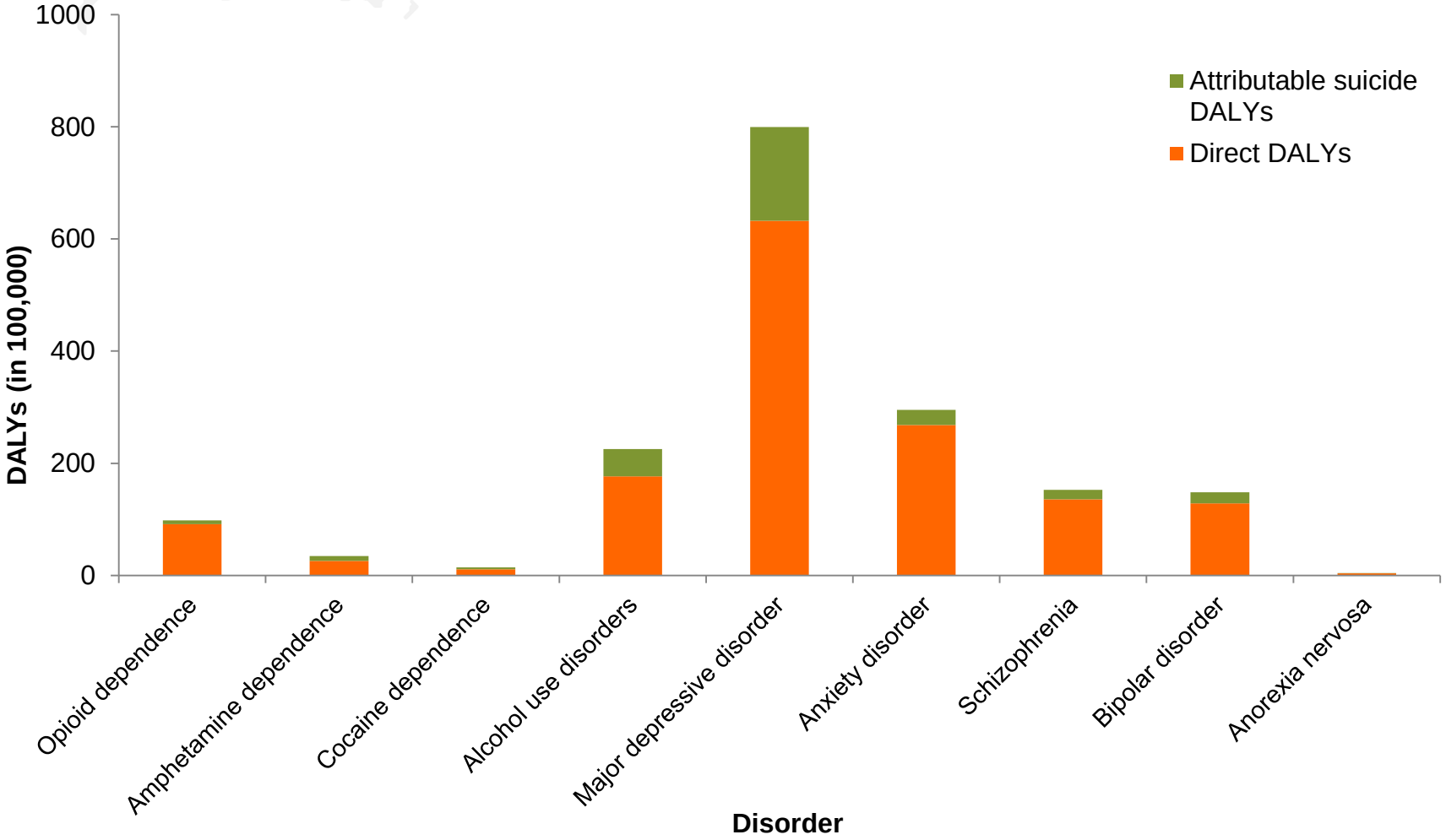
- **60%** of suicide burden globally could be re-attributed to mental and substance use disorders.
- This would have increased global DALY ranking of mental and substance use disorders **from 5th to 3rd**.
- **3%** of ischemic heart disease burden could be re-attributed to depression.

Ferrari AJ, Norman RE, Freedman G, Baxter AJ, Page A, Carnahan E, Degenhardt L, Vos T, Whiteford HA. The burden attributable to mental and substance used disorders as independent risk factors for suicide: Findings from the Global Burden of Disease Study 2010. PloS One. 2013; In press;
Charlson FJ, Moran AE, Freedman G, Norman RE, Stapelberg NJC, Baxter AJ, et al. The contribution of major depression to the global burden of ischemic heart disease: a comparative risk assessment. BMC Medicine. 2013;11:250.

DCP3 Disease Control Priorities

economic evaluation for health

Attributable suicide burden by disorder (2010)



Ferrari AJ, Norman RE, Freedman G, Baxter AJ, Page A, Carnahan E, Degenhardt L, Vos T, Whiteford HA. The burden attributable to mental and substance used disorders as independent risk factors for suicide: Findings from the Global Burden of Disease Study 2010. PloS One. 2013; In press

DCP3 Disease Control Priorities
economic evaluation for health

Why assess the economic burden or impact of MNS disorders?

- Because the consequences of MNS disorders extend beyond purely health considerations (e.g. lost income and productivity)
- Because economic impact studies can lead to a better understanding of what is driving costs now, who is most effected (e.g. the poor), and how these costs can be reduced in the future
- Because results can be used to argue for more resources (advocacy)

DCP3 Disease Control Priorities
economic evaluation for health

What are the economic impacts of mental ill-health? Who do the costs fall on?

	Care costs	*Productivity costs*	*Other costs*
Patient	Treatment & service payments	Work disability Lost earnings	Pain & suffering Side-effects
Family	Informal caregiving	Time off work	Carer burden
Employers	Contributions to treatment & care	Reduced productivity	-
Society	Health / welfare services (tax / insurance)	Reduced productivity	Stigma?

DCP3 Disease Control Priorities
economic evaluation for health

Economic burden of mental disorders

(Source: WEF, 2011 – *The Global Economic burden of NCDs*)

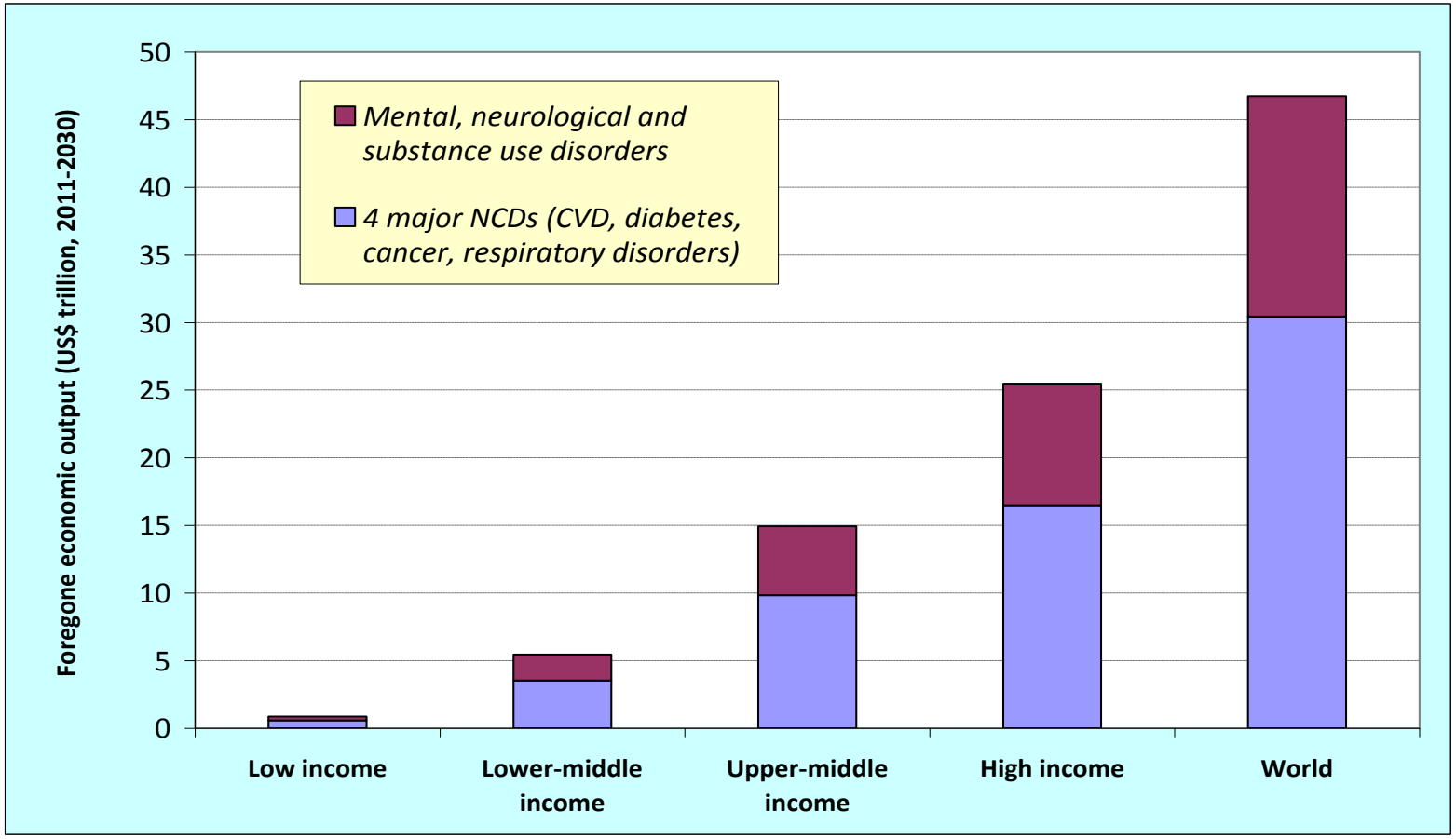
- New estimates by the World Economic Forum for the global economic impact of mental, neurological and substance use disorders, using 3 different (and non-comparable) approaches:
  - **Cost of illness**
    (health care + lost productivity)
  - **Value of lost output**
    (reduced economic growth)
  - **Value of statistical life**
    (monetary cost of lost lives)
- Whichever way you look at it, the amounts are enormous

	2010	2030
Cost of illness	US$ 2.5 trillion	US$ 6 trillion
Value of future lost output	N/A	US$ 16.3 trillion *(cumulative)*
Value of lost lives	US$ 8.5 trillion	US$ 16.1 trillion

DCP3 Disease Control Priorities
economic evaluation for health

Economic burden of NCDs and mental disorders GLOBALLY

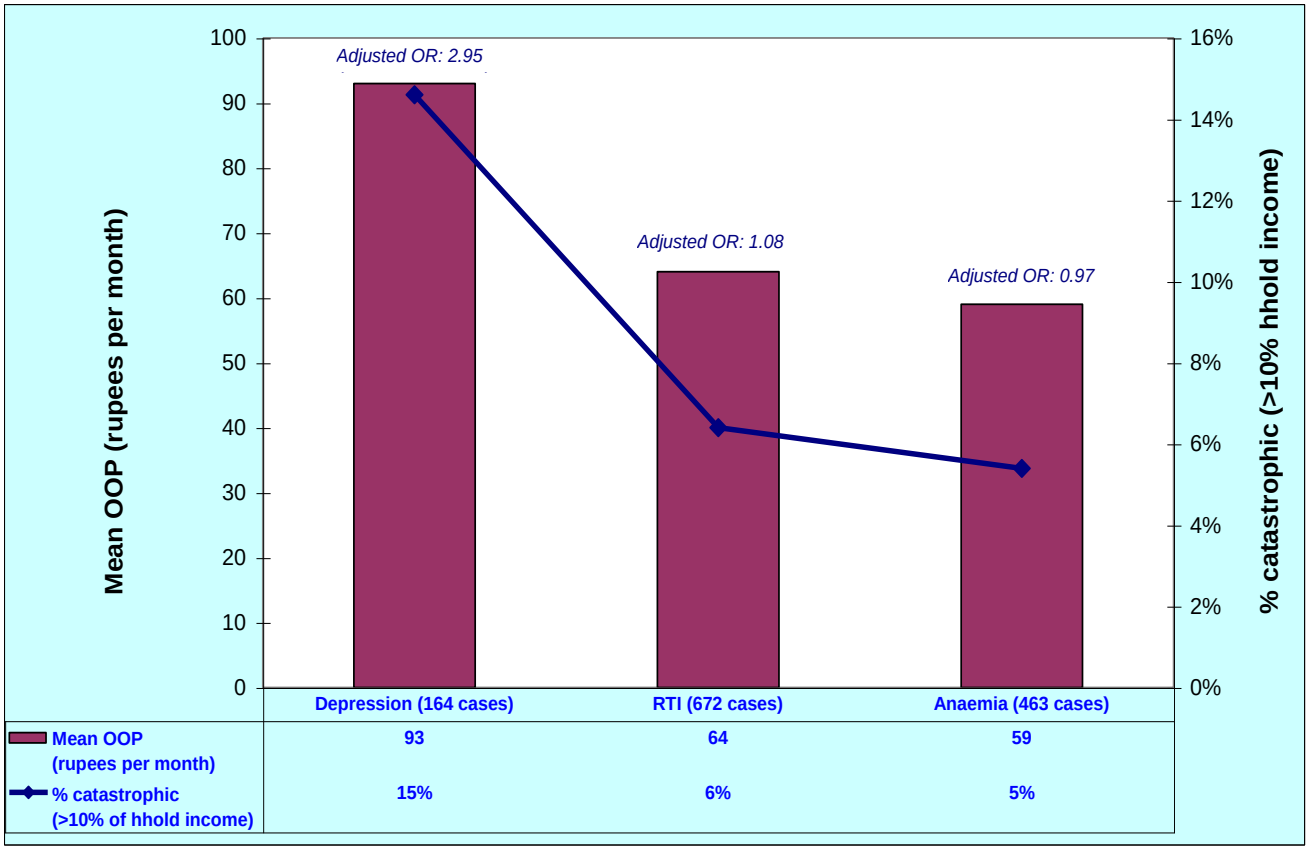
(Source: WEF, 2011 – *The Global Economic burden of NCDs*)



DCP3 Disease Control Priorities

economic evaluation for health

Out of pocket spending /catastrophic payments among women in Goa, India



Source: Patel, Chisholm, Kirkwood, Mabey (2006)

DCP3 Disease Control Priorities

economic evaluation for health

II. Response

Scaling up priority interventions
(Dan hisholm)

Implementation in practice
(Vikram Patel)

DCP3 Disease Control Priorities

economic evaluation for health

Identifying intervention 'best buys'

Disease / risk factor	Interventions / actions (* core set of 'best buys')	Cost-effectiveness *(I$ per DALY averted) [Very = < GDP per person; Quite = < 3* GDP per person]*	Affordability *(US$ per capita) [Very = < US$0.50; Quite = < US$ 1 Less = > US$1]*	Feasibility *(logistical or other constraints)*
Alcohol use (as risk factor)	**Restrict access to retailed alcohol ***	**Very cost-effective**	**Very affordable**	**Highly feasible**
	Enforce bans on alcohol advertising *			
	Raise taxes on alcohol *			
	Enforce drink driving laws (breath-testing)	Quite cost-effective	Quite affordable	Feasible in primary care
	Offer counselling to drinkers			
Depression	**Treat cases with anti-depressant drugs (generic TCAs or SSRIs) plus brief psychotherapy as required***	**Very cost-effective**	**Quite affordable**	**Feasible in primary care**
Psychosis	Treat cases with older anti-psychotic drugs plus psychosocial support	Quite cost-effective	Less affordable	Feasible (some referral needed)
Epilepsy	**Treat cases with anti-epileptic drugs ***	**Very cost-effective**	**Very affordable**	**Feasible in primary care**

DCP3 Disease Control Priorities

economic evaluation for health

Scaling up action for priority conditions

- Depression
- Schizophrenia
- Epilepsy
- Child mental disorders
- Dementia
- Suicide prevention
- Disorders due to use of alcohol
- Disorders due to illicit drug use

Criteria

- *High burden (mortality, morbidity, disability)*
- *Large economic cost*
- *Effective intervention available*
- *Affecting vulnerable populations*

DCP3 Disease Control Priorities

economic evaluation for health

Economic evidence for mental health policy – conclusions and country implications –

1. **Economic burden** *(the size of the problem)*:
   - Consequences of inaction are enormous
   - In LMIC settings, households bear the brunt of the costs
2. **Priorities for investment** *(potential solutions)*:
   - Cost-effective and feasible strategies exist
3. **Costs of scaled up action** *(financial 'price tag')*:
   - Bringing these strategies to scale need not cost the earth
   - All countries can do something

DCP3 Disease Control Priorities

economic evaluation for health

Implementation in Practice

The vast majority of people with mental disorders do not receive care which can greatly improve the quality of their lives

If we consider psychosocial interventions in particular, the 'treatment gap' exceeds 90%

DCP3 Disease Control Priorities

economic evaluation for health

Barriers to care

Differing concepts about mental disorders

Stigma related to mental disorders

Lack of affordable skilled human resources

DCP3 Disease Control Priorities
economic evaluation for health

Vikram Patel's hypothesis

- Lack of access is because of the growing remoteness of psychiatry and its allied professions from the communities they serve:
  - interventions are heavily medicalized
  - do not engage sufficiently with harnessing personal and community resources
  - are delivered in highly specialized and expensive settings
  - and use language and concepts which alienate ordinary people.

- In all these respects, innovations to improve access to mental health care in the developing world might be instructive to rethinking the way in which rich countries provide care.

DCP3 Disease Control Priorities

economic evaluation for health

The effectiveness of non-specialist health workers in delivering mental health care in developing countries

Van Ginneken et al, 2013

DCP3 | Disease Control Priorities

economic evaluation for health

SUNDAR

Simplify the message

UNpack the treatment

Deliver it where people are

Affordable and available human resources

Reallocation of specialists to train and supervise

DCP3 Disease Control Priorities

economic evaluation for health

Why task-sharing for mental health care is SUNDAR

Affordable

Equitable

Acceptable

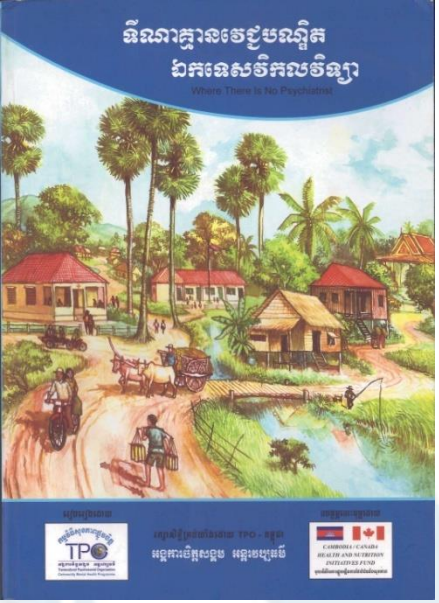
Empowering

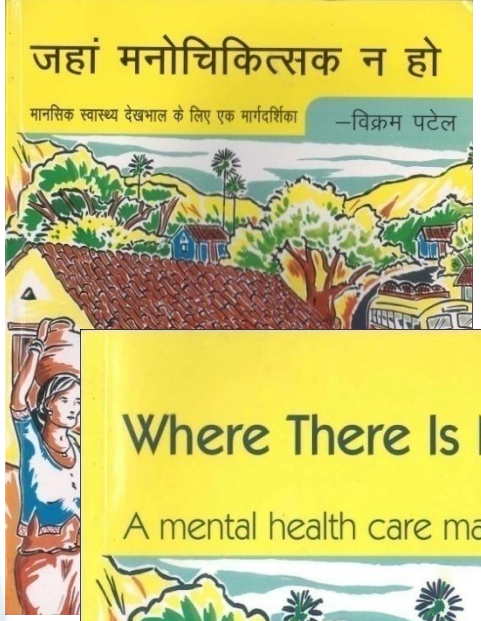
DCP3 Disease Control Priorities

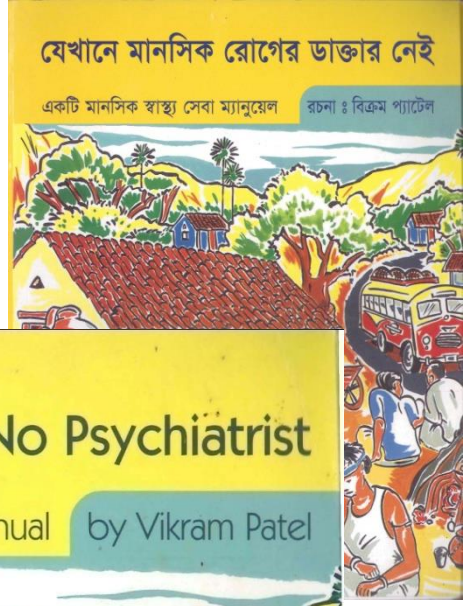
economic evaluation for health

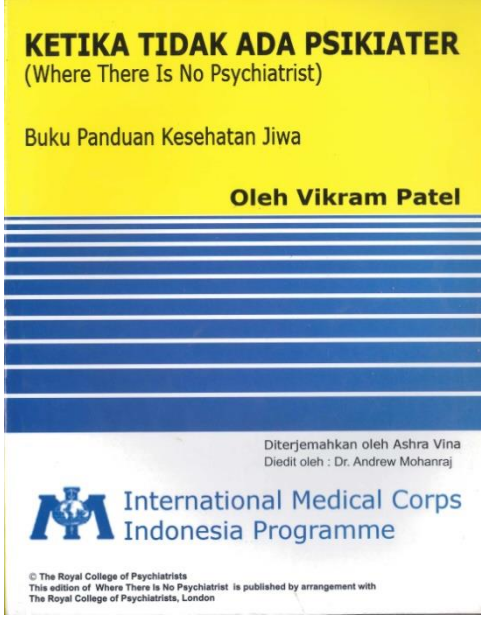
The evidence base

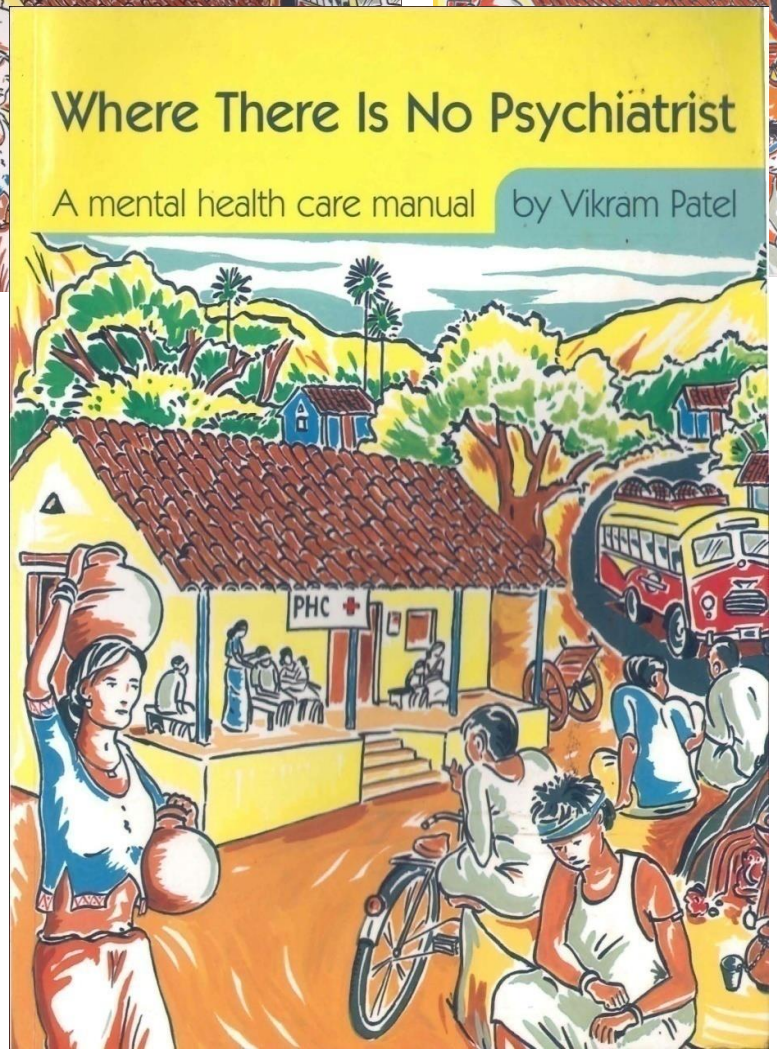
- Randomised controlled trials
  - 17 RCTs
- 2 Non randomised controlled trials
- 9 Controlled before and after studies

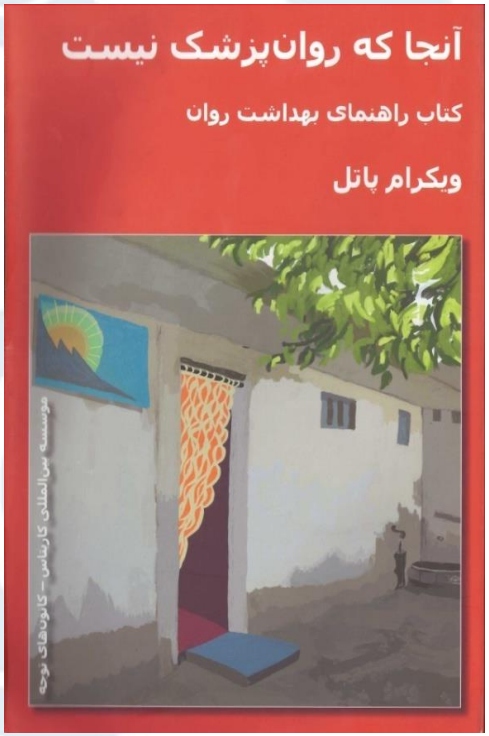

ទីណាគ្មានចេះជំងឺផ្លិត
ឯកទេសចិត្តសាស្ត្រ
Where There Is No Psychiatrist
TPO

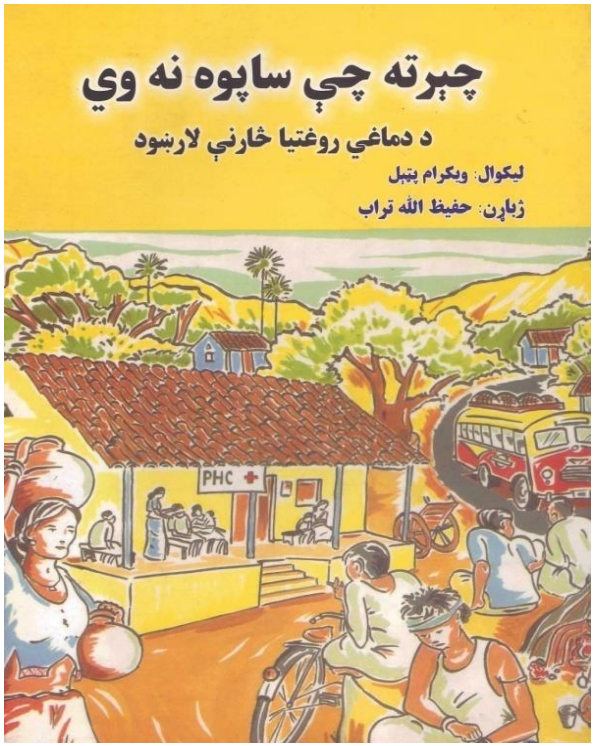

जहां मनोचिकित्सक न हो
मानसिक स्वास्थ्य देखभाल के लिए एक मार्गदर्शिका
–विक्रम पटेल


যেখানে মানসিক রোগের ডাক্তার নেই
একটি মানসিক স্বাস্থ্য সেবা ম্যানুয়েল
রচনা ঃ বিক্রম প্যাটেল


KETIKA TIDAK ADA PSIKIATER
(Where There Is No Psychiatrist)
Buku Panduan Kesehatan Jiwa
Oleh Vikram Patel
Diterjemahkan oleh Ashra Vina
Diedit oleh : Dr. Andrew Mohanraj
International Medical Corps
Indonesia Programme
© The Royal College of Psychiatrists
This edition of Where There Is No Psychiatrist is published by arrangement with
The Royal College of Psychiatrists, London


Where There Is No Psychiatrist
A mental health care manual
by Vikram Patel
PHC


آنجا که روان‌پزشک نیست
کتاب راهنمای بهداشت روان
ویکرام پاتل


چېرته چې ساپوه نه وي
د دماغي روغتيا څارنې لارښود
ليکوال: ويکرام پټېل
ژباړن: حفيظ الله تراب
PHC

DCP3 Disease Control Priorities
economic evaluation for health

Developing the Response Agenda:

DISEASE CONTROL PRIORITIES (D.T. Jamison et al, editors)

First edition, 1993: Oxford University Press and the World Bank. One Chapter.

2nd edition 2006: Oxford University Press and the World Bank. Three Chapters.

3rd edition, forthcoming, 2014-15. DCP3 will appear in 9 volumes one of which is on mental, substance abuse and neurological disorders (volume 8).

* * *

DCP3 Series Editors
Dean Jamison
Rachel Nugent
Hellen Gelband
Sue Horton
Prabht Jha
Ramanan Laxminarayan

DCP3, Volume 8 Editors
Vikram Patel
Daniel Chisholm
Tarun Dua
Ramanan Laxminarayan
Maria Elena Medina-Mora
Theo Vos

DCP3 Disease Control Priorities

economic evaluation for health

"Public Policy can more easily remove misery than augment happiness…In the West the most miserable group of people are the mentally ill. We know how to help most of them, but only about a quarter are currently in treatment. We owe them better." (page 231.)

Lord Richard Layard

Happiness, 2005

DCP3 Disease Control Priorities

economic evaluation for health

Thank you

GlobalHealth2035.org

Dcp-3.org

#GH2035

@globalhealth2025