

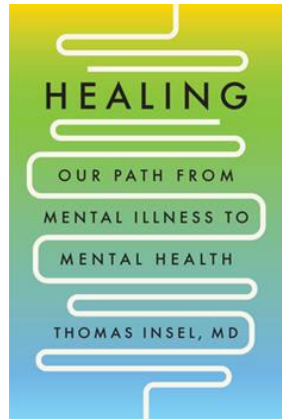
Addressing the mental health crisis: lessons from the Global South

Vikram Patel

The Pershing Square Professor of Global Health

Harvard Medical School





“The mental health crisis is a crisis
of care”

COMMENT



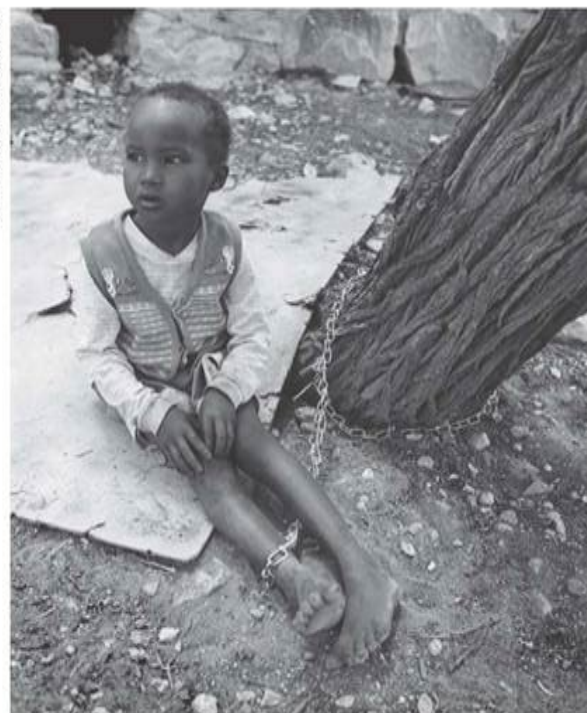
NANOTECHNOLOGY Materials should not be regulated on size alone **p.21**

SUMMER BOOKS Reviewers and editors suggest reading for your holiday **p.22**

CONSERVATION Concern about alien species is scientific and practical **p.26**

EQUALITY Action needed to stop science prizes going primarily to men **p.27**

H. THOMPSON/CORBIS OUTLINE COLLECTION



Improving treatment for children with mental illness, like this girl in Somalia, is an urgent priority.

Grand challenges in global mental health

A consortium of researchers, advocates and clinicians announces here research priorities for improving the lives of people with mental illness around the world, and calls for urgent action and investment.

Schizophrenia, depression, epilepsy, dementia, alcohol dependence and other mental, neurological and substance-use (MNS) disorders constitute 13% of the global burden of disease (Table 1), surpassing both cardiovascular disease and cancer¹. Depression is the third leading contributor to the global disease burden, and alcohol and illicit drug use account for more than 5% (ref. 2). Every seven seconds, someone develops dementia³, costing the world up to US\$609 billion in 2009 (ref. 4). By 2020, an estimated 1.5 million people will die each year by suicide, and between 15 and 30 million will make the attempt⁵.

The absence of cures, and the dearth of preventive interventions for MNS disorders, in part reflects a limited understanding of the brain and its molecular and cellular mechanisms. Where there are effective treatments, they are frequently not available to those in greatest need. In 83% of low-income countries, there are no anti-Parkinsonian treatments in primary care; in 25% there are no anti-epileptic drugs⁶. Unequal distribution of human resources — between and within countries — further weakens access: the World Health Organization's European region has 200 times as many psychiatrists as in Africa⁷. Across all countries, investment in fundamental research into preventing and treating MNS disorders is disproportionately low relative to the disease burden⁸.

To address this state of affairs, the Grand Challenges in Global Mental Health initiative has identified priorities for research in the next 10 years that will make an impact on the lives of people living with MNS disorders. The study was funded by the US National Institute of Mental Health (NIMH) in Bethesda, Maryland, supported by the Global Alliance for Chronic Diseases (GACD), headquartered in London. Answers to the questions posed will require a surge in discovery and delivery science. We use the term 'mental health' as a convenient label for MNS disorders. We exclude conditions with a vascular or infectious aetiology (such as stroke or cerebral malaria), because these fell within the scope of the two previous grand challenges initiatives — in global health and in chronic non-communicable diseases⁹.

This initiative differs from previous priority-setting exercises for mental

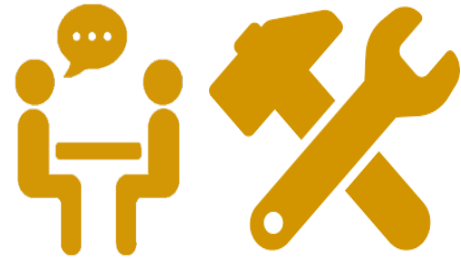
**WE KNOW HOW TO DELIVER
CLINICAL AND PREVENTIVE
PSYCHOSOCIAL INTERVENTIONS
IN AN AFFORDABLE AND
ACCEPTABLE WAY IN ANY
RESOURCE SETTING**

**>100 randomized controlled trials
of psychosocial interventions from
>30 low and middle income
countries**



Redefining mental health care

1. What?



2. Where?



3. Who?



4. How?



The Home Care Trial



Home Care Advisor
Non Pharmacological
intervention provided as per
individualised protocol
addressing ADL and
neuropsychiatric symptoms

OPEN ACCESS Freely available online



The Effectiveness of a Home Care Program for Supporting Caregivers of Persons with Dementia in Developing Countries: A Randomised Controlled Trial from Goa, India

Amit Dias^{1*}, Michael E. Dewey², Jean D'Souza³, Rajesh Dhume⁴, Dilip D. Motghare¹, K. S. Shaji⁵, Rajiv Menon⁶, Martin Prince², Vikram Patel⁷

¹ Department of Preventive and Social Medicine, Goa Medical College, Goa, India, ² Section of Epidemiology, Institute of Psychiatry, King's College, London, United Kingdom, ³ Dementia Society of Goa, Goa, India, ⁴ Directorate of Health Services, Goa, India, ⁵ Department of Psychiatry, Medical College, Thiruvananthapuram, India, ⁶ Mental Health Centre, Chelsea & Westminster Hospital, London, United Kingdom, ⁷ Department of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, United Kingdom

Abstract

Objectives: To develop and evaluate the effectiveness of a home based intervention in reducing caregiver burden, promoting caregiver mental health and reducing behavioural problems in elderly persons with dementia.

Methodology and Principal Findings: This was a randomised controlled trial in which the person with dementia-caregiver dyad was randomly allocated either to receive the intervention immediately or to a waiting list group which received the intervention after 6 months. It was carried out in communities based in two talukas (administrative blocks) in Goa, India. Mild to moderate cases with dementia (diagnosed using the DSM IV criteria and graded using the Clinical Dementia Rating scale) and their caregivers were included in the trial. Community based intervention provided by a team consisting of Home Care Advisors who were supervised by a counselor and a psychiatrist, focusing on supporting the caregiver through information on dementia, guidance on behaviour management, a single psychiatric assessment and psychotropic medication if needed. We measured caregiver mental health (General Health Questionnaire), caregiver burden (Zarit Burden Scale), distress due to behavioural disturbances (NPI-D), behaviour problems in the subject (NPI-S) and activities of daily living in the elder with dementia (EASI). Outcome evaluations were masked to the allocation status. We analysed each outcome with a mixed effects model. 81 families enrolled in the trial; 41 were randomly allocated to the intervention, 59 completed the trial and 18 died during the trial. The intervention led to a significant reduction of GHQ (-1.12 , 95% CI -2.07 to -0.17) and NPI-D scores (-1.96 , 95% CI -3.51 to -0.41) and non-significant reductions in the ZBS, EASI and NPI-S scores. We also observed a non-significant reduction in the total number of deaths in people with dementia in the intervention arm (OR 0.34, 95% CI 0.01 to 1.03).

Conclusion: Home based support for caregivers of persons with dementia, which emphasizes the use of locally available, low-cost human resources, is feasible, acceptable and leads to significant improvements in caregiver mental health and burden of caring.

ClinicalTrials.gov NCT00479271

Citation: Dias A, Dewey ME, D'Souza J, Dhume R, Motghare DD, et al. (2008) The Effectiveness of a Home Care Program for Supporting Caregivers of Persons with Dementia in Developing Countries: A Randomised Controlled Trial from Goa, India. PLoS ONE 3(6): e2333. doi:10.1371/journal.pone.0002333

Editor: Carol Brayne, University of Cambridge, United Kingdom

Received: August 8, 2007; **Accepted:** February 28, 2008; **Published:** June 4, 2008

Copyright: © 2008 Dias et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Funding: World Health Organization

Competing Interests: The authors have declared that no competing interests exist.

* E-mail: dr_amit_dias@yahoo.com

Introduction

Recent estimates show that dementia is a major cause of burden of disease amongst the elderly in developing countries[1]. As many parts of the developing world witness a demographic transition, dementia is likely to account for an even greater proportion of this burden in the future[2]. The numbers of people affected by dementia in India are set to triple, reaching six million by 2040[3]. Awareness is limited, both in the community and among health professionals[4] and there are few services tailored to the needs of people with dementia and their caregivers.

Service development for older people with dementia in developing countries needs to take account of the prevailing socio-economic, health system and cultural circumstances. Dementia is generally perceived to be part of normal ageing, and families rarely present to health services[4]. Health services are ill-equipped to meet the needs of older persons. Health care is typically clinic-based; the person with dementia and their caregivers must attend a clinic or hospital, often involving a long journey and waiting time. The assessment and treatment that they receive is orientated towards acute rather than chronic conditions. As a consequence, most care for dementia is informal, with little or no support from health or social services[5].

Packages of Care for Dementia in Low- and Middle-Income Countries

Martin J. Prince^{1*}, Daisy Acosta², Erico Castro-Costa^{1,3}, Jim Jackson⁴, K. S. Shaji⁵

¹ Health Service and Population Research Department, Institute of Psychiatry, King's College London, London, United Kingdom, ² Universidad Nacional Pedro Henríquez Ureña (UNPHU), Santo Domingo, Dominican Republic, ³ Centro de Pesquisa René Rachou/Fiocruz, Belo Horizonte, Minas Gerais, Brazil, ⁴ Alzheimer Scotland, Edinburgh, United Kingdom, ⁵ Medical College, Thiruvananthapuram, India

This is the fifth in a series of articles highlighting the delivery of "packages of care" for mental health disorders in low- and middle-income countries. Packages of care are combinations of treatments aimed at improving the recognition and management of conditions to achieve optimal outcomes.

Introduction

Dementia is a chronic organic brain syndrome, characterised by progressive impairment of multiple cortical functions, including memory, learning, orientation, language, comprehension, and judgement. Diagnosis requires decline in cognitive function and independent living skills (Box 1) [1]. However, for carers and people with dementia, the behavioural and psychological symptoms of dementia (BPSD) affect most quality of life, are an important cause of carer strain [2], and a common reason for institutionalisation [3]. Alzheimer's disease, vascular dementia, dementia with Lewy bodies, and frontotemporal dementia are the most common dementia subtypes, but mixed pathologies may be the norm [4]. Some rare causes (subdural haematoma, normal pressure hydrocephalus, hypercalcaemia, and deficiencies of thyroid hormone, vitamin B12, and folic acid) can be treated. Otherwise, the progressive course of dementia cannot be altered, but symptomatic treatments and support can be helpful.

Dementia mainly affects older people. Few cases start before the age of 65 y, after which prevalence doubles with every 5-y increase in age [5]. Globally, 24.3 million people are affected by dementia and 4.6 million new cases occur annually [6]. The prevalence of dementia is expected to double every 20 y, reaching 81.1 million by 2040, an increase of 100% in developed countries and of more than 300% in India, China, and their neighbours. Prevalence is lower in low- and middle-income countries (LMICs) than in high income countries (HICs) [6], perhaps because of underdetection of mild cases [7]. Nevertheless, most people with dementia live in LMICs—60% in 2001 rising to 71% by 2040 [6].

Dementia contributes 11.2% of years lived with disability among people aged 60 y and over, a higher proportion than stroke (9.5%), musculoskeletal disorders (8.9%), cardiovascular disease (5.0%), and cancer (2.4%) [8]. Its global cost is estimated to be US\$317 billion, 77% of this total arising in HICs where formal sector care costs increase with disease progression, and institutionalization is the main cost driver [9]. Family care is more important in resource-poor countries, accounting for 56% of costs in low-income countries, 42% in middle-income countries, and 31% in HICs [9]. In a pilot study in 26 LMIC centers, carers were economically disadvantaged [10]. A fifth of carers had cut back on paid work, and paid carers were common, which added to the economic strain [10]. Compensatory benefits were practically nonexistent [10,11].

In three qualitative studies in India, features of dementia were widely recognized and named [12–14]. However, dementia was perceived as normal ageing rather than as a medical condition. The consequences

were limited help seeking [13] despite disability and carer strain [15], no structured training on the recognition and management of dementia, and no constituency to advocate for more responsive care services [14]. People with dementia were excluded from residential care [13]. Carers misinterpreted BPSD as deliberate misbehavior [14]. BPSD can also lead to stigma and blame attaching to the carers [2]. In India, likely causes of dementia were cited as "neglect by family members, abuse, tension and lack of love" [13].

In this article, we focus on the effective management of dementia in LMICs, reviewing the evidence on efficacy of interventions and their delivery derived from LMICs where possible. Given the paucity of relevant evidence from LMICs, we also cite systematic reviews and meta-analyses based on trials from HICs. On the basis of our review we propose a package of care—a combination of treatments aimed at improving the recognition and management of conditions to achieve optimal outcomes—for dementia.

The Evidence on the Management of Dementia

The principal goals of management of dementia are: early diagnosis; optimization of physical health, cognition, activity, and wellbeing; detection and treatment of BPSD; and the provision of information and long-term support to carers. The evidence base for dementia care comes, overwhelmingly, from HICs (Table 1). All the studies discussed below refer to HICs, unless otherwise specified.

Detection and Diagnosis of Dementia

Many cases of dementia, particularly in LMICs, go undetected, partly because of lack of awareness. Awareness of this disorder can be boosted by dissemination of information from governments, health care providers, and media. Help-seeking can be encouraged by improved case-finding. In India and Brazil, for example, community

Citation: Prince MJ, Acosta D, Castro-Costa E, Jackson J, Shaji KS (2009) Package of Care for Dementia in Low- and Middle-Income Countries. *PLoS Med* 6(11): e1000176. doi:10.1371/journal.pmed.1000176

Academic Editor: Václav Patel, London School of Hygiene and Tropical Medicine, United Kingdom

Published: November 3, 2009

Copyright: © 2009 Prince et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

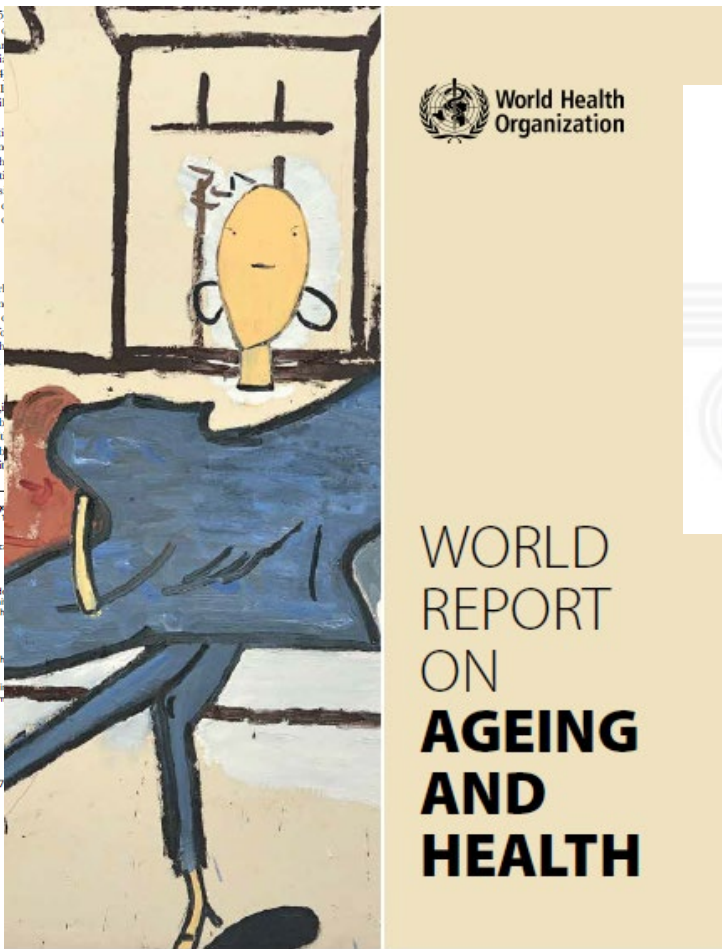
Funding: No specific funding was received for this piece.

Competing Interests: DA is Chair of Alzheimer's Disease International. JJ is the ex-Chief Executive of Alzheimer Scotland.

Abbreviations: BPSD, behavioural and psychological symptoms; ChEi, cholinesterase inhibitor; HIC, high income country; LMIC, low- and middle-income country; RCT, randomised controlled trial.

* E-mail: m.prince@kcl.ac.uk

Provenance: Commissioned; externally peer reviewed.



"Healthy Ageing - the process of developing and maintaining the **functional ability** that enables wellbeing in older age."

Prevention of Late-Life Depression in Low & Middle Income Countries: the DIL trial



Effect of a Lay Counselor Intervention on Prevention of Major Depression in Older Adults Living in Low- and Middle-Income Countries

A Randomized Clinical Trial

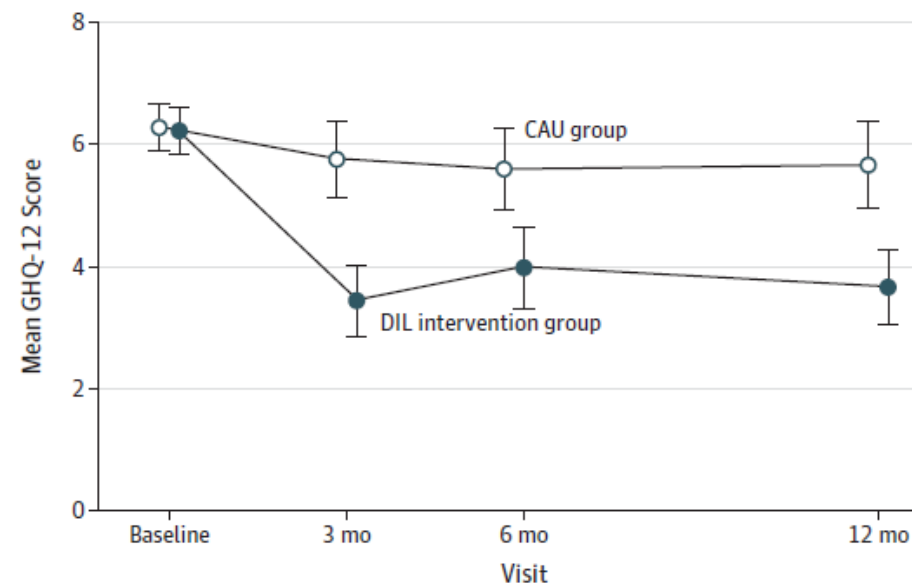
Amit Dias, MD; Fredric Azariah, MSc; Stewart J. Anderson, PhD; Miriam Sequeira, MA; Alex Cohen, PhD; Jennifer Q. Morse, PhD; Pim Cuijpers, PhD; Vikram Patel, MD, PhD; Charles F. Reynolds III, MD

IMPORTANCE Preventing depression in older adults living in low- and middle-income countries is important because of the scarcity of treatment resources and the risk of disability, suicide, and dementia.

[+ Editorial](#)

[+ Supplemental content](#)

Figure 3. Mean 12-Item General Health Questionnaire (GHQ-12) Scores (Pointwise 95% CIs by Visit and Treatment)



Mean GHQ-12 scores over time improved to a significantly greater extent in the depression later in life (DIL) intervention group than in the care as usual (CAU) group (overall group \times time interaction $P < .001$). Scores for the GHQ-12 can range from 0 to 12; a higher score indicates greater symptoms of depression and anxiety. Error bars indicate 95% CIs.

The benefits of this approach

Improves access to evidence-based care

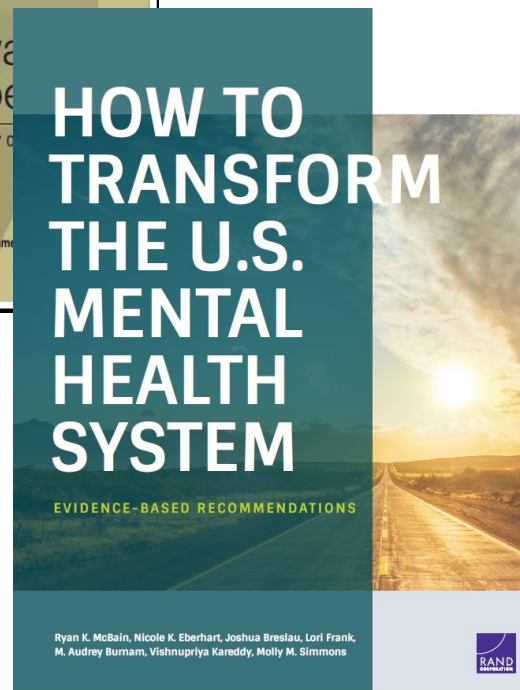
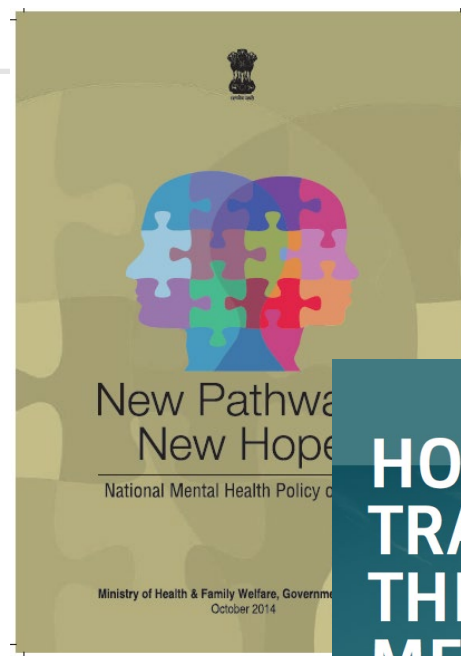
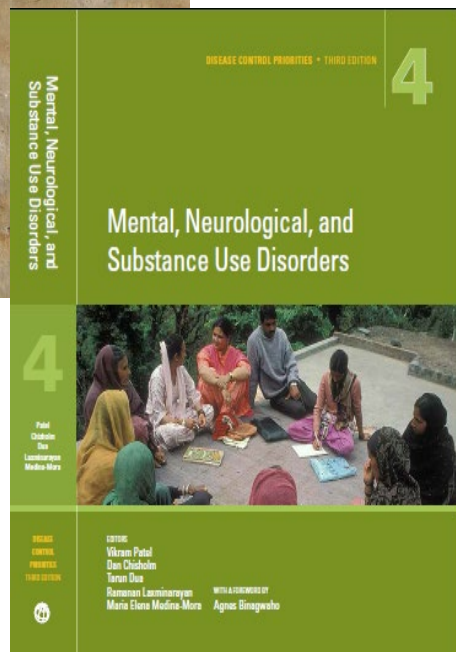
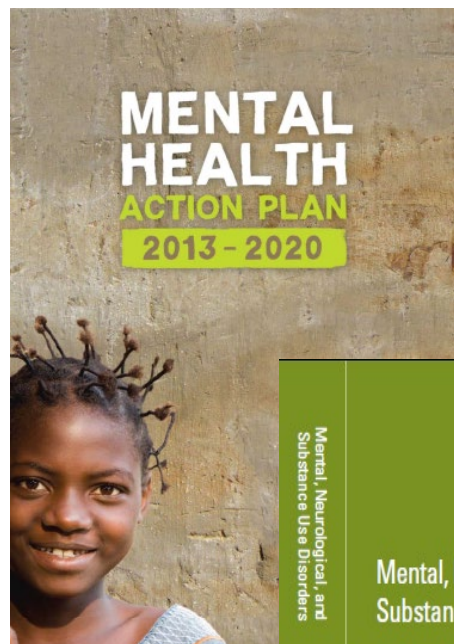
Frees up specialist services to work at the 'top of their license'

Reduces stigma

Person-centred

Benefits the providers

From evidence to action to transform mental health globally



Build the front-line workforce

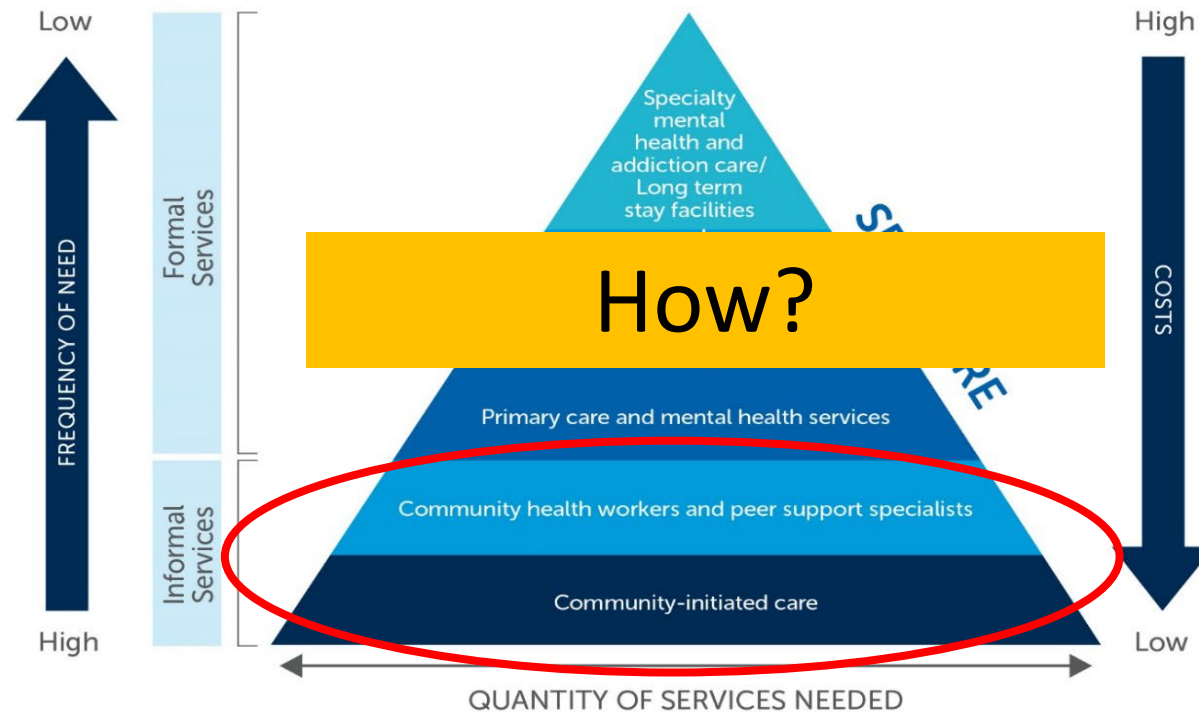


Figure 1: Framework for Mental Health and Addiction Workforce (Revised from WHO) World Health Organization. (2009). Improving health systems and services for mental health (978 92 4 159877 4). WHO Press. https://www.who.int/mental_health/policy/services/mhsystems/en/



EMPOWER

BUILDING THE WORLD'S MENTAL
HEALTH WORKFORCE

A digital solution
for learning, mastering, and
delivering quality-assured psychosocial
interventions

www.empower.care

The deployment of technology

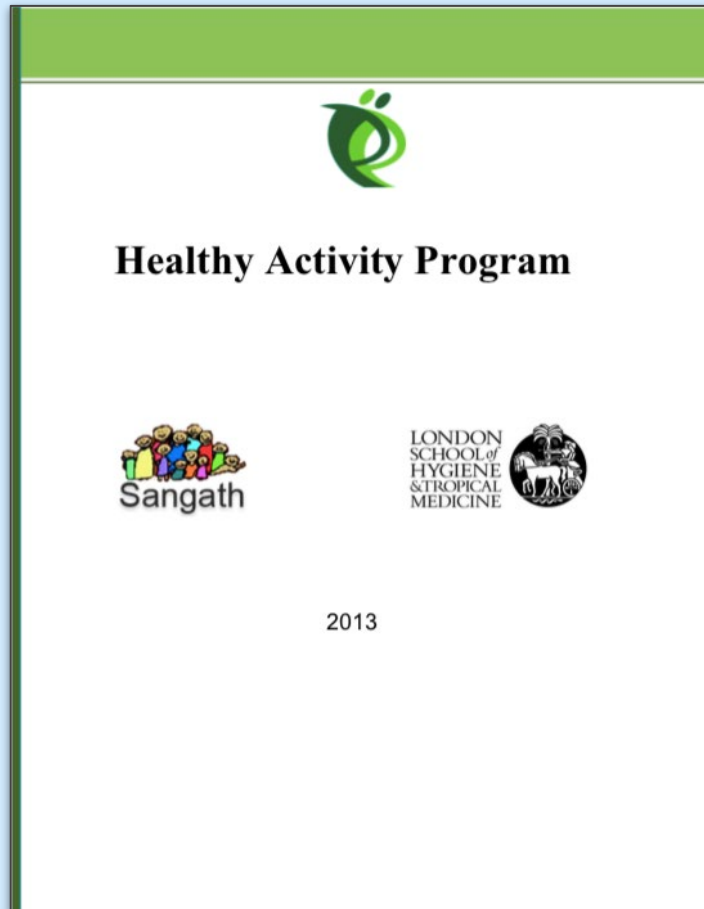
Digitally delivered curriculum on any LMS

Remotely delivered competency assessments, including assessments of skills through self-recorded or observed role-plays rated with psychometrically validated measures

Bespoke digital app (designed in partnership with DIMAGI) for measurement based peer supervision and quality measurement

Data science driven evaluation of digital data from training to competencies to quality of care, ultimately linked with patient outcomes

Evidence-Based Manual for Treatment of Depression



HEALTHY ACTIVITY PROGRAM (HAP)

A lay counsellor delivered brief behavioral activation treatment for depression, evaluated in India and digitized as a prototype in Hindi

Implemented by:



HARVARD
MEDICAL SCHOOL

DEPARTMENT OF
Global Health and
Social Medicine



Published in:



Scaling up the HAP



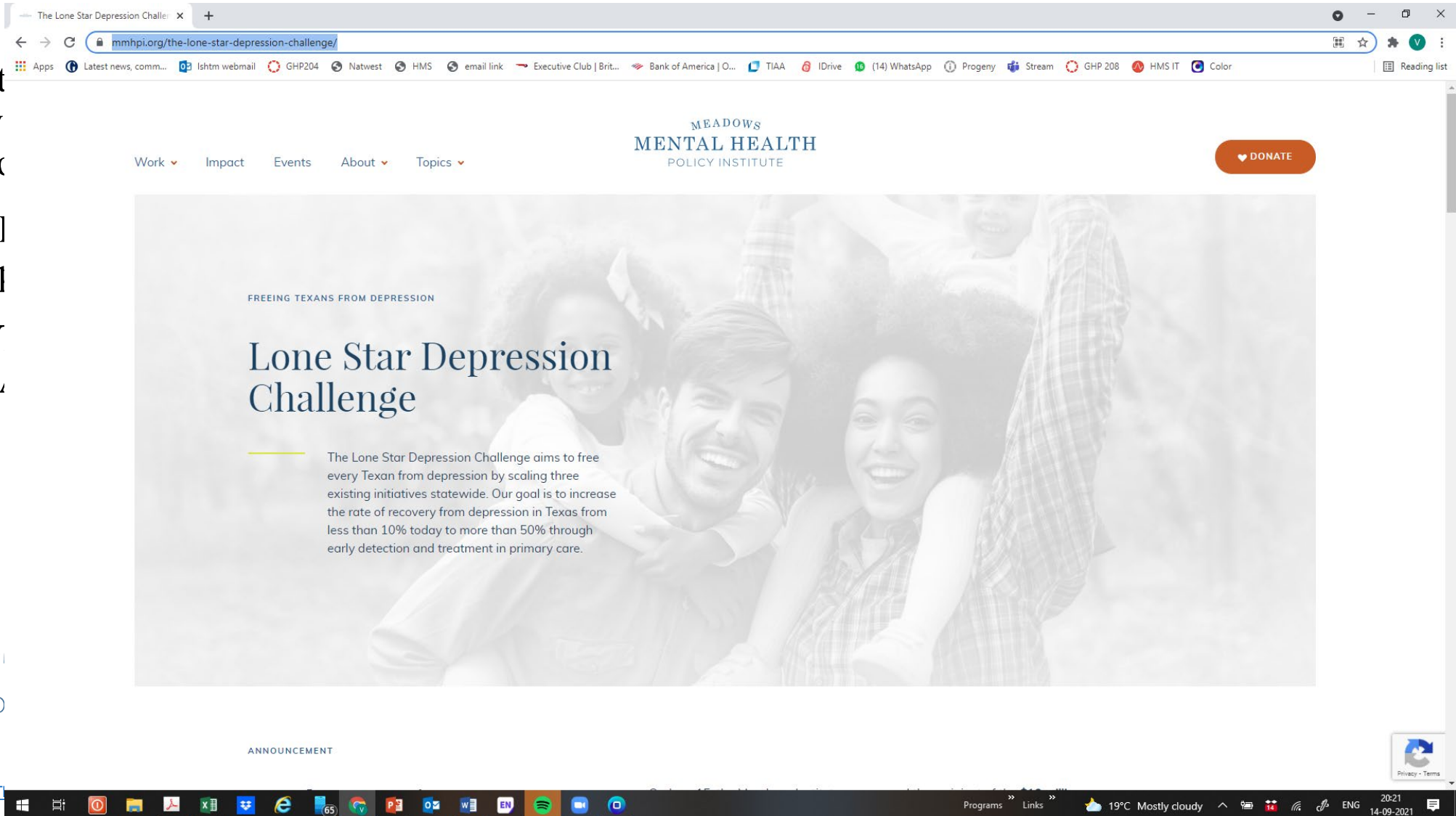
Launching EMPOWER in the US

A part
Policy
up two

-]
- 1
- r
- 1

MEN
PO

References: I



The screenshot shows a web browser window with the URL mmhpi.org/the-lone-star-depression-challenge/. The page header includes the Meadows Mental Health Policy Institute logo and navigation links: Work, Impact, Events, About, and Topics. A prominent orange 'DONATE' button is visible in the top right corner. The main content area features a large, faded image of a smiling family (a man, a woman, and two children) with the text 'FREEING TEXANS FROM DEPRESSION' and 'Lone Star Depression Challenge'. Below this, a paragraph states: 'The Lone Star Depression Challenge aims to free every Texan from depression by scaling three existing initiatives statewide. Our goal is to increase the rate of recovery from depression in Texas from less than 10% today to more than 50% through early detection and treatment in primary care.' At the bottom of the page, there is a section labeled 'ANNOUNCEMENT'. The browser's taskbar at the bottom shows various application icons and system information, including the date 14-09-2021 and time 20:21.

ation

Lessons for global mental health

Scale up psychosocial interventions by deploying digital tools and products to enable a front-line workforce to learn, master, deliver and evaluate these interventions