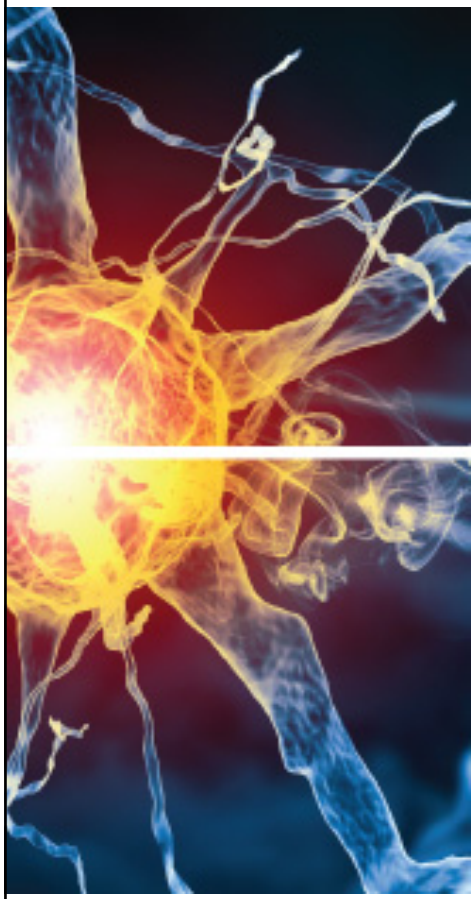
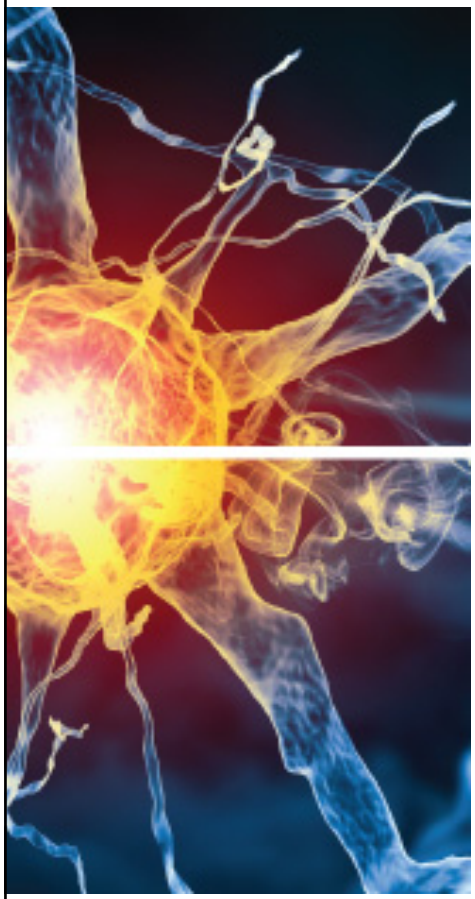


The Burden of Depression and Its Treatment in Global Mental Health



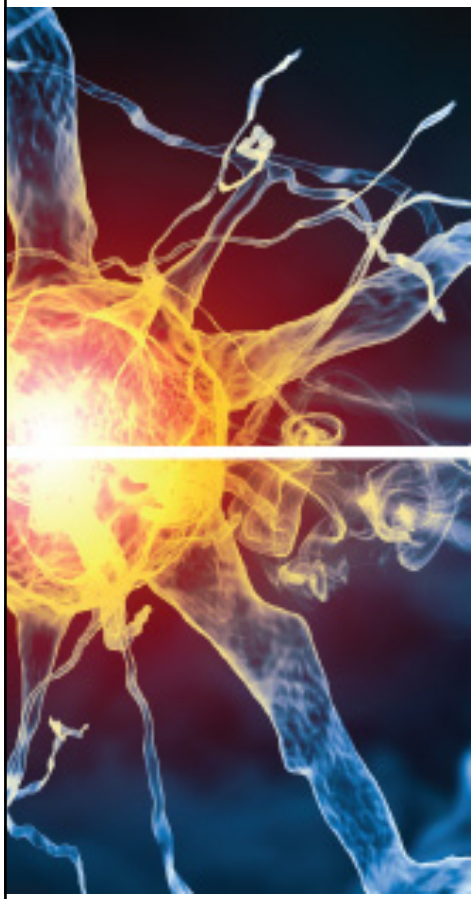
Milton L. Wainberg, MD

Professor of Clinical Psychiatry
Columbia University
Director, Global Mental Health Research
New York Psychiatric Institute
New York, NY

Milton L. Wainberg, MD

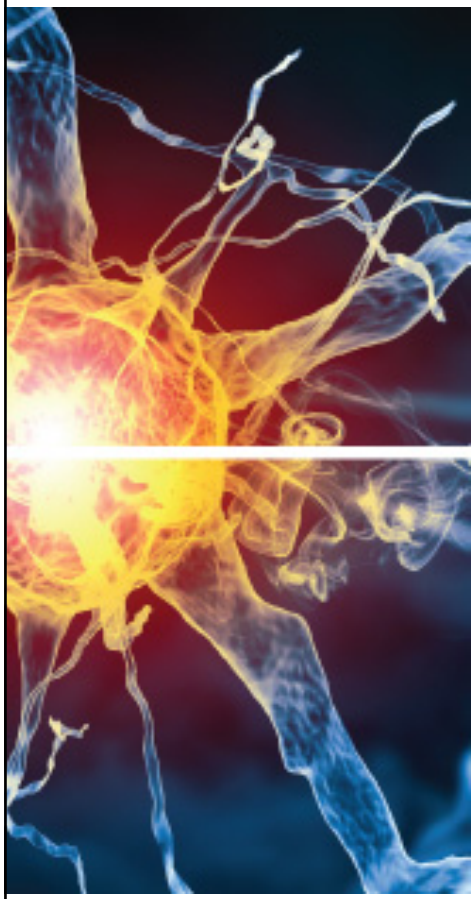
Disclosures

- Dr. Wainberg has no disclosures to report.



1 Learning Objective

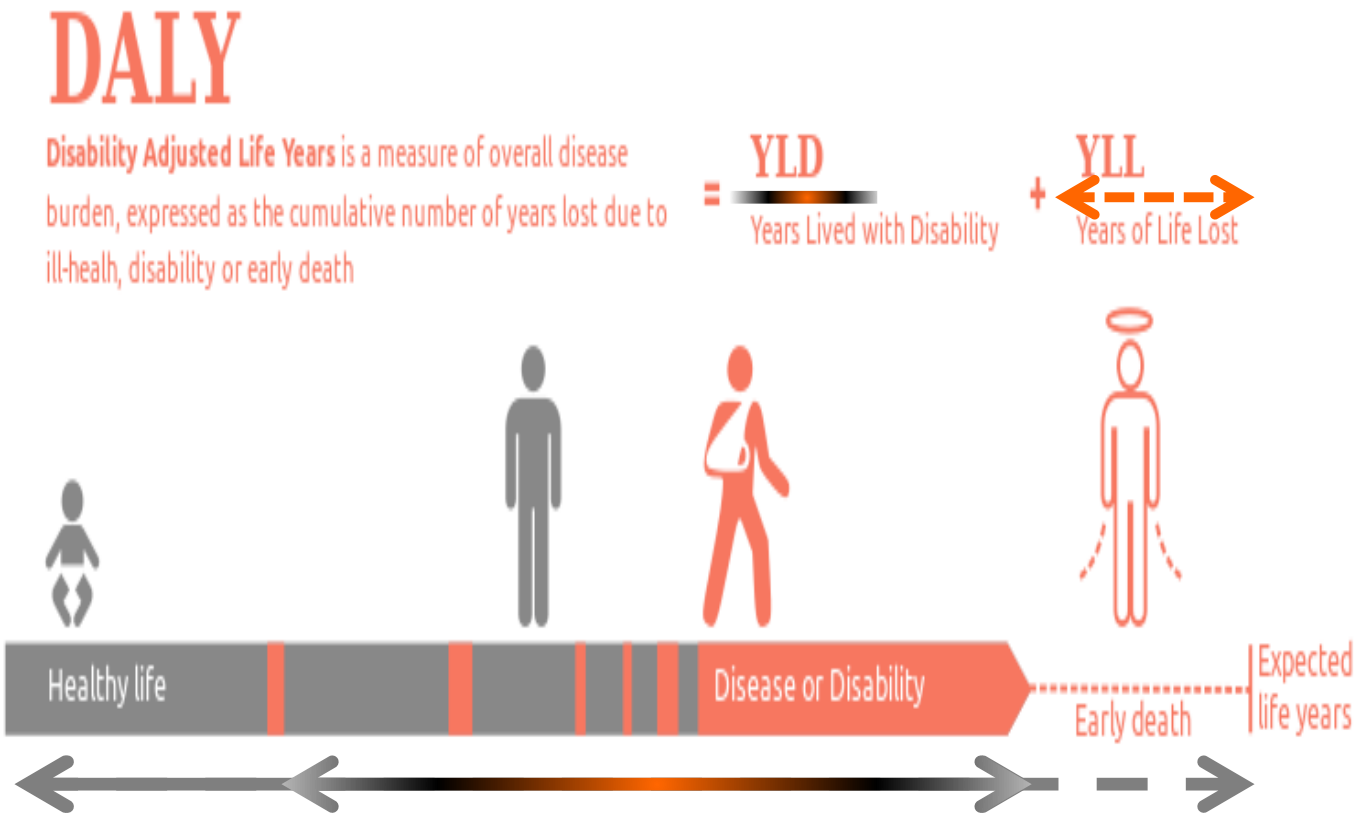
Examine the global burden of psychiatric disorders.



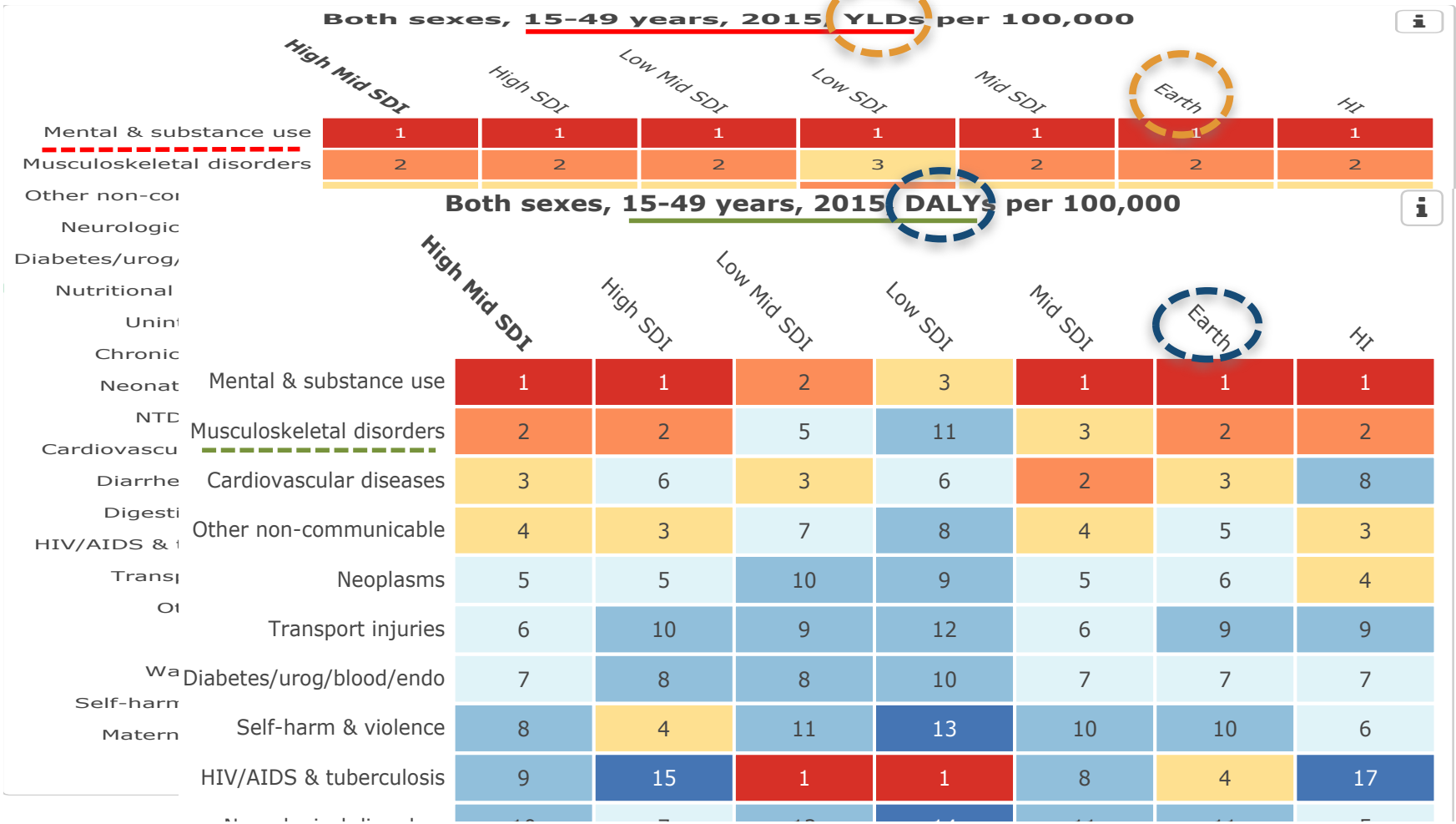
2 Learning Objective

Review the global challenges in the management of mental illness.

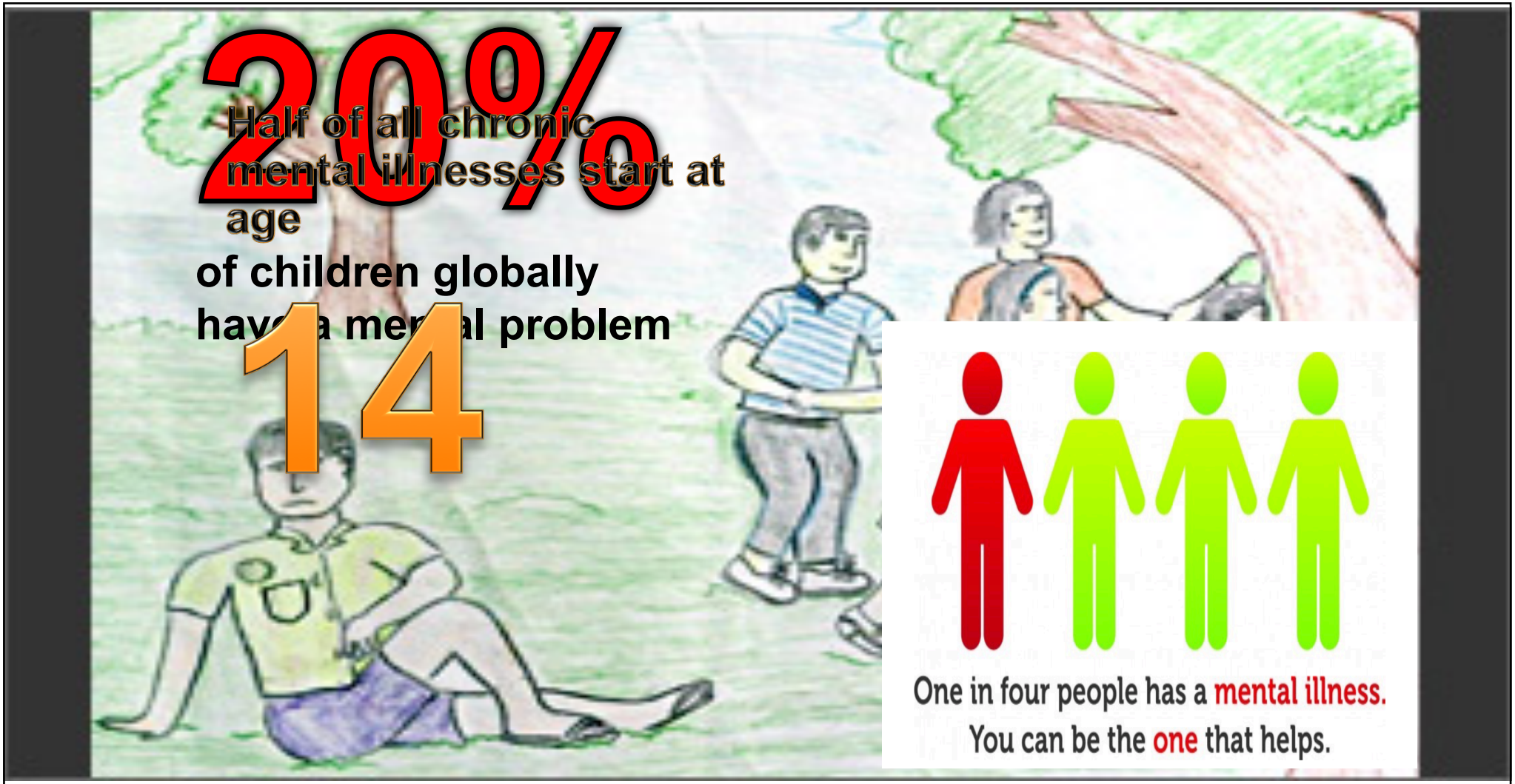
Burden of Disease



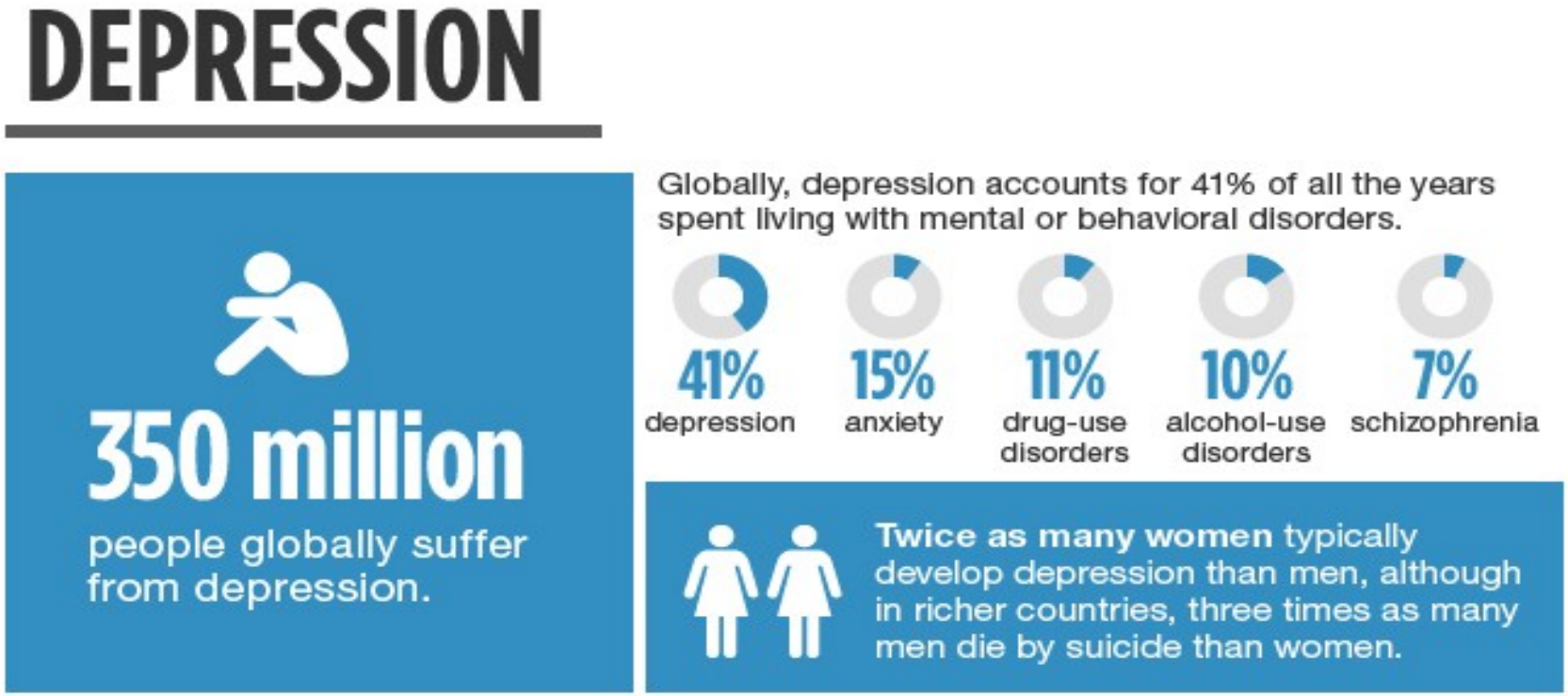
Available at http://www.healthdata.org/gbd/data-visualizations. Accessed June 1, 2017.



Institute for Health Metrics and Evaluation. Available at http://www.healthdata.org/. Accessed June 1, 2017.


20%
Half of all chronic mental illnesses start at age
14
of children globally have a mental problem
One in four people has a mental illness.
You can be the one that helps.

Global Impact of Depression



Global Burden of Diseases, Injuries, and Risk Factors Stuyd 2013; World Health Organization. Available at http://www.cnn.com/2014/10/10/opinion/breaking-the-taboo-mental-mealth/index.html. Accessed June 2, 2017.

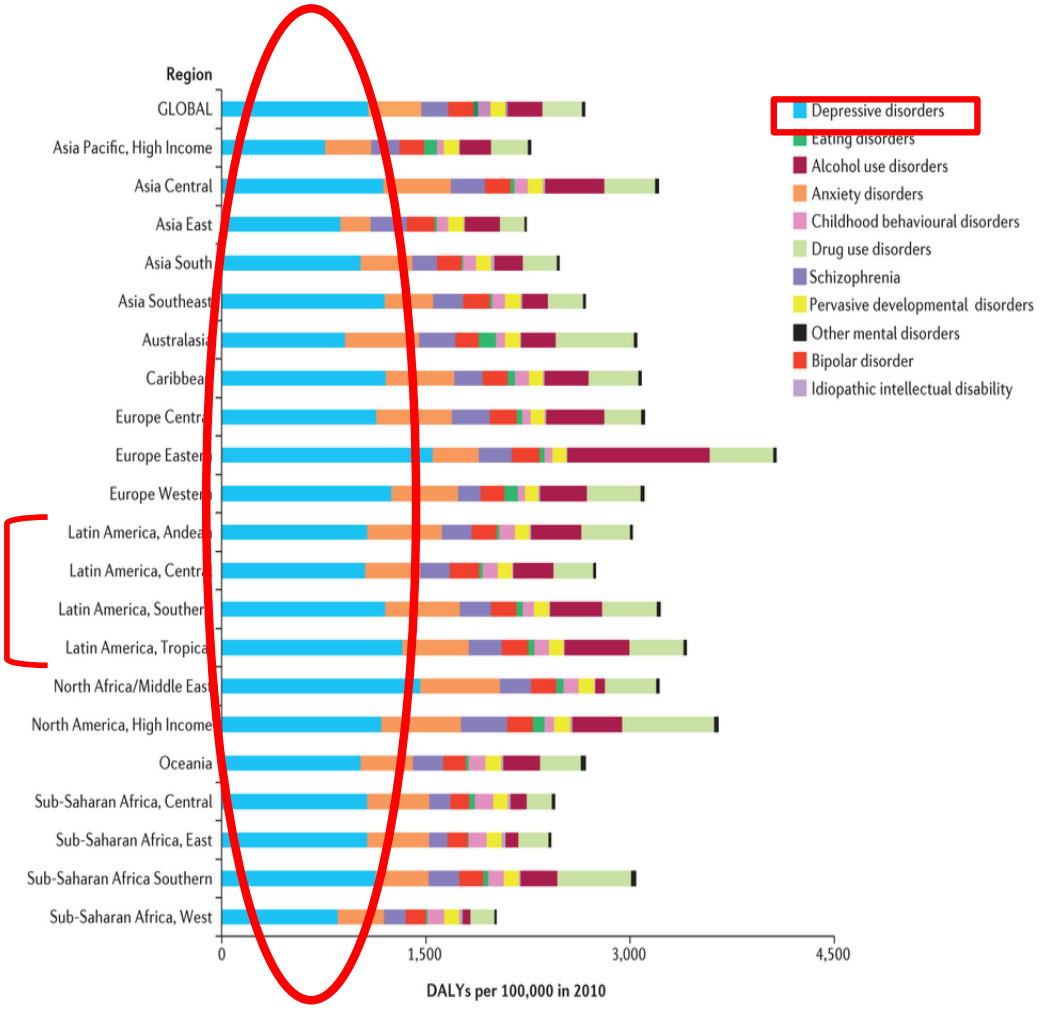
Global Burden of Disease

GLOBAL BURDEN OF MENTAL, NEUROLOGICAL AND SUBSTANCE-USE (MNS) DISORDERS*

Ran	Worldwide			High-income countries†		Low- and middle-income countries	
	Rank	Cause	DALYs‡ (millions)	Cause	DALYs (millions)	Cause	DALYs (millions)
1	1	Unipolar depressive disorders	65.5	Unipolar depressive disorders	10.0	Unipolar depressive disorders	55.5
2		Alcohol-use disorders	23.7	Alzheimer's and other dementias	4.4	Alcohol-use disorders	19.5
3		Schizophrenia	16.8	Alcohol-use disorders	4.2	Schizophrenia	15.2
4		Bipolar affective disorder	14.4	Drug-use disorders	1.9	Bipolar affective disorder	12.9
5		Alzheimer's and other dementias	11.2	Schizophrenia	1.6	Epilepsy	7.3
6		Drug-use disorders	8.4	Bipolar affective disorder	1.5	Alzheimer's and other dementias	6.8
7		Epilepsy	7.9	Migraine	1.4	Drug-use disorders	6.5
8		Migraine	7.8	Panic disorder	0.8	Migraine	6.3
9		Panic disorder	7.0	Insomnia (primary)	0.8	Panic disorder	6.2

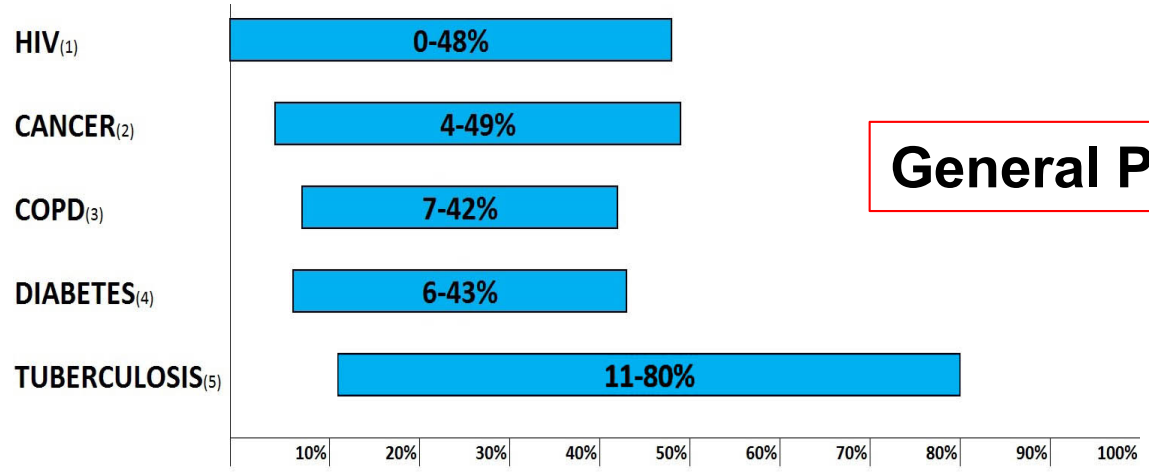
Collins PY, et al. *Nature*. 2011;475(7354):27-30.

DEPRESSION: Leading Cause of Disability



Baingana F, et al. *Nature*, 2015; 527:S172–S177..

Prevalence of Major Depression in People with Physical Illnesses



General Population ~ 10%

Social stigma

Catastrophic costs

PSYCHOSOCIAL STRESS

Discrimination

Social isolation

Inability to work

Psychiatric

Physical

SIDE EFFECTS

Dermatological

RISK FACTORS

Malnutrition

Cytokines

PHYSIOLOGICAL

Inflammation

Immunosupression

Incarceration

SOCIAL VULNERABILITY

Substance abuse

Poverty

Homelessness

[1]Rabkin JG, et al. *Curr HIV/AIDS Rep*. 2008;5(4):163-171; [2]Walker J, et al. *Ann Oncol*. 2013;24(4):895-900; [3]van Ede L, et al. *Thorax.* 1999;54(8):688-692; [4]Roy T, et al. *BMC Psychiatry*. 2012;12:123; [5]Sweetland A, et al. *World Psychiatry*. 2014;13(3):325-326.

Depression: Treatment Gap

Mental disorder	WHO region					
	Africa	Americas	Eastern Mediterranean	Europe	South-East Asia	Western Pacific
Schizophrenia	NA[a]	56.8	NA	17.8	28.7	35.9
Major depression	67.0	56.9	70.2	45.4	NA	48.1
Dysthymia	NA	48.6	NA	43.9	NA	50.0
Bipolar disorder	NA	60.2	NA	39.9	NA	52.6
Panic disorder	NA	55.4	NA	47.2	NA	66.7
Generalized anxiety	NA	49.6	NA	62.3	NA	55.6

"Although there are known, effective treatments for depression, **fewer than half of those affected in the world** (in many countries, fewer than 10%) receive such treatments."

World Health Organization. Available at http://www.who.int/mediacentre/factsheets/fs369/en/; Kohn R, et al. *Bull World Health Organ*, 2004;82(11):858-866.

Millennium Developmental Goals

SUSTAINABLE DEVELOPMENT GOALS

3 GOOD HEALTH AND WELL-BEING

TARGETS:

"By 2030, **reduce by one third premature mortality from non-communicable diseases** through prevention and treatment and promote mental health and well-being"

SDG = sustainable development goals

World Health Organization. Available at http://www.who.int/sdg/targets/en/. Accessed June 1, 2017.

SDGs include Mental and Substance Disorders Indicators

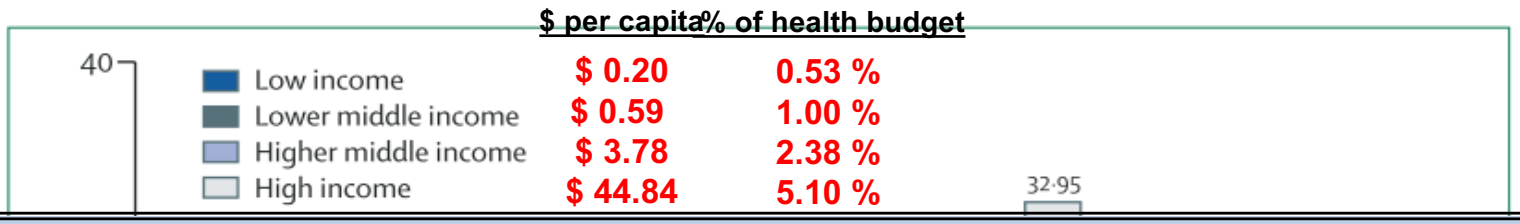
Yet,

75-90% of those with mental disorders in Low- and Middle-Income Countries do not receive care*

When provided,
Tends to be below minimum acceptable standards and to disrespect human rights
+
STIGMA

SDG = sustainable development goals

Demyttenaere K, et al. *JAMA*. 2004;291(21):2581-2590; Wainberg ML, et al. *Curr Psychiatry Rep*. 2017;19(5):28.

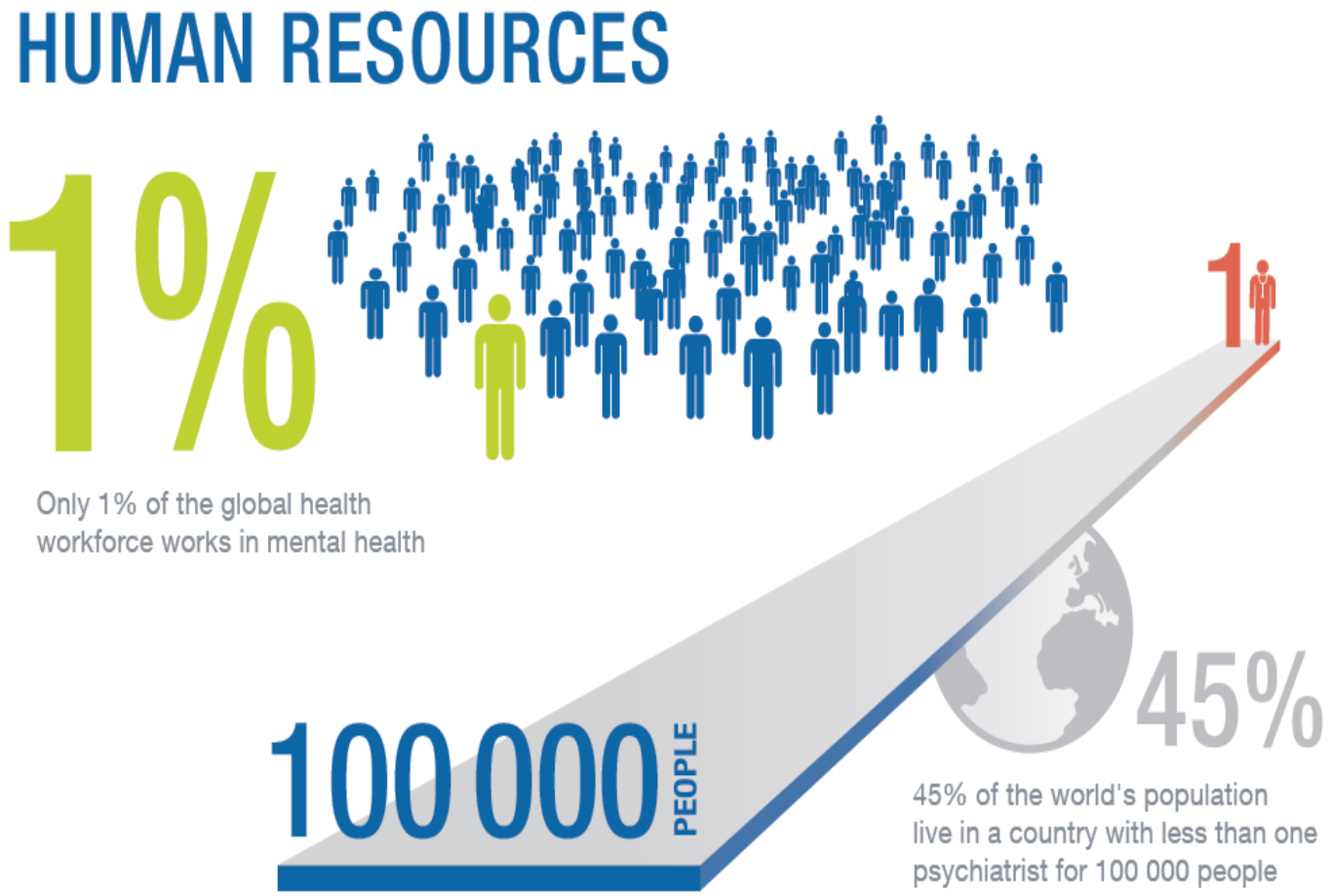


Resources needed per capita per year:
Low-income countries – US $2
Lower middle-income countries – US $ 3-4

"Each dollar invested in easily scalable mental health treatment and services for depression and anxiety returns about US $4 in improved health and ability to work"

Demyttenaere K, et al. *JAMA*. 2004;291(21):2581-2590

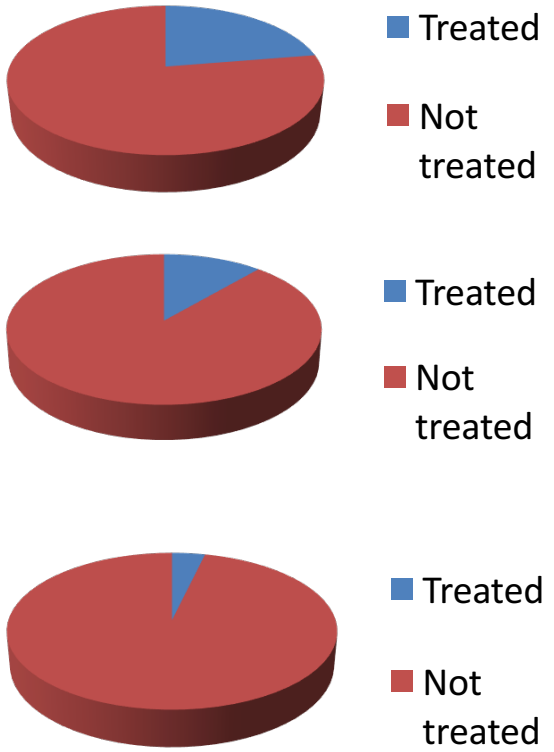
WHO Atlas 2014



World Health Organization. Available at http://apps.who.int/iris/bitstream/10665/178879/1/9789241565011_eng.pdf. Accessed June 1, 2017.

Globally, Treatment Coverage for Depression is Low

- Minimally adequate treatment*
  - High income countries: 22.4%
  - Middle income countries: 11.4%
  - Low income countries: 3.7%

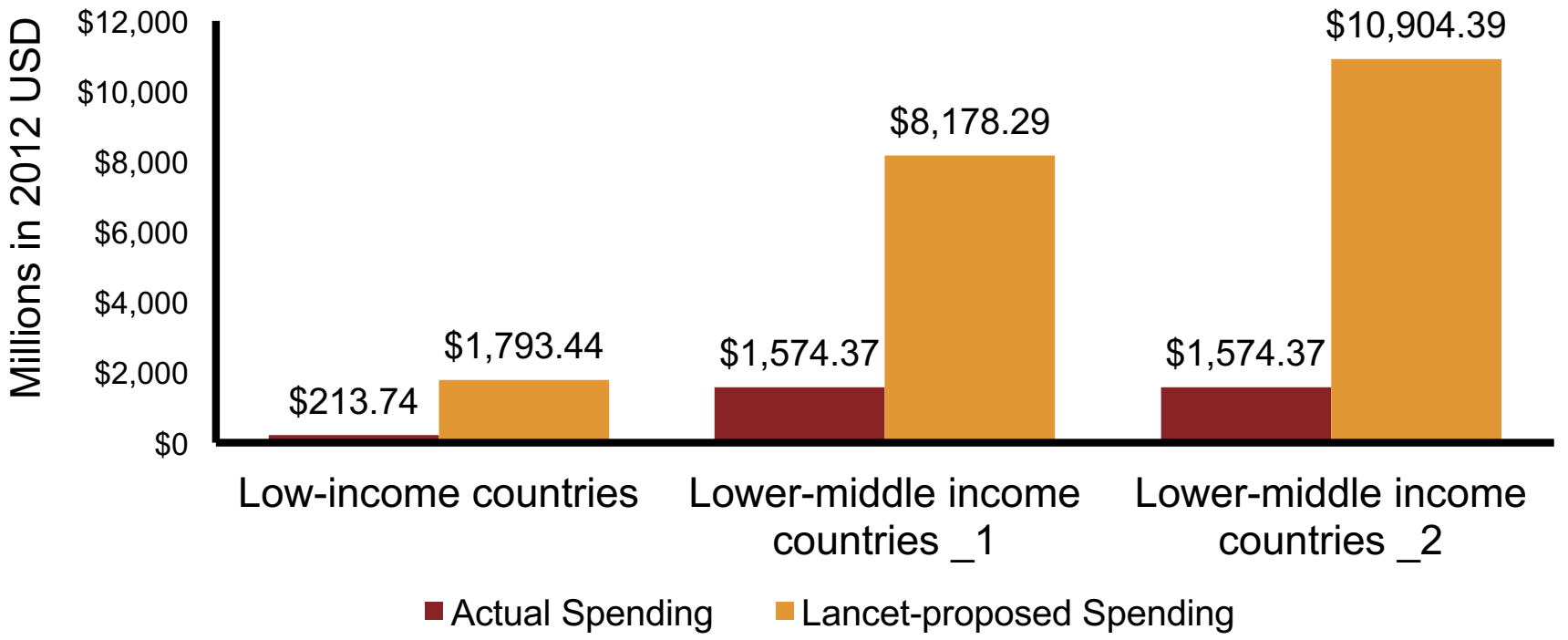


Focus: Epilepsy and Psychosis

*Among people with 12-month diagnosis of Major Depressive Disorder from 21 countries, World Mental Health Survey. Thornicroft G, et al. Br J Psychiatry. 2017;210(2):119-124.

National Institute of Mental Health

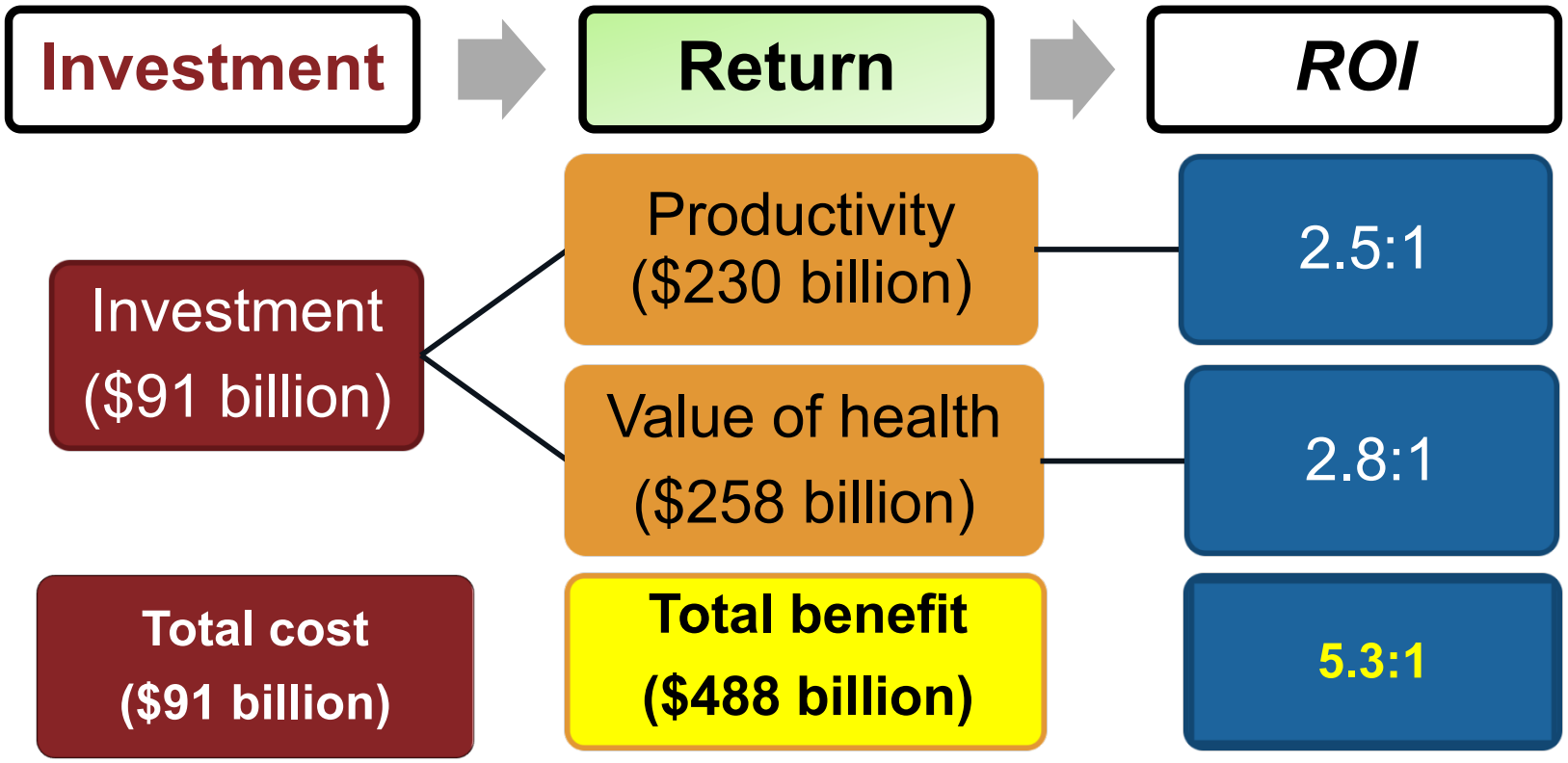
Actual and Proposed Development Aid for Mental Health Services in LMICs



LMIC, lower-middle income countries

Gilbert BJ, et al. *Plos Med.* 2015;12(6):e1001834.

Return on Investment (ROI): Depression Treatment



Chisholm D, et al. *Lancet Psychiatry*. 2016;3(5):415-424.

NIH National Institute of Mental Health

Integrating Mental Health Treatment in Primary Care

mhGAP Mental Health Gap Action Programme

Scaling up ca
mental, neuro
substance use

World Health Organization

d

As my dad used to tell us:
**"Don't just bring me problems,
bring me SOLUTIONS"**

World Health Organization. Available at http://www.who.int/mental_health/mhgap/en/. Accessed June 1, 2017.

Solving the Resources & Infrastructure Problem

TASK-SHIFTING/SHARING

Reassignment of specific MH assessment and treatment procedures with *abbreviated training and ongoing supervision*[1].

- ✓ Lay personnel (e.g., teachers, community workers) can successfully recognize mental disorders[2]
- ✓ Trained and supervised non-specialists can effectively deliver psychopharmacological and psychological treatments[3] for mental disorders that are sustained for extended.[3-4]

[1]World Health Report 2007. Available at http://www.who.int/whr/2007/en/. Accessed June 1, 2017; [2]Verdeli H, et al. *Child Adolesc Psychiatr Clin N Am*. 2008;17(3):605-624; [3]Rojas G, et al. *Lancet.* 2007;370(9599):1629-1637; [4]Patel V, et al. *PLoS Med*. 2009;6(10):e1000160.

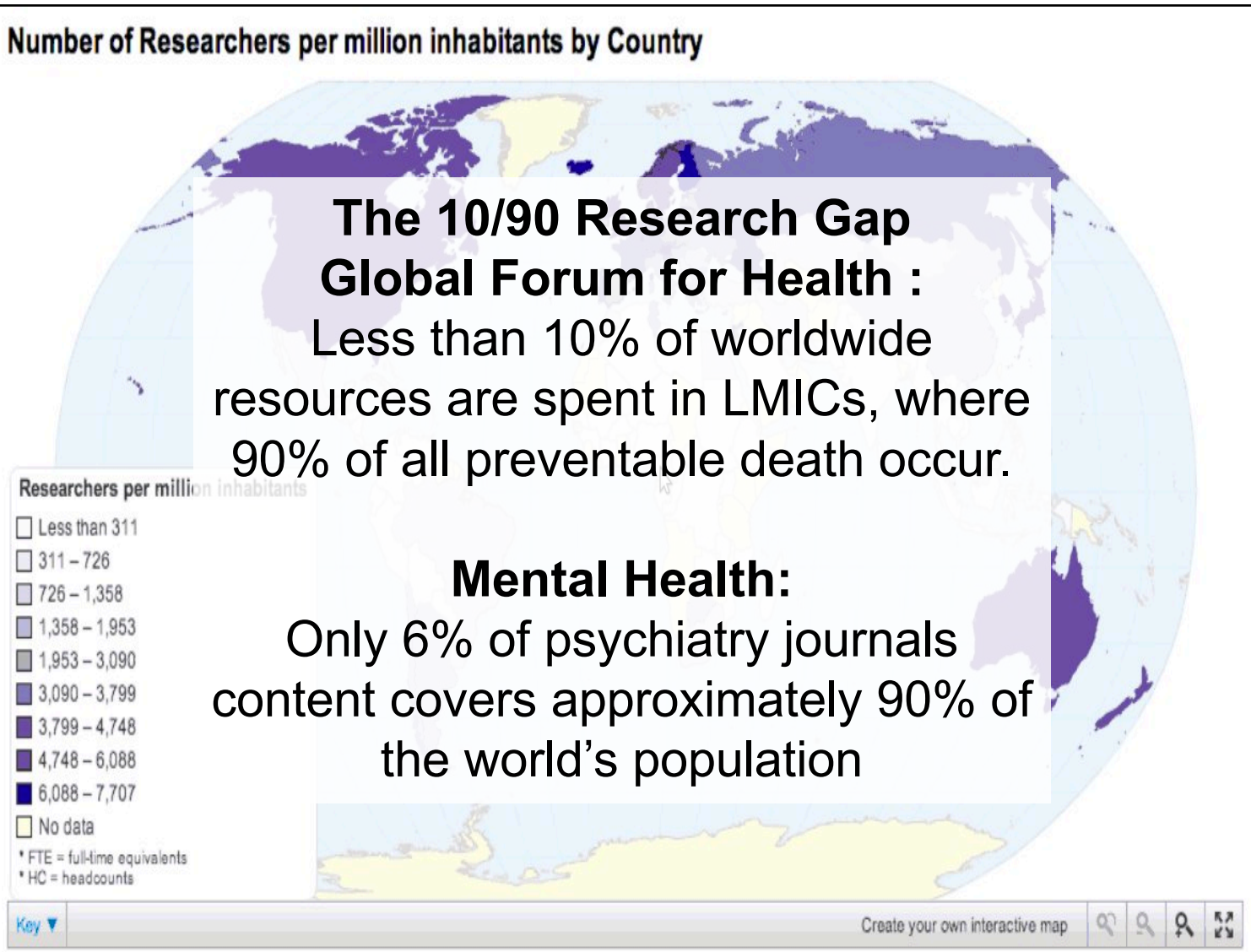
Solving the Resources & Infrastructure Problem

Treatment of postnatal depression in low-income mothers in primary-care clinics in Santiago, Chile: a randomised controlled trial

Graciela Rojas, Rosemarie Fritsch, Jaime Solis, Enrique Jadresic, Cristóbal Castillo, Marco González, Viviana Guajardo, Glyn Lewis, Tim J Peters, Ricardo Araya

Treating depression in primary care in low-income women in Santiago, Chile: a randomised controlled trial

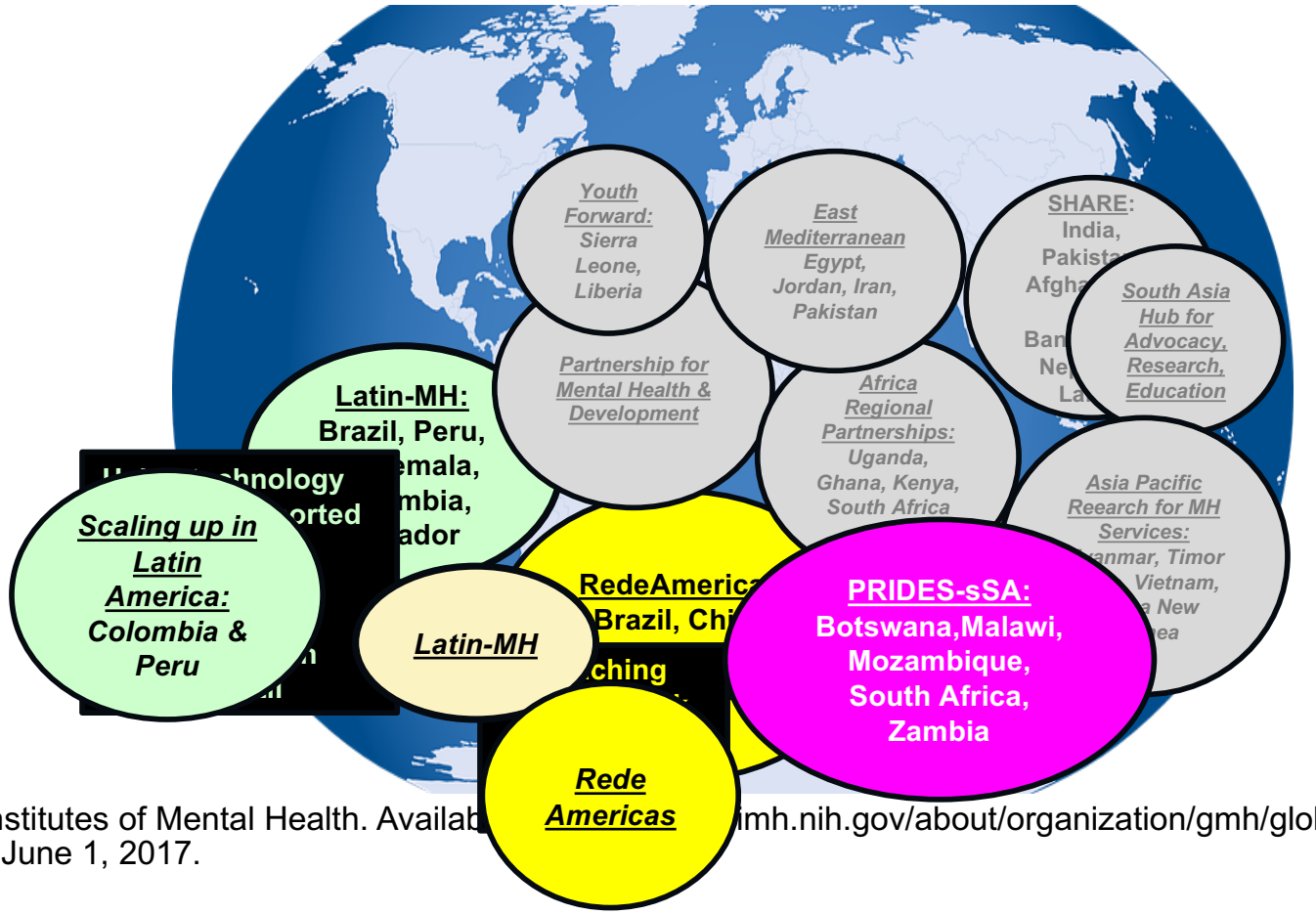
Ricardo Araya, Graciela Rojas, Rosemarie Fritsch, Jorge Gaete, Maritza Rojas, Greg Simon, Tim J Peters



The 10/90 Research Gap
Global Forum for Health :
Less than 10% of worldwide resources are spent in LMICs, where 90% of all preventable death occur.

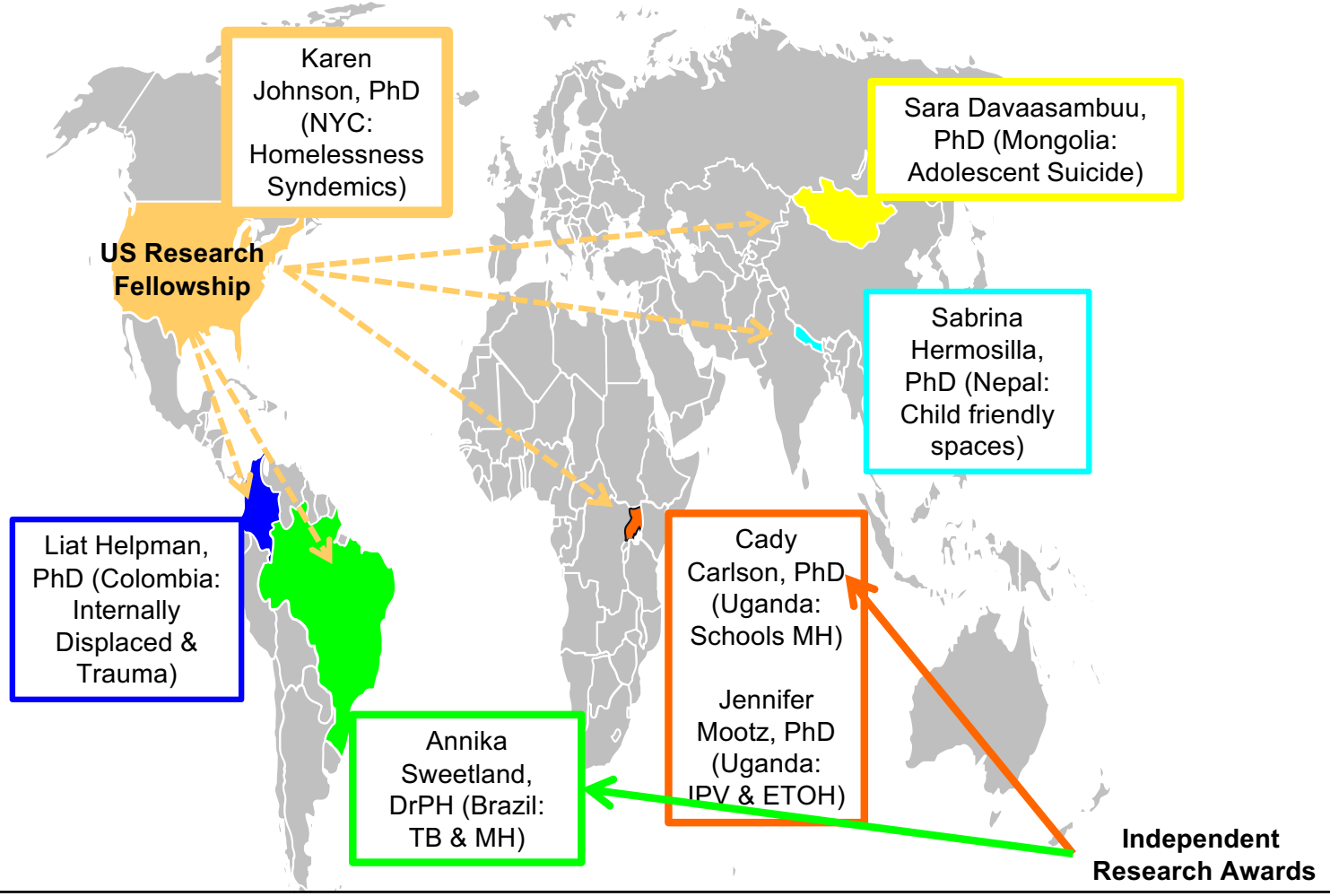
Mental Health:
Only 6% of psychiatry journals content covers approximately 90% of the world's population

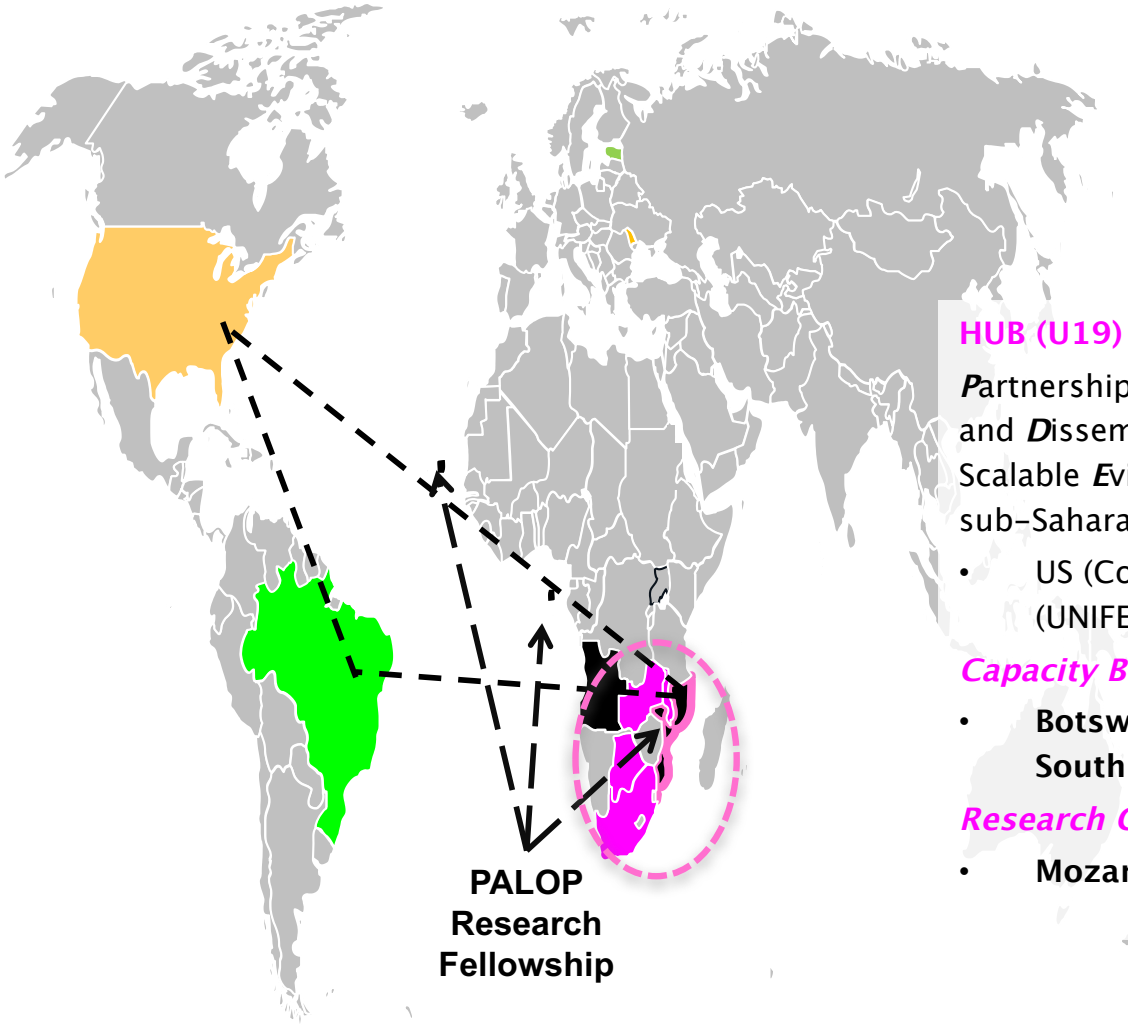
Collaborative Hubs for International Research in Mental Health



National Institutes of Mental Health. Availab imh.nih.gov/about/organization/gmh/globalhubs/index.shtml. Accessed June 1, 2017.

Columbia Psychiatry:
GLOBAL MENTAL HEALTH RESEARCH FELLOWSHIP





HUB (U19) – PRIDES sSA

Partnerships in ***R***esearch to ***I***mplement and ***D***isseminate Sustainable and Scalable ***E***vidence Based Practice***S*** in sub-Saharan Africa

- US (Columbia/Upenn) & Brazil (UNIFESP)

Capacity Building Component:

- **Botswana, Malawi, Mozambique, South Africa & Zambia**

Research Component:

- **Mozambique**

Information and Communication Technologies (ICT) for Mental Health

Tele-Psychiatry (video-conferencing)

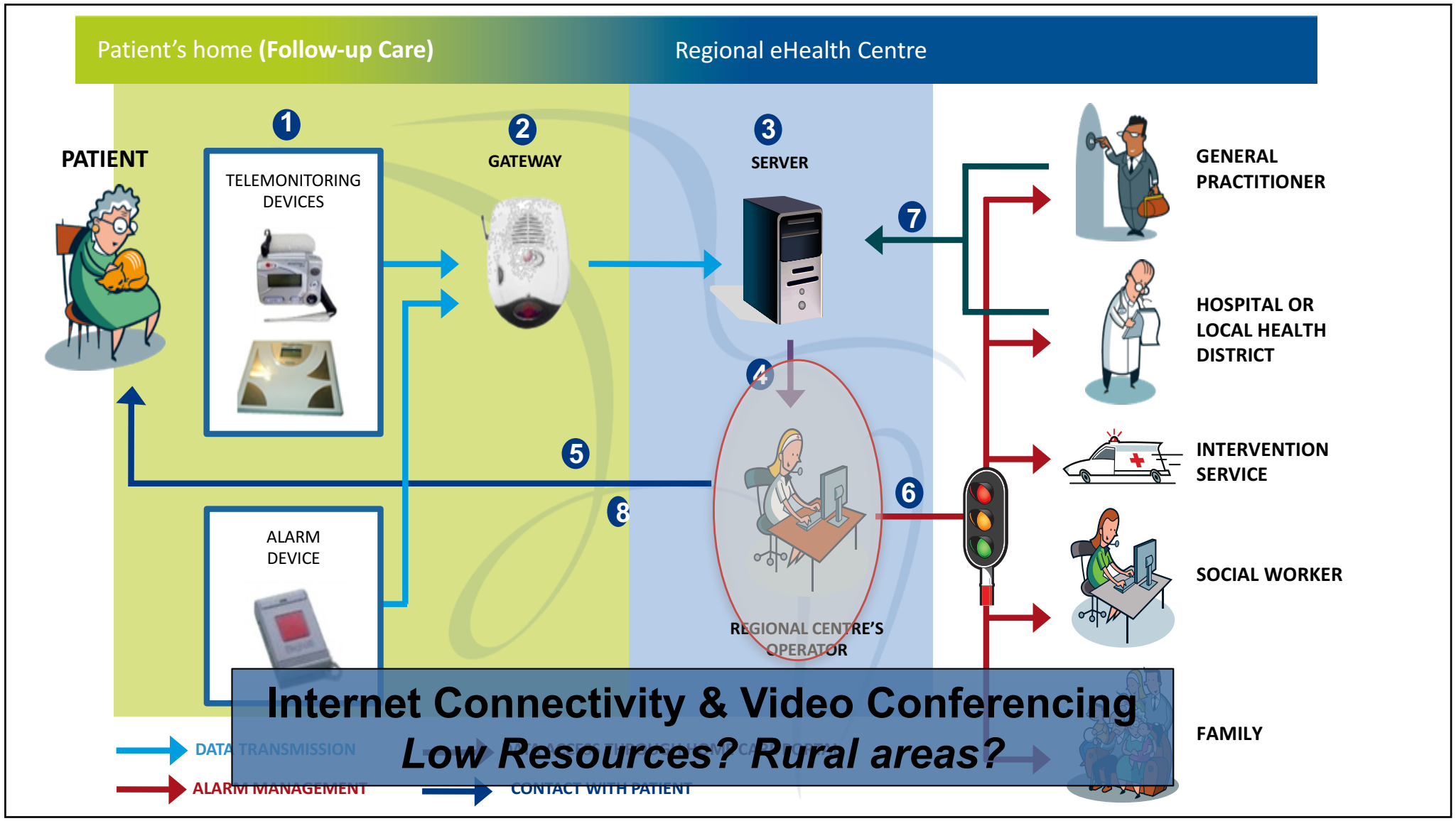
Electronic health records

eHealth

mHealth

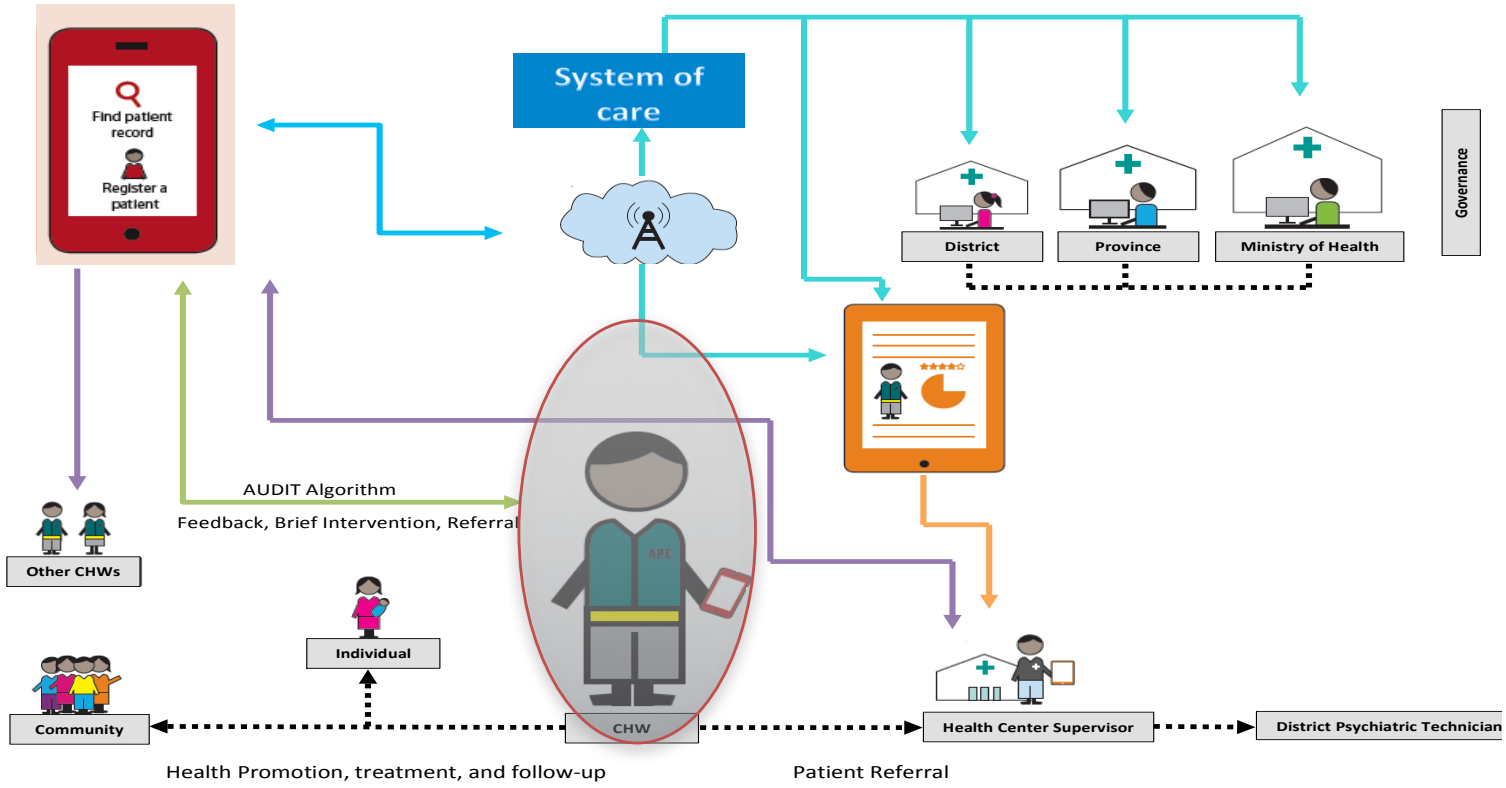
High Resources: Internet Connectivity….

Low Resources? Rural areas?


Patient's home (Follow-up Care)
Regional eHealth Centre
PATIENT
1
TELEMONITORING DEVICES
2
GATEWAY
3
SERVER
7
GENERAL PRACTITIONER
HOSPITAL OR LOCAL HEALTH DISTRICT
4
5
6
8
INTERVENTION SERVICE
SOCIAL WORKER
ALARM DEVICE
REGIONAL CENTRE'S OPERATOR
FAMILY
Internet Connectivity & Video Conferencing
Low Resources? Rural areas?
DATA TRANSMISSION
ALARM MANAGEMENT
CONTACT WITH PATIENT

Mobile Alcohol Screening, Brief Intervention, Referral & Treatment (mSMIRT)

T – Mobile Alcohol Screen, Brief Intervention, Referral and Treatment – Mozambique



However, Silos…

(HIV, TB, Maternal/Child, Malaria, Cardiovascular, Alcohol, Depression, PTSD…)

vs.

Comprehensive
Community
Health and Mental Health
Integrated Care

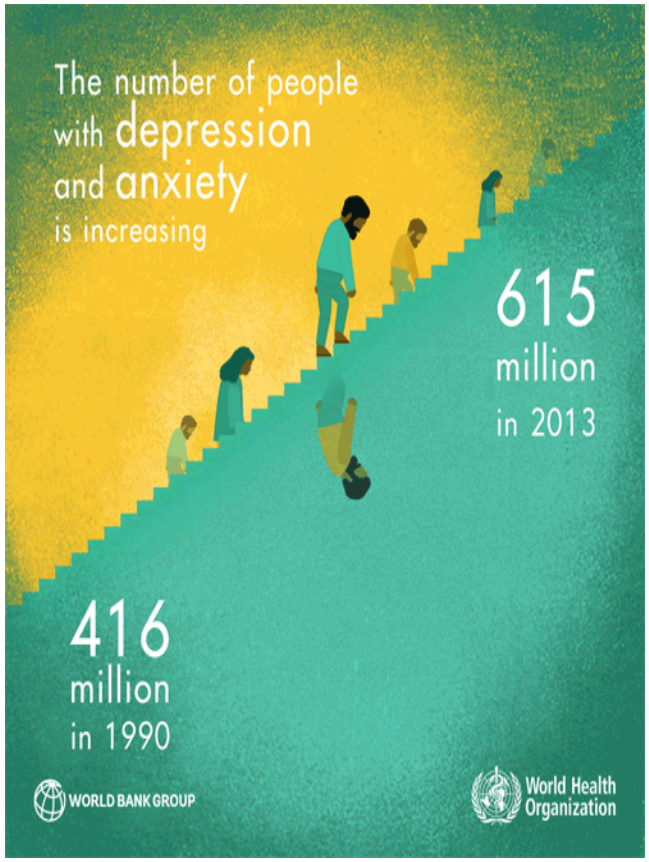
Return on Investment in Depression Care

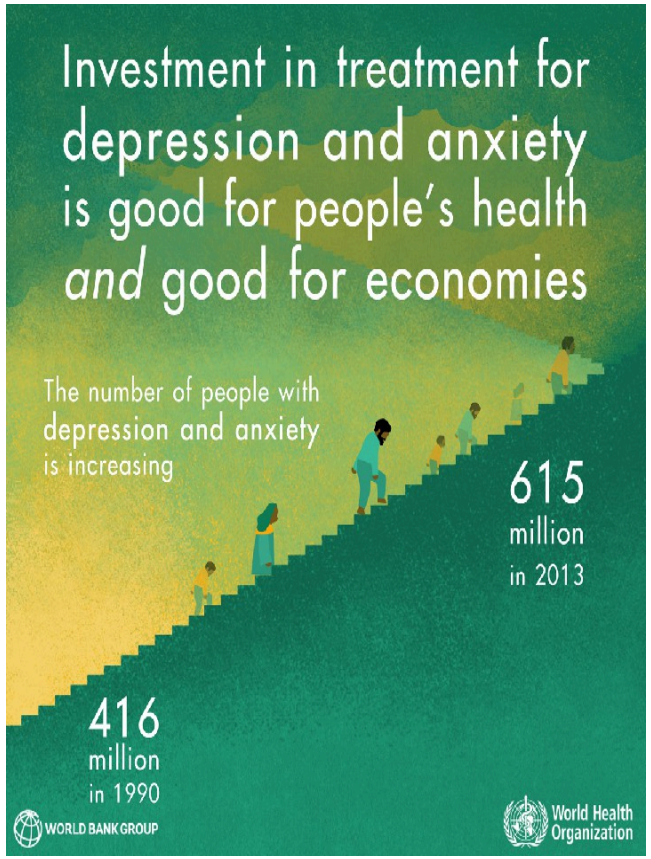
"Each dollar invested in easily scalable mental health treatment and services for depression and anxiety returns about US$4 in improved health and ability to work"

World Health Organization. Available at http://pubdocs.worldbank.org/en/391171465393131073/0602-SummaryReport-GMH-event-June-3-2016.pdf. Accessed June 1, 2017.

World Health Day 2017: Depression

World Health Day 2017: Depression





World Health Day 2017: Depression

Policy Makers

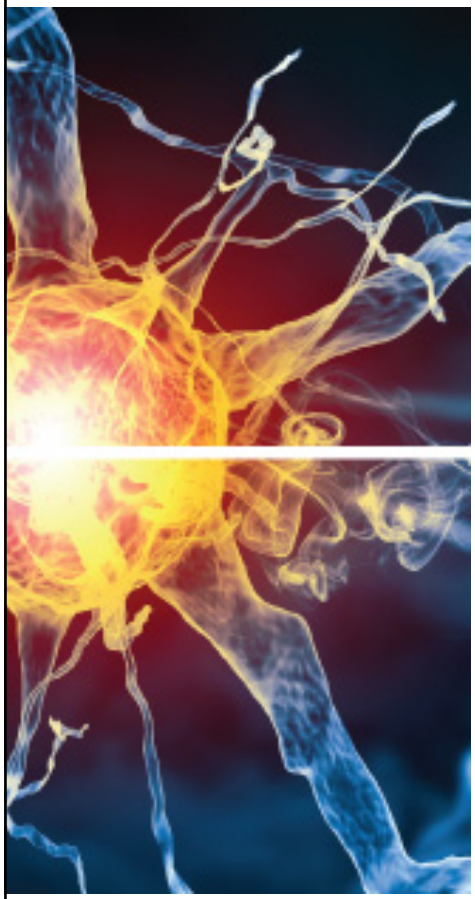
Vision — Action Plan — Commitment

+ Monitoring & Evaluation

- Health System:
  - Community Comprehensive Health and Mental Health Integrated Care
- Associated with development
  - “No Health & No Development Without Mental Health”
- $ - Funding and priorities

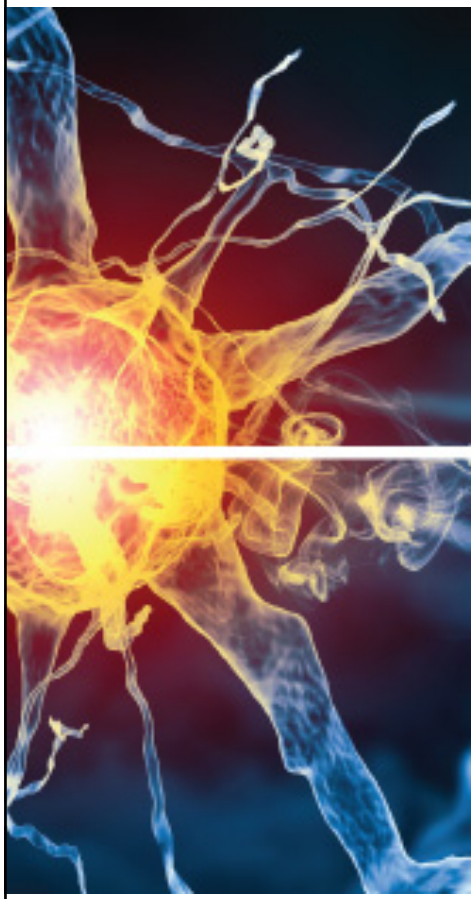
SMART Goals

- Reduce the burden of mental illness by utilizing evidence-based therapies and promoting good mental health and well-being
- Train lay personnel in recognizing and screening for mental disorders
- Facilitate task-shifting/sharing by involving non-specialists in managing mental disorders
- Invest – with a good return – in the treatment of mental disorders to improve mental health and lessen its economic burden



Gracias
Obrigado
Thanks

mlw35@cumc.columbia.edu



Questions & Answers