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COST-EFFECTIVENESS, MENTAL HEALTH ECONOMICS .. AND ITS PLACE IN HEALTH SYSTEMS DEVELOPMENT

QUESTIONS

What policy questions should mental health economics be addressing?

What economic evidence has been generated and used to inform policy?

What can be done to better embed health economics and financing within policy, planning and service evaluation?

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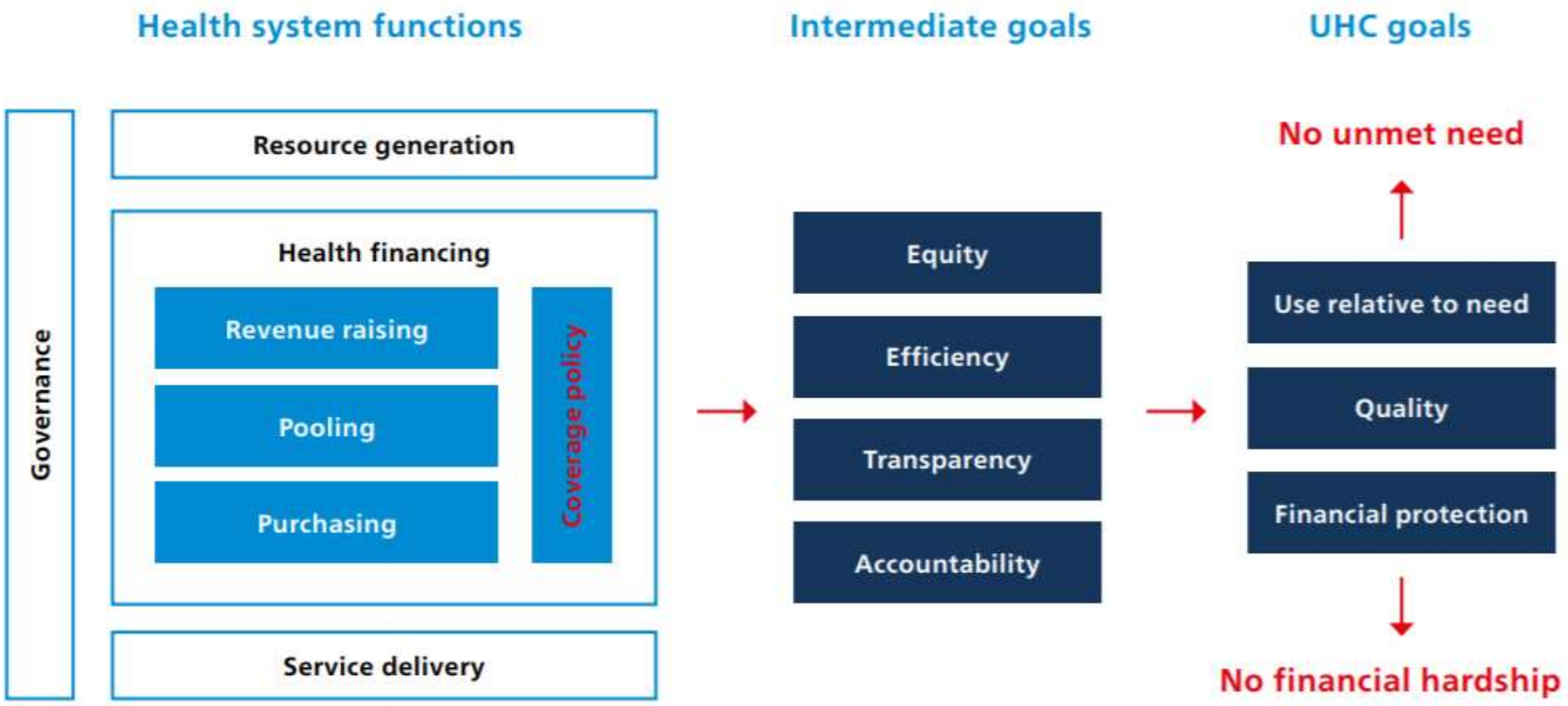
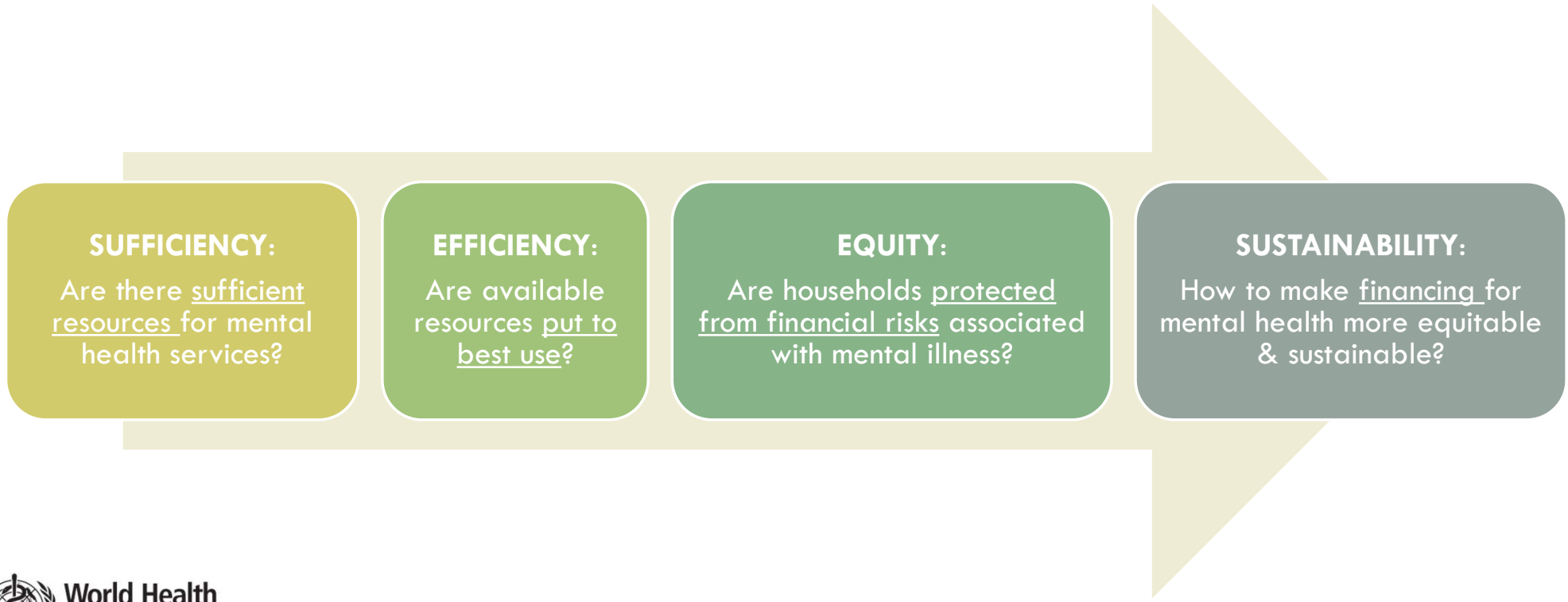
GOALS FOR THE HEALTH SYSTEM & UNIVERSAL HEALTH COVERAGE



Source: WHO Regional Office for Europe, 2019

MOVING TOWARDS UHC FOR MENTAL HEALTH: KEY ECONOMICS AND FINANCING QUESTIONS



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MENTAL HEALTH SPENDING: NEVER ENOUGH?

FIGURE 3.1.1 Association between per capita expenditure on mental health and gross national income

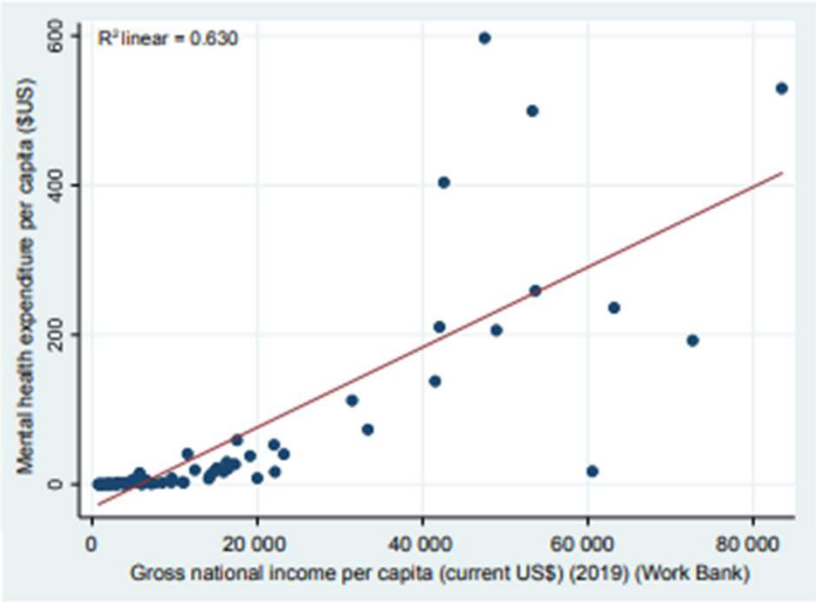
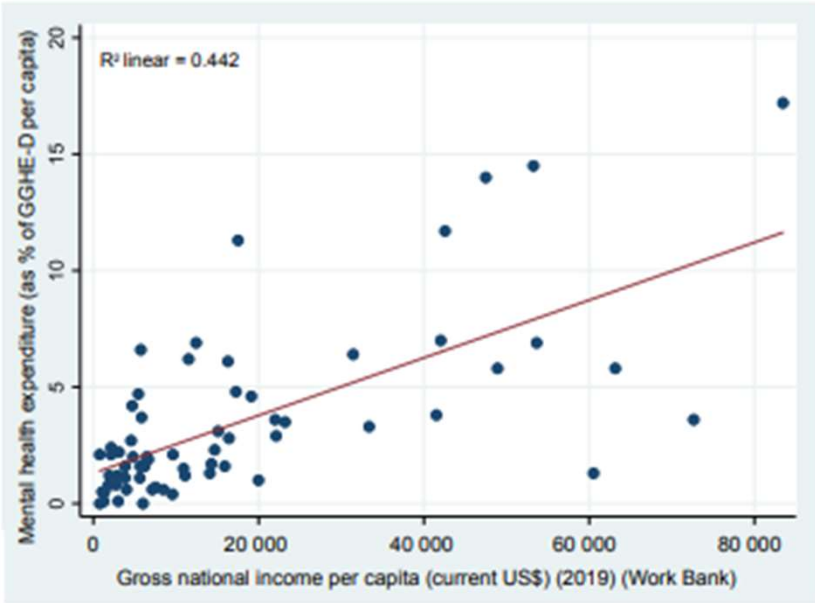


FIGURE 3.1.2 Association between expenditure on mental health (as a percentage of total health expenditure) and gross national income

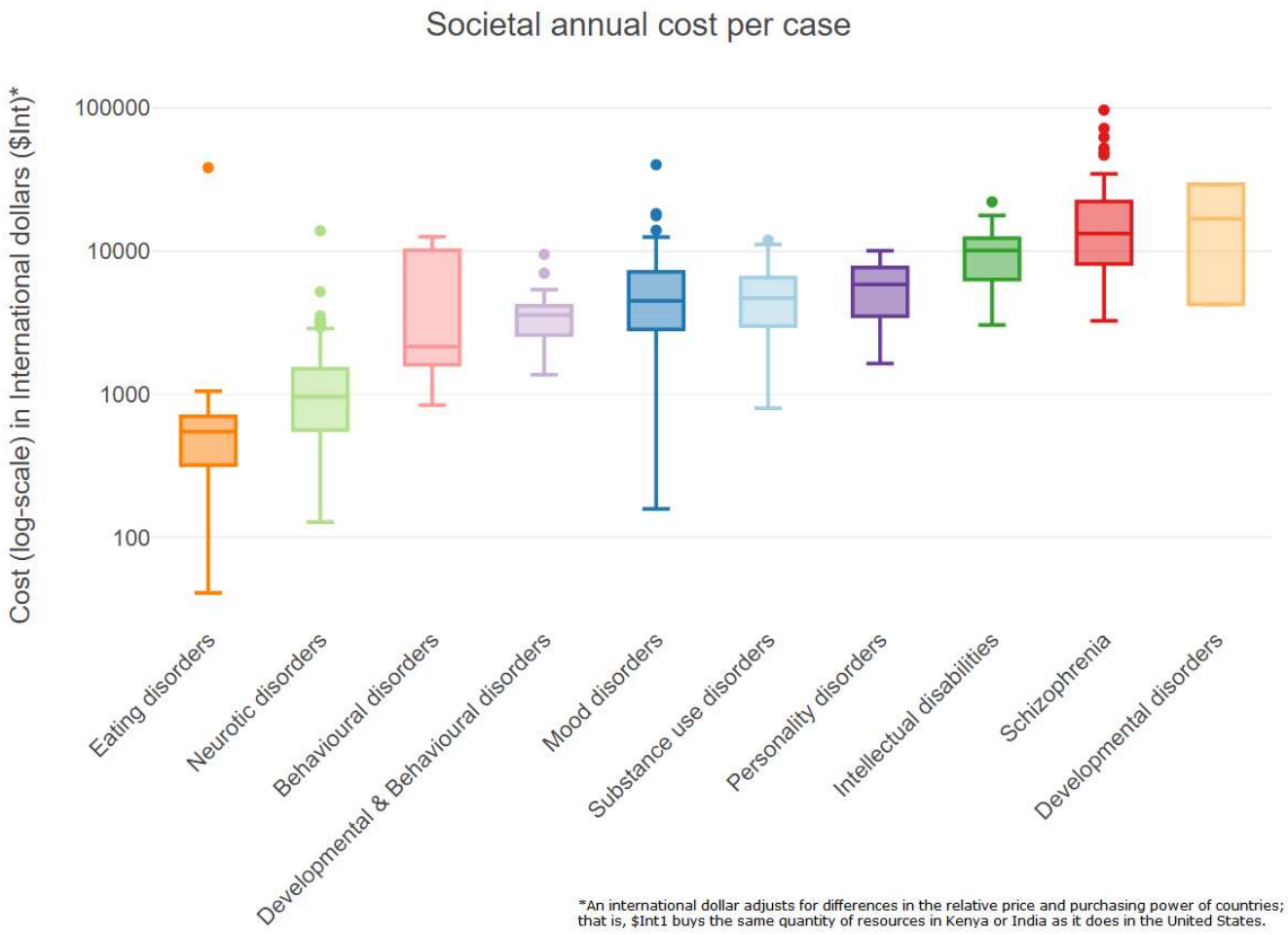


Source: WHO Mental health Atlas 2020

THE COST OF MENTAL DISORDERS: A SYSTEMATIC REVIEW

Christensen et al,

Epidemiology & Psychiatric Services 2020; 29: e161



WHAT EVIDENCE-BASED INTERVENTIONS TO INVEST IN?

Source: Patel, Chisholm, Parikh et al; Disease Control Priorities, V3 (*Lancet* 2016)

Delivery platform	Interventions
Population-wide	• **Policy and legislative measures to control the availability and demand for alcohol (e.g., increases in excise taxes on alcohol, advertising bans)** • **Legislative measures to control the means of suicide (e.g., pesticide bans)**
Community	• *Health literacy and life-skills training in schools to build social & emotional competencies* • Parenting interventions to promote early child development
Health care	• Psychological treatment for mood, anxiety, ADHD, and disruptive behaviour among children • **Diagnosis and management of depression and anxiety** • **Continuing care of schizophrenia and bipolar disorder** • **Self-managed treatment of migraine** • **Diagnosis and management of epilepsy** • Interventions to support caregivers of patients with dementia • **Screening and brief interventions for alcohol use disorders** • Opioid substitution therapy for opioid dependence

Note: Interventions in **bold** and *italics* are those for which WHO-CHOICE analyses are complete or ongoing, respectively.

WHO MENU OF COST-EFFECTIVE INTERVENTIONS FOR MENTAL HEALTH

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In 2019, the Seventy-second World Health Assembly requested the WHO Director-General to prepare a menu of policy options and cost-effective interventions for mental health.

The menu of cost-effective interventions for mental health is a list of interventions for which information on cost-effectiveness is available for use by Member States when selecting interventions, as appropriate for their national context.

It is not exhaustive; the menu is a preliminary list of population- and individual-level interventions based on current evidence.

The menu was developed using the methodology of WHO-CHOICE, which is a programme that helps countries to identify priorities based on health impact and cost-effectiveness.

WHO MENU OF COST-EFFECTIVE INTERVENTIONS FOR MENTAL HEALTH

Mental Health Interventions		Low- and Lower Middle-Income Countries (n = 10)			Upper Middle- and High-Income Countries (n = 10)		
Intervention scenario		*Cost of implementation per year (I$ million per 1 million population)*	*Health Impact per year (healthy life years gained per 1 million population)*	*Average cost-effectiveness ratio (I$ / healthy life year gained)*	*Cost of implementation per year (I$ million per 1 million population)*	*Health Impact per year (healthy life years gained per 1 million population)*	*Average cost-effectiveness ratio (I$ / healthy life year gained)*
P1. Universal, school-based socio-emotional learning programmes to improve mental health and prevent suicide in adolescents		<0.10	50–100	1000–5000	0.10–0.50	50–100	1000–5000
P2. Indicated, school-based socio-emotional learning programmes to improve mental health and prevent suicide in adolescents		<0.10	<10	10 000–50 000	0.10-0.50	<10	10 000–50 000
P3. Regulatory bans of highly hazardous pesticides to prevent suicide		<0.01	100–500	<100	<0.01	<50	100–500
Psychosis							
I1. Basic psychosocial support and (older) anti-psychotic medication	80%	0.10–0.50	100–500	500–1000	1.00–5.00	100–500	5000–10 000
I2. Basic psychosocial support and (newer) anti-psychotic medication	80%	0.10–0.50	100–500	500–1000	1.00–5.00	100–500	5000–10 000
I3. Psychological treatment and (older) anti-psychotic medication	80%	0.10–0.50	100–500	100–500	1.00–5.00	100–500	5000–10 000
I4. Psychological treatment and (newer) anti-psychotic medication	80%	0.10–0.50	100–500	100–500	1.00–5.00	500-1000	5000–10 000

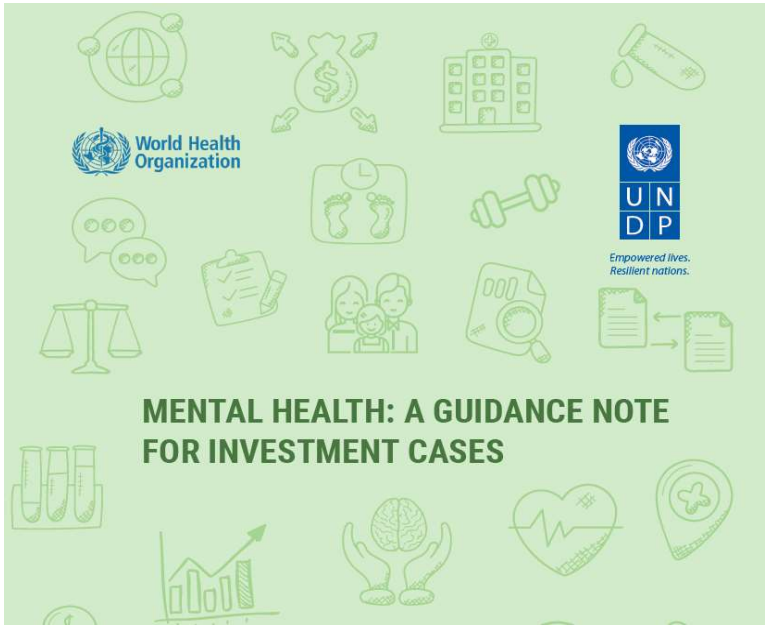
WHO-CHOICE UPDATED RESULTS FOR ALCOHOL CONTROL STRATEGIES

(CHISHOLM ET AL, JOURNAL OF STUDIES ON ALCOHOL AND DRUGS, 2018)

Intervention	Low- and lower middle-income countries (n = 7)			Upper middle- and high-income countries (n = 9)		
	Economic Cost of implementation per year (IS in millions per 1 million)	Health Impact per year (healthy life years gained per 1 million)	Average cost-effectiveness ratio (IS/healthy life year gained)	Economic Cost of implementation per year (IS in millions per 1 million)	Health Impact per year (healthy life years gained per 1 million)	Average cost-effectiveness ratio (IS/healthy life year gained)
Increase in excise taxes on alcoholic beverages (current rate + 50%)	0.01 [<0.10]	568 [500–1,000]	22 [<100]	0.05 [<0.10]	1,128 [1,000–5,000]	41 [<100]
Enactment and enforcement of bans or comprehensive restrictions on alcohol advertising (across types of media)	0.01 [<0.10]	205 [100–500]	48 [<100]	0.03 [<0.10]	290 [100–500]	120 [100–500]
Enactment and enforcement of restrictions on the physical availability of retailed alcohol (via reduced hours of sale)	0.02 [<0.10]	251 [100–500]	77 [<100]	0.06 [<0.10]	355 [100–500]	181 [100–500]
Enactment and enforcement of drink-driving laws and blood alcohol concentration limits (via sobriety checkpoints)	0.05 [<0.10]	35 [10–100]	1,454 [1,000–5,000]	0.15 [0.10–0.50]	50 [10–100]	2,979 [1,000–5,000]
Provision of brief psychosocial interventions (3 visits) for persons with hazardous and harmful alcohol use (50% coverage).	0.10 [0.10–0.50]	692 [500–1,000]	143 [100–500]	1.39 [>1.00]	971 [500–1,000]	1,434 [1,000–5,000]

Notes: Shaded cells indicate average cost-effectiveness ratio less than I$100 per healthy life year gained. I$ = international dollars.

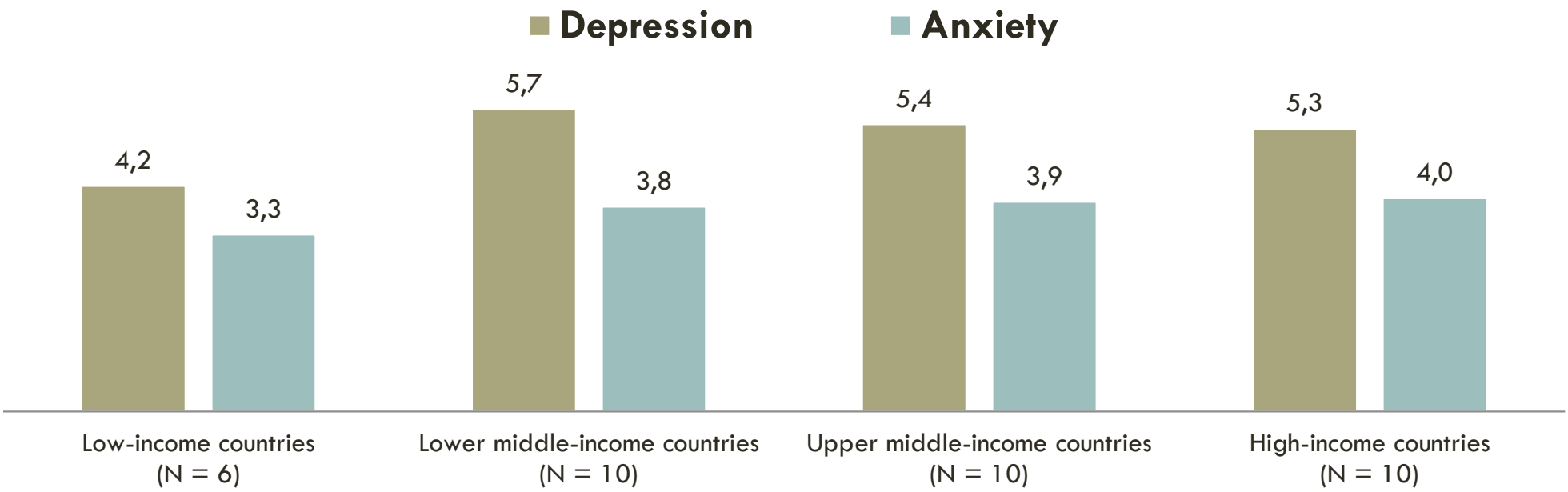
RETURN ON INVESTMENT



- Global ROI analysis: carried out for depression and anxiety, based on WHO-CHOICE models and interventions

- National ROI: completed or ongoing:
  - Bangladesh
  - Jamaica
  - Kenya
  - Latvia
  - Nepal
  - Philippines
  - South Africa
  - Uganda
  - Uzbekistan
  - Zimbabwe

GLOBAL RETURNS TO INVESTMENT IN SCALING-UP TREATMENT FOR DEPRESSION AND ANXIETY DISORDERS (BENEFIT TO COST RATIOS)



Source: Chisholm et al, Lancet Psychiatry 2016

ECONOMICS AND MENTAL HEALTH: CURRENT SCENARIO

Martin Knapp & Gloria Wong, World Psychiatry 2020;19:3–14

"Reports on economic evaluation of mental health care and treatment has grown from approximately 100 in 1999 to over 4,000 in 2019"

Cost-effectiveness evidence base: where are we at?

Maternal mental health

- screening-plus-treatment, at least in HIC (SR, 8 studies)
- health visitor training to prevent perinatal depression

Child and adolescent mental health

- general paucity of studies; most address depression treatment
- suggestive evidence for some 'attributes' of youth mental health care

Depression and other common mental disorders

- CBT, alone or with anti-depressants, for MDD (SR, 22 studies)
- substantial but mixed evidence for stepped / collaborative care

Psychosis and other severe mental illness

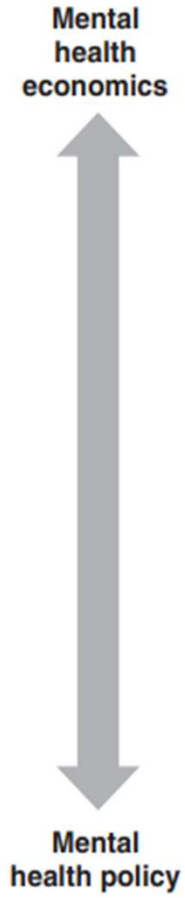
- early intervention for 1st-episode psychosis (SR, 16 studies)
- adjuvant CBT for psychosis (SR, 6 studies)
- individual placement and support (supported employment)

Mental health in older persons: dementia and depression

- anti-dementia medication in management of Alzheimer's Disease
- cognitive stimulation therapy and tailored activity program for AD

CHALLENGES AND RESPONSES IN MENTAL HEALTH ECONOMICS

Knapp and Wong,
World Psychiatry 2020;19:3–14



Challenges	Responses
Evidence gaps ○ Short-time horizons ○ Neglected areas (e.g., families, rights, recovery, awareness and stigma, LMICs)	**Economic evaluations as default** ○ Effective intervention should also be examined for affordability and whether it makes efficient use of available resources
Robustness of evidence ○ Variable quality ○ Transferability to other contexts	**Cross-agency compensation and commitment** ○ Society-wide perspectives ○ Cross-government action ○ Commitment to invest for the long term
Non-cashable savings	**Rights** ○ Recovery-oriented approaches ○ Personalized approaches to treatment and care
Feasibility and affordability ○ Budget limitations ○ Shortages of skilled staff	**Inequalities** ○ Universal health coverage ○ Parity between physical and mental health ○ Commitment to tackle inequalities
Less visible economic consequences ○ Carer impacts ○ Productivity losses	
Silo budgeting ○ Economic impacts in other sectors	
Delayed pay-offs ○ Diagonal accounting	
Inequality ○ Social and economic marginalization	

MOVING TOWARDS UHC FOR MENTAL HEALTH: KEY ECONOMICS AND FINANCING QUESTIONS

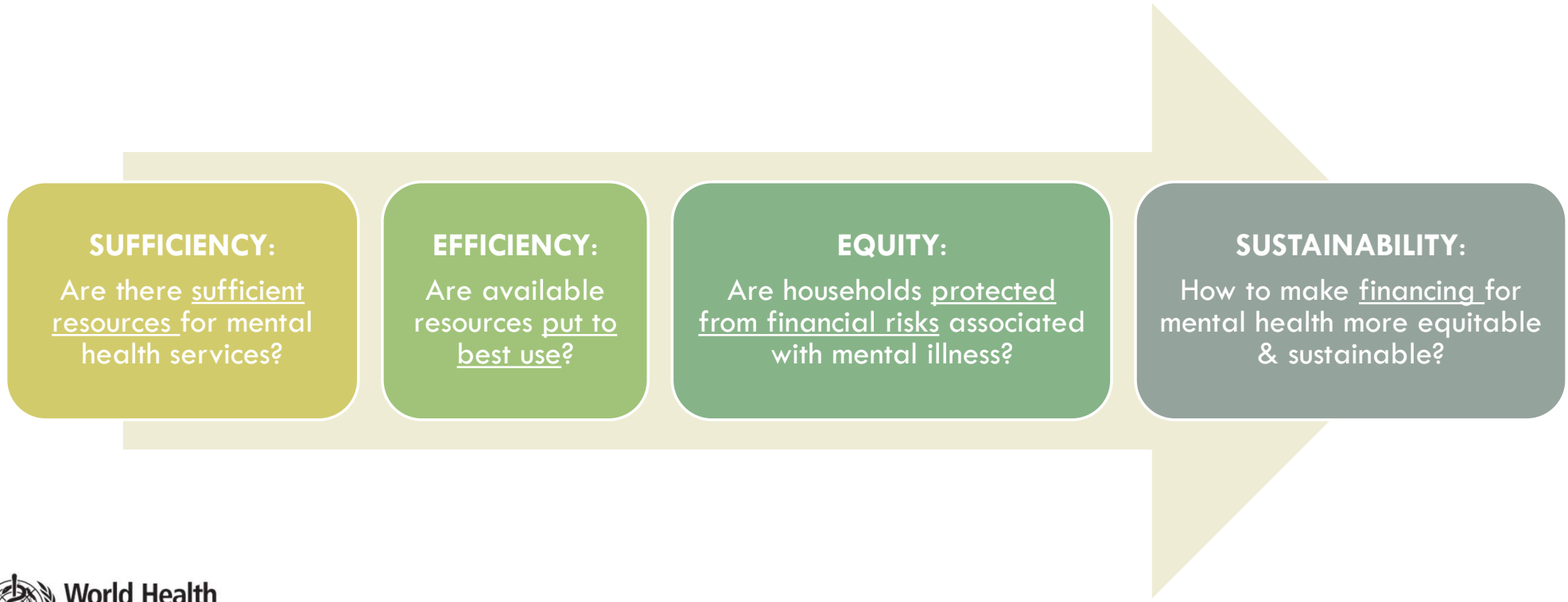


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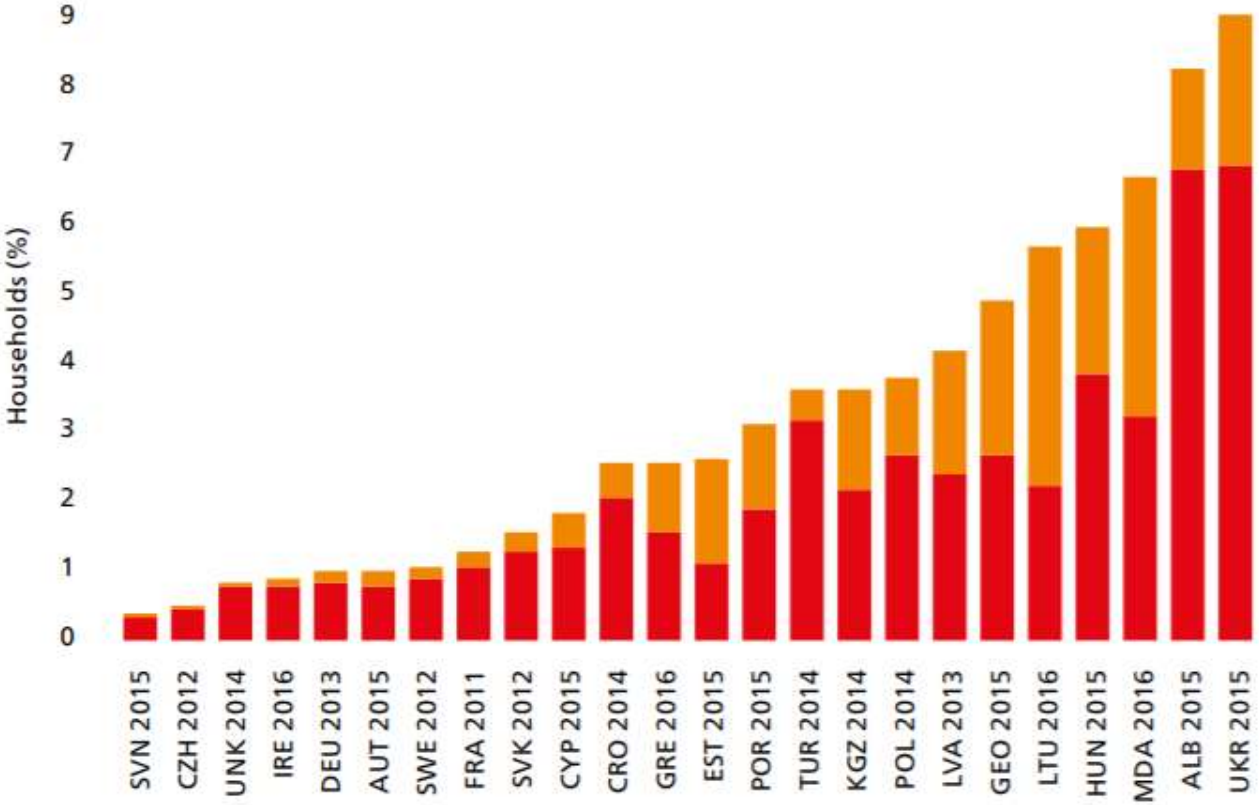
Fig. 4. Share of households with impoverishing health spending, latest year available



Further impoverished

Impoverished

Notes: a household is impoverished if its total consumption is below the poverty line after out-of-pocket payments – that is, it is no longer able to afford to meet basic needs. A household is further impoverished if its total consumption is below the poverty line – it is already unable to meet basic needs – and it incurs out-of-pocket payments.

Source: WHO Regional Office for Europe.

MENTAL ILLNESS, POVERTY AND SUSTAINABLE DEVELOPMENT

Mental illness and impoverishment:

Households and individuals exposed to adversities - such as unemployment and indebtedness as well as inadequate access to basic amenities, decent housing and educational opportunities for achievement - increase the risk for mental illness

Inversely, the experience of mental illness for individuals and families exacerbates the level of socioeconomic adversity faced by them & increases risk of impoverishment

Policy implications / needs:

Socioeconomic development – esp. if seen through an 'economy of well-being' lens – can influence the burden of mental illness by targeting upstream determinants (poor housing, lack of amenities, poor education, unemployment, exposure to trauma & stigma)

Universal health coverage efforts must ensure that individuals and households affected by mental illness are protected from its financial consequences, including use of health services.

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KEY STEPS FOR FAIR & SUSTAINABLE FINANCING FOR MENTAL HEALTH

1. Estimate service / funding gap – *e.g. using Health Accounts / OneHealth*
2. Map out who is paying the costs now – *e.g. governments or households?*
3. Reveal existing inequities – *e.g. high household burden / OOPs*
4. Understand current and future fiscal constraints – *e.g. government debt*
5. Explore financing options – *e.g. inclusion of MH in insurance schemes*
6. Identify synergies / efficiencies – *e.g. integrated chronic care*
7. Track / demonstrate use of funds – *e.g. improved service access / uptake*

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FINAL REMARKS: INVESTING IN MENTAL HEALTH

The *economic* investment case for mental health is based on:

- estimated economic losses attributable to mental disorders
- availability of affordable and cost-effective interventions
- return on investment in terms of enhanced health and productivity

The *overall* investment case for mental health is predicated on:

- foregone health, happiness and well-being
- foregone rights, opportunities and equality
- foregone income, production and consumption

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