

School platforms for promoting adolescent mental health: lessons from India

Vikram Patel

The Pershing Square Professor of Global Health
Wellcome Trust Principal Research Fellow



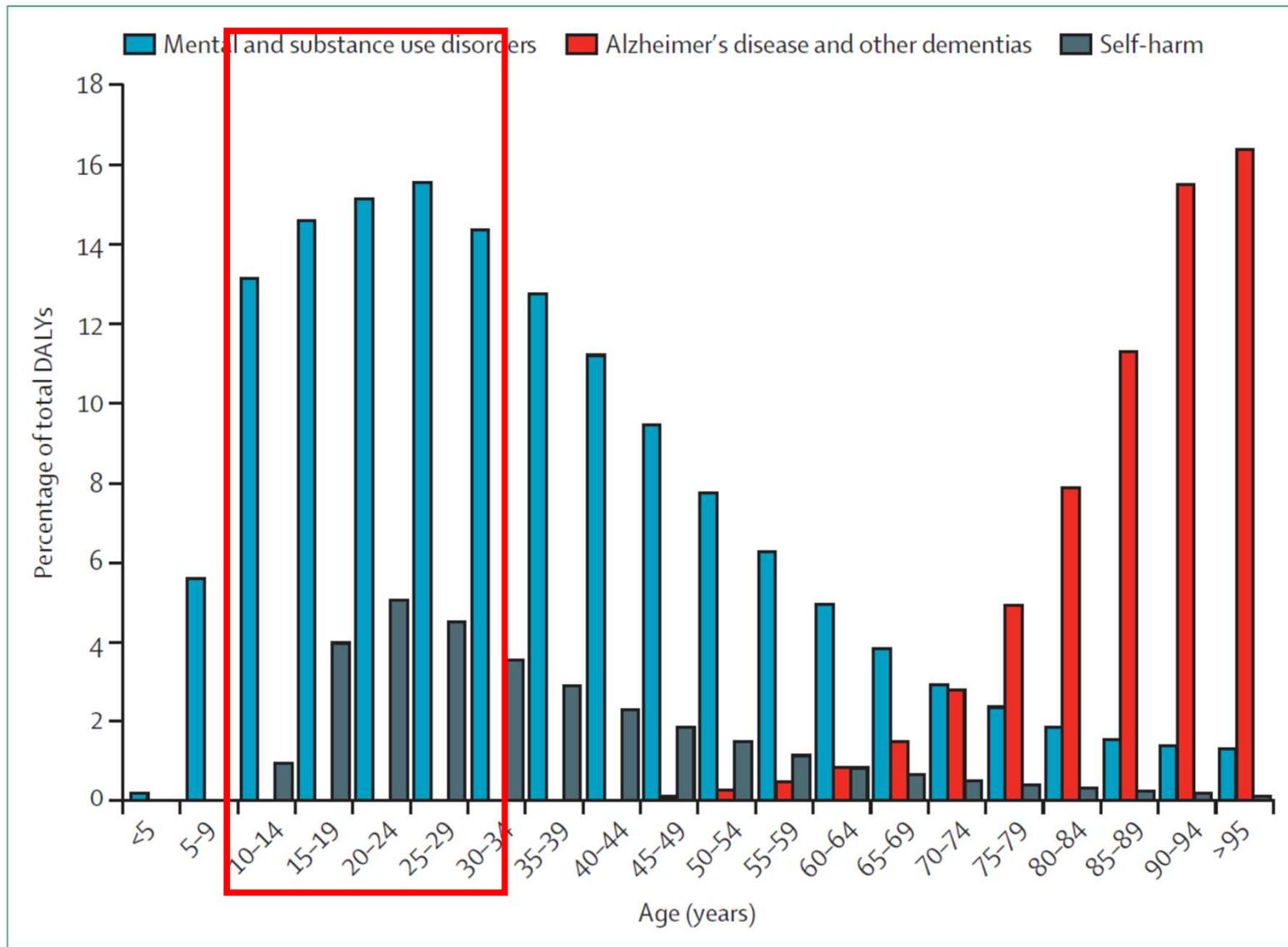
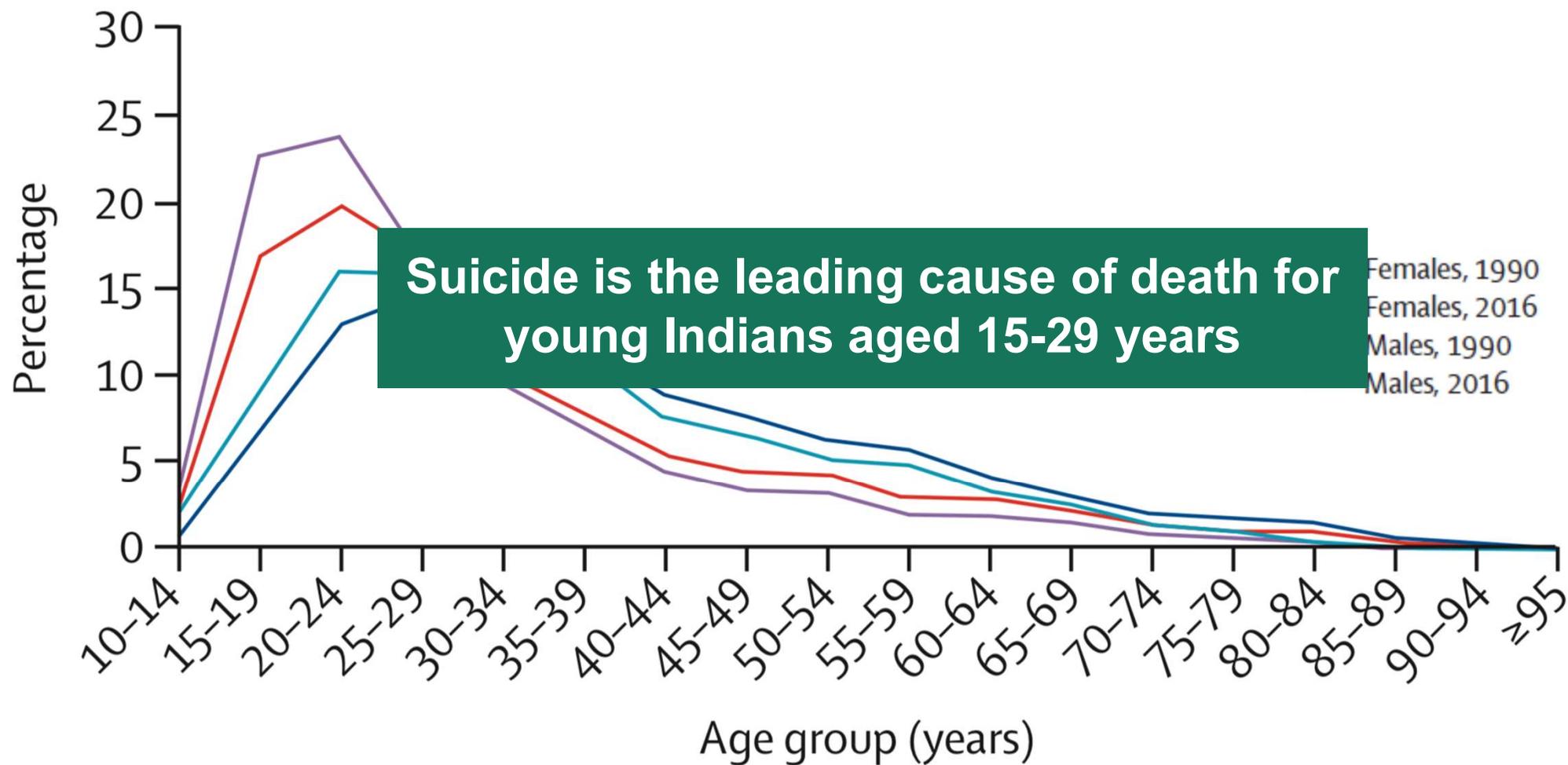


Figure 3: The global burden of mental and substance use disorders, Alzheimer's disease and other dementias, and suicide (self-harm) in DALYs across the life course

B Percentage of total suicide deaths

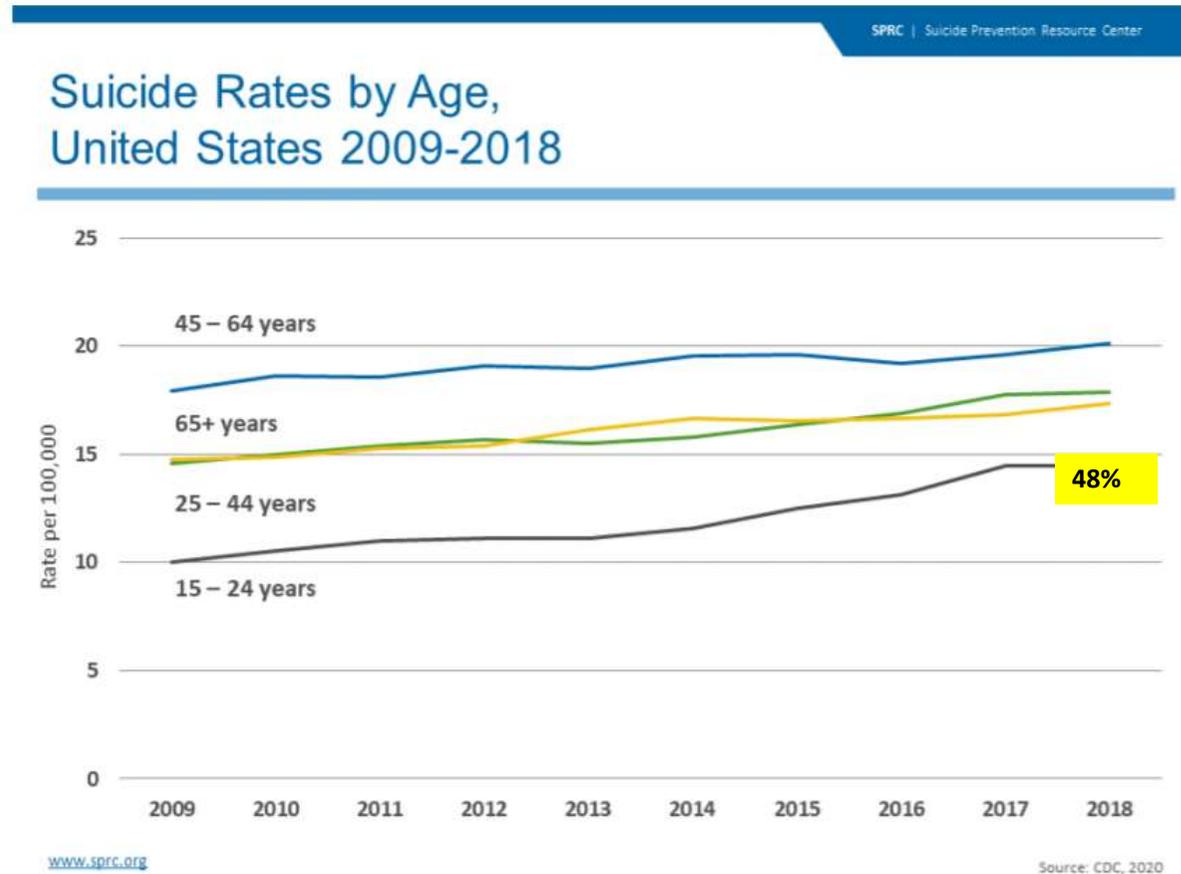


10 Leading Causes of Death by Age, United States 2018

Age Groups

	10-14	15-24	25-34	35-44	45-54	55-64	65+
1	Unintentional injury (692)	Unintentional injury (12,044)	Unintentional injury (26,614)	Unintentional injury (22,667)	Malignant Neoplasms (37,301)	Malignant Neoplasms (113,947)	Heart Disease (526,509)
2	➔ Suicide (596)	➔ Suicide (6,211)	➔ Suicide (8,020)	Malignant Neoplasms (10,640)	Heart Disease (32,220)	Heart Disease (81,042)	Malignant Neoplasms (431,102)
3	Malignant Neoplasms (450)	Homicide (4,607)	Homicide (5,234)	Heart Disease (10,532)	Unintentional Injury (23,056)	Unintentional Injury (23,693)	Chronic Low Respiratory Disease (135,560)
4	Congenital Anomalies (172)	Malignant Neoplasms (1,371)	Malignant Neoplasms (3,684)	➔ Suicide (7,521)	➔ Suicide (8,345)	Chronic Low Respiratory Disease (18,804)	Cerebrovascular (127,244)
5	Homicide (168)	Heart Disease (905)	Heart Disease (3,561)	Homicide (3,304)	Liver Disease (8,157)	Diabetes Mellitus (14,941)	Alzheimer's Disease (120,658)
6	Heart Disease (101)	Congenital Anomalies (354)	Liver Disease (1,008)	Liver Disease (3,108)	Diabetes Mellitus (6,414)	Liver Disease (13,945)	Diabetes Mellitus (60,182)
7	Chronic Low Respiratory Disease (64)	Diabetes Mellitus (246)	Diabetes Mellitus (837)	Diabetes Mellitus (2,282)	Cerebrovascular (5,128)	Cerebrovascular (12,789)	Unintentional injury (57,213)
8	Cerebrovascular (54)	Influenza & Pneumonia (200)	Cerebrovascular (567)	Cerebrovascular (1,704)	Chronic Low Respiratory Disease (3,807)	➔ Suicide (8,540)	Influenza & Pneumonia (48,888)
9	Influenza & Pneumonia (51)	Chronic Low Respiratory Disease (165)	HIV (482)	Influenza & Pneumonia (956)	Septicemia (2,390)	Septicemia (5,956)	Nephritis (42,232)
10	Benign Neoplasms (30)	Complicated Pregnancy (151)	Influenza & Pneumonia (457)	Septicemia (829)	Influenza & Pneumonia (2,339)	Influenza & Pneumonia (5,858)	Parkinson's Disease (32,968)

And it's getting worse in recent years



Suicide Prevention Resource Center
<https://www.sprc.org/scope/age>

Slide number 5

PV2 can you show the text of this slide in a chart as we discussed?

Patel, Vikram; 03-10-2020

PV18 also, there might be data from other countries, particularly I recall from the UK and Australia also showing an increase over time

Patel, Vikram; 04-10-2020

PV19 and any disparities data (e.g. indigenous, low income, african american etc)?

Patel, Vikram; 04-10-2020

RJL2 Changed this slide to these graphs instead of the the statistics from the National Center for Health Statistics:

2000 – 2007: the national suicide rate among ages 10-24 in the US was statistically stable.

2007 – 2018: the suicide rate for that same age group increased by 57.4%

From 6.8 per 100,000 in 2007 to 10.7 per 100,000 in 2018

Restivo, Juliana Lynn; 04-10-2020

Indicators of Anxiety or Depression Based on Reported Frequency of Symptoms During Last 7 Days

Select Indicator

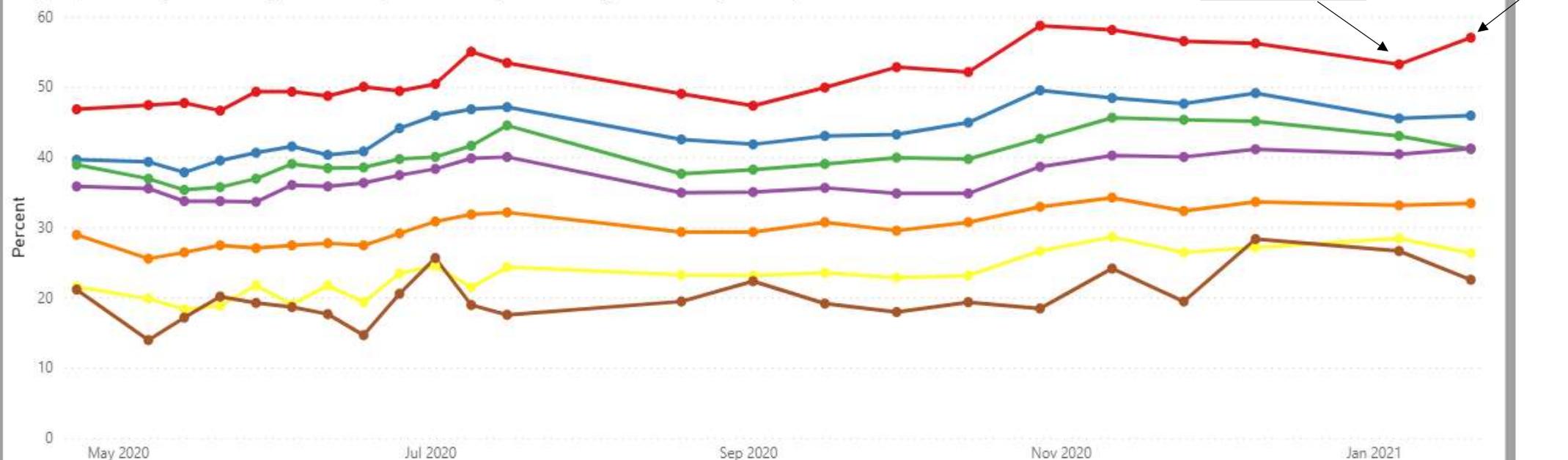
Symptoms of Anxiety Disorder or Depressive Disorder

Select Group

By Age

Symptoms of Anxiety Disorder or Depressive Disorder

Subgroup ● 18 - 29 years ● 30 - 39 years ● 40 - 49 years ● 50 - 59 years ● 60 - 69 years ● 70 - 79 years ● 80 years and above



Jan 6 – Jan 18
18-29 years
53.2%

Jan 20 – Feb 1
18-29 years
57%

NOTE: All estimates shown meet the NCHS standards of reliability. See Technical Notes below for more information about the content and design of the survey.

SOURCE: U.S. Census Bureau, Household Pulse Survey, 2020-2021

The way forwards

DISEASE CONTROL PRIORITIES • THIRD EDITION

4

Mental, Neurological, and Substance Use Disorders

Mental, Neurological, and Substance Use Disorders



4
Patal
Chhatre
and
Laminaraya
Medina-Mora

DISEASE CONTROL PRIORITIES THIRD EDITION

EDITORS
Vikram Patal
Dan Chhatre
Tarun Dua
Ramanan Laxminarayan
Marie Elene Medina-Mora

WITH A FOREWORD BY
Agnas Binagwaha

www.thelancet.com

The Lancet Commissions

THE UNIVERSITY OF MELBOURNE

THE LANCET

LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK

UCL

Our future: a Lancet commission on adolescent health and wellbeing

George C Paltan, Saran M Senay, John S Santoli, David A Ross, Rima Agha, Nicholas B Allen, Monika Arora, Peter Azopardo, Wendy Biddwin, Christopher Bonell, Binaka Ekimov, Eileen Kennedy, Jigme Dorji Mehm, Tony M Gower, Ashi Malik, Vikram Patel, Susanna Peters, Nicola Plescia, Kikome Taku, Jann Woldfoel, Dabshu Woldemariam, Carmen Barasa, Zulfiqar Bhutta, Adarshan Chatur, Anshul Mathur, Judith Diem, Jing Fang, Jane Ferguson, Frederik Sonawala, Russell M Viner

Executive summary
Unprecedented global forces are shaping the health and wellbeing of the largest generation of 10 to 24 year olds in human history. Population mobility, global communications, economic development, and the sustainability of ecosystems are setting the future course for this generation and, in turn, humankind.¹ At the same time, we have come to new understandings of adolescence as a critical phase in life for achieving human potential. Adolescence is characterised by dynamic brain development in which the interaction with the social environment shapes the capabilities an individual takes forward into adult life.² During adolescence, an individual acquires the physical, cognitive, emotional, social, and economic resources that are the foundation for later life health and wellbeing. These same resources define trajectories into the next generation. Investments in adolescent health and wellbeing bring benefits today, for decades to come, and for the next generation.

Better childhood health and nutrition, extensions to education, delays in family formation, and new technologies offer the possibility of this being the healthiest generation of adolescents ever. But these are also the ages when new and different health problems related to the onset of sexual activity, emotional control, and behaviour typically emerge. Global trends include those promoting unhealthy lifestyles and commodities, the crisis of youth unemployment, less family stability, environmental degradation, armed conflict, and mass migration, all of which pose major threats to adolescent health and wellbeing.

Adolescents and young adults have until recently been overlooked in global health and social policy, one reason why they have had fewer health gains with economic development than other age groups. The UN

Secretary-General's Global Strategy for Women's, Children's and Adolescents' Health initiated, in September, 2015, presents an outstanding opportunity for investment in adolescent health and wellbeing.³ However, because of limits to resources and technical capacities at both the national and the global level, effective response has many challenges. The question of where to make the most effective investments is now pressing for the international development community. This Commission outlines the opportunities and challenges for investment at both country and global levels (panel 1).

Adolescent health profiles differ greatly between countries and within nation states. These differences usually reflect a country's progress through an epidemiological transition in which reductions in mortality and fertility shift both population structures and predominant patterns of disease. Just over half of adolescents grow up in multi-burden countries, characterised by high levels of all types of adolescent health problems, including diseases of poverty (HIV and other infectious diseases, undernutrition, and poor mental and reproductive health), injury and violence, and non-communicable diseases (NCDs). These countries continue to have high adolescent fecundity and high unmet need for contraception, particularly in unmarried, sexually active adolescents. For these countries, addressing the diseases of poverty is a priority, at the same time as putting in place strategies to avoid sharp rises in injury, mental disorders, and NCD risks. One in eight adolescents grow up in injury excess countries, characterised by high persisting levels of unintentional injury or violence and high adolescent birth rates, and have generally made little progress in reducing these problems in recent decades. For this group of countries there is a need to redouble efforts to reduce injury,

Published Online
May 5, 2016
http://dx.doi.org/10.1016/S0140-6736(16)00079-3
Department of Paediatrics
G. C. Paltan MD, MEd, Tampa, FL, USA
Department of Population and Global Health
S. M. Senay PhD, N. Bhattarai PhD, Melbourne School of Psychological Sciences
N. B. Allen PhD, Australia India Centre for Adolescent Health
G. C. Paltan MD, University of Melbourne, Melbourne, VIC, Australia
Centre for Adolescent Health, Royal Children's Hospital, Parkville, Melbourne, VIC, Australia
G. C. Paltan, MEd, Tampa, FL, USA
Mumbai Children Research Institute, 18 Saikhpur, Malabar School of Public Health, 15 Sarvodaya Rd, Melbourne, VIC, Australia
J. Santoli MD, T. M. Gower MD, School of Social Work, 200 Halligan Plz, Sonoma, CA, USA
Columbia University, New York, NY, USA
University of Oregon, Eugene, OR, USA
INRA Paris Saclay, Institut National de la Santé et de la Recherche Médicale, Paris, France
London School of Hygiene & Tropical Medicine, London, UK
D. A. Ross, V. Patel PhD, J. Ferguson PhD, Department of Health Promotion and Community Health, American University of Beirut, Beirut, Lebanon
R. Agha PhD, Public Health Foundation of India, New Delhi, India
M. Arora PhD, V. Family Institute of Education, El Dorado, South Africa
C. Bonell PhD, Institute of Child Health, 90 Yew Tree, London, UK

THE LANCET

October, 2016

www.thelancet.com

The Lancet Commission on global mental health and sustainable development

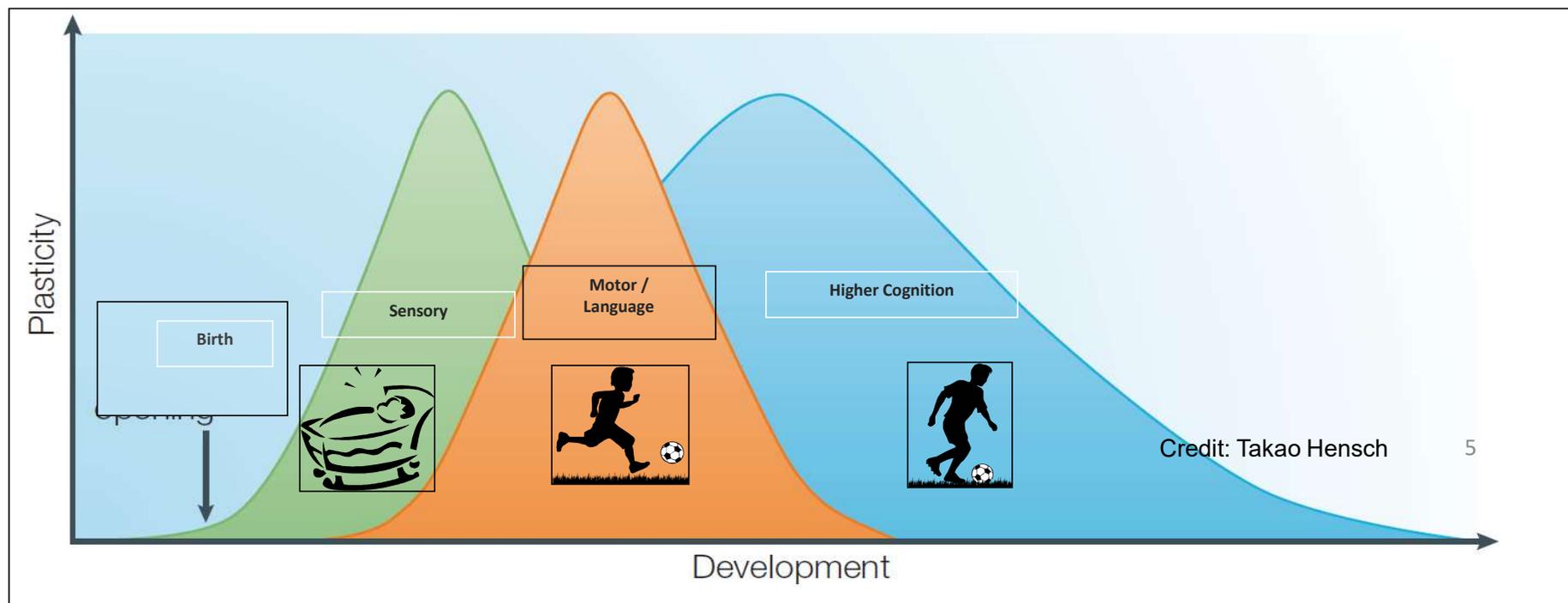


"We therefore call for a partnership to transform mental health globally, with engagement of key sectors concerned with mental health, both at the global and at country and subnational levels, and with the full involvement of people with the lived experience of mental disorders."

A Commission by The Lancet

Preventing mental health problems must target harmful environments across the early life course

Promoting nurturing environments in the early life course



Promoting youth mental health is everyone's business

Society

Promote progressive attitudes towards youth
sexuality

Cash transfers (conditional and unconditional)

Engaging and addressing issues that concern young
people such as discrimination and climate change

Educational institutions

Teaching problem-solving skills

Promoting a healthy social environment

Access to mental health care

Home

Parenting practices

The challenges

Narrow, binary, biomedical framing of mental health

Lack of tailoring to the needs of disadvantaged youth

Lack of attention in mental health programs to social determinants

Lack of skilled providers

Reluctance to seek help from 'professionals'

SCHOOL-BASED MENTAL HEALTH INTERVENTIONS



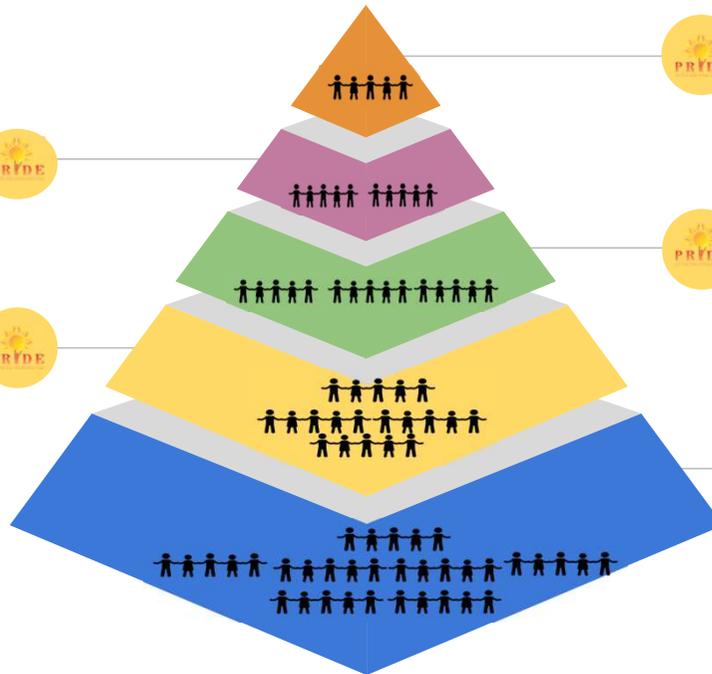
Low-intensity counselling

Low intensity problem solving therapy delivered by lay counselors, supported by comic book self-care



Classroom sensitisation

Classroom wide awareness to generate demand for mental health care



Trans-diagnostic psychological treatment

Modular common elements psychological treatment delivered by psychologists.



Smartphone game (Blended self-help)

Low intensity problem solving therapy delivered by smartphone app supported by lay counselors



School mental health promotion

Whole school multi-component health promotion intervention

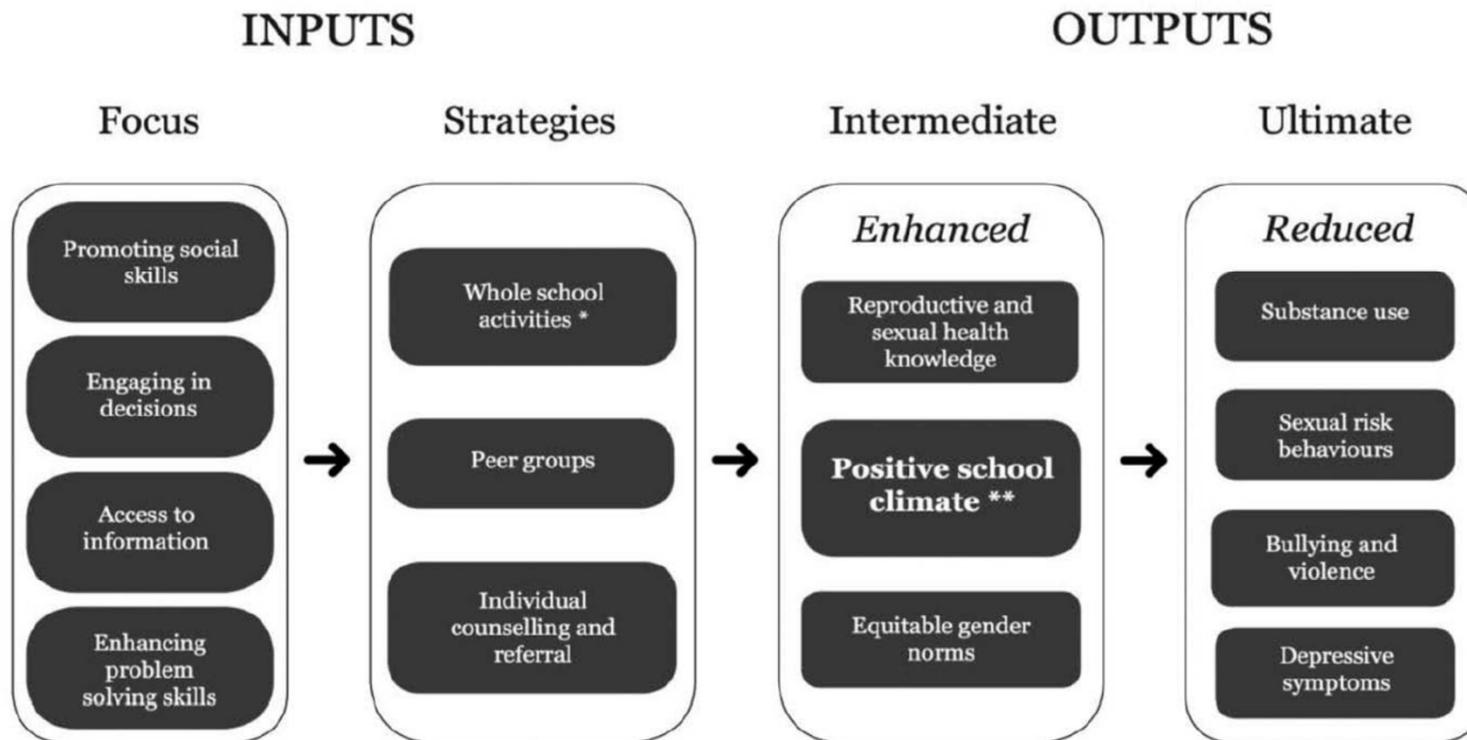


Supported by the Wellcome Trust



Supported by UNFPA and MacArthur Foundation

Transforming the school environment



*Awareness generation activities, wall-magazine, competitions, speak-out box, School Health Promotion Committee, and Health Policies

**Improved school climate includes improved relationships among school community; a greater feeling of belongingness to the school; commitment towards positive educational values; and enhanced participation in school activities.

Shinde et al, Global Health Action 2017



Transforming the school environment



	SM group vs control group		TSM group vs control group	
	aMD* (95% CI)	Effect size, SMD (95% CI)	aMD (95% CI)	Effect size, SMD (95% CI)
Primary outcome				
School climate	7.57 (6.11 to 9.03)	1.88 (1.44 to 2.32)	-0.009 (-1.53 to 1.51)	0.00 (-0.45 to 0.44)
Secondary outcomes (continuous)				
Depressive symptoms†	-1.23 (-1.89 to -0.57)	-0.27 (-0.44 to -0.11)	-0.03 (-0.70 to 0.65)	-0.01 (-0.17 to 0.16)
Attitude towards gender equity‡	0.41 (0.21 to 0.61)	0.23 (0.10 to 0.36)	0.17 (-0.09 to 0.38)	0.09 (-0.04 to 0.23)
Knowledge of reproductive and sexual health§	0.29 (0.06 to 0.53)	0.15 (0.02 to 0.29)	0.06 (-0.18 to 0.32)	0.04 (-0.10 to 0.18)
Frequency of bullying¶	-0.91 (-1.15 to -0.66)	-0.47 (-0.61 to -0.33)	-0.08 (-0.34 to 0.18)	-0.04 (-0.18 to 0.10)

Shinde et al, Lancet 2018; Shinde et al, PLoS Med 2020

Increasing demand for mental health care

- Co-produced intervention comprising an animated film followed by guided discussion facilitated by a lay counsellor
- Stepped-wedge, cluster randomized controlled trial with 70 classes in six secondary schools serving low-income communities in New Delhi, India.
- 50 fold increase in identified cases through self-referrals in the 4 weeks following the intervention



Building problem-solving coping skills

- Brief problem solving skills training facilitated using resource booklets, delivered by lay counsellors in 3-4 sessions over 3 weeks
- RCT conducted with referrals with psychological distress in 6 low income schools comparing counsellor delivery with bibliotherapy alone
- Counsellor delivered intervention superior on the outcome of self-reported problem severity



Michelson et al, BRAT 2019; Michelson et al, Lancet Child Adol Health 2020

Digital delivery of problem-solving skills

- Technology-enabled, gamified format for training in problem solving skills
- Lab-based interventions with options for group onboarding
- Cohort study with 248 students; no threshold for eligibility
- High acceptability and large improvements in symptom and problem severity



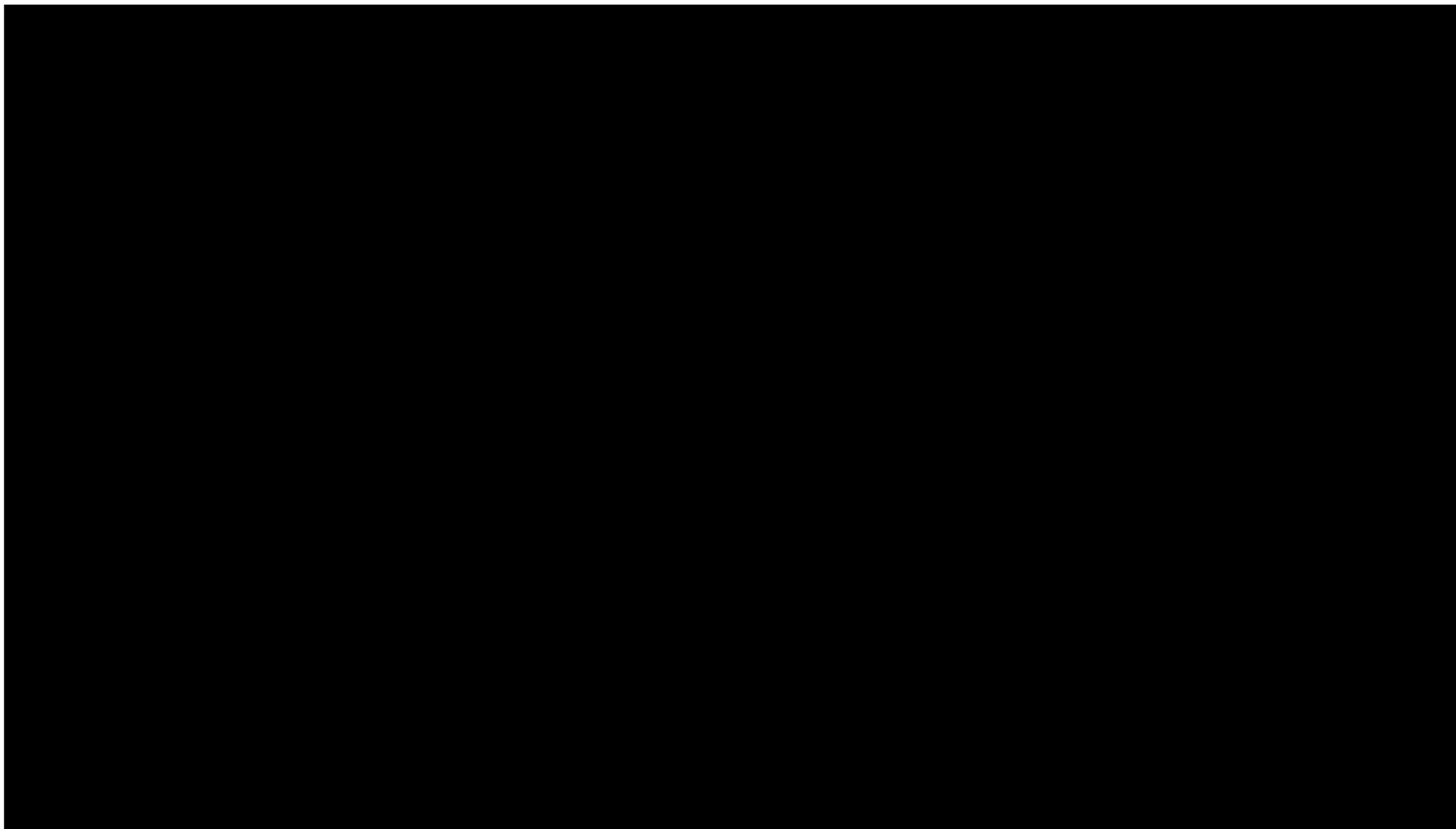
Engaging young people through story-telling

Mann Mela addresses social determinants, delivers information and encourages young people that mental health is a positive asset and that recovery is possible

How it works A digital and travelling museum comprising young people's story exhibits in 5 Indian cities

www.mannmela.in





The guiding principles of action

Give information

Restore hope

Enhance agency

Respect dignity and rights

Provide evidence informed care

Re-imagining adolescent mental health

- Look beyond narrowly defined mental illness embracing a diversity of approaches tailored to the needs of the individual
- Meet adolescents where they are, typically in educational institutions
- Focus on the 'base of the pyramid' of care, through task-sharing of psychosocial interventions to lay and peer counsellors
- Balance individual interventions with structural interventions
- *Youth at the centre of all decisions*