

SPOTLIGHT

Youth Mental Health in India





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ACRONYMS & ABBREVIATIONS

AFHC	Adolescent Friendly Health Clinics
CHC	Community Health Centres
CHW	Community Health Worker
DALY	Disability - Adjusted Life Years
DMHP	District Mental Health Program
DMHI	Digital Mental Health Interventions
e-MANAS	Mental Healthcare Management System
HMIS	Health Management Information System
HWC	Health and Wellness Centre
i-MANN	ICMR-Mental Health Assessment National Network
MANAS (app)	Mental Health and Normalcy Augmentation System
MHCA	National Mental Healthcare Act, 2017
NDHM	National Digital Health Mission
NEP	National Education Policy, 2020
NGO	Non-Governmental Organization
NHP	National Health Policy, 2017
NIMHANS	National Institute of Mental Health and Neurosciences, Bengaluru
NLEM	National List of Essential Medicines
NMHP	National Mental Health Program
NMHS	National Mental Health Survey, 2015–2016
NSS	National Service Scheme
NYP	National Youth Policy, 2014
NYKS	Nehru Yuva Kendra Sangathan
PHC	Primary Health Care
RKSK	Rashtriya Kishor Swasthya Karyakram
SABLA	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
SDG	Sustainable Development Goals
SMD	Severe Mental Disorders
TAG	Technical Advisory Group
UNICEF	United Nations Children's Fund
YAG	Youth Advisory Group

EXECUTIVE SUMMARY

Mental well-being is indispensable for the overall health and well-being of an individual, and the society at large. While everyone faces psychological distress and hardships at some point in their life, one in four people will endure mental health conditions that require formal care and support. Mental health and well-being of young people is impacted by their individual personalities, and immediate surroundings such as families, societal and educational institutions, which are further influenced by broader socio-economic, cultural, and political factors.

Mental health and well-being during adolescence and young adulthood needs specific emphasis as the developmental experiences during this age sets a foundation for the physical, emotional, educational, social, and financial achievements in later life. As three-fourth of all mental health conditions (disorders that affect mood, thinking and behavior) manifesting throughout a lifetime begin by the mid-twenties, it is important to address youth mental health and well-being systematically so that individuals with an indicated greater need of psychosocial support and professional help are identified early, appropriately, adequately, and efficiently.

India is home to more than 250 million young people in the age group of 15–24 years, or a fifth of the global population of young people. PATH conducted an environmental scan of existing policies, programs, services and their scope to address the psychosocial, emotional, and mental health needs of young people aged 15–24 years in India. The ultimate aim of this landscaping is to inform the development of a human-centered mental health intervention framework to improve youth mental health outcomes and guide an optimal utilization of the technologies to amplify the reach and impact of such interventions.

The specific strategy builds on PATH's core competencies and collective expertise and experience. The findings presented in this report will likely add pragmatic value to the current body of knowledge and strategic direction to improve mental health outcomes among young people in India. The findings also provide critical insights to determine the appropriate entry points and levers to advance the programmatic priorities of governments and stakeholders.

This report is organized into five sections. The first section provides an overview of youth mental health

in India. We highlight the immediate need to address mental health conditions among youth in both rural and urban areas, but more urgently in urban metros which have a two-fold higher prevalence of mental health conditions. Along with depression, anxiety, substance use conditions, and maternal mental health problems, the high rates of death by suicide among the young people of India are the topmost priorities that need to be addressed. In the context of an unacceptably high treatment gap and limited data on treatment coverage among adolescents and young adults specifically, the challenge is enormous for India.

The second section outlines the approach taken by the team to develop a holistic view of landscaping the youth mental health ecosystem in India. We conducted stakeholder mapping, review of policies, programs and legislations for adolescent health, digital health, mental health and convened individual stakeholder consultations with young people, including persons with lived experiences of mental health conditions, parents and teachers, mental healthcare service providers, experts from digital health, systems thinkers, and social scientists. A Technical Advisory Group and Youth Advisory Group further provided critical insights and direction.

The third section highlights key insights from the diverse stakeholders, advisors, and experts on priorities, needs and preferences and suggested ways to improve youth mental health outcomes in India. Reimagining the scope of current mental healthcare programs and providing a spotlight on mental well-being as compared with mental disorders or illnesses was an overarching recommendation. A strong emphasis was added to systematically address the general lack of awareness and skills to discuss mental well-being and mental health conditions among young people, parents and gatekeepers and health functionaries. Additionally, parents and teachers need to be supported to enable creation of safe spaces to promote safe and frank discussions on mental health with young people in their care. Young people identified that developing skills and tools for management of stress, anxiety, sadness, loneliness, inadequate sleep and distraction, addiction prevention, and improving interpersonal communication, physical exercise and overall quality

of life can improve their personal capacities to promote their mental health. However, for conditions that required access to mental healthcare services, the extant services were highly inadequate and costly. There is a need to provide empathic, positive, and responsive care that is easily accessible and affordable, with an added focus for providing inclusive services for vulnerable sub-groups of young people.

The fourth section presents key highlights of the mental healthcare ecosystem in India included from a review of literature and reports. Specifically, this section highlights the current structure for governance and stewardship for mental health in the country and the relative emphasis accorded to mental health and youth mental health in the policies and programs of the country. Despite not having a comprehensive and dedicated mental health policy or program for young people in the country, current policies and programs from across five relevant ministries covering health, women and child development, youth affairs, education, and social justice and welfare together articulate a picture that provides a guiding framework for advancing youth mental health in the country.

The main challenges, however, remain in their collaborative implementation and an overwhelmingly adult-oriented mental health program. The primary underlying reasons for this predicament are related to dismal budget allocations historically, with a continuing trend, despite the high impact of the Covid-19 pandemic on youth mental health. The result of this is evident in the high out-of-pocket expenditure incurred by households on mental health in both rural and urban areas and both in public and private sectors. The out-of-pocket expenditures only present a part of the story as an overwhelming majority never access care for their mental health conditions. India is struggling with introduction of systematic recording and reporting of mental health conditions in the Health Information Management Systems routinely, although key initiatives empowered by the Mental Healthcare Act are providing a way forward.

The final section of this report takes into account the cumulative narrative of the preceding chapters and presents key considerations that need to be explored to develop a comprehensive approach for promoting youth mental health in India.



“Our parents and their generation might have dealt with their feelings and emotions differently. They might not have weighed emotional issues as a major health concern. One way to increase acceptance among them is to open up and talk about our own situation more frequently so they realize that mental health issues are not a hoax. For that, we need a common and easy vocabulary to bridge the communication gap between the parents and children.”

(Youth Advisory Group Lucknow)



1

Youth Mental Health in India

1. YOUTH MENTAL HEALTH IN INDIA

Global estimates suggest that one in every four individuals will experience a mental or behavioral disorder in their lifetime.¹ If we add substance use disorders, then the numbers will be much higher.

“For India, the economic loss due to mental health conditions, between 2012-2030, is estimated at USD 1.03 trillion.” (World Health Organization)²

In 2017, it was estimated that nearly 200 million Indians (all age groups) suffered from a diagnosable mental disorder and needed care, comprising 14.3 percent of the total population of the country.³

“Depression, anxiety disorders, and substance use disorders account for nearly 90% of the cases.” (National Mental Health Survey of India, 2015-16)³

Overall, the contribution of mental disorders to the total disease burden in India has doubled since 1990, when it accounted for 2.5 percent of all the Disability Adjusted Life Years (DALY), to 4.7 percent in 2017.⁴ DALY is a time-based metric to assess disease burden and is a combination of the disease burden caused by mortality (years of life lost due to premature mortality, YLLs) as well as morbidity or disability (years of healthy life lost due to disability, YLDs).

The treatment gap for mental health conditions is unacceptably high all over the world and particularly in the lower- and middle-income countries. In 2019, 29 percent of persons with psychosis and 40 percent of persons with depression had received mental healthcare services;⁵ the treatment coverage varied vastly across the countries. For instance, only 18.2 percent of people with depression received care in lower-middle-income countries, against 31.1 percent in upper-middle-income countries and 50.6 percent in high-income countries.^{5,6}

The treatment gap for mental health conditions in India ranges from 70 percent to 92 percent for different mental disorders. Treatment gap is higher for substance use disorder (86 percent for alcohol use disorder, 92 percent for tobacco use) and for common

mental disorders (85 percent), and lower, but still quite high for bipolar affective disorders (70 percent), severe mental disorders (74 percent), and psychosis (75 percent).³



Mental health relevance for SDG Targets

Target 3.4: By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

Indicator 3.4.2 - Suicide Mortality Rate

Target 3.5: To strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

Indicator 3.5.1 - Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders,

Indicator 3.5.2 - Harmful use of alcohol defined as alcohol consumption per capita in litres of pure alcohol.

Target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

Table 1 - Key Health Indicators for Indian Youth

Health Indicators*	Rural	Urban	India
All women aged 15-19 years who are anemic (<12g/dl#) (%)	60.2	56.5	59.1
All women aged 15-49 years who are anemic (<12g/dl#) (%)	58.5	53.8	57.0
All men aged 15-19 years who are anemic (<13g/dl#) (%)	33.9	25.0	31.1
All men aged 15-49 years who are anemic (<13g/dl#) (%)	27.4	20.4	25.0
Women aged 20-24 years married before age 18 years (%)	27.0	14.7	23.3
Men aged 25-29 years married before age 21 years (%)	21.1	11.3	17.7
Women aged 15-19 years who have begun childbearing at the time of the survey (%)	7.9	3.8	6.8
Adolescent fertility rate [§] for women aged 15-19 years	49	27	43
Women aged 15-24 years who use hygienic methods of protection during their menstrual period (%)	72.3	89.4	77.3

Notes:

* National Family Health Survey-5[§], [§] Equivalent to the age-specific fertility rate for the 3-year period preceding the survey, expressed in terms of births per 1,000 women aged 15-19 years, [#] Hemoglobin in grams per deciliter (g/dl).

1.1 Youth in India – Key Indicators

India is home to more than 250 million young people in the age group of 15–24 years, or a fifth of the global population of young people.⁷ The term ‘young people’ includes two sub-groups: ‘older adolescents’ aged 15–19 years and ‘young adults’ aged 19–24 years. The key youth health indicators in India are compiled in Table 1.

The literacy rate among the Indian youth is nearly 90 percent and primary schooling is almost universal across the country. According to government reports, India’s gross enrolment ratio in higher education is gradually increasing every year, with 27.1 percent in 2019–2020.⁹ Despite this, there is considerable drop-out at the secondary (17.9 percent) and higher secondary education levels, especially among boys, resulting in poorer enrolment in higher education among Indian youth.¹⁰ More than 19 states of India have reported a higher dropout rate than the national average. The most common reasons for school dropouts are related not only to failure in exams and lack of interest in studies, but for many, the high cost of education and socioeconomic adversities is prohibitory to continue school education and the need to engage in income generation activities, contribute to household chores, or stay back at home to look after their families while their parents are away for work.¹¹

Marriage at a younger age and before the legal age for marriage is still a persistent problem in the country, not only for women but also for men. While this is largely perceived as a problem in rural areas, the corresponding rate in the cities is also astonishingly high. With early marriages, comes early childbearing and this poses a significant emotional and physical burden, especially on young adolescent mothers (Table 1).

While typically considered an age of being in the prime of one’s health, anemia levels are high for both boys and girls, and worse than for all men and women aged 15–49 years. Further, these indicators are worse in rural areas as compared to urban areas and have worsened since the previous National Family Health Survey-4 (2015–2016) for both adolescents and adults, men, and women.⁸ The backdrop of a significant proportion of the population aged 15–49 years being underweight (men – 16.2 percent and women – 18.7 with BMI<18.5 kg/m²), or overweight or obese (men – 22.9 percent and women – 24.0 percent with BMI≥25.0 kg/m²), does indicate a need to view young people’s health more comprehensively and urgently.⁸

1.2 Youth Mental Health – Overview of the Burden

Adolescence, and by extension, young adulthood, are marked by rapid transitions across biological, psychological, and social factors. This is a time of rapid neuro-developmental changes in the brain, onset of puberty towards sexual maturity, and social transition from being a child to a full-grown adult with an independent identity and socioeconomic autonomy.

Like many physical illnesses, mental and behavioral disorders are the result of a complex interaction between biological, psychological and social factors.¹

All these factors, along with increased normative stresses in the daily lives of young people related to academic pressure, interpersonal relationships, romantic/sexual relationships, vocational and career related concerns, access to knowledge and resources, perceived and endured discrimination due to one's caste and social status, and gender norms increase their vulnerability to mental health conditions.^{12,13}

Half of all the lifetime mental disorders would have first appeared by mid-teens and another one-fourth by the age of 24 years, i.e., 75 percent of all lifetime mental disorders would have started by the age of 24 years.¹⁴

In India, the most recent and nationally representative data available on the prevalence of mental disorders is from the National Mental Health Survey (NMHS) 2015–2016, led by the National Institute of Mental Health and Neurosciences (NIMHANS). The survey indicates that overall prevalence of suffering a mental health condition that requires care over one's lifetime was 13.7 percent for adults, and people from lower income groups had a greater prevalence.¹⁵

The current prevalence of mental health conditions among adolescents is 7.3 percent with similar distribution across boys and girls (Figure 1). This prevalence is 2-3-fold higher among urban adolescents in comparison with their rural counterparts. The most common mental disorders in this age group were depression, anxiety and substance use disorders.

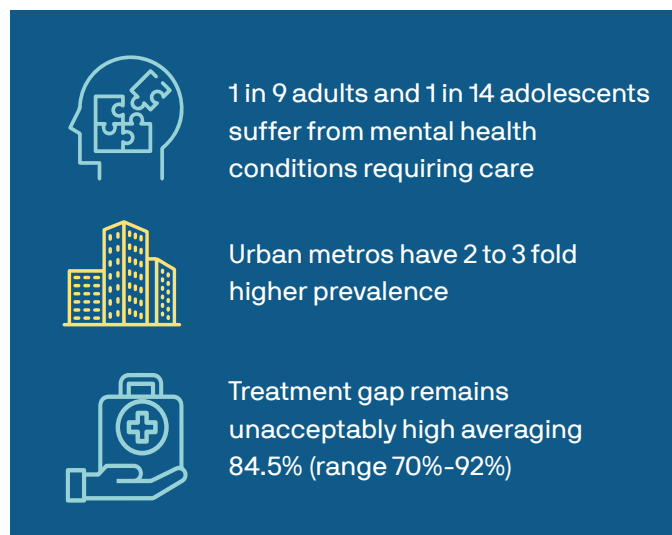


Figure 1: Mental Health in India – Key indicators³

Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest, disrupting normal daily life functioning and further causing a range of physical and mental health conditions. Anxiety disorders are characterized by excessive fear or worry and may be accompanied by physical symptoms. There are several types of anxiety disorders, including generalized anxiety disorder, panic disorder, and various phobia-related disorders, and have a considerable impact on a person's daily life activities and functioning. Substance use disorders affect a person's brain, resulting in an inability to control their use of substances such as legal or illegal drugs, alcohol, or medications.

The prevalence of substance abuse among the young Indians is rising alarmingly. According to a study conducted by the National Commission for Protection of Child Rights, the most common form of substance abuse amongst adolescents is tobacco and alcohol, followed by inhalants and cannabis.¹⁶ The average age of onset of tobacco use was observed to be as low as 12.3 years.¹⁶ The National Mental Health Survey 2015–2016 has pointed that 22.4 percent people above 18 years of age had substance use disorders including dependence and harmful use of alcohol and tobacco.¹⁷

Severe mental disorders such as bipolar disorder and schizophrenia, while accounting for a minority of cases, inflict a very high burden on the individuals with these conditions as well as their families.

While there is no significant difference in prevalence of mental health conditions among adolescent boys and girls, among adults, the prevalence of depression, anxiety, and stress related disorders is higher among women, whereas substance use disorders and psychosis are more prevalent among men.¹⁷

In addition, many young people will encounter higher levels of stress and suffer from adjustment problems as they navigate the biological, social, and economic transitions, which may pose an additional risk to developing negative mental health outcomes. There are also indications that the burden of mental health issues among the young people has increased over time, and it may be higher for girls than boys and even higher for young married girls.¹⁸ This may be related to oppressive gender and sociocultural norms and discrimination, exposure to violence, sexual abuse, and early marriage and childbearing.^{19,20}

Overall, there is some variation in the burden of mental health conditions across the country. The NMHS which provides state-specific prevalence rates for the 12 participating states noted that the lifetime prevalence of mental health conditions varied from 8.1 percent in Assam and 8.7 percent in Uttar Pradesh to 19.3 percent in Tamil Nadu and 19.9 percent in Manipur.¹⁸ The Global Burden of Disease Study 2017 further noted that there is a higher prevalence of depressive and anxiety disorders in states that have better socioeconomic development indicators, such as the southern states, for reasons that are not yet completely understood.⁴

In India, the treatment coverage for a mental health conditions is very poor and with little reliable data for adolescents and young people.²¹

■ Perinatal Mental Health

Young pregnant women and mothers form a specific sub-group of young people with added vulnerabilities to develop perinatal mental health conditions. India lacks national data on perinatal mental health conditions i.e., among pregnant women and new mothers. Perinatal mental health conditions include anxiety and depression, and in very rare cases, psychosis. These may make it difficult for them to carry out daily tasks, including caring for themselves and their babies. Perinatal depression is a common perinatal mental health condition and includes both antenatal depression and postpartum depression. Postpartum depression is defined as an episode of non-psychotic depression with onset within one year of childbirth.

In India, there is a high prevalence of antenatal depression ranging from 9.18 percent to 65.0 percent,²² and postpartum depression prevalence is as high as 22 percent,²³ along with anxiety,²⁴ and a high suicide risk²⁵ among women during pregnancy and after childbirth.

Perinatal depression impact the health of both the mother and the child over the short and long term and are associated with higher risk of pregnancy-related mortality and morbidity, preterm delivery, low birthweight, cognitive and emotional delays, delayed linguistic skills, and behavioral problems among children.

Risk factors for antenatal depression, include unplanned pregnancy, multigravidity, history of abortion, advancing pregnancy and age, lower/lower-middle socioeconomic status, poor education status of women, unemployment, bad relations with in-laws, male gender preference, and demand for dowry.²² In addition, financial difficulties, presence of domestic violence, history of psychiatric illness in mother, marital conflict, lack of support from husband and birth of a female baby are risk factors for postpartum depression.²³

■ 1.3 Self-Harm and Suicide

India has among the highest rates of suicides in the world. In 2019, the World Health Organization estimated 173,347 deaths by suicide in India and an age-standardized suicide rate of 12.9 per 100,000 population, with a much higher rate of 14.7 per 100,000 population in males. The global age-standardized suicide rate was 9.0 per 100,000 population in the same year. Globally, death by suicide was the fourth leading cause of death among older adolescents aged 15–19-years.²⁶

India's National Mental Health Survey 2015–2016 reported that the suicide rate is 9.52 per 100,000 among adolescents and is much higher at 17.1 per 100,000 among young adults.³ The number of suicides are higher in women under the age of 18 years, and among men between 18–30 years of age (Figure 2).

The Andaman & Nicobar Islands reported the highest rate of suicide (45 per 100,000 population) followed by Sikkim (42.5), Chhattisgarh (26.4), Puducherry (26.3), and

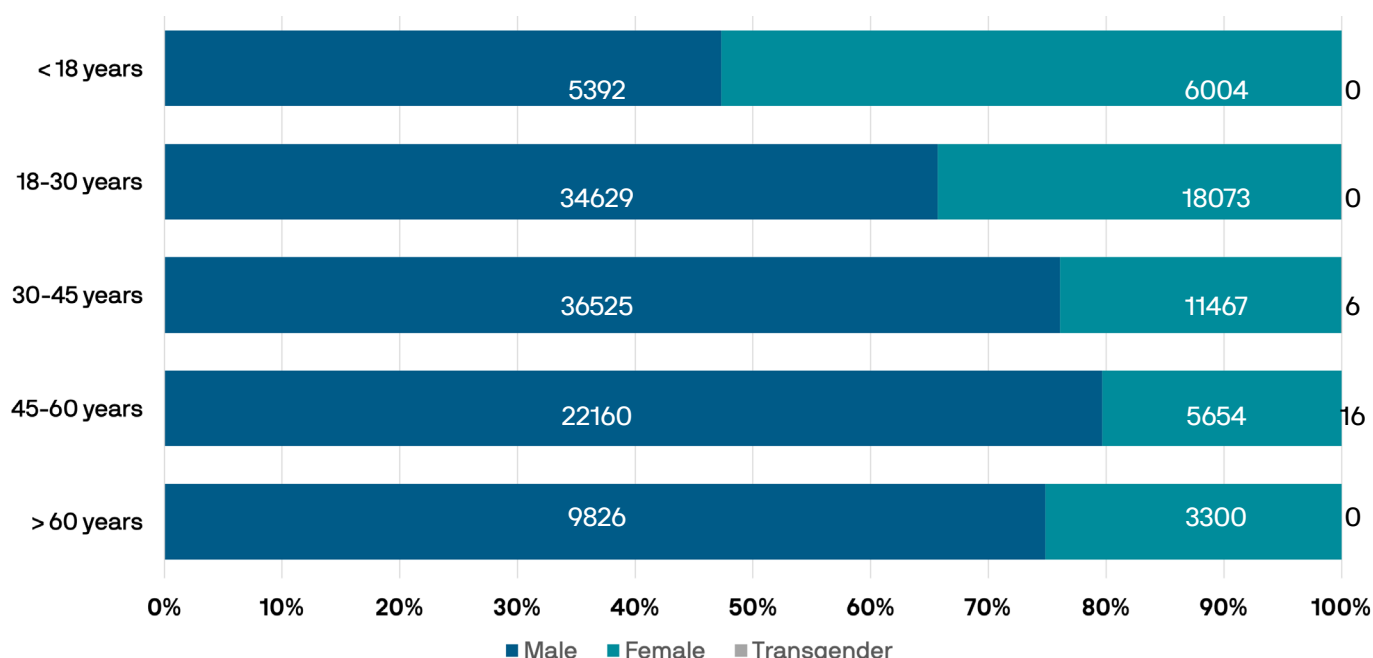


Figure 2: Number of suicides by age and sex in 2020.²⁷

Kerala (24.0). Maharashtra has the highest percentage share of suicides in the country – 13.4 percent, 13.6 percent, and 13.0 percent for the past three consecutive years; 2018, 2019, and 2020 respectively.²⁷

In India, the data on suicide is published yearly by the National Crime Records Bureau; albeit with concerns of under-reporting and suicide was until recently considered a criminal offence. Overall, deaths by suicide form a small fraction of the overall suicide attempts.²⁸

Death by suicide has emerged as a leading cause of death in young women in India between 1990–2010, followed by maternal deaths related to pregnancy and childbirth, fire, tuberculosis, and diarrhea.²⁹ Mental disorders, particularly depression, and alcohol use disorders are associated with increased deaths by suicides. However, many suicides are driven by crisis as an impulsive response to the severe distress.

Disturbingly, young people in India may identify with suicide as a ‘last resort’ to deal with a ‘major problem’ like loss, loneliness, breakups, financial crisis, violence and abuse, discrimination, or conflicts.¹³ Suicides are preventable to a great extent. Effective interventions include identifying and addressing the risk factors, including the underlying mental health conditions, as well as physical measures taken to prevent easy access to means of suicide such as pesticides which have a high lethality rate.

1.4 Impact of the Covid-19 Pandemic

In the wake of the pandemic, an increase in stress, worry, fear, risky behaviors, depression, anxiety, post-traumatic stress, alcohol use, drug use, as well as suicides, has been reported globally among young people and adults alike. The pandemic forced the widening of existing inequities and disparities in accessing resources for health, education, and social welfare, causing young people living in poor communities to endure a disproportionately higher burden.³⁰ Many countries also witnessed a disruption in access to and provision of most of the routine healthcare services, including mental health care.³¹

In India, a number of studies conducted since the onset of the Covid-19 pandemic show a similar increase in mental health conditions.^{32–36} The country also witnessed an increase in the incidences of domestic violence, physical and sexual abuse.³⁷

Many young people lost one or both parents during the pandemic and were abandoned.³⁸ Closure of schools and colleges, and an abrupt shift to online schooling amidst a gaping digital divide in the country additionally put several adolescents in challenging situations as they struggled with education and endured a disruption in access to schools, which also provided access to food, healthcare, protection from child labor, and physical security for a considerable proportion of adolescents from the lower socioeconomic strata.



2

Youth Mental Health Landscaping Process

2. YOUTH MENTAL HEALTH LANDSCAPING PROCESS

2.1 The Motivation

Mental health has traditionally received poor investment. However, there is a strong case for investing in mental health and scaling-up of effective treatments for common mental disorders such as anxiety and depression. These benefits are accrued both in terms of improved health outcomes as well as improved economic outcomes from improved labor participation and productivity.

Every USD1 invested in scaling-up treatment for depression and anxiety leads to a return of around USD4 in better health and ability to work.³⁹

The Covid-19 pandemic impacted the routine education and public healthcare services in India. For adolescents, as a significant number of these were delivered through schools, closure of schools threatened to increase the inequities in health, mental health, and access to resources.^{33,40} It also created an increased risk for mental disorders and suicidality. The need for comprehensive mental healthcare services is now acutely felt in the wake of the pandemic. In response, the Government of India announced a new program – The National Tele-Mental Health Program in the Union Health Budget 2022–2023. A review of the existing mental health policies and programs and mapping of the strengths and opportunities is necessary to indicate a potential roadmap for this new program.

Globally, a range of evidence-based psychotherapies and pharmacotherapies amenable for low resource settings are being increasingly developed. However, these strategies need to be closely matched with the needs, priorities, and preferences of the young people in India. A comprehensive landscaping is therefore, needed to inform a contextually relevant holistic approach to improve young people's mental health, focusing on barriers and enablers that are specific to the Indian context.

In view of this understanding, PATH, with the support of Fondation Botnar, undertook a comprehensive mapping and analysis of relevant policies, programs, and stakeholders, as well as the legal and regulatory

framework for developing digital interventions to address mental health conditions through a multi-pronged approach, with the overarching aim of informing a human-centered and participatory design process towards applying frontier technology to improve youth mental health outcomes.

This systematic approach provided critical insights to determine the appropriate entry points and levers to advance the programmatic priorities of governments and stakeholders. This will also guide priority setting for developing interventions and stakeholder engagement along with application of technologies.

2.2 Approach and Methods

A robust approach to develop a holistic view of landscaping the youth mental health ecosystem in India employed select and complementary strategies outlined below and summarized in figure 3.

- **Stakeholder mapping:** Stakeholder mapping involved a comprehensive mapping of the key actors and organizations who influence or are involved in the development, implementation, consumption, evaluation, and regulation of the digital and non-digital interventions for mental health or are directly or indirectly impacted by these interventions such as government ministries and agencies, for-profit and not-for-profit private organizations, multilateral UN agencies, service providers, research community and academia, and key health-tech developers. A major output of this exercise was mapping a total of 73 key not-for-profit, non governmental organizations (NGOs) across India that are providing community-based care for mental disorders, substance use disorders, suicide prevention, severe mental disorders in the country. Similarly, 17 youth-based organizations (YBOs) working to further the interests of young people including adolescents were also mapped.
- **Policy and program mapping:** The relevant policies, programs, and reports of key government ministries and departments—Ministry of Health and Family Welfare, Ministry of Education, Ministry of Youth Affairs and Sports, Ministry of Women and Child Development, and Ministry of Social Justice and Empowerment— were reviewed.

- Review of digital interventions for mental health:** Digital interventions for mental health from the private for-profit and not-for-profit sectors, public sector, and those developed by researchers and academia were mapped using a systematic search strategy and reviewed for their functionality. A total of 98 digital interventions across public and private sectors were mapped which included smartphone apps, websites, e-learning platforms, tele-counseling and tele-psychiatry models.
- Technical Advisory Group (TAG):** A multi-disciplinary TAG with 16 dynamic experts in mental health, adolescent and youth health, systems thinkers, digital ecosystems, health policies and legislations in India, was constituted with good gender balance and representations across the geographical reach of the country (Annexure 2).
- Consultations with stakeholders and experts:** Individual or group expert consultations were held with 39 experts across multiple disciplines like adolescent health; youth mental health; digital health; gender, sexual, and reproductive health; and social sciences. These experts represented research, academia, government programs, and service providers in the community including both for profit and not-for profit providers and educators.
- Youth Advisory Group (YAG):** A Youth Advisory Group was formed including 16 young people aged 18–24 years and passionate about mental health advocacy from Bhubaneswar and Lucknow. The YAG had balanced (1:1) representation of male and female young advisors. The YAG meetings provided a space for young people to express their voices and opinions about their own mental health and well-being. The convenings of the YAG helped PATH gain young peoples’ perspectives and opinions on potential solutions and interventions (Annexure 3).
- Youth workshops:** Workshops were conducted in Bhubaneshwar and Lucknow with young people between the age group of 18–24 years to explore self-care for mental health and the use of digital interventions for mental health.
- Literature review:** Peer reviewed literature was retrieved using systematic searches on PubMed, and Google Scholar on mental health and digital mental health and cross-referencing, particularly for their publication in the last five years. Additionally, websites of leading mental health organizations and their reports were also reviewed.

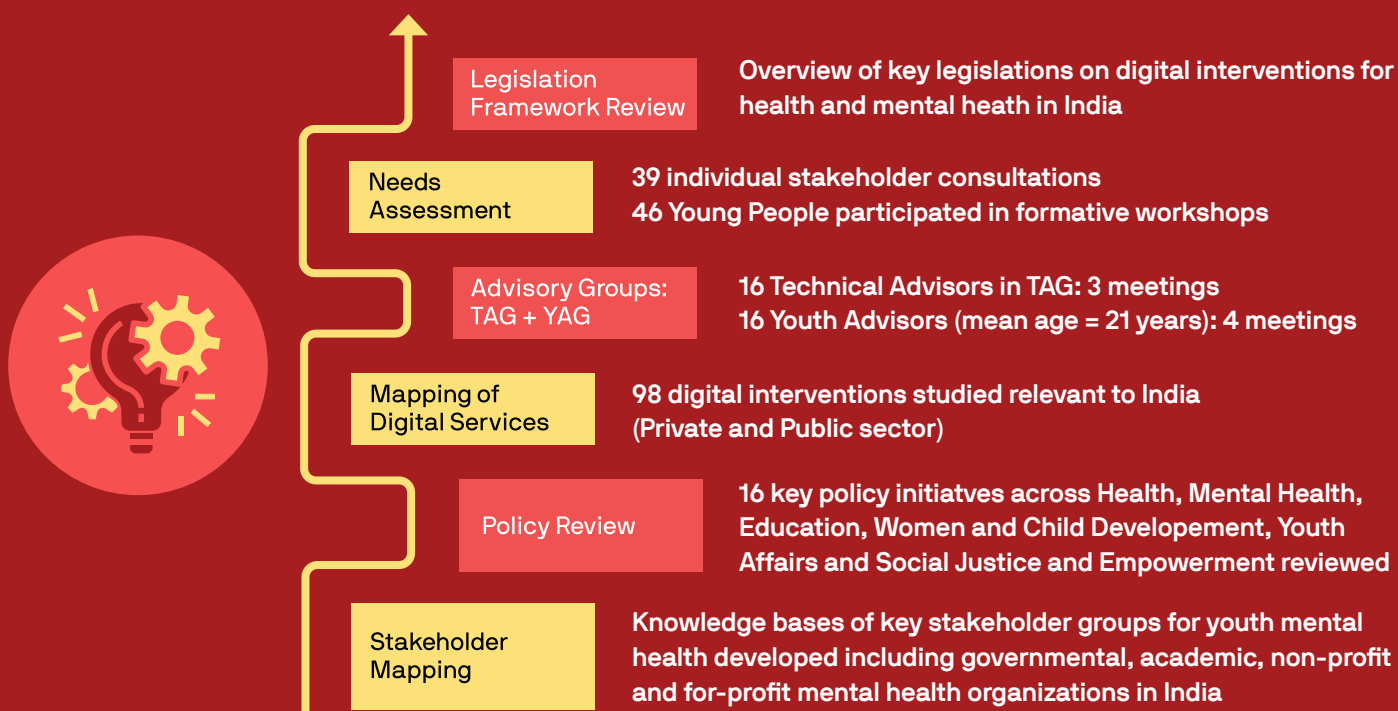


Figure 3: Key inputs for the landscaping exercise



3

Stakeholders' Needs, Priorities, and Preferences

3. STAKEHOLDERS' NEEDS, PRIORITIES, & PREFERENCES

Insights from the diverse stakeholders, advisors, and subject experts threw light on the top priorities and needs in today's context to improve youth mental health outcomes in India.

3.1. Reimagining Youth Mental Well-Being

A renewed focus on mental health and well-being was voiced across stakeholder groups as an urgent priority. A larger discourse focusing on mental health rather than ill-health or an overwhelmingly medical view of mental health was needed to view young people's mental health more holistically.

Interventions need to additionally focus on enabling the ecosystems to support young people to not only develop academic prowess and achieve financial success but also develop meaningful relationships with others, feel connected to society, and develop social and emotional intelligence and stability.

"A holistic approach to mental health should aim to empower young people with resources to promote their mental health, and develop an enabling environment around young people, in addition to detection and treatment of mental health conditions." (Technical Advisory Group)

Young people emphasized that mental health and self-care need to be discussed frequently in homes, schools and colleges, and communities. Teachers and senior psychologists also suggested that mental health needs to be formally included among the approaches adopted to promote youth development. India's traditional concepts and practices related to yoga, meditation, and development of spirituality can also be included while developing such holistic approaches.

"Young people should relate to our Indian concepts of yoga and meditation, which are unfortunately not very popular among Indian youth." (Senior Psychologist, Lucknow)

3.2. Inculcating Actionable Awareness

The concept of mind and mental health, and especially mental disorders and their treatment continues to be poorly understood and remains mystified. Young people who participated in workshops and are engaged as advisors, highlighted a serious lack of reliable information on mental health in their ecosystem, including online resources. It was especially pointed out that such information was not available in their local languages.

"Easy, reliable, and affordable access to quality information on mental health in their local language is a major unmet need for young people." (Young woman, Youth Workshop, Bhubaneswar)

Young people shared that neither their families, schools and colleges, nor the health facilities offered sufficient information and opportunities to learn more about mental health, mental health conditions, their symptoms, or their treatment, including the types of treatment, their duration and expected consequences.

Effective communication regarding mental health with parents, families, teachers, as well as service providers was also identified as a major challenge. Both, a lack of commonly used vocabulary for mental health concerns in the vernacular language as well as anticipated negative reactions from parents and teachers and uncertainties about the support offered, contributed to this challenge.

"We need to open up and talk about our own situation more frequently with our parents, so that they realize that mental health issues are not a hoax. For that, we need a common and easy vocabulary to bridge the communication gap between parents and children." (Young woman, Youth Advisory Group, Lucknow)

In India, significant health decisions including help-seeking for adolescents and many young adults is driven by their parents. Mental health practitioners and teachers highlighted that it may be difficult for parents to understand and accept the extent of the mental health problems their wards may be facing.

“Education of parents on how to respond to the emotional needs of their adolescent children and create supportive relationships within the family is important.” (Senior Psychologist, Bhubaneswar)

Parents and teachers need to be empowered with structured and accurate information about mental health conditions and their treatments to address misconceptions and overcome the hesitation to seek appropriate mental health care for their wards. Such information may also be helpful in improving their awareness about their own mental health as well.

“There is a need to change the adults’ mindsets. We need to talk more about it, we need to discuss our own mental health issues. Setting examples, creating comfort, normalizing mental health issues is needed. There is a lot of resistance to send students to the psychiatrists.” (School Counselor, Bhubaneswar)

Sociocultural factors and religious beliefs shape the attitudes, behavior and decision-making regarding mental health and treatment seeking for mental health conditions. In the Indian context, social stigma associated with mental disorders plays a definitive role in acceptance or rejection of symptoms, selection or adoption of coping strategies and support seeking and help-seeking, and resource allocation for mental health treatments at familial and community levels.⁴¹

It may, therefore, not be surprising that according to the UNICEF survey on young people in 2021, only 41 percent of the young Indians surveyed considered seeking help for mental health problems to be a good thing. This was much lower than other countries included in the survey.⁴²

Widespread awareness about mental health problems must be complemented by efforts to translate the increased awareness into attitudinal and behavior change that will promote help-seeking and reduce the social stigma associated with mental health conditions.

“Authentic and appropriate information on mental health therefore needs to be complemented by developing avenues where such information can be discussed further and acted upon.” (Senior School Teacher, Bhubaneswar)

3.3. Safe Conversations on Mental Health

Young people highlighted the urgent need to provide safe, sensitive and gender inclusive spaces for discussing mental health without being dismissed, judged, or ridiculed. Young people, teachers, and expert stakeholders expressed a need for providing peer support to promote a sense of belonging, autonomy, and empathy in sharing lived experiences of mental health conditions.

“We don’t get a platform where we can share without feeling judged. Everyone is different and their needs for support are different. Families too, often do not understand us.” (Young man, Youth Workshop, Lucknow)

The importance of human contact for discussing mental health concerns was reiterated by all stakeholder groups. To be able to trust, have time for building rapport, be understood and not be judged, and have the confidence of receiving a supportive response while assuring confidentiality, were identified as prerequisites for an open discussion on mental health. The need for such safe and empathic conversations was not restricted to psychosocial interventions and counseling alone, but was referred by young people as an overarching need.

“There should be one person, who can listen and just not dismiss our emotional concerns. They should help us understand our situation and help us cope with it and stop us from following bad paths due to bad decisions. It may or may not be a counselor.” (Young man, Youth Advisory Group, Lucknow)

The limitations of digital interventions in this regard were well highlighted, especially in terms of offering advice for the specific problem or condition.

Addressing mental health among young people was frequently identified as “collective care” rather than an “individual responsibility”; the role of parents and schools was most important. Many young people felt that their parents and teachers did not provide adequate support, including while seeking professional support for common mental health conditions such as depression, anxiety, and substance use. This led to feelings of abandonment, isolation, and loneliness that add to the distress and even drive the distressed young person towards harmful coping mechanisms such as self-harm and suicide.

“I believe that the teacher’s involvement with children is more important. Talking and sharing thoughts with them is important. Human contact, time, and efforts of their teachers, family, and peers are valuable to the young people.” (Senior School Teacher, Bhubaneshwar)

Young people demonstrated a strong preference for peer and family support for emotional problems and daily life stresses over professional help-seeking. Professional help-seeking often began with visiting family physicians or doctors among known friends and relatives. Studies have shown that while the footfalls for mental health conditions may be considerable at the primary healthcare facilities, relatively, these may not be sensitive or willing platforms to provide mental healthcare in India.

“I felt so helpless when my feelings and mental health problems were invalidated by treating physicians, citing that they are not the problems of young age.” (Young woman, Youth Workshop, Lucknow)

3.4. Improving Youth Self-efficacy for Mental Health

Parents and teachers commonly shared that young people need to be empowered with skills to achieve and maintain emotional stability and prepare them to face the ‘real world’ life challenges successfully. Specifically, skills to deal with stressors related to academics, social interactions, addressing body image issues, promoting healthy behaviors related to sexual practices, substance misuse, use of contraception and, prevention of suicidal ideation and self-harm were prioritised.

“We need to provide them with skills to face the real world. Young people also lack awareness about mental hygiene. They do not even monitor their thoughts.” (Senior Psychologist, Lucknow)

A holistic, multifaceted life skill education which is complemented by additional skills for enhancing self-care, promoting resilience, and managing distress was recommended by multiple stakeholders.

Young people additionally identified the need to develop skills and supportive tools for addressing stress, anxiety, low moods, identify and respond to specific trigger points, preventing substance use and addiction, reducing distraction, increasing concentration and focus on immediate tasks, dealing with loneliness, improving the quality of sleep, interpersonal communication, physical fitness, and the overall quality of life.

“The first thing we should think about is that the feeling we are having about ourselves needs acceptance, we need to recognize what exactly we are feeling and then decide from whom to seek help.” (Young woman, Youth Advisory Group)

There is a need to expound upon the notion of self-care for mental health, which for many young people revolved around pampering oneself and doing pleasurable activities like listening to music, dancing, and eating good food. Specifically, an understanding of one’s feelings, thoughts and behaviors through self-reflection and simplified explanations of basic concepts on their interrelationships and impact on daily life functioning should be made widely available.

“Some of the basic psychotherapy concepts can be simplified and taught to develop a more aware understanding of one’s thoughts, feelings, and actions.” (Psychiatrist, Mumbai)

Developing a set of coping plans and using tools to enhance their implementation was also recommended. For this especially, apps and online platforms for addressing loneliness, accessing relaxation exercises, meditation, music, and motivational content, journaling, apps for physical fitness and sleep management were expected to be helpful.

It was strongly suggested to employ a sustainable approach that provides avenues for sharing this knowledge to promote behavior change and platforms to practice the new learnt behaviors. Such avenues could employ the principles of experiential learning and can be integrated with ongoing value-based education, for e.g., in schools.

“The National Education Policy has recommended experiential learning. I think, practical learning through role play, flashcards, peer learning, and group discussion can be used to express their emotions. In addition, peer learning should be used as it can develop sense of collaborative work among young people.” (Senior School Teacher, Bhubaneshwar)

3.5. Responsive and Empathic Mental Healthcare Services

System experts noted that the availability and accessibility of mental healthcare services is limited mainly because of the lower priority accorded to the mental health conditions in comparison with other health conditions. They also deliberated on the felt need for reinforcing the initiatives of the state governments to make the mental health systems more accessible and resilient.

Young people discussed the importance of creating a healthcare environment that was welcoming, relaxing, safe, and positive. Relatable and engaging providers who allowed open expression of thoughts and feelings and inclusion of conversations that also included light-hearted discussion in the sessions was described to provide a positive experience. While teleconsultations were increasingly being talked about, young people seemed to prefer in-person consultations with psychiatrists or psychotherapists over teleconsultations.

“Once I visited a rehabilitation center which was very gloomy with darkness all around. It is challenging to improve mental health when the facility is in such a poor state. How can you help remove darkness from a person with such darkness around?” (Young woman, Youth Advisory Group)

Mental healthcare service providers agreed that for improving young people’s adherence to therapy, trust building, being available, and ensuring an easy atmosphere during the therapy were important as they may be feeling vulnerable. Greater challenges, however, existed with respect to affordability of the treatment, time, and expenses related to traveling for services and parents’ concerns regarding the therapy and progress made during the therapy.

“There have been situations where I felt suicidal at odd hours. I try to call my friend for support. But if no one is available, I feel the need of a helpline number where I can talk to anybody to take my mind off. I have tried multiple helplines, but they only work during business hours – as if you are not allowed to be suicidal out of that window. That is so unfortunate.” (Young woman, Youth Workshop, Lucknow)

Young advisors with a lived experience suggested that it was difficult to get reliable support to deal with crisis situations such as feeling suicidal or the need to seek help beyond office hours. Studies in India show that acute psychiatric emergencies form about nine percent

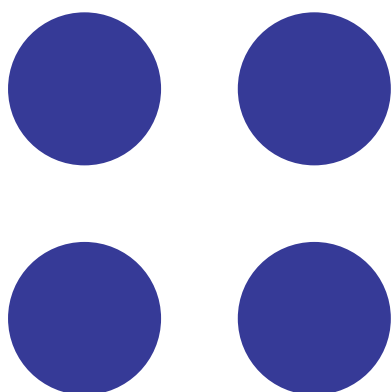
of all emergencies - suicidal attempts was the most common emergency followed by acute psychiatric cases and alcohol intoxication.⁴³

3.6. Addressing Vulnerabilities

Certain sub-groups were identified as having additional mental health needs because of their increased vulnerabilities. Young people out of the education system and working in the informal sector, may be especially hard to reach and may also have unique life stressors that increase their vulnerability to adverse mental health outcomes.

Young married girls, and particularly young mothers form a distinct vulnerable group requiring additional support for improving their mental health. It is estimated that one in five mothers suffer from postpartum depression in India.²³ With the maternal health program not geared to identify or address depression among pregnant or new mothers, this sub-group remains highly vulnerable with adverse impacts on the fetus and the newborn baby.

Young people migrating to cities from their home or to other parts of the country for better education and work prospects form yet another vulnerable group who require support as they navigate the sociocultural transition. In addition, young people who are under institutional care at orphanages, including young adults exiting as care leavers may have added vulnerabilities.





4

Mental Healthcare Ecosystem in India

4. MENTAL HEALTHCARE ECOSYSTEM IN INDIA

This section captures the status of the current response to the mental health needs of the young people. The response has been examined across the six building blocks of health systems as laid out by the World Health Organization.⁴⁴

The lessons learned are presented to provide an overview of programmatic interactions between the six building blocks. This will help in configuring resilient mental health systems for young people in India.

4.1. Governance and Stewardship

India has put many policies in place for more efficient delivery of public goods and services such as health, mental health, education, youth development, telemedicine, and digital health. The past ten years have been instrumental in bringing forth important legislations, policies, and programs that put mental health into a sharper focus as a public health priority (Table 2). The key policy and program initiatives from five ministries—Health and Family Welfare, Education, Women and Child Development, Youth Affairs and Sports, and Social Justice and Empowerment—are described below. (Figure 4)

The National Mental Health Policy 2014, National Health Policy 2017, and Mental Healthcare Act 2017 (MHCA) have clear intent for universal access to high quality mental healthcare through preventive, promotive, and curative services across the lifespan, including for young people. They lay emphasis on addressing the social determinants of mental health, providing care for mental health conditions, address the social stigma associated with it, tobacco and substance abuse, rehabilitation services, and leveraging digital technology in a context where access to qualified psychiatrists is difficult. However, the implementation varies across states.

The National Mental Health Program is the only national program dedicatedly focusing on mental health. Since 1982, it is being implemented through a three-tier healthcare delivery system. A dedicated component to promote primary mental healthcare, the *District Mental Health Program (DMHP)*, was launched subsequently in 1996 based on successful demonstration models.

Presently, it undertakes facility and community-based outreach in 704 districts.⁴⁵ The same is reflected in Ayushman Bharat's *Health and Wellness Centre (HWC)* where mental health is included as a component of the expanded service package, but it is yet to be scaled-up.

ENABLERS

1. Rights-based approach to mental healthcare.
2. Mental health is included in primary healthcare services package.
3. Digitalization envisioned for improving outreach of RKSK, DMHP and school health programs.
4. Tele-consultation programs are being scaled up, tele-medicine and tele-psychiatry guidelines are published.
5. Life-skills education, emotional wellbeing, and substance abuse prevention envisioned to be provided in schools.
6. Youth engagement for community awareness a critical component of NSS and NYKS.

CHALLENGES

1. DMHP lacks a comprehensive focus on providing mental healthcare services for youth.
2. DMHP implementation faces challenges of inadequate human resources, minimal budget allocation and poor utilization.
3. RKSK lacks specific guidelines for addressing adolescent mental health.
4. NEP & NYP lack specific roadmap for including psychosocial wellbeing in their activities.
5. AFHCs have limited functionality and do not cover mental health conditions.
6. CHO capacities lack focus on mental health despite mental health being identified as a service component within primary healthcare.

DMHP = District Mental Health Program, RKSK = Rashtriya Kishor Swasthya Karyakram, NEP = National Education Policy, 2020, NYP = National Youth Policy, 2014, NSS = National Service Scheme, NYKS = Nehru Yuva Kendra Sangathan, AFHC = Adolescent Friendly Health Clinic, CHO = Community Health Officers

Figure 4: Key enablers and challenges in the existing programmatic landscape

Sector	Policy, Programs, Acts	School & Community Level Initiatives	Health Facility Level Initiatives
Health and Family Welfare	National Health Policy, 2017 National Mental Healthcare Act, 2017 National Mental Health Policy, 2014 Telepsychiatry Guidelines, 2020	Health and Wellness Ambassadors in schools, Screening for health problems, Peer Education Program, SAATHIYA SALAH app and helpline	Basic psychiatric care (National and District Mental Health Program, 1982), Adolescent Friendly Health Clinic (National Adolescent Health Program, 2014)
Education	National Education Policy, 2020	Adolescent Education Program, Red Ribbon Clubs, life skills education, counseling	Not Applicable
Youth Affairs and Sports	National Youth Policy, 2014	National Service Scheme, Nehru Yuva Kendra Sangathan	Not Applicable
Women and Child Development	Adolescent Girls Scheme (SABLA), 2010	Life skills education (Integrated Child Development Services), Health check-ups at anganwadis (preschool childcare)	Not Applicable

Table 2: Programmatic Landscape for Youth Mental Health in India

The National Adolescent Health Program (Rashtriya Kishor Swasthya Karyakram – RKSK), launched in 2014, aims to empower adolescents to realize their full potential by making informed decisions about their well-being and health, including mental health. The facility-based intervention includes medical advice and counseling by doctors and skilled counselors at Adolescent Friendly Health Clinics (AFHC). The community intervention comprises of peer education and quarterly observation of Adolescent Health and Wellness Day. It is further supported by SAATHIYA SALAH app which acts as an aid for peer educators and as an information source for adolescent users. It connects users with a helpline number – 18002331250 – to reach out to a counselor. This app is also being used as an aid by the teachers designated as the Health and Wellness Ambassadors.

Non-health policies like the **Scheme for Adolescent Girls (SABLA), 2010, the National Youth Policy, 2014, and the National Education Policy (NEP), 2020**, also speak to holistic development of young people and the integration of mental health through existing platforms such as the Integrated Child Development Services, Nehru Yuva Kendra Sangathan (NYKS), and the National Service Scheme (NSS) in schools and colleges. They

focus on health promotion, increasing awareness about ill-effects of substance use, life skills education, vocational training, and community services for personality development.

The National Education Policy, 2020 has recommended mental health check-ups along with regular health check-ups under the School Health Program and the introduction of well-trained social workers, counselors, and community involvement in the schooling system. It also calls for inclusion of mental health and social-emotional learning in school based education.

The Ministry of Education, in collaboration with the National AIDS Control Organization, launched the **Adolescent Education Program** in schools and **Red Ribbon Clubs** in colleges to raise awareness on prevention of HIV/AIDS and to impart age-appropriate knowledge about sexually transmitted diseases and substance abuse with a focus on associated mental health concerns.

The Ministry of Social Justice and Empowerment enacted the Rights of Persons with Disabilities (RPWD) Act in 2016. It has accorded rights and benefits to persons living with mental and behavioral conditions, intellectual disabilities, specific learning disabilities, autism spectrum disorders, and chronic neurological

conditions. It has accorded reservation of seats in education, employment, and public transport. The law also safeguards the right to free education to children with benchmark disability between the age group of 6 and 18 years.

Systematic and global evaluations of many of these policies and programs however, are yet to be undertaken,⁴⁶⁻⁴⁸ and inclusion of the perspectives and preferences of the stakeholders and especially young people is generally lacking.^{49,50} Further, the lack of gender- and age-appropriate national epidemiological data on young people's mental health conditions eventually pose a further impediment in developing effective national youth mental health programs.

In summary, the current approach in development and implementation of youth-related mental health interventions does not adopt a holistic view of the mental health of young people and it does not address the needs and priorities of the different vulnerable sub-groups comprehensively.

Legislative Framework for Developing Digital Mental Health Interventions (DMHI)

Transformation of healthcare leveraging digital tools and frontier technology is likely to influence all levels of systems including service delivery, upskilling of health workforce, improved health information management, and patient education.

Recently enacted legislations and policies relevant to mental health such as the Mental Healthcare Act (MHCA, 2017), and Rights of Persons with Disabilities Act (RPWD Act, 2016), the National Mental Health Policy 2014, and the National Health Policy (NHP, 2017) have envisaged and emphasized the use of technologies and digital health tools for improving access to healthcare services. Similarly, the National Mental Health Survey, 2016 has also recommended that appropriate and judicious digitization is amenable to bridge the treatment gap for mental health conditions via convergence with the government's flagship schemes.³

Digital empowerment of Indian citizens is envisioned through initiatives like the Digital India campaign,⁵¹ and National Digital Health Mission (NDHM).⁵² However, considering the rampant social stigma and negative social attitudes towards mental health, concerns are justifiably raised about collection, storage, security, privacy, use, and dissemination of user's digitized health information as the rapid growth of digital health appears to be outpacing the existing regulatory system (Figure 5).



DIGITAL INTERVENTIONS IN MENTAL HEALTHCARE - PROTECTING PATIENTS

- Include standardized tools for consenting.
- Maintain transparency about data storage, transfer, and analytics and include explanations for potential users in simple language.
- Include simplified explanation about privacy, confidentiality, and security of patient information by DMHI service providers.
- Provide details of effective grievance redressal mechanism.
- Develop standardization guidelines for use of equipment related to DMHI followed by mandatory periodic medical audit and submission of reports to regulatory authorities.
- Educate and empower the users, patients, and their family members about legal provisions related to the protection and security of their digital health records.

Figure 5: Addressing major concerns for successful integration of Digital Mental Health Interventions in mental healthcare in India

Despite being recommended in the MHCA, there is no legal framework for the practice of digital mental health interventions specifically, in India. However, all digital service providers, including telemedicine-based, app-based, artificial intelligence (AI)-based, and wearable medical devices-based, must comply with the Information Technology (IT) Act, 2000, IT Amendment Act, 2008, Reasonable Security Practices and Procedures and Sensitive Personal Data or Information (SPDI and Privacy) Rules, 2011, and IT Rules, 2021 for data protection within the ambit of the National Medical Commission (NMC) Act, 2019, and the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002 for ethical and rational practice of medicine in India. Additionally, the Drugs and Cosmetics Act, 1940, the Narcotic Drugs and Psychotropic Substances Act, 1985, and the Medical Device Rules, 2017 are also applicable.

4.2. Mental Health Financing

As a proportion of the Union Health Budget, the share of mental health in 2016–2017 was 1.3 percent. Since then, however, it has been steadily declining, and in 2020–2021, it was only 0.84 percent.

The pandemic had a significant bearing on the mental health of people, but in 2021–2022, the budget allocation was 0.98 percent, and continued to be lower than the proportional allocation in pre-pandemic times (Figure 6).

Public expenditure on mental health as a proportion of the total public health expenditure in India is much lower than the global median of two percent.

In actual numbers, the Union Government's overall allocation for mental health for the year 2021–2022 was merely INR 537.8 crore, including only INR 40 crore for the National Mental Health Program (NMHP). The NMHP includes program components related to supporting Centers of Excellence and building capacities of tertiary care institutions in providing trainings for specialists. It also includes the District Mental Health Program (DMHP), which provides basic mental health services to the population at the primary healthcare level.

Mental Healthcare is recognized as a right in Mental Healthcare Act, 2017. Major challenges however pertain to low public investment in mental healthcare services, high out of pocket expenditure for mental healthcare and poor insurance coverage.

In addition to the poor allocation, very little money was spent. For the entire NMHP, only INR 2.01 crores and INR 2.5 crores were spent in the years 2018–2019 and 2019–2020 respectively across the country. Therefore, advancing mental healthcare services in India needs to address this enigma and develop pathbreaking solutions to improve the functioning of the NMHP. In contrast, the utilization of funds allocated to the tertiary institutes was reassuringly high.

There is very limited coverage provided for mental health conditions, if at all, by the health insurance schemes in this country. As per the National Sample Survey-75th Round (2017–2018), the coverage of various government-funded health insurance (GFHI) schemes was only a fifth of the total population (19.8 percent) and private voluntary health insurance (PVHI) cover was as low as 2.5 percent. Only 16.2 percent of all hospitalizations for mental disorders had GFHI coverage, while only 0.16 percent had PVHI coverage. Although the MHCA mandates insurance providers to cover mental health

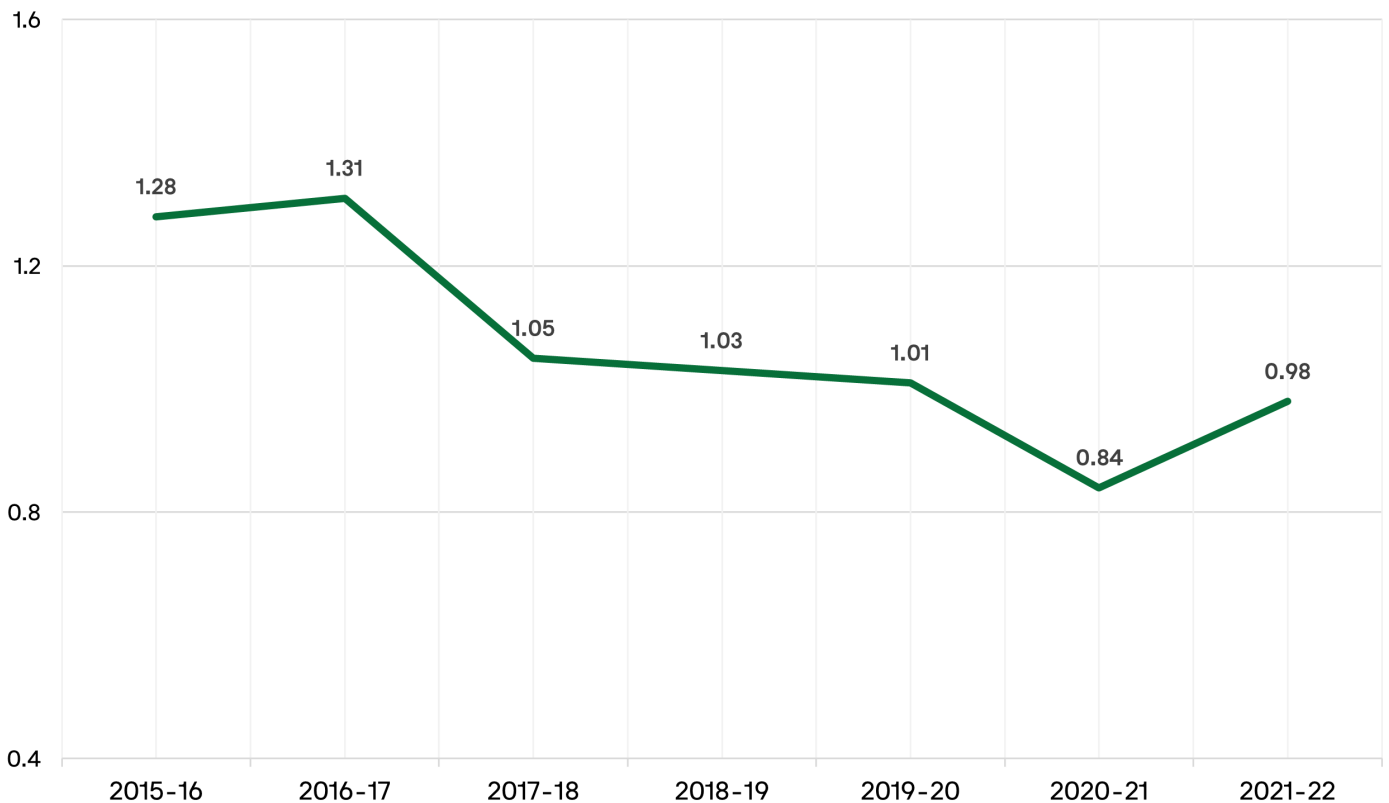


Figure 6: Share of spending on mental health in the Union Health Budget (%). Source: Expenditure Budget Vol 2, Ministry of Health and Family Welfare, various years.

conditions along the same lines as physical illness, poor implementation and enforcement has resulted in a lack of insurance cover for people in need of care. As a result considerable proportion of expenditure on mental health treatments in both out-patient and in-patient care are likely to be out-of-pocket expenditures and at the point of care. This could be quite high and potentially catastrophic considering mental health treatments are often long-term and require multiple visits.

4.3. Mental Health Service Delivery

Mental Healthcare Services in India

India has a pluralistic approach to seeking mental healthcare which include modern psychiatry, psychotherapy, the Indian systems of medicine (Ayurveda, Yoga, Unani, Siddha, and Homeopathy), and magico-religious practices.

In the public sector, mental healthcare is integrated with general healthcare through DMHP under the umbrella of NMHP which aims for preventive, promotive, and rehabilitative services through primary care providers at sub-centers, primary health centers, and community health centers. Specialized care is facilitated through linkages with district hospitals, medical college hospitals or mental hospitals. DMHP envisions the decentralization of the mental health services by integrating mental healthcare with the public healthcare delivery system. Provision of preventive, promotive, and long-term continuing care at different levels of healthcare delivery system are envisioned for management of mental health conditions through out-patient and 10-bedded in-patient facility at district hospital level, managed by qualified mental health professionals. The program also envisages holding four satellite clinics per month at the level of CHCs and PHCs. In addition, awareness camps involving local leaders, and faith healers to reduce stigma and providing life skill education and counseling in schools and colleges are envisaged. Government of India is supporting implementation of DMHP in 704 districts across the country, however, it is unclear whether it is adequate in its current form to meet the needs of vulnerable groups.⁵³⁻⁵⁶

Three apex mental health institutes—NIMHANS, Bengaluru; Lokopriya Gopinath Bordoloi Regional Institute of Mental Health, Tezpur; Central Institute of Psychiatry, Ranchi—along with 40 state government-run mental health hospitals and 398 departments of psychiatry in medical colleges (183 government and 215 private) form the mainstream infrastructure to cater to

the mental health care of India's 130 billion population, including young people.⁵⁷

Based on the WHO mental health atlas, India has only 1.43 hospital beds available for mental health patients per 100,000 population, compared to a median of seven in low-income countries and 50 in high-income countries.⁵⁸

In 2020, mental health received an added impetus through the Ayushman Bharat's 'expanded services' package.⁵⁹ This package envisages providing screening and basic management of mental health conditions close to the community:

1) At the community level: The package includes screening, community awareness, referral to primary health centers and above, treatment compliance and follow-up, support for home-based care for severe mental disorders (SMDs), and facilitation of access to support groups; daycare; education; and vocational training. Additionally, for adolescents, dedicated initiatives for enhancing mental health and for promoting favorable attitudes to prevent injuries and violence are envisaged.

2) At the primary care level: At the Health and Wellness Centers (HWCs), the package plans to provide confirmation of diagnosis of SMDs, referral and follow-up including dispensing of follow-up medication, referral to de-addiction centers, counseling, and management of violence-related concerns.

Innovations such as 'Project Prerana' in Maharashtra and 'Mann Kaksha' in Uttar Pradesh may help to demonstrate newer ways to provide mental healthcare within the limitations of the current public health system. 'Project Prerana' is operational in 14 districts of Vidarbha and Marathwada region to assess the mental health needs of farmers and prevent potential suicides attributed to socioeconomic burdens.⁶⁰ 'Mann Kaksha' in Uttar Pradesh, have been established in 60 out of 75 districts under the DMHP at the district level with an objective to provide friendly spaces to vent and receive counseling if needed.⁶¹ Counselors are instructed to listen to the sufferings or perspectives of the patients or persons attending the 'Mann Kaksha' facility. Based on the output/assessment of the venting session, counselors may refer clients to experts for psychosocial support.

Despite the greater focus on treatments, primary healthcare facilities usually face irregular and insufficient supply of medicines for mental health services under DMHP.⁶²

In India, access to mental healthcare services, products, and technologies is determined by multiple factors such as stigma, social stereotypes, age, gender, socioeconomic class, rural-urban divide, and literacy levels. Financial dependency on parents or family is another deciding factor for young people.

The affordability of current solutions is a major concern. For instance, in pay-per-session models, the pricing may range from INR 300 to INR 7,000 and above per session. With 80 percent of healthcare in India being delivered by the private sector, ensuring the affordability of mental healthcare is a major challenge.

“Therapy is expensive. Therapists are also generally inaccessible and there is no way to know what they are doing.” (Young Woman, Youth Workshop, Lucknow)

Not-for-profit NGOs in mental healthcare in India are known for their ability to provide care for mental health conditions within the community; a substantial number of NGOs provide rescue and shelter homes for wandering mentally ill people and run helplines for suicide prevention and crisis management. These organizations largely depend on grants received from philanthropic trusts or personal donations or other grants and provide free services. ‘User fees’ is generally not a source of major revenue. There is, however, no comprehensive list of mental health NGOs readily available in the public domain. PATH mapped a total of 73 key NGOs working on common mental disorders and stress, substance use disorders, suicide prevention, and severe mental disorders.

Many innovations to improve mental healthcare have been developed and evaluated over the past two decades in the country. Many of these were spearheaded by NGOs. These innovations have largely focused on increasing the outreach and availability of specialists through telepsychiatry, increasing the capacity of the existing non-specialist health workforce, including general practitioners, nurses, community health workers and volunteers, identification and treatment of common mental health conditions, primarily through simplified and low-intensity psychosocial interventions.

Youth-Friendly Healthcare Services In India

At present, Adolescent Friendly Health Clinics (AFHCs) are the only exclusive platform to cater to the health needs of adolescents at District Hospitals, Sub-Divisional Hospitals, Community Health Centers, and Primary Health Centers in urban and rural India.

Approximately 7,969 AFHCs were established across India till 2019.⁶³ However, they lack focus on demand generation and mental health is inadequately included in its existing service package.⁶⁴

The utilization of AFHCs is however limited due to issues concerns related to trust, and confidentiality. The impact of the initiatives on mental health remains unspecified, but may be limited considering a larger focus of the AFHCs on pregnancy-related care, reproductive health, and newborn care for young women.^{65,66} Poor accessibility is further attributed to lack of knowledge and awareness among the community and young people about existing programs, services, and laws created for the betterment of young people’s mental health.

In India, the data about the outreach and utilization of existing health and mental health services by the young people is very limited. The available literature on assessment of the existing programmatic landscape does not cover the impact of the existing health services on psychosocial care.^{64,67}

Digital Mental Health Interventions (DMHI)

There is growing scientific evidence of the use of DMHI to address the unmet mental healthcare need. These include a wide range of interventions such as short message service (SMS)-based voice reminders for follow-up,⁶⁸ tele-helplines for crisis management and follow-up, artificial intelligence (AI)-enabled commercial smartphone applications for prevention, promotion, and early identification of mental health conditions,⁶⁹ tele-counseling, telepsychiatry for continuum of care, and virtual training platforms to build a skilled mental health workforce.^{70,71}

PATH mapped 98 digital mental health interventions selected through a systematic search for popular apps

on the Google Play Store, interventions developed by governmental and non-governmental agencies, including academic institutions. Of the ones included 50 were developed by the private for-profit sector, 18 interventions were developed by Indian NGOs and academia each, the Government of India commissioned six interventions, and the remaining six were developed by international non-profit organizations.

A greater proportion (n=59 out of 98 interventions) were smartphone apps, mostly providing self-help solutions with a limited range of free services. Other digital interventions included websites providing knowledge, information, peer support, tele-interventions, and platform for venting out. It was evident that very few interventions were aiming for young people's mental health comprehensively.

Almost all these interventions were delivered in English, with very few exceptions, practically leaving out a large section of the young population from gaining any benefit from such interventions. Further, the availability of evidence for their effectiveness is very limited.

Telemedicine Practice Guidelines, 2020 and Telepsychiatry Practice Guidelines, 2020 have recognized the use of text, audio, and video mode of consultation in normal day-to-day clinical practice. The launch of NDHM in 2020 has provided an impetus to the digital ecosystem to support public education, awareness generation, de-stigmatization, improve screening, referral, follow-ups, and enhance capacities of health workers in tandem with the existing programmatic landscape.

The NIMHANS ECHO tele-mentoring model has proven the scope for using multi-point video conferencing technology to build the capacities of non-specialist healthcare providers and counselors for providing basic psychiatric care.⁷²

The Government of India has also created a few apps addressing mental health issues such as the Mental Health and Normalcy Augmentation System (MANAS) app, No More Tension app, Mental Health app, and SAATHIYA SALAH app. While SAATHIYA SALAH provides information that is easy to understand for a range of topics related to sexual and reproductive health, the

current version does not emphasize mental health adequately.

Strikingly, a substantial number of apps developed by the government were redundant or were not available for public download. For the others, the current reach and potential is far from what is required to provide a meaningful option for young people to access mental health resources.

Not-for-profit, for-profit entrepreneurs and social enterprises in India are involved in the development and implementation of DMHI such as apps, websites, chatbots, video, and tele-counseling. These interventions typically cover topics related to mental health education and awareness, self-screening, tele-counseling, meditation, emotional resilience, life skills, gender, sexual and reproductive health. Low ownership of smartphones especially among young women, sharing of devices with parents and other family members, and unreliable internet connections in many parts of the country, however, pose significant challenges to scaling up digital interventions for mental health among the young people.⁷³

According to Inc42's State of Startup Ecosystem Report 2018, there are a total of 4,892 startups in the Indian health-tech space.⁷⁴ The digital startup landscape within the Indian healthcare ecosystem goes well beyond a specific disease, therapeutic area, geography, type of product and service or business model. In general, 33 percent of health-tech startups in India focus on chronic non-communicable diseases mainly heart disease, diabetes, cancer, and obesity followed by mental health and wellness.

Tele-Mental Health Programs in India

In India, the recent budget announcement launching the National Tele-Mental Health Program warrants a closer examination of the existing tele-mental health interventions. With the COVID-19 pandemic, tele-interventions have been much in discussion with an indicated increased acceptability. Through literature review, nineteen interventions with the primary objective of providing tele-psychiatry or tele-counseling services were reviewed.

Telepsychiatry models have been developed by several academic and tertiary mental healthcare institutions that were demonstrated to be effective in expanding the reach of specialist services in India in the past decade.

Among the prominent models are the ‘hub and spokes’ model pioneered by NIMHANS, which provides synchronous tele-consultation services through its outreach centers in rural Karnataka, the telepsychiatry model using a custom-made software developed by the Postgraduate Institute of Medical Education and Research, Chandigarh, the telepsychiatry model of the Jan Swasthya Sahyog community health program in Bilaspur and surrounding areas of Chhattisgarh, and the asynchronous model of providing tele-psychiatric services in Maharashtra.^{72,75} Several prominent NGOs were already providing tele-mental health services routinely before the COVID-19 pandemic.

The Schizophrenia Research Foundation (SCARF), Chennai, having pioneered the provision of telepsychiatry in India, has been providing tele-psychiatry services regularly since 2004.¹⁶ Presently, it covers seven districts with 0.52 million population and uses a custom-built bus which travels in rural areas with all necessary communication equipment for consultation with the psychiatrist in SCARF. The pharmacy on the bus dispenses free medication as prescribed by the psychiatrist. Electronic records are maintained; follow-up and other psychosocial interventions are provided by the community workers, with other local NGOs.

The TTK Hospital in Chennai runs an online psychotherapy intervention for providing treatment and rehabilitation care for its patients with substance use disorders, using telephones and online platforms. In addition to patients, these platforms are also used to provide supportive therapy to family members.

More recently, a telemedicine center was started by the Indian Mental Health and Research Centre and the Indian Progressive Youth Forum in a rural district in Uttar Pradesh. Similarly, Parivarthan Counselling, Training, and Research Center (Bengaluru) and Mental Health Foundation, India (Delhi) through MiHOPE were also already providing telepsychiatry and tele-counselling services. In addition, Sanjivini Society for Mental Health (Delhi), the Rural Program by The Live Love Laugh Foundation, and Sangath have also launched tele-counseling services in the wake of the pandemic.

Increasingly, the private for-profit sector in India has also established telepsychiatry and tele-therapy

platforms. These are mainly presented as websites that provide access to psychotherapists primarily and sometimes psychiatrists as well.

The for-profit sector platforms offer multiple avenues to connect with the therapists. These include online message or chat-based services, voice/video calls, or appointments for in-person, face-to-face therapy.

In addition, there are many helplines in India (Annexure 1 includes a list of prominent helplines) providing mental health support through different means like telephone, email and even WhatsApp in more recent times. Tele-mental health solutions developed by private sector organizations have played a vital role in championing easy access to quality mental healthcare services in the last decade. The national government launched the first Toll Free Mental Health Helpline – *Kiran in 2020*, that offers early screening, psychological support for crisis management, and referrals to specialists. Similarly, some of the state governments had also launched helplines during the Covid-19 pandemic.

■ 4.4. Mental Health Workforce

India has under 0.7 psychiatrists per 100,000 as compared with six per 100,000 in the high-income countries. This is also the best estimate in terms of numbers from the available resources.⁷⁶ The World Mental Health Atlas 2017, however reports 0.3 psychiatrists for 100,000 population against the recommended density of 1 per 10,000 population.⁵⁸ The status with respect to other mental health professionals including clinical psychologists, psychiatric nurses, and psychiatric social workers is much worse (Table 3).

The severe paucity of trained human personnel and infrastructure is one of the major reasons for the abysmal availability of mental healthcare in the country.

It is known that the estimated numbers of psychiatrists and psychologists in India are too few to provide any realistic hope of ensuring universal reliable access to effective mental healthcare even in the next many decades.

Mental Health Professional – Category	India
Number of psychiatrists***	9,000 [0.7 per 100,000]
Number of psychiatric (mental health) nurses**	2,000 [0.05 per 100,000]
Number of psychiatric social workers **	1,000 [0.03 per 100,000]
Number of clinical psychologists **	1,000 [0.03 per 100,000]
Total number of child psychiatrists*	49

Source: * WHO Mental Health Atlas 2017,⁵⁸ ** Math SB et al. 2019,⁷⁷ *** Garg, et al, 2019,⁷⁶

Table 3: Estimated Mental Health Workforce in India

The operational guidelines of the Ayushman Bharat – “Operational Guidelines Mental, Neurological and Substance Use Disorders Care at Health and Wellness Centres” published in December 2020, aim to integrate mental health within primary healthcare services and opens the discussion on empowering the primary healthcare system to provide preventive, promotive as well as therapeutic mental healthcare services in the country.

4.5. Mental Health Information Systems

The Ministry of Health and Family Welfare’s (MoHFW) Health Management Information System (HMIS) is a web-based portal to monitor the various health programs under the National Health Mission. Currently, more than 200,000 public health facilities across all states are uploading facility-wise data on service delivery and outreach indicators on a monthly basis, training indicators on a quarterly basis, and infrastructure detailing on an annual basis. The data flows from the facility level to the sub-district, district, state and national level along with the provision to retrieve periodic reports on performance indicators.

India’s HMIS does not capture any mental health service delivery indicator in the current format.⁷⁸ For now, monitoring of the mental health program in the country is possible only through the administrative reports based on the annual budget proposal and utilization in the form of Record of Proceedings against annual Program Implementation Plan.

India lacks valid, reliable, and timely updated data on mental health indicators. This impedes the implementation of the National Mental Health Policy and MHCA.

Realizing these challenges, the National Mental Health Survey, 2016 recommended that the District Collector or equivalent should review the DMHP on a monthly basis and the Principal Secretary–Health should review the state level activities every six months.⁷⁹ The survey also urged to devise a set of standardized indicators for data collection and monitoring through the existing HMIS system. More than six years have passed since the release of the survey findings, but the recommendations are yet to be adopted.

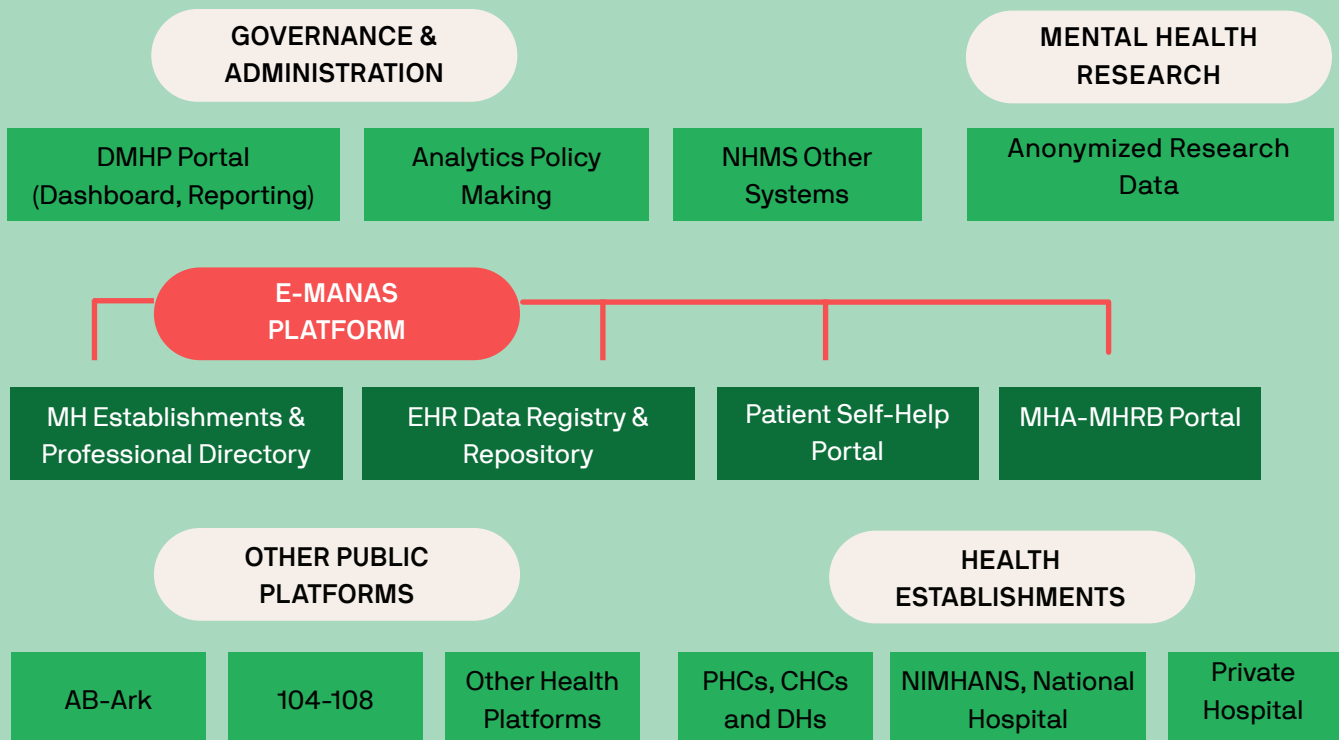
In 2020, the Indian Council of Medical Research (ICMR) developed the ‘ICMR-Mental Health Assessment National Network’ (i-MANN) – a web-based, robust, and extendable system for collection, integration, management, and analysis of data from 12 of its mental health projects.⁸⁰ Five among them are multi-centric and seven are single site projects. It encompasses 12 programs covering 93 modules across a large spectrum of mental health indicators such as autism, suicide, depression, telemedicine, and community care models.

This platform provides real-time data entry for more than 21 different sites across India. This database is aims to be user-friendly with easy adaptation for third-party software running on devices such as mobile phones, smartphones, and tablets and can connect to its servers through web API. Its vastness is suitable for the collection and management of data under NMHP; and should be further assessed for its usability more widely.

e-MANAS Karnataka is a platform launched in June 2020 to digitally comply and scale-up the recommendations of MHCA in Karnataka with likely expansion to other states (Box 1).

Box 1: e-MANAS Karnataka

'e-Manas Karnataka' – Mental Healthcare Management System is a key initiative to propel the digitization of mental healthcare and further the mandate of the Mental Healthcare Act, 2017.³ NIMHANS, in collaboration with International Institute of Information Technology, Bengaluru (IIIT-B), has developed this internet-based, statewide digital registry of mental health establishments, mental health professionals, persons with mental illnesses and their treatment records in the state of Karnataka.



This platform will maintain the basic medical records of patients seeking out- and in-patient department services. It is intended to bring all the stakeholders in mental health in Karnataka together: Karnataka State Mental Health Authority, Karnataka State Mental Health Review Board, all public and private mental healthcare establishments, mental health professionals (psychiatrists, psychologists, social workers, mental health nurses), persons with mental illness and their caregivers.

This initiative has a key feature to integrate with other health services like Ayushman Bharat – Arogya Karnataka, 104, 108, etc. Once tested for effectiveness, this app will be provided freely to all the mental healthcare establishments and providers from the public and private sector.

This initiative is a giant leap towards management of the mental health information system in India which will help in analyzing trends in the epidemiology of psychiatric disorders, planning services, assessing the outcome of the national mental health program, and serve as a national registry for psychiatric disorders.

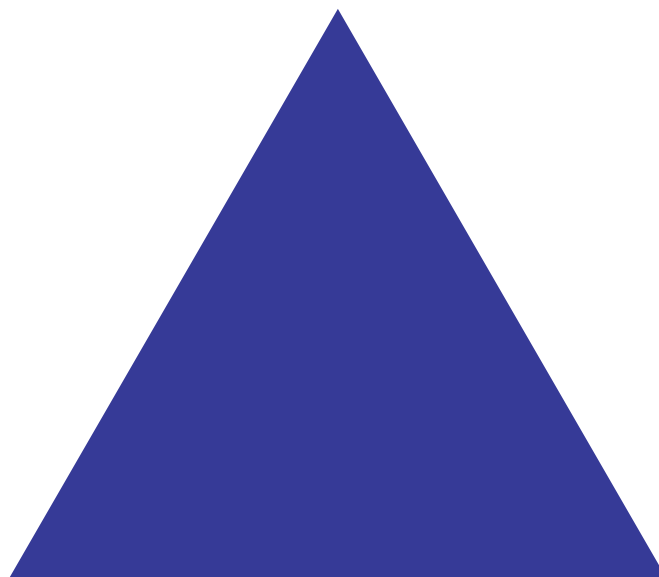
*Image sourced from International Institute of Information Technology, Bengaluru (IIIT-B) website.

4.6. Access to Medicines

India published its latest National List of Essential Medicines (NLEM) in 2015, with another list of EML of psychotropic medications in accordance with the Mental Healthcare Act 2017, in 2019.⁸¹ The Indian NLEM 2015 contains 376 drugs, with 13 psychotropic medications. These medicines are needed for treatment of various mental health conditions including psychotic disorders, depressive and anxiety disorders, bipolar disorder, sleep disorders, obsessive compulsive disorders, and neurological conditions such as epilepsy.⁸² It also includes medicines for managing adverse effects of some psychotropic medications.

As per the government notification, these medicines have been approved to be always made available at health establishments run or funded by the appropriate government, starting from community health centers and upward. Notwithstanding, most of the pharmacies at public healthcare facilities often face poor supply and frequent stockout of mental health drugs, whereas all the essential mental health medicines are abundantly available in private pharmacies.⁴⁸ This scenario poses a serious threat to discontinuation of care and catastrophic health expenditure leading to poverty. This vicious cycle hampers accessibility, defying the rights-based quality care assured in MHCA. For the first time, the Government of India has included ayurvedic medicines for different mental health conditions in the list of essential medicines and will be made available in ayurvedic dispensaries in the respective health facilities.

A major concern is also that the medicines used for the treatment of substance use disorders attributed to tobacco, alcohol, and opioids use are negligibly represented in the revised list of essential psychotropic medicines, except for Naloxone which is listed under the heading of antidotes and other substances used in poisoning.^{83,84} This is not in accordance with the SDG target 3.5 which states that all member states should strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.





5

Towards a Comprehensive Approach for Youth Mental Health

5. TOWARDS A COMPREHENSIVE APPROACH FOR YOUTH MENTAL HEALTH

The preceding chapters highlighted the need for an intensive intervention to improve the implementation of the existing policies and programs, and address context-specific barriers to improve mental health outcomes among young people in India.

“There is a need for a comprehensive plan to address young people’s mental health needs. But the perspectives, preferences, and needs of young people and that of the government need to be balanced”. (Technical Advisory Group)

Such interventions need to be comprehensive to address the multifaceted needs of young people, starting with providing reliable, accurate information on mental health and treatment, creating safe and sensitive spaces for discussing mental health concerns, linked with empathic, responsive, and effective mental healthcare services to meet the varying needs of support across the severity spectrum of the mental health conditions.

At the same time, the differential needs of vulnerable groups such as young people from socioeconomically vulnerable communities, young people living in urban metropolitan areas, married young people, young mothers, young people with existing vulnerabilities such as sexually diverse and minority sub-groups, need to be recognized and addressed.

It is also imperative that these interventions no longer work in silos, especially keeping in mind the broader focus of youth, through the multitude of policies and programs in the country.

While a focus on developing specialized services is needed, priority also needs to be accorded to the development of preventive, promotive, and primary mental healthcare services in the country.

Ultimately, these efforts should be developed to meet the four basic objectives of the Mental Health Action Plan, 2013–2030: 1) Effective leadership and governance for mental health; 2) Provision of comprehensive, integrated mental health and social care services in community-based settings; 3) Implementation of strategies for promotion and prevention; and 4) Strengthened information systems, evidence, and research.⁸⁵

5.1. Synergies for Comprehensive and Integrated Mental Healthcare

The ultimate and sustainable success of mental health programs lies in efficient stewardship towards improving implementation capabilities and integration of mental healthcare services within the existing platforms. Establishment of functional Mental Health Authorities at the state level is essential to empower states in implementing the MHCA. However, in many states, their functioning is yet to be optimized. This is a major obstacle in the programmatic regulation of mental healthcare services.⁸⁶

While mental health is an integral part of comprehensive primary care, creating synergies and shared responsibilities between the different sectors and stakeholders is essential to foresee a meaningful roll-out of mental healthcare services that can be accessed by young people at the primary healthcare level. Box 2 identifies key programmatic recommendations towards stronger mental health systems for young people.

Similarly, a convergence framework with clear demarcation of responsibilities and task-sharing is needed to realize the envisioned integration of school- and college-based counseling services through DMHP, and promoting, screening and early detection by undertaking youth focused campaigns for awareness generation and behavior change for help-seeking. Similarly, de-stigmatization messages can be integrated through HWCs, DMHP, RKSK, NSS, and SABLA.

Box 2: Key programmatic priorities towards stronger mental health systems for young people

1. Improved funding and budget allocation to the existing mental health program.
2. Inclusion of mental healthcare indicators in existing HMIS.
3. Strengthened health and education departments for:
 - Implementing psychosocial education at schools and colleges.
 - Establishing referral linkages between schools, colleges, AFHCs, DMHP, and HWCs.
 - Leveraging tele-medicine facilities for psychosocial therapy to schoolchildren in need.
 - Deploying technology-based hybrid solutions to strengthen existing service delivery platforms and community outreach.
 - Deployment of digital dashboards for District Mental Health Review Boards and the State Mental Health Authority.
4. Enhancing skills of the health and non-health workforce by:
 - Capacity building of existing doctors, counselors, and health workers at AFHCs for quality psychosocial support and counseling services for young people.
 - Training the teachers and Health and Wellness Ambassadors with practical skills of identifying the signs and symptoms of different mental health conditions and be able to assist young people with mental health conditions or crisis until appropriate professional help is received, or the crisis resolves.
 - Psychological first aid training for counselors, social workers and non-specialist health workers in CHCs, PHCs and urban PHCs.
 - Capacitating the CHWs and outreach workers to mobilize young people to observe Adolescent Health and Wellness Days at schools and colleges.

A collaborative approach is also needed between the government, the non-profit private sector, social enterprises, philanthropists, and civil society to develop and sustain the synergies between existing government infrastructure and resources to uplift the youth mental health sector in India.

Many opportunities exist in the education system for enhancing mental health promotion by integrating evidence-based contextualized narratives focusing on psychoeducation, de-stigmatization, removing discrimination, and empowering teachers for early detection of mental health conditions. For that, an incremental approach based on organizational strengths would be optimum to derive how, and when to piggyback and dovetail novel technology-based innovations with existing initiatives and resources.

5.2. Incorporating Evidence Based Psychosocial Interventions

A range of effective psychotherapies have been developed that can address mental health conditions

among the youth.⁸⁷⁻⁸⁹ However, much evidence still comes from the high-income countries and questions on 'what works', 'for whom', 'in what context', and 'why' are still being answered.^{90,91}

More encouragingly, evidence-based approaches that can be implemented in resource-poor settings and particularly where there is a paucity of mental health professionals have been developed (Box 3).

Young people of the twenty-first century are growing up in a rapidly digitizing world and are living online and offline lives simultaneously. Improving internet penetration in low resource settings, high engagement of youth in internet-based, and the user-friendly appeal of digital health tools have created new avenues to engage young people, for instance, through apps in local languages.¹⁰² Digital means of communication provide unprecedented opportunities for young people to not only explore the world around them but also upgrade their mastery in academics, health, occupation, social, and civic engagement.¹⁰³

Digital interventions, including social and mass media, can be used for raising community awareness about mental health conditions and about mental healthcare

Box 3: Key strategies to improve the scalability of effective psychological interventions:

1. Low-intensity psychological interventions providing shortened and simplified therapies that can be delivered with minimal training of non-specialist health workforce.⁹²
2. Task-shifting and task sharing for translating specific tasks related to identification, treatment, and follow-up with non-specialist health workforce.⁹³
3. Brief therapies, including single session therapies, to initiate change and maximize outreach of therapy.⁹⁴
4. Standardization of therapies based on a parsimonious selection of therapy elements and use of transdiagnostic approaches to address the common underlying factors of mental disorders.^{95,96}
5. Approaches not dependent on specialists such as social interaction, engagement with nature, relaxation, distraction, sensory stimulation, physical activity, altering perceptions, engaging in hobbies, self-expression, and exploration can be managed by non-specialist health workers particularly for anxiety and depression among youth.⁹⁷
6. Computer or internet-based therapies based on sound psychotherapy principles such as the Cognitive Behavior Therapies (CBT) have been shown to be effective in developing changes in thoughts and emotions,⁹⁸ reducing anxiety and depression symptoms,⁹⁹ suicidal ideation,¹⁰⁰ and post-traumatic stress disorder.¹⁰¹ Digital modes of delivery such as websites, games, computer-assisted programs, virtual reality, text messaging, emails, wearable devices, and use of frontier technologies such as artificial intelligence and machine learning can be used to improve access to evidence-based interventions
7. A stepped approach to integrate such low-intensity interventions within a system that organizes two or more interventions of differing intensity and dependence on specialists to deliver these interventions with a specific purpose to cater to individuals with varying psychological needs in a resource efficient and scalable manner.¹⁰¹

services. We may need to be able to provide a multitude of digital formats depending on the accessibility and preferences of the users. For e.g., if someone has intermittent access to mobile phones, it may benefit to also offer services through Interactive Voice Response System (IVRS) or through outbound calls or text messages. Similarly, the realistic potential of artificial intelligence should be considered, especially when using the solutions in local languages.

Similarly, these interventions can be used to support caregivers and aid non-specialist health workers in their efforts to provide basic mental healthcare and promote engagement with mental healthcare services. Tele-mental health interventions including tele-consultations and tele-therapy can save traveling cost, save time and cost of therapy but may also not be feasible in all settings or preferable for all clients. Persistent endeavors are needed to realize the recommendations made in MHCA to create a digital registry of all the mental health professionals including psychiatrists, psychologists, counselors, social workers, peer educators, and allied certified practitioners.

More sustained efforts are needed to adopt technology and telepsychiatry and tele-mentoring models to enhance the capacities of primary care doctors and non-mental health workers.

The challenges related to using digital interventions should however be acknowledged. The digital divide in terms of restricted access to smartphones, and more so reliable internet connectivity needs to be acknowledged and addressed while developing the solutions. Particularly, the role of social norms and gender in determining such access should also be considered before offering the solution to the communities. In addition, the efforts of the not-for-profit sector and social enterprises need to be systematically encouraged given their considerable interest in developing digital interventions for mental health that are more suitable to the local context.

5.3. Youth Mental Health Promotion

There is a felt need to empower young people to take care of their mental health, particularly to enable them to understand their thoughts, feelings, behaviors, and develop skills to deal with daily life stressors. Mental health practitioners consulted for this landscaping exercise argued that young people need to be aware, and need to know about mental health conditions, in the same way that education on physical hygiene, microbes and parasites is included in the school curriculum.

This could be in the form of a mental health promotion program which can help young people improve their understanding of their mental health and to adjust better to their situations. Normalizing mental health conditions and improving access to resources would eventually lead to a reduced burden on mental health services. Evidence-based interventions are now known for both prevention of poor mental health symptoms such as psychological distress, anxiety, depression, post-traumatic stress disorders, conduct problems, substance use problems (alcohol, tobacco, and cannabis), behavioural problems, attention-deficit/hyperactivity disorder,¹⁰⁴ as well as promotion of good mental health outcomes related to improvements in mental health literacy, emotional literacy, quality of life, cognitive and social skills among young people.¹⁰⁵ These interventions can be delivered universally (i.e., for all, irrespective of the presence of the symptoms or risk factors) or selectively for population sub-groups with a higher risk of developing mental health conditions.

We can do psychotherapy to improve young people's mental health, but the part that should be inculcated in the education itself to develop their skills to deal with their problems is missing. The NEP has many provisions to address this and promote holistic approach to health of students. (Senior Psychologist, Bhubaneswar)

5.4 Enhancing Youth Agency

Amidst the pervasive stigma and other known systemic barriers, expert stakeholders echoed the priority for an increased involvement of young people and their parents and teachers in their own mental health care. Priority setting for designing the mental health programs for young people should be based on what changes are required by the young people themselves.

Such involvement is also important for identifying and addressing context-specific barriers and designing the interventions and their delivery in a way that maximizes their uptake. Young people and their families should also be consistently involved in evaluation of the mental health programs and their perspectives should be integrated with the larger policy making process.

Young people can become a catalyst of social change if they are empowered to engage with policymakers and program implementers to share, discuss, and mobilize the solutions they need.¹⁰⁶⁻¹⁰⁹

Also, creating conducive platforms for youth-led innovation through social entrepreneurship challenges and youth innovation hubs for co-creation, ideation, and innovative thinking will contribute to development of interventions that are more relevant for youth, by youth themselves.¹¹⁰⁻¹¹²



6

Concluding Imperative and Annexures

CONCLUDING IMPERATIVE

This report is a culmination of a multi-phasic study comprising of review of relevant policies, programs and legislations across five ministries of Government of India, a mapping of key stakeholder groups and digital mental health interventions in India, and consultations with a range of stakeholders and experts to identify the top priorities for immediate action as India advances to improve mental health of young people. While outlining significant challenges across both the demand and supply side, this report also highlights key emerging enablers that have the potential to change the landscape of youth mental health in India.

Presently, the road to achieving optimum mental health is long and tenuous for young Indians. Poor mental health literacy and help seeking, unfavorable attitudes towards people living with mental health conditions continue to remain formidable challenges. Simultaneously, young people struggle to get empathy, support, and resources for their mental health conditions from the most trusted and accessible sources of support – parents, teachers, peers, and local healthcare providers.

India continues to lack a comprehensive approach to youth mental health, although, opportunities exist to advance young people's access to mental health within the current initiatives across the government programs for health, education, youth development, and women and child development. For instance, within the health sector, the national mental health policy and programs, the national adolescent health program, the School Health and Wellness Initiative as well as the Ayushman Bharat – Health and Wellness Centres all endorse the need to focus on mental health and wellbeing of adolescents and young people. Similarly, within the Education sector, promotion of life-skills and psychosocial wellbeing of young people is emphasized. Ministry of Youth Affairs promotes holistic youth development as it engages with young people both in and out of educational institutions.

Young people's mental health needs to be viewed as a public health priority in India, the specific response to which necessarily emerges from a multi-sectoral approach which aims to empower young people with knowledge, skills, and resources to improve their mental health, address the social determinants of mental health, and improve their access to mental healthcare services.

The following are imperative towards improving youth mental health in India.

1. A comprehensive approach is needed to mental health of young people with common access points embedded within their ecosystem irrespective of specific programs, departments, and sectors.
2. Programs to support the development of young people's capacities to regulate their emotions, develop their interpersonal skills and relationships, resolve real-life problems, are urgently needed that can be accessed through all platforms commonly accessed by young people
3. Active efforts are needed to create an enabling environment for young people to discuss their mental health within families, schools, colleges, community networks, and health facilities.
4. For improving mental healthcare services in the country, immediate efforts are needed to improve the implementation of mental health policies and programs including the Mental Healthcare Act.
5. Addressing the dearth of skilled workforce for mental health and improving resources for mental health programs and delivery of mental healthcare routinely at primary healthcare facilities needs to be prioritized.
6. A broader focus is needed to provide psychosocial care and integrate early interventions towards identification and treatment of common mental health conditions among the young people.
7. Digital tools can be widely used to improve access to mental health information, self-care resources, information, and access to existing mental healthcare services through tele-interventions and helplines and modernize the management of health information at an individual, facility or at a community level.
8. Finally, strong collaborations and partnerships galvanized by a collective vision to reimagine the delivery of mental healthcare interventions for young people within the larger health systems framework is needed. And the evidence and lessons from the global mental health practice needs to be applied to support innovative models of care.

ANNEXURES

Annexure 1: Leading Mental Health Helplines in India

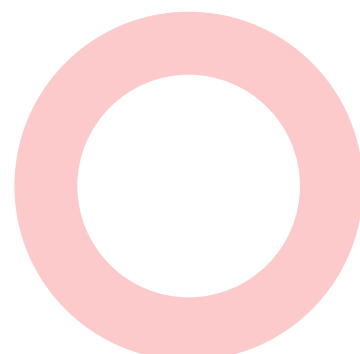
Helpline	Number	Timings	Languages
KIRAN (National)	1800-599-0019	24/7	Hindi, Marathi, Odia, English, (13 languages)
iCall (National)	+91 91529 87821	Mon–Sat, 10am–8pm	Hindi, English, Marathi, Gujarati, Punjabi, Bengali
Mann Talks (National)	+91 8686 139 139	Mon–Sun, 9am–8pm	Hindi, Marathi, Punjabi, Bengali, English
MINDS Foundation (National)	18005-477-200 +91 90338 37227	Mon–Sun, 9am–6pm	English, Hindi
MPower 1 on 1 (Maharashtra)	1800-120-820050	24/7	Marathi, Hindi
Health Helpline (Odisha)	104	24/7	Odia
COVID and Mental Health Helpline (Uttar Pradesh)	1800-180-5145	24/7	Hindi
Jeevan Aastha Helpline (Gandhinagar)	1800-233-3330	24/7	English, Hindi
Aasra (Mumbai)	+91 98204 66726	24/7	English, Hindi
Samvaad (Mumbai)	1800-102-4040	Mon–Sun, 8am–8pm	Marathi, Hindi, English
Sneha Foundation (Chennai)	044 2464 0050	Mon–Sun, 10am–4pm	Tamil, English
Sanjivini Society (Delhi)	011 243 11918	Mon–Fri, 10am–5pm	Hindi
Hitguj (Mumbai)	022 24131212	24/7	Hindi, Marathi
Vandrevala Foundation (National)	1860-266-2345, 1800-233-3330, +91 99996 66555	24/7	Hindi, English, Gujarati
The Samaritans (Mumbai)	+91 84229 84528, +91 84229 84529, +91 84229 84530	Mon–Sun, 5pm–8pm	English, Hindi, Marathi

Annexure 2: Members of the Technical Advisory Group

Name	Affiliation
Abhijit Nadkarni	Associate Professor, Centre for Global Mental Health (CGMH), Department of Population Health, London School of Hygiene & Tropical Medicine, UK and Co-Director, Addictions Research Group, Sangath, India
Ajay Khera	Country Representative, EngenderHealth, India
Anirudh Burman	Associate Research Director and Fellow, Carnegie India
Anupriya Tuli	PhD candidate, Indraprastha Institute of Information Technology, Delhi, India
Anuradha Sovani	Trustee and Consultant, Institute for Psychological Health, Thane; Ethics Committee Chair and National Core Committee Member, Association for Adolescent and Child Care in India; Co Founder, NoahClique, External Trustee, GSMC and KEMH Diamond Jubilee Society Trust, India
Manak Matiyani	Executive Director, The YP Foundation, Delhi, India
Meghna Khatwani	Independent Expert Advisor, Wellcome Trust, UK
Mona Sharma	Founder, Manorathi Foundation, Delhi, India
Nilesh Deshpande	National Program Specialist – Adolescent & Youth, UNFPA
Rahul Mullick	Advisor, Digital Health
Rahul Shidhaye	Associate Professor of Psychiatry, Pravara Institute of Medical Sciences, Loni, India and DBT-Wellcome Trust India Alliance Intermediate Fellow in Clinical and Public Health Research
Ravi Verma	Director, International Center for Research on Women, Asia
Sandhya Venkateswaran	Commissioner, Lancet's Citizen Commission on Reimagining India's Health Systems and Senior Fellow, Centre for Social and Economic Progress, India
Soumitra Pathare	Consultant Psychiatrist and Director, Centre for Mental Health Law and Policy, Pune, India
Suresh Bada Math	Professor of Psychiatry, National Institute of Mental Health and Neurosciences, Bengaluru, India
Tasneem Raja	Head, Mental Health, Indira Foundation, USA

Annexure 3: Members of the Youth Advisory Group

Name	Qualification	City
Sonali MahaKud	Diploma (ETC), Surveyor – Ama Krushi	Bhubaneswar
Chhita Purty	Diploma (ETC)	Bhubaneswar
Managobinda Sahoo	BA (Scholar)	Bhubaneswar
SK Karim	BA (Scholar)	Bhubaneswar
Usha Pradhan	ITI (Computer Science)	Bhubaneswar
Sabiha Naaz	MA (Rural Management), Case Worker – YCDA	Bhubaneswar
Karan Kumar Nayak	BA (Scholar)	Bhubaneswar
Krispin Digal	B. Com., Cost Management Accounting (Scholar)	Bhubaneswar
Anam Rizwan	MBA (Scholar)	Lucknow
Snigdha Singh	BA (Social Work), Coordinator – Mukti Foundation	Lucknow
Abhishek Yadav	MSW (Scholar), Volunteer – YES Foundation	Lucknow
Sakshi Singh	BA (Social Work), Volunteer – YES Foundation	Lucknow
Shashank Mishra	BA (Social Work), Member – Mukti Foundation	Lucknow
Pawan Singh	MSW (Scholar), Volunteer – YES Foundation	Lucknow
Anjali Tiwari	MSW (Scholar), Coordinator – Vishalakshi Foundation	Lucknow
Nikhil Mishra	MSW (Scholar), Volunteer – YES Foundation	Lucknow



REFERENCES

1. World Health Organization. World Health Report 2001: Mental health: new understanding, new hope. World Health Organization <http://search.ebscohost.com.ezproxy.liv.ac.uk/login.aspx?direct=true&db=lhh&AN=20023023554&site=eds-live&scope=site> email: whr@who.int (2001).
2. World Health Organization. Mental health. <https://www.who.int/india/health-topics/mental-health>.
3. Gautham, M. S. et al. The National Mental Health Survey of India (2016): Prevalence, socio-demographic correlates and treatment gap of mental morbidity. *Int. J. Soc. Psychiatry* 66, 361–372 (2020).
4. Sagar, R. et al. The burden of mental disorders across the states of India: the Global Burden of Disease Study 1990–2017. *The Lancet Psychiatry* 7, 148–161 (2020).
5. World Health Organization. Mental Health Atlas 2020. <https://www.who.int/publications/i/item/9789240036703> (2021).
6. Thornicroft, G. et al. Undertreatment of people with major depressive disorder in 21 countries. *Br. J. Psychiatry* 210, 119–124 (2017).
7. Ministry of Health and Family Welfare. Population Projections for India and States 2001–2036 Report of the Technical Group on Population Projections Constituted by the National Commission on Population. https://nhm.gov.in/New_Updates_2018/Report_Population_Projection_2019.pdf (2019).
8. International Institute for Population Sciences and ICF. National Family Health Survey (NFHS-5) 2019–21 India Fact Sheet. Ministry of Health and Family Welfare National (2021).
9. Ministry of Education. All India Survey on Higher Education 2019–20. Government of India (2020).
10. Ministry of Education. Unified District Information System for Education Plus (UDISE+) 2019–20. (2020).
11. National Institute of Urban Affairs & UNICEF. Children and Adolescents in Urban India Scale and Nature of Deprivation: An Empirical Analysis. [https://www.unicef.org/india/media/4421/file/Children and Adolescents in Urban India .pdf](https://www.unicef.org/india/media/4421/file/Children_and_Adolescents_in_Urban_India.pdf) (2020).
12. Nebhinani, N. & Jain, S. Adolescent mental health: Issues, challenges, and solutions. *Ann. Indian Psychiatry* 3, 4 (2019).
13. Parikh, R. et al. ‘It is like a mind attack’: Stress and coping among urban school-going adolescents in India. *BMC Psychol.* 7, 31 (2019).
14. Kessler, R. C. et al. Age of onset of mental disorders: A review of recent literature. *Curr. Opin. Psychiatry* 20, 359–364 (2007).
15. Gautham, M. S. et al. The National Mental Health Survey of India (2016): Prevalence, socio-demographic correlates and treatment gap of mental morbidity. *Int. J. Soc. Psychiatry* 66, 361–372 (2020).
16. Tharoor, H. & Thara, R. Evolution of Community Telepsychiatry in India Showcasing the SCARF Model. *Indian J. Psychol. Med.* 42, 69S (2020).
17. Gururaj, G. et al. National Mental Health Survey of India, 2015–16: Prevalence, patterns and outcomes. National Institute of Mental Health & Neurosciences vol. NIMHANS Pu <http://indianmhs.nimhans.ac.in/Docs/Report2.pdf> (2016).
18. Gundi, M., Santhya, K. G., Haberland, N., Zavier, A. J. F. & Rampal, S. The increasing toll of mental health issues on adolescents and youth in Uttar Pradesh. https://www.projectudaya.in/wp-content/uploads/2017/03/Mental-Health-Brief_U.P.pdf (2020).
19. Population Council. Mental Health of Adolescents. https://www.projectudaya.in/wp-content/uploads/2020/10/UDAYA_Oct-2020_Newsletter.pdf (2020).

20. International Institute for Population Sciences and ICF. National Family Health Survey (NFHS-4) 2015-2016 India. <http://rchiips.org/NFHS/NFHS-4Reports/India.pdf> (2017).
21. Patel, V. et al. The magnitude of and health system responses to the mental health treatment gap in adults in India and China. *Lancet* 388, 3074–3084 (2016).
22. Arora, P. & Aeri, B. T. Burden of antenatal depression and its risk factors in Indian settings: A systematic review. *Indian J. Med. Spec.* 10, 55 (2019).
23. Upadhyay, R. P. et al. Postpartum depression in India: a systematic review and meta-analysis. *Bull. World Health Organ.* 95, 706–717C (2017).
24. Kantipudi, S. J. et al. Antenatal Depression and Generalized Anxiety Disorder in a Tertiary Hospital in South India. *Indian J. Psychol. Med.* 42, 513–518 (2020).
25. Supraja, T. A. et al. Suicidality in early pregnancy among antepartum mothers in urban India. *Arch. Womens. Ment. Health* 19, 1101–1108 (2016).
26. World Health Organization. Suicide worldwide in 2019: global health estimates. World Health Organization (2021).
27. National Crime Records Bureau. Accidental Deaths & Suicides in India 2020. National Crime records Beureau https://ncrb.gov.in/sites/default/files/adsi-2015-full-report-2015_0.pdf (2020).
28. Radhakrishnan, R. & Andrade, C. Suicide: An Indian perspective. *Indian Journal of Psychiatry* vol. 54 304–319 (2012).
29. Kay, M. Suicide is leading cause of death in young Indian women, finds international study. *BMJ* 346, 2343 (2013).
30. World Economic Forum. The Global Risks Report 2021: 16th Edition. Weforum.Org (World Economic Forum, 2021).
31. World Health Organization. The impact of COVID-19 on mental, neurological and substance use services: results of a rapid assessment. World Health Organization <https://www.who.int/publications/i/item/978924012455> (2020).
32. Murthy, P. & Narasimha, V. L. Effects of the COVID-19 pandemic and lockdown on alcohol use disorders and complications. *Curr. Opin. Psychiatry* 34, 376–385 (2021).
33. Roy, A. et al. Mental health implications of COVID-19 pandemic and its response in India. *Int. J. Soc. Psychiatry* 67, 587–600 (2021).
34. Verma, S. & Mishra, A. Depression, anxiety, and stress and socio-demographic correlates among general Indian public during COVID-19. *Int. J. Soc. Psychiatry* 66, 756–762 (2020).
35. Kumar, A. & Nayar, K. R. COVID 19 and its mental health consequences. *J. Ment. Heal.* 30, 1–2 (2020).
36. Pandey, D. et al. Psychological impact of mass quarantine on population during pandemics—The COVID-19 Lock-Down (COLD) study. *PLoS One* 15, e0240501 (2020).
37. Ramaswamy, S. & Seshadri, S. Children on the brink: Risks for child protection, sexual abuse, and related mental health problems in the COVID-19 pandemic. *Indian J. Psychiatry* 62, 404 (2020).
38. Hamid, Z. Thousands of children have lost parents to COVID-19. We urgently need a system to care for them. *The Hindu* 1–4 (2021).
39. Chisholm, D. et al. Scaling-up treatment of depression and anxiety: A global return on investment analysis. *The Lancet Psychiatry* 3, 415–424 (2016).
40. Kumar, Mm., Karpaga Priya, P., Panigrahi, S., Raj, U. & Pathak, V. Impact of COVID-19 pandemic on adolescent health in India. *J. Fam. Med. Prim. Care* 9, 5484 (2020).
41. Avasthi, A., Kate, N. & Grover, S. Indianization of psychiatry utilizing Indian mental concepts. *Indian J. Psychiatry* 55, S136–S144 (2013).
42. United Nations Children’s Fund. The State of the World’s Children 2021; On My Mind: promoting, protecting and caring for children’s mental health. UNICEF (2021).

43. Saddichha, S., Vibha, P., Saxena, M. K. & Methuku, M. Behavioral emergencies in India: A population based epidemiological study. *Soc. Psychiatry Psychiatr. Epidemiol.* 45, 589–593 (2010).
44. World Health Organization. Everybody's business -- strengthening health systems to improve health outcomes : WHO's framework for action. (2007).
45. Ministry of Health and Family Welfare. Increase in Suicides. Unstarred Question No. 2196. <http://164.100.24.220/loksabhaquestions/annex/174/AU2196.pdf> (2020).
46. Kumar, D. School mental health program in India: Need to shift from a piecemeal approach to a long-term comprehensive approach with strong intersectoral coordination. *Indian J. Psychiatry* 63, 91 (2021).
47. Mehrotra, S. Indian higher education and youth mental health: Challenges and opportunities. *J. Glob. Health* 10, 020307 (2020).
48. Mahajan, P., Rajendran, P., Sunderamurthy, B., Keshavan, S. & Bazroy, J. Analyzing Indian mental health systems: Reflecting, learning, and working towards a better future. *J. Curr. Res. Sci. Med.* 5, 4 (2019).
49. Hameed, N., Mehrotra, S. & Murthy, P. Positive Youth Development Program for Mental Health Promotion in College Campuses: Stakeholder Perspectives. *Psychol. Stud.* 2019 651 65, 76–86 (2019).
50. Roy, K. et al. India's response to adolescent mental health: A policy review and stakeholder analysis. *Soc. Psychiatry Psychiatr. Epidemiol.* 54, 405–414 (2019).
51. Digital India Programme | Ministry of Electronics & Information Technology(MeitY) Government of India. <https://www.digitalindia.gov.in/content/introduction>.
52. Official website Ayushman Bharat Digital Mission. <https://abdm.gov.in/>.
53. Murthy, P. & Isaac, M. K. Five-year plans and once-in-a-decade interventions: Need to move from filling gaps to bridging chasms in mental health care in India. *Indian J. Psychiatry* 58, 253–258 (2016).
54. Policy Group. XIIth Plan District Mental Health Programme prepared by Policy Group 29. <https://mhpolicy.files.wordpress.com/2012/07/final-dmhp-design-xii-plan2.pdf> (2012).
55. International Council for Market Research. Evaluation of District Mental Health Programme Final Report Submitted to Ministry of Health and Family Welfare. <http://www.scirp.org/journal/HEALTH> (2009).
56. NIMHANS. REPORT OF EVALUATION OF DISTRICT MENTAL HEALTH PROGRAMME 1. <https://mhpolicy.files.wordpress.com/2011/05/nimhans-report-evaluation-of-dmhp.pdf> (2003).
57. Ministry of Health and Family Welfare. Mental Health Institutions in the Country. Press Information Bureau Government of India <https://pib.gov.in/newsite/PrintRelease.aspx?relid=112890> (2014).
58. World Health Organization. Mental Health ATLAS 2017 Member State Profile. vol. 2016 https://www.who.int/mental_health/mhgap/Report_2018.pdf?ua=1 (2018).
59. Government of India Ministry of Health and Family Welfare. Ayushman Bharat | HWC Portal. <https://ab-hwc.nhp.gov.in/#about> (2020).
60. Farmer Suicides: 90,000 Farmers Counsellled in 14 Maharashtra Districts. <https://www.ndtv.com/india-news/farmer-suicides-90k-farmers-counsellled-in-14-maharashtra-districts-1994969>.
61. Mental Health Programme in Uttar Pradesh And Staff Shortage in District Counseling Centres: यूपी में ठीक से नहीं चल पा रहे मन कक्ष. <https://fit.thequint.com/hindi/health-news-update/mental-health-programme-in-uttar-pradesh-districts-status#read-more>.
62. Gupta, S. & Sagar, R. National mental health programme–optimism and caution: A narrative review. *Indian Journal of Psychological Medicine* vol. 40 509–516 (2018).
63. Ministry of Health and Family Welfare. Lok Sabha unstarred question number 4591. Government of India <http://164.100.24.220/loksabhaquestions/annex/173/AU4591.pdf> (2020).
64. Bharat, S. & Sethi, G. Health and Wellbeing of India's Young People: Challenges and Prospects. (2019).

65. Srivastava, N. M. Adolescent health in India: Need for more interventional research. *Clin. Epidemiol. Glob. Heal.* 4, 101–102 (2016).
66. Santhya, K. G. et al. Accessing adolescent friendly health clinics in India: The perspectives of adolescents and youth. *Popul. Counc.* 7, 12 (2014).
67. Hoopes, A. J., Agarwal, P., Bull, S. & Chandra-Mouli, V. Measuring adolescent friendly health services in India: A scoping review of evaluations. *Reprod. Health* 13, 1–8 (2016).
68. Singh, G. et al. Use of Mobile Phone Technology to Improve follow-up at a Community Mental Health Clinic: A Randomized Control Trial. *Indian J. Psychol. Med.* 39, 276–280 (2017).
69. Inkster, B., Sarda, S. & Subramanian, V. An Empathy-Driven, Conversational Artificial Intelligence Agent (Wysa) for Digital Mental Well-Being: Real-World Data Evaluation Mixed-Methods Study. *JMIR mHealth uHealth* 6, (2018).
70. Ibrahim, F. A. et al. Chhattisgarh community mental healthcare tele-mentoring program (CHaMP): Digitally driven initiative to reach the unreached. *Int. J. Soc. Psychiatry* (2021) doi:10.1177/00207640211011191.
71. Manjunatha, N., Kumar, C., Math, S. & Thirthalli, J. Designing and implementing an innovative digitally driven primary care psychiatry program in India. *Indian J. Psychiatry* 60, 236–244 (2018).
72. Mehrotra, K. et al. Effectiveness of NIMHANS ECHO blended tele-mentoring model on Integrated Mental Health and Addiction for counsellors in rural and underserved districts of Chhattisgarh, India. *Asian J. Psychiatr.* 36, 123–127 (2018).
73. Apolinário-Hagen, J., Kemper, J. & Stürmer, C. Public Acceptability of E-Mental Health Treatment Services for Psychological Problems: A Scoping Review. *JMIR Ment. Heal.* 4, e10 (2017).
74. State of the Indian startup ecosystem. <http://www.mutbimanipal.org/front-end/images/background/3.pdf> (2018).
75. Naskar, S., Victor, R., Das, H. & Nath, K. Telepsychiatry in India - Where Do We Stand? A Comparative Review between Global and Indian Telepsychiatry Programs. *Indian J. Psychol. Med.* 39, 223–242 (2017).
76. Garg, K., Kumar, C. N. & Chandra, P. S. Number of psychiatrists in India: Baby steps forward, but a long way to go. *Indian Journal of Psychiatry* vol. 61 104–105 (2019).
77. Math, S. et al. Cost estimation for the implementation of the Mental Healthcare Act 2017. *Indian Journal of Psychiatry* vol. 61 S650–S659 (2019).
78. Ahuja, S. et al. Evaluation of a new set of indicators for mental health care implemented in Madhya Pradesh, India: A mixed methods study. *Int. J. Ment. Health Syst.* 14, 1–12 (2020).
79. Gururaj, G. et al. National Mental Health Survey of India, 2015–16: Summary. NIMHANS Publication No. 128, 2016 (2016).
80. Kaur, J. et al. i-MANN: A Web-Based System for Data Management of Mental Health Research in India. *Indian J. Psychol. Med.* 42, S15–S22 (2020).
81. Ministry of Health and Family Welfare. Essential Medicine List for SHC & PHC Level. Government of India National Health Mission https://nhm.gov.in/New_Updates_2018/Om_and_orders/CPHC/Others/H_WC_SHC_and_PHC_updated_EML_as_on_March_2020_-.pdf (2020).
82. Ministry of Health and Family Welfare. List of psychotherapeutic drugs/medicines that should be available at district hospital/CHC/PHC levels. National Health Mission https://main.mohfw.gov.in/sites/default/files/Pages_from_Drugs_List.pdf (2018).
83. Parmar, A., Nath, S. & Padhy, S. List of essential psychotherapeutic medicines 2019 of India: When science was left behind. *Indian J. Psychiatry* 64, 209 (2022).
84. Parmar, A., Pal, A. & Sharma, P. National List of Essential Medicines in India: A Story of Deprivation of Substance Use Disorder Treatment. *Indian J. Psychol. Med.* 43, 531–534 (2021).

85. World Health Organization. Comprehensive mental health action plan 2013–2030. <https://www.who.int/publications/i/item/9789240031029> (2021).
86. World Mental Health Day: India's Mental Healthcare Act is dogged by gaps in implementation.
87. Weisz, J. R. et al. Performance of evidence-based youth psychotherapies compared with usual clinical care: a multilevel meta-analysis. *JAMA psychiatry* 70, 750–761 (2013).
88. Cuijpers, P. et al. The effects of psychological treatments of depression in children and adolescents on response, reliable change, and deterioration: a systematic review and meta-analysis. *Eur. Child Adolesc. Psychiatry* (2021) doi:10.1007/S00787-021-01884-6.
89. Wergeland, G. J. H., Riise, E. N. & Öst, L. G. Cognitive behavior therapy for internalizing disorders in children and adolescents in routine clinical care: A systematic review and meta-analysis. *Clin. Psychol. Rev.* 83, (2021).
90. Michelson, D. & Patel, V. Commentary: Distillation and element-based design of psychological treatments in global mental health - a commentary on Brown et al. (2017). *J. Child Psychol. Psychiatry.* 58, 525–527 (2017).
91. Kazdin, A. E. Understanding how and why psychotherapy leads to change. *Psychother. Res.* 19, 418–428 (2009).
92. Patel, V. et al. Treatment and prevention of mental disorders in low-income and middle-income countries. *Lancet* (London, England) 370, 991–1005 (2007).
93. van Ginneken, N. et al. Non-specialist health worker interventions for the care of mental, neurological and substance-abuse disorders in low- and middle-income countries. *Cochrane database Syst. Rev.* 2013, (2013).
94. Schleider, J. L. & Weisz, J. R. Little Treatments, Promising Effects? Meta-Analysis of Single-Session Interventions for Youth Psychiatric Problems. *J. Am. Acad. Child Adolesc. Psychiatry* 56, 107–115 (2017).
95. Boustani, M. M. et al. Common elements of adolescent prevention programs: minimizing burden while maximizing reach. *Adm. Policy Ment. Health* 42, 209–219 (2015).
96. Chorpita, B. F. & Daleiden, E. L. Mapping evidence-based treatments for children and adolescents: application of the distillation and matching model to 615 treatments from 322 randomized trials. *J. Consult. Clin. Psychol.* 77, 566–579 (2009).
97. Wolpert, M. et al. Strategies not accompanied by a mental health professional to address anxiety and depression in children and young people: a scoping review of range and a systematic review of effectiveness. *The lancet. Psychiatry* 6, 46–60 (2019).
98. Domhardt, M. et al. Mechanisms of Change in Digital Health Interventions for Mental Disorders in Youth: Systematic Review. *J. Med. Internet Res.* 23, (2021).
99. Christ, C. et al. Internet and Computer-Based Cognitive Behavioral Therapy for Anxiety and Depression in Adolescents and Young Adults: Systematic Review and Meta-Analysis. *J. Med. Internet Res.* 22, (2020).
100. Büscher, R., Torok, M., Terhorst, Y. & Sander, L. Internet-Based Cognitive Behavioral Therapy to Reduce Suicidal Ideation: A Systematic Review and Meta-analysis. *JAMA Netw. Open* 3, e203933–e203933 (2020).
101. Steubl, L., Sachser, C., Baumeister, H. & Domhardt, M. Mechanisms of change in Internet- and mobile-based interventions for PTSD: a systematic review and meta-analysis. *Eur. J. Psychotraumatol.* 12, (2021).
102. Kanuri, N. et al. Examining the initial usability, acceptability and feasibility of a digital mental health intervention for college students in India. *Int. J. Psychol.* 55, 657–673 (2020).
103. Lupton, D. Young people's use of digital health technologies in the global north: narrative review. *J. Med. Internet Res.* 23, 1–12 (2021).
104. Salazar De Pablo, G. et al. Universal and Selective Interventions to Prevent Poor Mental Health Outcomes in Young People: Systematic Review and Meta-analysis. *Harv. Rev. Psychiatry* 29, 196–215 (2021).
105. Salazar de Pablo, G. et al. Universal and selective interventions to promote good mental health in young people: Systematic review and meta-analysis. *Eur. Neuropsychopharmacol.* 41, 28–39 (2020).
106. Banandur, P. S., Gururaj, G., Garady, L., Arelingaiah, M. & Jyoti, M. K. Yuva spandana - A youth mental health

promotion model in India - Design, methods and progress. *Indian J. Public Health* 65, 380–383 (2021).

107. Middaugh, E., Clark, L. S. & Ballard, P. J. Digital media, participatory politics, and positive youth development. *Pediatrics* 140, S127–S131 (2017).
108. Liverpool, S. et al. Engaging Children and Young People in Digital Mental Health Interventions: Systematic Review of Modes of Delivery, Facilitators, and Barriers. *J. Med. Internet Res.* 22, (2020).
109. Berry, C. et al. A Systematic Review and Lived-Experience Panel Analysis of Hopefulness in Youth Depression Treatment. *Adolescent Research Review* (Springer International Publishing, 2021). doi:10.1007/s40894-021-00167-0.
110. Desveaux, L., Soobiah, C., Bhatia, R. S. & Shaw, J. Identifying and overcoming policy-level barriers to the implementation of digital health innovation: Qualitative study. *J. Med. Internet Res.* 21, 1–10 (2019).
111. Tauberer, J. Hackathon guide. <https://hackathon.guide/> (2017).
112. Singh, K. Evidence-based public health: Barriers and facilitators to the transfer of knowledge into practice. *Indian J. Public Health* 59, 131 (2015).



