सत्यमेव जयते

Ministry of Health And Family Welfare
Government of India

Azadi Ka Amrit Mahotsav

National Health Action Plan on Climate Change and Mental Health

National Programme on Climate Change and Human Health

MINISTRY OF HEALTH AND FAMILY WELFARE

National Programme on Climate Change and Human Health

मनसुख मांडविया
कल्याण
MANSUKH MANDAVIYA

सत्यमेव जयते

स्वास्थ्य एवं परिवार
व रसायन और उर्वरक मंत्री
भारत सरकार

Minister for Health & Family Welfare
And Chemicals & Fertilizers
Government of India

Message

Climate change poses a significant threat to our physical and mental well-being, and it is crucial that we address both its direct and indirect impacts on our health. The effects of a changing climate on our environment, such as natural disasters, displacement and food insecurity, can result in physical and psychological stress, trauma, and mental health conditions such as anxiety and depression. At the same time, the increasing awareness of the reality and magnitude of the climate crisis is also leading to an increase in ecological grief and despair.

Recently, the National Programme on Climate Change and Human Health (NPCCHH) under the Ministry of Health Family Welfare has developed a document on "Health Action Plan for Climate Change and Mental Health". It deals with various mental health issues arising due to climate change-related stressors and disasters, including anxiety and depression. The document elaborates on mental health-related structures and mechanisms to manage mental health response plans in the context of associated issues with climate change exposure in the country.

In addition to providing guidance for the mental health sector, the plan also emphasizes the need for coordination between the mental health sector and other sectors, such as the environment, disaster management, and social services. This inter-sectoral approach is critical for addressing the complex and interconnected challenges posed by climate change and its impact on mental health.

The plan serves as a valuable resource for States and UTs as they develop their own mental health action plans to address the impact of climate change on mental health. By providing a clear framework for action, the plan will help to ensure that those affected by mental health problems related to climate change receive the care and support they need.

I express my heartfelt gratitude to all the professional experts who participated in designing this manual and supporting the NPCCHH program. Their efforts demonstrate the MOHFW's dedication to improving public mental health and creating a more positive and sustainable future for the nation.

(Mansukh Mandaviya)

मंत्री
डॉ भारती प्रविण पवार
Dr. Bharati Pravin Pawar

स्वास्थ्य एवं परिवार कल्याण राज्य
भारत सरकार

MINISTER OF STATE FOR
HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA

Message

Climate change has a significant impact on mental health and well-being, particularly among marginalized and vulnerable populations. In response, the National Programme on Climate Change and Human Health (NPCCHH), under the Ministry of Health and Family Welfare, has developed a comprehensive plan to address the mental health issues arising from climate change.

The plan outlines key strategies and mechanisms to support the States/UTs in addressing the mental health impacts of climate change, and provides guidance on how the health sector can coordinate with non-health sectors to effectively address these issues. The plan focuses on protecting, preventing and managing the negative mental health effects of climate change on the most vulnerable populations, including children, women, and the elderly.

I strongly believe that this manual will be a valuable resource for the States/UTs as they develop their own mental health response plans in the face of the growing challenges posed by climate change. I am grateful to the NPCCHH team members and the experts who have contributed to the development of this plan, and I am confident that it will have a positive impact on the mental health of the people in the country.

(Dr. Bharati Pravin Pawar)

राजेश भूषण, आईएएस
सचिव
RAJESH BHUSHAN, IAS
SECRETARY

सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण विभाग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
Government of India
Department of Health & Family Welfare
Ministry of Health & Family Welfare

Message

The effects of climate change are not limited to just the physical environment, but also have a significant impact on mental health. With natural disasters becoming more frequent and severe, displacement of communities, and uncertainty about the future, it is clear that climate change is causing an increase in stress, anxiety, and other mental health issues.

In light of this growing concern, the National Programme on Climate Change and Human Health (NPCCHH) under the Ministry of Health and Family Welfare has developed a comprehensive plan to address the mental health impacts of climate change. This plan outlines various structures and mechanisms to help manage the mental health response to the challenges posed by climate change.

I urge all States/UTs to take advantage of this comprehensive plan and to implement it in their efforts to address the mental health impacts of climate change. By doing so, we can help provide support and care for those who are affected by the negative mental health consequences of climate change.

I would like to extend my gratitude to all of the experts and professionals who have contributed to the development of this plan and to the NPCCHH program for their continued commitment to addressing the public health concerns related to climate change.

(Rajesh Bhusan)

प्रो. (डॉ.) सुनील कुमार
एमबीबीएस, एमडी (एम्स)
PROF. (Dr.) ATUL GOEL
महानिदेशालय
MBBS & MD (LHMC)
स्वास्थ्य सेवा महानिदेशालय
Welfare
DIRECTOR GENERAL OF HEALTH SERVICES

सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
स्वास्थ्य सेवा

Government of India
Ministry of Health & Family

Directorate General of Health Services

Message

Climate change is one of the greatest global challenges that is affecting the health and well-being of populations worldwide. The impacts of climate change, including rising temperatures, increased frequency and intensity of natural disasters, and other environmental hazards, are taking a toll on the mental health and psychological well-being of people, particularly in communities that are already vulnerable.

To address these growing concerns, the National Programme on Climate Change and Human Health (NPCCHH) under the Ministry of Health and Family Welfare has developed a document on 'Health Action Plan for Climate Change and Mental Health'. This action plan is designed to help States plan and implement health actions to minimize the negative impacts of climate change on mental health and psychological well-being.

The document provides guidance on the situational analysis of mental health and psychological well-being in the context of climate change, capacity building, awareness generation measures, strengthening of surveillance systems, preparedness and response measures, and the importance of research for evidence generation in the Indian context. It also outlines the roles and responsibilities of various levels of health care professionals and community-level health workers in addressing the impact of climate change on mental health and psychological well-being.

I am confident that the implementation of this comprehensive health adaptation plan for mental health and psychological well-being in the context of climate change will play a significant role in addressing the growing concerns of mental health and psychological well-being caused by climate change. I appeal to all health care professionals and facilities across the country to refer to it and become a role model in the fight against the negative impacts of climate change on mental health and psychological well-being.

I am grateful to the NPCCHH programme team and all the experts who have extended their technical expertise to bring out this important technical manual on mental health and psychological well-being in the context of climate change.

(Atul Goel)

Dr. Lav Agarwal
Additional Secretary
Ministry of Health and Family Welfare
Government of India

Message

Climate change is having significant impacts on the health and well-being of populations worldwide. These impacts, which include rising temperatures, more frequent and intense natural disasters, and other environmental hazards, are affecting the mental health and psychological well-being of people, especially those in vulnerable communities.

The National Programme on Climate Change and Human Health (NPCCHH) under the Ministry of Health and Family Welfare has taken proactive steps to address the growing concerns surrounding the negative impacts of climate change on mental health and psychological well-being. To this end, the NPCCHH has developed a comprehensive health adaptation plan for climate change and mental health, which aims to assist states in planning and implementing health actions to minimize these impacts.

The document offers comprehensive guidance on addressing the impact of climate change on mental health and psychological well-being. It includes a situational analysis of mental health and well-being in the context of climate change, capacity building requirements, awareness generation measures, strengthening of surveillance systems, preparedness and response measures, and the importance of research for evidence generation in the Indian context. Additionally, it outlines the roles and responsibilities of health care professionals and community-level health workers at various levels in mitigating the negative effects of climate change on mental health.

To mitigate the negative impacts of climate change on mental health and psychological well-being, the implementation of the comprehensive health adaptation plan developed by the NPCCHH is crucial. I am optimistic that this plan will play a significant role in addressing the growing concerns of mental health and psychological well-being caused by climate change. I urge all healthcare professionals and facilities across the country to refer to it and lead by example in the fight against the adverse effects of climate change on mental health and psychological well-being.

I express my appreciation to the NPCCHH program team and all the specialists who have contributed their technical knowledge to produce this significant guidebook on mental health and psychological well-being regarding climate change.

(Dr. Lav Aggarwal)

Dr. Aakash Shrivastava
Additional Director
NPCCHH

Message

Climate change is impacting the mental health and well-being of people globally, particularly those in vulnerable communities, due to rising temperatures, natural disasters, and environmental hazards. Extreme weather events, air pollution, and loss of natural habitats can cause trauma, anxiety, and grief.

The Ministry of Health and Family Welfare's National Programme on Climate Change and Human Health (NPCCHH) is taking proactive steps to address concerns about the adverse effects of climate change on mental health and well-being. The NPCCHH has developed a comprehensive health adaptation plan that assists states in planning and implementing health actions to minimize these impacts.

This document provides comprehensive guidance on mitigating the impact of climate change on mental health and psychological well-being. It covers a situational analysis of mental health and well-being concerning climate change, capacity building, awareness generation, strengthening of surveillance systems, preparedness and response measures, and research for evidence generation in the Indian context. The document also highlights the roles and responsibilities of healthcare professionals and community-level health workers in mitigating the adverse effects of climate change on mental health at various levels.

The implementation of the NPCCHH's comprehensive health adaptation plan is crucial to mitigate the negative impacts of climate change on mental health and psychological well-being. I am optimistic that this plan will play a significant role in addressing the growing concerns of mental health and psychological well-being caused by climate change. Healthcare professionals and facilities across the country should refer to it and lead by example in the fight against the adverse effects of climate change on mental health and psychological well-being.

I would like to extend my appreciation to the NPCCHH program team and all the specialists who contributed their technical knowledge to create this important guidebook on mental health and psychological well-being in the context of climate change.

(Dr. Aakash Shrivastava)

LIST OF ABBREVIATIONS

AIIMS- All India Institute of Medical Sciences

AQI- Air Quality Index

ASHA- Accredited Social Health Activist

AYUSH- Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy

cVEDA- Consortium on Vulnerability to Externalizing Disorders and Addictions

CC-MH- Climate Change and Mental Health

CHC- Community Health Centre

CHO- Community Health Officer

CI- Confidence Interval

CIP- Central Institute of Psychiatry

CMD- Common Mental Disorders

CPCB- Central Pollution Control Board

DMHP- District Mental Health Program

DoHFW- Department of Health and Family Welfare

HCW- Health Care Worker

HIV- Human Immunodeficiency Virus

HMIS- Health Management Information System

IDSP- Integrated Disease Surveillance Programme

IEC- Information Education and Communication

IQ- Intelligence Quotient

LGBRIMH- Lokopriya Gopinath Bordoloi Regional Institute of Mental Health

MDD- Moderate Depressive Disorder

MERIT Tool- Mental Health Screening and Counselling Tool for Field-level Workers in India

MH- Mental Health

MNREGA- Mahatma Gandhi National Rural Employment Guarantee Act

MO- Medical Officer

MoEFCC- Ministry of Environment, Forest and Climate Change

MOHFW- Ministry of Health and Family Welfare

NCD- Non- Communicable Disease

NCERT- National Council of Educational Research and Training

NDMA- National Disaster Management Authority

NGO- Non-Governmental Organization

NIMHANS- National Institute of Mental Health and Neuro-Sciences

NMHP- National Mental Health Programme

NMHS- National Mental Health Survey

NPCCHH- National Programme on Climate Change and Human Health

NPCDCS- National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke

NPHCE- National Programme for Health Care of the Elderly

OPD- Outpatient Department

OR- Odds Ratio

PCB- Pollution Control Board

PFA- Psychological First Aid

PGIMER- Postgraduate Institute of Medical Education and Research

PHC- Primary Health Centre

PSS- Problem-Solving Skills

PSSMHS- Psychosocial Support and Mental Health Services

PTSD- Post-Traumatic Stress Disorder

RBSK-Rashtriya Bal SwasthyaKaryakram

RCH- Reproductive and Child Health

RMNCH+A- Reproductive, Maternal, Newborn Child plus Adolescent Health

SAFAR- System of Air Quality and Weather Forecasting and Research

SOP- Standard Operating Procedure

TB- Tuberculosis

TH- Taluka Hospital

UNDP- United Nations Development Programme

UNEP- United Nations Environment Programme

UT- Union Territory

WHO- World Health Organization

YLD- Years Lived with Disability

EXECUTIVE SUMMARY

Climate change refers to gradual changes in meteorological parameters like temperature, humidity, atmospheric composition etc. The effects of these phenomena may not be visible evidently on a day-to-day basis as the cause and effect are distinct in terms of space and time.

Climate changes have been attributed to extreme weather conditions/events across the globe, leading to many health-related problems. Frequent extreme weather events also have direct and indirect consequences on mental health.

The objectives of studying climate change and mental health under NPCCHH is to develop a comprehensive health system to generate awareness, capacity building activities, strengthen health system preparedness and collaborative partnership with respect to impacts of climate change on mental health.

In this regard, a comprehensive health action plan developed on climate change and mental health includes:

A. Situational analysis of Mental health illness in the context of climate change
B. Awareness generation through IEC
C. Surveillance system on mental health illnesses due to climate change (pilot)
D. Capacity building
E. Public health management of mental health problems due to climate change
F. Inter-sectoral coordination (Health & Non-health)

The health action plan monitoring will be done at various levels at National, State, District and healthcare facilities. The roles and responsibilities of health and related non-health sectors are defined in this document. Existing human resources in NHM will be utilized to implement the program.

INTRODUCTION

Climate change refers to gradual changes in meteorological parameters like temperature, humidity, atmospheric composition, etc., in the world. The effects of this phenomenon may not be visible on a day-to-day basis as the cause and effect are distinct in terms of space and time. The United Nations Framework Convention on Climate Change (UNFCCC), Article 1, defines climate change as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable periods". Global climate change impacts the environment, economy, social life and health. The consequences of climate change on health have been widely accepted and researched over the years. Since 2007, media reports on climate change and health have increased by 78% and the academic literature on climate and health issues has tripled. However, mental health consequences have not been studied and are not well established.

Mental health, like physical health, includes states of affirmative health, wellbeing and emotional resilience, as well as illness. Moreover, mental health is encapsulated in the conceptualization of psychosocial health—the interplay of psychological and social well being. In other words, things that affect our social world like climate change-related income insecurity, food and water insecurity and conflict and displacement have implications for psychological as well as social wellness.

There is increasing evidence that extreme weather events that are more frequent, intense and complex owing to a changing climate can trigger post-traumatic stress disorder (PTSD), major depressive disorder (MDD), anxiety, depression, substance abuse, complicated grief, survivor's guilt, vicarious trauma, recovery fatigue and suicidal ideation. Incremental climate changes, such as rising temperatures, rising sea levels, and episodic droughts can change natural landscapes, disrupt food and water resources, change agricultural conditions, change land use and habitation, weaken infrastructure, give rise to financial and relationship stress, increase risks of violence and aggression and lead to the displacement of entire communities.

Globally, the prevalence of mental health issues is extremely high, even without considering the added mental health consequences of changing climate conditions. Based on a 10-year systematic analysis of the global burden of disease from 1990 to 2010, it was found that

mental illness comprises 7.8% of the global burden of disease. Mental and behavioural disorders also account for the most significant global burden of years lived with a disability (YLDs).

The lack of attention to mental health is of particular concern in the field of climate change and mental health, given the evidence that psychological impacts from any form of a disaster exceed physical injury by 40%.

Direct mental health consequences of climate change

Mental health outcomes of climate change can range from mild stress and sleep disturbances to clinical disorders like anxiety, depression, post-traumatic stress, substance use, and suicidal thoughts. Acute stress during and immediately after a disaster leads to PTSD. Other consequences, such as reduced daily activities and the loss of a "sense of place, "could exacerbate mental health risks. Acute impacts refer to mental injuries experienced by undefended and helpless people exposed to extreme events (e.g. floods, cyclones, earthquakes, landslides, etc.). Sub-acute impacts include intense emotions experienced by people who indirectly witness the effects of climate change, anxiety related to uncertainty about the survival of humans and other species and finally a sense of being blocked, disoriented and passive. Long-term impacts come in the form of large-scale social and community effects breaking out into forms of violence, struggle over limited resources, displacement and forced migration, post-disaster adjustment and chronic environmental stress.

Physical health, mental health, human well-being and heat waves appear to be specifically interconnected. Heat stress directly caused by heat waves has been associated with mood disorders, anxiety, and related consequences. Extreme heat events and humidity have increased hospital admissions for mood and behavioural disorders, including schizophrenia, mania, and neurotic disorders. Heat-related mental health morbidity tends to occur most often in people with pre-existing mental health illnesses and problems, people taking psychotropics like lithium, neuroleptics and anticholinergic drugs and those with substance abuse problems. People with mental illness were three times more likely to risk death from a heatwave than those without mental illness. During pregnancy, especially in the second and third trimesters, exposure to heat waves has been related to lower average birth weight and increased incidence of preterm birth. Effects during childhood and adulthood comprised behavioural

and motor problems, reduced IQ and reduced schooling and economic activity. Heat-related illnesses are also connected with waterborne diseases. In hot temperatures, increased discomfort leads to increased hostility, aggression and possible violence. Hotter cities were found to be more violent than cooler cities. The increased heat-related violence is more significant in hot summers and shows increased rates in hotter years. Wildfires, because of extreme heat, directly impact mental health. Studies in communities at risk of bushfires found higher incidences of depression and PTSD.

There are direct impacts of morbidity and mortality related to floods, such as drowning, electrocution, cardiovascular events, nonfatal injuries, exacerbation of chronic illness, waterborne diseases (due to contamination of drinking water), infectious diseases and psychiatric and mental health disorders. The principal effect of flooding seems to be in the mental health area, leading especially to PTSD. After the acute emergency phase, several affected populations are subjected to psychological distress. Concerning flood victims, 20% had been diagnosed with depression, 28.3% with anxiety disorder, and 36% with PTSD. Consequences are still present after the flood due to the loss of loved ones and long-lasting economic problems. Moreover, some cases show increased substance abuse and domestic violence as the calamity exacerbates and precipitates previously existing mental health problems.

The relationship between mental health consequences, flooding and cyclones is well documented. Many studies in India have reported the mental health effects of floods. The prevalence of PTSD in the flood-affected populations in India is estimated to be around 50%. In a study of 30 locations in England and Wales, Tunstall et al. conducted interview surveys with residents affected by flooding. They found that psychological impacts were more commonly reported than physical effects.

The damage suffered by health care infrastructure and the interruption of public health service due to floods leads to an increase in serious illness, injuries, disability and death. Many experienced PTSD, stress, depression, anxiety, substance abuse, and suicide. The incidence of PTSD has been studied extensively and was consistently associated with several factors. People living in an affected area showed high levels of suicide and suicidal ideation, one in six people developed PTSD and half of them developed an anxiety or mood disorder including depression. Mental health disorders are often seen even one year after the disaster or event.

A combination of high temperatures and low precipitation increases the frequency of drought worldwide. These temperature fluctuations are correlated with agricultural loss by affecting crop productivity and yields. Farmers worldwide are more vulnerable to environment-induced mental health risks caused by drought. Long-term droughts and erratic rainfall have been associated with deteriorating economic conditions, reduced social functioning and psychological disturbance due to the perception of adverse climatic conditions. Drought has often been connected to suicide especially in older people. Negative events stimulate feelings of alertness; constant monitoring of current and future events, mental distress, anxiety, depression and suicide as well as prolonged emotional stress, inevitably provoking high job insecurity and other psychological issues.

Reports of suicide and suicidal ideation following extreme weather events are increasing. A higher rate of suicide is noted in disaster-hit areas and an increase in homicides is linked to warming (heat). Increased suicidal ideas and plans among the residents are noted in the long run following a disaster. Notably, the overall evidence linking changing climate and suicide is inconclusive. Studies on suicidality in natural disaster contexts, for example, vary considerably in study methodology and timeframes, with recent reviews indicating divergent trends in suicidality rates following exposure to extreme events, ranging from an initial decline to neutral effects, all the way to a delayed increase in suicidality. Recent scientific evidence suggests that slowly occurring climate changes, e.g., environmental, temperature, changing weather, air pollution and light pollution have influenced the sleep-wake schedule and facilitated the occurrence of sleep disorders like insomnia and obstructive sleep apnoea.

Indirect mental health consequences of climate change

The indirect mental health consequences of climate change can result from damages to physical and social infrastructure, physical health effects, food and water shortages, conflict, and displacement from acute, subacute, and chronic climatic changes. Drought is one of the most well-documented climate hazards indirectly influencing mental health. Long-term droughts affect food and water supplies and can subsequently affect land-based workers' economic and mental well-being, most often impacting rural and remote communities. There is evidence indicating increased numbers of farmer suicides in India in areas of prolonged droughts. This is due to the indirect effect on mental health due to unexpected crop failure and economic hardships. In a systematic review of the literature, the authors note that the

most prominent causal pathway linking drought and mental health is the economic effects of land degradation. These effects are most prominent among farmers whose economic livelihoods depend on environmental conditions.

Long-term drought has also been increasingly linked to conflict and forced migration, which can influence psychosocial outcomes like the propensity for stress, PTSD, anxiety, and trauma.

Factors such as temperature, humidity, wind, storms, droughts, precipitation, and human activities like industrialisation, construction and demolition activities, vehicular pollution, and episodic crop residue burning, which leads to pollutant air, ultimately have consequences on mental health in terms of depression, anxiety increase, and in the suicide rate.

Climate change's indirect mental health consequences are understudied at the community level. These consequences may include things like a diminishment in community cohesion, the loss of community identity, threats to a sense of continuity and purpose of belonging as people are forced to move in and out of communities because of environmental stressors and an undermining of cultural integrity if people have to leave their homelands.

Migration challenges the identity, sovereignty, and heritage of people who have to leave their homelands. It also challenges the integrity and continuity of people's traditional ways of life. Threats to community health also include an increased likelihood of criminal behaviour, violence, and aggression as community members experience various stressors related to climate change.

Pathways by which climate change can affect mental health and psychosocial well-being

Not enough attention has been paid to mental health and psychosocial well-being in climate change literature, with studies on the topic emerging only since 2007. The connections between climate change and mental health and psychosocial well-being have been discussed mostly within the health frameworks of emergency and disaster management, particularly in the context of extreme weather events. However, knowledge on the topic is slowly growing, and strong arguments can be made for expanding this focus beyond these frameworks to recognise the role of Mental Health Psychosocial support within broader climate actions.

The direct and indirect pathways by which climate-related hazards, long-term risks, exposure pathways and vulnerabilities impact mental health are interrelated and do not act in isolation. Instead, hazards may overlap (e.g., cascading events such as storms followed by floods). People may be exposed simultaneously to contaminated water while also being exposed to

mosquito breeding sites. Existing population vulnerabilities may be exacerbated by climate hazards and long-term climate risks, resulting in aggravated inequities. The effects have considerable implications for mental health and well-being.

The environmental, social and economic determinants of mental health identified as exposure pathways in Figure 1 include air quality, water quantity and quality, food security and safety, income and livelihoods, ecosystem changes and a number of other social and economic pathways.

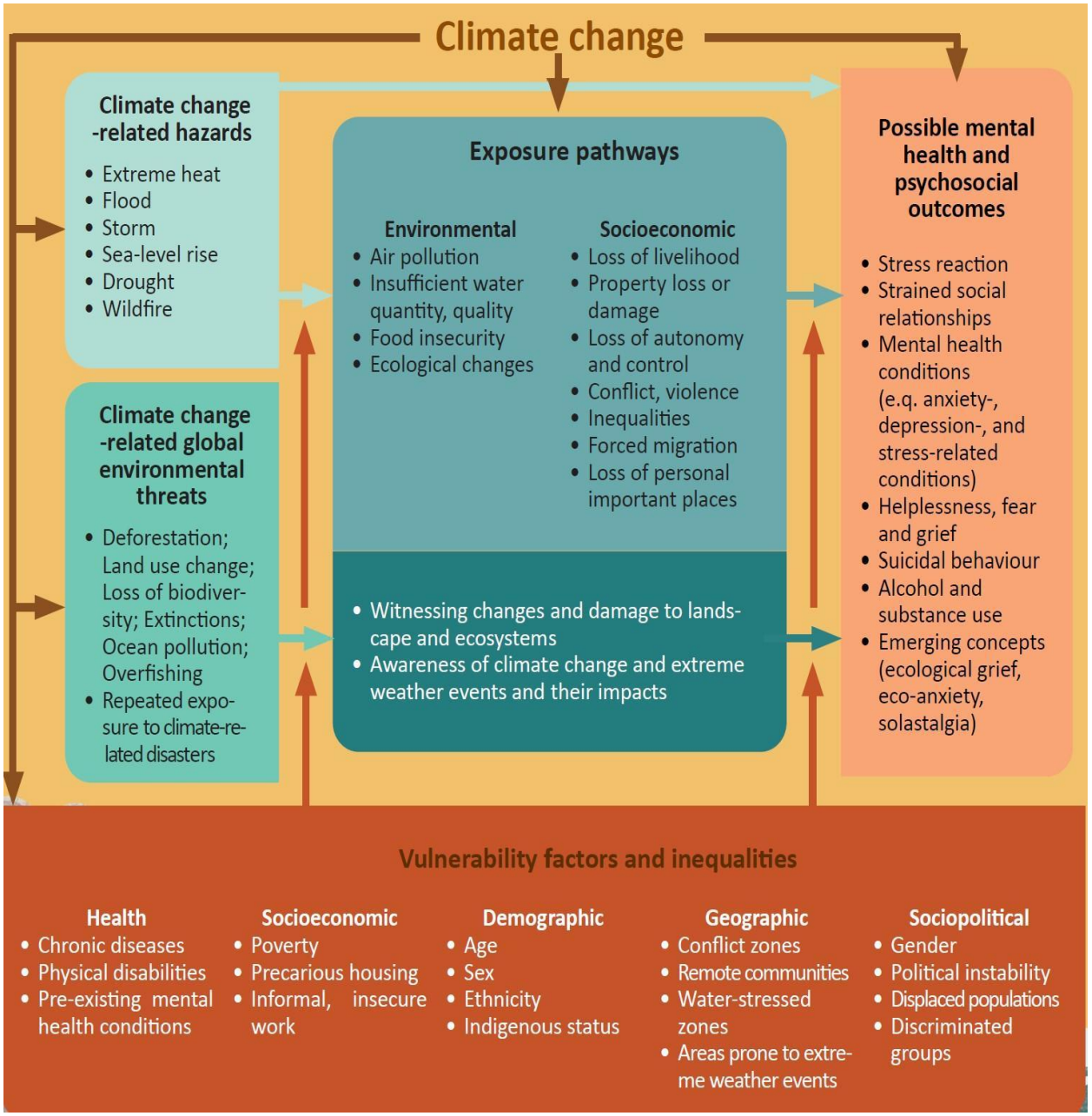
For example, air pollution during periods of high temperatures can cause respiratory diseases that increase demand for health care services, reduce mobility and the capacity to work, and can lead to mental health consequences that range from minimal stress and distress to the development of mental health conditions, particularly in low-income settings.

The case of prolonged droughts demonstrates a clear example of the impacts of climate change on these determinants. Droughts significantly disrupt agricultural production and lead to loss of livelihood, leaving many communities in poverty, a factor clearly linked with many common mental disorders. Droughts can also lead to water scarcity and food insecurity, both of which can negatively impact mental health and increase the risk for mental health conditions, the latter of which is associated with developmental delays, mental health issues and neurological problems that can result from malnutrition.

Both food and water scarcity can also further contribute to population displacement, which disrupts family relationships and can leave those displaced with fewer resources, services, and social support in the new community, all of which exacerbate mental health risks. Attention to the influence of climate change on determinants of mental health such as these is crucial for both understanding the impact and for taking climate action.

Climate change may also lead to increased conflict or aggravated conflict dynamics, particularly in regions dependent on agriculture and to forced migration for some and forced immobility in challenging environments for others. Inevitably, conflict negatively impacts mental health and well-being, with one in five persons exposed to it experiencing a mental health condition and countless others enduring distress in the face of adversity.

Meanwhile, migration is also commonly viewed as a risk factor for mental health and psychosocial problems though more research is needed with populations migrating for reasons other than conflict.



Corvaran, Carlos & Gray, Brandon & Villalobos, Elena & Sena, Aderita & hanna, Fahmy & Campbell-Lendrum, Diarmid & Williams, Kimberly & Jivraj, Jamil & Howlett, Megan & Alvarez, Maria & Alcayna, Tilly & Berry, Peter & Eaton, Julian & Ebi, Kristie & Engels, Michelle & Campbell, Georgina & Hall, Jen & Hijazi, Zeinab & Hill, Kyle & Wessels, Michael. (2022). World Health Organization (2022). Mental health and Climate Change: Policy Brief.

Climate change and its effect on Sleep

Recent scientific evidence indicates that environmental factors such as temperature, light pollution, noise pollution, and air pollution can affect human sleep. Increased minimum and maximum temperatures can reduce the duration and quality of sleep, respectively. Light pollution can disrupt the circadian rhythm and decrease sleep duration, and noise pollution can lead to daytime sleepiness and poor sleep quality. Air pollution, especially exposure to particulate matter and NO2, is associated with poor sleep quality, obstructive sleep apnea, and reduced total sleep time, with effects mediated by inflammation, oxidative stress, and neurotransmission changes. These environmental factors may have more pronounced effects on vulnerable populations such as the elderly, children, and lower-income groups. Sleep and psychiatric disorders have a complex relationship. Psychiatric disorders and their treatment can increase the risk of sleep disorders, while sleep disorders can increase the risk of psychiatric disorders. Sleep disorders may also mimic psychiatric disorders. Both untreated psychiatric and sleep disorders increase the risk for other medical disorders and have a significant economic impact. Additionally, they can worsen quality of life

EVIDENCE LINKING TO CLIMATE CHANGE AND MENTAL HEALTH

Author and year	Nature of Climate change	Important Findings	Reference Link
Francois et al. 2014	Climate change	Climate change, related weather events, and environmental changes can profoundly impact psychological well-being and mental health through direct and indirect pathways, particularly among those with pre-existing vulnerabilities or those living in ecologically sensitive areas. Mental health outcomes range from psychological distress, depression, and anxiety to increased addictions and suicide rates	DOI: 10.3109/09540261.2014.925851
Helen et al. 2009	Climate change	Climate change may affect mental health directly by exposing people to trauma. It may also affect mental health indirectly by affecting (1) physical health (for example, extreme heat exposure causes heat exhaustion in vulnerable people and associated mental health consequences) and (2) community well-being. Within the community, well-being is a sub-process in which climate change erodes physical environments, damaging social environments. Vulnerable people and places, especially in low-income countries, will be particularly badly affected	DOI: 10.1007/s00038-009-0112-0
Paolo et al. 2020	Climate change	The effects of climate change can be direct or indirect, short-term or long-term. Acute events can act through mechanisms similar to traumatic stress, leading to well-understood psychopathological patterns. In addition, the consequences of exposure to extreme or prolonged weather-related events can also be delayed, encompassing disorders such as	https://doi.org/10.3389/fpsyt.2020.00074

		posttraumatic stress or even transmission to later generations.	
Lawrence et al. 2020	Climate change	The impacts represent both direct (i.e., heat stress, exposure to extreme weather events) and indirect (i.e., economic loss, threats to health and well-being, displacement and forced migration, collective violence and civil conflict, and alienation from a degraded and potentially uninhabitable environment) consequences of three types of climate-related events: acute, subacute, and long-lasting.	https://doi.org/10.1016/j.copsyc.2019.06.023
Catie et al., 2018	Climate change	Climate change affects mental health in various direct, indirect, and overarching pathways—disproportionately affecting those most marginalized. The mental health implications of climate change can result in mental problems and illness as well as affirmative psychosocial outcomes. The timing and triggers associated with climate change and mental health may vary, making it challenging to establish the manifold links between climate change and mental health. However, the opportunities of attributing mental health to climate change support climate mitigation as well as mental health action and psychosocial resiliency.	https://doi.org/10.1186/s13033-018-0210-6
Fiona et al. 2021	Climate change	Several climate-related exposures, including heat, humidity, rainfall, drought, wildfires, and floods, were associated with psychological distress, worsened mental health, higher mortality among people with pre-existing mental health conditions, increased psychiatric hospitalisations, and heightened suicide rates.	**https://doi.org/10.3390/ijerph18094486**

Daniel et al., 2018	Climate change	In this systematic review, it was found that diminished total sleep times and sleep disruption were most commonly reported, especially among the most vulnerable populations, including the elderly and low-income; however, the body of evidence was limited, and further well-designed human studies are needed.	https://doi.org/10.1016/j.smrv.2018.07.007
Rhea et al. 2021	Climate change	Most systematic reviews suggest that climate change is associated with worse human health. Future research could explore the potential explanations between these associations to propose adaptation and mitigation strategies and could include broader socio-psychological health impacts of climate change.	Doi: 10.1136/bmjopen-2020-046333
Willox AC et al.; 2015	Climate change	Climate change may affect mental health due to changes to land, ice, snow, weather, and sense of place; impacts on hysical health; damage to infrastructure; indirect effects via media, research, and policy; and through the compounding of existing stress and distress.	https://doi.org/10.1007/s10113-014-0630-z
Doherty TJ et al.; 2011	Climate change	Impacts: direct (e.g., acute or traumatic effects of extreme weather events and changing environment); indirect (e.g., threats to emotional well-being based on observation of impacts and concern or uncertainty about future risks); and psychosocial (e.g., chronic social and community effects of heat, drought, migrations, and climate-related conflicts, and post-disaster adjustment).	https://psycnet.apa.org/doi/10.1037/a0023141
Clayton S et al.;2014	Climate change	Major mental health impacts of climate change include increased stress, anxiety, and depression, as well as more severe reactions like post-traumatic stress disorder (PTSD). Research indicates that women, children, and older adults tend to be especially vulnerable to the	Clayton, S., Manning, C. and Hodge, C., 2014. *Beyond storms & droughts: The*

		psychological impacts of climate change, especially those related to stress and anxiety	*psychological impacts of climate change*.
Clayton S et al.;2017	Climate change	Major acute mental health impacts of climate change include increases in trauma and shock, post traumatic stress disorder (PTSD), compounded stress, anxiety, substance abuse, and depression. Major chronic mental health impacts include higher rates of aggression and violence, more mental health emergencies, an increased sense of helplessness, hopelessness, or fatalism,and intense feelings of loss	Clayton S, Manning C, Krygsman K, Speiser M. Mental health and our changing climate: Impacts, implications, and guidance. Washington, DC: American Psychological Association and ecoAmerica. 2017 Mar.
Tunstall S et al.; 2006	Flood	In the study, about two-thirds of the flood victims were found to have scores on the General Health Questionnaire-12 scale indicative of mental health problems (scores of 4+) at their worst time after flooding. The evidence of the study also suggests that some flood victims suffered long-term mental health effects as a result of their experience of flooding	https://doi.org/10.2166/wh.2006.031
Waite TD et al.; 2017	Flood	The prevalence of psychological morbidity was elevated amongst flooded participants ([n = 622] depression 20.1%, anxiety 28.3%, PTSD 36.2%) and disrupted participants ([n = 1099] depression 9.6%, anxiety 10.7% PTSD 15.2%).	https://doi.org/10.1186/s12889-016-4000-2

Alderman K et al; 2013	Flood	Residents whose households were directly affected by flooding were more likely to report poor overall (Odds Ratio [OR] 5.3; 95% CI, 2.8-10.1) and respiratory (OR 2.3; 95% CI, 1.1-4.6) health, psychological distress (OR 1.9; 95% CI, 1.1-3.5), poor sleep quality (OR 2.3; 95% CI, 1.2-4.4), and probable PTSD (OR 2.3; 95% CI, 1.2-4.5)	doi:10.1017/dmp.2013.42
Chakrabhand S et al; 2006	Tsunami	The study found that about 30% of the victims had mental health problems (GHQ score over 5) during the first two months after the tsunami. The prevalence of PTSD symptoms was 13% among children living in the camps, 11% among children from affected villages, and 6% among children from unaffected villages. For symptoms of depression, the prevalence rates were 11%, 5%, and 8%, respectively.	https://doi.org/10.1080/09540260601038274
Vins H et al.; 2015	Drought	Drought can adversely impact mental health and several coping and adaptation strategies. Most of these relationships are mediated through environmental or economic pathways, and the outcomes most closely studied are mood disorders and, to a lesser degree, intimate partner violence and suicide.	https://doi.org/10.3390/ijerph121013251
Sahni V et al.; 2016	Flood	Mental health impacts in High River residents were observed among females through a 1.64-fold (95% CI: 1.11–2.43) and 2.32-fold (95% CI: 1.45–3.70) increase in new prescriptions for anti-anxiety medication and sleep aids, respectively.	https://doi.org/10.17269/cjph.107.5188
Azuma K et al.; 2014	Flood	The incidence of psychological disorders was significantly high for six months after the flooding, and the incidence of post-traumatic	https://doi.org/10.1080/09603123.2013.800964

		stress disorder was significantly high six months after the flooding	
Carbtree A et al; 2012	Flood	All studies show that there are serious mental health problems following flooding events	://link.gale.com/apps/doc/A331169845/AONE?u=anon~cff5a464&sid=googleScholar&xid=fb351653.
Kessler RC et al; 2008	Cyclone	Prevalence increased significantly for PTSD (20.9 vs 14.9% at baseline), serious mental illness (SMI; 14.0 vs 10.9%), suicidal ideation (6.4 vs 2.8%) and suicide plans (2.5 vs 1.0%).	https://doi.org/10.1038/sj.mp.4002119
Neria Y et al.; 2012	Hurricane	Disaster-related displacement, relocation, and loss of property and personal finances are risk factors for mental health problems such as posttraumatic stress disorder (PTSD) and depression.	doi:10.1001/jama.2012.110700
Galea S et al.; 2007	Hurricane	Pre-hurricane residents of the New Orleans metropolitan area were estimated to have a 49.1% 30-day prevalence of any *DSM-IV* anxiety-mood disorder (30.3% estimated prevalence of PTSD) compared with 26.4% (12.5% PTSD) in the remainder of the sample.	doi:10.1001/archpsyc.64.12.1427
Burton H et al.; 2016	Flood	Studies have noted an increase in post-traumatic stress disorder (PTSD), anxiety and depression following flooding events.	https://doi.org/10.1080/07011784.2015.1128854
Bandla S et., al; 2015	Floods	Overall, psychiatric morbidity was found to be 45.29%; 60 (26.9%) persons had symptoms of PTSD. Anxiety was found in 48 (27.4%), depression was found in 101 (45.29%) persons,	DOI: 10.1186/1471-2458-14-708

		and 11 (4.9%) persons have reported an increase in substance abuse.	
Senthilingam M. 2017	NA	Among direct flood victims, 20% had been diagnosed with depression, 28.3% with anxiety and 36% with post-traumatic stress disorder. Among those disrupted (meaning their area was flooded but not their home), the team found almost 10% to have depression and 15% with PTSD. Those unaffected showed just 6% depression and 8% PTSD.	http://edition.cnn.com/2017/03/14/health/climate-change-mental-health-eprise/index.html
Peng M et al.; 2011	Floods	A total of 7,038 children from 13,450 households aged 7-15 years were investigated. The overall prevalence of PTSD was 2.05%. Generally, the PTSD-positive rate increased with increasing scores for behavioural characteristics.	DOI: 10.1186/1471-2458-14-708
Stanke C et al.;2012	Floods	The review indicates that flooding affects people of all ages, can exacerbate or provoke mental health problems and highlights the importance of secondary stressors in prolonging the psychosocial impacts of flooding.	doi: 10.1186/1471-2458-14-708
Fernandez A et al; 2015	Floods	The review indicates that flooding affects people of all ages, can exacerbate or provoke mental health problems and highlights the importance of secondary stressors in prolonging the psychosocial impacts of flooding.	https://doi.org/10.1371/journal.pone.0119929
Ruskin J et al. 2018	Floods	Individuals without access to medical care had significantly higher odds of showing symptoms of mental health difficulties.	
Mohammad Asim et al.;	Floods	In India, the incidence of PTSD in major natural disasters varies considerably depending upon the event's magnitude, with the highest rates reported at around 70%.	https://doi.org/10.3126/nje.v9i1.24003

Nilamadhad Kar et al	Cyclone	After one year of the disaster, PTSD was diagnosed in 137 (30.6%; 95% Confidence Interval (CI): 26.4–34.9) children and adolescents. It was observed that an additional 61 (13.6%) subjects could be categorised as having subsyndromal PTSD.	https://dx.doi.org/10.1186%2F1471-244X-7-8
Rohit Sharma;2002	Earthquake	Following the earthquake in Gujarat, mental health problems were greater in disabled persons and as high as 70-80% in the resettlement colonies.	https://dx.doi.org/10.1136%2Fbmj.324.7332.259c
Shailaja B et al	Flood	Overall, psychiatric morbidity was found to be 45.29%; 60 (26.9%) persons had symptoms of PTSD. Anxiety was found in 48 (27.4%),depression was found in 101 (45.29%) persons, and 11 (4.9%) persons have reported an increase in substance abuse.	https://doi.org/10.1177/0020764019846166
Dhandapani A et al	Flood	Two hundred (66.7%) children/adolescents reported one or the other psychosocial adversities attributable to the disaster. In 54/300 (18%) of the individuals, psychological distress was present.	https://doi.org/10.1007/s12098-015-1921-1
Naveen Kumar C et al. 2015	Flood	Minor mental disorders in the form of depressive and anxiety disorders formed most of the psychiatric morbidity. Substance use disorders appear to be very highly prevalent in the community.	https://dx.doi.org/10.4103%2F0253-7176.155610
Amruta et al., 2022	Temperature rise	In a crossover study of 3 496 762 ED visits among 2 243 395 unique individuals, higher warm-season temperatures were associated with an increased risk of ED visits for any mental health condition and specific mental health conditions.	doi:10.1001/jamapsychiatry.2021.4369
'Climate Change 2022:	Climate change	Intergovernmental Panel on Climate Change (IPCC) report on climate change released said	https://news.abplive.com/scienc

Impacts, Adaptation and Vulnerability		that extreme climate conditions could cause mental health issues like anxiety, depression, acute traumatic stress and sleep problems ranging from mild to severe, which may even require hospitalisation	e/extreme-climate-conditions-can-cause-mental-health-issues-says-latest-intergovernmental-panel-on-climate-change-report-anxiety-depression-acute-traumatic-stress-and-sleep-problems-not-eliminating-emissions-will-cause-serious-harm-to-world-1516356/amp

National Programme on Climate Change and Human Health (NPCCHH)

National Programme on Climate Change and Human Health (NPCCHH) launched in 2019 under National Health Mission (NHM) and it is implemented in 36 States/UTs. At the national level, the central component functions at National Centre for Disease Control (NCDC) for implementation and monitoring of programme activities. NCDC is the nodal agency for implementation NPCCHH activities and MoHFW is the nodal Ministry for addressing Health Mission of Prime Ministers Council for Climate Change.

Vision: Strengthening of healthcare services for all the citizens of the state especially vulnerable like children, women, elderly, tribal and marginalized population against climate sensitive illnesses**.**

Goal: To reduce morbidity, mortality, injuries and health vulnerability due to climate variability and extreme weathers

Objective: To strengthen health care services against adverse impact of climate change on health.

Specific Objectives

Objective 1:

To create awareness among the general population (vulnerable community), health-care providers and policy makers regarding impacts of climate change on human health.

Objective 2:

To strengthen the capacity of the healthcare system to reduce illnesses/ diseases due to variability in climate.

Objective 3:

To strengthen health preparedness and response by performing situational analysis at State/ District/ below district levels.

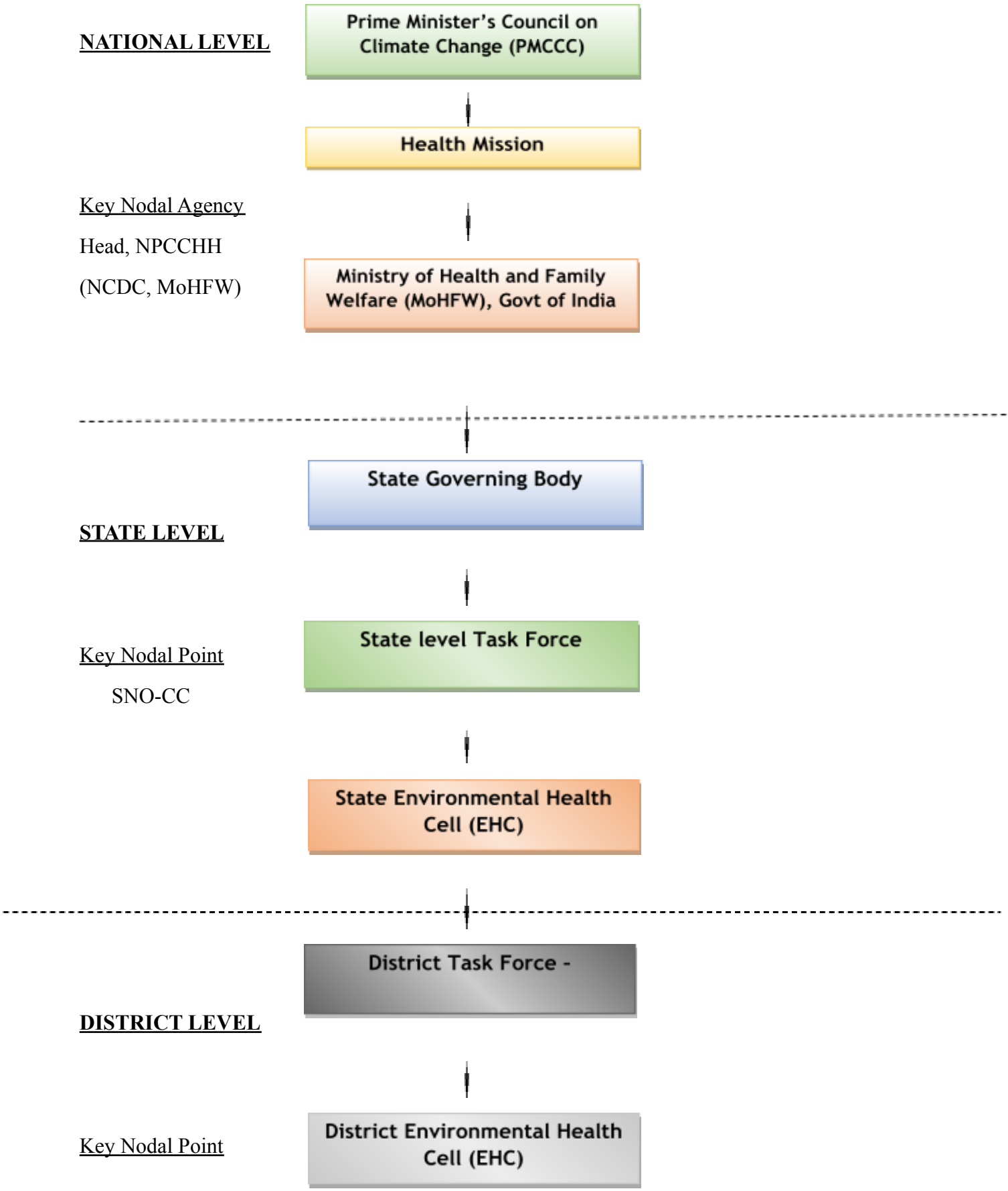
Objective 4:

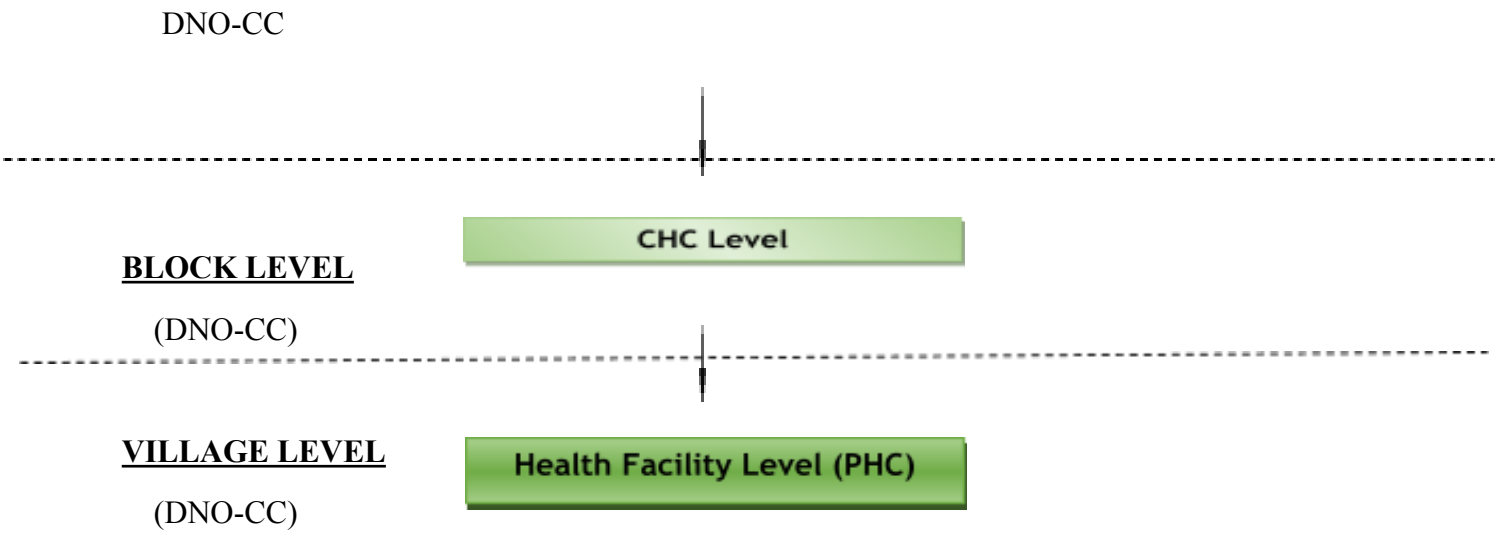
To develop partnerships and create synchrony/ synergy with other missions and ensure that health is adequately represented in the climate change agenda in the State in coordination with the Ministry of Health & Family Welfare.

Objective 5:

To strengthen State research capacity to fill the evidence gap on climate change impact on human health.

NPCCHH: Organisational Framework





Management Structure of NPCCHH

Central Level:

National Programme on Climate Change & Human Health functions at central level at Centre for Environmental and Occupational Health, Climate Change and Health – (CEOH & CCH Division), NCDC for overall implementation of the programme in the country. CEOH&CCH provides technical inputs and support State and UTs on the programme components - awareness generation, capacity building, strengthen health care preparedness, intersectoral coordination and research and development. Director, NCDC is the Technical Head for the programme functioning and Additional Director & HoD CEOH&CCH coordinates the programme activities in State/UTs. Joint Director, Deputy Director, Medical Officer, Sr Consultants and Technical Officer are the human resource under the programme.

Functions of the Central level

- Execution of the components of NPCCHH.
- Monitor progress of implementation of all the components of the programme.
- Obtain reports from States on various activities under the programme
- Development and dissemination of prototypes standard guideline, manual, modules, IEC materials for training and awareness generation on climate change and health issues
- Intersectoral coordination with government agencies, NGO and other organisations
- Support States and UTs for development of health adaptation plan and operational

guidelines for climate sensitive health issues.

- Organizing periodic review meetings, field visits, workshops, meetings regarding implementation of NPCCHH.
- Strengthening health care preparedness through green measures and surveillance systems
- Strengthening of health care system by involving premiere institutes and organisations for development of guideline, training manual, IEC etc

State Level:

States are responsible for implementing programme activities in conformity with the national guidelines through the State Environment Cell established at Department of Health and Family Welfare. State Environment Cell is supported by State Nodal Officer and Consultant at the State level for rolling out the programme activities.

- Awareness generation through IEC through print/electronic/social/mass media etc on climate sensitive health issues
- Organizing and coordination of all training, capacity building programmes, meetings on climate sensitive health issues
- Analysis of all data received form the district and transmitting to the national level
- Coordination with other related programs in the State /District on climate change and human health along with intersectoral coordination
- Implementation of State Action Plan on Climate Change and Human Health
- Organise review meetings, field visits, monitor programme activities
- Timely issue warning/ alerts to health professionals and related stakeholders as well as general public
- Social mobilization against preventive measures through involvement of women self-help groups, community leaders, NGOs etc.

State level Committee: State to constitute State Governing Body for policy decision with respect to climate change and human health and State Level Task Force for implementation of the State Action Plan for Climate Change and Human Health (SAPCCHH) in their State/UT.

District Level:

The focal point of all programme related activities at the periphery is the District Environmental Cell established at Office of Chief Medical & Health Office. District Environmental Cell is headed by District Nodal Officer plays a key role in functioning of the programme activities

- Awareness generation through IEC through print/electronic/social/mass media etc on climate sensitive health issues
- Vulnerability assessment and risk mapping of climate sensitive health issues
- Organize training/ workshop and meetings with respect to climate sensitive health issues
- Implementation of District Action Plan on Climate Change and Human Health.
- Maintain physical, financial, epidemiological profile for climate sensitive health issues.
- Timely issue warning/ alerts to health professionals and related stakeholders as well as general public
- Social mobilization against preventive measures through involvement of women self-help groups, community leaders, NGOs etc.

District level Committee: The District to constitute the District Level Task Force for implementation of the District Action Plan for Climate Change and Human Health.

HEALTH ACTION PLAN

A comprehensive health action plan on "Climate Change and Mental Health" under the National Programme on Climate Change and Human health (NPCCHH) has been developed to generate awareness, capacity building activities, strengthen health system preparedness and collaborative partnership with respect to impacts of climate change on mental health.

The major components of the comprehensive health action plan on climate change and mental health are as follows:

A. Situational analysis of Mental health illness in the context of climate change
B. Awareness generation through IEC
C. Surveillance system on mental health illnesses due to climate change (pilot)
D. Capacity building
E. Public health management of mental health problems due to climate change
F. Inter-sectoral coordination (Health & Non-health)

A. Situation Analysis of Mental Health Illnesses in the context of Climate change

Situation analysis requires understanding of mental health issues in the State/District including the urban and rural areas impacted from climate change variabilities such as extreme weather, air pollution, drought, floods, disasters etc. Retrospective data analysis of mental health issues due to climate change, trends of mental health issues, vulnerable areas and population affected due climate change reports to be collected, collated and documented. Identifying and plotting hotspot areas having impacts of extreme weather conditions such as heatwave, flood, drought, disasters etc. to be mapped for allocating resources and strengthening healthcare facilities. Assessment to be done on the burden of mental health issues due to extreme conditions/climate change in the district as part of routine health related surveys and health system reporting.

Vulnerability

It is well understood that climate change exacerbates social, economic and demographic inequalities with the impacts eventually felt by all populations. Those who are at greatest risk to the effects of climate change are those who are most marginalized based on socially and environmentally mediated factors, such as socioeconomic status, culture, gender, race, employment, and education. Marginalized groups who tend to be the most affected by the mental and physical health implications

of climate change are: indigenous peoples, children, seniors, women, people with low-socioeconomic status, outdoor labourers, racialized people, immigrants, and people with pre-existing health conditions. To conceptualize the effects of climate change on mental health, administering surveys using validated instruments that assess mental health problems and issues like: anxiety, PTSD, psychological distress etc following an extreme weather event can be developed. Similar exercise may be done by DNO with the help of other small surveys such as national surveys like the National Mental Health Survey (NMHS). etc. These activities are already mandated for District Nodal Officer/ District Co-coordinating Officer for NCDs. After vulnerability assessment at block level, respective districts can be categorized as high, medium, and low vulnerability for effects.

Roles at various levels:

At National level:

At the National level, NPCCHH (NCDC, MOHFW) will coordinate with the National Level Program Officer of National Mental Health Program (NMHP). This interlinkage enables to ensure that program components are implemented and are functional at all levels. Along with the above coordination of Pollution Control Board, NDMA, Indian Meteorological Department, Agriculture Department, Animal Husbandry, and Water and Sanitation Department to map vulnerable areas and populations

At State level:

At the State level, the coordination between State Nodal Officers and Consultants with State Program Officer-NMHP is vital in conducting situational analysis. This collaboration ensures that all relevant factors related to climate change are taken into consideration in identifying and mitigating potential risks. State Nodal Officers and SPO-NMHP are supported in determining the impact of climate on the state and identifying vulnerabilities. Working together with the state program officer, they ensure that necessary resources and stakeholders are involved in the analysis process and that effective measures are implemented to address the identified risks. This integrated approach enhances comprehensiveness of the situational analysis at the state level. Involvement of NDMA, Indian Meteorological Department, Agriculture

Department, Animal Husbandry and Water and Sanitation Department are essential to map vulnerable areas and populations.

At District level:

At the district level, it is essential for district nodal officers to collaborate with program officers at the District Mental Health Program (DMHP) in order to carry out a thorough situational analysis. By working together with the DMHP program officers, they ensure that all necessary resources and stakeholders are included in the analysis and that appropriate measures are taken to address identified risks. This collaboration results in a more comprehensive and accurate situational analysis at the district level, providing a better understanding of the impact of climate change on mental health in the district. Involvement of NDMA, Indian Meteorological Department, Agriculture Department, Animal Husbandry and Water and Sanitation Department are essential to map vulnerable areas and populations.

B. <u>Awareness generation through IEC</u>

Information, Education, and Communication (IEC) is a crucial aspect of any program, and the same holds true for NPCCHH. IEC programs are designed to spread awareness, educate the public and facilitate effective communication. The objective is to raise awareness about the mental health consequences of climate change and to reduce the social stigma attached to mental illness.

The impacts of climate change can have significant and long-lasting effects on mental health, including increased levels of stress, anxiety and depression. People living in areas affected by extreme weather events such as hurricanes, floods, and droughts, may experience significant trauma and mental health problems. The social stigma associated with mental illness can prevent individuals from seeking the help they need, which is why it's critical to address this issue through IEC programs.

The information component of the IEC program is designed to create awareness about the mental health impacts of climate change and educate people about the issue. It covers key topics such as information about various ways in which climate change can impact mental health, such as increased levels of stress, anxiety, and depression.

Education is a key component of the IEC program. People need to be informed about the mental health impacts of climate change and the importance of proper medical attention and treatment for those affected. This includes understanding the signs and symptoms of mental illness, and the resources and support available for those in need. The program should also educate the public about the importance of addressing the social stigma surrounding mental illness, which can prevent people from seeking help.

Effective communication is another important aspect of the IEC program. The program facilitates communication between individuals and communities, so that people can share their experiences and support one another. The program also emphasises utilising various channels, such as workshops, social media, to reach as many people as possible.

The IEC activities aimed at addressing the mental health impacts of climate change can be further strengthened and expanded through the efforts of State Nodal Officers (SNOs), District Nodal Officers (DNOs) and Climate Change Consultants.

At the State level, mass media campaigns can be used to reach a large number of people and increase awareness about the mental health impacts of climate change. SNOs, DNOs, and Climate Change Consultants can work together to develop and disseminate state-specific IEC materials that educate people about the mental health impacts of climate change, dispel misconceptions about mental illness, and emphasize the importance of seeking timely medical assistance.

At the district level, DNOs can coordinate with the District Mental Health Program (DMHP) to ensure that the IEC materials and activities are aligned with the local context and needs. The DNOs and DMHP can work together to develop IEC materials that address the specific mental health needs of the community and promote a supportive and inclusive environment for those affected by mental illness.

At the community level, the role of NGOs in promoting mental health awareness is crucial, especially in communities that may lack access to adequate health care and information. The IEC activities aimed at raising awareness about mental health and the impact of climate change can be supported and implemented by these organizations, with the help of trained Community Health Workers.

These Community Health Workers have been trained to educate the community about the various aspects of mental health, including the symptoms and characteristics of mental disorders, the availability of treatment at nearby health centres, and the benefits of seeking treatment for those affected.

By using various forms of communication such as posters, flip charts, group meetings, and wall writings, Community Health Workers can reach a large number of people and provide them with important information about mental health. Group meetings and discussions can provide a platform for people to share their experiences and feelings, and can help to break down the social stigma surrounding mental illness.

By working together, SNOs, DNOs, Climate Change Consultants, DMHP, Medical officers and Community Health workers can ensure that the IEC activities are comprehensive and effective.

Through these IEC activities, the community can become more aware of the importance of mental health and the availability of resources for treatment and support. This can lead to earlier identification of mental health issues, improved access to care and a more supportive environment for those affected by mental illness.

Types of awareness/IEC for this programme:

The IEC efforts for this program can take various forms to effectively reach and educate the targeted population. Some of these efforts include:

Mass Campaigns - A mass campaign can be conducted through print IEC materials, electronic messages in the form of audio and audio-visual content, and social and digital media platforms.

Advocacy and Public Awareness - This can be done through street plays, folk methods, wall paintings, hoardings, posters/billboards, etc. These methods aim to create awareness and advocate for mental health issues caused by climate change.

Social Mobilization - This involves engaging women's self-help groups, community leaders, NGOs, and school children in promoting adaptive measures for mental health impacts caused by climate change.

The choice of the IEC mode and type will depend on various factors such as the target audience, local culture, and the resources available. The aim is to use a combination of methods that are effective, efficient, and culturally appropriate.

In addition to these efforts, the IEC content on climate-sensitive mental health issues provided by the Centre of Excellence on Mental Health (NIMHANS) can be translated into the local language(s) by the respective State/District to ensure that the information is

accessible and understandable to the targeted population. The posters developed by NIMHANS to be used as IEC material are given in Annexure B.

Fig2: IEC material – brochure on impacts of climate change on mental health and sleep

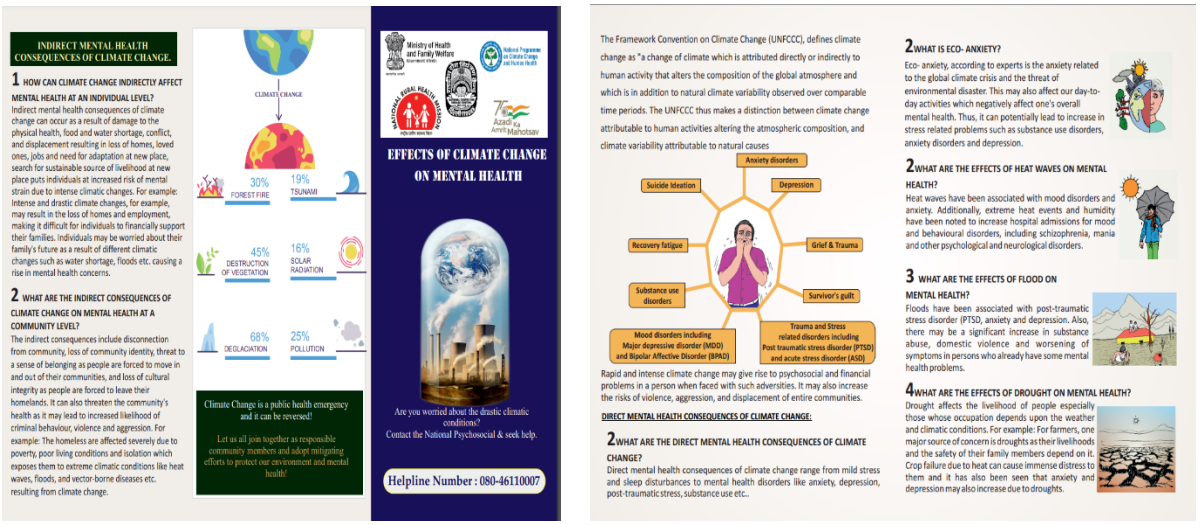


Fig 3: IEC posters- Effects of Climate change and vulnerable population mental health

Areas of IEC development on climate change and mental health

- Climate change and its impacts on mental health

  The effects of climate change can include feelings of sadness, guilt, tiredness, mood changes, sleep disturbances, problems with substance use etc.

- Mental health effects of climate change on vulnerable population

  The populations groups of children, women, elderly, pre-existing mental health conditions, etc are more vulnerable to the mental health effects of climate change

- Stress management techniques

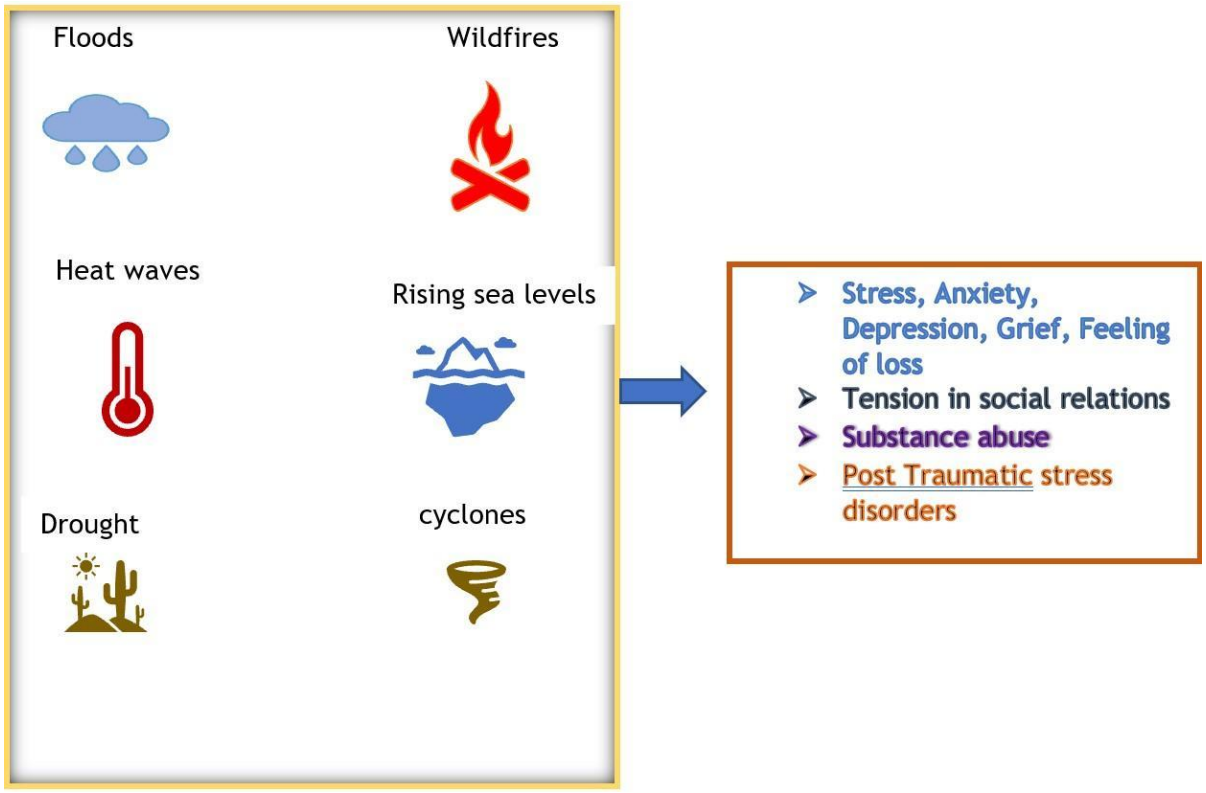
  Activities related to the reduction of Mental health issues – at an individual and community level to handle stress and build resilience building etc.

- Sources of help

  Availability of various sources of help for psychological issues arising due to climate change (acute/long term)

- Emerging concepts

  Awareness generation about newer concepts of mental health problems arising due to climate change like eco-anxiety, eco-grief, Solastalgia etc



IEC Dissemination plan

Recommended schedule to be focused on the IEC campaign	
Time of year	Content matter
Summer (March-July preferably)	Focus on rapid climate change, ways to cope, vulnerable populations to extreme heat like the homeless, migrants, women, elderly and children
Monsoon (June-August)	Focus on mental health impacts due to floods/rains, ways to cope, vulnerable populations, persons with pre-existing mental illness
Winter (September-February with more emphasis and the whole year if possible)	Focus on eco-anxiety, ways to cope, vulnerable population
At any time throughout the year	Climate change and mental health impacts, ways to deal with psychological distress due to climate change, Focus on interventions for vulnerable population

Roles and Responsibilities of various cadres for IEC dissemination

Designation	Role in the awareness generation through IEC
State Nodal Officer/Climate change consultant	● Developing IEC materials and distributing them to Districts. ● Utilise social media, print, and digital media to sensitize on program activities, impacts of climate change on mental health issues etc.
District Nodal Officer	● Developing IEC materials and distributing them to District Hospitals, Medical Colleges, PHC, CHC and sub-centres. ● Utilise social media, print, and digital media to sensitize on program activities, impacts of climate change on mental health issues etc.
DMHP Psychiatrist	● Sharing of IEC materials developed by NPCCHH and incorporating NPCCHH IEC into NMHP IEC material in addressing mental health issues due to climate change. ● Utilise social media, print, and digital media to sensitize on program activities, impacts of climate change on mental health issues etc. ● Public awareness through street plays, folk methods, wall paintings, etc.
Medical Officer	● Distribution of IEC materials through District hospital/ Medical college/Tertiary centre /PHC /CHC team ● Public awareness through street plays, folk methods, wall paintings, etc.
CHO	● Distribution of IEC materials through Sub centre/HWC team ● Public awareness through street plays, folk methods, wall paintings, etc.
ASHA workers/Anganwadi workers	● Distribution of IEC materials to the people in the area ● Public awareness through street plays, folk methods, wall paintings, etc.

C. Surveillance system on mental health illnesses due to climate change (pilot)

Establishing a surveillance system for impacts of climate change on mental illnesses – a pilot proposal

Surveillance is "an ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health." Analysis of mental health and other health issues has shown significant associations between mental illness and health risk behaviours (e.g., smoking, obesity, physical inactivity) and chronic disease (e.g., arthritis, diabetes, cardiovascular disease, asthma), leading to morbidity and mortality. Mental health problems have also been associated with climate change's impact, such as air pollution, heat waves, extreme weather conditions, floods, drought, etc. So, having a surveillance system that can help predict the trends of psychological issues due to climate variability will enable us to provide preventive and promotive mental health services at the community healthcare level and for decision-makers to frame policy.

Though mental health data is collected in the National Mental Health Programme (NMHP), it has not been integrated into other surveillance programmes like HIV, TB, IDSP, etc. A proposal has been envisioned to establish a surveillance system in selected states and districts by integrating mental health and meteorological data to observe trends and early warning signals so that preventive and promotive mental health actions are undertaken at the health care facilities.

Overview:

NPCCHH proposes a strategy for addressing the impact of climate change on mental health issues by establishing an integrated surveillance and response mechanism within the existing National Mental Health Programme (NMHP). Keeping this in mind, a pilot is considered in disaster/climate change prone areas such as coastal Odisha, coastal West Bengal, Uttarakhand, and Karnataka.

Out of these disaster/climate change prone areas, District Kodagu of Karnataka is identified as a pilot district and Karnataka as a pilot state for setting up of surveillance system for the impacts of climate change on mental health issues.

The main objective of establishing surveillance for climate change and mental health issues is:

- To integrate with the existing DMHP reporting system to collect data on the impacts of climate change on mental health issues for generating early warning signals so that timely and effective response can be initiated.

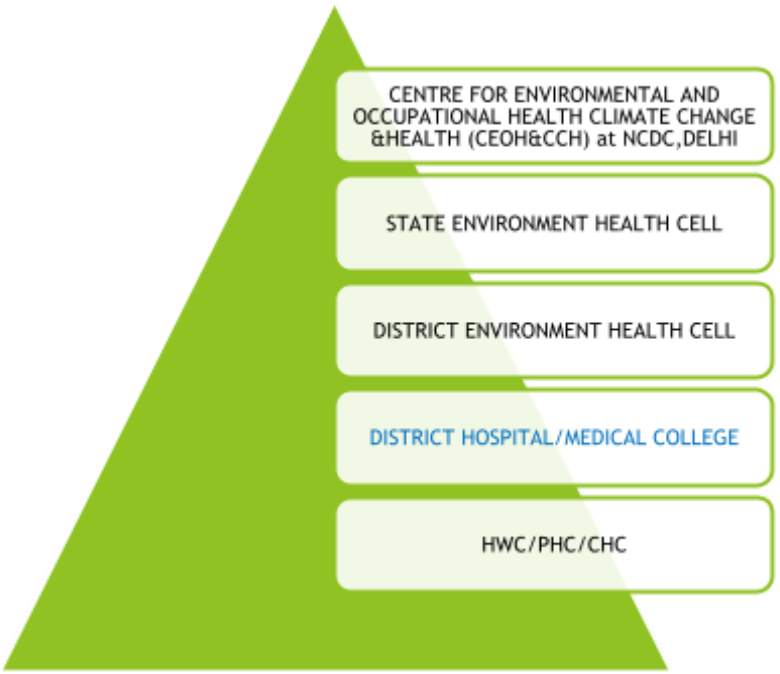
The health care facilities identified under NMHP for collection and reporting of data are the implementing units of pilot District and State. Under NMHP, data collection and reporting are done quarterly (quarter-wise). Data is collected from all the healthcare facilities and reported to the district and state levels. The same method (i.e. reporting system and quarterly reporting) existing in NMHP is considered in the pilot district and state. Within the existing reporting formats of NMHP, climate change parameters such as extreme weather (heat waves, floods, drought, etc.) are included for the data collection on the effects of climate change on mental health issues. However, data collection is done routinely (daily) in case of extreme weather/disaster etc. and periodically, as mentioned above.

The Indian Meteorological Department (IMD) will be involved in providing climate variables for correlating the impacts of climate change on mental health conditions. Other stakeholders will be responsible for organised response mechanisms for preventing and promoting health.

Organisation structure:

Under NPCCHH, the District Environmental Health Cell (DEHC) has been established in all the districts across the country. The DEHC will be the nodal point for collecting, collating, and analysing the surveillance report. Below the district, all the health care facilities, such as PHC, CHC, sub-district hospitals, District Hospital, Medical Colleges etc., will be reporting units for the surveillance system. The District Environmental Health Cell in the Districts has been manned by a District Nodal officer. The District Nodal officer will be responsible for implementing the surveillance system at the district level and also will coordinate with other stakeholders such as IMD, DMHP and other programme officers for sharing early warning signals to concerned departments for organised response measures. The respective healthcare facilities' Medical officers will collect, collate, and share quarterly reports with DEHC. The District and State Nodal Officer of Climate Change will provide timely feedback and follow-up actions concerning the surveillance data.

LEVELS OF DATA FLOW OF SURVEILLANCE:



Data Management:

The data format for the respective health care facilities under NMHP will be utilised, with additional information on climate change and mental health issues incorporated into the format. The updated format, including climate change and mental problems,is placed in Annexures C to E for each of the healthcare facilities (PHC, CHC, Sub District Hospital, and District Hospital). A questionnaire-based tool is also developed for community-level screening for extreme events and mental health issues - Mental Health Screening and Counselling Tool for Field Level Workers of India (MERIT). The digital format (excel format) is utilised for data entry, and completed forms are shared electronically with DEHC every quarter. The data collection on climate change and mental issues include the following:

Total no. of new patients with mental health problems seen in the OPD due to extreme weather events (floods/cyclones/heat waves/earthquakes/other disasters)
Total no. of follow-up cases with mental health problems in the OPD in the reported quarter related to extreme weather events (floods/cyclones/heat waves/earthquakes/other disasters

Total no. of cases with mental health problems referred to tertiary care hospitals in the reported quarter related to extreme weather events (floods/cyclones/heat waves/earthquakes/ other disasters

At the district level, the respective Nodal Officer of IMD office will provide data on extreme weather events. District Nodal officer collaborates with IMD and collects and collates meteorological data concerning the quarterly distribution of mental health cases.

The details of case patients diagnosed with mental health issues due to extreme events in the outpatient department (OPD) will be entered into the assigned format of the healthcare facilities (PHC, CHC, Sub District Hospital, and District Hospital). These daily OPD data will be consolidated quarterly from each healthcare facility (PHC, CHC, sub-district hospital, and District Hospital). In case of disaster/extreme events such as floods, drought, heat waves etc., the collection will be daily in the health care facilities (PHC, CHC, sub-district hospital, and District Hospital), which are located in the affected areas of extreme weather events.

The consolidated quarterly reports prepared by each healthcare facility (PHC, CHC, sub-district hospital, and District Hospital) will be shared electronically with DEHC every quarter. The reports should be complete, consistent, and timely shared with DEHC. The reports received by DEHC are consolidated with respect to each healthcare facility, and a final report is prepared as per Annexure F. The report is then shared with the State Environmental Health Cell (SEHC) as per Annexure G under NPCCHH at the State level. All the States' consolidated data from SEHC will be shared with NPCCHH at the National level (Annexure H)

Table depicting the surveillance data collection at various levels

LEVEL	CENTRE	DATA COLLECTION BY
Village	HWC	CHO, ASHA
	Sub centre	CHO, ASHA, Nurse
	PHC	Nurse, Medical officer
Sub-district	CHC	Nurse, Medical officer
District	District Hospital	Medical officer, Nurse
	Medical colleges/Tertiary centres	Medical officer, Nurse
	District Environment Health Cell	District Nodal Officer/District Health Officer/District Coordinator
State	State Environment Health Cell	State Nodal Officer

Analysis and Response:

The reports will be analysed at all levels from the periphery to DEHC for timeliness, completeness and regularity of reports shared with DEHC. The data collected concerning climate change and mental health from all the healthcare facilities are analysed along with the meteorological data in the District Environment Health Cell

- Expected outcomes:
    - For observing the trends of psychological problems associated with climate change in any area of the piloted District.

- Response mechanism:
    - There will be an increase in psychological issues corresponding to changes in the climate in the piloted district
    - Increase in training and capacity building in mental health for health care professionals and prepare to strengthen healthcare facilities to address mental health issues due to climate change
    - Increasing awareness generation activities on climate change and its impact on mental health conditions such as depression, anxiety, grief, fear etc

Monitoring & Evaluation:

All surveillance activities to be monitored using standard performance indicators. The District Nodal Officer will monitor the surveillance system at the Primary Health Care, Taluk and District levels. The following parameters will be used for monitoring and evaluation:

1. Total number of new patients with mental health problems seen in the OPD in the reported quarter
2. Total number of follow-up patients with mental health problems seen in the OPD in the reported quarter
3. Total number of referrals done for patients with mental health problems seen in the OPD in the reported quarter
4. Total number of Psychotropic medications dispensed in the reported quarter
5. Total number of IEC activities conducted for climate change related mental health problems

Roles and Responsibilities

Role of ASHA, Community Nurse, CHO at the community level:

The primary role of ASHA, Community Nurses and CHO at the village level is to conduct interviews using the tool (MERIT Tool-in Annexure I) concerning mental health problems in areas frequently affected by extreme events due to climate change. The patients who are found to have mental health issues will be referred to HWC or Sub centre. The patients who require basic psychosocial support would be referred to PHC for treatment.

Role of Medical officer in PHC:

The Medical Officers screen patients with mental health issues using the CSP manual (Annexure J) and provide psychosocial treatment as per Comprehensive Primary Mental Health Services under Ayushman Bharat. The Medical Officer enters the mental health case records into the surveillance form of NMHP incorporated with climate change questionnaires (pilot state). The Staff Nurse collates and consolidates all the cases of mental health patients into the register. A quarterly updated surveillance format of aggregated patients with mental health issues will be shared with the District Nodal Officer.

Role of Medical officer in CHC/Sub District Hospital/District Hospital:

The Medical Officers screen patients with mental health issues using the CSP manual (Annexure J) and provide psychosocial treatment as per Comprehensive Primary Mental Health Services under Ayushman Bharat. The Medical Officer enters the mental health case records into the surveillance form of NMHP incorporated with climate change questionnaires (pilot state). The Staff Nurse collates and consolidates all the cases of patients with mental health issues into the register. A quarterly updated surveillance format of aggregated case patients of mental health will be shared with the District Nodal Officer.

Role of District Nodal Officer (DNO) in District Environment Health Cell

The DNO for climate change will collect surveillance forms/data from the PHC, TGH, District hospital, and medical college/tertiary centres in the district. The surveillance forms from each of these health facilities will be collected at an interval of three months, i.e., every quarter of the year. The DNO will collate all this surveillance data collected from various levels (as per L to E) and send it to the State Environment health cell quarterly. In addition, DNO will also collect data from the meteorological department regarding climate events every three months. DNO will analyse mental health trends against climatic events (data from the meteorological department) in the respective district. DNO will take necessary adaptation/mitigation measures in the district, such as strengthening the existing infrastructure, enhancing the awareness generation activities, focussing on training, and preventive measures, including planning for targeted intervention in liaison with DMHP.

Role of State Nodal Officer (SNO) at the State Environment Health Cell

SNO will coordinate with all the DNOs for the timely collection and collation of the data. SNO will collate and analyse all surveillance data collected from various levels (as per Annexure G) and share it with NCDC and NPCCHH each quarter (three months).
At the National level, NCDC and NPCCHH will collate and analyse surveillance data (as per Annexure H) every quarter (three months) from all the States/UTs and share it with MoHFW for policy decisions.

D. Capacity Building/Training:

Capacity building refers to the process of developing and improving the skills, knowledge, and resources of individuals or organizations. To achieve this, it is crucial to periodically assess the baseline and follow-up situation. This information is essential in determining the effectiveness of the capacity building efforts and making necessary changes.

Climate variability and change can pose challenges to communities, and it is essential to have strategies in place to adapt to these changes. Communication and training play a vital role in this adaptation process. Communication strategies must be developed through a thorough needs assessment; to ensure they target the specific needs of the community.

It is especially important to focus on empowering the most vulnerable members of society, such as those who are illiterate, low-income, or suffering from debilitating medical problems. Women, children, the elderly, and residents of coastal regions, highlands, and urban slums are also considered vulnerable and must be included in these efforts.

Effective communication strategies should have locally suitable, popular, and easily understandable communication tools. These tools should be designed in a way that they are accessible to all members of the community, including those who are illiterate. By doing so, the capacity building efforts can be inclusive and reach the most vulnerable members of society, ensuring that everyone has the opportunity to improve their skills, knowledge, and resources.

Capacity building activities include-

- Training, workshops, and meetings will be conducted to sensitise on climate change, its mental health impact and the various health adaptation mechanisms.
- Organise State-level Training of Trainers (ToTs)
- Organise training for State Nodal Officers, Climate Change Consultants, District Nodal Officers/District Coordinator, and designated nodal officers related to surveillance in the context of mental health
- Training of the following cadres of healthcare professionals and community on mental health issues due to climate change

  a) State Nodal Officers, climate change consultants, District Nodal Officers
  b) Medical Officers and other paramedical staff like nursing officers and pharmacists
  c) Community health care workers (ASHA workers, Anganwadi workers, and community health officers)

Training Plan

Table 2: NPCCHH Training plan at the District level

Training Programme	Trainer	Participants	Training content
Medical Officers (3 days)	District Level Trainers DNO-CC	MO (DH/CHC/PHC)	Climate sensitive mental health issues such as anxiety, depression, grief, substance abuse, stress, post-traumatic stress disorder etc
Community Health care workers (HCW) (2 days)	District Level Trainers, MO	Community Health Workers (MPW, ASHA)	
Panchayati Raj Institutions (1day)	District-level trainers, MO, Health care workers	Panchayati Raj Institutions, communities	

Training of SNO/DNO

The SNO/DNO will be trained by mental health professionals from National Institute of Mental Health and Neurosciences (NIMHANS) on impact of climate change and mental health issues.

The training program will include a comprehensive curriculum that covers various aspects of the mental health impacts of climate change. The participants will learn about the link between climate change and mental health, and how disasters can affect mental health. They will also be introduced to existing evidence on the subject and the important role that DNO/SNO and climate change consultants play in conducting situational analysis, building capacity, and generating awareness.

The training will equip the participants with the necessary knowledge and skills to address the mental health implications of climate change, and to provide the needed support to communities affected by it.

Training of Medical officers at the District/ CHC/ PHC level:

Medical officers at the district, CHC, and PHC level will undergo a 3-day training program, led by the District Nodal Officer or Climate Change Consultant.

The training will focus on the effects of climate change on mental health, including the impact on sleep, social factors affecting mental health, disorders linked to climate change and disasters, coping with extreme weather events, healthcare facilities' readiness and response, and promoting health within the framework of the national programme on climate change and human health.

Training of Paramedical officers (CHW/ASHA/NGOs):

The Paramedical officers (CHW/ASHA/NGOs) will be trained over the course of two days by either a District level trainer or a trained Medical Officer. The training program is designed to cover various aspects of the impacts of climate change on mental health and sleep.

The following topics will be covered in the training:

- Impacts of climate change on mental health and sleep, including how changes in climate can affect individuals and communities.
- Social determinants affecting mental health in the context of climate change, including factors such as poverty, inequality, and access to resources.
- Mental health and sleep disorders that are associated with changes in climate, including stress, anxiety, and depression.
- Preparing for and responding to extreme weather events, such as natural disasters, heat waves, and other emergencies.

- Promoting overall health in healthcare facilities, including preparedness and response efforts to ensure that individuals and communities are able to access the care and support they need.

The training will provide a comprehensive overview of the challenges and opportunities presented by climate change and its impacts on mental health and sleep. It is intended to equip Paramedical officers with the knowledge and skills necessary to effectively address these issues in their communities.

Training/Sensitization program for the elected representatives and NGOs in the Areas:

A one-day training program will be held for elected representatives, NGOs, and to address mental health impacts of climate change. The program, led by a trained Medical Officer/ Paramedical officers, will involve a sensitization session and provide participants with knowledge on mental health challenges and steps to address them. The program will also provide a platform for participants to exchange ideas, share experiences and collaborate on projects to improve mental well-being in their communities

E. <u>Public health management of climate-sensitive mental health illnesses</u>:

The science of climate-based mental health is evolving. To date, there is no generally accepted literature on "best" or "evidence-based practices," but the following formally established strategies, practices, policies, and measures can be used as guidance to combat climate change and the adverse effects of climate successfully-

1. There is important evidence that climate change and climate-related events affect mental health.

2. There is widespread agreement that interventions and evaluations should address many public health concerns (primary, secondary, and tertiary), including establishing and maintaining resilience and posttraumatic growth.

3.**0** There is a significant need to develop research and implement tools that give evidence-based support for climate-informed mental health service planning regularly.

3.1 Use mental health indicators to anticipate those at high risk and vulnerable to climate change and climate-related catastrophes.

3.2 Assist in determining the efficacy of pre- and post-event mental health interventions across places and cultures, and

3.3 Analyse the effects of climate adaptation on mental health.

4. A mixture of frameworks and studies which can be ecological (e.g., on the individual, interpersonal, organizational, community, and coverage levels) and multidisciplinary (e.g., intellectual fitness, fitness, public fitness, neuroscience, environmental studies, ecopsychology, ethics, social coverage and planning, catastrophe chance reduction, staff development, fitness promotion) is wanted to compassionately, scientifically, and all-inclusively plan for and cope with the bad consequences of weather extrude weather-associated occasions on intellectual fitness and well-being.

5. Improved techniques are required to help and educate specialists and paraprofessionals who assist others cope with the outcomes of Climate change and weather-associated activities on intellectual fitness, which include the intellectual fitness and bodily results they will enjoy. For example, employees who obtain pre-exposure catastrophe intellectual fitness schooling enjoy decreased stages of PTSD and are higher placed to offer compassionate help to survivors.

In the country, mental health care is provided through current health systems. Linkages between existing institutions at the primary, secondary, and tertiary levels can be leveraged to develop a tiered care network, particularly in climate-sensitive areas.

Interventions

Because climate-sensitive mental health problems can affect anyone affected by climate change (acute, subacute, or long-term), interventions must be organised at multiple levels to reach out to all of these people. The following are the interventions:

Primary interventions

They are intended to help people avoid and limit their exposure to climate-related risks that can harm their mental health and well-being. There are three sorts of important interventions: those that address environmental difficulties, those that address disparities and social injustices, and those that address mental health issues. All environmental measures include decreasing greenhouse gas emissions, promoting people's interaction with nature and climate action, reducing

construction exposure in high-risk zones, and climate-proofing property. People participating in environmental and climate action have been demonstrated to have "active hope," which aids resilience and promotes self-efficacy. Green spaces have also been found to help communities create social support and cohesion, two qualities that promote positive mental health and psychosocial resilience.

Addressing environmental, social, and health inequities (such as poverty and racism); strengthening social cohesion in vulnerable communities; monitoring the implementation of health department guidelines that target health inequities; and supporting tools that involve communities in solution building, such as participatory research methods, are all examples of primary interventions that focus on equity and social justice.

Typically, societies marked by unfairness are not seen to be very robust. Interventions aimed at addressing inequities (such as a lack of affordable housing and economic opportunities) and social injustices (such as fragmented or non-existent community infrastructure and services) before climate-related events have been shown to improve psychosocial resilience and recovery. Furthermore, taking part in group treatments has been demonstrated to alleviate anxiety symptoms linked with climate-related occurrences.

Disseminating accurate information about potential climate change effects on mental health and well-being, encouraging self-help activities, expanding service system capacity to target a variety of cultural needs, addressing underlying risk factors contributing to vulnerability to climate change effects, increasing training to raise awareness about mental health impacts, and reducing the stigma associated with mental health are all examples of successful primary mental health interventions. Interventions that assist people in acquiring psychological readiness before a traumatic event (such as a natural disaster) lead to less negative mental health and psychosocial outcomes, better situational preparedness, and lower levels of psychosocial stress.

Secondary interventions

Secondary treatments are offered immediately or shortly after a climate-related incident to assist prevent or reduce mental health symptoms' impact and speed up

the recovery process. Examples of successful approaches include delivering psychological first aid, addressing mental health symptoms and/or disorders in community respite shelters, recreation centres, and drop-in centres; delivering trauma-informed individual and group-based therapy, cognitive-behavioural therapy, stress inoculation training, and crisis counselling; minimizing stress concerning meeting basic needs by providing situation-specific support such as food, shelter/housing, post-event insurance and assistance with claim processing, relocation assistance, employment, and income; planning and delivering comprehensive mental health and other support services during climate-related emergencies; and providing services wherever people congregate, such as in emergency shelters, religious centres, and formal social service settings.

Tertiary interventions

They attempt to assist people in managing more significant and long-term mental health and well-being difficulties by allowing them to participate in longer-term professional mental health and/or drug use therapy.

Reducing the negative mental health effects of climatic disasters typically hinges on how those impacted may build, strengthen, and use personal resilience (the set of beliefs, attitudes, and behaviours that carry people through difficult times). This resilience grows in the context of socio-cultural and organisational networks. It may be ***nurtured by teaching coping skills, increasing self-efficacy, and increasing community cohesiveness and social support***. The importance of family social support in developing resilience and post-event recovery in children and teens has been demonstrated. In addition, following a climate change event, anniversary group treatments reduce residual emotional effects.

Primary	**Secondary**	**Tertiary**
● Address environmental difficulties	Offered immediately or shortly after a climate-related incident to assist in preventing or reducing	Managing more significant and long-term mental health and well-being

● Address disparities and social injustices ● Address mental health issues.	the impact on mental health symptoms and to speed up the recovery process.	difficulties by allowing them to participate in longer-term professional mental health and/or drug use therapy.
Examples: Decreasing greenhouse gas emissions, promoting people's interaction with nature and climate action, reducing construction exposure in high-risk zones, and climate-proofing property Interventions that assist people in acquiring psychological readiness before a traumatic event (such as a natural disaster)	Examples: of successful approaches include delivering psychological first aid, addressing mental health symptoms and/or disorders in community respite shelters, recreation centres, and drop-in centres; providing trauma-informed individual and group-based therapy,	Teaching coping skills, increasing self-efficacy, and increasing community cohesiveness and social support (building resilience).

i. Universal interventions:

- These interventions shall be a part of *promoting mental well-being* for the whole population.
- The interventions shall focus on sensitization, knowledge attitudes, practices and positive health strategies

ii. Selective interventions

- These interventions shall be a part of preventing the occurrence of mental disorders among the risk population.

- The interventions shall focus on *sensitization and building resilience* in addition to positive health strategies and well-being

iii. Indicated interventions

- These interventions shall be targeted at individuals suspected to have mental disorders among the said population.
- The interventions shall include *screening-brief intervention* – referral for treatment using stepped care with a special focus on CMDs (esp. depression-anxiety), suicide/ violence, substance abuse, and psychological well-being – *including pharmacological and non-pharmacological therapies.*

Acute Climatic event /Extreme climatic event/Disaster

All the population must be screened for mental health problems. Paramedical personnel can use the MERITT tool, while medical officers can use the CSP tool. Screening should be focused on common mental disorders (depression-anxiety–suicide/self-harm) -post-traumatic stress disorders – alcohol and substance use disorders while consulting for trauma, NCD etc.

(***MERIT tool- Annexure I, (CSP-Annexure J)***

- Brief psychosocial interventions for the subsyndromal population
- Pharmacological treatment and psychosocial interventions for people who have been diagnosed with mental illness
- Referral to secondary/tertiary levels of care when required.

Disaster Camps/HWC/PHC/CHC	CHO/ASHA/PHARMACIST/ MEDICAL OFFICER/DMHP TEAM	SUBSYNDROMAL/Vulnerable population	Brief psychosocial interventions (as mentioned below)
	CHO/ASHA/PHARMACIST/ MEDICAL	People diagnosed with mental illness	Brief psychosocial interventions (as mentioned below)

	OFFICER/DMHP TEAM		Pharmacological interventions-depending on the type of mental illness (as per the CSP manual) Follow up monthly Referral to secondary/tertiary levels when required

Subacute/long-term Climate change

Mental health problems arise due to sub-acute/long-term climate change (drought/heat waves/air pollution). There is an association between mental health problems with stress and physical illness like cardio-pulmonary disorders arising from air pollution. Drought/heat waves can also exacerbate pre-existing mental health problems.

HWC/PHC/ CHC/	CHO/ASHA/PHARMACIST/ MEDICAL OFFICER/DMHP TEAM	SUBSYNDROMAL/Vulnerable population	Brief psychosocial interventions (as mentioned below)
	CHO/ASHA/PHARMACIST/ MEDICAL OFFICER/DMHP TEAM	People diagnosed with Mental illness	Pharmacological interventions-depending on the type of mental illness (as per the CSP manual)

			Referral to secondary/tertiary levels when required
District Hospital/ Medical college/Mental Health Institute	DMHP TEAM Psychiatrist/Psychologist/Social worker	SUBSYNDROMAL/Vulnerable population	Brief psychosocial interventions (as mentioned below)
	DMHP TEAM Psychiatrist/Psychologist/Social worker	People diagnosed with Mental illness	Brief psychosocial interventions (as mentioned below) Pharmacological interventions-depending on the type of mental illness (As per the CSP manual) Referral to secondary/tertiary levels when required

Psychological Interventions

Psychological/mental health outcomes following climate change are highly varied and may range from immediate emotional reactions to the events, such as dislocation, loss, physical dangers/harms/threat to life, to continued reactions beyond the occurrence of these events, such as persistent fears, avoidance, sleep, and other disturbances in biological/social and occupational functioning as a result of these fears.

Repeated or periodic climate-related events also have a negative impact on mental health by their effect on chronic stress levels and requirements to adapt/change constantly. These

may be subtler in the form of difficulties in adapting flexibly to growing changes, resulting in negative affective states such as anger, boredom, frustrations, and subsequent maladaptive behaviours to manage them (e.g., avoidance, substance use, etc.). Finally, pre-disaster phenomena are also essential to examine and may include heightened anxiety/arousal levels, feeling of impending doom, hopelessness related to approaching events, and announcements or warnings. Factors impacting these also warrant attention, such as the perceived risk of environmental changes.

The following section outlines some essential trial skills and strategies in managing mental health outcomes in climate change, mainly targeting common mental health presentations and lifestyle behaviours that may place the individual/community at risk for mental health outcomes.

These intervention strategies are drawn from evidence-based psychological therapies to manage stress, negative mood, and lifestyle behaviours.

The interventions aim at groups of responses and not individual signs or symptoms/presentations. They are interrelated and overlapping- and may be used to enhance the overall effectiveness of the response to climate change and develop adaptive responses.

These strategies can be used individually or in group formats. Most have skills components and can enhance or strengthen skills in vulnerable/at-risk populations.

- ✔ **Stress Reduction and Yoga:** Brief stress reduction/management interventions

(Vulnerable populations/those at risk)

- ✔ **The significant components of stress reduction interventions are as follows:**

Assessment:

- Identification of sources of stress and existing coping strategies and their effectiveness in bringing about change**;** beliefs about the self as an agent of change/self-efficacy)

Nature and methods of assessment may be through multiple ways, including self-report, observations and rating scales, and interviews.

- ✔ **Arousal reduction: (anger, anxiety, frustration)**

Arousal refers to anxiety and anger, as they share common physiological changes and co-occur when there is a threat to personal or physical wellbeing.

The key targets of arousal reduction strategies are a) reducing the intensity of physiological arousal, b) increasing thresholds for facing and responding to cues/triggers related to arousal, and c) reducing the time taken to return to baseline or normalcy of response. The most widely used strategies are as follows-

Deep muscle relaxation, Diaphragmatic/deep breathing

- ✔ **Modifying risk perception (appraisals), targeting unhelpful beliefs** that contribute to stress experience and negative affect, and enhancing ideas regarding self-efficacy
- Identifying and recording unhelpful thought patterns that contribute to stress experience, sadness, anger, or anxiety
- Generating alternate and more flexible/adaptive perspectives- a reappraisal
- Implementing these prospectively- by the individual in response to specific situations
- ✔ **Exposure-based strategies for traumatic stress responses/avoidance (post-traumatic)**

Exposure-based strategies are indicated when there is extensive fear and avoidance, often following exposure to traumatic/fearful or threatening events. They are based on habituation and extinction learning principles and accurate processing of information and coping.

Principles are exposure-based interventions that include-

a) Systematic assessment of triggers/cues

b) Rate subjective units of distress

c) Building a hierarchy of these cues

d) Graduated exposure allows for sufficient exposure time for processing emotions, habituation of these emotions, and, eventually extinction

There are many formats in which exposure can be delivered- such as in vivo (real-life exposure) or Imaginal

In case of very high levels of arousal and avoidance, systematic desensitization may be attempted, which involves juxtaposing relaxation training/response (counter-conditioning).

- ✔ **Coping skills enhancement:**

Various coping skills and arousal reduction may be included, such as assertiveness and communication skills.

✔ **Behavioural activation for managing mood/rumination**

Critical targets for behavioural activation:

- Anhedonia
- Easy fatigability
- There is a sense of helplessness and worthlessness, due to which activities may not be attempted.
- Reduced activity is likely to worsen depression further as the person may ruminate, worry, and feel worse
- Ruminations and avoidance of problem-solving

This brief psychological, evidence-based approach emphasizes relationships between environment, mood, and activity**.** Strategies aim to increase activity levels to break the cycle of depression and provide a greater sense of achievement and chances of rewards. It focuses on processes that inhibit activation, such as escape and avoidance behaviours and reflective thinking. Daily activities are planned collaboratively in keeping with the severity of depression or mood symptoms, with a gradual increase in tasks and an indirect focus on thoughts (mastery, self-efficacy, and self-esteem). Planning activities are based on each individual's values and commitments and must be contextualized to the person. The aim is to move to more adaptive problem-solving.

✔ **Problem-solving and conflict resolution**

Problem-solving skills training is a cognitive-behavioural process that may be set independently for anxiety and sad mood, maintained by ineffective problem-solving skills or as part of a more significant stress management intervention module.

Components of PSS that are relevant here include:

- Problem orientation
- Problem identification and definition/formulation
- Generating alternative solutions (using variety and deferment of judgment principles)
- Decision making
- Solution implementation, verification, and feedback regarding the effectiveness

PSS is not a linear process and involves awareness of belief and skills barriers in PSS.

- ✔ **Conflict resolution skills are essential in managing as well as negotiating solutions**.

It is a communication process for changing the negative emotional states in a conflict to emotional states that allow working out a solution to the conflict. It can be helpful at both a group and an individual level. The main strategies in conflict resolution/management involve the following components:

- Collaborating
- Compromising
- Accommodating
- Controlling
- Avoiding

The style selection would depend upon the nature of the conflict and the situation, and the needs.

The specific applications are grouped, starting with the most preferred approach and ending with the least preferred.

- ✔ **Mitigating Climate Change at personal and local levels -**

Enhancing Psychological adaptation- specific focus on increasing psychological flexibility and resilience.

- ✔ **Psychological flexibility strategies to enhance flexibility**

Factors impeding psychological flexibility (previous/existing mental health vulnerability, personality vulnerabilities, and beliefs impeding adaptation to change) must be identified.

- ✔ **Intolerance to uncertainty** also contributes significantly to decreased flexibility and, eventually adaptation.
- ✔ **Resistance to change or fears of change is an essential source of distress. (non-acceptance)**

Mindful awareness- cultivating skills in acceptance, distress tolerance, and building skills in emotion regulation- perspective-taking and eventually cultivating more adaptive problem-solving strategies (thereby increasing flexibility)

Mindfulness-based interventions also address adverse effects such as boredom, frustration, and irritability. Mindfulness may also be part of everyday activities and improve the ability to process information.

These strategies also have implications for negative coping strategy that may follow- such as experiential avoidance, use of addictive behaviours (substance, behavioural addictions), seeking novelty, and so on.

- **Lifestyle changes:**

There is considerable evidence for lifestyle changes in mental health/stress management.

These directly or indirectly contribute to the experience of stress and may sometimes be a result of stress itself (impaired sleep-wake cycles)

- Sleep hygiene (balancing sleep-wake cycles)
- Enhancing physical activities/healthy exercise patterns
- Dietary and nutrition intake

- **Therapeutic skills training** – how to help another
- Making the other person feel understood, using verbal and non-verbal skills appropriately
- Responding skills
- Validating /supporting skills
- Conveying Empathy
- Reflecting (feeling and content)
- Summarising and synthesizing
- Motivating the person to seek help (educate and sensitize)
- **Psychological First Aid (PFA): Brief modules to address depressive/anxiety symptoms)**

F. Intersectoral coordination with other stakeholders (Health & Non-health)

The likelihood and severity of "morbidity and mortality," as well as "acute and chronic" illnesses, both communicable and non-communicable including mental illness, are influenced by factors such as socio-economic status, living conditions, job, nutrition, pre-existing health issues, access to clean drinking water and sanitation, overcrowding,

environmental pollution, extreme weather, chemical exposure, farming methods, government policies and regulations, availability of healthcare resources, the presence of trained healthcare professionals, laboratory support, and religious practices.

Mental health is a critical aspect of overall health and well-being, and it is essential that those affected by the consequences of climate change receive the support and resources they need to cope with the adverse effects on their mental health.

The impact of climate change on mental health is a pressing issue that requires a comprehensive and coordinated response from all relevant national health programs. Each national health program may have a specific focus, such as the prevention and treatment of certain diseases or providing support to vulnerable populations. However, they all share a common goal of improving the health and well-being of the population.

To effectively address the mental health effects of climate change, all national health programs need to collaborate and coordinate their efforts. This can help to ensure that a comprehensive approach is taken to address the issue, taking into consideration the diverse and complex needs of those affected by climate change.

Some of the beneficial national programmes include: Integrated Child Development Schemes, Deen Dayal Upadhyaya Gram Jyoti Yojna, Atal Mission for Rejuvenation and Urban Transformation, National Urban Livelihood Mission, Smart Cities Mission, National Vector Borne Disease Control Programme, National Programme for Preventing and Managing Diabetes, Cardiovascular Diseases, Cancer, and Stroke, National Mental Health Program, National Iodine Deficiency Disorder Control Program, Revised National TB Control Program, National Programme for Occupational Disease Control and Treatment, National Programme for Health Care for the Elderly, National Programme for Preventing and Controlling Deafness, and Universal Immunization Program.

In addition to this, Collaboration and intersectoral coordination among various ministries and departments are crucial in addressing the impacts of climate change on mental health.

Multiple government departments play a role in mitigating the impacts of climate change on mental health. Each department brings their expertise and resources to the table, which is crucial in addressing the issue from multiple angles.

The following ministries/ departments/ agencies may be referred or involved in the multi-sectoral coordination for developing HAP related to climate change and mental health:

1. Ministry of Environment Forest and Climate Change (MoEFCC) - for mitigation action information, including revised plans, and actions related to climate change and mental health

2. Psycho-social support and mental health services in Disasters (National Disaster Management Authority)- Disaster management is a continuous and integrated cyclical process of planning, organizing, coordinating, and implementing measures to prevent and manage disasters effectively. Public health principles related to disaster management can be incorporated into climate change mental health programs.

3. District Mental Health Programme delivery structures-

To manage the health care needs of mentally ill outpatients at the DMHP unit to screen, evaluate and manage patients prone to mental illness due to climate changes, to conduct regular screening and awareness programmes regarding climate change and mental health.

4. Ayushman Bharat- Health and wellness centres-

To incorporate and screen for mental health hazards secondary to climate change and essential management of mental health ailments.

5. National Health Mission elements-

A] Non-Communicable Disease Control Programmes – especially the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS), and National Programme for the Health Care of Elderly" (NPHCE)

B] Reproductive, Maternal, New-born, Child and Adolescent Health [RMNCH+A] – (developmental interventions for infants, children, and adolescents)

C] Rashtriya Bal SwasthyaKaryakram(RBSK) – (awareness, early detection, and coping skills)

7. Human Resource Development Education Department - Human Resource Development Education Department -School and College; NCERT (awareness, climate mitigation responses in the curriculum)

8. Directorate General Labour Welfare, National Skill Development (reskilling and employment)-

To collaborate with these departments and empower people disabled with mental illness with vocational skills and rehabilitation for self-sustainability.

9. Medical Commissions and health-related councils to include curriculum on climate change and its health impacts to increase awareness and capacity building of the health professionals-medical, dental, nursing, and AYUSH professionals

10. Women and Child Development Department: Advocate through Self-Help Groups and Mahila Mandals for the protection of the health of the women and children from significant exposure to smoke from biomass while inside the house, awareness regarding impacts of disasters, and protective measures for a vulnerable population like women and child considering their special needs, especially in areas prone to high risk of disaster.

11. Pollution Control Board: CPCB/ State Pollution Control Board/ District Pollution Control Board for the air quality information or AQI in the city/ area and its forecast

12. Medical Commissions and health-related councils to include curriculum on climate change and mental health impacts to increase awareness and capacity building of the health professionals-medical, dental, nursing, and AYUSH professionals.

13. Academic institutes/ medical colleges capacity building, operational and community-based research related to climate change and related health intervention areas

14. Ministry of Earth and Sciences: Information from the Indian Meteorological Department/ SAFAR related to forecasting or timely early warning of weather temperature, humidity, wind direction, speed, etc.

15. Agriculture:

Farmer's mental health effects secondary to climate change and the need for coordination with the agriculture department for primary, secondary and tertiary levels of intervention.

16. Under the Ministry of Petroleum & Natural Gas, Ministry of Road & Transport and Highways, Pollution Control Board (CPCB/ State Pollution Control Board/ District Pollution Control Board initiatives) - collaborate with the ministry involved in the

prevention of air pollution since air pollution has adverse effects on physical health and mental health is interrelated with physical health and wellbeing.

17. Panchayati Raj may preferably involve creating enabling conditions to facilitate community participation, like self-help groups.

MONITORING & EVALUATION

Monitoring and evaluation play a crucial role in ensuring the success of this program aimed at addressing the mental health impacts of climate change. They provide valuable information to measure progress, identify challenges, evaluate impact, and guide future efforts. Through monitoring, the program can track its success over time and make necessary adjustments to improve outcomes. Evaluation helps assess the effectiveness of the program and determine its impact on the mental health of individuals and communities affected by the impacts of climate change. Additionally, monitoring and evaluation help ensure accountability by providing a transparent view of the program's progress, impact, and challenges. These insights are crucial in guiding future efforts to address this complex issue.

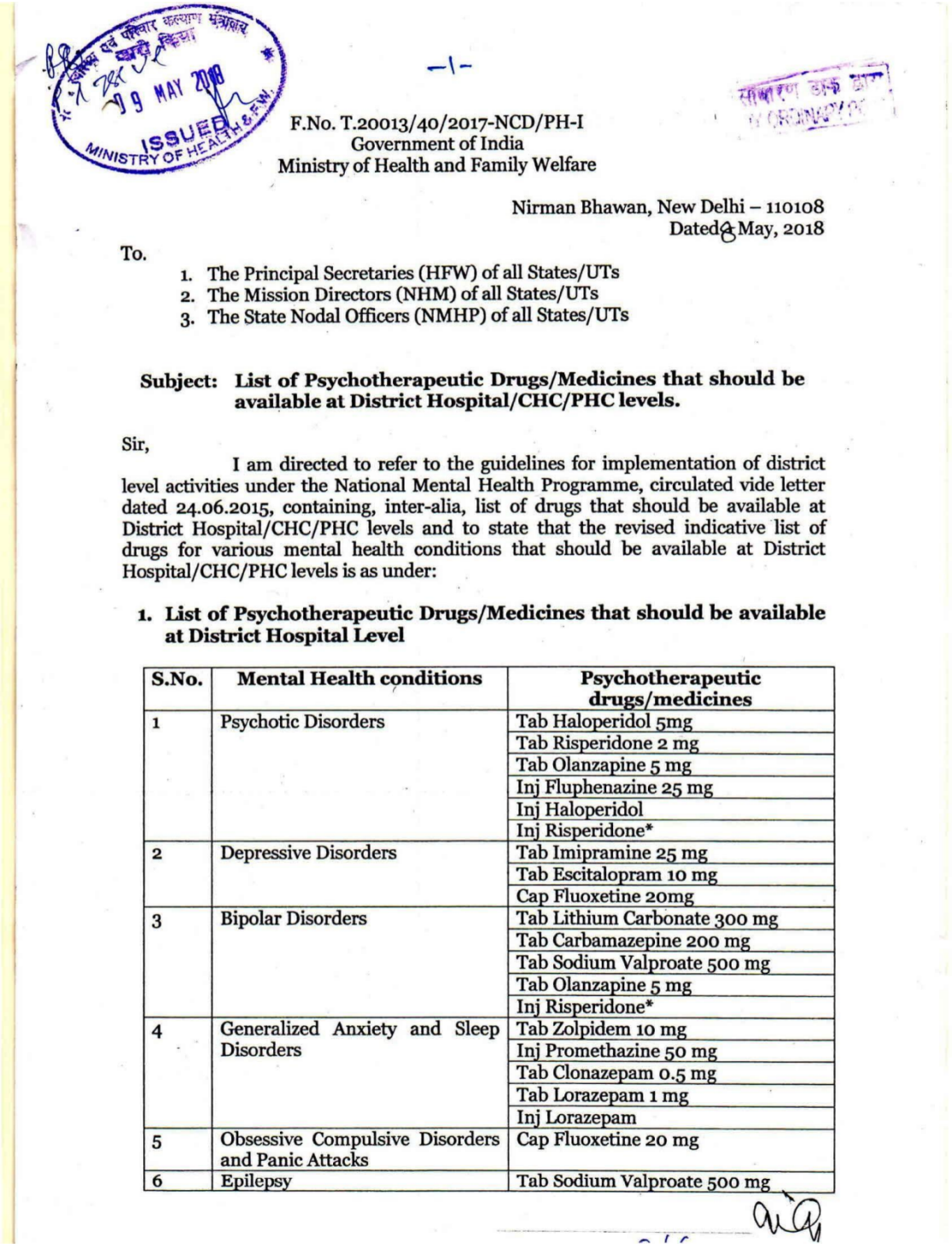
- MoHFW, State DoHFW, District Health Officers, District Nodal officer/State Nodal officer and the individual health facilities will be involved in regular monitoring.

Monthly / quarterly progress monitoring for climate-sensitive mental illnesses has to be done at all levels, i.e. district to state to MoHFW. These Quarterly Progress Reports should include a collation/aggregation of the data/information compiled in each health care facility. The DMHP team and other respective healthcare staff in each healthcare facility of the District (HWC/PHC/CHC/District Hospital/Medical College/Tertiary institutions) shall send the data on climate-sensitive mental illnesses to the District Nodal officer of the district cell. The District Cell will be responsible for collating/aggregating the data/information compiled in each health care facility and submitting it to the State Cell, which will validate and forward the data to the National Cell.

The monitoring /reporting forms are enclosed in the Annexures K to M

ANNEXURES

ANNEXURE A: Essential Psychotropic medication under NMHP



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F.No. T.20013/40/2017-NCD/PH-I
Government of India
Ministry of Health and Family Welfare

Nirman Bhawan, New Delhi – 110108
Dated 8 May, 2018

To.

1. The Principal Secretaries (HFW) of all States/UTs
2. The Mission Directors (NHM) of all States/UTs
3. The State Nodal Officers (NMHP) of all States/UTs

Subject: List of Psychotherapeutic Drugs/Medicines that should be available at District Hospital/CHC/PHC levels.

Sir,

I am directed to refer to the guidelines for implementation of district level activities under the National Mental Health Programme, circulated vide letter dated 24.06.2015, containing, inter-alia, list of drugs that should be available at District Hospital/CHC/PHC levels and to state that the revised indicative list of drugs for various mental health conditions that should be available at District Hospital/CHC/PHC levels is as under:

1. **List of Psychotherapeutic Drugs/Medicines that should be available at District Hospital Level**

S.No.	Mental Health conditions	Psychotherapeutic drugs/medicines
1	Psychotic Disorders	Tab Haloperidol 5mg
		Tab Risperidone 2 mg
		Tab Olanzapine 5 mg
		Inj Fluphenazine 25 mg
		Inj Haloperidol
		Inj Risperidone*
2	Depressive Disorders	Tab Imipramine 25 mg
		Tab Escitalopram 10 mg
		Cap Fluoxetine 20mg
3	Bipolar Disorders	Tab Lithium Carbonate 300 mg
		Tab Carbamazepine 200 mg
		Tab Sodium Valproate 500 mg
		Tab Olanzapine 5 mg
		Inj Risperidone*
4	Generalized Anxiety and Sleep Disorders	Tab Zolpidem 10 mg
		Inj Promethazine 50 mg
		Tab Clonazepam 0.5 mg
		Tab Lorazepam 1 mg
		Inj Lorazepam
5	Obsessive Compulsive Disorders and Panic Attacks	Cap Fluoxetine 20 mg
6	Epilepsy	Tab Sodium Valproate 500 mg

S.No.	Mental Health conditions	Psychotherapeutic drugs/medicines
		Tab Phenobarbitone 30 mg and 60 mg
		Tab Diphenylhydantoin 100 mg
		Tab Carbamazepine 200 mg
		Inj Lorazepam
7	Miscellaneous	
	a) Extra pyramidal symptoms	Tab Trihexyphenidyl 2 mg
		Inj Promethazine 50 mg

* to be administered under supervision of Psychiatrist

2. At CHC/PHC level

S.No.	Mental Health conditions	Psychotherapeutic drugs/medicines
1	Psychotic Disorders	Tab Haloperidol 5mg
		Tab Risperidone 2 mg
		Tab Olanzapine 5 mg
		Inj Fluphenazine 25 mg
2	Depressive Disorders	Tab Imipramine 25 mg
		Tab Escitalopram 10 mg
3	Bipolar Disorders	Tab Olanzapine 5 mg
4	Generalized Anxiety and Sleep Disorders	Inj Promethazine 50 mg
		Tab Clonazepam 0.5 mg
		Tab Lorazepam 1 mg
		Inj Lorazepam
5	Obsessive Compulsive Disorders and Panic Attacks	Cap Fluoxetine 20 mg
6	Epilepsy	Tab Phenobarbitone 30 mg and 60 mg
		Tab Diphenylhydantoin 100 mg
		Inj Lorazepam
7	Miscellaneous	
	a) Extra pyramidal symptoms	Tab Trihexyphenidyl 2 mg
		Inj Promethazine 50 mg

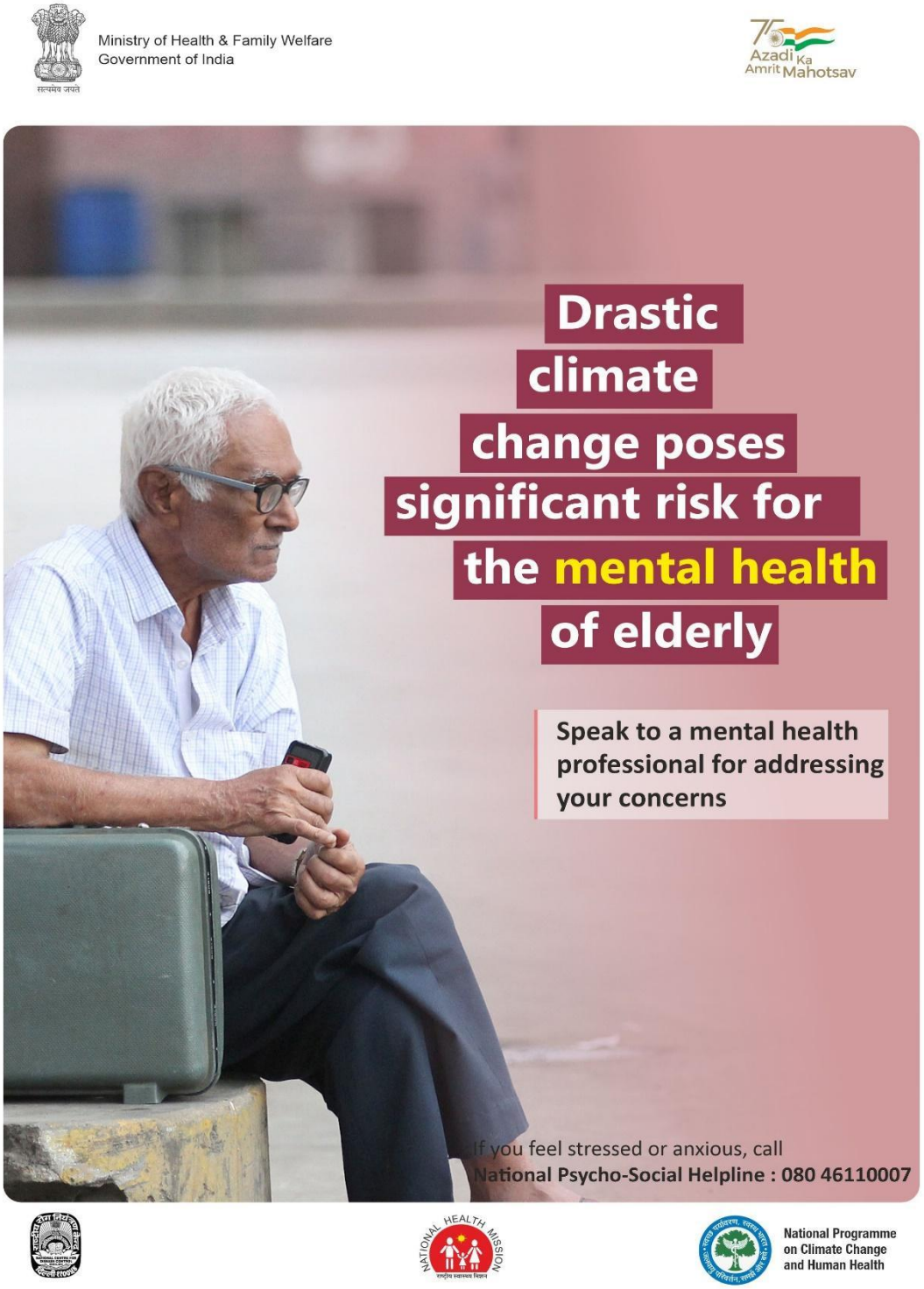
This issues with the approval of the Secretary, Ministry of Health and Family Welfare.

Yours faithfully,

(Ajaya Kumar KP)
Under Secretary to the Govt. of India
Telefax: 011-23061342

(अजय कुमार के.पी.)
(AJAYA KUMAR K.P.)
अवर सचिव/Under Secretary
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
Ministry of Health & F.W.
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi

Annexure B: IEC Material developed by NIMHANS




Ministry of Health & Family Welfare
Government of India
Azadi Ka Amrit Mahotsav
From an environment with chaotic climatic crisis
To a healthy and healing environment
CLIMATE CHANGE IS THE BIGGEST HEALTH THREAT FACING OUR PLANET AND US.
Let us strive for a pollution-free, greener and cleaner environment for a better mental health.
Reach out for help by contacting the National Psycho-social Helpline No. : 080 46110007
NATIONAL HEALTH MISSION
National Programme on Climate Change and Human Health

Ministry of Health & Family Welfare
Government of India

Azadi Ka Amrit Mahotsav

NATIONAL HEALTH MISSION

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NATIONAL HEALTH MISSION

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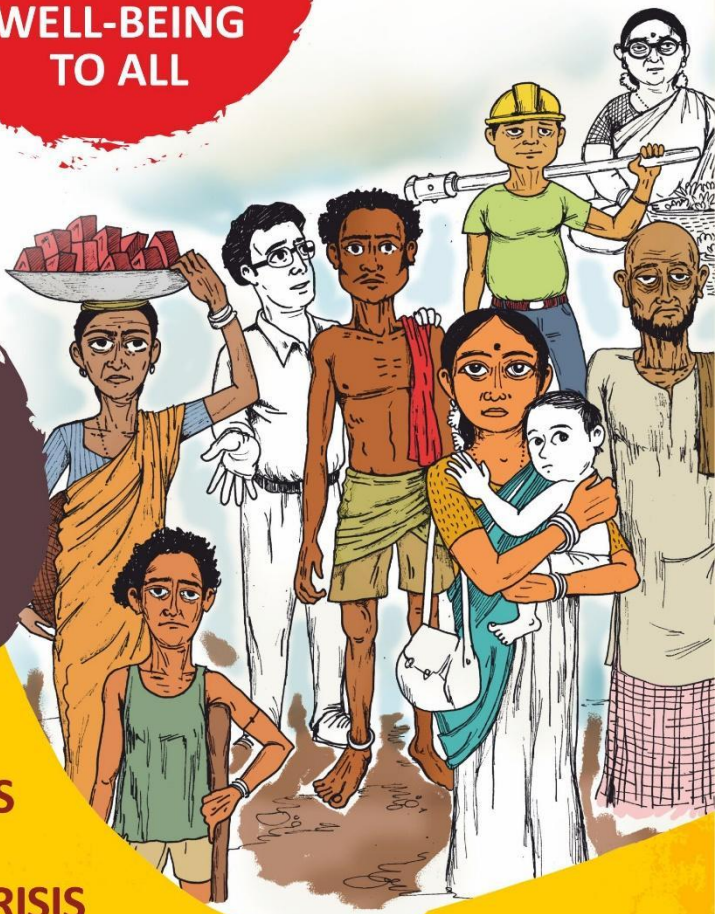
Ministry of Health & Family Welfare
Government of India

सत्यमेव जयते

Azadi Ka Amrit Mahotsav

Universal access to mental healthcare

WELL-BEING TO ALL



Groups struggling to reach mental healthcare:

- Economically Disadvantaged
- Children
- Older Adults
- Women
- People with Disabilities
- Individuals with Pre-Existing Mental Health Diagnoses
- Outdoor Workers
- People in rural areas

THE CLIMATE CRISIS IS LEADING TO A MENTAL HEALTH CRISIS

The impact of mental health due to climate change to which a large part of our population are exposed can be controlled only by universal access to mental health services, information and protection.

Mental health concerns can be prevented and controlled but only when everyone gets access to mental healthcare. **Let's support each other and bridge the gap.**

Reach out for help by contacting the **National Psycho-social Helpline No. : 080 46110007**

NATIONAL HEALTH MISSION

National Programme on Climate Change and Human Health

Ministry of Health & Family Welfare
Government of India

Azadi Ka Amrit Mahotsav

NATIONAL HEALTH MISSION

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NATIONAL HEALTH MISSION

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National Programme on Climate Change and Human Health

ANNEXURE C: Surveillance form for mental health issues related to climate change at the primary health centre (PHC) level

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

Name of the PHC: **BLOCK:**

DISTRICT: **STATE/U.T:**

1.	**Mental Health Services- Out-Patient Department (OPD) and referral services at Primary Health Centre (PHC) level**	
1.1	Total no. of new patients seen in the OPD in the reported quarter	
1.2	Total no. of follow-up cases in the OPD in the reported quarter	
1.3	Total no. of cases referred to tertiary care hospital in the reported quarter	
2.	**No Essential Psychotropic Drugs Dispensed**	
2.1	Classification of drugs	
2.2	Antidepressant	
2.3	Antipsychotic	
2.4	Anticonvulsant	
2.5	Anxiolytic/ hypnotic	
3.	**Mental Health Services-related to Climate change**	
3.1	Total no. of new patients with mental health problems are seen in the OPD due to extreme weather	

	events(floods/cyclones/heat waves/earthquakes/ another disaster)	
3.2	Total no. of new patients with mental health problems are seen in the OPD due to extreme weather events(floods/cyclones/heat waves/earthquakes/ another disaster)	
3.3	Total no. of cases with mental health problems referred to tertiary care hospitals in the reported quarter related to extreme weather events(floods/cyclones/heat waves/earthquakes/ another disaster	
4.	**Number of cases based on Diagnosis**	
4.1	SMD/Psychoses	
4.2	CMD(Depression/Anxiety/PTSD/Somatoform)	
4.3	Substance Use Disorder	

ANNEXURE D: Surveillance form for mental health issues related to climate change at community health centre (CHC) level/taluk government hospital (TGH)

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

Name of the CHC/TGH: **BLOCK:**

DISTRICT: **STATE/U.T:**

1.	**Mental Health Services- OutPatient Department (OPD) and referral services at Community Health Centre (CHC) level/Taluk Government Hospital (TGH)**	
1.1	Total no. of new patients seen in the OPD in the reported quarter	
1.2	Total no. of follow-up cases in the OPD in the reported quarter	
1.3	Total no. of cases referred to tertiary care hospital in the reported quarter	
2	**No Essential Psychotropic Drugs Dispensed**	
2.1	Classification of drugs	
2.2	Antidepressant	
2.3	Antipsychotic	
2.4	Anticonvulsant	
2.5	Anxiolytic/ hypnotic	
3.	**Mental Health Services-related to Climate change**	
3.1	Total no. of new patients with mental health problems are seen in the OPD due to mental health problems of extreme weather events(floods/cyclones/heat waves/earthquakes/ another disaster)	

3.2	Total no. of follow-up cases with mental health problems in the OPD in the reported quarter related to extreme weather events(floods/cyclones/heat waves/earthquakes/ another disaster	
3.3	Total no. of cases with mental health problems referred to tertiary care hospitals in the reported quarter related to extreme weather events(floods/cyclones/heat waves/earthquakes/ another disaster	
4.	**Number of cases based on Diagnosis**	
4.1	SMD/Psychoses	
4.2	CMD(Depression/Anxiety/PTSD/Somatoform)	
4.3	Substance Use Disorder	

ANNEXURE E: Surveillance form for mental health issues related to climate change at the Tertiary care level/medical college/District Hospital

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

Name of the DISTRICT:

STATE/U.T:

1.	**Mental Health Services- OutPatient Department (OPD) and referral services at District Health Care Level**		
1.1	Total no. of new patients seen in the OPD in re-reported quarter		
1.2	Total no. of follow-up cases in the OPD in the reported quarter		
1.3	Total no. of cases referred to tertiary care hospital in the reported quarter		
2.	**Mental Health Services- Inpatient Department (IPD) at District Health Care Level**		
2.1	T Total no. of patients admitted in IPD		
3.	**Mental Health Services- after treatment continuing care services at District Level**		
3.1	Total no. of Patients availed services at Long Term Residential Continuing Care Centre		
3.2	Total no. of patients availed services at DaycareCenters		
4.	**Mental Health Services- Out-reach Services**		
4.1	Total no. of cases examined in the outreach camps		

4.2	Total no. of Cases referred at the District level for management		
4.3	Total no.of cases referred to rehabilitation/counselling		
5.	**No Essential Psychotropic Drugs Dispensed**		
5.1	C Classification of drugs		
5.2	Antidepressant		
5.3	Antipsychotic		
5.4	Anticonvulsant		
5.5	Anxiolytic/ hypnotic		
6.	**Mental Health Services-related to Climate change**		
6.1	Total no. of new patients with mental health problems seen in the OPD due to extreme weather events (floods/ cyclones/ heat waves/earthquakes/ other disasters)		
6.2	Total no. of follow-up cases with mental health problems in the OPD in the reported quarter related to extreme weather events (floods/ cyclones/ heat waves/ earthquakes/ other disasters)		
6.3	Total no. of cases with mental health problems referred to tertiary care hospitals in the reported quarter related to extreme weather events (floods/ cyclones/ heat waves/ earthquakes/other disasters)		
7.	**Number of cases based on Diagnosis**		

7.1	SMD/Psychosis	
7.2	CMD (Depression/ Anxiety/ PTSD/ Somatoform)	
7.3	Substance Use Disorder	

ANNEXURE F: Surveillance form for mental health issues related to climate change at the district level (District Environmental Health cell by the District Nodal Officer)

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

DISTRICT: STATE/U.T:

		PHC	CHC	TGH	DISTRICT HOSPITAL	MEDICAL COLLEGE /TERTIARY CENTRE
1	Total number of new patients seen in the OPD in the reported quarter					
2	Total number of follow-up cases in the OPD in the reported quarter					
3	Total number of cases referred to tertiary care hospital in the reported quarter					
4	Total number of patients admitted in IPD					
5	Total number of Patients availed services at Long Term Residential Continuing Care Centre. (Department of Social Justice and Empowerment)					
6	Total number of patients availed services at Daycare Centers. (Department of Social Justice and Empowerment)					
7	Total number of cases examined in the outreach camps					
8	Total number of Cases referred at the District level for management					

9	Total Number of cases referred to rehabilitation/counselling					
10	Total Number of women attending the OPD (including referral from the RCH program)					
11	Total Number of children receiving services					
12	Total Number with Alcohol Use Disorders receiving services					
13	Total Number with other Substance Use Disorders receiving services					
14	Total Number of patients availed Disability certifications? (Department of Social Justice and Empowerment)					
15	Total Number of patients availed Disability certification allowance? (Department of Social Justice and Empowerment)					
16	Total Number of Persons with Mental Illnesses accessing services from the Community Mental Health Workers (Department of Social Justice and Empowerment)					
17	Total Number of Persons with Mental Illnesses included in Government sponsored Schemes that promote livelihood such as the Mahatma Gandhi National Rural					

	Employment Guarantee Scheme (MNREGA) (Department of Social Justice and Empowerment)					
18	Total Number with mental illnesses receiving any form of care for comorbid Physical health problems					
19	Total Number of mental illnesses Relapses					
20	Total Number of suicides					
21	Total Number of persons with mental illnesses who have dropped out of care					
22	Total Number of Antidepressants dispensed					
23	Total Number of Antipsychotic dispensed					
24	Total Number of Anticonvulsant dispensed					
25	Total Number of Anxiolytic/ hypnotic dispensed					
26	Total no. of new patients seen in the OPD due to mental health problems of extreme weather events (floods/cyclones/heatwaves/earthquakes/ another disaster)					
27	Total no. of follow-up cases in the OPD in the reported quarter related					

	to mental health problems of extreme weather events (floods/cyclones/heatwaves/earthquakes/other disasters					
28	Total no. of cases referred to tertiary care hospital in the reported quarter related to mental health problems of extreme weather events(floods/cyclones/heatwaves/earthquakes/other disasters)					
29	Total no of cases of SMD/psychoses					
30	Total no of cases of CMD (depression/anxiety/PTSD/ somatoform)					
31	Total no of cases of substance use disorder					

ANNEXURE G: Surveillance form for mental health issues related to climate change at the state level

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

STATE/U.T:

		DISTRICT 1	DISTRICT 2	DISTRICT N	TOTAL
1	Total no. of new patients seen in the OPD in the reported quarter				
2	Total no. of follow-up cases in the OPD in the reported quarter				
3	Total no. of cases referred to tertiary care hospital in the reported quarter				
4	Total no. of patients admitted in IPD				
5	Total no. of Patients availed services at Long Term Residential Continuing Care Centre. (Department of Social Justice and Empowerment)				
6	Total no. of patients availed services at DaycareCenters. (Department of Social Justice and Empowerment)				
7	Total no. of cases examined in the outreach camps				
8	Total no. of Cases referred at the District level for management				
9	Total no. of cases referred to rehabilitation/counselling				
10	Total Number of women attending OPDs (including referral from the RCH program)				
11	Total Number of children receiving services				

12	Total Number with Alcohol Use Disorders receiving services				
13	Total Number with other Substance Use Disorders receiving services				
14	Total Number of patients availed Disability certifications (Department of Social Justice and Empowerment)				
15	Total Number of patients availed Disability certification allowance? (Department of Social Justice and Empowerment)				
16	Total Number of Persons with Mental Illnesses accessing services from the Community Mental Health Workers				
17	Total Number of Persons with Mental Illnesses included in Government sponsored Schemes that promote livelihood such as the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGA). (Department of Social Justice and Empowerment)				
18	Total Number with mental illnesses receiving any form of care for comorbid Physical health problems				

19	Total Number of mental illnesses Relapses				
20	Total Number of suicides				
21	Total Number of persons with mental illnesses who have dropped out of care				
22	Total Number of Antidepressants dispensed				
23	Total Number of Antipsychotic dispensed				
24	Total Number of Anticonvulsant dispensed				
25	Total Number of Anxiolytic/ hypnotic dispensed				
26	Total no. of new patients seen in the OPD due to mental health problems or extreme weather events(floods/cyclones/heat waves/ earthquakes /other disasters)				
27	Total no. of follow-up cases in the OPD in the reported quarter related to mental health problems of extreme weather events (floods/cyclones/heat waves/earthquakes/other disasters)				
28	Total no. of cases referred to tertiary care hospital in the reported quarter related to mental health problems of extreme weather events (floods/				

	cyclones/ heat waves/ earthquakes/ another disaster)				
29	Total no of cases of SMD/Psychosis				
30	Total no of cases of CMD (Depression/Anxiety/PTSD/Somatoform)				
31	Total no of cases of Substance Use Disorder				

ANNEXURE H: Surveillance form for mental health issues related to climate change at the national level

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

		Data from State cell (1+2…+36)	State wise Data from NHMP	TOTAL
1	Total no. of new patients seen in the OPD in the reported quarter			
2	Total no. of follow-up cases in the OPD in the reported quarter			
3	Total no. of cases referred to tertiary care hospital in the reported quarter			
4	Total no. of patients admitted in IPD			
5	Total no. of Patients availed services at Long Term Residential Continuing Care Centre			
6	Total no. of patients availed services at DaycareCenters			
7	Total no. of cases examined in the outreach camps			
8	Total no. of Cases referred at the District level for management			
9	Total no. of cases referred to rehabilitation/counselling			
10	Total Number of women attending OPDs (including referral from the RCH program)			
11	Total Number of children receiving services			
12	Total Number with Alcohol Use Disorders receiving services			

13	Total Number with other Substance Use Disorders receiving services			
14	Total Number of patients availed Disability certifications? (Department of Social Justice and Empowerment)			
15	Total Number of patients availed Disability certification allowance? (Department of Social Justice and Empowerment)			
16	Total Number of Persons with Mental Illnesses accessing services from the Community Mental Health Workers			
17	Total Number of Persons with Mental Illnesses included in Government sponsored Schemes that promote livelihood such as the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGA). (Department of Social Justice and Empowerment)			
18	Total Number with mental illnesses receiving any form of care for comorbid Physical health problems			
19	Total Number of mental illnesses Relapses			
20	Total Number of suicides			
21	Total Number of persons with mental illnesses who have dropped out of care			
22	Total Number of Antidepressants dispensed			
23	Total Number of Antipsychotic dispensed			
24	Total Number of Anticonvulsant dispensed			
25	Total Number of Anxiolytic/ hypnotic dispensed			

26	Total no. of new patients seen in the OPD due to mental health problems of extreme weather events (floods/cyclones/heatwaves/ earthquakes/other disasters)			
27	Total no. of follow-up cases in the OPD in the reported quarter related to mental health problems of extreme weather events (floods/cyclones/heatwaves/earthquakes/ other disasters			
28	Total no. of cases referred to tertiary care hospitals in the reported quarter related to extreme weather events(floods/cyclones/heatwaves/earthquakes/other disasters			
29	Total no of cases of SMD/Psychosis			
30	Total no of cases of CMD (Depression/Anxiety/PTSD/ Somatoform)			
31	Total no of cases of Substance Use Disorder			

ANNEXURE I: Mental Health Screening and Counselling Tool for Field Level Workers of India (MERIT)

ADDRESS:	**NUMBER OF FAMILY MEMBERS:**	**DATE OF SCREENING:**
PHONE NUMBER:	**No. of Adults:** **No. of Children:**	**FAMILY INCOME :**

Medical History: Ask for Hypertension, Diabetes, Anaemia, Tuberculosis (TB), and Others. If present Mention below

Sl No	**QUESTION**		
A	**ALCOHOL AND TOBACCO ABUSE**		
1.	Have you or anybody in your family been consuming alcohol in the past few months **If YES,**	**YES**	**NO**
	1a.) Has that caused any health problems?		
	1b.) Has that caused difficulty in working regularly / problems in your relationship with family/ friends?		
2.	Do you or anybody in your family consume BEEDI/GUTKA/CIGARETTES/ KAINI/ KADDI PUDI - early in the morning (Just after waking up from bed) in the past few months	**YES**	**NO**
B	**ANXIETY**	**YES**	**NO**
3.	Have you or any member of your family experience uncontrolled anxiety/stress/tension/worries/nervousness for no reason or trivial reasons in the past few weeks or months		
C	**SADNESS /SOMATOFORM Symptoms**	**YES**	**NO**
4.	In the past few weeks/months, have you or anybody in your family experienced **sadness or felt tired** without any reason or have experienced **multiple physical or bodily complaints** despite assurances by the doctor against the presence of a physical ailment?		
D	**PEOPLE WHO ARE DISORGANISED, VIOLENT, FEARFUL**	**YES**	**NO**

5.	Has anybody in your family heard voices in isolation/seen things that others don't see and Smile or talk to himself/herself or behaved strangely anytime in the past few weeks or months?		
6.	Has anybody in your family experienced suspiciousness/ odd beliefs or making tall claims such as holding super powers etc in the past few weeks or months?		
7.	Does anybody in your family have poor self-care (not bathing or changing clothes for many days) or wandered in the past few weeks or months		
8.	Has anybody in your family experienced excess happiness without any apparent reason, over talkativeness, hyperactivity and increased self-esteem in the past few weeks or anytime in the past		
9.	Have you or anybody in the family experienced suicidal ideas or attempted suicide recently or in the past?	**YES**	**NO**

DETAILS OF FAMILY MEMBERS WITH POSSIBLE MENTAL ILLNESS					
Sl No	**Name**	**Gender F/ hers**	**Age**	**Medical History**	**Mental Health issue (YES/NO)**
1					
2					
3					

Basic Counselling by CHWs (or Field Level Workers)

Individuals with mental illness and family members both should be involved in counselling

General Counselling

- ✔ Informing and educating about the presence of possible mental health issues

- ✔ Explaining the need for a doctor's evaluation – starting treatment early to prevent further dysfunction and enable early improvement
- ✔ Informing them about various resources for treatment – Availability of doctors who will evaluate and initiate treatment at Local PHC/ District Hospital/ Tertiary care Centre (Medical College or Specialised Institute)

Treatment Counselling

Once a doctor evaluation is done, and medication or other advice is given

- ✔ **The onset of action** of psychiatric medications is slow- it takes around 2-3 weeks before the effect of the medications starts
- ✔ **Longer duration of treatment**: Treatment needs to be continued even after complete improvement is achieved as per the doctors' advice. For a few conditions, treatment goes on for a few months and for others, it may be longer
- ✔ **Do Not stop medications suddenly**: Medication should be continued as per the advice of the doctor

Follow-up Counselling

- ✔ Check about their well-being, ask about the improvement they have achieved
- ✔ Ask if they are experiencing any side effects from the medication
- ✔ Advice to follow up with the doctor regularly
- ✔ Follow-ups should be done even after complete improvement is achieved as long as the doctors suggest – it is best to discuss with the doctors about this issue.
- ✔ Medications should be continued even after complete improvement is achieved
- ✔ Encourage the patient and family to discuss their doubts about the treatment if any with you and the treating doctor

What to do if the person stops treatment?

First and foremost, do not get angry or criticise the patient

- ✔ Enquire about the reason for stopping to help them with that reason.
- ✔ Check for relapse of symptoms
- ✔ Advise them to consult a doctor at the earliest
- ✔ If a person with Alcohol addiction or problems due to other habit-forming substances resumes using the substance- discuss it with the person and family and advise them to seek help from the doctor at the earliest

Psychological First Aid for Suicide attempt

If you come across somebody who has recently attempted suicide or expressed suicidal ideas or plans to commit suicide, provide Psychological First aid (steps given below)

If the suicide attempt is within a few hours or in one day, check for any medical complications and refer to the nearest hospital immediately. No attempt should be taken lightly

If the attempt is sometime before,

1. **Provide support**: allow a person to talk about their feelings and distress
2. **Look for support systems**: inform the family members about the attempt and tell them the following: being non-critical, allowing the person to talk and express their feelings;
3. **Refer to a doctor** for further assessment, treatment and counselling

Follow up with the person after assessment/ treatment is carried out

ANNEXURE J: Clinical Schedules of Primary Care Psychiatry (CSP) V2.3 for Medical officers

Clinical Schedules for Primary Care Psychiatry: Version 2.3 (COVID-19)

N Manjunatha, C Naveen Kumar, Suresh Bada Math, Jagadisha Thirthalli

Tele Medicine Centre
Department of Psychiatry
National Institute of Mental Health and Neurosciences
(NIMHANS), Bengaluru – 560 029, INDIA

- ✓ *This schedule is prepared for the clinical use of **Primary Care Physicians** (PCPs) to screen during this Corona Virus outbreak and aftermath of the outbreak.*
- ✓ *In India, PCPs are also referred to as 'General Practitioners' (GPs), 'Family Physicians/Doctors' (FPs/FDs), 'General Doctors' (GDs)etc.*
- ✓ *This contains guidelines for screening, referral, early diagnosis, first line treatment and routine follow-up of an **ADULT** patients with psychiatric disorders at routine **OUT-PATIENT** primary health care or GPs clinics.*
- ✓ *The contents of this schedules are an adopted version of psychiatric classification, diagnostic criterias, & treatment guidelines for wider utilization by GPs of India.*

WHAT ARE THE EXPECTATIONS FROM GPs/PCPs during this Corona Virus outbreak?

A. *In first contact/ new patients with or without Corona Virus Exposure*

- ✓ *GPs should be able to do rapid screening in all adult patients for possible psychiatric disorders.*
- ✓ *GPs should be able diagnose & provide a first line of treatment that consists of medication and brief counselling.*
- ✓ *If patient shows improvement with treatment in 3 - 4 weeks, consider following them up under their own care.*
- ✓ *If case diagnosis is unclear, consider referral to a psychiatrist.*

B. *In stable patients referred by a psychiatrist for routine follow-up*

- ✓ *Along with patients, family/friends are a reliable source of information for better follow up.*
- ✓ *Enquire about clinical condition on every visit, check for common side effects, and prescribe same medications when clinical condition is same or when there is no worsening.*
- ✓ *If any patient does not improve, worsens, does not take regular medication, has severe side effects, becomes suicidal or aggressive, consider referring them back to psychiatrists.*
- ✓ *Consider referral to a psychiatrist for second opinion whenever patients/families concern about how long the medication should continue, despite your advice for a particular period!*

WHAT KIND OF PATIENTS IN GENERAL PRACTICE ARE LIKELY TO HAVE PSYCHIATRIC DISORDERS?

*Any patient/s who are likely to get **repeated prescriptions** from GPs for the following medication has higher probability of having psychiatric disorders. These medications are*

1. *Analgesics/Pain killers (Diclofenac, Ibuprofen, Nimesulide, etc)*
2. *Multivitamins in tablets/capsules/tonic bottle forms*
3. *Tonic seekers & Energy syrups*
4. *Antacid / H2 Blockers /Proton Pump Inhibitors (Ranitidine, Omeprazole, Pantoprazole, etc)*
5. *Benzodiazepines (Alprazolam /Diazepam/ Chlordiazepoxide/ Nitrazepam, etc)*
6. *Repetitive Infusion of Intravenous fluids on demand from patients/family*

Hence, it is suggested that GPs shall pro-actively search for psychiatric disorders in these kinds of patients in their clinical practice during this Corona Virus outbreak.

Part I: SCREENER / CASE RECORD FORM

Hospital No: ..... **Date:** ..... **Aadhaar No:**
Name: ..... **Age:** ..... years, **Gender:** .....
Postal address with parent/Guardian name:

Any pre-existing medical illness and treatment history — YES/NO (record details, if YES)
Any Pre-existing mental illness (including substance use) and treatment history — YES/NO (record details, if YES)

Presenting complaints with its duration:

1. ..... 2. .....
3. ..... 4. .....

Physical examination findings: .....

Can you explain above symptoms and signs with known medical illness?

YES / NO

Please proceed with your diagnosis & your Rx	If illness is ***< 2 weeks,*** *reassure & ask patient to follow-up if symptoms persists*	If illness is ***≥ 2 weeks,*** *check for possible* ***psychiatric disorders*** *as below!!!*

Please begin with these general enquiries!

1	How is your sleep?	Normal / Disturbed
2	How is your appetite?	Normal / Disturbed
3	How is your interest in doing your daily work?	Normal / Disturbed

Now, begin with specific questions for possible psychiatric disorders!!!!

4	*In the past year, are you drinking alcohol heavily or regularly?*	*YES / NO*	If YES to any, check for ***Alcohol Disorder***
5	*In the past year, are you not getting sleep without alcohol?*	*YES / NO*	
6	*In the past year, does your hands/body parts tremble whenever you abruptly reduce or stop using alcohol?*	*YES / NO*	
7	*Do you use Beedi/Cigarettes/Gutka or other tobacco products within an hour of getting up from bed in the early morning?*	*YES / NO*	If YES, check for ***Tobacco Addiction***
8	*In the past few weeks, did you get sudden attacks of fear or anxiety?*	*YES / NO*	If YES to any, check for ***Panic disorder (PD)***
9	*In the past few weeks, does the above attack/s come without any reason/s?*	*YES / NO*	
10	*In the past few months, are you often getting tensed/stressed out without any reason or for small trivial reasons?*	*YES / NO*	If YES to any, check for ***Generalized Anxiety Disorder (GAD)***
11	*In the past few months, are you unable to control or stop this tension, thoughts, images, flash back episodes or memories of a particular event?*	*YES / NO*	
Note: If 'YES' to any of the above items 8 to 11 and it is primarily attributed to infection or apprehension of infection of Corona Virus to self or loved ones check for **'Adjustment Disorder'** (less than one month) or ***'Acute Stress Reaction'*** (less than one month) or ***'Post Traumatic Stress Disorder'*** *(more than one month)*			
12	*In the past few weeks, have you been feeling tired all the time?*	*YES / NO*	If YES to any, check ***Depressive disorder***
13	*In the past few weeks, have you lost interest or pleasure in your regular daily activities?*	*YES / NO*	
14	*In the past few weeks, have you been feeling sad / depressed?*	*YES / NO*	
15	*In the past many months, does this patient have any physical symptom/s (listed in diagnostic criteria of Somatization disorder) which is unexplainable with current medical knowledge or with depression/anxiety?*	*YES / NO*	If YES to any, check for ***Somatization Disorder***
16	*In the past many months, has this patient shown signs of doctor shopping (repeatedly consulting you or other doctors) for these similar physical symptoms?*	*YES / NO*	
17	*In the past few weeks, does he/she has irritability, talking or smiling to self / suspiciousness/hallucination/delusions/poor self-care/aggressive behaviour?*	*YES / NO*	If YES to any, check for ***Psychotic Disorder***
18	*In the past few days, did he/she have suicidal, self-harm or aggressive behaviour*	*YES / NO*	[$] *PFA & Refer*

Note: *Items 1-15 for patients, 17 for family & friends, 17 & 18 for clinical interpretation of doctors*
[$] Provide ***Psychological First Aid*** & refer to a psychiatrist

Behavioural observation/s: .....

Diagnosis: *(Tick appropriately)*

1	**Alcohol Disorder:** *Harmful use (Frequent / Infrequent type)/ Addiction*
2	**Tobacco Addiction**
3	**Common Mental Disorders (CMDs)/ Neurosis**
	a. Predominantly Depressive Disorder
	b. Predominantly Anxiety Disorder (Panic Disorder/Generalized Anxiety Disorder/Adjustment Disorder/ Acute Stress Reaction/Post Traumatic Stress Disorder)
	c. Predominantly Somatization Disorder
	d. Mixed Disorder (Depressive, anxiety or somatic symptoms)
4	**Severe Mental Disorders (SMDs)/ Psychotic Disorders:** *Acute / Episodic / Chronic*
5	**Other**.....

Rx plan:

1. Prescription	*2. Brief counselling or Psychological First Aid provided: YES / NO*
3. Follow-up notes with dates	

Prepared by Tele Medicine Centre, NIMHANS Digital Academy, Dept of Psychiatry, NIMHANS, Bengaluru
For feedback & clarification - manjunatha.adc@gmail.com

Part II: MANAGEMENT GUIDELINES

I. DIAGNOSTIC GUIDELINES

- ✓ The diagnoses of psychiatric disorders are based on cluster of symptoms and signs described below.
- ✓ Many medical illnesses in clinical practice can present as typical psychiatric disorders. Hence, it is advisable to ***rule out these medical conditions*** based on clinical symptoms and signs of medical illness, if present.
- ✓ Thyroid and cardiac dysfunctions are common medical conditions which can mimic psychiatric disorders.
- ✓ If medical illness is found, priority to be given on treatment of this medical condition.

Alcohol Disorders:

Alcohol Harmful use- *(Two types: Frequent /Infrequent) [Frequent type: ≥ 4 drinking sessions per month]*

1. Heavy alcohol use leading to socio-occupational and/or health problems, even if not regular use

Alcohol Addiction

1. Regular use of alcohol almost every day, especially early morning drinking
2. Experience of withdrawal symptoms whenever he/she reduces or stop alcohol such as tremors, sleep disturbance, sweating, palpitation, etc.

Tobacco Addiction

Person uses any tobacco products regularly and/or heavily and unable to control its quantity

DIAGNOSTIC CRITERIA OF PANIC DISORDER

The characteristics of attack of severe anxiety or fear **(panic attack)** as follows

1) Repetitive (more than one attack) 2. Spontaneous (sudden onset without any reasons) and 3) Unpredictable

These panic attacks are usually associated with

1. Sudden onset of palpitations, chest pain, difficulty breathing/choking sensations, dizziness, dry mouth, and feelings of unreality are common.
2. There is also a secondary fear of dying, losing control, or going mad.
3. Having a fear of *'anticipatory attack'* leading to avoidance of certain situations where these attacks occurred.
4. These attacks begin abruptly, reach a peak in minutes and resolution occurs in 10-20 minutes.

However, panic attack which is not spontaneous and predictable could be panic attack as a part of GAD/Depressive disorder, may not be panic disorder per se.

DIAGNOSTIC CRITERIA OF GENERALIZED ANXIETY DISORDER

An experience of excessive and uncontrollable anxiety /tension/worries/nervous with no obvious or trivial reasons for many months (often for ***> 6 months)***. ***The characteristics of these anxiety /tension/worries/nervous are***

1. Generalized in nature (involving several aspects of life involving family, health, finances, or work, such as family tragedy, ill health, job loss or accidents even when there are no obvious signs of trouble).
2. Persistently (present throughout day)
3. Free floating anxiety (means anxiety does not have an obvious cause / without pinpointing any source of worry/anxiety, but with capability to move on freely without being connected to one cause/source of anxiety **(unattached/uncommitted to a cause/a situation /independent of a cause, but capable of relatively free movement)**

These anxiety symptoms usually present with the following multiple symptoms.

1. ***Mental tension / Apprehension*** (nervousness or exaggerated and uncontrolled *"worries about future misfortunes"* of everyday events and problems, feeling "on edge", difficulty in concentrating, etc.);
2. ***Physical / Motor tension*** (being restless fidgeting, *tension headaches*, trembling, *inability to relax, trouble sleeping*);

Physical arousal / Autonomic over-activity *(light-headedness,* sweating, tachycardia or tachypnoea, *epigastric discomfort,* dizziness, dry mouth, etc.).

DIAGNOSTIC CRITERIA OF ADJUSTMENT DIORDER

1. *Triggered by stressful event (within one month) such as exposure to Corona Virus*
2. *Sadness, anxiety, anger or worry (or mixture of these)*
3. *Feeling of inability to cope or plan ahead or continue in the present situation*

DIAGNOSTIC CRITERIA OF ACUTE STRESS REACTION (< one month) or POST TRAUMATIC STRESS DISORDER (>one month)

1. Exposure to severe traumatic event
2. Intense fear or horror or intense panic anxiety or anger outburst
3. A constant state of hyperarousal or complete emotional numbness
4. *Autonomic signs of (tachycardia, tachypnoea, tremor, sweating, flushing) are commonly present.*
5. Intrusive recurring thoughts or images of the traumatic event
6. Reliving the event in nightmare or flashbacks
7. Active Avoidance of people, places, and things connected with the traumatic event

DIAGNOSTIC CRITERIA OF DEPRESSIVE DISORDER

The **core symptoms** are 1. *Depressed mood*
2. *Loss of interest or pleasure in activities that were usually pleasurable earlier &*
3. *↓ Energy level or ↑fatigue/tiredness.*

Additional symptoms

1. *Disturbed sleep*
2. *Disturbed appetite*
3. *↓Concentration & Attention*
4. *↓ Activity/thinking level*
5. *↓Sexual interest*
6. *↓ Self-esteem /self-confidence*
7. *Ideas or acts of self-harm or suicide*
8. *Ideas of guilt and unworthiness*
9. *Bleak and negative view of future*
10. *Weight loss*

Presence of ***at least 2 of above core symptoms*** and ***at least 3 of additional symptoms*** pervasively (in almost all activities) & persistently (present throughout the day) **for more than TWO WEEKS** confirm the diagnosis of "depressive disorder".

DIAGNOSTIC CRITERIA OF SOMATIZATION DISORDER

These patients presents with various physical complaints without a physical explanation determined by a full history and physical examination. These symptoms may be single, multiple and variable physical symptoms referred to any part or system of the body.

Following list includes the commonest symptoms.

1. Pain symptoms at multiple sites (such as abdominal, back, chest, dysmenorrhea, dysuria, extremity, head, joint, rectal) is often present.
2. Gastrointestinal sensations (pain, belching, regurgitation, vomiting, nausea, etc.),
3. Abnormal skin sensations (itching, burning, tingling, numbness, soreness, etc.) and blotchiness.
4. Sexual and menstrual complaints (ejaculatory or erectile dysfunction, hyperemesis of pregnancy, irregular menses, menorrhagia, sexual indifference) are also common.

For definite diagnosis of somatization disorder

1. For many months (at least 6 months) of symptoms of illness explained above
2. Doctor shopping (repeated visit to doctor/s and/or repeated investigation reveals no abnormality).
3. Some degree of social and family dysfunction.

DIAGNOSTIC CRITERIA OF PSYCHOSIS- Acute *(up to 6 months)* ***/Chronic*** *(> 6 months)* ***/Episodic*** *(more than one episode)*

1. Agitation or restlessness
2. Bizarre behaviour
3. Hallucinations (false or imagined perceptions, e. g., hearing voices)
4. Delusions (firm beliefs that are plainly false, e. g., patient is related to royal family, receiving messages from television, being followed or plan to kill/harm)
5. Social withdrawal (sitting alone, not interacting with others, etc)
6. Low motivation or interest, self-neglect (poor self-care, not going for work, etc)
7. Un-understandable speech
8. Over cheerfulness/ Over talkativeness/ reduced sleep/ hyperactivity/ grandiose thinking

II. INVESTIGATIONS GUIDELINES

- ✓ Laboratory or radiological investigations are NOT used routinely in psychiatric disorders
- ✓ The need for investigations depends on clinical findings to exclude other medical conditions which can explain psychiatric symptoms
- ✓ Serum thyroid stimulating hormone (TSH), & Electrocardiogram (ECG) are commonly used investigations
- ✓ CT/MRI of Brain are rarely used in routine clinical psychiatry.

III. TREATMENT GUIDELINES

A. General Treatment Guidelines of psychiatric medications

- ✓ ***Onset of action*** *is slow, i.e., around 2 to 3 weeks and takes 4 to 6 weeks for full action.*
- ✓ ***Longer course of medications:*** *Once improvement occur with any medication, there is a need to continue medication at* ***same dose*** *for at least 6 months.*
- ✓ ***DO NOT stop medications abruptly*** *until & unless it is an emergency such as severe side effects, etc*

No	Diagnosis	First line Rx	Probable duration of Rx
1	**CMDs**		
A	Adjustment Disorder and Acute Stress Reaction	BZDs + Counselling	2-3 weeks
B	Predominantly Depressive Disorder	SSRI ± BZDs + Counselling	SSRI for 9 -12 months BZDs for initial 2-4 weeks
C	Predominantly Anxiety Disorder	SSRI ± BZDs + Counselling	
D	Post-Traumatic Stress Disorder	SSRI / TCA± BZDs + Counselling	
E	Predominantly Somatization Disorder	TCA + Counselling	2 year
F	Mixed Disorder (Depressive, Anxiety/Somatic symptoms)	TCA > SSRI + Counselling	1-2 year
2	**SMDs/ Psychosis**		
A	Acute	Atypical antipsychotics	6-9 months
B	Chronic	Atypical antipsychotics	2 years
C	Episodic	Need psychiatrist referral	Variable
3	**Alcohol Disorder**		
A	Alcohol Harmful use – Not so frequent type	Counselling ± B1 vitamin	Follow up advised
B	Alcohol Harmful use – Frequent type	SOS Naltrexone 25 mg ½ hour before every drinking session	
C	Alcohol Addiction	Anti-craving medications + B1 vitamin ± BZDs detoxification	9-12 months
4	**Tobacco Addiction**	NRT/Bupropion	3-6 Months

ANTIPSYCHOTICS- ORAL (All are in adult dose in mg). *This is an empirical guideline for the clinical use of antipsychotics by GPs.*

Name	Initial dose	Max dose (GPs)	Max dose (Psy)	Common side effects (Mostly dose dependent)					Remark
				Sedation	Hypotension	EPS	Weight gain	↑ Prolactin	
Atypical Antipsychotics [Safer than typical antipsychotics]									

B. **Medications (Anti-depressants and Antipsychotics)**

Antidepressants (All are oral adult dose in mg) This is an empirical guideline for the clinical use of antidepressants at primary care.

Name	Initial dose	Max dose (GPs)	Max dose (Psy)	Common side effects (usually dose dependent)			Sexual side effects	Remarks, if any
				Sedation	Orthostatic hypotension	Anticholinergic		
Selective Serotonin Reuptake Inhibitors (SSRI)								
Fluoxetine	20	40	80	± insomnia	0	0	++	Preferably in morning
Escitalopram	10	20	30	±	±	0	±	Hyponatremia especially in old age
Citalopram	20	30	60	±	±	0	±	
Sertraline	50	100	200	±	±	0	Delayed ejaculation	Safe in old patients & medical comorbidities
Paroxetine CR	12.5	25	37.5	+	0	±	Retrograde ejaculation	Agitation
Fluvoxamine	25	100	300	±	±	±	Anorgasmia	
Newer antidepressants								
Duloxetine	20	30	60	±	±	±		Dry mouth, ↓ appetite
Venlafaxine ER	37.5	75	225	±	±	±	↓sexual drive	BP monitoring
Desvenlafaxine	50	100	400				Sexual dysfunction	
Mirtazapine	7.5	15	45	+++	+	±	Very less	
Burpropion	150	300	450	Activating	0	0	Very less	Priapism & seizure at higher dose
Tri Cyclic Antidepressants								
Amitriptyline	10	50	300	+++	+++	+++	++	Avoid in old patients & comorbidities
Imipramine	25	75	300	++	++	++	++	
Dotheipin				+++	+++	++	++	Relatively Cardio safe
Clomipramine	25	75	300	++	++	++	++	
Nortryptyline	50	50	200	+	++	+	+	

Severity of side effects is graded as 0 = Absent; ± = Probable/Very little; + = Mild; ++ = Moderate; +++ = Severe. Anticholinergic side effects are dry mouth, constipation, blurred vision, urinary retention, giddiness, etc. Max-Psy: Maximum dose used by psychiatrist, Max-GPs: Maximum dose recommended for General Practitioners.

*There is a risk of **manic switch** (< 5%) with antidepressants (TCA > SSRI); to be managed by stopping antidepressants and refer to a psychiatrist.*

ANTIPSYCHOTICS- ORAL (All are in adult dose in mg). *This is an empirical guideline for the clinical use of antipsychotics by GPs.*

Name	Initial dose	Max dose (GPs)	Max dose (Psy)	Common side effects (Mostly dose dependent)					Remark
				Sedation	Hypotension	EPS	Weight gain	↑ Prolactin	
Atypical Antipsychotics *[Safer than typical antipsychotics]*									
Risperidone	2	4	8	+	++	+	++	+++	
Olanzapine	5	10	30	++	+	±	+++	+	
Quetiapine	25	200	800	++	±	0	++	0	
Aripiprazole	7.5	15	30	0	0	0	±	0	
Paliperidone				0	+	+	++	+++	
Amisulpride	100	200	800	±	+	+	+	+++	
Levosulpride	50	100	300						
Clozapine*	25	100	600	+++	+++	0	+++	0	Seizure risk above 600 mg, Agranulocytosis (at any dose), cardiomyopathy
Typical Antipsychotics									
Chlorpromazine	25	100	600	+++	++++	+	++	++	Anticholinergic side effects
Flupenthixol	1	3	6	+	+	++	++	++	
Haloperidol	0.5	10	30	+	+	+++	+	+++	Cardio safe

** EPSE means Extrapyramidal side effects are graded as 0 = Absent; ± = Probable/Very little; + = Mild; ++ = Moderate; +++ = Severe.*
Increased prolactin lead to Amenorrhea, galactorrhoea and other sexual side effect
Clozapine to be begin under supervision of a psychiatrist

Antipsychotic- Depot Preparations$

No	Name	Route	Dose (in mg)	Frequency
1	Inj Fluphenazine Decanoate	IM	12.5 to 100	Every 2 to 4 weeks
2	Inj Flupentixol Decanoate	IM	20 to 60	Every 2 to 4 weeks
3	Inj Haloperidol Decanoate	IM	25 to 100	Every 4 weeks
	Inj Zuclopentoxol Decanoate	IM	200 to 400	Every2 to 4 weeks
4	Inj Olanzapine Pamoate	IM	150 to 300	Every 4 weeks
5	Inj Risperidone Consta	IM	25-50	Every 2 weeks
6	Inj Paliperidone Palmitate	IM	39, 78, 117, 156, and 234	Every 4 weeks

$To be given only for patients who does not take medicine regularly leading relapses. These depot injections preferable to begin by a psychiatrist and follow up may be done with their GPs

*

C. EXTRA-PYRAMIDAL SIDE EFFECTS (EPS) includes

No	Name	Description	Likely onset*	Rx
1	Dystonia	Twisting of arms/legs/eye balls	Within few hours (10 minutes to 4 hours)	Inj Phenargan (Promethazine) 25 /50 mg deep IM/ slow IV or Diazepam 10 mg IM/ slow IV *STAT* & then begin tab. Trihexyphenidyl 2-4 mg for 2 to 3 weeks
2	Akathisia	Motor restlessness	Within few days (1 to 4 days)	Reduction or change of offending drug. Beta blocker like Propranolol up to 40 mg/day or Benzodiazepines (BZDs). i.e., Clonazepam 0.5 – 1 mg
3	Drug Induced parkinsonism	Tremor & slowness	Within few weeks (1 to 2 weeks)	Trihexyphenidyl 2 to 6 mg. It is often added as prophylactic agent

* *after of administration of antipsychotics*

D. BENZODIAZEPINES tablets

No	Name	Type	Dose /day	Addiction potential	Schedule
1	Clonazepam	Long acting	0.5-6 mg	±	OD /BD
2	Diazepam	Long acting	5-30 mg	+++	OD /BD
3	Chlordiazepoxide	Long acting	10- 100 mg	++	OD /BD
4	Nitrazepam	Long acting	5-20 mg	++	OD /BD
5	Lorazepam	Short acting	0.5-2 mg	++	BD/TDS
6	Oxazepam	Short acting	15-60 mg	++	BD/TDS
7	Alprazolam	Short acting	0.25 – 4 mg	++++	BD/TDS

E. Counselling

- ✓ *It shall be brief in duration (to be completed in < 5 minutes).*
- ✓ It is one of the non-medication treatment modality practiced by all doctors in their everyday practice, often without their knowledge.
- ✓ Similarly, same thing shall be offered for patients with psychiatric disorders also.
- ✓ *The core contents of counselling shall include an education about illness and setting realistic expectations from treatment and practical tips to handle stressors, whenever present.*
- ✓ Counselling shall include information about nature of illness, when to expect benefit from medication, how long to continue, and need for repeated follow up.
- ✓ Sleep hygiene to be discussed
- ✓ Please provide practical tips to handle stressor whenever present.
  - ➢ ***Psychotherapy (talk therapy) is a specialised form of counselling aimed to relieve symptoms which takes multiple sessions of 40 -60 minutes each.***
  - ➢ ***Please don't confuse counselling with psychotherapy which psychiatrists practice.***

F. ALCOHOL AND TOBACCO DISORDERS

A general guideline

1. *Please do remember patients with alcohol & tobacco addiction need **MANY TREATMENT ATTEMPTS** as several relapses (may be 3 – 4 times) are common and relapses are rule than exception (even with proper treatment) for complete stopping.*
2. For any kind of alcohol & tobacco disorders, advice always to stop completely. If willing for Rx, follow below guidelines
3. ***If patient/s not willing to stop,** a) Never force any patient/s to begin treatment, b) Inform about availability of medications to stop, c) Counsel about benefits of abstinence and damages of continued use, d) Always ask them to come whenever they wish to stop. These steps build up better doctor-patient relationship for long term treatment for addiction Rx.*
4. Encourage their friends & family to cooperate and help patient for multiple treatment attempts.

Alcohol Disorders

Alcohol harmful use (Infrequent type)- Counselling includes benefits of stopping and loss (short term and long term) of continued use. You may prescribe thiamine supplementation. Advise for regular follow up.

Alcohol harmful use (Frequent type)- SOS use of Naltrexone 25 mg ½ an hour before every drinking session (Sinclair method). This method gradually reduces the harm by reducing the quantity of alcohol and eventually helps to stop alcohol completely.

Alcohol Addiction:

1. Detoxification with BZDs only if there are withdrawal symptoms (Diazepam preferred up to 40 mg/day on 1st & 2nd day, 30 mg/day for 3rd & 4th day, 20mg/day for 5th & 6th day, 10mg/day for 7th & 8th day, then stop).
2. Thiamine supplementation up to 300 mg/day for first 3 months.
3. ***Anti-craving medications*** (gradual hike is advised) such as Topiramate to 100 mg/day, Baclofen up to 40 mg/day, Acamprosate up to 999mg/day (333 mg TDS) may be used for 9 months to 1 year.

These anti-craving medications can be given from first day of Rx. They reduce craving, reduce quantity of alcohol even if person drink alcohol on it. Hence, anti-craving medications can also be given even if person is continued to drink alcohol, this help reduces/prevents withdrawal symptoms / hangover / craving of next morning.

***Disulfiram** is an aversive drug (NOT an anti-craving) not advisable for use at primary care level. In case GPs prefer, please use with caution preferably after informed consent from patients and supervision by a family member. Start ONLY after 5 days of completely stopped alcohol. Dose is 250 mg OD preferably in the morning.*

Tobacco Addiction

1. Nicotine Replacement Therapy (NRT)
   Nicotine transdermal patch to apply on clean, dry, non-hairy area of skin (typically upper arm or shoulder) in 21/14/7 mg regimen: 21 mg OD for 6 weeks, then 14 mg patch OD for 2 weeks & then 7 mg patch OD for 2 weeks) and
   Nicotine gum to be used in chew and park technique (2 & 4 mg: Max 16 mg/day, to be used hourly for first 2 weeks then gradual taper and stop in 3 months). Please be aware that nicotine gum has poor acceptability and unpredictable effects, i.e., may not get desired effects.
2. **Bupropion** is available in 150 & 300 mg tablets. To be given preferably in morning; begin 150 mg for first 5 days & then 300 mg for 3 to 6 months.
3. **Varenicline** is expensive. Days 1-3: 0.5 mg OD, days 4-7: 0.5 mg BD, then 1 mg BD for 3 to 6 months.

G. *MANAGEMENT OF PSYCHIATRIC DISORDERS IN COMORBID MEDICAL ILLNESS*

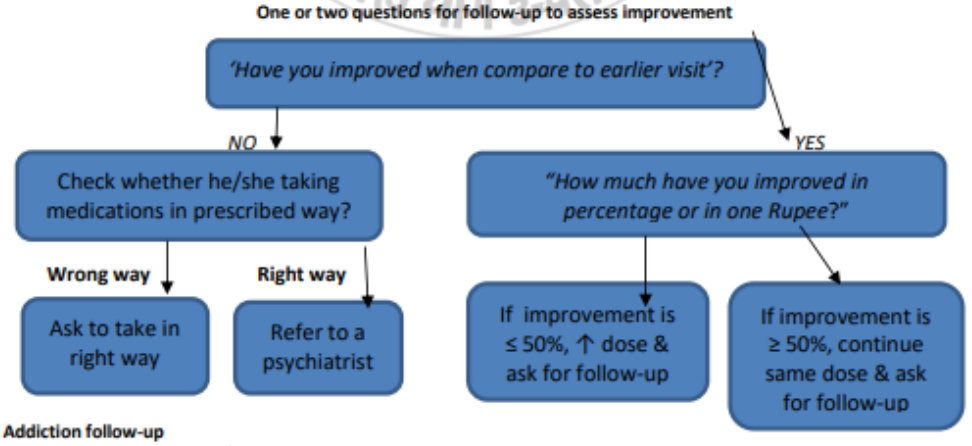
- ✓ *Psychiatric disorders can be present in patients of diabetes mellitus, essential hypertension, ischaemic heart disease, stroke, cancers, etc.*
- ✓ *Avoid poly-pharmacy.*
- ✓ *Begin low (dose), go slow (for escalation of dose)*
- ✓ *However, this schedule contains reasonably safe medications which to be prescribed at lower dose which is considered in safe always.*
- ✓ *If doubt, refer to a psychiatrist.*

H. *TREATMENT OF PSYCHIATRIC DISORDERS IN PREGNANCY AND LACTATION*

- ✓ *General rules of Pregnancy and Lactation is applicable for psychiatric disorders also such as avoid in first trimester, caution in 2nd & 3rd trimesters.*
- ✓ *Preferable to refer to a psychiatrist*

IV. FOLLOW UP GUIDELINES

Frequency of follow-ups: *First follow-up at 2 weeks (to assess side effects), second at 4 weeks (to assess effects), and then every month (for maintenance).*



Addiction follow-up

1. *Check whether he/she stopped completely or not. If stopped completely, continue anti-craving Rx for 9-12 months*
2. *If not stopped completely, consider increasing the dose of anti-craving medication*
3. *Refer to psychiatrist, in case person goes back for repeated drinking episode despite on adequate dose of anti-craving Rx*

1.Rx for Depressive & Anxiety Disorders

1. Tab. FLUOXETINE 20mg, 1-0-0 2. Tab. CLONAZEPAM 0.25mg ***OR*** Tab. DIAZEPAM 5mg, 0-0-1 X 10days & then **STOP**	**OR**	1. Tab. ESCITALOPRAM 10mg, 0-0-1 2. Tab. CLONAZEPAM 0.25mg ***OR*** Tab. DIAZEPAM 5mg, 0-0-1 X 10days & then **STOP**	**OR**	Tab. AMITRYPTILINE 25mg, 0-0-1/2 X 4days 0-0-1 X 4days 0-0-2 (continue)
Counselling to include, Begin its action: 2-3 weeks, Full action: 4-6 weeks & Course of treatment: 6-9 Months				
Follow up @ 1 Month	**If improvement, follow-up yourself.**			**If NO improvement, Refer to Psychiatrist.**

2. Rx for Somatization Disorder

Tab. AMITRYPTILINE (25mg) 0-0-1/2 X 4days 0-0-1 X 4day 0-0-2 (continue)	**Counselling to include,** Begin its action: 2-3 weeks, Full action: 4-6 weeks & Course of treatment: 2 years.	
Follow up @ 1 Month	**If improvement, follow-up yourself.**	**If NO improvement, Refer to Psychiatrist.**

3. Rx for Psychotic disorders

1. Tab. RISPERIDONE 2mg,0-0-1 X 4days 0-0-2 (Continue) 2. Tab. THP 2mg, 1-0-0	**OR**	Tab. OLANZAPINE 5mg,0-0-1 X 4days 0-0-2 (Continue)
Counselling to include, Begin its action:2-3 weeks, Full action:4-6 weeks &Course of treatment:6-9 months		
Follow up @ 1 Month	**If improvement, follow-up yourself.**	**If NO improvement, Refer to Psychiatrist.**

PRESCRIPTION MODULE (Cont.)

4. Rx for Alcohol Addiction

1. Inj. OPTINEURON FORTE (containing thiamine 33mg) 1 ampule deep IM once a day for 5days. 2. Tab. DIAZEPAM 10mg,1-1-2 X 2days 0-1-2 X 2days 0-0-2 X 2days 0-0-1 X 2days then **STOP** 3. B-Complex tablet containing a high dose of THIAMINE (100mg/day) 0-0-1 for 3months.	4. Tab. BACLOFEN 10mg, 0-0-1 X 1day 1-0-1 X 1day 1-1-1 X 1day 1-1-2 (Continue) **OR** Tab. TOPIRAMATE 25mg, 0-0-1 X 2days 1-0-1 X 2days 1-0-2 X 2days 2-0-2 (continue)
Counselling: Please refer to page-7 of CSP. **Follow up after 10 days.**	**Treatment course with anti-craving medicines for 9months to 1year.**

5. Rx for Tobacco Addiction

Tab. Bupropion XL (150mg) 1-0-0 X 5days 2-0-0 (continue)	
Counselling: Please refer to page-7 of CSP.	**Treatment course for 4-6 months.**
Follow up once every 30 days.	

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ANNEXURE K: MONITORING PROFORMA FOR DISTRICT LEVEL

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

Name of the District:

State/U.T:

1. **Status of availability of Mental Health Professionals under DMHP**

Designation/Position	**Existing**	**Recruited under DMHP**
Psychiatrist	Yes/No & Number	Yes/No
Clinical Psychologist/ Psychologist	Yes/No & Number	Yes/No
Psychiatric Social Worker/ Social Worker	Yes/No & Number	Yes/No
Psychiatric Nurse/ Trained Nurse	Yes/No & Number	Yes/No
Community Nurse	Yes/No & Number	Yes/No
Monitoring & Evaluation Officer	Yes/No & Number	Yes/No
Case Registry Assistant	Yes/No & Number	Yes/No
Ward Assistant/ Orderly	Yes/No & Number	Yes/No

2. **Status of training and capacity building of the health professionals in the DMHP district**

S.no	**Health Professionals**	**Total no. in the district**	**Total no. of Professionals trained**		**No. yet to be trained**
			In the reporting quarter	**Cumulative**	
A.	Medical Officers at the district hospital				
A1	Psychologist				

A2	Social Worker				
A3	Nurse				
A4	Medical Officer of CHC and PHC (30 per batch)				
B.	Paramedical staff/Health worker				
B1	Pharmacists				
B2	Nurses				
B3	ANMs				
B4	Others, if any, please specify				
C.	Other stakeholders of the community				
C1	Panchayat leaders				
C2	Community members				

3. Status of Mental Health Services available in DMHP district

A.	**Mental Health Services- OutPatient Department (OPD) and referral services at District Health Care Level**	
A1	Total no. of new patients seen in the OPD in the reported quarter	
A2	Total no. of follow-up cases in the OPD in the reported quarter	
A3	Total no. of cases referred to tertiary care hospital in the reported quarter	
B.	**Mental Health Services- Inpatient Department (IPD) at District Health Care Level**	
B1	Availability of in-patient services (Yes/No)	
B2	No. of beds available	
B3	Total no. of patients admitted in IPD	
B4	Average duration of stay (in days)	

B5	Are there any linkages between DMHP and other institutions to provide discharged patients with continuing community care		
C.	**Mental Health Services- after treatment continuing care services at District Level**		
C1	No. of Day care centres available/set up in the district		
C2	No. of Residential Continuing Care Centre (stay up to 6 months) in the district		
C3	Total no. of Patients availed services at Long Term Residential Continuing Care Centre. (Department of Social Justice and Empowerment)		
		Quarter	Cumulative
C4	Total no. of patients availed services at DaycareCenters. (Department of Social Justice and Empowerment)		
C5	Total No. of Patients availed services at Residential Continuing Care Centre. (Department of Social Justice and Empowerment)		
C6	Total No. of Patients availed services at Long Term Residential Continuing Care Centre. (Department of Social Justice and Empowerment)		

D.	Mental Health Services- Out-reach Services		
	The approach used by DMHP to deliver mental health services (A= outreach (camp) based, B= PHC based, C= Both outreach and PHC based)		**A B C** **(Encircle anyone)**
	If outreach (Camp) based or both the approaches are used, please answer following		
		Quarter	Cumulative
D1	Total no. of outreach visits made by DMHP team in the quarter		
D2	Total no. of cases examined in the outreach camps		
D3	Total no. of Cases referred at the District level for management		
D4	Total no.of cases referred to rehabilitation/counselling		

E.	**Mental Health Services- Availability and Dispensing of Essential Psychotropic Drugs**		
	Classification of drugs	District Level	PHC level

		Hint to fill the responses: (A= regularly available, B= Irregularly available and NA= not available)	
E1	Antidepressant		
E2	Antipsychotic		
E3	Anticonvulsant		
E4	Anxiolytic/ hypnotic		
F.	**Source of Essential Drugs**		
F1	Source of essential drugs	State govt./ DMHP fund (mark whichever is applicable)	
G.	**Mental Health Services-related to Climate change**		
G1	Total no. of new patients seen in the OPD due to mental health problems of extreme weather events(floods/cyclones/heat waves/earthquakes/ other disasters)		
G2	Total no. of follow-up cases in the OPD in the reported quarter related to mental health problems of extreme weather events (floods/ cyclones/ heat waves/ earthquakes/ other disasters)		
G3	Total no. of cases referred to tertiary care hospital in the reported quarter related to mental health problems of extreme weather events (floods/ cyclones/ heat waves/ earthquakes/ other disasters)		
H	**Number of cases based on diagnosis**		
H1	Total number of cases with SMD/Psychosis		
H2	Total number of cases with CMD (depression/anxiety/PTSD/somatoform)		
H3	Total number of cases with Substance Use Disorder		

4. **Status of Awareness generation activities (Information, Education & communication activities) in the district. (Please attach Photographs in support of the activities conducted)**

Media	**Type of Media used (activities)**	**No. of IEC activities undertaken**	**Level (District/PHC)**
Mass Media	Broadcasting of video clips on local TV channels		
	Dissemination of messages through community radio		
	Showing films on mental health		
	Advertisement on mental health in a local newspaper, magazines, etc.		
Outdoor Media	Hoardings		
	Bus Panels		
	Exhibitions		
	Wall paintings		
	Street plays		
Folk Media	Puppets show		
	Dance and song shows		
	Community meetings with general people		
Interpersonal Communication (IPC)	Meetings with the family members of the patients		
	Interactive sessions on mental health in Haats		
	Specify activities		

Activities related to climate change and mental health			

5. Status of inter-sectoral linkages/partnerships developed with the Department of Human Resource Development DMHP district

S. No	**Professionals**	**Total no. of professionals trained**		**No. Yet to be trained**
		In the reporting quarter	Cumulative	
A.	Number of school teachers/ NGO representatives trained to impart Life Skill Education			
B.	Number of College teachers (Psychology) trained to provide counselling services in the colleges			

6. Financial status- as on ……..

S. No	**Activity**	**Budget Received**	**Expenditure incurred**	**Balance**	**Remarks**
1.	Staff				
2.	Equipment				
3.	Training				
4.	Medicines/ Stationery/ Contingency				
5.	IEC				
6.	Any other				
	Total				

Is there any difficulty in using the funds allocated to your district? If Yes, please explain.

7. Communication of DMHP
   9.1 No. of NGOs engaged in mental health activities_____
   9.2 No. of Panchayati Raj institutions engaged in mental health activities of DMHP _____
   9.3 No. of User groups/ Family Associations in the district_____

8. Any other relevant information :
   _____
   _____

ANNEXURE L: MONITORING PROFORMA FOR CHC/TALUK HOSPITAL

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

Name of the CHC/TALUK HOSPITAL: BLOCK:

DISTRICT: STATE/U.T:

Status of Mental Health Services available in CHC/Taluk Hospital

1	Total no. of new patients seen in the OPD in the reported quarter	
2	Total no. of follow-up cases in the OPD in the reported quarter	
3	Total no. of cases referred to tertiary care hospital in the reported quarter	
4	Total no. of patients referred for counselling services	
5	Total no. of patients referred back from the District level for follow-up treatment	
	Mental Health Services-related to Climate change	
6	Total no. of new patients seen in the OPD due to mental health problems of extreme weather events (floods/ cyclones/ heat waves/ earthquakes/ other disasters)	
7	Total no. of follow-up cases in the OPD in the reported quarter related to mental health problems of extreme weather events(floods/cyclones/heat waves/earthquakes/ other disasters	
8	Total no. of cases referred to tertiary care hospital in the reported quarter related to mental health problems of extreme weather events (floods/ cyclones/ heat waves/ earthquakes/ other disasters)	
	Number of cases based on diagnosis	
9	Total number of cases with SMD/Psychosis	
10	Total number of cases with CMD (depression/anxiety/PTSD/somatoform)	
11	Total number of cases with Substance Use Disorder	

ANNEXURE M: MONITORING PROFORMA FOR PHC

Reporting Quarter & Year:1st /2nd/3rd/4th Quarter_____(Year)

Name of the PHC: **BLOCK:**

DISTRICT: **STATE/U.T:**

Status of Mental Health Services available in PHC

1.	Total no. of new patients seen in the OPD in the reported quarter	
2.	Total no. of follow-up cases in the OPD in the reported quarter	
3.	Total no. of cases referred to tertiary care hospital in the reported quarter	
4.	Total no. of patients referred for counselling services	
5.	Total no. of patients referred back from the District level for follow-up treatment	
	Mental Health Services-related to Climate change	
7.	Total no. of new patients seen in the OPD due to mental health problems of extreme weather events (floods/ cyclones/ heatwaves/earthquakes/other disasters)	
8.	Total no. of follow-up cases in the OPD in the reported quarter related to mental health problems of extreme weather events(floods/cyclones/heat waves/earthquakes/ other disasters)	
10.	Total no. of cases referred to tertiary care hospital in the reported quarter related to mental health problems of extreme weather events (floods/ cyclones/ heat waves/ earthquakes/ other disasters)	
	Number of cases based on diagnosis	
12.	Total number of cases with SMD/Psychosis	
13.	Total number of cases with CMD (depression/anxiety/PTSD/somatoform)	
14.	Total number of cases with Substance Use Disorder	

CONTRIBUTOR LIST:

Dr Patley Rahul, Assistant Professor, Department of Psychiatry, NIMHANS

Dr Harshitha H A, Senior Resident, Department of Psychiatry, NIMHANS

Dr Gautam Sudhakar N, Senior Resident, Department of Psychiatry, NIMHANS

Dr Prateek Varshney, Senior Resident, Department of Psychiatry, NIMHANS

Dr Bhaskaran Aandi Subramaniyam, Senior Resident, Department of Psychiatry, NIMHANS

Dr Apurva Mittal, Senior Resident, Department of Psychiatry, NIMHANS

Dr Arpitha B K, Senior Resident, Department of Psychiatry, NIMHANS

Dr Aishwarya John, Senior Resident, Department of Psychiatry, NIMHANS

Ms Deepika Saini, Project Officer, Department of Psychiatry, NIMHANS

Mr Nithesh Kulal, Project Officer, Department of Psychiatry, NIMHANS

Ms Harsha Baid, Fellow, Department of Mental Health Education, NIMHANS

Dr Vinay B, Specialist Grade Psychiatrist, NIMHANS

Dr Hari Hara Suchandra, Assistant Professor, Department of Psychiatry, NIMHANS

Dr Latha K, Assistant Professor, Department of Mental Health Education, NIMHANS

Dr Eesha Sharma, Assistant Professor, Department of Child and Adolescent Psychiatry, NIMHANS

Dr Aarti Jagannathan, Associate professor, Department of Psychiatric Social Work, NIMHANS

Dr Radhakrishna Govindan, Associate Professor, Department of Nursing, NIMHANS

Dr Gautham Melur Sukumar, Additional Professor, Department of Epidemiology, NIMHANS

Dr K S Meena, Additional Professor and Head of the Department of Mental Health Education, NIMHANS

Dr Manjunatha N, Additional Professor, Department of Psychiatry, NIMHANS

Dr Paulomi M. Sudhir, Professor, Department of Clinical Psychology, NIMHANS

Dr. K Sekar, Former Senior Professor, Centre for Psychosocial Support and Disaster Management, NIMHANS

DrVenkata Senthil Kumar Reddi, Professor, Department of Psychiatry, NIMHANS

Dr Prabhat K Chand, Professor, Department of Psychiatry, NIMHANS

Dr Seema Mehrotra, Professor and Head of the Department of Clinical Psychology, NIMHANS

Dr Naveen Kumar C, Professor and Head Community Psychiatry Unit, Dept of Psychiatry, NIMHANS. Officer-In-Charge, CoE on CC-MH, NPCCHH, NCDC, MoHFW, GOI.

Dr Suresh Bada Math, Professor and Head Forensic Psychiatry Unit and Officer-In-Charge, NIMHANS Digital Academy, Dept of Psychiatry, NIMHANS

TECHNICAL EXPERT MEMBERS

Dr Vivek Benegal, Professor, Department of Psychiatry, NIMHANS, Bengaluru, Karnataka.

Dr Susanta Padhy, Additional Professor, Department of Psychiatry, AIIMS, Bhubaneshwar, Odisha.

Dr Ravi Gupta, Additional Professor and Head of Department of Psychiatry, AIIMS, Rishikesh, Uttarakhand.

Dr Lenin Singh, Professor and Head of Department of Psychiatry, RIMS, Imphal, Manipur.

Dr Ritambhara Mehta, Professor, Department of Psychiatry, Surat Medical College, Gujarat.

Dr Pradeep Saha, Professor, Department of Psychiatry and Director, Institute of Psychiatry, Kolkata, West Bengal.

Dr Yaseer, Professor and Head of Department of Psychiatry, Institute of Mental Health and Neurosciences, Srinagar, Jammu and Kashmir

Dr. K Pathak, Professor and Head of Department of Psychiatry, LGB Regional Institute of Mental Health, Tezpur, Assam

Dr Anil Prabhakaran, Professor and Head of Department of Psychiatry, Thiruvananthapuram Medical College, Kerala.

Dr Poorna Chandrika, Professor and Head of Department of Psychiatry, Institute of Mental Health, Chennai, Tamil Nadu.

Dr Amit Chakrabarti, Officer-In-Charge Centre on Non-Communicable Diseases Indian Council of Medical Research (ICMR) Kolkata.

Dr Rinku Sharma, ADG, DteGHS, MoHFW, Government of India. (Representative from NMHP)

NPCCHH team

Dr Aakash Shrivastava, Additional Director, NPCCHH

Dr Rameshwar Sorokhaibam, Deputy Director, NPCCHH

Dr Sivaprasad Gajjala, Deputy Assistant Director, NPCCHH

Praveen G, Senior Consultant, Climate Change, NPCCHH

Dr Purvi Patel, Senior Consultant, Climate Change, NPCCHH

Azadi Ka Amrit Mahotsav

सत्यमेव जयते

Ministry of Health And Family Welfare
Government of India

National Programme on Climate Change and Human Health

NATIONAL CENTRE FOR DISEASE CONTROL DELHI

National Programme on Climate Change and Human Health

MINISTRY OF HEALTH AND FAMILY WELFARE