

**ASSESSING KNOWLEDGE AND COMPETENCY OF CHOS (COMMUNITY
HEALTH OFFICERS) POST-MNS (MENTAL, NEUROLOGICAL, AND
SUBSTANCE USE DISORDERS) TRAINING UNDER AYUSHMAN BHARAT-
AAM**

Dissertation Submitted to



The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

Sameera Khan

Under the Supervision and Guidance of

Dr. Piyusha Majumdar

2025



Government of Rajasthan
National Health Mission, Rajasthan
Department of Medical, Health & FW, Swasthya Bhawan, Jaipur
Tel.No.0141-2229108, Email ID: spm_raj.nrhм@yahoo.com

No. F 2 (153) NHM/SPM/2025/619

Dated: 30/05/2025

CERTIFICATE

This is to certify that **Dr. Sameera Khan**, student of MBA, Indian Institute of Health Management Research (IIHMR University, Jaipur) has successfully completed her Dissertation & Internship at National Health Mission, Rajasthan from 10th March, 2025 to 31st May, 2025.

Her performance was found satisfactory. We extend her good wishes for a bright and successful career ahead.

(Dr. Bharti Dixit)
Mission Director, NHM
Joint Secretary
Medical Health & Family Welfare

CERTIFICATE

This is to certify that dissertation titled **Assessing Knowledge and Competency of CHOs (Community Health Officers) Post-MNS (Mental, Neurological, and Substance Use Disorders) Training Under Ayushman Bharat-AAM** is a record of the research work undertaken by Dr. Sameera Khan (PT) in partial fulfilment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.



Faculty Guide
IIHMR University, Jaipur
Date



School Dean
IIHMR University, Jaipur
Date

Declaration by Student.

I hereby declare that this dissertation titled **Assessing Knowledge and Competency of CHOs (Community Health Officers) Post-MNS (Mental, Neurological, and substance use disorders) Training Under Ayushman Bharat-AAM** the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



(Signature)

Name of Student: Dr. Sameera Khan (PT)

Date: 22/04/2025

Preface

In the field of healthcare, knowledge becomes truly meaningful when complemented by practical experience. Particularly in the public health sector, where the challenges are complex and intertwined with societal factors, firsthand exposure is vital for understanding and addressing real-world problems effectively. As an MBA student specializing in Health and Hospital Management, it is essential to develop not only theoretical insights but also a practical understanding of how healthcare systems and programs function at various levels.

As part of the academic curriculum, a three-month dissertation is incorporated in the second year to provide students with an opportunity to engage with the ground realities of healthcare management. I consider myself fortunate to have undertaken my dissertation with the **National Health Mission (NHM), Rajasthan**, which provided me with valuable exposure to the functioning of government health initiatives at the state level.

Within NHM Rajasthan, I was given the freedom to select a topic aligned with my interests and career aspirations. I chose to focus on the **Assessing Knowledge and Competency of CHOs (Community Health Officers) Post-MNS (Mental, Neurological, and Substance Use Disorders) Training Under Ayushman Bharat-AAM**. This study allowed me to explore the integration of mental health services into primary care and to evaluate how frontline health workers are prepared to handle mental, neurological, and substance use disorders in community settings.

The dissertation has not only enriched my academic journey but also deepened my understanding of the practical challenges and opportunities in strengthening mental health care within India's primary health system. I am grateful for this learning experience and the support I received from the NHM Rajasthan team, my faculty mentors, and all those who contributed to this study.

Acknowledgement

I take this opportunity to express my sincere gratitude to everyone who supported and guided me throughout the course of this dissertation. Their encouragement, valuable suggestions, and constructive feedback have been instrumental in completing this research study successfully.

First and foremost, I would like to extend my heartfelt thanks to the **Mission Director, National Health Mission (NHM), Rajasthan** for providing me the opportunity to undertake my dissertation within the public health system and gain practical exposure to real-world challenges in healthcare delivery.

I am deeply thankful to **Dr. Rommel Singh (PD-AAM), Dr. Sourabh (Additional State Program Officer), Mr. Amit Jain (Strategic AI Deployment) and whole team of AAM** for their constant guidance and support during my study period at NHM Rajasthan. Their insights and encouragement have been invaluable in shaping the direction of my research work.

I am also grateful to my academic mentor, **Prof. Piyusha Mazumdar**, for their consistent support, timely advice, and critical feedback, which helped me refine my work at every stage. Their encouragement and scholarly guidance have been a source of strength throughout this project.

My sincere thanks go to all the **Community Health Officers (CHOs)** who participated in the study, shared their experiences, and contributed valuable information that made this research possible.

Finally, I would like to acknowledge the support of my family, friends, and peers, whose encouragement and motivation have been a continuous source of inspiration throughout my academic journey.

Table of Contents

PREFACE	I
ACKNOWLEDGEMENT	II
LIST OF FIGURES	IV
LIST OF TABLES	IV
TABLE OF ABBREVIATIONS	V
ABSTRACT	VI
CHAPTER 1	1
INTRODUCTION	1
1. Overview of Public Health and Primary Care in India	1
2. The National Health Mission (NHM)	2
3. Ayushman Bharat and the Ayushman Arogya Mandirs (AAMs)	2
4. Role of Community Health Officers (CHOs)	3
5. Mental Health in Rural Rajasthan:	4
6. About the Research Project	4
CHAPTER 2	7
LITERATURE REVIEW:.....	7
Research Gap	8
CHAPTER 3	10
Objectives and Methodology	10
CHAPTER 4	15
Results (Quantitative Analysis)	15
Results (Qualitative Analysis).....	19
Interpretation:	24
CHAPTER 5	26
DISCUSSION	26
CHAPTER 6	27
RECOMMENDATIONS	27
CHAPTER 7	29
Conclusion	29
Key Quantitative Conclusions	29
Key Qualitative Conclusions.....	29
Overall Synthesis.....	30
REFERENCES	32
ANNEXURE 1 & 2	34
ANNEXURE 3	40
ANNEXURE 4	41

List of Annexures

Annexure No.	Title
Annexure 1	CHO Competency Assessment Questionnaire on MNS Disorders (English and Hindi)
Annexure 2	Informed Consent Form for Participation in Research Study
Annexure 3	Permission Letter for Conducting In-Depth Interviews with Community Health Officers (CHOs)
Annexure 4	Tools Included in the MNS Training Module:
	• Self-Reporting Questionnaire-20 (SRQ-20)
	• Patient Health Questionnaire-9 (PHQ-9)
	• PHQ-2 Screening Tool
	• Mini-Mental State Examination (MMSE)

List of Figures

Figure No.	Title
Figure 1	Pie Chart showing Frequency distribution into the categories
Figure 2	Graphical Presentation of Percentage Distribution of all 30 CHOs with Average Percentage
Figure 3	Graphical representation of Distribution of number of CHOs mentioned challenges in practice

List of Tables

Table No.	Title
Table 1	Modified Kirkpatrick Model for Interpreting Knowledge Scores
Table 2	Frequency Distribution for chi-square test (Observed and Expected)
Table 3	Summary of Thematic Analysis from the In-depth interviews of CHOs
Table 4	Distribution of number of CHOs mentioned challenges in practice

Table of Abbreviations

Abbreviation	Full Form
NHM	National Health Mission
AAM	Ayushman Arogya Mandir
CHO	Community Health Officer
MNS	Mental, Neurological, and Substance Use Disorders
PHC	Primary Health Centre
SHC	Sub Health Centre
HWCs	Health and Wellness Centres
PHQ-9	Patient Health Questionnaire-9
PHQ-2	Patient Health Questionnaire-2
SRQ-20	Self Reporting Questionnaire-20
AUDIT	Alcohol Use Disorders Identification Test
MMSE	Mini Mental State Examination
EASI	Everyday Abilities Scale for India
RMNCH+A	Reproductive, Maternal, Newborn, Child, and Adolescent Health
NCD	Non-Communicable Diseases
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
OPD	Outpatient Department
IEC/BCC	Information, Education and Communication / Behaviour Change Communication

Abstract

Title:

Assessing Knowledge and Competency of CHOs (Community Health Officers) Post-MNS (Mental, Neurological, and Substance Use Disorders) Training Under Ayushman Bharat-AAM

Author Name:

Dr. Sameera Khan (PT)

Advisor Name:

Prof. Piyusha Mazumdar

Keywords: Community Health Officers, Mental Health, MNS Disorders, Competency Assessment, Ayushman Bharat, Primary Healthcare, SASHAKT, Training Evaluation

Background: Community Health Officers (CHOs) play a pivotal role in delivering primary healthcare, including mental health services, under the Ayushman Arogya Mandirs (AAM) initiative. To address the community's mental health service gap, the Ministry of Health and Family Welfare introduced the MNS (Mental, Neurological, and Substance Use Disorders) training module. However, its effectiveness in enhancing CHOs' knowledge and skills remains under-assessed.

Objective:

- To assess current knowledge of CHOs in managing mental health issues after MNS training.
- To assess CHOs' competency in managing mental health issues after MNS training.
- To determine the need for further training or re-training among CHOs for better mental health service delivery.

Methodology: A cross-sectional descriptive study was conducted among 30 CHOs in Jaipur 1, Jaipur 2, and Ajmer blocks, selected through purposive sampling. Inclusion required prior MNS training and active mental health reporting on the AAM portal. Data collection involved a structured questionnaire and in-depth interviews. Quantitative data were analysed

using Excel (descriptive statistics, chi-square tests), while qualitative responses underwent thematic analysis.

Results/Findings: The quantitative findings suggest that while most CHOs demonstrated a moderate level of knowledge following the MNS training, only 40% scored above 70%, and 53% fell within the mid-competency range. No scores exceeded 25 out of 30, and a small proportion scored below 50%, indicating areas where further reinforcement may be needed. None of the CHOs reported using the recommended assessment tools, with 80% unfamiliar with them, pointing to gaps in tool awareness and practical application. Additionally, over half did not have access to the module copy, and several CHOs expressed interest in retraining. Reported challenges such as stigma, patient hesitancy, and limited resources suggest the need for continued support to strengthen mental health service delivery at the community level.

Conclusion: This study assessed the knowledge and competency of Community Health Officers (CHOs) after completing the MNS Disorders training under Ayushman Bharat–AAM. Using a mixed-methods approach, it found that while the average knowledge score was moderate (64.11%), only 40% scored above 70%, indicating satisfactory understanding. A notable 6.6% scored below 50%, highlighting gaps in knowledge retention. The results suggest inconsistent learning outcomes, raising concerns about the effectiveness of the training and its practical impact on mental healthcare delivery.

Chapter 1

Introduction

1. Overview of Public Health and Primary Care in India

India has made significant progress in advancing healthcare access and improving health outcomes over the past several decades. However, challenges remain—especially in rural areas—due to geographical, social, and economic disparities. Primary healthcare forms the foundation of a strong health system, acting as the initial interface between individuals and healthcare services. It prioritizes preventive care, early diagnosis, and health awareness, while also functioning as a referral pathway to advanced medical facilities when needed.

A responsive and well-functioning primary healthcare system is essential to address not just communicable and non-communicable diseases but also emerging public health concerns like mental health. Globally, incorporating mental health care into primary healthcare systems is seen as essential for bridging the treatment gap, minimizing stigma, and ensuring community-level accessibility. This approach holds particular significance in rural India, where specialist services are scarce and public awareness remains limited.



2. The National Health Mission (NHM)

The National Health Mission (NHM), initiated in 2005 by the Ministry of Health and Family Welfare, was designed to strengthen India's public health infrastructure and overcome existing gaps in service delivery. It brings together two key programs—the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM)—under a unified strategy aimed at delivering accessible, affordable, and quality healthcare across both rural and urban populations.

NHM envisions universal access to health services that are equitable, high in quality, and responsive to the community's needs. Its core goals include lowering maternal and infant mortality rates, expanding the reach of essential public health services, curbing both communicable and non-communicable diseases, and fostering health promotion through active community involvement.

Key features of NHM include:

- Decentralized planning and implementation involving community participation.
- Strengthening of sub-centres, primary health centres (PHCs), and community health centres (CHCs).
- Capacity building of human resources through training of Accredited Social Health Activists (ASHAs), ANMs, and more recently, Community Health Officers (CHOs).
- Introduction of performance-based incentives and public-private partnerships.

In Rajasthan, NHM has played a crucial role in expanding healthcare access to remote and underserved regions. The state has implemented a range of programs under NHM to tackle maternal and child health, infectious diseases, malnutrition, and more recently, mental health services.

3. Ayushman Bharat and the Ayushman Arogya Mandirs (AAMs)

Launched in 2018, Ayushman Bharat is a flagship initiative by the Government of India aimed at achieving Universal Health Coverage (UHC). It consists of two components: Pradhan Mantri Jan Arogya Yojana (PM-JAY) for secondary and tertiary care coverage, and Health and Wellness Centres (HWCs), now known in Rajasthan as Ayushman Arogya

Mandirs (AAMs), for delivering comprehensive primary care. The initiative is structured around two key components: Pradhan Mantri Jan Arogya Yojana (PM-JAY), which provides financial protection for secondary and tertiary healthcare, and Health and Wellness Centres—rebranded as Ayushman Arogya Mandirs (AAMs) in Rajasthan—that focus on delivering holistic primary healthcare services.

The AAM model seeks to upgrade existing Sub-Health Centres (SHCs) and PHCs into fully functional primary care units offering an expanded range of services including:

- Maternal and child health
- Management of communicable and non-communicable diseases
- Screening for cancers
- Elderly care
- Oral health
- Eye care
- Mental health
- Emergency care services

Each AAM is staffed by a Community Health Officer (CHO), supported by ANMs and ASHAs, and equipped to provide a basic package of diagnostic services and essential medicines.

By embedding mental health within the broader framework of comprehensive primary care, Ayushman Bharat aims to make mental healthcare more accessible, affordable, and acceptable—particularly to the rural and marginalized communities.

4. Role of Community Health Officers (CHOs)

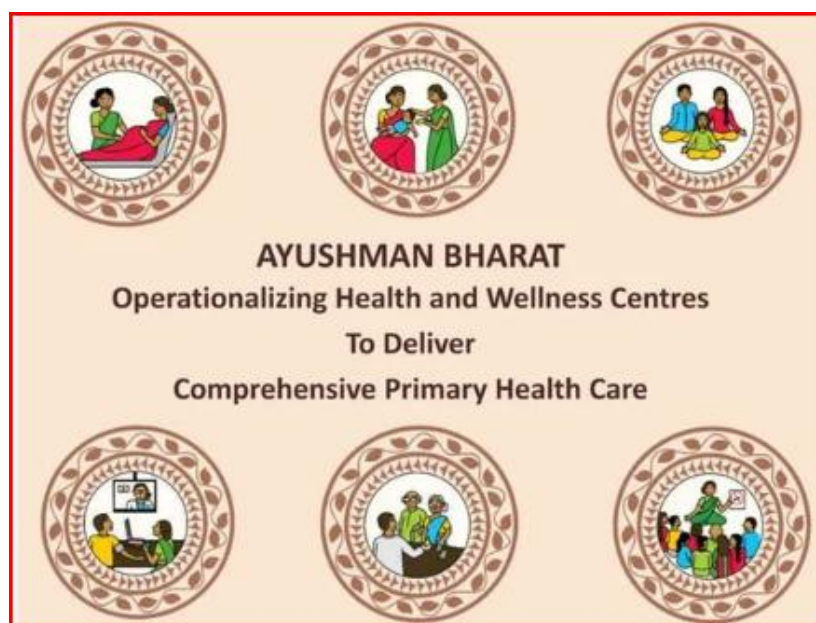
Community Health Officers (CHOs) are a relatively new cadre of health professionals introduced under the Ayushman Bharat initiative to strengthen service delivery at the grassroots. CHOs are typically trained nurses or AYUSH doctors who undergo a six-month Bridge Program in Community Health to equip them with skills in disease prevention, health promotion, diagnosis and treatment of common conditions, and emergency care.

CHOs act as the clinical lead at Ayushman Arogya Mandirs and are responsible for:

- Providing clinical services for minor illnesses, chronic disease management, and reproductive health.
- Leading health promotion and disease prevention campaigns in the community.
- Screening and referring patients for higher care when needed.
- Collecting and managing health data and digital health records.

In the context of mental health, CHOs are trained to identify common mental disorders such as depression, anxiety, psychosis, and substance use, provide counselling, and ensure appropriate referrals. They also play a critical role in reducing stigma and promoting community awareness about mental well-being.

Given their embedded role in rural communities, CHOs are uniquely positioned to detect early signs of mental illness and intervene before conditions worsen. Their role is especially significant in Rajasthan, where rural populations constitute nearly 75% of the state and access to mental health specialists is severely limited.



5. Mental Health in Rural Rajasthan:

Mental health has historically received limited attention within India's public health agenda, and Rajasthan reflects this national trend. Findings from the National Mental Health Survey (2015–16) indicate that around 13.7% of the state's population experiences mental health issues, yet more than 85% of these cases go untreated. The situation is particularly severe in

rural and tribal communities, where cultural misconceptions, social stigma, and low awareness often discourage individuals from accessing mental health services.

Rajasthan's demographic and social challenges—including poverty, gender inequality, regional illiteracy, and a critical shortage of trained mental health professionals—further contribute to poor mental health indicators. Factors such as substance abuse, joblessness, and domestic violence intensify psychological stress in vulnerable populations.

To address these concerns, the state has made efforts through programs like the District Mental Health Programme (DMHP), deployment of clinical psychologists in government hospitals, and inclusion of mental health services within the primary healthcare framework under NHM.

However, the success of these initiatives largely depends on the competency of frontline providers, especially Community Health Officers (CHOs), to recognize and manage mental disorders. Without comprehensive training and consistent supervision, the broader aim of integrating mental health into primary care settings remains difficult to achieve.

6. About the Research Project

This dissertation research is designed to address a critical gap: the effectiveness of mental health training provided to CHOs under the Ayushman Bharat-AAM initiative in Rajasthan. While the introduction of a structured training module on Mental, Neurological, and Substance Use Disorders (MNS) is a progressive step, there is limited data on how well this training has translated into improved competencies among CHOs.

The study, titled “Assessing Knowledge and Competency of CHOs Post-MNS Training under Ayushman Bharat-AAM,” seeks to evaluate CHOs' knowledge of mental health conditions, their ability to apply screening tools like PHQ-9 and SRQ-20, confidence in handling psychiatric emergencies, and the practical challenges they face in delivering community-based mental health care.

Through structured questionnaires and in-depth interviews, this cross-sectional descriptive study will provide:

- A snapshot of the current knowledge and skill levels of CHOs.
- Insight into the real-world applicability of the MNS training.
- Identification of gaps that may require retraining or curriculum revision.
- Recommendations for strengthening primary mental healthcare delivery in Rajasthan.

Ultimately, the research aims to contribute to a **more responsive, community-centred mental health system**, enabling CHOs to serve as effective first responders in the mental health continuum of care.

Chapter 2

Literature Review:

S. No	Authors (Year)	Study Location	Sample Size	Sampling Technique	Salient Features
1	Bashar et al. (2019)	Kheri Village, Haryana	54 patients	Community-based screening	Integrated mental health into primary care; 74.1% adherence to treatment over 3 months.
2	Gupta et al. (2018)	Urban Slum, Delhi	468 trainees; 867 OPD attendees	Community engagement and training	Established Mental Health Resource Centres; depression was the most common illness encountered.
3	Patel et al. (2013)	Goa	Not specified	Task-shifting approach	Trained lay counsellors to manage depression and anxiety; effective in resource-constrained settings.
4	Shidhaye et al. (2015)	Sehore District, Madhya Pradesh	Not specified	Mixed methods	Developed and piloted a Mental Healthcare Plan integrating WHO's mhGAP into primary care.
5	Sangwan et al. (2024)	Jodhpur District, Rajasthan	25 healthcare providers	Purposive sampling	Explored perceptions and challenges in screening and managing mental health disorders at PHC level.
6	Kumar et al. (2021)	Sahibzada Ajit Singh Nagar, Punjab	4 Health & Wellness Centres	Multistage stratified random sampling	Time-motion study analysing CHOs' activities and time allocation in delivering

					healthcare services.
7	Anant et al. (2024)	India (Multiple States)	Not specified	Policy analysis	Critiqued the role of CHOs, highlighting their limited authority and the gap between policy and practice.
8	Kumar et al. (2024)	India (Multiple States)	14 key experts	Purposive sampling	Analysed challenges and opportunities in strengthening primary mental healthcare for older people.
9	Sharma et al. (2025)	Rajasthan	Not specified	Collaborative initiative	Explored deployment of a UK-developed mental health diagnostic tool for frontline healthcare workers.
10	Ministry of Health and Family Welfare (2020)	India	Not applicable	Policy document	Outlined the training modules for CHOs under the Ayushman Bharat initiative, including mental health components.

Research Gap

The Ayushman Bharat initiative has laid significant emphasis on training Community Health Officers (CHOs) to manage a broad spectrum of health issues, including Mental, Neurological, and Substance Use (MNS) disorders. While several studies have explored the broader implementation and outcomes of Ayushman Bharat and the operational functioning of Health and Wellness Centres (HWCs), there is limited focused research examining the actual knowledge and competency levels of CHOs following their MNS module training, particularly in Rajasthan.

Existing literature largely reports on training coverage, program structure, or mental health service availability, but few studies critically assess whether CHOs are practically equipped

to manage MNS conditions post-training. Moreover, there is a notable lack of field-level evaluations comparing official data (e.g., from the SASHKT platform) with actual CHO practices, including tool usage, referral decisions, and community-level awareness efforts.

Given that CHOs are key to the success of decentralized mental healthcare under Ayushman Bharat, especially in underserved rural and semi-urban regions, understanding the effectiveness of their training and identifying competency gaps is crucial. Additionally, little is known about how contextual challenges—such as lack of tools, stigma, or referral barriers—influence the implementation of mental health services at the HWC level.

This study addresses this gap by investigating the practical application of MNS training among CHOs working in Ayushman Arogya Mandirs in Rajasthan. It aims to generate evidence on training effectiveness, field-level implementation challenges, and CHOs' readiness to serve as frontline mental health providers, thereby contributing new insights to the discourse on workforce preparedness and mental health integration in primary care.

Chapter 3

Objectives and Methodology

3.1 Research Question

The primary research question guiding this study is:

To what extent do Community Health Officers (CHOs) possess the knowledge and competency required to effectively address mental health needs following the Mental, Neurological, and Substance Use (MNS) module training under the Ayushman Bharat program, and are there identifiable knowledge or skill gaps that necessitate re-training?

This question explores the real-world applicability and impact of the MNS module training provided to CHOs and whether it equips them adequately to manage mental health cases at the primary healthcare level.

3.2 Objectives

The study is framed around the following objectives:

1. **To assess the current level of knowledge among CHOs regarding the identification and initial management of mental health issues** post their completion of the MNS training module. This includes their theoretical understanding of common mental health disorders, awareness of signs and symptoms, familiarity with standardized screening tools (e.g., PHQ-9, SRQ-20), and knowledge of referral protocols.
2. **To evaluate the practical competency of CHOs** in delivering mental health services, which includes their ability to apply learned knowledge in the clinical setting, screen and assess patients, provide counselling, manage mild to moderate conditions, and refer complex cases to higher centres.
3. **To determine the need for further training or re-training** by identifying specific gaps in knowledge, skills, and confidence, thereby informing strategies for enhancing mental health service delivery within the primary healthcare framework.

These objectives are aligned with the overarching goal of strengthening the mental health component of the Ayushman Bharat program through capacity-building of CHOs.

3.3 Hypothesis

To scientifically validate the observations, the study is based on the following hypotheses:

- **Null Hypothesis (H_0):** There are no significant gaps in knowledge and competency among CHOs post-MNS training. The training provided is sufficient and no additional training is required.
- **Alternative Hypothesis (H_1):** There are significant gaps in knowledge and/or competency among CHOs after MNS training, indicating the need for re-training and further skill development.

Testing this hypothesis helps evaluate the actual effectiveness of the training module in equipping CHOs for mental health care delivery.

3.4 Study Design

This study adopts a **cross-sectional descriptive design**. It seeks to capture and describe the current state of CHO knowledge and competency at a single point in time. The design is suitable for identifying trends, patterns, and gaps in training outcomes without manipulating variables or implementing interventions. It also enables the integration of both quantitative and qualitative data to provide a holistic understanding of the issue.

3.5 Study Setting

The research was conducted in **selected Ayushman Arogya Mandirs (AAMs)** across **Jaipur I, Jaipur II, and Ajmer blocks** in Rajasthan. These sites were chosen to represent a diverse mix of geographical and service delivery contexts within the Ayushman Bharat program. AAMs serve as the frontline implementation units for comprehensive primary healthcare services and are the main workplaces of CHOs.

3.6 Study Population

The study population consists of **Community Health Officers (CHOs)** who are actively working at AAMs and have undergone MNS module training. These CHOs play a pivotal role in the delivery of primary mental health services and act as the first point of contact for individuals experiencing mental health issues in rural and semi-urban settings.

3.7 Inclusion and Exclusion Criteria

Inclusion Criteria:

- CHOs who have successfully completed the MNS training module.
- CHOs who are currently involved in reporting mental health cases on the AAM digital portal.

Exclusion Criteria:

- CHOs who have not undergone MNS training.
- CHOs who are not engaged in mental health service delivery or who do not update mental health data on the portal.

3.8 Duration of Study

The study was conducted over a **three-month period**, allowing sufficient time for data collection, analysis, and interpretation.

3.9 Sample Size and Sampling Technique

A **sample size of 30 CHOs** was chosen for this study using a **purposive sampling** method. This non-probability sampling technique was deemed appropriate because it enabled the selection of participants based on specific characteristics relevant to the research objectives—namely, their exposure to MNS training and involvement in mental health care delivery.

3.10 Data Collection Methods

The study employed **mixed methods** of data collection to capture both numerical data and nuanced insights:

1. **Structured Questionnaire:**

- A tool comprising multiple-choice and short-answer questions to evaluate theoretical knowledge about mental health conditions, awareness of clinical guidelines, and recall of screening tools and protocols.

2. In-Depth Interviews:

- Semi-structured interviews were conducted with a subset of CHOs to explore their experiences with implementing mental health care post-training. These discussions covered practical challenges, patient interactions, referral systems, perceived training effectiveness, and confidence levels in managing mental health conditions.

3.11 Operational Definitions

- **Competency:** The extent to which CHOs can independently assess, manage, counsel, and refer patients with MNS disorders, based on their training.
- **Training Effectiveness:** The impact of the MNS module training on actual field practices and confidence levels of CHOs in delivering mental health services.
- **Training Gaps:** Any deficits in knowledge, skills, or practical application reported by CHOs, indicating areas that require additional training support or curriculum enhancement.

3.12 Data Analysis Plan

- **Quantitative Data:**
 - Data from **structured questionnaires** were entered into **Microsoft Excel** and analysed using descriptive statistics such as frequencies, percentages, mean, and standard deviation.
 - **Chi-square tests** were employed to explore associations between variables like training received and reported competency.
- **Qualitative Data:**
 - Interview transcripts were thematically analyzed to identify recurring themes, illustrative experiences, and critical insights related to mental health service delivery. Themes were aligned with the study objectives and categorized under major domains such as training effectiveness, barriers, and recommendations.

3.13 Ethical Considerations

This study adhered to ethical research practices as follows:

- **Informed Consent:** Written informed consent was obtained from all participants prior to data collection.
- **Confidentiality:** Personal identifiers were removed or anonymized to maintain participant privacy.
- **Voluntary Participation:** Participants were assured of their right to withdraw at any point without any repercussions.
- **Ethical Approval:** The study received clearance from the institutional ethics committee or appropriate authority.

3.14 Implications of the Study

The findings of this study hold significant implications for public health policy and program implementation. By assessing CHOs' knowledge and competency post-MNS training, the research will:

- Provide an evidence base to evaluate the real-world effectiveness of the MNS training module.
- Identify specific knowledge and practice gaps that hinder optimal mental health service delivery at the primary care level.
- Inform the design of targeted refresher trainings and capacity-building interventions.
- Contribute to the development of more robust and practice-oriented training materials.
- Support policy recommendations to improve mental health care access and quality under the Ayushman Bharat program.

Chapter 4

Results (Quantitative Analysis)

This chapter presents the quantitative findings derived from the structured knowledge assessment conducted among 30 Community Health Officers (CHOs) who had completed the Mental, Neurological, and Substance Use (MNS) Disorders training module under the Ayushman Bharat – Ayushman Arogya Mandir (AAM) initiative. The objective was to evaluate the current level of knowledge and competency among CHOs in the identification, management, and referral of mental health conditions and to assess whether any gaps persist post-training that may require retraining or enhancement of the module content.

4.1 Structure of the Knowledge Assessment Tool

The assessment tool consisted of 30 multiple-choice items, each carrying one mark, yielding a total maximum score of 30. The questionnaire covered theoretical concepts, clinical case vignettes, diagnostic screening, and epidemiological knowledge aligned with the MNS training module. Scores were analysed using descriptive statistics and chi-square tests, as described in the methodology.

4.2 Descriptive Statistical Findings

The descriptive statistics for the knowledge scores are as follows:

- **Mean Score:** 19.23 out of 30
- **Median Score:** 19.5
- **Standard Deviation (SD):** 2.90
- **Highest Score Obtained:** 25
- **Lowest Score Obtained:** 13
- **Average Percentage Score:** 64.11%

These figures suggest that, on average, CHOs scored moderately on the knowledge assessment. The small difference between the mean and median indicates a

symmetrical distribution, while the SD of 2.90 shows a moderate spread in scores across participants.

4.3 Categorized Score Distribution Based on Training Outcome Framework

Using a revised interpretation framework aligned with the **Modified Kirkpatrick Model – Level 2 (Learning)**, the scores were categorized as follows:

Percentage Score	No. of CHOs	Interpretation
< 50%	2	Training failed to achieve learning outcomes.
50%–70%	16	Some outcomes met; revision or supportive measures needed.
> 70%	12	Outcomes largely achieved; training content understood.

Table 1: Modified Kirkpatrick Model for Interpreting Knowledge Scores

- **Below 50% (Poor learning):** Only 2 CHOs scored below 15 (equivalent to <50%), indicating critical gaps in knowledge acquisition and understanding.
- **50–70% (Moderate learning):** A majority (16 CHOs, 53.3%) scored between 15 and 20, showing partial understanding with need for reinforcement.
- **Above 70% (Satisfactory learning):** 12 CHOs (40%) demonstrated better comprehension, scoring above 70% (21 or more out of 30).

These results suggest that while foundational knowledge was achieved by many, a large proportion did not reach competency levels required for confident and independent clinical application.

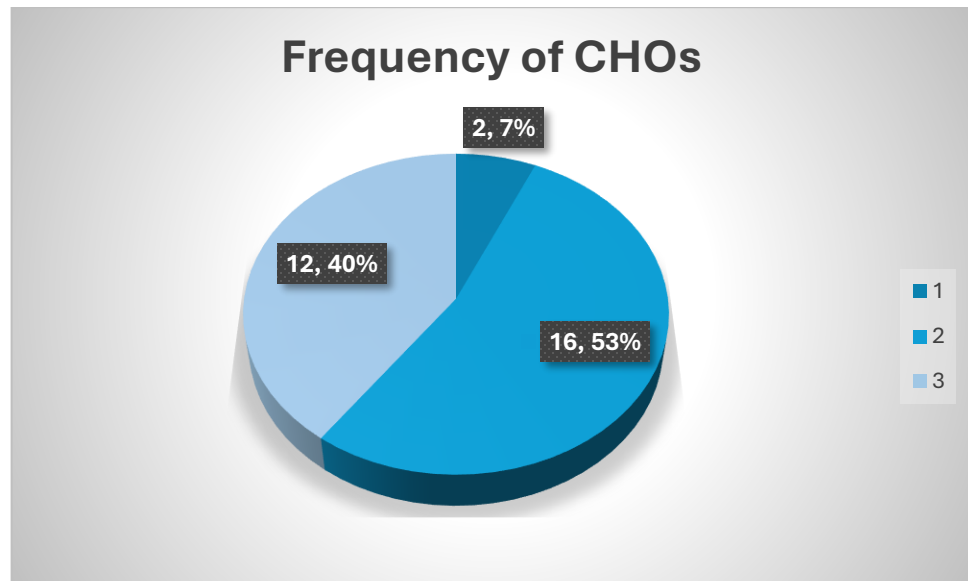


Figure 1: Pie Chart showing Frequency distribution into the categories

4.4 Chi-Square Analysis of Score Distribution

To evaluate whether the observed distribution of scores differed significantly from an expected uniform distribution, a chi-square test was conducted. The categories used were:

- <15,
- 15–20,
- 20–30

Score Range	Observed Frequency	Expected Frequency
<15	2	10
15–20	16	10
20–30	12	10

Table 2: Frequency Distribution for chi-square test (Observed and Expected)

- **Chi-Square Value:** 0.0055
- **p-value:** > 0.05 (Not statistically significant)

Interpretation: The lack of statistical significance implies that deviations from the expected distribution could be due to chance rather than any systemic difference or impact of training. This suggests inconsistency in how CHOs have benefited from the module, possibly influenced by variations in training delivery, background knowledge, or practical exposure.

4.5 Interpretation of Quantitative Findings

The quantitative results reveal that most CHOs possess only **moderate knowledge** of mental health concepts despite completing the MNS training. With only 40% achieving scores above 70%, and 53% remaining in the moderate competency band, a substantial portion of CHOs may lack the depth of understanding required for independently managing mental health issues in the community.

Furthermore, the **absence of high-performing scores (above 25)** and **presence of scores below 50%** raise concerns about training effectiveness and knowledge retention. The lack of statistically significant knowledge improvement across the sample highlights inconsistencies in learning outcomes, indicating that training alone may not be sufficient.

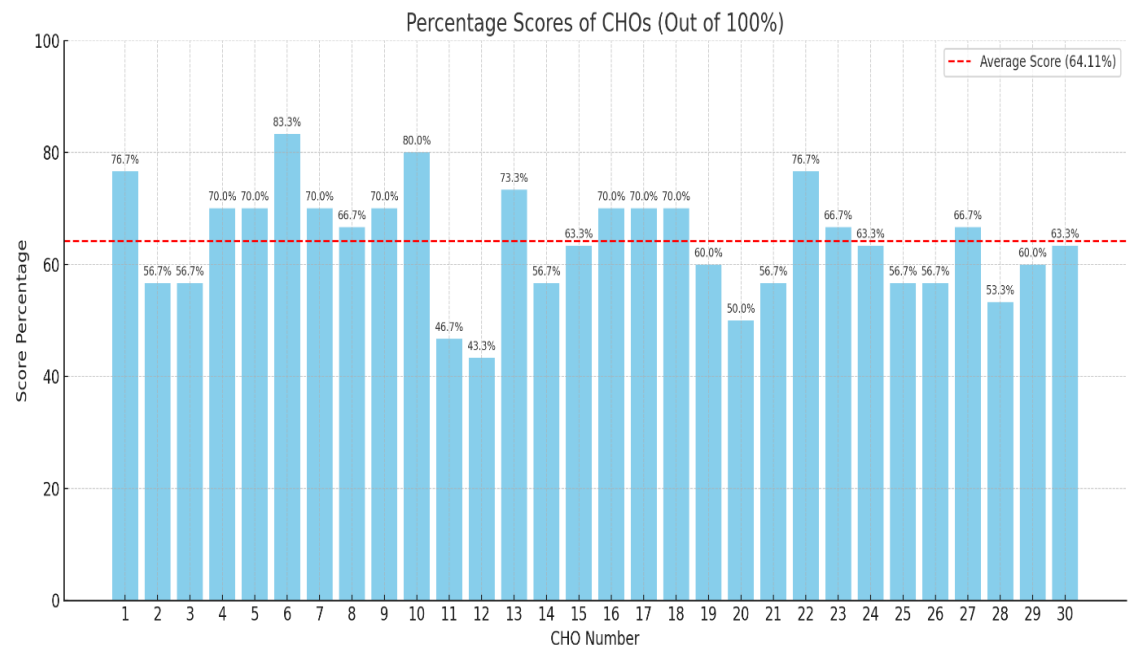


Figure 2: Graphical Presentation of Percentage Distribution of all 30 CHOs with Average Percentage

Results (Qualitative Analysis)

In addition to quantitative assessment, qualitative data were gathered through in-depth interviews with Community Health Officers (CHOs) to explore their perceptions, practices, and challenges related to the implementation of the MNS module under Ayushman Bharat – AAM. The responses were thematically analyzed to gain nuanced insights into their real-world experiences post-training.

4.6 Emerging Themes and Interpretations

Theme 1: Non-utilization of Standard Tools from the MNS Module

A striking finding was the complete absence of usage of standardized mental health screening tools such as PHQ-9, AUDIT, MMSE, CBAC, SRQ-20, or PHQ-2, which are officially recommended in the training module. Despite these tools being critical for early identification and categorization of mental health conditions, CHOs reported relying on general observations or informal questioning.

“We ask general questions, do counselling, and refer when needed.”

Interpretation: This reflects a major implementation gap between the training content and actual field-level practice. It suggests either a lack of understanding, confidence, or follow-up training related to tool usage, necessitating refresher training, job aids, and supportive supervision.

Theme 2: Lack of Access to Module Copies

Several CHOs indicated that they did not receive a printed or digital copy of the MNS module, which limits their ability to revisit the content post-training.

“I didn’t get the booklet. We were told about symptoms, that’s all.”

Interpretation: This points to logistical and operational gaps in training rollout. Without access to reference materials, CHOs are at risk of misremembering or misapplying protocols. This underscores the need for easily accessible job aids, both in manual and digital formats, to enhance retention and adherence.

Theme 3: Referral Practices and Hesitation

While most CHOs reported referring suspected mental health cases to Medical Officers (MOs) at Primary Health Centres (PHCs), many admitted to doing so based on intuition or family complaints rather than formal assessment. There was also hesitancy in dealing with psychiatric patients, especially those with aggression or unclear symptoms.

“If the patient gets aggressive, I tell family to take them to the doctor directly.”

Interpretation: This indicates a lack of confidence and possibly inadequate practical exposure. The fear of patient behavior and community resistance further hinder proactive referrals. Structured mentorship, case simulations, and scenario-based training could address this concern.

Theme 4: Community Awareness Strategies

CHOs shared that they sometimes integrate mental health messaging during VHNDs (Village Health and Nutrition Days), ANC checkups, or home visits, but there is no consistent, focused approach to mental health education.

“We tell during ANC checkups if someone looks stressed or family says something.”

Interpretation: Mental health remains a reactive topic rather than being mainstreamed into community awareness efforts. This emphasizes the need to institutionalize mental health messaging within all existing IEC/BCC activities, including VHNDs, school health programs, and community meetings.

Theme 5: Challenges Faced by CHOs

- Common challenges included:
- Community stigma and misconceptions (e.g., black magic)
- Lack of mental health medications at the HWC level
- Time constraints and limited family support for patients

“People say it’s black magic or personal problem, not illness.”
“We don’t have medicines at our level, so what will we do?”

Interpretation: These reflect systemic barriers that hamper service delivery. Cultural stigma, resource limitations, and workload pressure require multi-level interventions, including policy changes, capacity building, and community sensitization campaigns.

Theme 6: Inadequate Practical Training and Follow-up

CHOs consistently mentioned that while training was conducted, it was short (3–5 days), theoretical, and lacked practical examples or case-based learning. Importantly, there were no follow-up sessions or evaluations post-training.

“They taught us fast; no case practice, just notes and videos.”

Interpretation: This suggests that training was insufficiently immersive or interactive, leaving CHOs underprepared for real-life situations. Future capacity-building efforts should include hands-on learning, practical demonstrations, field mentorship, and refresher courses at regular intervals.

Theme 7: Unclear Understanding of the MNS Disorder Spectrum

There was evident confusion among CHOs regarding the classification of mental, neurological, and substance use disorders. Some could only describe depression or addiction, while others incorrectly classified seizures as mental illness.

“We give ORS or refer if they get fits.”

Interpretation: This indicates incomplete understanding of the MNS spectrum. The training module needs to reinforce basic concepts, particularly differentiation between mental and neurological disorders, and emphasize tool-based assessment to minimize clinical misjudgments.

4.7 Summary of Qualitative Insights

Themes	Observations	Illustrative Quotes	Implications
1. Non-utilization of Standard Tools from MNS Module	None of the CHOs reported using standardized tools like PHQ-9, AUDIT, MMSE, CBAC, SRQ-20, or PHQ-2 for mental health screening, though they are recommended in the training module.	“We ask general questions, do counselling, and refer when needed.”	Indicates a major implementation gap between module content and actual practice; suggests urgent need for refresher training and supportive supervision.
2. Lack of Access to Module Copies	Several CHOs mentioned they never received a physical copy of the mental health module post-training.	“I didn’t get the booklet. We were told about symptoms, that’s all.”	Without access to reference material, CHOs may forget or misapply guidelines. This highlights the need for accessible job aids and digital/manual copies of the module.
3. Referral Practice and Hesitation	CHOs refer suspected cases to PHC-MOs but often rely on intuition or informal assessment methods. Some express hesitancy in referring due to	“If the patient gets aggressive, I tell family to take them to the doctor directly.”	Shows low confidence in handling psychiatric cases independently , possibly due to lack of training reinforcement and practical exposure.

	lack of confidence or community resistance.		
4. Community Awareness Strategies	Most CHOs mention doing community awareness through VHNDs, home visits, and informal counselling. However, mental health is not a focused topic unless a case arises.	“We tell during ANC checkups if someone looks stressed or family says something.”	Mental health remains a reactive topic rather than integrated in routine IEC/BCC activities. Emphasizes the need to embed mental health education in existing community platforms .
5. Challenges Faced by CHOs	Common challenges include lack of community awareness, stigma, absence of medications for mental health at HWC level, time constraints, and poor family support for patients.	“People say it’s black magic or personal problem, not illness.” “We don’t have medicines at our level, so what will we do?”	Reinforces systemic issues: stigma, resource gaps, and workload pressures that affect mental health service delivery. Requires policy-level interventions and capacity building .
6. Inadequate Practical Training and Follow-up	CHOs recall attending 3–5 days training sessions but feel it was rushed or lacked case-based examples. No post-	“They taught us fast; no case practice, just notes and videos.”	Reflects incomplete learning and lack of skills reinforcement . Suggests a need for periodic mentoring or in-field retraining .

	training follow-ups or evaluations have been done.		
7. Unclear Understanding of MNS Disorders Spectrum	Some CHOs could only describe depression or addiction symptoms; others mixed neurological disorders with mental illness (e.g., seizures treated as “mental”).	“We give ORS or refer if they get fits.”	Indicates partial or confused knowledge about the MNS spectrum, showing knowledge gaps even post-training. Curriculum delivery should emphasize disorder classification and tool-based diagnosis.

Table 3: Summary of Thematic Analysis from the In-depth interviews of CHOs

Category	Number of CHOs (n=30)
Did not use MNS tools	30
Did not receive module copy	12
Did not know about tools	24
Requested re-training	11
Faced challenges in practice	9

Table 4: Distribution of number of CHOs mentioned challenges in practice

Interpretation:

- **All 30 CHOs reported not using the recommended assessment tools** (PHQ-9, SRQ-20, etc.), confirming a 100% gap in tool implementation.
- **80% (24/30) were not aware of the tools**, indicating an urgent training reinforcement need.
- **Only 12 CHOs had not received the module copy**, suggesting that more than half lack access to the core training material.

- **11 CHOs** openly requested **retraining**, validating the findings from both the qualitative themes and quantitative score gaps.
- **9 CHOs** described **challenges** such as stigma, patient resistance, and resource shortages, pointing to practical and systemic issues.

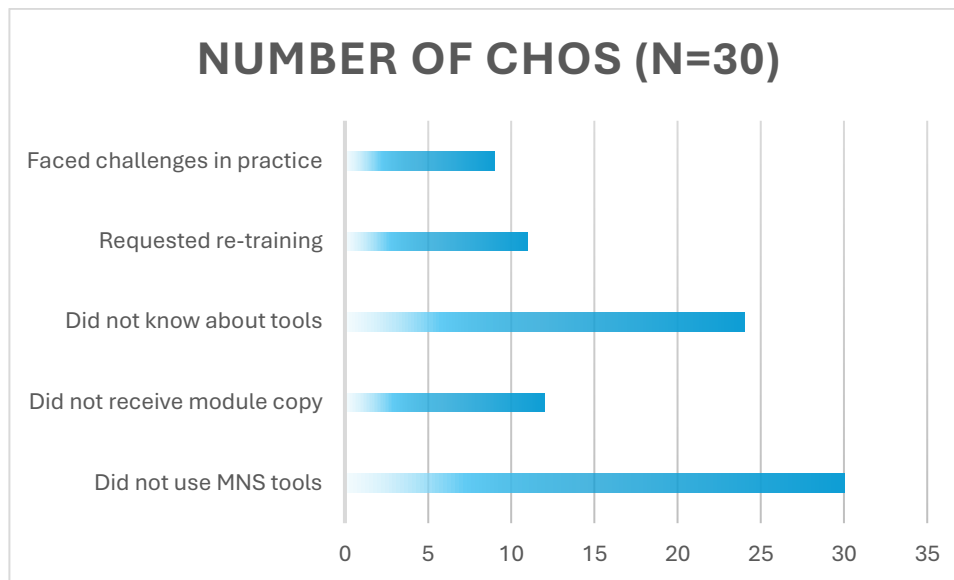


Figure 3: Graphical representation of Distribution of number of CHOs mentioned challenges in practice

Chapter 5

Discussion

The quantitative analysis of knowledge scores among 30 Community Health Officers (CHOs) who completed the Mental, Neurological, and Substance Use (MNS) Disorders training module under the Ayushman Bharat – Ayushman Arogya Mandir (AAM) initiative reveals several important insights.

The mean score of 19.23 out of 30 (64.11%) suggests a moderate level of knowledge retention post-training. Although the average score indicates that CHOs have acquired a foundational understanding of mental health concepts, the absence of any high scorers (above 25) and the presence of low scorers (below 15) highlight variability in competency. This variability is further reflected by the standard deviation of 2.9, demonstrating inconsistent grasp of the material among the cohort.

The distribution of scores—with over half scoring in the 15–20 range and 40% scoring between 20–25—implies that most CHOs possess theoretical knowledge but may lack depth in clinical application or decision-making skills. This aligns with concerns that current training, while comprehensive on paper, may not translate effectively into practical competence. The lack of significant association in the chi-square test suggests that knowledge acquisition was neither uniform nor consistently effective across the group, possibly due to differences in prior education, engagement with the training, or access to resources post-training.

The findings underscore the challenge of converting theoretical learning into actionable skills essential for frontline mental health care. CHOs are critical in early identification, management, and referral of mental health conditions at the primary care level. Hence, gaps in their knowledge could compromise timely and accurate mental health interventions in the community.

This outcome resonates with broader evidence in capacity building literature which emphasizes that knowledge retention and skill application require more than initial training exposure. Ongoing reinforcement, practical exposure, and supportive supervision are often necessary to sustain competency. The moderate scores and lack of high performers suggest

that the current MNS training module may benefit from revision to incorporate more interactive and experiential learning approaches.

Chapter 6

Recommendations

Based on the quantitative findings, the following recommendations are proposed to strengthen CHOs' knowledge and competency in mental health care delivery under the Ayushman Bharat – AAM framework:

1. Implementation of Refresher and Retraining Modules:

- Introduce periodic refresher trainings focusing on critical areas such as case identification, use of assessment tools, referral protocols, and management guidelines.
- Retraining should emphasize practical skills to bridge gaps identified by moderate and variable knowledge levels.

2. Incorporation of Interactive Learning Methods:

- Enhance training modules with role-plays, clinical simulations, case-based discussions, and problem-solving exercises to improve real-world application.
- Use scenario-driven learning to build clinical reasoning and decision-making confidence.

3. Regular Knowledge Assessments:

- Conduct scheduled post-training assessments to monitor knowledge retention and identify CHOs needing targeted support.
- Utilize formative assessments to provide timely feedback and remedial coaching.

4. Strengthening Supervision and Mentorship:

- Develop a structured supervision mechanism at the facility level where experienced mental health professionals mentor CHOs.
- Encourage regular case reviews and feedback sessions to consolidate learning and address challenges.

5. Provision of Accessible Reference Materials and Job Aids:

- Ensure all CHOs have access to printed and digital copies of the MNS training modules, algorithms, and quick reference guides.
- Job aids should simplify complex content for easy recall during patient encounters.

6. Enhancement of Training Delivery Quality:

- Standardize training delivery across locations to minimize disparities caused by variable trainers or resource availability.
- Integrate adult learning principles to keep sessions engaging and learner-centered.

7. Integration of Training with Community Engagement Efforts:

- Link CHO training with community awareness and stigma reduction campaigns to reinforce knowledge through practice.
- Encourage CHOs to participate in health education activities that contextualize mental health in the community setting.

Chapter 7

Conclusion

This study set out to assess the knowledge and competency of Community Health Officers (CHOs) following their completion of the Mental, Neurological, and Substance Use (MNS) Disorders training module under the Ayushman Bharat – Ayushman Arogya Mandir (AAM) initiative. Through a mixed-methods approach—combining structured quantitative assessments and in-depth qualitative interviews—this research provides a nuanced understanding of how well the training has translated into practical competency and clinical preparedness in the field.

Key Quantitative Conclusions

The quantitative analysis revealed that the average knowledge score among CHOs was **moderate**, with a **mean score of 19.23 out of 30 (64.11%)**, and a **majority (53.3%)** falling in the 50%–70% score band. Only **40%** of participants scored above 70%, indicating satisfactory comprehension of the training content, while a small yet critical portion (6.6%) scored below 50%, signaling significant gaps in knowledge retention. The chi-square analysis further indicated that the observed distribution of scores did not significantly differ from a uniform distribution, suggesting no systematic pattern of learning across the group.

These findings collectively point to **inconsistencies in knowledge acquisition** post-training. While some CHOs benefited from the module, a considerable proportion did not internalize its content to the level required for autonomous decision-making in mental healthcare delivery. This raises concerns about the training methodology, reinforcement mechanisms, and the contextual factors that affect learning outcomes among frontline health workers.

Key Qualitative Conclusions

The qualitative data added depth to the numerical findings, unveiling **critical implementation challenges** and **contextual barriers** that shape CHOs' real-world practices:

1. **Non-utilization of Standardized Screening Tools:** None of the CHOs were using key assessment tools like PHQ-9, AUDIT, MMSE, or SRQ-20, despite their emphasis

in the training module. This reflects either a lack of understanding, practical skill, or confidence in tool usage.

2. **Lack of Training Materials and Refresher Support:** Many CHOs had not received copies of the MNS training module, limiting their ability to revisit and reinforce learning. The absence of refresher courses or ongoing mentorship further compounded this gap.
3. **Weak Referral Mechanisms and Clinical Hesitation:** Although CHOs routinely referred patients to Primary Health Centres (PHCs), these referrals were often based on intuition or family input, not systematic clinical assessment. Hesitation in managing psychiatric cases—especially those involving aggression—points to a lack of confidence stemming from insufficient practical exposure.
4. **Fragmented Community Awareness Efforts:** Mental health education remains a peripheral component of CHOs' community engagement, often addressed only when a case presents itself. This limits the effectiveness of preventive strategies and perpetuates stigma.
5. **Systemic and Sociocultural Barriers:** Widespread stigma, misconceptions (e.g., attribution of symptoms to black magic), lack of mental health medicines at Health and Wellness Centres (HWCs), and time constraints were repeatedly cited. These factors obstruct not only treatment but also timely identification and referral.
6. **Insufficient Practical Training:** The training received by CHOs was largely theoretical, short in duration, and lacked case-based learning. The absence of field simulations or real-time exposure reduced their preparedness to handle complex mental health scenarios.
7. **Confusion Around Disorder Classification:** A number of CHOs demonstrated limited or incorrect understanding of the spectrum of MNS disorders. Seizures were often misclassified as mental health conditions, indicating the need for clearer emphasis on disorder differentiation and diagnostic pathways during training.

Overall Synthesis

The findings of this study underline a significant **disconnect between theoretical training and practical application** of mental health knowledge among CHOs. While the MNS training module provides a structured curriculum, its **current implementation lacks depth**,

continuity, and contextual adaptation. Training appears to have achieved partial success in raising awareness but has not sufficiently empowered CHOs with the tools, confidence, or clarity needed to execute mental health responsibilities effectively in the community setting.

This is particularly concerning in the context of the Ayushman Bharat – AAM initiative, which positions CHOs as frontline providers in a system increasingly expected to respond to rising mental health needs. The gap between policy intent and ground-level readiness threatens to undermine the initiative’s mental health objectives.

References

1. Health Systems Transformation Platform (HSTP). *Developing a Competency Assessment Framework for Community Health Officers in Primary Healthcare Setting in India* [Internet]. New Delhi: HSTP; 2022 [cited 2025 May 22]. Available from:
<https://www.hstp.org.in/kc/developing-a-competency-assessment-framework-for-community-health-officers-in-primary-healthcare-setting-in-india>
2. Ministry of Health and Family Welfare. *CHO Module for Mental, Neurological and Substance Use Disorders*. New Delhi: Government of India; 2020. (No direct link publicly available—usually distributed via NHM/Ayushman Bharat training)
3. Kirkpatrick JD, Kirkpatrick WK. *Kirkpatrick's Four Levels of Training Evaluation*. 2nd ed. Alexandria, VA: ATD Press; 2016.
<https://www.td.org/books/kirkpatrick-s-four-levels-of-training-evaluation>
4. Ministry of Health and Family Welfare. *Operational Guidelines on Ayushman Bharat Health and Wellness Centres*. New Delhi: Government of India; 2018.
<https://nhsrcindia.org/sites/default/files/2021-05/HWC-Operational-Guidelines.pdf>
5. Ministry of Health and Family Welfare. *PMSMA Guidelines*. New Delhi: Government of India; 2016.
https://pmsma.nhp.gov.in/wp-content/uploads/2016/08/PMSMA_Guidelines.pdf
6. Ministry of Health and Family Welfare. *SUMAN Operational Guidelines*. New Delhi: Government of India; 2019.
https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCH_MH_Guidelines/SUMAN_Guidelines.pdf
7. National Health Mission, Rajasthan. *SASHKT Portal User Manual for Monitoring Training of Health Staff*. Jaipur: NHM Rajasthan; 2023. <https://www.sashakt-hwc.mohfw.gov.in/home>
8. World Health Organization. *mhGAP Intervention Guide for Mental, Neurological and Substance Use Disorders in Non-Specialized Health Settings: Version 2.0*. Geneva: WHO; 2016.
<https://www.who.int/publications/i/item/9789241549790>

9. Frank JR, Snell L, ten Cate O, et al. Competency-based medical education: theory to practice. *Med Teach.* 2010;32(8):638–645.
<https://doi.org/10.3109/0142159X.2010.501190>
10. Harden RM. Outcome-based education: the future is today. *Med Teach.* 2007;29(7):625–629.
<https://doi.org/10.1080/01421590701729930>

Annexure 1 & 2

Questionnaire Used for Data Collection

CHO Competency Assessment Questionnaire on MNS (Mental, Neurological, and substance use disorders)

(मानसिक, न्यूरोलॉजिकल और नशीली दवाओं के उपयोग संबंधी विकार)

Instructions / निर्देश:

- This questionnaire is meant for Community Health Officers (CHOs).
- यह प्रश्नावली सामुदायिक स्वास्थ्य अधिकारियों (CHO) के लिए है।
- Please answer all questions to the best of your knowledge.
- कृपया सभी प्रश्नों के उत्तर अपनी जानकारी के अनुसार दें।
- Circle the correct answer or write True/False where applicable.
- सही उत्तर को चिह्नित करें या जहाँ लागू हो वहाँ सही/गलत लिखें।
- All responses will be kept confidential.
- सभी उत्तर गोपनीय रखे जाएंगे।

NIN: _____

Name of Facility: _____

Date: _____

Do you agree to participate in this research study? All your personal information will be kept confidential, and the information provided will be used only for research purposes. क्या आप इस शोध अध्ययन में भाग लेने के लिए सहमत हैं? आपकी सभी व्यक्तिगत जानकारी गोपनीय रखी जाएगी और प्रदान की गई जानकारी केवल शोध उद्देश्य के लिए उपयोग की जाएगी।

1. Have you received training on mental, neurological, and substance use (MNS) disorders? क्या आपने मानसिक, तंत्रिका संबंधी और नशीली पदार्थों के उपयोग (एमएनएस) विकारों पर प्रशिक्षण प्राप्त किया है

(Yes/No)

2. Have you read the reading material about the MNS Module? क्या आपने एमएनएस मॉड्यूल के अध्ययन सामग्री को पढ़ा है?

(Yes/No)

3. Are you aware of the MNS assessment tools mentioned in the training module? क्या आप प्रशिक्षण मॉड्यूल में बताए गए एमएनएस मूल्यांकन उपकरणों से परिचित हैं?

(Yes/No)

Section A: True/False (सही / गलत) – 10 Questions

1. Mental illness can be caused by chemical imbalance in the brain.
मानसिक बीमारी मस्तिष्क में रासायनिक असंतुलन के कारण हो सकती है।
(True/False)
2. Children cannot suffer from psychiatric illnesses.
बच्चे मानसिक बीमारियों से पीड़ित नहीं हो सकते।
(True/False)
3. Mental illness can present as body aches and pain.
मानसिक बीमारी शरीर में दर्द और तकलीफ के रूप में भी प्रकट हो सकती है।
(True/False)
4. Schizophrenia is an acute condition that is curable.
सिज़ोफ्रेनिया एक तीव्र स्थिति है जो पूरी तरह से ठीक हो सकती है।
(True/False)
5. Poverty is not a risk factor for mental illness.
गरीबी मानसिक बीमारियों के लिए जोखिम कारक नहीं है।
(True/False)
6. Marriage can cure mental illness.
विवाह मानसिक बीमारी का इलाज हो सकता है।
(True/False)
7. CHO should advise a person with depression to “Just cheer up.”
CHO को अवसादग्रस्त व्यक्ति को “खुश रहो” कहना चाहिए।
(True/False)
8. Insight is usually absent in patients with schizophrenia.
सिज़ोफ्रेनिया के रोगियों में बीमारी की समझ (इनसाइट) नहीं होती।
(True/False)
9. Alcohol withdrawal can lead to seizures.
शराब छोड़ने से दौरे पड़ सकते हैं।
(True/False)
10. Attempt to suicide is not punishable under the Mental Healthcare Act, 2017.
मानसिक स्वास्थ्य देखभाल अधिनियम, 2017 के तहत आत्महत्या का प्रयास दंडनीय अपराध नहीं है।
(True/False)

Section B: Multiple Choice Questions (बहुविकल्पीय प्रश्न) – 15 Questions

11. Which of the following is a risk factor for mental illness? / निम्न में से कौन मानसिक बीमारी का जोखिम कारक है?
- a) Supportive family / सहायक परिवार
 - b) Overprotective parenting / अत्यधिक सुरक्षा देने वाले माता-पिता
 - c) Economic security / आर्थिक सुरक्षा
 - d) Strong family values / मजबूत पारिवारिक मूल्य
12. Which of the following is a myth? / निम्न में से कौन एक मिथक है?
- a) Mental illnesses are not contagious / मानसिक बीमारियाँ संक्रामक नहीं होतीं
 - b) Children do not suffer from mental illness / बच्चे मानसिक बीमारी से नहीं पीड़ित होते
 - c) Depression is common / अवसाद सामान्य है
 - d) Mental health problems affect anyone / मानसिक समस्याएं किसी को भी हो सकती हैं
13. SRQ-20 score above ____ indicates referral to Medical Officer.
SRQ-20 स्कोर ____ से अधिक होने पर MO को रेफर करना चाहिए।
- a) 8
 - b) 11
 - c) 14
 - d) 17
14. A person who believes others are trying to harm him and talks to himself may be suffering from:
जो व्यक्ति सोचता है कि लोग उसे नुकसान पहुंचा रहे हैं और खुद से बातें करता है, वह संभवतः किस बीमारी से पीड़ित है?
- a) Anxiety disorder
 - b) Depression
 - c) Schizophrenia
 - d) Conduct disorder
15. Which of the following is a negative symptom of schizophrenia?
निम्न में से कौन सिज़ोफ्रेनिया का नकारात्मक लक्षण है?
- a) Hallucination / भ्रम
 - b) Delusion / भ्रांति
 - c) Decreased talking / कम बात करना
 - d) Aggression / आक्रोश
16. The screening tool used for alcohol dependence is:
शराब निर्भरता की जांच के लिए प्रयोग किया जाने वाला उपकरण है:
- a) SRQ-20
 - b) PHQ-9

- c) AUDIT
- d) MMSE

17. Violent behavior like hurting animals is typically seen in:
जानवरों को चोट पहुंचाने जैसा हिंसक व्यवहार आमतौर पर किस विकार में देखा जाता है?
- a) ADHD
 - b) Conduct Disorder
 - c) ODD
 - d) Autism
18. A child shows excessive fidgeting and blurts answers without waiting. Likely diagnosis is:
एक बच्चा अत्यधिक चंचल है और बिना रुके उत्तर देता है। संभावित निदान है:
- a) ODD
 - b) ADHD
 - c) IDD
 - d) Conduct disorder
19. Which is NOT a key feature of depression?
निम्न में से कौन अवसाद की मुख्य विशेषता नहीं है?
- a) Persistent sadness / लगातार उदासी
 - b) Increased activity / गतिविधियों में वृद्धि
 - c) Low energy / ऊर्जा की कमी
 - d) Loss of interest / रुचि में कमी
20. Which of the following conditions is a psychiatric emergency?
निम्न में से कौन सी स्थिति मनोवैज्ञानिक आपातकाल है?
- a) General anxiety
 - b) Depression
 - c) Status epilepticus
 - d) Suicidal ideation with plan
21. MMSE is used to assess:
MMSE का उपयोग किसके आकलन के लिए किया जाता है?
- a) Depression
 - b) Alcohol dependence
 - c) Cognitive function
 - d) ADHD
22. Delirium tremens occurs within ____ hours of alcohol withdrawal.
डेलीरियम ट्रेमेंस आमतौर पर शराब छोड़ने के कितने घंटों में होता है?
- a) 6–12 hrs
 - b) 12–24 hrs

- c) 24–48 hrs
- d) 48–72 hrs

23. Which mental disorder is associated with manic and depressive episodes?
कौन सा मानसिक विकार उन्मादी और अवसादी दोनों प्रकार के एपिसोड से जुड़ा है?

- a) Schizophrenia
- b) PTSD
- c) Bipolar Disorder
- d) Anxiety disorder

24. PHQ-9 is a screening tool for:
PHQ-9 किसके लिए स्क्रीनिंग टूल है?

- a) Alcohol use
- b) Depression
- c) Suicide
- d) Dementia

25. During a seizure, CHO should:
दौरे के दौरान CHO को क्या करना चाहिए?

- a) Place patient on back / मरीज को पीठ के बल लिटाएं
- b) Give water / पानी दें
- c) Administer Midazolam nasal spray and refer / मिडाज़ोलम स्प्रे दें और रेफर करें
- d) None of the above / उपरोक्त में से कोई नहीं

26. A person who is feeling unnecessarily happy, wearing bright coloured clothes, and spending more than he earns in the last 2 weeks is brought to the CHO. There is no history of any mood fluctuation before this. What is the probable diagnosis?

एक व्यक्ति जो पिछले दो हफ्तों से अत्यधिक खुश महसूस कर रहा है, चटकीले रंग के कपड़े पहन रहा है और अपनी आमदनी से अधिक खर्च कर रहा है, उसे CHO के पास लाया गया है। इससे पहले मूड में कोई बदलाव नहीं देखा गया था। संभावित निदान क्या है?

- a) Schizophrenia / सिज़ोफ्रेनिया
- b) Bipolar disorder / बाइपोलर विकार
- c) Dementia / डिमेंशिया
- d) Post traumatic stress disorder / आघातोत्तर तनाव विकार

27. A mother brings her child to a doctor to discuss some questions about his development. The doctor notes low IQ and communication issues and eventually diagnoses intellectual disability. What is LIKELY NOT a cause of this?

एक माँ अपने बच्चे के विकास को लेकर कुछ सवालों पर चर्चा करने डॉक्टर के पास जाती है। डॉक्टर बच्चे में कम IQ और संवाद समस्याएं नोट करता है और अंततः बौद्धिक अक्षमता का निदान करता है। निम्न में से कौन-सा कारण संभवतः इसका कारण नहीं है?

- a) The mother works at bedtime and is not available to read to him
माँ सोने के समय काम पर जाती है और बच्चे को कहानियाँ नहीं पढ़ पाती
- b) The mother's brother has an intellectual disability
माँ के भाई को बौद्धिक अक्षमता है
- c) The mother had a serious infection during pregnancy
गर्भावस्था के दौरान माँ को गंभीर संक्रमण हुआ था
- d) The child lives in a house with lead-based paint
बच्चा ऐसे घर में रहता है जहाँ सीसा आधारित पेंट है

28. A 65-year-old man presents with complaints of forgetfulness in day-to-day activities, since almost a year. He sometimes faces difficulty in finding his way back home from the market. He can perform all activities of daily living independently. What is the diagnosis?
एक 65 वर्षीय व्यक्ति पिछले एक साल से दैनिक गतिविधियों में भूलने की शिकायत करता है। वह कभी-कभी बाजार से घर वापस आने में भी दिक्कत महसूस करता है। वह दैनिक जीवन की सभी गतिविधियाँ स्वतंत्र रूप से कर सकता है। निदान क्या है?

- a) Early stage dementia / डिमेंशिया का प्रारंभिक चरण
- b) Middle stage dementia / डिमेंशिया का मध्य चरण
- c) Late stage dementia / डिमेंशिया का अंतिम चरण

29. A child is not paying attention in school, his grades have dropped. He is extremely fidgety in class and often disturbs others. He starts answering even before the teacher finishes asking the question. What is the probable diagnosis?

एक बच्चा स्कूल में ध्यान नहीं दे रहा है, उसके अंक गिर गए हैं। वह कक्षा में बहुत चंचल है और अक्सर दूसरों को परेशान करता है। वह शिक्षक द्वारा प्रश्न पूरा करने से पहले ही उत्तर देना शुरू कर देता है। संभावित निदान क्या है?

- a) Oppositional Defiant Disorder / विरोधात्मक अवज्ञा विकार
- b) Conduct Disorder / आचरण विकार
- c) Attention Deficit Hyperactive Disorder / ध्यान की कमी एवं अति सक्रियता विकार
- d) Intellectual Disability / बौद्धिक अक्षमता

30. A mother brings her 5-year-old child to the CHO saying that the child had one episode of fits in the morning which lasted for 1-2 minutes. The child has had high fever for 3 days. There is no previous history of seizure. Will the CHO diagnose the child to have epilepsy?
एक माँ अपने 5 साल के बच्चे को CHO के पास लाती है और बताती है कि सुबह उसे 1-2 मिनट तक फिट्स आया। बच्चे को पिछले 3 दिनों से तेज बुखार है। पहले कभी दौरे नहीं पड़े। क्या CHO बच्चे को मिर्गी से पीड़ित मानेगा?

- a) Yes / हाँ
- b) No / नह

Annexure 3

Permission Letter for In-depth Interview with CHOs

	Government of Rajasthan National Health Mission, Rajasthan Department of Medical, Health & FW, Swasthya Bhawan, Jaipur. E-mail ID : kayakalp.raj@gmail.com/sno-qa-rja.gov.in	
F 42 (08) NHM/AAM/ 2024-25/ 539		Date :- 23/4/25
CMHO Ajmer, Jaipur-I & II		
Sub: - Regarding upcoming Virtual Assessment of Community Health Officers (CHOs).		
In reference to the aforementioned subject, Dr. Sameera Khan student of HHMR University, Jaipur who is currently doing Internship under NHM up to 30 May 2025 for virtual assessment of CHOs of district on the subject of MNS training.		
Confidentiality of data is to be maintained by the interns during and after the Dissertation work experience. Data has to be used only for the dissertation purpose. It is requested to allow her to analyze and assess data relevant to her study as per the rule.		
Kindly extend your coordination.		
F 42 (08) NHM/AAM/ 2024-25/ 539		 (Dr. Rommel Singh) Project Director Ayushman Arogya Mandir
Copy to:- 1. PA to MD – NHM. 2. PA to AMD – NHM. 3. SPM-NHM 4. PD-Ayushman Arogya Mandir. 5. State Nodal Officer QA & Kayakalp. 6. CSR to email all concerned.		Date :- 23/4/25
		 Project Director Ayushman Arogya Mandir

Annexure 4

Self-Reporting Questionnaire 20 – English version [30-day recall period]

1. Do you often have headaches? Yes/No
2. Is your appetite poor? Yes/No
3. Do you sleep badly? Yes/No
4. Are you easily frightened? Yes/No
5. Do your hands shake? Yes/No
6. Do you feel nervous, tense or worried? Yes/No
7. Is your digestion poor? Yes/No
8. Do you have trouble thinking clearly? Yes/No
9. Do you feel unhappy? Yes/No
10. Do you cry more than usual? Yes/No
11. Do you find it difficult to enjoy your daily activities? Yes/No
12. Do you find it difficult to make decisions? Yes/No
13. Is your daily work suffering? Yes/No

	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
a. Little interest or pleasure in doing things.				
b. Feeling down, depressed, or hopeless.				
c. Trouble falling/stay in gas leep, sleeping too much.				
d. Feeling tired or having little energy.				
e. Poor appetite or overeating.				

f. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down.	☐	☐	☐	☐
g. Trouble concentrating on things, such as reading the newspaper or watching TV.	☐	☐	☐	☐
h. Moving or speaking so slowly that other people could have noticed. Or the opposite; being so fidgety or restless that you have been moving around more than usual.	☐	☐	☐	☐
i. Thoughts that you would be better off dead or of hurting yourself in some way.	☐	☐	☐	☐

14. Are you unable to play a useful part in life? Yes/No
 15. Have you lost interest in things? Yes/No
 16. Do you feel that you are a worthless person? Yes/No
 17. Has the thought of ending your life been on your mind? Yes/No
 18. Do you feel tired all the time? Yes/No
 19. Do you have uncomfortable feelings in your stomach? Yes/No 20. Are you easily tired? Yes/No

Patient Health Questionnaire (PHQ-9)

Patient Name: _____ Date: _____

1. Over the last 2 weeks, how often have you been bothered by any of the following problems?
2. If you checked off any problem on this questionnaires of ar, how difficult have these problems made it for you today our work, take care of things at home, or get along with other people?

Not Difficult at all Somewhat difficult Very difficult Extremely difficult

TOTAL SCORE _____

PHQ9 Copyright O Pfizer Inc. All right reserved. Reproduced with permission.

PRI ME-MD & is a trademark of Pfizer Inc.

Score	Recommended actions
0-4	Normal range or full remission. The score suggests the patient may not need depression treatment.
5-9	Minimal depressive symptoms. Support, educate, call if worse, return in 1 month.
10-14	Major depression, mild severity. Use clinical judgment about treatment, based on patient's duration of symptoms and functional impairment. Treat with antidepressant or psychotherapy.
15-19	Major depression, moderate severity. Warrants treatment for depression, using antidepressant, psychotherapy or a combination of treatment.
20 or higher	Major depression, severe severity. Warrants treatment with antidepressant and psychotherapy, especially if not improved on immunotherapy; follow frequently.

Mini-Mental State Examination (MMSE)

Patient's Name: _____

Instructions: Ask the question in the order listed. Score one point for each correct response within each question or activity.

Maximum Score	Patient's Score	Questions
5		"What is the year? Season? Date? Day of the week? Month?"
5		"Where are we now: State? Country? Town/city? Hospital? Floor?"
3		The examiner names three unrelated objects clearly and slowly, then asks the patient the name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible. Number of trials: _____
5		"I would like you to count backward from 100 by sevens." (93, 86, 79, 72, 65, ...) Stop after WORLD backwards." (D-L-R-O-W)
3		"Earlier I told you the names of three things. Can you tell me what those were?"
2		Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1		"Repeat the phrase: 'No ifs, ands, or buts.'"
3		"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1		"Please read this and do what it says." (Written instruction is "Close your eyes.")
1		"Make up and write and sentence about anything." (This sentence must contain a noun and a verb.)
1		"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.) 
30		TOTAL

If value < 24 refer the individual to PHC-MO, if the individual has studied above 8th Class

If value < 21 refer the individual to PHC-MO, if the individual has studied above 8th Class

Everyday Abilities Scale for India

1. Does he/she ever forget that he/she has just eaten and ask for food again after he/she has just eaten?
2. Does he/she urinate in an appropriate place?
3. Do his/her clothes ever get dirty from urine or stools?

Tell me the following about his clothes:

4. Is his/her shirt buttoned properly?
5. Is his/her dhoti/petticoat tied properly?
6. Is he/she able to work as a member of a team i.e. in a group activity which requires different roles from people will he/she be able to participate?
7. Does he/she express his/her opinion on important family matters, e.g., marriage?
8. If he/she is assigned or himself/herself decides to undertake an important task can he/she follow it through to completion?
9. Is he/she able to remember important festivals such as Holi, Diwali?
10. If he/she is asked to deliver a message does he/she remember to do so?
11. Does he/she discuss local/regional events such as marriages, disasters, politics appropriately?
12. Does he/she ever lose his/her way in the village?
13. Are they able to handle calculations and money?
14. Is there a change in behaviour or personality?
15. Is there new onset depression?

All questions are in Yes/No format. No is given 1-point scores >4 are to be evaluated further.

Points to keep in mind:

- All these should be a new symptom or appearance not present in the individual few months or years before.
- History to be taken from a close caregiver, staying with person for longer than duration of appearance of symptoms.

Alcohol Use Disorders Identification Test Audit Questions: Please tick the response that best fits your drinking.

	<i>Never</i>	<i>Monthly or less</i>	<i>2–4 times a month</i>	<i>2–3 times a week</i>	<i>4 or more times a week</i>
1. How often do you have a drink containing alcohol?	Go to Qs ☐ ▼ 9 & 10	☐	☐	☐	☐
2. How many standard drinks do you have on a typical day when you are drinking?	☐	☐	☐	☐	☐
	<i>Never</i>	<i>Less than monthly</i>	<i>Monthly</i>	<i>Weekly</i>	<i>Daily or almost daily</i>
3. How often do you have six or more standard drinks on one occasion?	☐	☐	☐	☐	☐
4. How often during the last year have you found that you were not able to stop drinking once you had started?	☐	☐	☐	☐	☐
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	☐	☐	☐	☐	☐
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	☐	☐	☐	☐	☐

7. How often during the last year have you had a feeling of guilt or remorse after drinking?					
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?					
	<i>No</i>	<i>Yes, but not in the last year</i>	<i>Yes, during the last year</i>		
9. Have you or someone else been injured because of your drinking?					
10. Has a relative, friend, doctor or other health care worker been concerned about your drinking or suggested you cut down?					

Supplementary Questions	<i>Probably Not</i>	<i>Unsure</i>	<i>Possibly</i>	<i>Definitely</i>
i. Do you think you presently have a problem with drinking?				
	<i>Very easy</i>	<i>Fairly easy</i>	<i>Neither difficult or easy</i>	<i>Fairly difficult</i>
ii. In the next 3 months, how difficult would you find it to cut down or stop drinking?				

Responses to questions 1 to 8 are scored 0, 1, 2, 3 or 4. Questions 9 and 10 have possible responses of 0, 2 and 4. The range of possible scores is from 0 to 40, which is interpreted as follows:

0: abstinent and never had any problems 8 to 14: Harmful alcohol use from alcohol use

1 to 7: Low-risk alcohol use 15 or more: Alcohol dependence

Community Based Assessment Checklist (CBAC) revised draft 6th October 2020 V.5

General Information

Name of ASHA:	Village/Ward:
Name of MPW/ANM:	Sub Centre:
Personal Details Name:	PHC/UPHC:
Age:	Any Identifier (Aadhar Card/ any other UID– Voter ID etc.):
If yes, specify:	State Health Insurance Schemes: Yes/No
Sex:	Telephone No. (self/ family member/ other- specify details):
Address:	

Does this person have any of the following: If yes, Please specify

visible defect /known disability/Bed ridden/ require support for Activities of Daily Living

Part A: Risk Assessment

Range 0–29 years	Circle Any	Write Score
30–39 years	1	
40–49 years	2	
50–59 years	3	
≥ 60 years	4	
Never	0	
Used to consume in the past/	1	
Sometimes now		
Daily	2	
No	0	
Yes	1	
FemaleMale		
80 cm or less 90 cm or less	0	

Question	81–90 cm	91–100 cm	1
	More than 90 cm	More than 100 cm	2
1. What is your age			
2. Do you smoke or consume smokeless products such as gutka or khaini?	At least 150 minutes in a week		0
	Less than 150 minutes in a week		1
3. Do you consume alcohol daily			
4. Measurement of waist (in cm)	No		0
	Yes		2
5. Do you undertake any physical activities for minimum of 150 minutes in a week? (Daily minimum 30 minutes per day			
– Five days a week)			
6. Do you have a family history (any one of your parents or siblings) of high blood pressure, diabetes and heart disease?			

Total Score

Every individual needs to be screened irrespective of their scores.

A score above 4 indicates that the person may be at higher risk of NCDs and needs to be prioritized for attending the weekly screening day

Part B: Early Detection: Ask if Patient has any of these Symptoms

B1: Women and Men Y/N Y/N

Shortness of breath (difficulty in breathing)		History of fits	
Coughing more than 2 weeks*		Difficulty in opening mouth	
Blood in sputum*		Any ulcers in mouth that has not healed in two weeks	
Fever for > 2 weeks*		Any growth in mouth that has not healed in two weeks	
Loss of weight*			
Night Sweats*		Any white or red patch in mouth that has not healed in two weeks	
Are you currently taking anti-TB drugs**		Pain while chewing	
		Any change in the tone of your voice	
Anyone in family currently suffering from TB**			
		Any hypopigmented patch(es) or discolored lesion(s) with loss of sensation	
History of TB *		Any thickened skin	
Recurrent ulceration on palm or sole		Any nodules on skin	
Recurrent tingling on palm(s) or sole(s)		Recurrent numbness on palm(s) or sole(s)	
Cloudy or blurred vision		Clawing of fingers in hands and/or feet	
Difficulty in reading		Tingling and numbness in hands and/or feet	
Pain in eyes lasting for more than a week		Inability to close eyelid	
Redness in eyes lasting for more than a week		Difficulty in holding objects with hands/fingers	
Difficulty in hearing			
		Weakness in feet that causes difficulty in walking	

B2: Women only Y/N Y/N

Lump in the breast		Bleeding after menopause
Blood stained discharge from the nipple		Bleeding after intercourse
Change in shape and size of breast		Foul smelling vaginal discharge
Bleeding between periods		

B3: Elderly Specific (60 years and above) Y/N Y/N

Feeling unsteady while standing or walking		Needing help from others to perform everyday activities such as eating, getting dressed, grooming, bathing, walking, or using the toilet	
Suffering from any physical disability that restricts movement		Forgetting names of your near ones or your own home address	

In case of individual answers Yes to any one of the above-mentioned symptoms, refer the patient immediately to the nearest facility where a Medical Officer is available

*If the response is Yes- action suggested: Sputum sample collection and transport to nearest TB testing center ** If the answer is yes, tracing of all family members to be done by ANM/MPW

Part C: Risk factors for COPD**Circle all that Apply**

Type of Fuel used for cooking – Firewood / Crop Residue / Cow dung cake / Coal / Kerosene / LPG

Part D: PHQ 2

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things?	0	+1	+2	+3
2. Feeling down, depressed or hopeless?	0	+1	+2	+3
Total Score	be referred to CHO/	MO (PHC/UPHC)		

Anyone with total score greater than 3 should

Occupational exposure – Crop residue burning/burning of garbage – leaves/working in industries with smoke, gas and dust exposure such as brick kilns and glass factories etc.