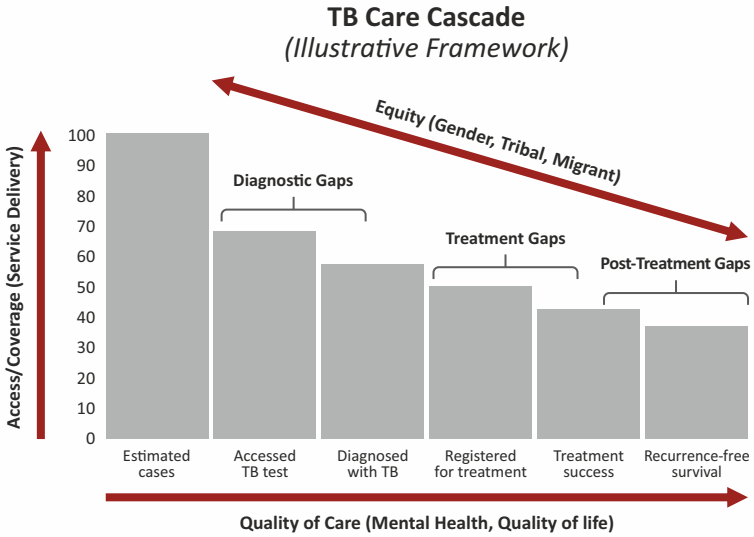
Integrating Mental Health with TB Care

Addressing depression, anxiety, and psychiatric problems among TB patients

Project Brief

Closing the Gaps in TB Care Cascade (CGC) is a four-year (2020-2024) project funded by USAID and implemented by World Health Partners (WHP)-led consortium consisting of Indian Institute of Public Health Gandhinagar (IIPHG); Everwell Health Solutions; Harvard Medical School; and Leapfrog to Value. It is implemented in 4 districts: Ranchi & East Singhbhum (Jharkhand) and Surat & Gandhinagar (Gujarat).



The TB care cascade visualizes various stages of gaps in TB care delivery. The gaps represent patient losses in the ability to access a TB diagnostic test; receive an accurate diagnosis; access TB treatment; adhere to daily medication; and remain TB-free post-treatment. CGC care cascades are monitored at a district level, aligned with local TB epidemiology and local health systems guided by Access, Quality, and Equity of TB care.

CGC builds on demonstration models by employing five key cross-cutting solutions to overcome and address care cascade gaps, critical barriers, and achieve fundamental change to support Government of India's (GoI's) vision of a 'TB-Free India'.

1. **Behavioural Design:** Deployed to understand and improve patient engagement. Existing services, products, environment, and barriers are identified to map out a preferred behavior continuum from the first sign of symptom (cough) to treatment completion (cure).
2. **Quality Improvement:** Routine monitoring of cascade gaps to iterate interventions and optimize processes. Systems thinking, routine measurement, and data-informed assessments are applied to routinely diagnose, and improve shortcomings in processes.
3. **Value-based Care:** Monitoring quality of life metrics, as prioritized by patients. Care-oriented program metrics are aligned and linked to program dashboards and patient-centric outcomes.
4. **Systems Strengthening:** Sensitize NTEP staff on ongoing developments and interventions to coordinate the care cascade. Nikshay development to support workflows and digital training platforms for more rapid and efficient reach.
5. **Impact Evaluation:** Baseline and end line evaluation of gaps in the district care cascade.

CGC applies a monitoring framework and implements interventions to address diagnostic, treatment, and post-treatment gaps at each sequential stage of the TB care cascade.

Diagnosis	• **Artificial intelligence (AI)- based diagnostics to improve quality of diagnosis** • **Engagement of informal providers /Chemists for early case detection**
Treatment	• **Digital and non-digital adherence monitoring** • **Adverse drug reaction management** • **Differentiated care for clinically severe patients** • **Psychosocial support for mental health and substance abuse**
Post-Treatment	• **Early detection of TB recurrence** • **Rehabilitation support for pulmonary impairment**

Twenty-eight Care Coordinators are engaged in the intervention districts for demonstration, capacity building, and transition to the district health system. WHP will establish a technical support unit (TSU) to integrate care cascade monitoring frameworks into health systems. Project learnings will be translated to policy guidance documents for the National Tuberculosis Program.

Intervention: Integrating Mental Health with TB care

Background

Patients experience a wide range of psychological and emotional reactions as they move through the TB care cascade. At diagnosis, patients confront anxiety, fear of isolation, and denial. TB treatment is interrupted when patients feel demotivated, unsupported, or devalue their own health. Depression especially is a significant bi-directional risk factor and can be experienced at any stage of care. Patients with depression are also more likely to have advanced disease upon diagnosis and remain infectious for longer periods.[1]

Key Objectives

1. Establish the prevalence of mental health challenges among TB patients
2. Implement psychosocial interventions to reduce the severity of mental health challenges
3. Improve patient-level clinical outcomes and quality of care outcomes
4. Develop national guidance documents to implement mental health services for TB patients
5. Strengthen horizontal health systems by integrating national TB and national mental health program services

[1] *https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-019-8001-9*

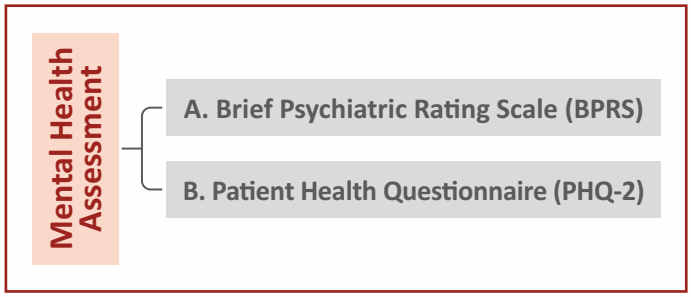
Intervention Workflow

The MH intervention has two stages:

I. Assessment of mental health challenges in the domains of depression, anxiety, and psychiatric problems:

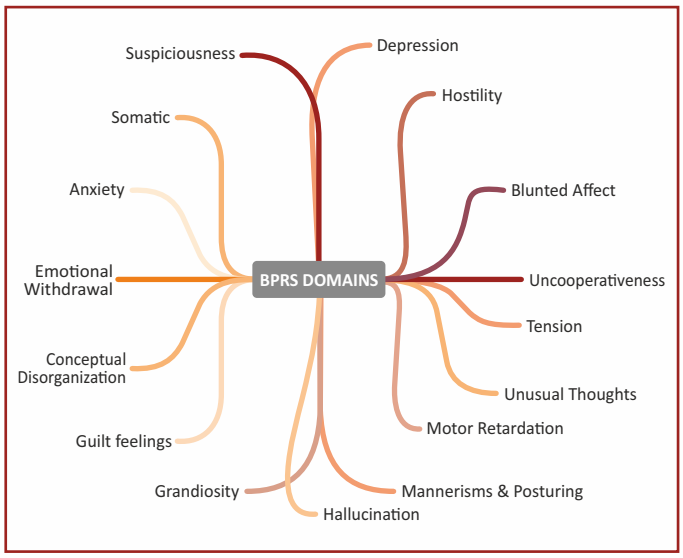
Distinguishing mental disorders from normal distress requires an assessment of context and psychosocial adversity. This is an evaluation of an individual's mental health and social wellbeing. It assesses the perception of self and the individuals' ability to function in the community.

TB patients in the public and private sector are screened with the **Brief Psychiatric Rating Scale (BPRS)** to assess the positive, negative, and affective symptoms of individuals who have mental disorders. It is administered within two weeks of diagnosis to evaluate 16 psychiatric domains of the patient.

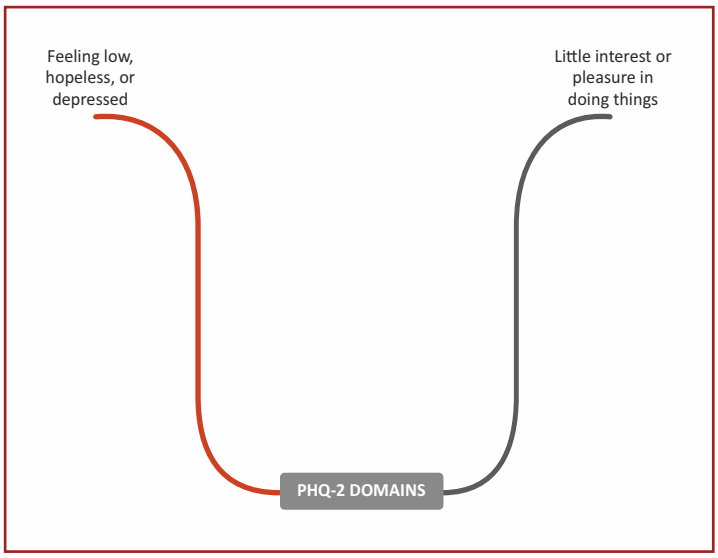


Patients may also experience depression at later stages post-diagnosis. They are therefore screened on a monthly basis with the **Patient Health Questionnaire (PHQ-2)**, a brief tool widely used for initial screening for symptoms of depression.[2]

BPRS Domains



PHQ-2 Domains



Moderate-Severe conditions:

Patients are referred to primary, secondary, or tertiary care through CGC-engaged providers

Mild condition:

Patients are enrolled in a psychosocial intervention administered by CGC Care Coordinators

Mental health screening tool can be accessed here: https://worldhealthpartners.org/document/MH%20screening%20tools.pdf

[2] *https://www.hiv.uw.edu/page/mental-health-screening/phq-2*

II. Psychosocial Intervention: Treating Mild Conditions

Care Coordinators enrol "Mild" patients into a psychosocial intervention, consisting of four phases:

Phase I: Identifying Triggers

- Care Coordinators assist patients with identifying triggers that contribute to a negative state of mind. Example: Patient expresses that the illness makes him or her feel like a burden to the family. Trigger: A harsh verbal remark made by a family member

Phase II: Behavioural Activation

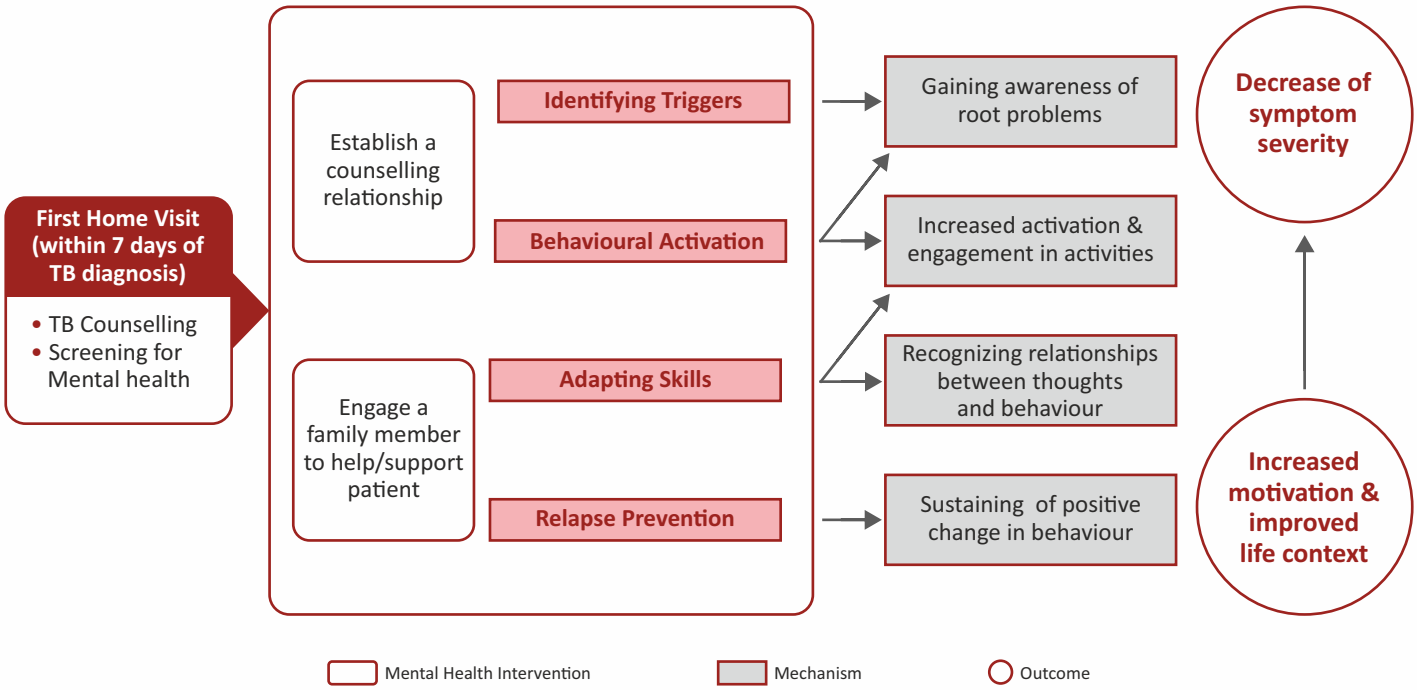
- The session develops goal-oriented behaviour in patients to overcome identified triggers
- Care Coordinators engage patients in daily activities (artwork, religious songs/prayer, walking, etc.)

Phase III: Adapting Skills

- The session discusses the physical, emotional, cognitive, and behavioural experience of the patient when performing activities
- Prompts: When? Where? What? With whom? What did you feel? What was your first instinct? What did your do or avoid doing?

Phase IV: Relapse Prevention

- The session motivates patients to sustain positive changes experienced
- Strategies: Compliment yourself; Talk back to your negative thoughts; Don't be harsh on yourself

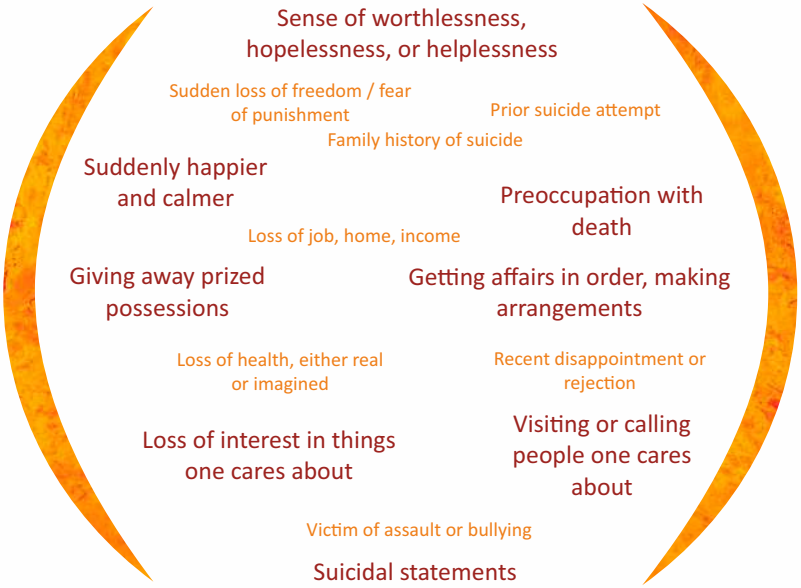


Suicidal Intent

Care coordinators are trained to identify and manage signs of suicidal tendencies:

- Care Coordinators identify suicidal intent in patients through risk factors and warning signs
- At-risk patients are monitored in their home environment by a motivated family member or co-resident to ensure their safety during a crisis situation
- Patients are immediately referred to CGC supportive referral services
- Follow-ups are completed to ensure the patient is under referral care with outcome reporting

Risk factors and Warning signs of Suicide



CGC Supportive Referral Services

- **Crisis Intervention:** Immediate and short-term emergency response to distress to help restore an individual's equilibrium
- **Family Therapy:** Help the family unit manage the psychological distress of the caregivers in the treatment of the patient

Early Findings

Initial data from the piloting of BPRS and PHQ-2 screening tools is indicated below:

BPRS Screening

Jan - June, 2021 (N=3,194)

Identified with mental health challenges: **304 (10%)**

Mild: **223 (7%)**

Moderate: **54 (2%)**

Severe: **27 (1%)**

PHQ-2 Screening

Jan - June, 2021 (N=2,204)

Identified with mental health challenges: **116 (5%)**

Mild: **56 (2.5%)**

Moderate: **36 (1.5%)**

Severe: **24 (1%)**

- Training and capacity building of frontline TB workers was conducted by resource persons of the National Mental Health Program (NMHP), demonstrating integration of NMHP and NTEP services.

Subsequent Learnings

The following objectives will be examined to better inform intervention design:

- Establish the prevalence and severity of various mental health challenges in the TB population
- Map mental health challenges to identified care cascade gaps
- Temporal trends in mental health as patients move through the care cascade
- Develop explanatory models of mental health challenges by intersecting clinical characteristics, social context, and the illness experience of the patient
- Examine intervention effects (pre-post) on the reduction of mental health symptoms

INDIAN INSTITUTE OF PUBLIC HEALTH GANDHINAGAR

Everwell

HARVARD MEDICAL SCHOOL

Leapfrog to Value

About WHP: World Health Partners (WHP) is a non-profit Indian society that sets up programs to bring sustainable healthcare within easy access to underserved and vulnerable communities. It innovatively harnesses already available resources more efficiently by using evidence-based management and technological solutions. WHP is best known for its programs focused on early detection and treatment of tuberculosis in urban and rural settings supported by community-based activities to ensure prevention. The organization uses all available resources--both in the public and private sectors to ensure that people living in any part of the country will have access to high-quality treatment.

For more information, please contact : Ms. Prachi Shukla, Country Director, World Health Partners (WHP), A 151 , Block A, Sector – 72, Noida – 201301, India, info@whpindia.org

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