PREDICT
PREVENTING DEPRESSION

Study Newsletter

IMH STUDY TEAM

Foreword from the Principal Investigator

It gives me great pleasure to share with you the inaugural issue of the PREDICT study newsletter. This marks an important milestone in our collective effort to advance understanding of major depressive disorder (MDD) and subsyndromal depression (SSD) in Singapore. Through this longitudinal study, we hope to identify biological, psychological, and social determinants of depression, and in doing so, generate knowledge that can inform early detection, prevention, and intervention strategies.

It has been encouraging to see how far we have come in just a year. From receiving ethics approvals to launching our website, and from beginning recruitment at IMH clinics to expanding into polyclinics and the wider community, each step has been possible only because of the dedication of our team and the trust of our participants. The feedback shared by participants in this issue is especially meaningful. Their experiences remind us why this work matters and keep us motivated through the challenges of running a large, long-term study.

I am also proud of the spirit of collaboration that defines the PREDICT study. We are learning from international partners, strengthening our own team's research capacity, and already seeing early scientific insights that link physical and mental health in new ways. These are exciting beginnings, and they give me great hope for the impact this study can have.

Looking ahead, we will continue to broaden recruitment and launch the interventional projects under the PREDICT study umbrella. By working together, I believe we can build a strong foundation of evidence that will not only deepen our understanding of depression but also shape future mental health policies and services in Singapore.

Thank you for your continued support and interest in the PREDICT study.

Mythily

A/Prof Mythily Subramaniam
Principal Investigator, PREDICT Study
Assistant Chairman Medical Board
(Research), Institute of Mental Health

CONTENT

Timeline

Let's take a moment to recap some key milestones.

2024

MAR

IMH Institutional Research Review Committee (IRRC) ethics approval received

JUN

Domain Specific Review Board (DSRB) ethics approval received

AUG

Patient recruitment at IMH outpatient clinic commenced

OCT

Training by overseas experts and collaborators

Click here to read more about the trainings

2025

APR

Recruitment among the public commenced

MAY

PREDICT official website launched

Press release in more than five local news media

Click here or visit the study website at www.predict-imhresearch.sg!

JUL

Patient recruitment expanded to IMH satellite clinics

AUG

Year 1 follow up assessment commenced

OCT

NHG Polyclinics
NHG Health

Recruitment at Hougang Polyclinic commenced

Upcoming

Extending recruitment to other NHG Polyclinics
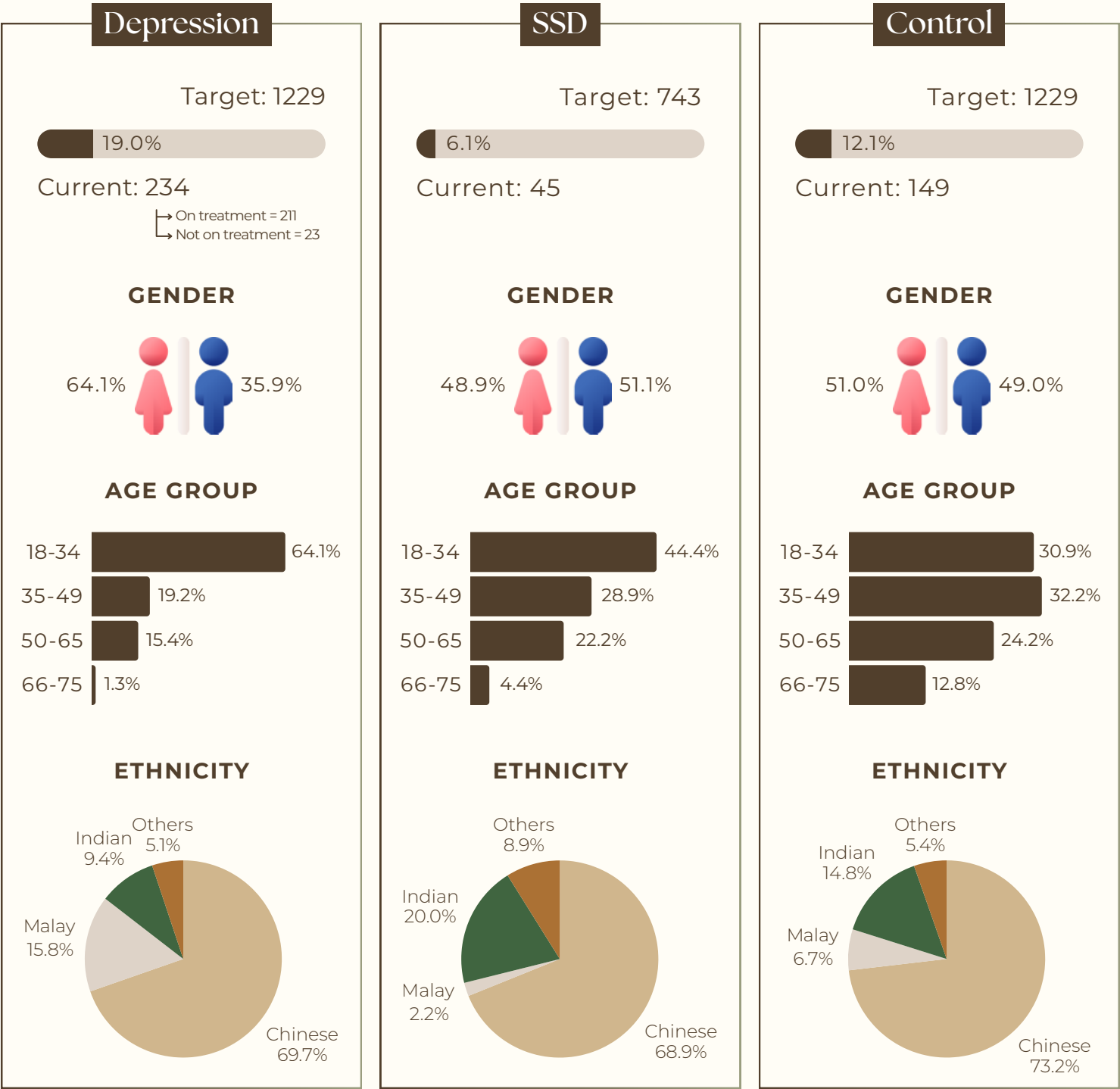
Launch of Project 2 and Project 3

Click here to read more about the new studies

Recruitment Status

Recruitment among the patient population and general public are well underway. The study received extensive media coverage following press release on 20 May 2025 and the launch of the official study website saw large numbers of people indicating interest to participate. To date, more than 400 people hsv signed up via the website.

To further boost recruitment numbers, the IMH study team have recently started reaching out to participants from previous epidemiological studies (e.g., Singapore Mental Health Study 2016, Mental Health Literacy Study 2022-2023) who have agreed to be recontacted for future research.

As of 8 October 2025, the total number of participants is **428**. The figures below show the recruitment numbers and socio-demographic breakdown of each group at baseline:

Depression

Target: 1229

19.0%

Current: 234
→ On treatment = 211
→ Not on treatment = 23

GENDER

64.1% 35.9%

AGE GROUP

Age	
18-34	64.1%
35-49	19.2%
50-65	15.4%
66-75	1.3%

ETHNICITY

Others 5.1%
Indian 9.4%
Malay 15.8%
Chinese 69.7%

SSD

Target: 743

6.1%

Current: 45

GENDER

48.9% 51.1%

AGE GROUP

Age	
18-34	44.4%
35-49	28.9%
50-65	22.2%
66-75	4.4%

ETHNICITY

Others 8.9%
Indian 20.0%
Malay 2.2%
Chinese 68.9%

Control

Target: 1229

12.1%

Current: 149

GENDER

51.0% 49.0%

AGE GROUP

Age	
18-34	30.9%
35-49	32.2%
50-65	24.2%
66-75	12.8%

ETHNICITY

Others 5.4%
Indian 14.8%
Malay 6.7%
Chinese 73.2%

Participants' Voices

The IMH study team has received valuable feedback and positive comments from participants. Some have shared their thoughts on their participation in the PREDICT study:

"We recently participated in a six-year study on the causes of depression among adults in Singapore reported in the Straits Times on 22 May 2025. My wife, sister, and I applied and were accepted into the control group, after a screening process and a main interview, conveniently conducted via Teams. This saved us a trip to the IMH.

The researchers spoke with us individually and emailed us detailed information about the assessments, procedures, and consent requirements, emphasising participant confidentiality. Following this, we made an onsite visit to provide blood samples and complete additional documentation. We particularly appreciated their thoughtful gesture of providing drinks and snacks after our blood tests, especially since we had to fast for the procedure. We were pleasantly surprised to receive our blood test results via email within just a few days. They were also flexible in allowing us to complete a questionnaire about our mental/medical health and family history online instead of onsite.

Overall, our experience in applying for and participating in the study was smooth and proceeded at a comfortable pace."

Participant A

"My husband and I participated in the PREDICT research study after we chanced upon it while Googling. During our interactions with the IMH staff, we were very impressed by their patience and professionalism. They explained the study in detail and allowed us to ask questions and seek clarifications. It was also very heartwarming to see the study team member/interviewer standing at the drop off point to wait for us to arrive during the in-person part of the study. Another plus about participating in the study was the comprehensive blood test results that were provided to us, just one day after the blood was taken. All in all, the overall experience was really smooth, efficient and seamless. We encourage everyone who qualifies for this research study to participate."

Participant B

Building Research Capacity

Training by Professor Brenda Penninx

In October 2024, the IMH study team welcomed our overseas study co-investigator Professor Brenda Penninx, Principal Investigator of the Netherlands Study of Depression and Anxiety (NESDA), for a two-day training session with the study team. The training provided valuable insights into longitudinal data analysis, study design, and best practices in mental health research.

Professor Penninx also shared key findings from NESDA, a large-scale cohort study that explores the long term course and impact of depressive and anxiety disorders, integrating biological and psychosocial perspectives during a hospital-wide CPE talk. Her visit enriched local researchers' expertise and underscored the importance of international knowledge exchange in advancing mental health care and policy.

Internal training

The IMH study team conducts regular internal trainings to refresh knowledge and ensure consistent administration of study scales. These sessions also provide updates on protocol changes.

In addition, team meetings are held to reflect on interviews, share challenges, and clarify doubts. This helps us enhance procedures where needed, improve participant experience, and safeguard data quality.

Through ongoing training and discussion, we aim to collect reliable data while ensuring participants feel supported and respected.

Training by Associate Professor Claire Henn-Haase

Associate Professor Claire Henn-Haase and Dr Liu Jianlin engaged in a role play to navigate interpersonal conflict.

The IMH study team was also pleased to host our overseas study co-investigator Associate Professor Clare Henn-Haase, programme director of the Clinical Psychology PhD Programme at CSPP, Alliant International University, in January 2025, to conduct training on Internet-delivered Skills Training in Affective and Interpersonal Regulation (i-STAIR).

Associate Professor Clare commenced her visit with an insightful CPE talk on the health impact of adverse childhood experiences (ACEs) and evidence-based trauma treatments, including her research on power lifting as a therapeutic intervention.

The subsequent days focused on hands-on iSTAIR training, role plays, and adapting the therapy manual to the local context, emphasising the impact of past trauma on present functioning. It was a pleasure to collaborate with Associate Professor Clare, and we look forward to future clinical and research partnerships.

What Lies Ahead

Project 2: i-STAIR as a Digital Prevention Intervention

Looking ahead, the team is piloting a new digital intervention to support individuals with ACEs and SSD, which are linked to long-term mental health challenges and significant societal cost. The digital intervention, called i-STAIR, is an 8-week intervention designed to strengthen emotion regulation and interpersonal skills, key difficulties faced by those with ACEs. STAIR was originally designed to treat PTSD; hence, this is the first study to modify STAIR into a digital prevention intervention for MDD.

A pilot randomised controlled trial (RCT) will recruit 150 participants to compare i-STAIR with general psychoeducation. Through this study, the team hopes to establish i-STAIR as a cost-effective, accessible, and scalable intervention to prevent the progression to MDD in at-risk groups in Singapore.
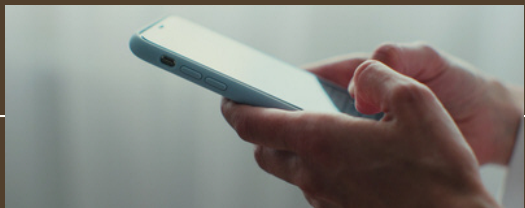
Project 3: AI-powered Mobile App

The team is also co-developing and evaluating an AI-powered mobile health application to improve the mental wellbeing of individuals with SSD. Advances in artificial intelligence (AI) now allow for highly personalised, scalable approaches to mental health promotion.

Development of the app will follow an iterative, user-centred process, incorporating four rounds of feedback to ensure relevance and usability. Once finalised, the intervention will be tested in a two-arm RCT against care as usual. A total of 152 participants (76 per arm) will be enrolled. This study will take three years, and it will be the first in Singapore to investigate an AI-driven intervention for SSD, and among the few in Asia to examine both the efficacy and cost-rffectiveness of generative AI in promoting mental health.

Research Spotlight

Serum lipid and high-sensitivity C-reactive protein (hs-cRP) abnormalities in patients with MDD in Singapore: early results from the PREDICT study

Dr Nisha Chandwani, Senior Consultant and Chief of the Department of Mood and Anxiety at IMH, and co-investigator of the PREDICT study, presented preliminary results from the PREDICT study at Singapore Health and Biomedical Congress (SHBC) 2025. As part of the study, blood lipid levels and high-sensitivity C-reactive protein (hs-CRP), an inflammation marker, were tested in participants with MDD.

In the first 80 participants examined, nearly half (47.7%) showed at least one abnormal lipid level. 60.3% had raised hs-CRP (>1mg/L), with 30% having hs-CRP levels >3mg/L. Despite the relatively young mean age of 31 years, more than a third were in the obese range, with a mean body mass index (BMI) of 27.

Lipid abnormalities were significantly more common among those who were obese, and married, while raised hs-CRP was higher in males and those with higher BMI. No clear link was found between depression severity and these biological markers at this stage.

These preliminary findings highlight the intersection of physical and mental health in depression, reinforcing the need for integrated approaches to care.
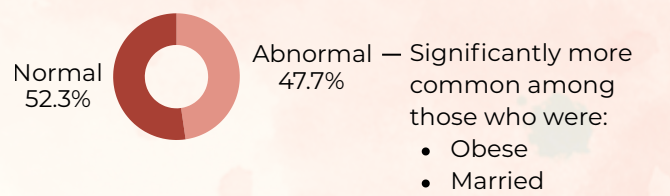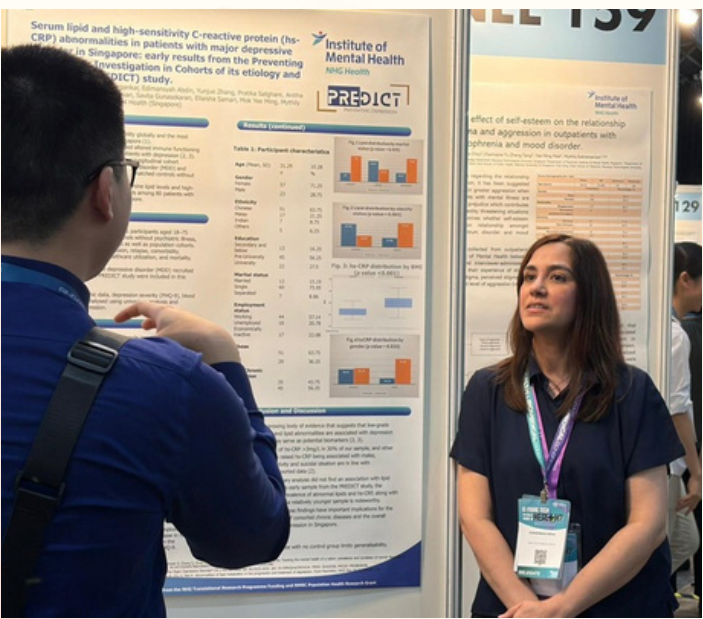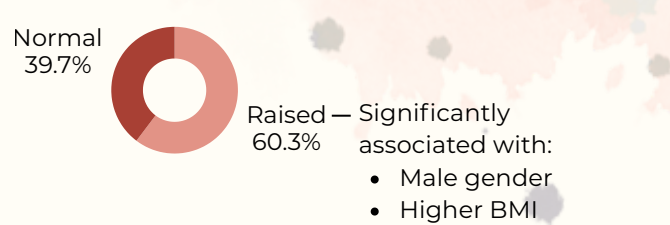
Dr Nisha Chandwani presenting research findings from the PREDICT study at Singapore Health and Biomedical Congress (SHBC) 2025.

Speaking about these results, Dr Nisha Chandwani noted that there is a growing body of evidence that suggests that low-grade inflammation and lipid abnormalities are associated with depression severity and may serve as potential biomarkers.

"While our preliminary analysis did not find an association with lipid abnormalities in this early sample from the PREDICT study, the significantly high prevalence of abnormal lipids and hs-CRP, along with higher BMI, despite a relatively younger sample is noteworthy," she said.

LIPID LEVELS

Normal 52.3%

Abnormal 47.7% — Significantly more common among those who were:
- Obese
- Married

HS-CRP LEVELS

Normal 39.7%

Raised 60.3% — Significantly associated with:
- Male gender
- Higher BMI

"While preliminary, these findings have important implications for the risk of development of comorbid chronic diseases and the overall disease burden of depression in Singapore."

DR NISHA CHANDWANI
Senior Consultant and Chief, Department of Mood and Anxiety, IMH
Co-investigator, PREDICT

INSTITUTE OF MENTAL HEALTH
RESEARCH DIVISION