

NATIONAL NETWORK *of*
DEPRESSION CENTERS

Mood Outcomes Program Overview

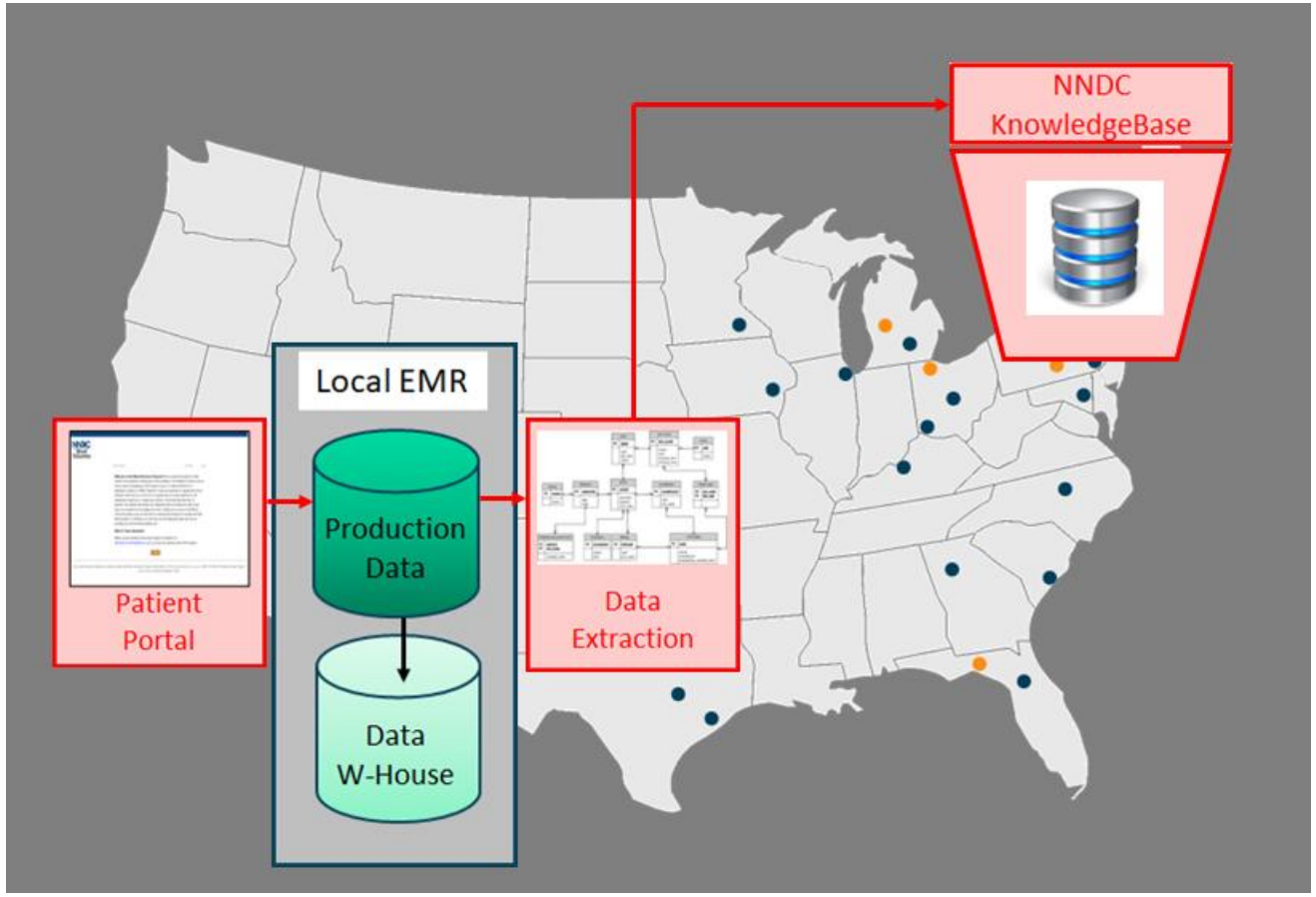
August 2026

Mood Outcomes Program (MOP)

A learning health system to improve care for patients with depressive illness

Key Program Elements:

- Promote measurement-based care by collecting mental health "vital signs"
  - PHQ-9, GAD-7, C-SSRS
- Facilitate quality improvement at the patient, clinic, and population levels
- Support foundation for multi-site network research programs
- Provide decision support tools for clinicians to help tailor treatment to needs of their patients



MOP Journey

Step 1 - 2015 - 2025
Build Mood Outcomes Base
& establish data sharing framework using NNDC Mental Health Vital Signs

Step 2 – 2026 - present
Expand Mood Outcomes
using Enhanced Data Model based on PCORnet

Step 3 - 2026 - future
Embedded Prospective Studies
Collaborative Task Group research framework

We Are Here

Mental Health Vital Signs Legacy Data Model
- EHR integration of PROs
  - PHQ9, GAD7, C-SSRS
- Demographics
- Diagnoses
- 100,000+ patients enrolled

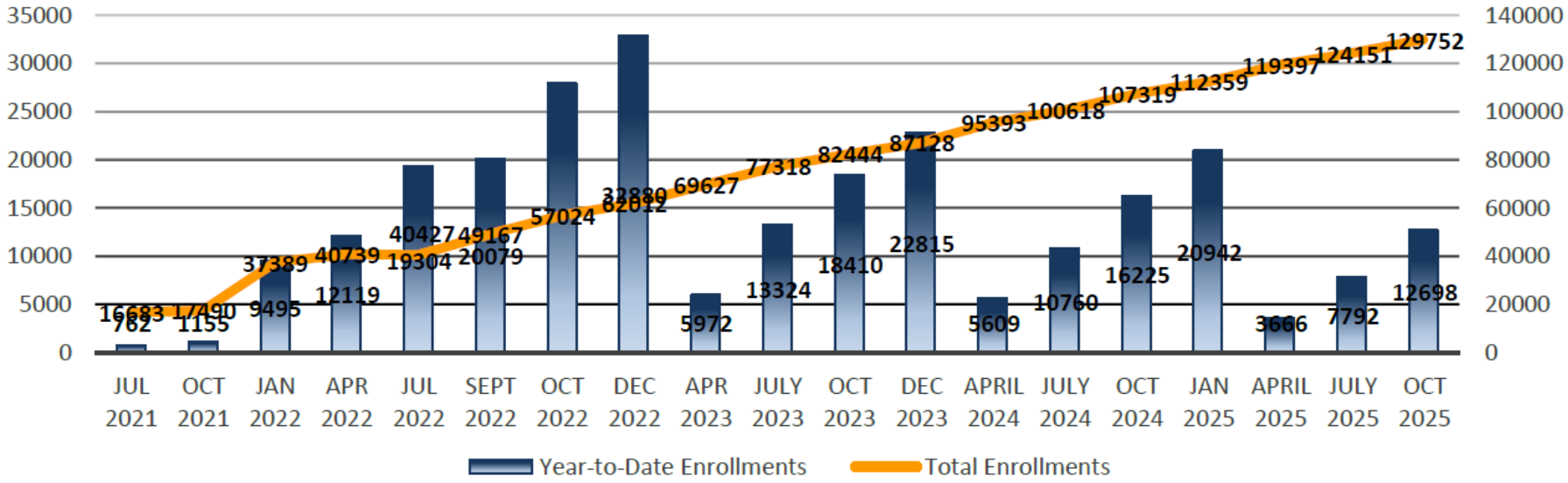
Enhanced Data Model
- Adopt PCORnet Data Model
- Additional Data from EHR
  - Encounters
  - Diagnoses
  - Medications
  - Procedures
  - Lab Results

Embedded Prospective Study Framework
Identify & harmonize data for Task Groups
In Progress:
i. ECT & rTMS data model "harmonization" being piloted
ii. Bipolar Disorders Task Group identifying mania scale
iii. Women & Mood Disorders Task Group defined core data elements that are harmonization candidates

MOP Status – 2025

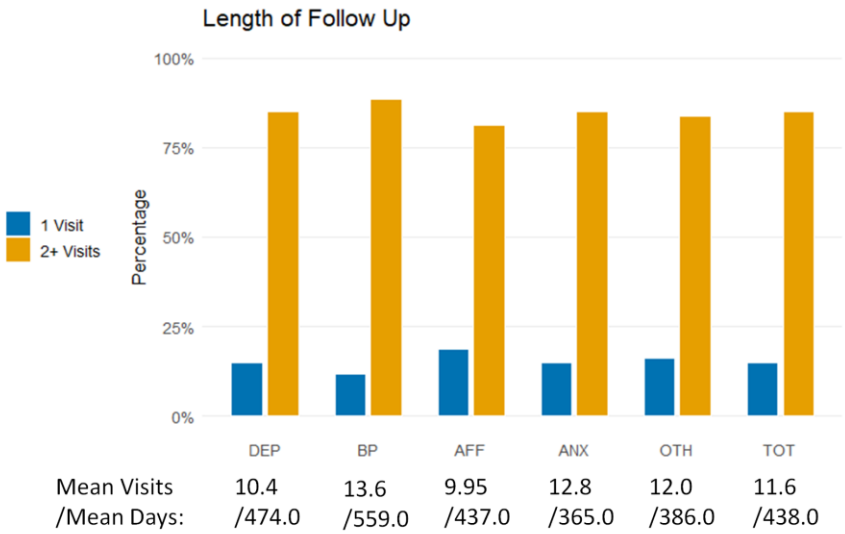
NNDC Centers in MOP (2015-2025):

- University of Michigan
- Johns Hopkins University
- Mayo Clinic
- University of Iowa
- Florida State University
- Ohio State University
- Pine Rest Christian Mental Health
- Penn State University
- University of Texas at Austin
- University of Texas at Houston
- University of Colorado
- University of Illinois Chicago
- Emory University
- Medical University of South Carolina



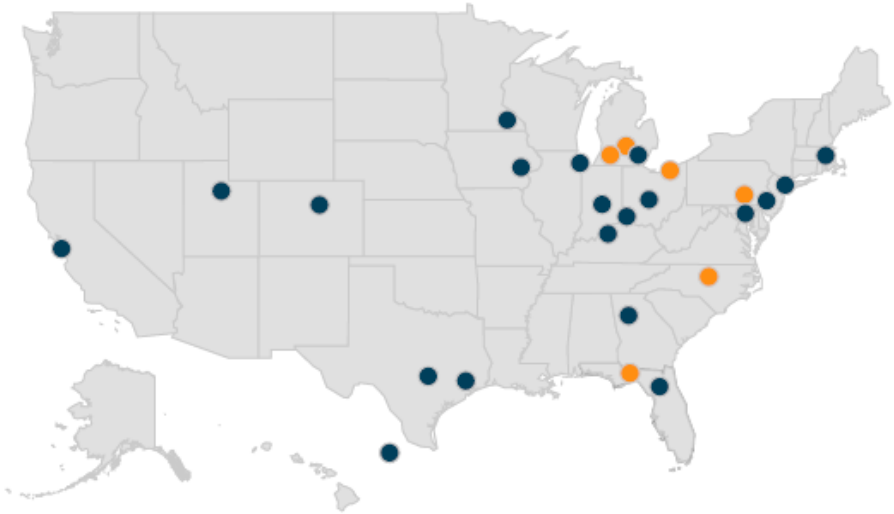
MOP Status – 2025

Enrollment (2011-2025)	DEP N = 46,213	BP N = 10,269	AFF N = 4,678	ANX N = 32,560	OTH N = 10,275	TOT N = 103,995
Age, N (%)						
<18	421 (0.91)	50 (0.49)	55 (1.18)	316 (0.97)	127 (1.24)	969 (0.93)
18-25	10,767 (23.30)	1,914 (18.64)	1,096 (23.43)	7,867 (24.16)	2,406 (23.42)	24,050 (23.13)
26-64	30,141 (65.22)	7,244 (70.54)	3,052 (65.24)	21,803 (66.96)	7,102 (69.12)	69,342 (66.68)
65+	4,884 (10.57)	1,061 (10.33)	475 (10.15)	2,574 (7.91)	640 (6.23)	9,634 (9.26)
Race, N (%)						
White	34,897 (76.79)	7,887 (78.00)	3,492 (76.10)	21,577 (68.85)	6,757 (67.54)	74,610 (73.52)
Black	2,721 (5.99)	655 (6.48)	280 (6.10)	1,234 (3.94)	562 (5.62)	5,452 (5.37)
Asian	1,079 (2.37)	223 (2.21)	108 (2.35)	529 (1.69)	155 (1.55)	2,094 (2.06)
Other	6,747 (14.85)	1,346 (13.31)	709 (15.45)	8,000 (25.53)	2,531 (25.30)	19,333 (19.05)
Sex, N (%)						
Female	23,373 (68.47)	4,526 (63.59)	1,948 (61.86)	11,331 (66.67)	2,463 (47.27)	43,641 (65.52)
Male	10,415 (30.51)	2,507 (35.22)	1,153 (36.61)	5,315 (31.27)	2,618 (50.25)	22,008 (33.04)
Other	347 (1.02)	85 (1.19)	48 (1.52)	349 (2.05)	129 (2.48)	958 (1.44)
BL PHQ Mean (SD)	12.19 (7.07)	10.37 (7.57)	12.00 (7.29)	9.24 (6.78)	8.44 (7.12)	10.71 (7.20)
BL GAD Mean (SD)	10.40 (6.27)	9.32 (6.77)	10.45 (6.55)	9.71 (6.23)	7.84 (6.50)	9.83 (6.39)
BL SI, N (%)	3,110 (20.47)	597 (20.60)	277 (20.34)	651 (11.36)	193 (12.60)	4,828 (18.07)
BL SA, N (%)	3,678 (24.21)	968 (33.40)	351 (25.77)	884 (15.43)	292 (19.06)	6,173 (23.11)



* Data on first 100,000+ MOP patients

MOP Expansion – 2026



Expanding in “Breadth”

- Engage more NNDC centers (e.g., Western Michigan, University of Cincinnati, Cleveland Clinic)
- Engage more clinics in these centers: SOP, OP/IOP, Women’s Mood Disorders Clinics, Behavioral Health (IBH) in Primary Care, **Interventional Psychiatry (IP) Clinics**

Expanding in “Depth”

- EHR data: more tables from EHR
- Unstructured EHR data: clinical notes (future)

DCC Transition to JHU (1/1/2026)

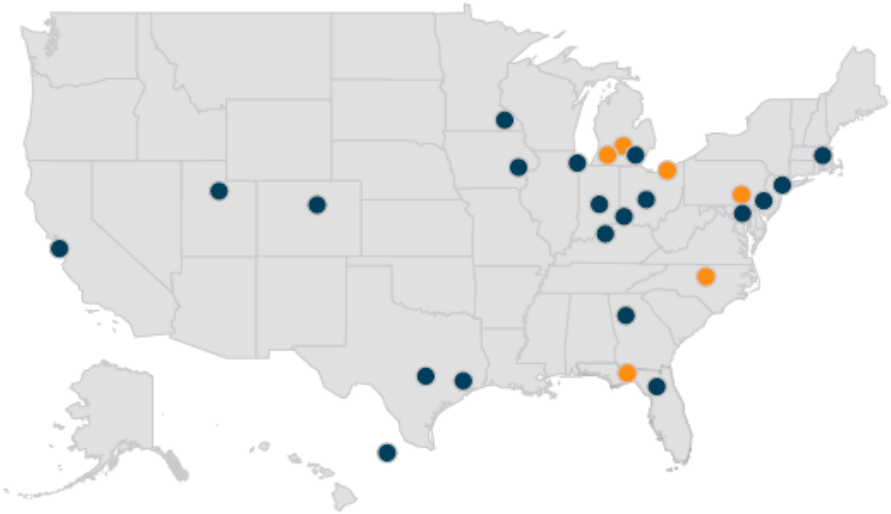
- Lower relative cost for on-going data management
- More robust IT infrastructure for data sharing on cloud: researchers come to the data instead of vice versa

LEGACY	ENHANCED
1. TRANSFER.csv 2. DEMOG.csv 3. HEALTH.csv (STANDARD) 4. PHQ9.csv 5. GAD7.csv 6. CSSRS.csv 7. *ASRM.csv (discontinued)	1. TRANSFER.csv 2. DEMOGRAPHIC.csv 3. DIAGNOSIS.csv 4. ENCOUNTER.csv 5. PHQ9.csv 6. GAD7.csv 7. CSSRS_.csv 8. PRESCRIBING.csv 9. MED_ADMIN.csv 10. PROVIDER.csv 11. PROCEDURES.csv 12. LAB_RESULTS_CM.csv 13. CONDITIONS.csv 14. VITALS.csv 15. OBS_CLIN.csv 16. OBS_GEN.csv

MOP Expansion – Status

"Enhanced" Sites in Progress
(IRB/DTA/ETL)

- University of Utah
- Mayo Clinic
- University of Michigan
- University of Iowa
- Penn State University
- University of Texas, Houston,
- Ohio State University
- University of California, Davis
- University of Colorado
- University of Cincinnati
- Florida State University
- Pine Rest Christian Mental Health
- Cleveland Clinic
- Western Michigan University



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