DATA-DRIVEN MEASUREMENT AND MONITORING TO ENHANCE CARE QUALITY

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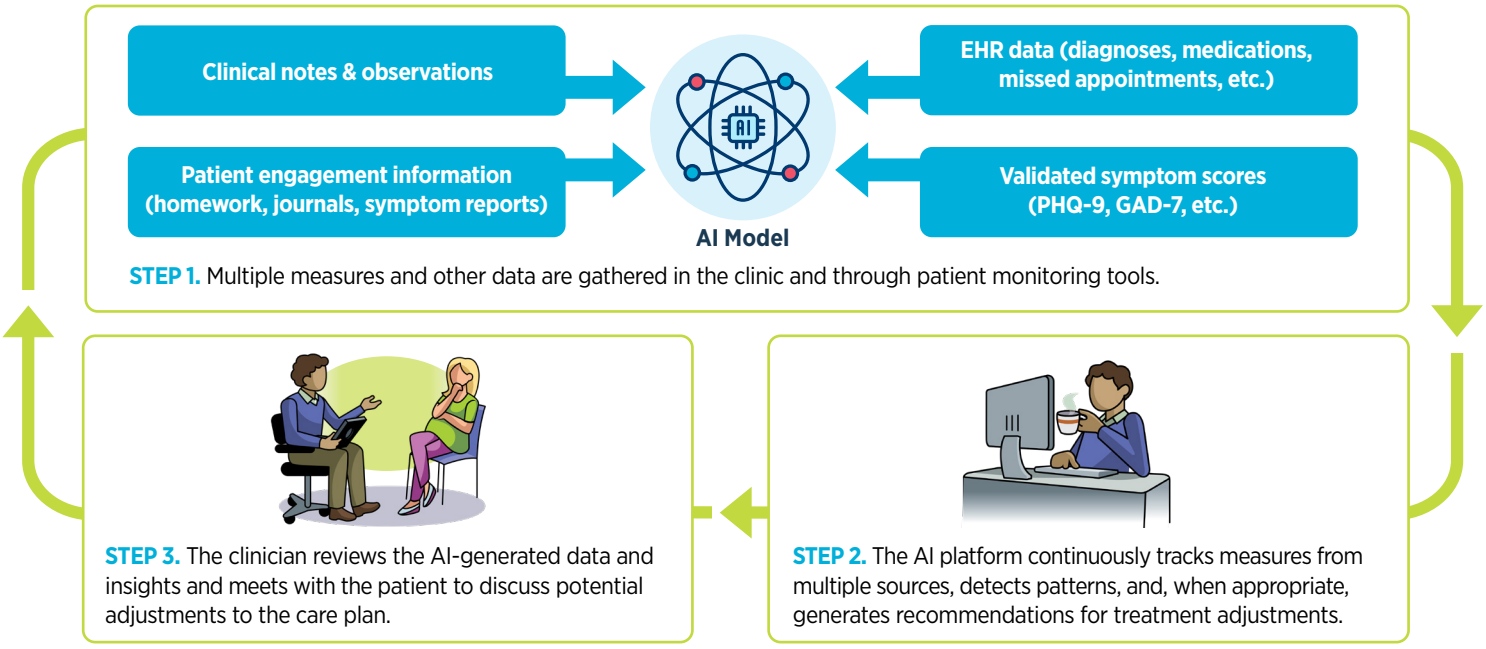
Research shows that the consistent tracking of behavioral health symptoms, progress, and outcomes using brief, standardized questionnaires improves outcomes, supports earlier interventions, and reduces costs. Despite its proven benefits, this approach is not yet deployed throughout mental health care. AI can reduce the burdens associated with measurement and enable greater use of measurement-informed care as a key component of everyday practice.[1]

How AI Improves Measurement and Monitoring to Enhance Care Quality and Patient Outcomes

Systematic measurement of clinical markers – such as blood pressure, laboratory tests, and A1c levels – has long underpinned treatment and ongoing care in other physical health conditions.[2] AI can more seamlessly integrate measurement into clinician workflows, supporting the meaningful use of mental health data in routine care. It can also incorporate additional data sources to complement traditional symptom reporting.[3]



STEP 1. Multiple measures and other data are gathered in the clinic and through patient monitoring tools.

STEP 2. The AI platform continuously tracks measures from multiple sources, detects patterns, and, when appropriate, generates recommendations for treatment adjustments.

STEP 3. The clinician reviews the AI-generated data and insights and meets with the patient to discuss potential adjustments to the care plan.

Benefits of AI-Supported Measurement and Monitoring[4,5,6]

COMMON CHALLENGES	IMPROVEMENTS WITH AI
Manual entry and scoring of symptom measures are often cumbersome and difficult for clinicians to find and use in practice	Automated collection, synthesis, and visualization of data help clinicians track trends, progress, plateaus, or deterioration and consider data-informed adjustments to care
Measurement based solely on symptom assessments taken in the clinic	Utilization of unstructured data (e.g., clinical notes) and between-visit monitoring through patient-facing tools, such as remote symptom assessments and digitally completed therapy exercises
Limited identification of patients at risk of crisis, leading to poorer outcomes and strain on health systems	Identification of patterns and early warning signals (e.g., emerging safety concerns or potential treatment non-response) to prompt proactive follow-up

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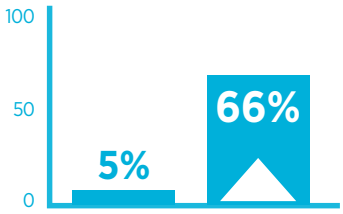
Research Suggests Positive, Measurable Benefits

With the right tools, AI-enabled, measurement-informed care can help providers better track progress, individualize treatment, and improve outcomes.



Questionnaire completion rates

An algorithm-enhanced, measurement-informed care platform increased Patient Health Questionnaire (PHQ-9) completion rates **from 5% to 66%**, with 78% of clinicians reporting use of the platform to guide care.[7]

More patients with indicators of suicidal ideation

A digital mental health company **identified 58% more patients with indicators of suicidal ideation** than would have been detected through traditional self-reported depression measures (PHQ-9).[8]

Reduced inpatient admissions & ER Use

↓5%

Reduction in suicide attempt probability

The VA's REACH VET machine-learning program was linked to **fewer inpatient mental health admissions**, less emergency room use, and **a 5% reduction in the probability of a suicide attempt**.[9]

Core Principles for Responsible AI Use

Responsible use of AI should:

- Demonstrate safety and effectiveness across populations
- Protect patient privacy and confidentiality
- Easily integrate into routine care settings
- Be trained and tested on high-quality, clinically validated data
- Augment– never replace– clinical judgment and decision making

Responsible Use Spotlight

To allow for meaningful human oversight, AI outputs must be explainable. Providers must be able to understand the basis for AI-generated risk scores and recommendations to provide meaningful oversight, and the use of AI should be transparent to patients.[10]

* The Patient Health Questionnaire-9 (PHQ-9) is a standardized, 9-question tool used to screen, diagnose, and monitor the severity of depression.

[1]Koutsouleris. (2022). https://doi.org/10.1016/S2589-7500(22)00153-4, [2]Bright Spots in Measurement-Informed Mental Health Care. (2025). Meadows Mental Health Policy Institute; West Health. https://mmhpi.org/project/improving-outcomes-through-measurement-informed-care/, [3]Galatzer-Levy, Aranovich, Insel. (2023). https://doi.org/10.1162/daed_a_02040, [4]Steidtmann et al. (2025). https://doi.org/10.1176/appi.ps.20240135, [5]Hau et al. (2025). https://doi.org/10.1016/j.schres.2025.05.019, [6]Xu et al (2023). https://doi.org/10.1176/appi.prcp.20220015, [7]Steidtmann et al. (2025). https://doi.org/10.1176/appi.ps.20240135, [8]Hartz et al. (2024). https://doi.org/10.36401/IDDB-23-10, [9]McCarthy et al (2021). https://doi.org/10.1001/jamanetworkopen.2021.29900, [10]Joyce et al (2023) https://doi.org/10.1038/s41746-023-00751-9