

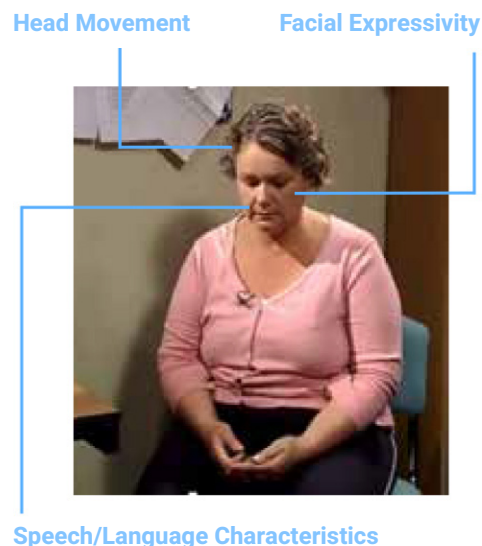
CHALLENGES

Major depressive disorder (MDD) affects around 235 million people globally (4.7% prevalence) and 35 million in the U.S. (10.4% prevalence).^{1,2,3} In practice, its detection, diagnosis, and management often pose challenges for clinicians because of its various presentations, unpredictable course and prognosis, and variable response to treatment.⁴

SOLUTION

AiCure's audiovisual smartphone app provides more individualized patient care using objective biomarkers alongside existing measures like the MADRS (Montgomery-Åsberg Depression Rating Scale).

- An example of its easy-to-perform assessments include showing participants images and capturing their self-reported feelings
- Participant video can be captured then analyzed for head motion, facial expressivity and speech/language characteristics often too subtle for physicians
- AiCure was deployed in 2021 study to measure response to antidepressant treatment over 4 weeks⁵
- Treatment showed a link between disease severity and facial activity, head movement and voice markers



BENEFITS

- AI-based quantification of behavior allows for objective and sensitive measurements of health & functioning, complementing traditional endpoints with Phase IV/real-world setting evidence
- Can alleviate variability among raters and scales
- Remote, low-burden assessments allow frequent measurement of disease severity and treatment response
 - Earlier detection of treatment response to novel MDD regimens
 - Intervene more effectively by predicting non-adherence in trial
- Sponsors can manage trial enrollment as well as allocate and monitor resources while managing risk

¹ Ferrari AJ, et al. *Psychological Medicine* (2013), 43, 471–481. doi:10.1017/S0033291712001511

² Hasin DS, et al. *AMA Psychiatry*. 2018;75(4):336–346. doi:10.1001/jamapsychiatry.2017.4602

³ U.S. Census U.S. and World Population Clock. Accessed 09 December 2022.

⁴ Malhi GS, Mann JJ. *Lancet*. 2018 Nov 24;392(10161):2299–2312. doi: 10.1016/S0140-6736(18)31948-2.

⁵ Abbas A, et al. *Front. Digit. Health*. 31 March 2021. *Sec. Health Informatics*. <https://doi.org/10.3389/fdgth.2021.61000>