

AI/ML-Based Tools For Screening And Early Detection Of Cognitive Impairment

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1. AI/ML tools performed best for established impairment, with more variable MCI/SCD detection.
2. AI/ML may improve scalable screening, but real-world validation is still needed.

INTRODUCTION

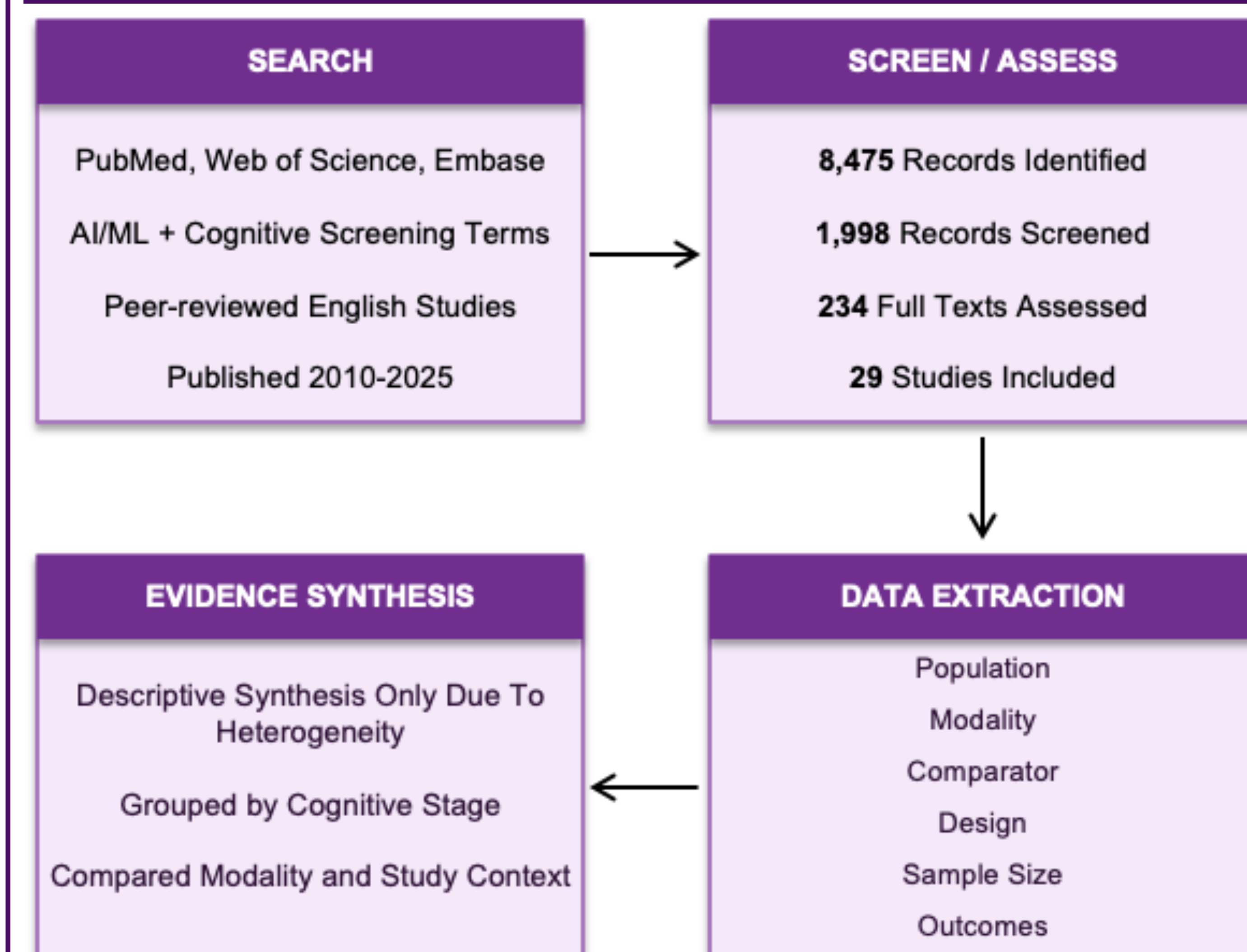
Background:

- Cognitive impairment (CI) and dementia remain underdetected
- Traditional screening is time-intensive and culturally variable
- AI/ML may improve scalable, automated cognitive screening

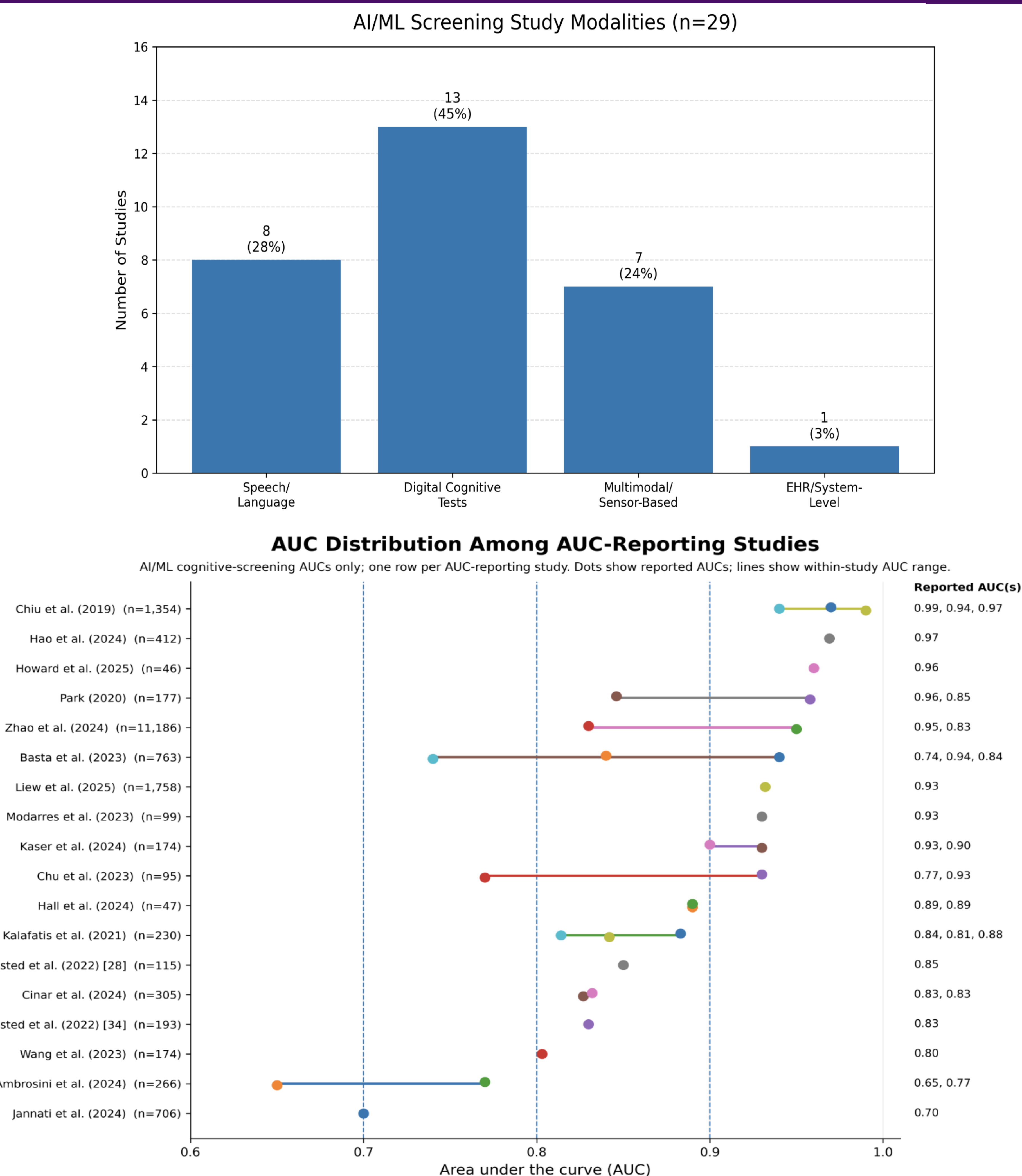
Objective:

- Review and evaluate AI/ML tools for cognitive impairment screening by modality and study context

METHODS



RESULTS



CONCLUSIONS

- AI/ML cognitive impairment screening tools are promising
- Evidence is strongest for detecting established impairment and dementias
- Earlier-stage detection requires further validation
- Future studies should assess equity, workflow impact, and longitudinal clinical outcomes

ACKNOWLEDGEMENTS

- Dr. Katherine Possin for her early guidance and support

REFERENCES

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