

Future-Proof or Fall Behind: Dementia Detection for CMS V28 HCC Guidelines

Presented By:

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Presenters



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Neuroscientist and Chief Scientific Officer
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Director of Population Health
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In Today's Session

1. The Current Landscape of Dementia Detection
2. The Impact of CMS V28 HCC on Dementia Care and Assessment
3. Strategies for Health Systems and Providers
4. A Look Forward: Harnessing Data for the Future of Dementia Assessment
5. Q&A

The Complexities of Dementia Detection

Traditional Cognitive Tests



Tools like the Mini-Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), the Saint Louis University Mental Status Exam (SLUMS), or Mini-Cog to test for cognitive decline.

Neuroimaging



MRI scans to detect structural brain changes and PET scans to identify abnormal accumulations of amyloid-beta plaques or tau tangles

Biomarkers



Cerebrospinal fluid (CSF) analysis to test for amyloid-beta and tau proteins, and less invasive blood tests to measure for similar biomarkers

Testing for the APOE-e4 allele linked to increases in the risk of developing AD and rare mutations which can lead to familial AD



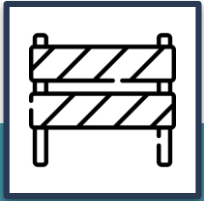
Genetic Testing

AI tools analyze brain scans, genetic, and behavioral data to predict dementia, while wearable devices track daily activity to detect early behavioral and cognitive changes.



AI and Wearables

Creating Hurdles in Accurate and Timely Assessment



Accessibility

Access to PET scans, MRIs, and blood tests for diagnosis are limited by high costs, insurance barriers, and regional disparities



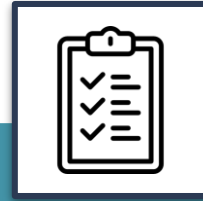
Consistency

1 in 5 Alzheimer's cases may actually be misdiagnosed, with other treatable conditions replicating Alzheimer's disease symptoms¹



Patient Reluctance

40% of individuals with dementia or their caregivers report feelings of shame or embarrassment, delaying medical consultation²



Lack of Sensitivity

Traditional cognitive tests lack sensitivity and specificity for accurate detection of mild cognitive impairment, an early indicator of dementia

The Growing Dementia Crisis



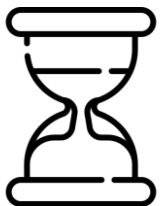
70%

of individuals living with dementia in the US remain undiagnosed¹



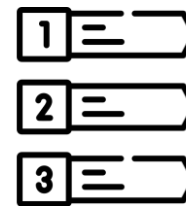
14 million

Americans are projected to be living with dementia by 2060²



3 out of 5

people living with dementia wished they had gotten diagnosed sooner³.

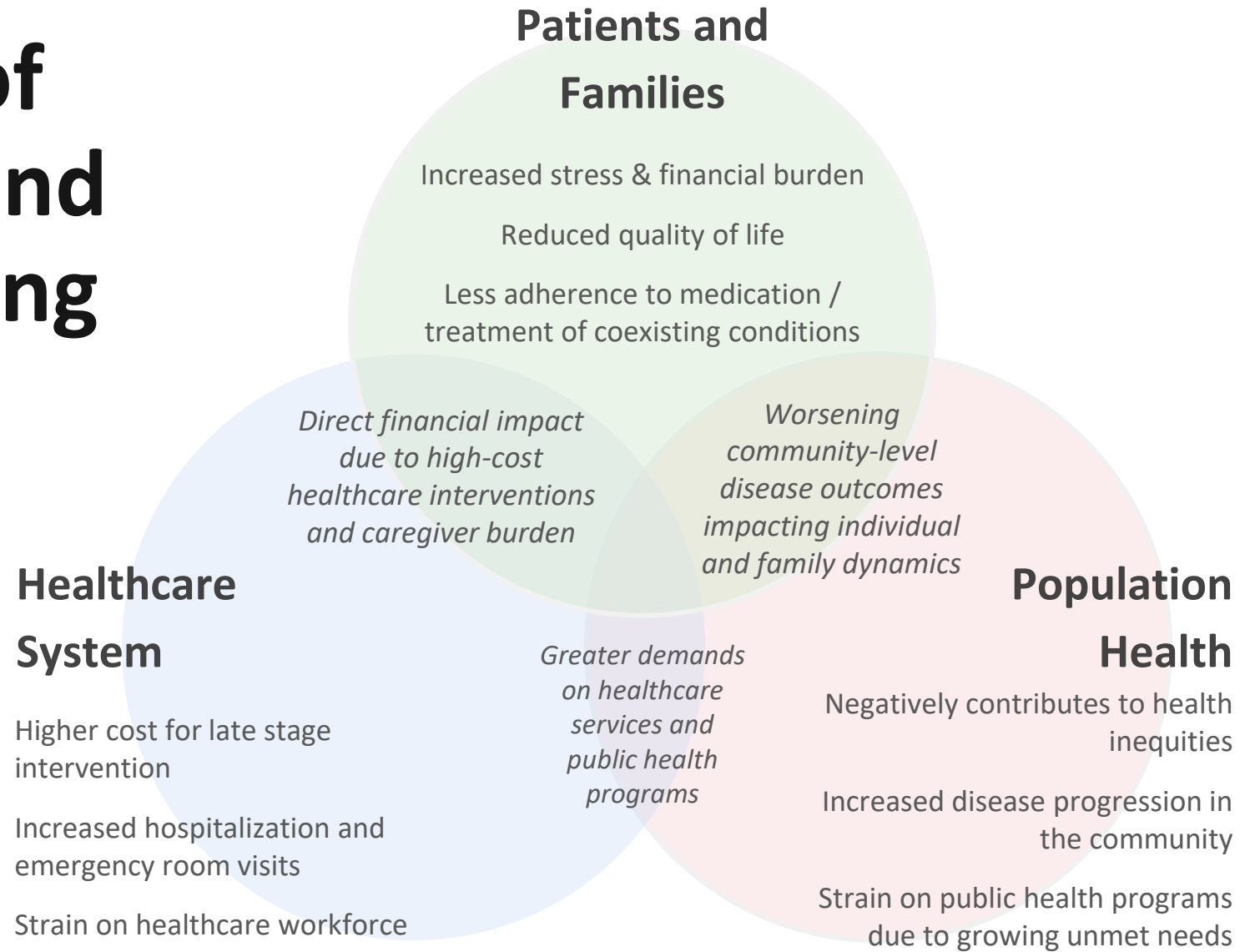


5th

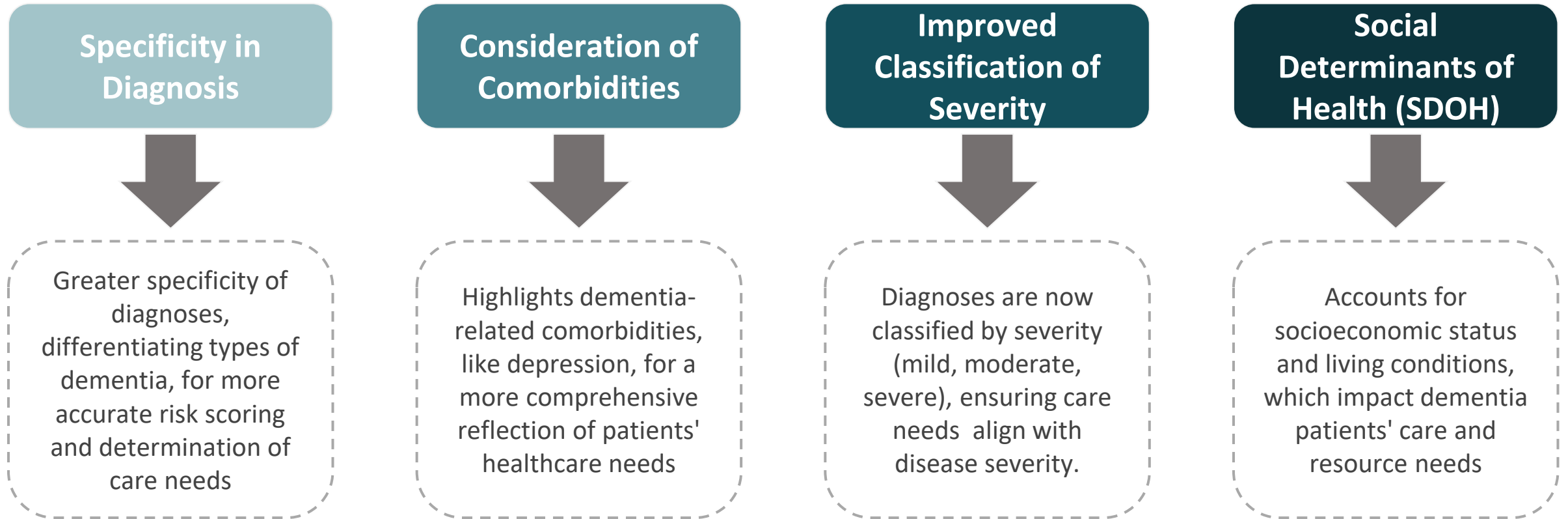
leading cause of death for people aged 65 and older in 2021⁴

1. Alzheimer's Association, 2023 2. U.S. Census Bureau, 2021 3. Alzheimer's Society UK, 4. Alzheimer's Association, 2021

The True Burden of Underdiagnosed and Delays in Diagnosing Dementia



Closing the Gap with CMS-HCC Model V28



Incentivizes early detection, intervention, and ongoing management of dementia, promoting preventive care and better patient coordination to help improve patient outcomes and reduce healthcare costs

Elevating the Approach to Dementia Care at Oak Street Health

Our current dementia detection methods were insufficient, leading to missed cases, higher care costs, and limiting the positive impact of interventions

1

Reduce Assessment Subjectivity

Too much subjectivity with human administration and interpretation of results from paper tools

2

Address Access Disparity

Process relied on patients having access to specialty care; difficult with the patient population

3

Increase Provider Confidence

PCPs were not confident in delivering initial diagnosis of dementia

4

Improve Health Equity

Mini-Cog / SLUMs are tested and validated, but not necessarily appropriate for all patient populations

A Stepped Approach to Assessing Patients for Dementia

Screen to Detect

Increase detection of cognitive impairment with a validated, efficient **2-task screen that takes 3 minutes** and surpasses traditional tests like MMSE and MiniCog in early detection, with an **over 80% accuracy rate**.

Screeener performance guide recommendations for next steps.

Test to Diagnose

Reduce specialist referrals by empowering PCPs with a complete dementia assessment that evaluates performance objectively and subjectively **across multiple domains** for a comprehensive evaluation of cognitive health.

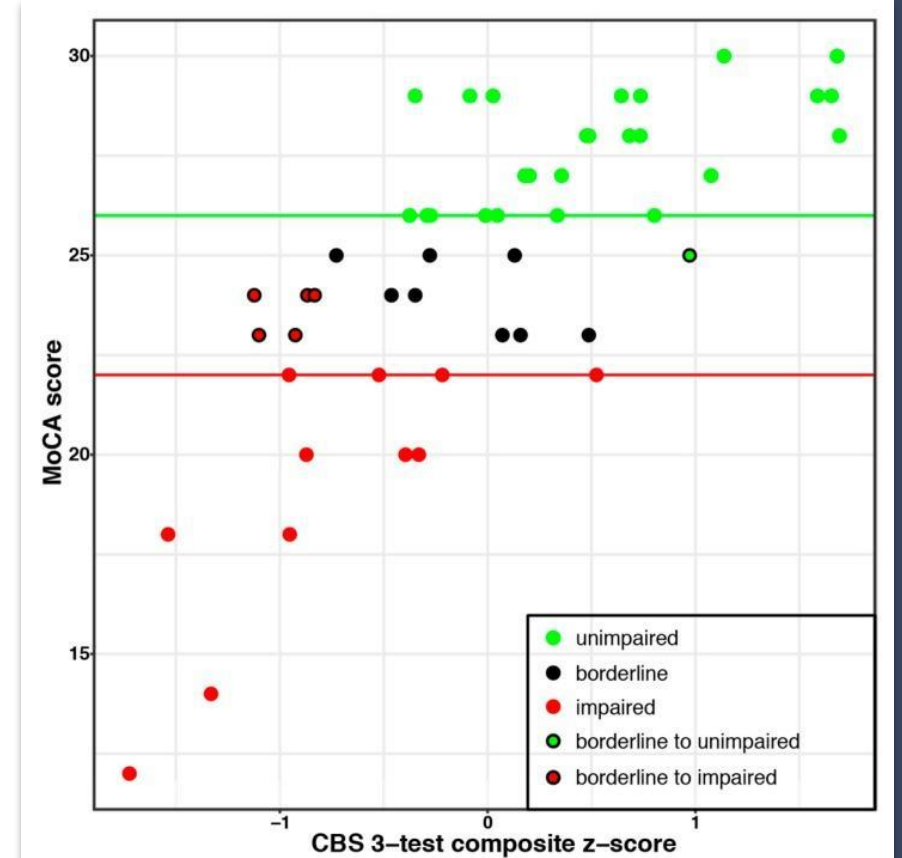
The assessment aligns with DSM-5 criteria and delivers easy-to-interpret results.

Highly Sensitive to Cognitive Impairment

Ongoing large-scale studies are investigating aging and dementia using Creyos cognitive tasks:

- PISA¹
- CogSCAN²
- Maintain Your Brain³

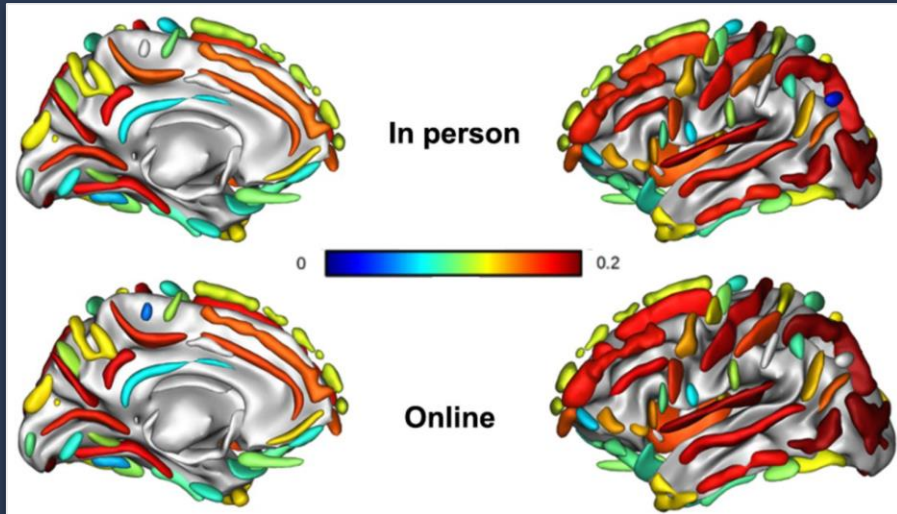
Additional studies show clear effects of age⁴, impaired in early dementia⁵, and validity in older populations⁶.



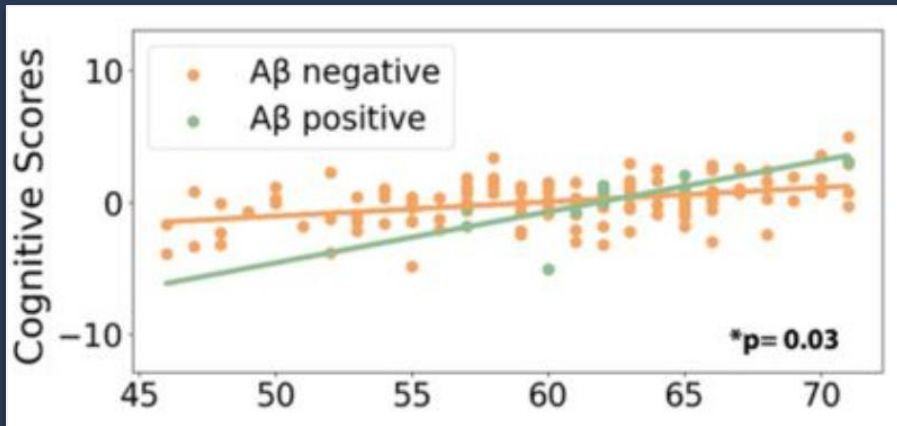
Almost 30% of older adults' MoCA scores are "borderline" (score 23-25); only 72% are unambiguously impaired or unimpaired. Creyos provides additional cognition data to improve classification to 92%.

1. <https://doi.org/10.1016/j.nicl.2020.102527> 2. <https://doi.org/10.3233/jad-220665> 3. <https://doi.org/10.1002/alz.061548>
4. <https://doi.org/10.3390/bs11040051> 5. <https://doi.org/10.1002/gps.4537> 6. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6787729/>

Able to Predict Early Signs of Alzheimer's disease

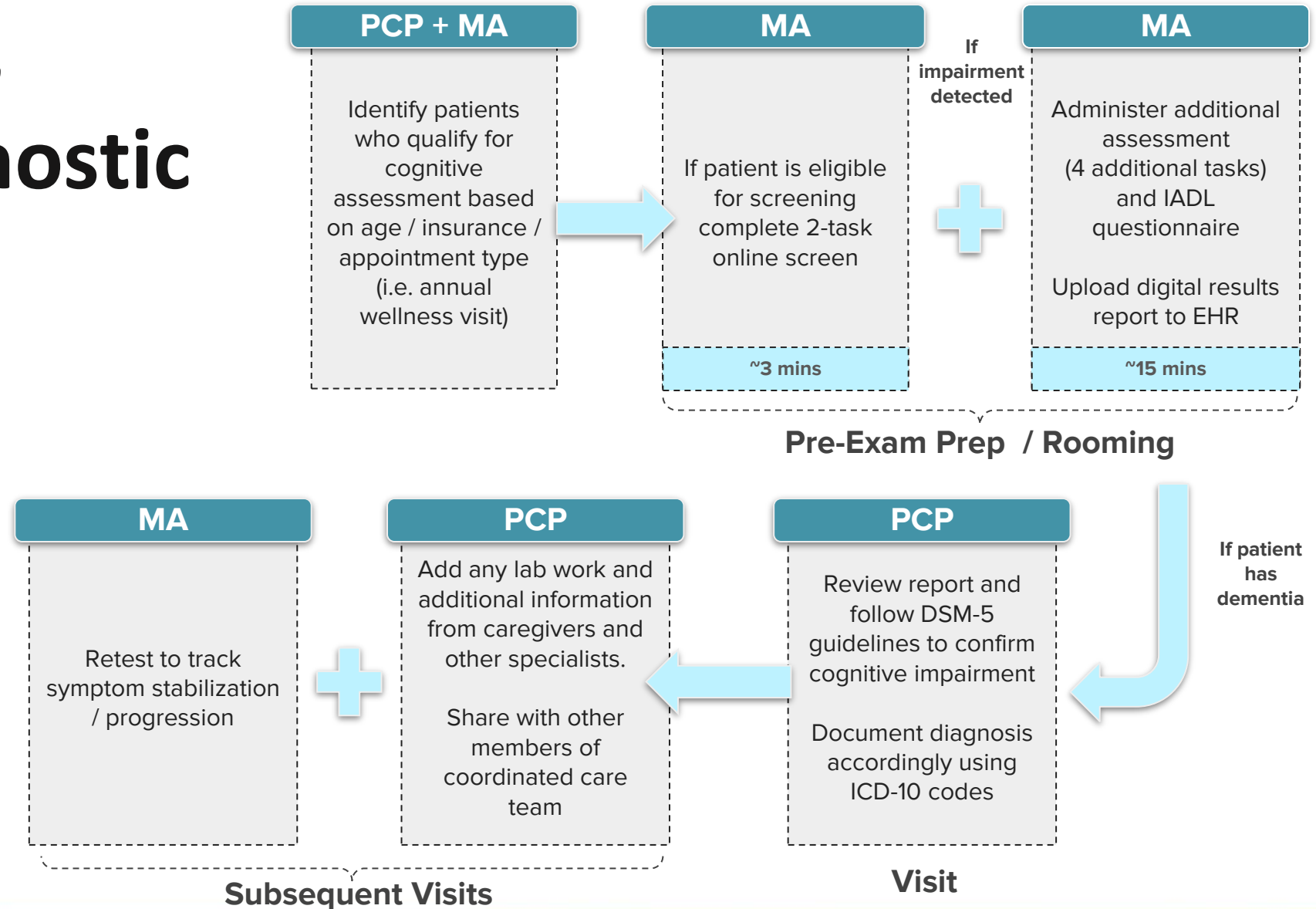


Thienel et al., 2023: **Can an online battery match in-person cognitive testing in predicting age-related cortical changes?**
PISA Trial: University of Newcastle / Queensland / QIMR Berghofer Medical Research Institute



*Taken together with their greater cost effectiveness, **online cognitive testing could lead to more equitable early detection and intervention for neurodegenerative diseases.***

Cost Effective, Scalable Diagnostic Workflow



Alignment with DSM-5 Diagnostic Criteria for PCP Buy-In and Confidence

CRITERIA 1

Evidence of Cognitive Impairment

From concern about decline (subjective) **and** impairment on tests (objective), including MCI

- Ability to objectively measure impairment across **one or more domains**, assessing severity from non-impaired to MCI or dementia
- **Subjective interview** to collect feedback on patient cognition from patient and/or caregiver

CRITERIA 2

Interference with Independence in Everyday Activities

Deficits interfere with ability to complete instrumental activities of daily living

- **Inclusion of Instrumental Activities of Daily Living (IADL) questionnaire** to assess functional dependence and whether a patient is able to independently manage important aspects of life

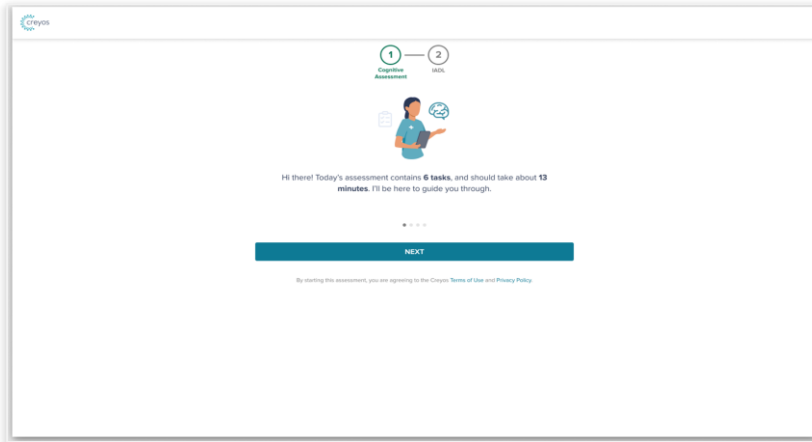
CRITERIA 3

Not Better Explained by Another Mental Disorder

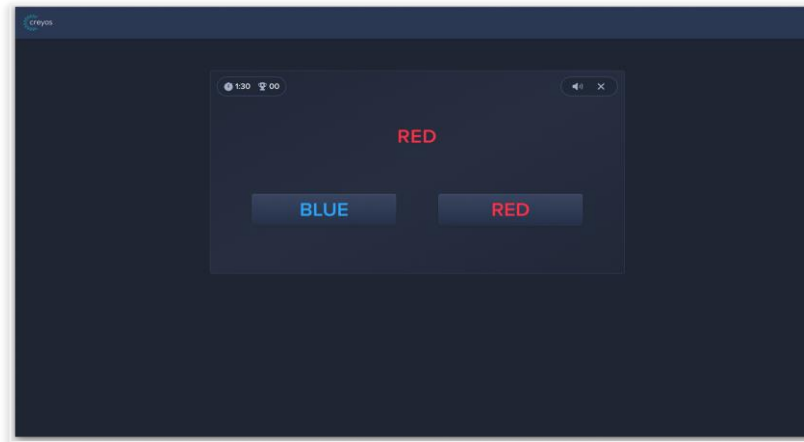
The cognitive deficits are not better explained by another mental disorder (i.e. depression)

- **PHQ** to assess depression, including major depressive disorder, linked to cognitive impairment
- **GAD-7** to assess generalized anxiety and related disorders linked to cognitive impairment

Emphasis on Patient Accessibility and Ease of Administration



Embedded introduction to prepare patients for screening and assessment, ensuring they know what to expect, **available in multiple languages**

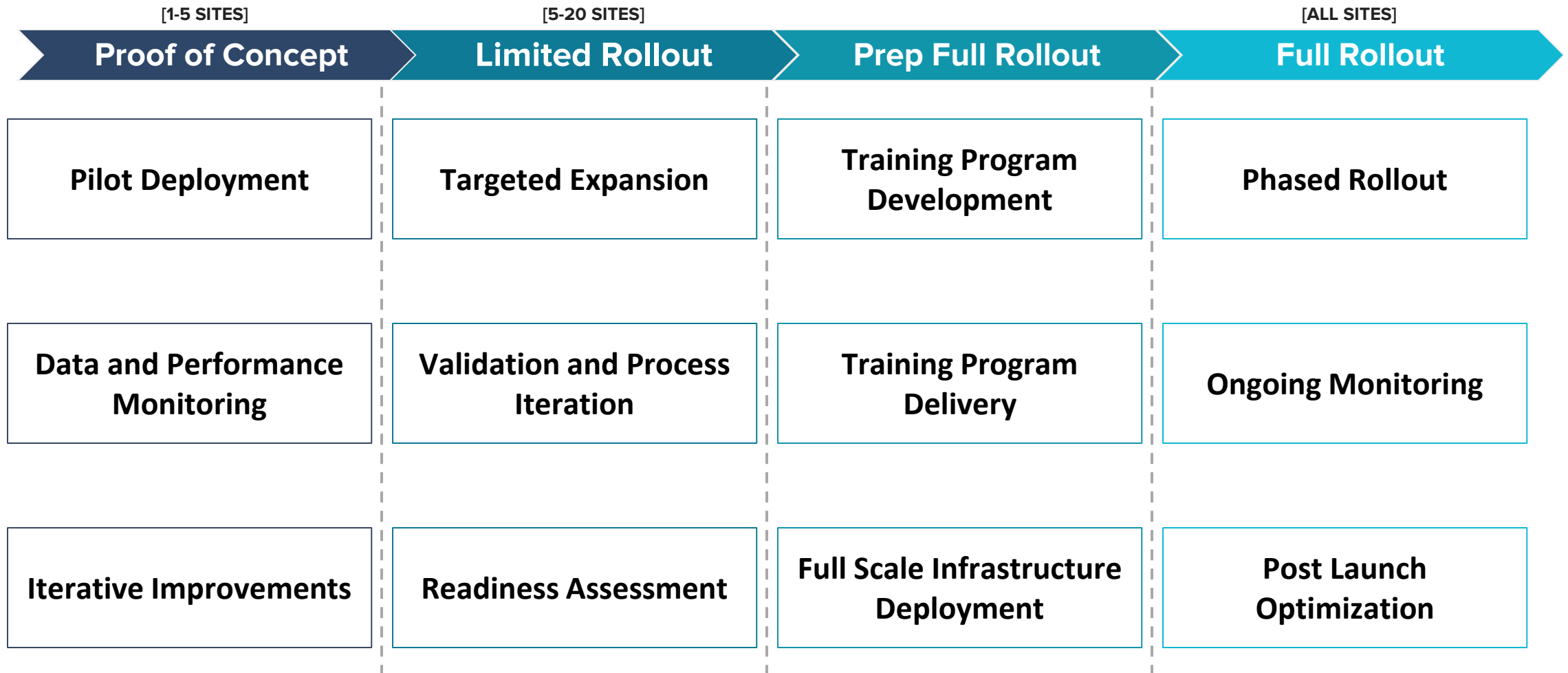


High contrast, touchscreen digital tasks that **gamify the assessment experience** to alleviate patient anxiety and boost compliance rates



Written and audio tutorials before each task ensure comprehension and accessibility, preserving accuracy for **low-literacy patients**

Phased Roll Out for Confident Implementation



Early Wins from This New Approach

While digitized dementia screening and assessment at Oak Street Health is still in its early phases, initial results and feedback have been promising.



Increased Screening and Assessment Rates



Positive Provider Response



Higher Quality Patient Conversations

Looking Ahead: Where Can Technology Help Us Even More?

Centralized Accessibility of Patient Data

- Variety of data points from coordinated care approach
- Aggregation to a central source of truth for the patient and caregiver
- Auto update as information comes in

EHR Interoperability

- Single login location with all patient information
- Seamless documentation and tracking by the entire team
- Monitor changes more effectively for better data-driven decisions

Population Health Insights

- Data analytics for population health to identify trends, risk factors
- Better resource allocation and intervention targeting
- Objective evaluation of intervention effectiveness

Q & A

Thank you

For more information on how the Creyos
dementia protocol can help support your health
system or practice visit

www.creyos.com

