

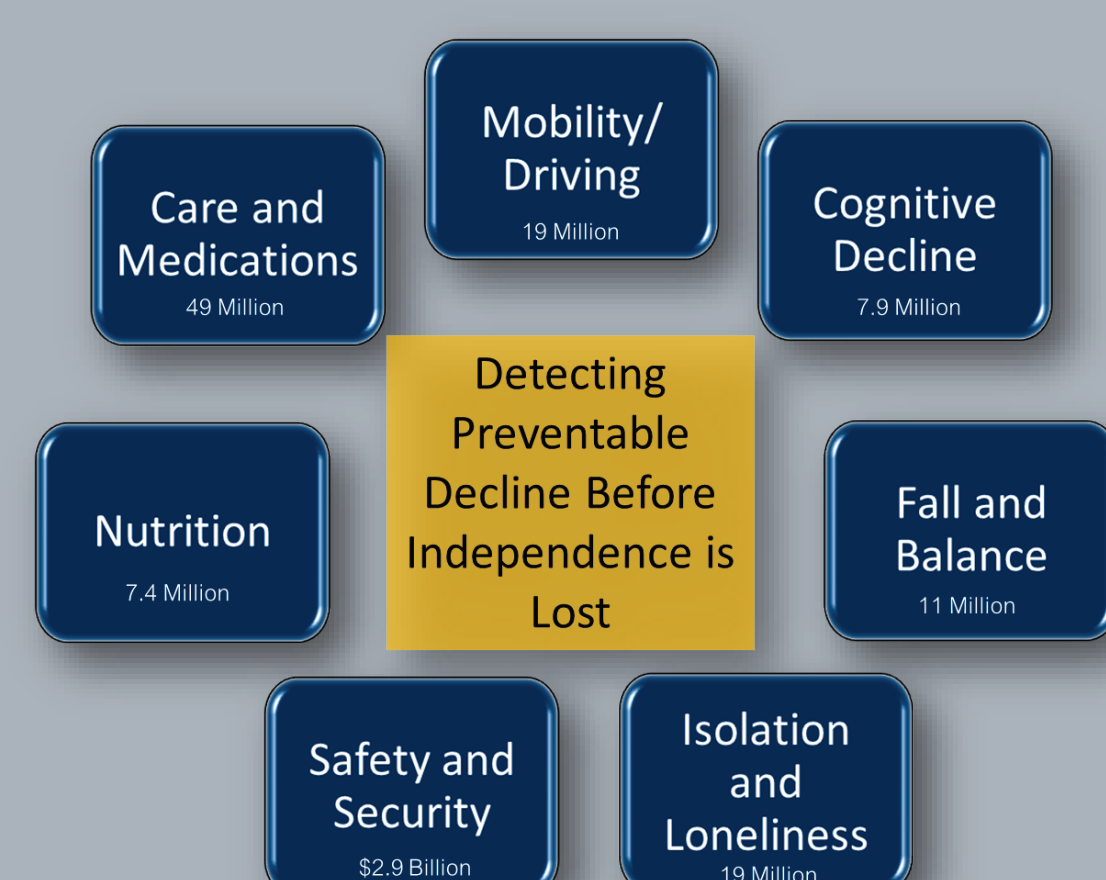
Leveraging Conversational AI to Detect Cognitive Impairment and Dementia in the Home

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JH AITC AD/ADRD Focus Pilot Core

The Problem:

50% of older adults will require Long Term Care Support & Services:

- 30-40% have Cognitive Impairment
- In Home Support: \$60,000 / year
- Assisted Living: \$84,000 / year



The WellSaid.ai Team:



- Medical Professionals and Experienced Entrepreneurs:
- Serial digital health entrepreneurs
 - Former IBM Watson Health leadership
 - Award winning voice technology engineers
 - 20+ year associations and working relationships



Market Size:

- ✓ 55 million adults aged 65-85
- ✓ LTSS = \$414B - \$468B US only
- ✓ TAM = \$21B
- ✓ SAM = \$9B
- ✓ SOM = \$2.3B

Global Age Tech Sector to Grow at 21% CAGR (to \$2.7T) by 2025

Study Objectives: 1) Retrospectively analyze existing data set to guide feature engineering for model development; 2) Prospectively collect comprehensive cognitive assessment data, including raw audio from 160 patient-caregiver dyads; 3) Develop predictive models using NLP and supervised learning algorithms to identify cognitive impairment in a subsequent prospective cohort.

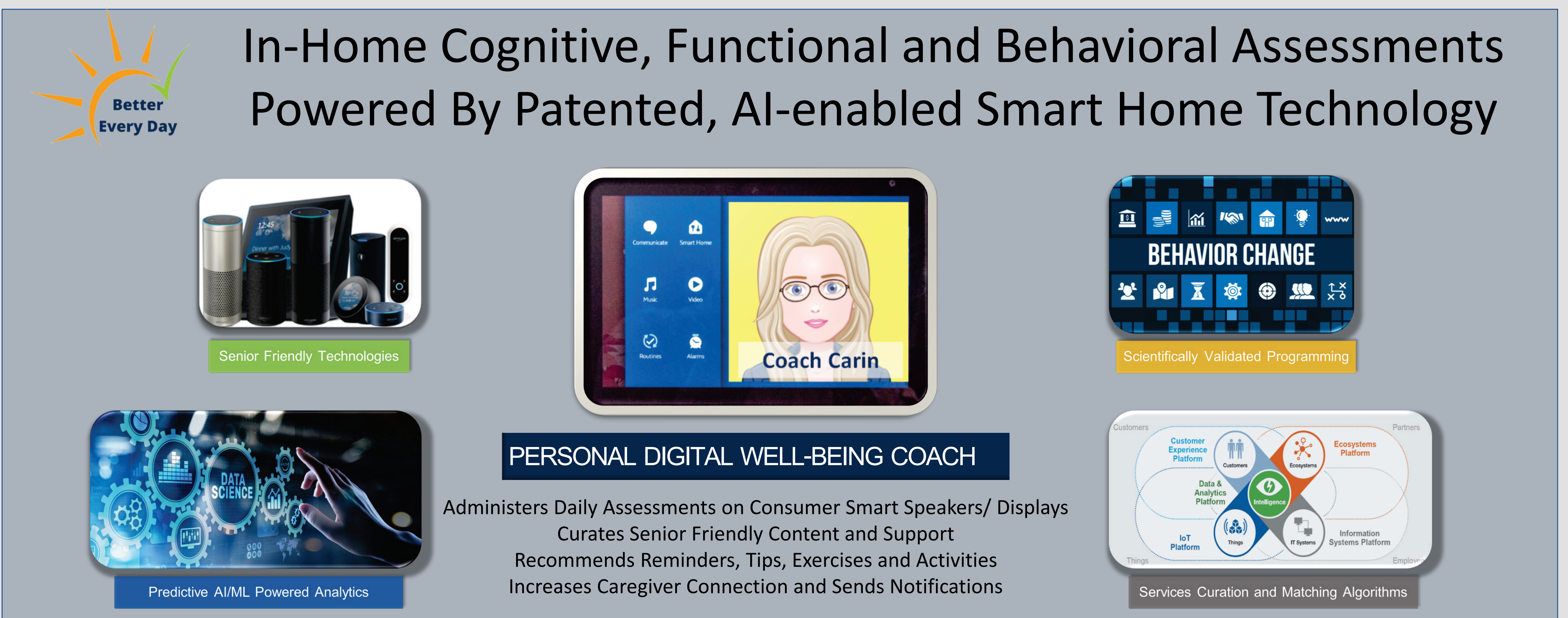
Subject Recruitment and Data Collection: NIA study of comprehensive cognitive assessment batteries in 130 older adult and informal caregiver dyads is underway. Using a2 Pilot funding, we plan to recruit an additional 30 older adults and caregiver dyads from the JHU Baltimore Older Adults Registry and collect raw audio on all 160 older adult subjects.

Data Sets, Cleansing, and Manipulation: Transcripts of patient assessments will be transcribed. Data will be extracted from our commercial database (cognitive batteries) or study database (demographic features, etc.) and combined into the study data lake. Cognitive Impairment status will be validated from informant assessments, AD-8, MoCA and QDRS.

Model Training, Testing: Initial ML model will be trained on 4600 records across over 30 features, using unsupervised algorithms to perform feature engineering and clustering of feature sets. Prospectively collected cognitive assessments (raw and scored tests) and linguistic features from transcripts will be added to enhance and train the model. After hyperparameter adjustments to minimize overfitting, we will test the enhanced model on 30 additional records to determine final model parameters. Finally, we will validate the model on 30 holdout records, documenting model performance.

Project Timeline and Milestones:

Quarter	Q1	Q2	Q3	Q4
Project Kick-off				
Model Development				
Model Deployment				
Model Evaluation				
Model Refinement				
Model Validation				
Model Deployment				
Model Evaluation				
Model Refinement				
Model Validation				
Model Deployment				
Model Evaluation				
Model Refinement				
Model Validation				
Model Deployment				



Better Every Day

Senior Friendly Technologies

PERSONAL DIGITAL WELL-BEING COACH

Administers Daily Assessments on Consumer Smart Speakers/ Displays
Curates Senior Friendly Content and Support
Recommends Reminders, Tips, Exercises and Activities
Increases Caregiver Connection and Sends Notifications

Predictive AI/ML Powered Analytics

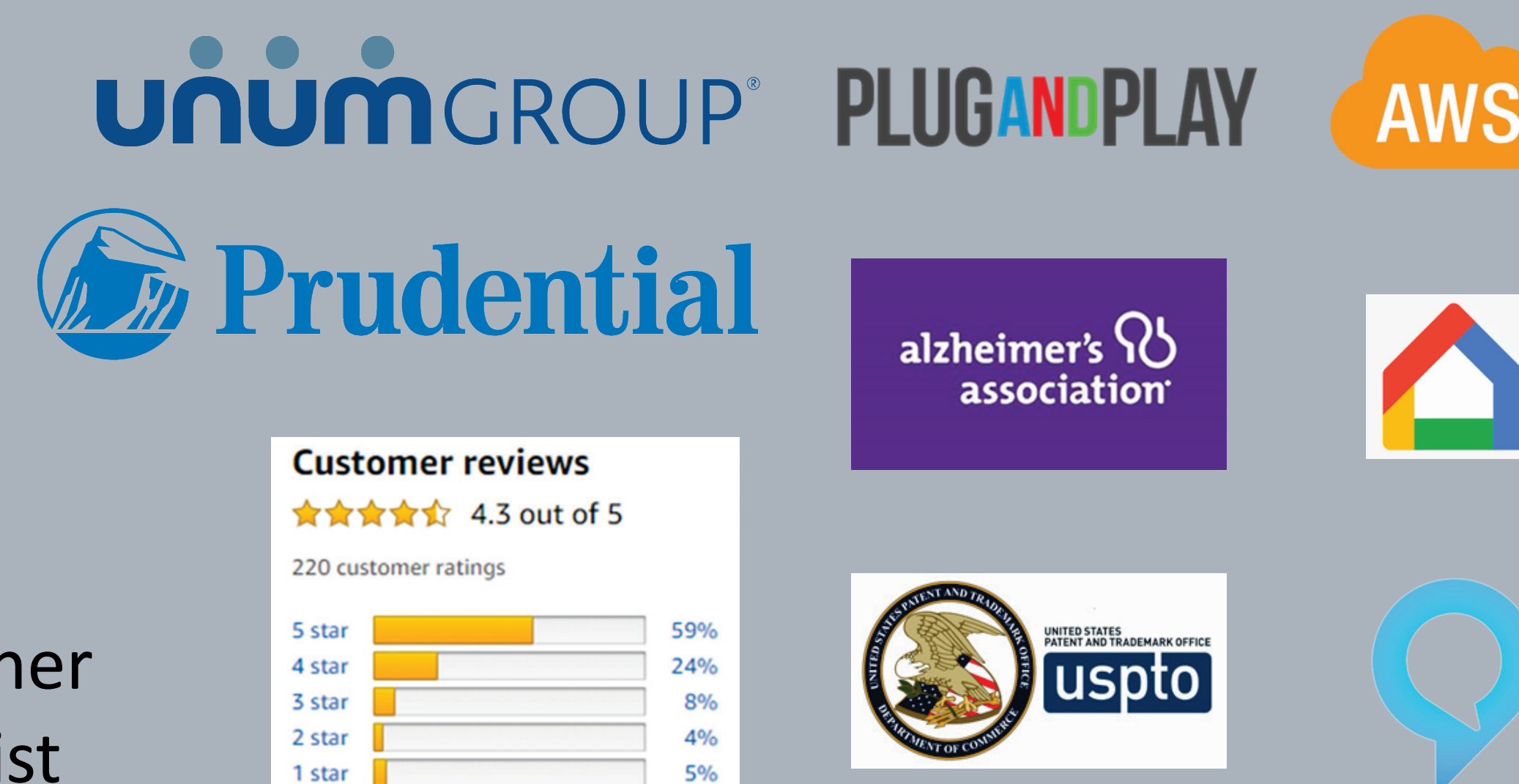
BEHAVIOR CHANGE

Scientifically Validated Programming

Services Curation and Matching Algorithms

Market Traction:

- Named Amazon Alexa's "Most Engaging" Skill
- 14,000 DTC Users
- 2 National Insurance Carrier Pilots
- 2 National Peer Reviewed Grants
- 3 Issued Patents
- Plug 'n Play Long Term Care Insurance Pitch Winner
- Alzheimer's Association International Pitch Finalist



Customer reviews
★★★★★ 4.3 out of 5
220 customer ratings

5 star	59%
4 star	24%
3 star	8%
2 star	4%
1 star	5%

Business Model:

B2B2C SaaS

Platform Business

Unit Economics:

- 80% of CAC covered by Sponsor
- CAC Payback = 1 month
- Retention 50% at 36 months
- LTV \$600

Unit Economics:

- 5% Take Rate
- Increases LTV by 35%

***Adds Cross-sided Network Effects and Matches Needs with Support Services

G2M Strategy:

Positioning: We Engage Older Adults and Their Informal Caregivers, Identify Areas of Emerging Risk, Increase Support and Reduce Claim Costs

B2B2C Channels (direct sales):

- Long Term Care Insurers
- Medicare Advantage Insurers
- Veterans Administration
- PACE Programs

Carriers Support Customer Acquisition Cost, typically sponsoring in home device deployment and onboarding

Competitive Advantage:

	Medical Alert	Care Concierge	Sensors / Wearables	Together (Amazon)	WellSaid.ai
Senior Friendly In-Home Technology	●	●	●	●	●
Caregiver Network	●	●	●	●	●
Alerts and Two Way Communication	●	●	●	●	●
Comprehensive Risk Assessments	●	●	●	●	●
Enrollment and Engagement Support	●	●	●	●	●
Resource and Services Matching	●	●	●	●	●
Predictive Analytics	●	●	●	●	●



Research Support:

- National Institute on Aging P30AG073104.
- National Institute on Aging R43AG076078.