IHI Call Days | Call 9 SO 2

Improving Access to care for Alzheimer’s disease

ACCESS- AD

Contact person name: Nivedita Agarwal
Organisation: Siemens Healthineers
E-mail: wiktoria.humanicka@siemens-healthineers.com

innovative health initiative

Alzheimer's (AD) is highly prevalent, a leading cause of death and huge socio-economic burden in Europe

9.8M people in Europe living with dementia (2019), 18.8M by 2050. 60-80% of these are AD.

1 in 3
Seniors dies with Alzheimer's or another dementia

It kills more than **Breast cancer** + **Prostate cancer** combined

A is a **top 10** Leading Cause of Death in Europe

2030 (EU27)
250 billion EUR

2008 (EU27)
160 billion EUR

Economic cost is equivalent to GDP of Finland.

Regional Disparity: the prevalence of AD in rural areas appears to be at least twice that of urban areas. This is attributed to a large proportion of the older population residing in rural communities, and dementia prevalence tends to double after every five years among persons aged 65 and above.

innovative health initiative

Sources: European Brain Council, Rethinking Alzheimer's Disease, https://www.braincouncil.eu/projects/rethinking-alzheimers-disease/
Global rural health disparities in Alzheimer's disease and related dementias: State of the science

Challenges

- **Despite significant advancements in disease-modifying therapies and diagnostic tools for Alzheimer's disease, substantial challenges persist in ensuring equitable access to care, especially for rural / underserved populations.**

- **Demographics and Disease Risk**: High densities of people at risk of developing AD and with pre-existing disease live in rural / underserved areas.
- **Specialist and Staffing Shortages**: Limited access to neurologists and geriatricians for Alzheimer’s care; few trained nurses, diagnostic technicians and related support staff increase strain on primary care.
- **Screening and disease monitoring** : Access to appropriate care for early diagnosis, timely intervention, and management of disease progression.
- **Limited Training on New Therapies**: Primary care providers who are at the front line of care often lack knowledge of emerging Alzheimer’s treatments and related diagnostics.
- **Inconsistent Follow-up**: Patients have difficulty maintaining regular follow-ups for disease monitoring.
- **Financial and Travel Barriers**: High costs and travel issues prevent patients from accessing needed care.
- **Health Literacy**: Limited access to information on Alzheimer’s reduces awareness and engagement in care.

innovative health initiative

Project Objectives

ACCESS-AD: Improving Access to care for managing Alzheimer’s disease

- **Enhance Alzheimer's Disease care in rural/underserved areas for patients leading to better care management and outcomes.**
- Harness the potential of **AI-based Technologies** to advance Alzheimer's Disease management
- Integrate industry solutions for **Coordinated Decision-making** and Efficient Alzheimer's Disease care for better Healthcare decisions with improved integrated data access
- **Standardize, harmonize and integrate in a federated manner**, ensuring data privacy

This addresses IHI-specific objectives and health needs:

- **SO2:** I**ntegrating fragmented health research and innovation efforts** by bringing together health industry sectors and other public stakeholders to facilitate care in areas where there is an unmet public health need.
- **SO3**: Demonstrating the feasibility of people centered, integrated healthcare solutions
- **SO4**: Exploring **technologies and infrastructure** that provides decentralized, cost-efficient, integrated and standardized care as well decision support to stakeholders while preserving data privacy and security.

innovative health initiative

Approach

- **Decentralized Diagnostics and Therapeutics:** Validate low-cost blood biomarkers and affordable imaging modalities for accessible AD diagnostics. Test AD therapy delivery in decentralized settings (e.g., home, doctor's office) vs. infusion centers. Providing educational resources for stakeholders.
- **Resource Optimization:** Use telemedicine, remote radiology, rapid scan protocols, and optimized workflows to address skill/resource bottlenecks and improve patient throughput.
- **Standardized Protocols:** Harmonize AD diagnosis and risk stratification protocols for consistent, cost-efficient, high-quality care.
- **AI-Driven Tools:** Train AI algorithms for precise AD diagnosis, monitoring, and therapy response, integrating multimodality data for improved decision-making and clinician/patient support.
- **Federated Learning:** Enable secure, private data sharing between patients, clinicians, and rural/urban areas to enhance care management.
- **Health Economics Modeling:** Model cost-effectiveness of diagnostic and therapeutic delivery changes to support implementation.

innovative health initiative

Outcomes and Impact

- **Increased Access:** Improved therapeutic and diagnostic care access for rural/underserved populations.
- **Improved Resource Utilization:** Overcome resource limitations, streamline workflows and shorten wait times for care.
- **Enhanced Care Quality:** Standardized and AI-supported tools improve accuracy and consistency in diagnosis.
- **Cost-Efficient Care:** Affordable diagnostic solutions make care more accessible and sustainable.
- **Public Health Improvement:** Better Alzheimer's care promotes social inclusion and enhances public health outcomes.

➢ Equitable access across different regions and healthcare systems can **reduce disparities, promote social inclusion, and enhance overall public health outcomes**.

innovative health initiative

Expertise and Resources

Potential Partners

- Academic and Research Institutions
- Healthcare Providers
- Pharmaceutical and Biotechnology Companies
- Medical Technology Companies
- Government and Public Health Agencies
- Non-Profit Organizations and Patient Advocacy Groups
- Technology and Data Analytics Companies

Duration : 60 Months
Estimated project volume: 22-25 Million€

innovative health initiative