



Technology Recommendations

Cross-Cutting Theme Paper

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Prepared by:
Sara Czaza, PhD, MD, Chair

Additional information can be found at the Summit website (<https://aspe.hhs.gov/national-research-summit-care-services-and-supports-persons-dementia-and-their-caregivers>) or the National Alzheimer's Project Act website (<https://aspe.hhs.gov/national-alzheimers-project-act>). The opinions and views expressed in this report are those of the authors. They do not necessarily reflect the views of HHS, the contractor or any other funding organization.

National Research Summit on Care, Services and Supports for Persons with Dementia and their Caregivers

Recommendations for the Cross-cutting Theme of Technology Sara Czaza, PhD, Cross-Cutting Chair for Technology, University of Miami

Recommendations:

1. There is a need for a more solid evidence base on the efficacy/effectiveness of technology-based solutions across various functional categories of use (e.g., assessment/monitoring, provision of services, outreach).
 - a. This research must include diverse populations of representative users in diverse contexts and must include a span of outcomes including metrics of: health/well-being; usability; feasibility, cost-effectiveness and unintended consequences.
2. There is a need for a more solid evidence base on barriers to “meaningful access” as well as strategies that promote technology uptake for diverse user groups. How do we best “scale up technology-based solutions?”
3. More knowledge is needed on what types of technology applications are optimal to support various functions for various user groups and how to best integrate these applications within existing models of care.
4. We need new metrics of impact and protocols for data integration and transfer.
5. Research and development efforts should be directed towards the development of: novel/integrated platforms to assist caregivers with:
 - a. the monitoring, assisting or maintaining daily functioning of older individuals with dementia and other cognitive impairments

Notes:

- Technology is becoming increasingly ubiquitous within the healthcare and care provision domains and thus is an important consideration in the dementia care space.
- Technology cannot be considered as a panacea but should be seen as a mechanism to help alleviate barriers to care and to aid in diagnosis, care provision, etc.
- It is important to think about technology in terms of functionality and supportive roles such as:
 - a. Facilitating access to needed care and services especially for those whose access is limited or compromised due to geographic, logistic or functional constraints.
 - b. Facilitating earlier and more precise diagnosis – e.g. monitoring and sensing technologies, new forms of assessment.
 - c. Facilitating the training of the workforce or community care providers – thus enhancing the reach of translation and implementation – e.g. online/webinar training for intervention protocols or certifications for care providers.

- d. Facilitating access to treatment for individuals with dementia and their care partners.
 - e. Provision of cognitive support.
 - f. Provision of support for independent living – assistive aids and devices.
 - g. Facilitating care coordination.
 - h. Facilitating participation in research studies.
 - i. Remediating problems with social isolation and fostering engagement.
- Technology is dynamic and thus principals and functionality must guide the design and implementation of technology.
 - Design and implementation of technology must be driven by the needs, preferences and abilities of inclusive user groups in diverse contexts.

Technology-Related Policy Issues

- Ensuring meaningful access.
- Cost and reimbursement.