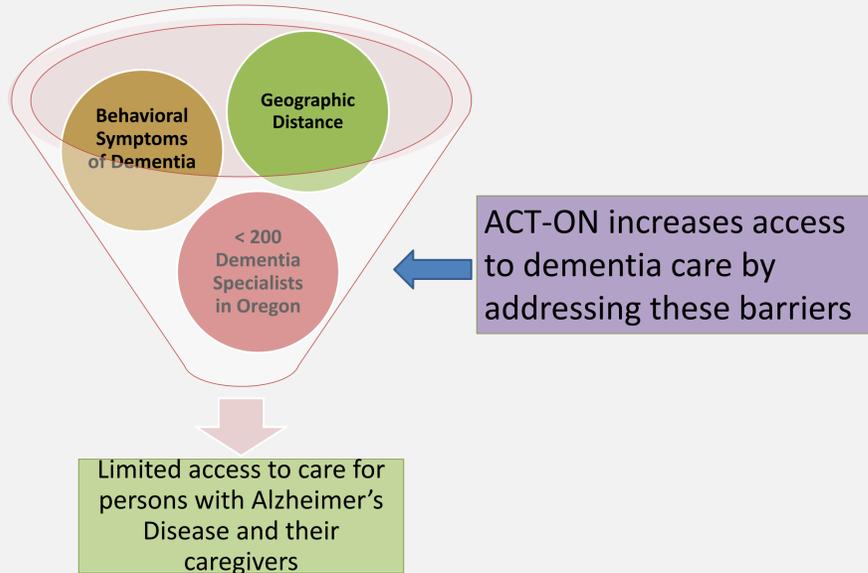# Alzheimer's Care via Telemedicine for Oregon (ACT-ON): An Innovative Direct-to-Home Telemedicine Program

OHSU Layton Center for Aging and Alzheimer's Disease

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Background

Over 60,000 Oregonians have Alzheimer's disease or a related dementia, but for many, access to care is limited.

ACT-ON increases access to dementia care by addressing these barriers

Limited access to care for persons with Alzheimer's Disease and their caregivers

Project Description

ACT-ON is a mixed-methods biphasic study that provides real-time, direct-to-home dementia care using a secure telemedicine platform.

Phase I: Establishes the reliability of commonly used dementia and caregiver assessment scales:
- Clinical Dementia Rating Scale (CDR)
- Montreal Cognitive Assessment (MoCA)
- Geriatric Depression Scale (GDS)
- Revised Memory and Behavior Problem Checklist (RMBPC)
- Zarit Burden Interview
- Marwit Meuser Caregiver Grief Index (MMCGI)

Phase II: Assesses feasibility of standard neurologic care across the telemedicine platform by evaluating:
- Patient and caregiver satisfaction with telemedicine
- Clinician satisfaction
- Quality of care

Objectives

Using quantitative and qualitative methods, the ACT-ON project will:
- Establish the reliability of common dementia rating scales across the telemedicine platform as evidenced by high correlation between test sites (*k* value).
- Establish the feasibility of providing standard neurologic care across the telemedicine platform as evidenced by high patient, caregiver and clinician satisfaction rates, high clinician adherence to national quality measures for Alzheimer's disease, and a high ratio of successful telemedicine visits to visits that could not be completed.

Outcomes, Phase I, Quantitative

- 14 patient/caregivers enrolled (goal = 30 dyads)
- 8 successful visits completed to date

| Table 1 Demographics, ACT-ON Phase I (n=8 Dyads)	
Caregivers (% female)	80%
Persons with AD (% female)	20%
Age, Caregiver (mean)	66.2 years
Age, Person with AD (mean)	69.8 years
Hours/week caregiving (Mean)	42.8
Years living with AD (Range)	0.5-7
Distance from OHSU (Range)	<10 to >150 miles

Table 2: Results ACT-ON Phase I (n=8 Dyads)			
Scale	F2F Score	TM Score	ICC/Kappa
CDR (range)	0.5-2	0.5-2	0.64
MMCGI (mean, range)	44.6; 22-66	45; 23-61	0.94
ZBI (mean; range)	6.6, 3-10	6.6, 2-11	0.85
MoCA (mean, range)	11.6; 5-21	12.1; 3-21	0.81

Outcomes, Phase I, Qualitative

Participants valued the opportunity to give feedback on the experience and offered suggestions for program improvement:

"It's [computer screen] has just got to be plain and simple and it didn't tend to be... And there was a lot of background stuff around the interviewer too. Her office looked fascinating but you were paying attention to that."

"I would prefer to have it [visits] as a telemedicine and not waste my time, energy and resources."
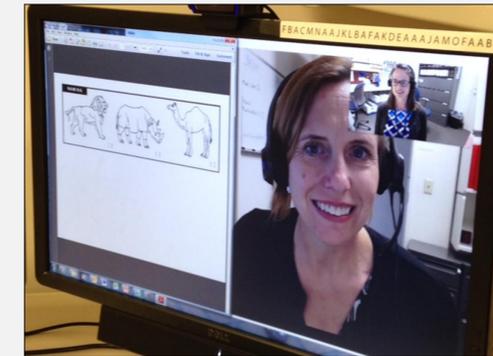
Lessons Learned from Phase I

1. It is possible to assess persons with AD and their caregivers over the telemedicine platform.
2. Sophisticated telemedicine equipment, reliable internet connections, and late-model home computers are needed for successful visits.
3. Cognitive tests need some style revision to be used across the telemedicine platform.
4. Clinicians need reliable technical back-up to minimize frustration for all involved.
5. Telemedicine screen should be as visually plain and simple as possible, background free of clutter.

Limitations

1. Early phase, complete correlational statistics are not yet available.
2. Focus is only on persons with Alzheimer's disease and their caregivers.

Strengths

1. There is a wide range of cognitive function in sample.
2. Sample with rural and urban participants.