Mindmerge Victoria
Technology Evaluation in the elderly Network

Supporting People at Home

CanStayHome

November 2015

CanAssist's mandate

To improve the independence and quality of life of people of all ages and representing the full spectrum of disabilities

by

taking a **client-centered approach** to developing innovative, customized technologies where there are **gaps in existing services**.

CanStayHome synopsis

- initiative funded by the BC Ministry of Health

- takes a broad, province-wide approach

- target population includes: frail elderly, those with dementia and stressed caregivers

- focuses on developing a handful of technologies that help keep people at home for as long as safely possible

- these "broad-impact" technologies will be suitable for implementation across B.C.

Broad-impact technologies

- benefit many people

- are highly simplified and accessible

- assist seniors with the onset of frailty and other conditions, as well as family members and home support workers

- reduce caregiver stress and free up time

- contribute to cost avoidance

- increase the capacity of existing staff

- optimize the reach and impact of existing resources

CanStayHome to date

As of September 1, 2015, CanAssist has:

- established CanStayHome priorities and action plan

- hosted community and expert focus groups

- consulted with many other community partners

- Formulated themes and "tipping points"

- identified promising broad-impact technologies

- reviewed these technology concepts with partners

- identified the five most promising broad-impact technologies

- begun user testing for two technologies

The five CanStayHome technologies

The following broad-impact technologies are currently under development and differing stages of readiness for testing:

1) Well-being Assessment Tool

2) Phone-in Monitoring System

3) Wandering Deterrent System

4) Manual Wheelchair Lift

5) New CanConnect Software

(1) Well-being Assessment Tool

- small tablet for community health workers to quickly and easily track clients' well-being

- provides continuity in client tracking in cases where support may be casual or frequently change

- replaces often indecipherable or incomplete written logs

- tracks client's eating, moods, medication and other key indicators

- nurse or case manager can later review data at a glance

- enables health team to identify problems easily and take action earlier

Well-being Assessment Tool: sample
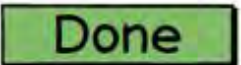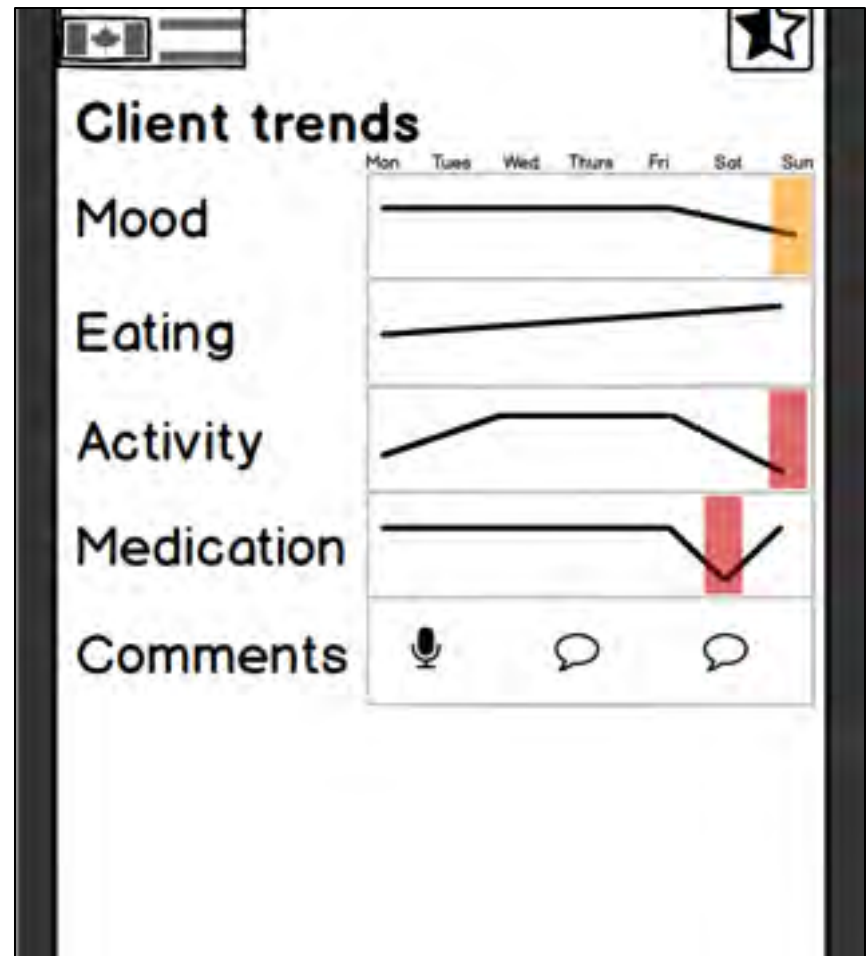
(2) Phone-in Monitoring System

- non-invasive activity monitoring system

- provides remote, real-time, insight into vulnerable patient activities

- uses landline phones with an embedded sensor
  (additional wireless motion sensors can be added)

- synthesized voice updates

- no Internet or Wi-Fi required

- Can serve as an intercom and set to record select incoming calls

Phone-in Monitoring System: sample

(3) Wandering Deterrent System

- incorporates visual and voice reminders

- uses low-cost, ubiquitous technologies
  (e.g. tablets, motion sensors)

- provides surveillance and intervention

- reduces need for in-home support and associated costs

- no Internet or Wi-Fi required
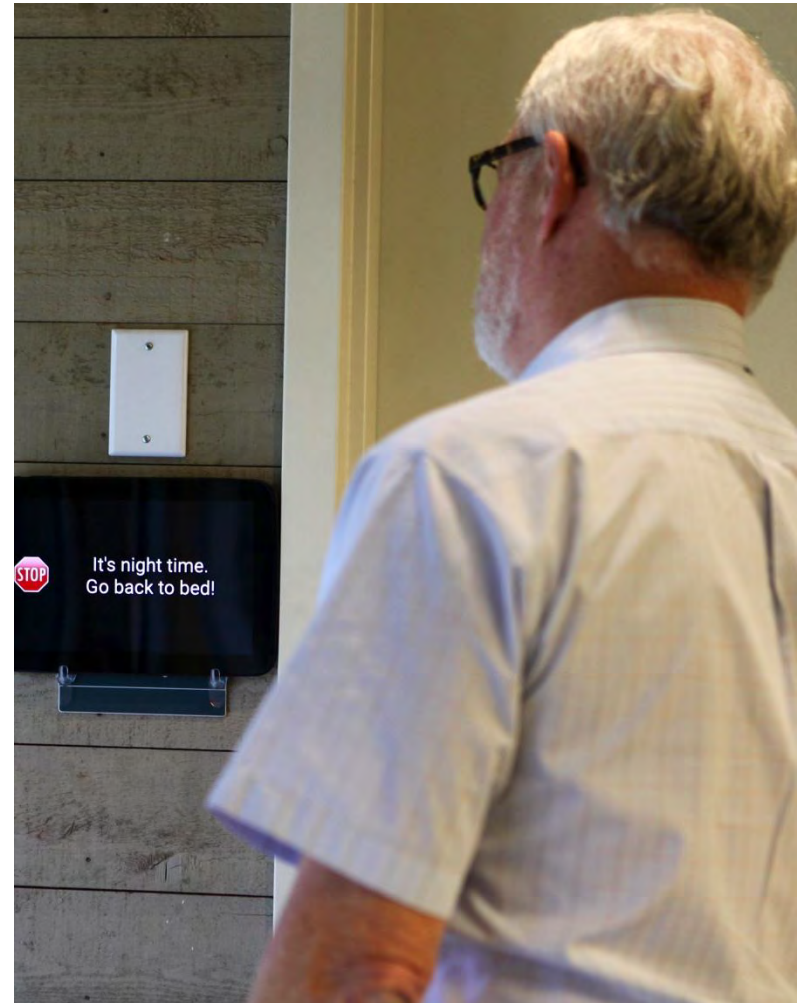
(4) Manual Wheelchair Lift

When an individual relies on a manual wheelchair, his or her elderly spouse often cannot lift the wheelchair into the trunk of the car.

- **Key Features:**
  - designed to lift a manual wheelchair or walker *(~50 lbs max)*
  - compatible with both standard 1 ¼" and 2" hitch receivers
  - if powered, compatible with standard low-current trailer wiring

(5) New CanConnect software

- an unsecured CanConnect-like software

- enables individuals to connect with family and friends, addressing isolation and loneliness

- enables families to conduct informal monitoring, increasing safety and providing reassurance and connection

# New CanConnect software: features

- extremely simple touch-screen interface for live video and audio communication

- EMG and switch accessible

- accessible to those with cognitive, physical or computer literacy challenges

Evaluation and Anticipated outcomes

Partnership with COAG

- Measuring Benefits to:
  - Client
  - Caregiver
  - System

- address remote and rural realities

- create highly accessible and simple interfaces for secure platforms, benefitting providers and patients

- build on existing partnerships, as well as promising new tools and practices
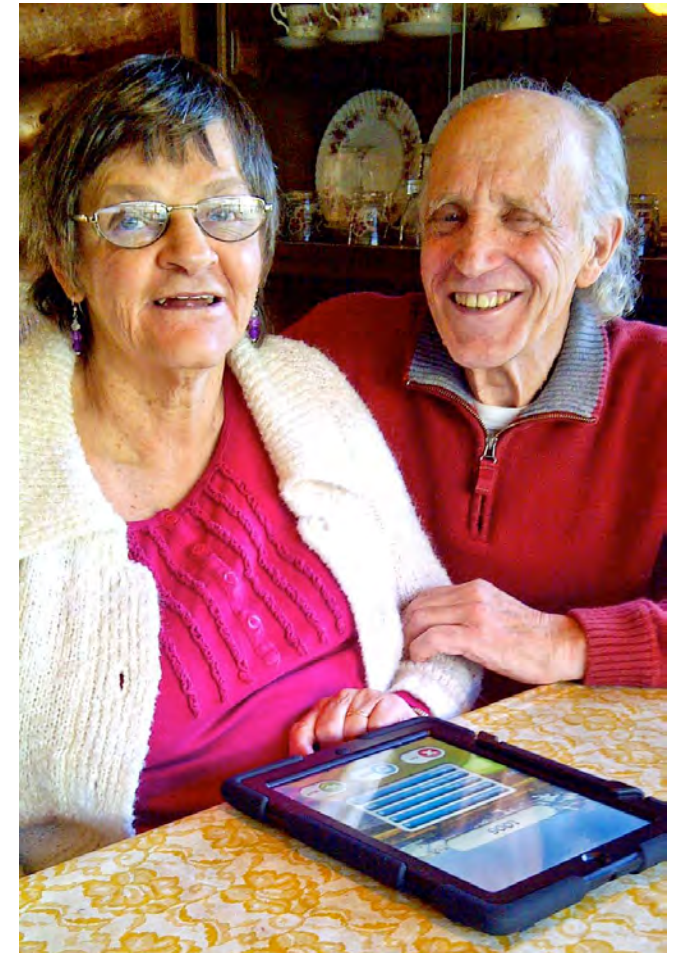
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