



## REDUCING THE USE OF PSYCHOTROPIC DRUGS AND IMPROVING QUALITY OF LIFE THROUGH ENTERTAINING TECHNOLOGY-DRIVEN ACTIVITIES

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**Contributor:**

**Josh Hansen**  
Technology Director

### *Category*

Functional/ Behavioral/ Health Outcomes  
Cost of Care to Payers  
Quality of Life/Satisfaction with Care

### **Organization Name**

Western Home Communities

### **Organization Type**

Continuing Care Retirement Community

### **Other Partners**

It's Never 2 Late® (iN2L) provides a variety of adaptive and engagement computer hardware experiences for individuals living in senior living communities. Their solutions can benefit all residents throughout the continuum of care, but their particular focus is on older adults with physical and cognitive disabilities. Their systems are primarily well suited for delivering dementia engagement programming, as well as innovative therapy interventions. They have systems in approximately 2,000 communities, across the United States and four (4) countries, serving thousands of older adults each and every day. They are a Colorado based LLC and have been in business since 1999.

### **Organization Description**

Western Home Communities is a not-for-profit, charitable Christian service organization that assertively creates fulfilling lifestyles for those we serve, their families and our employees. Western Home Communities manages and owns multiple communities. Our communities currently encompass two campuses. Located at the Downtown Campus are: Martin Health Center, a skilled nursing facility; the Stanard Family Assisted Living Center; and Willowwood, our first retirement community for independent living. At our South Main Street Campus, our housing options include four retirement communities: Windgrace, Windermere, Windcove, and Windridge; Windcrest Villas and Townhomes for active lifestyles; the Windhaven Assisted Living Center; and Thalman Square, which serves our residents living with dementia. We are also in the process of opening two 16-room, Chronic Confusion and Dementing Illness (CCDI) cottages utilizing a "neighborhood model" to meet the demands for dementia support. We are an organization that is seeking not a "homelike" environment, but rather to create a home for our residents. In the next five years, our goal is to build a neighborhood housing model for our extended stay and rehab to home residents.



### **For more information contact:**

Zohra Sirat, Programs and  
Operations Administrator, CAST  
[zsirat@LeadingAge.org](mailto:zsirat@LeadingAge.org)  
(202) 508-9438  
[LeadingAge.org/CAST](http://LeadingAge.org/CAST)

## Project Description

The goal of this project is to improve care and quality of life for all our residents and to address the behavioral and psychological symptoms of dementia (BPSD) for residents living with dementia in a non-pharmacological manner through technology-driven engagement and activities, thereby reducing the use of as needed or PRN antipsychotics.

BPSD include physical aggression, verbal aggression, emotional turmoil, confusion and agitation, which can be troubling or disabling for residents living with dementia and cause significant stress for family members and caregivers. Although antipsychotic medications are frequently used to treat people experiencing BPSD, the side effects of psychotropic drugs include gait and balance disturbance, falls, decreased levels of cognition, and diminished functioning in terms of activities of daily living (ADLs). In addition, antipsychotic drugs are expensive, according to the CMS, antipsychotic medications cost more than \$13 billion annually—nearly 5% of all U.S. drug expenditures.

The project is taking place at Martin Health Center, where 11 of the 48 residents have a dementia diagnosis and receive PRN antipsychotics to treat their BPSD. By reducing antipsychotic use, we expect: 1) fewer side effects related to these medications allowing our residents to be more alert, engaged and involved with their families and in their lives; and 2) savings to Medicare and beneficiaries.

After evaluating several options, Western Home Communities opted to partner with It's Never 2 Late to provide person-centered recreational and leisure activities (RLAs) for all our residents living at Martin Health Center and as a non-pharmaceutical intervention for people experiencing BPSD. Along with staff and volunteer guidance and support, we can redirect residents experiencing troubling BPSD by engaging them with a game, favorite TV show, calming sounds and music, or spiritual content, to meet each person's unique needs and interests and/or to re-awaken past skills.

## System Type and System Embodiment

The project entailed implementing four (4) mobile units that can be transported throughout the community to facilitate person-centered activities in the residents' rooms, community rooms, therapy gym or an available lounge.



Mobile FLEX - Mobility with a 23" touch screen computer on an electric, height adjustable stand which features an articulating arm for flexible screen positioning—perfect for over the bedside or for use with those with limited mobility. The system includes a hand

bike simulator, a flight simulator controlled by a joystick, and music maker which also work with large screen systems.

## Business Model/Utilization Plan

The use of technology in providing access to a myriad of person-centered RLAs and therapy activities that can be tailored to the individual's interests—resulting in a better person-environment fit and optimizing opportunities for success—was the most compelling reason for investing in the iN2L technology. The directors of leisure services, information technology, and nursing, and the Center's administrator are leading the project. Since the Center is located in a two-story building consisting of 100 living units, two community rooms, two dining rooms, lounges and a therapy gym, the leadership team opted for mobile units, to provide easier access to engagement and redirection RLAs and to meet the residents' needs and preferences.

Expected outcomes in consideration of this project: 1) reducing PRN antipsychotic use by at least 35 percent by identifying the residents' retained capacities and offering customized engagement activities as a non-pharmacological intervention when there are experiencing BPSD; 2) enhancing relationship-centered interactions between staff and residents by encouraging staff to apply the knowledge they have gained about the residents to more effectively use technology-driven RLAs prior to giving an antipsychotic medication; 3) empowering staff by having them provide feedback as to which programs are most effective for each resident.

While specific interventions for PRN psychotropic reduction are not reimbursed by Medicare, some therapy-specific interventions of the iN2L system may be billable. This includes cognitive, range of motion, biking and the standing balance activities. As always, patients must be assessed, treated and periodically reviewed by the licensed therapist or licensed therapy assistant and require a physician's approval.

## Resident Quality of Life

Our vision is that, with assistance from family and volunteers, we can draw upon the preserved capabilities and address the individual needs and preferences of our residents to help them achieve the best quality of life regardless of their cognitive status. We expect that access to communication applications, such email, Skype™, and Facebook®; interactive music, games, art, and physical activity programs; and an assortment of entertainment content, will serve as a powerful motivator for our residents to stay engaged with the world and to combat the loneliness and depression that often follows older adults as they

move into a nursing home, especially those experiencing cognitive decline. By providing opportunities for the staff to customize technology-driven, recreational content they are able to redirect those experiencing agitation, which results in residents experiencing an increased sense of well-being and an enriched quality of life, which can help reduce the often debilitating side-effects of psychotropic medications.

### **Implementation Approach**

To implement the project, the leadership team procured funding through the Iowa Department of Human Services, Iowa Medicaid Enterprise (IME) 2013 Civil Money Penalty Quality Improvement Initiative Grant (CMPQII). The grant was a perfect fit for our goals as it focused on innovative initiatives that 1) support quality of life improvement for nursing facility residents, such as the reduction of off-label use of anti-psychotic medications; 2) have direct measurable outcomes; and 3) provide staff education or training opportunities. We found that the best way to conduct our person-centered, relationship-centered initiative and meet the grant's parameters was by utilizing cutting edge technology.

### **Measurable Outcomes Baseline**

- Nurse managers compile three months of data on each resident receiving PRN antipsychotic medication.
- Identify areas where the systems could be utilized to replace or supplement current activities.

### **Staff Education and Engagement**

- Initial on-site training for staff utilizing the iN2L systems.
- Identify volunteer opportunities between residents in other locations, and volunteers from the community at large.
- Nurse managers and leisure services staff make recommendations for each resident receiving PRN antipsychotic medications—these recommendations include which programming best supports the resident during periods of anxiety or BPSD.
- Caregivers make recommendations on programming that best supports the resident.
- Collect resident success stories whenever possible.
- Subsequent quarterly trainings provided to new staff.

### **Roll Out Activities/Family and Volunteer Engagement**

- Send letters to families about the iN2L systems being purchased.
- Hold a family member meeting to provide a demonstration and describe the abilities of the program to the family members of Martin Health Center residents.
- Provide training on Skype, email and other Internet services is provided to encourage family to stay connected with their loved ones.
- Introduce the iN2L system at *Family Tree Meetings*.
- Use marketing handout in brochure material.
- Incorporate program information into tours.

### **Project Sustainability**

- Nurse managers conduct monthly evaluations of antipsychotic use episodes.
- Nurse managers meet with leisure services staff and assist in making further recommendations to the caregivers.
- Quarterly reports are sent to IME by the administrator regarding progress, expenditures made and program details.
- Staff provide iN2L trainings to new residents in small groups, as well as one-on-one interactions.

### **Advantages to the Approach**

Although the iN2L staff and support team have made seamless integration possible, the success of the project ultimately comes down to a relationship-centered approach and staff and family taking ownership of the project—the outcomes speak to the success of this approach.

### **Outcomes (so far)**

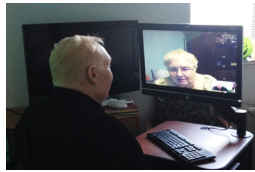
- 50% less residents requiring PRN antipsychotics.
- 20% reduction in the total number of doses given to all residents with PRN psychotic medications. Initially, we saw more doses given. We determined this was likely due to us tracking each dose. Our baseline numbers only included those residents who were residing at MHC, whereas now we are tracking all residents—even those discharged during each quarter.

## Supporting Data

Quarter	# of Residents with PRN Psychotropic Medications	Total # of Doses of PRN Psychotropic Medications Dispensed
4Q 2013 (Baseline)	15	51
1Q 2014	13	87
2Q 2014	10	64
3Q 2014	7	41
4Q 2014	6	24

### Observations

- A gentleman featured in an article last summer spent his days in bed leaving it only for meals. He's a pilot, so the household coordinators taught him how to use the iN2L system's flight simulator. Now he spends hours in the common areas. His family is thrilled to see him out of his bed!
- A resident with stroke Cerebrovascular Accident (CVA) used the bubble pop game using her non-dominant hand for extended periods of time, to the surprise of all her caregivers.
- Recently, a resident who lives with his wife at our Thalman Square residence (dementia-specific assisted living) was temporarily transferred to our rehab unit. The household coordinators set up the Skype for the couple. It was very touching seeing them talk to each other when they couldn't physically be together.
- A resident was hesitant to return home because she enjoyed using the system daily; she went home, but returned within a week.



- Find your champions at all levels.** Engagement is better established when staff throughout the strata of the community are engaged. Trying to drive a project like this purely from the top down can present avoidable challenges and resistance.

### Advice to Share with Others

- Technology is a means to an end—of providing residents with a customized experience and engaging staff.** The project's primary focus is the interaction of caregivers and residents. We strive to implement tools that allow us to continue developing an organizational foundation that supports a relationship-centered way of living and caring for all our residents and staff. Although a technological intervention is at the heart of the project, this is so much more than just about bringing hardware to the community.
- Involve all the stakeholders to encourage better communication and gain support for an empathetic approach.** The technology we've implemented stimulates and facilitates new means of communication, interaction and care delivery. This has enabled the creation of new connections and strengthened existing relationships—between staff and supervisors, staff and volunteers, but most importantly, those between caregivers and residents and their families. The technology is not meant to replace caregivers, it was put in place to help them find new ways of communication and increase meaningful interactions.
- Ensure that staff and family understand the focus of project.** We provide training opportunities to all new staff and family members. We are also in the process of creating a booklet for family members that explains the location of the systems within the community and basic navigation information.

### Lessons Learned

- Don't under estimate your residents.** We see some residents reluctant to take part, but once the appropriate approach is identified, you won't believe the impact that is possible. For some residents the approach is playing games, for others, its communicating with family or friends. Identify and try different approaches—all residents have individual needs and preferences and the adaptability that technology provides offers residents numerous opportunities to stay engaged.

#### LeadingAge Center for Aging Services Technologies:

The LeadingAge Center for Aging Services Technologies (CAST) is focused on accelerating the development, evaluation and adoption of emerging technologies that will transform the aging experience. As an international coalition of more than 400 technology companies, aging-services organizations, businesses, research universities and government representatives, CAST works under the auspices of LeadingAge, an association of 6,000 not-for-profit organizations dedicated to expanding the world of possibilities for aging. For more information, please visit [LeadingAge.org/CAST](http://LeadingAge.org/CAST)