

SUGGESTED READINGS ABOUT AIP

SUMMARIES

AIP Summary (February 2011)
TigerPlace Research Handout for Residents
Sinclair Home Care Services List
TigerPlace Service List
Eldertech Flyer

ARTICLES [can be found on www.agingmo.com]

TigerPlace, a state-academic-private project to revolutionize traditional long term care
Journal of Housing for the Elderly, 2008

Evaluation of aging in place model with home care services and registered nurse care coordination in senior housing
Nursing Outlook, 2011

Technology and nursing collaboration to help older adults age in place
Nursing Outlook, 2005

A smart home application to eldercare: Current status and lessons learned
Technology and Healthcare, 2009

Improving nurse care coordination with technology
Computer, Informatics, and Nursing, 2010

The relationship of community-based nurse care coordination to costs in the Medicare and Medicaid programs
Research in Nursing & Health, 2010

Nurse care coordination in community-based long-term care
Journal of Nursing Scholarship, 2006

Clinical outcomes of aging in place
Nursing Research, 2005



AGING IN PLACE PROJECT

Many senior citizens and their families, preferring to remain at home rather than enter a nursing home, want to postpone or even avoid nursing home care. The Aging in Place (AIP) project vision was developed in 1996 in the Sinclair School of Nursing with an interdisciplinary team to: (a) develop and implement a new approach to serving long-term care needs of Missouri seniors; (b) become a national model of excellence for other health science centers and those committed to investing in state-of-the-art care; and (c) dramatically change the way long-term care is provided in this country. Overall, the AIP goal was to provide more and higher-quality services at home, allowing people to “age in place.” People get services when they need them, regain independence, and services are limited or withdrawn so costs are controlled.

State legislation for the Missouri AIP initiative in 1999 and 2001 was needed to evaluate how providing coordinated home care and home health services to elders can support them, delaying or preventing a move to a traditional nursing home as their needs increase. Out of this initiative came TigerPlace: a state of the art independent living facility, the only AIP site operating in Missouri, and the only place like it in the country. It is built to nursing home standards, licensed as intermediate care so people can use long term care insurances, and operated as independent housing with services.

As the new model of care was tested in the community, a team began planning for building TigerPlace as an ideal housing development for further evaluation of AIP and, importantly, developing and testing new technologies to help seniors age in place. The planning process involved many colleges and schools at the University of Missouri and was envisioned to be an exemplar in interdisciplinary research, education, and practice.



Americare Systems, Inc., built TigerPlace, investing in the facility that now is home to 65 older adults. The initial Americare investment for Phases 1 and 2 was \$9.4 million and resulted in not only construction jobs, but also continuously employs 25 people in Columbia. Sinclair Home Care, the care provider for the TigerPlace residence employs 18 people. Americare is investing approximately \$13 million in Phase 3, currently under construction, and will employ about 100 people in this comprehensive skilled nursing facility operation. This Phase, The Neighborhoods Rehabilitation and Skilled Nursing by TigerPlace, is scheduled to open summer of 2011. Designed with 5 distinct Neighborhoods from within, the primary focus will be rehab to home which will include 3 of the 5 Neighborhoods. The 4th Neighborhood is designed specifically for Elders with Alzheimer's and the 5th Neighborhood will be for Long Term Care. Each Neighborhood is designed to be completely independent including commercialized kitchens with restaurant style dining, spa area, and family style laundry. Each Neighborhood will have only 14 rooms with 11 being private suites."



AGING IN PLACE PROJECT

Grants led by principal investigators from the interdisciplinary team employ several people and have funded more than 50 students for one or more years of their education. Beginning in 1993 and currently running until 2013, major sources of funding for these grants, totaling over \$9.6 million, include the National Institutes of Health, the National Science Foundation, the Agency for Health Care Research and Quality, Alzheimer's Association, RAND Health, Gerontological Nursing Interventions Research Center, and Health Care Financing Administration.

The impact of this research has been validated showing a cost savings to Medicare and Medicaid in the community with Aging in Place evaluations (\$1,591 per month for the nursing home comparison group, \$483 per month for the home and community based comparison group). In both the community and TigerPlace evaluations, RN nurse care coordination reduces adverse health events, improves care outcomes, reduces nursing home utilization, and is cost-effective; costs for any at TigerPlace nursing home eligible participant has never approached or exceeded nursing home care (average annual care cost for 2008 was \$7,331 plus the housing cost). For those not nursing home eligible the annual average care cost was \$2,591.

WHERE TO LEARN MORE:

AGINGMO – WWW.AGINGMO.COM

ELDERTECH - WWW.ELDERTECH.MISSOURI.EDU

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UNIVERSITY OF MISSOURI RESEARCH PROJECTS AT TIGERPLACE

When you live at TigerPlace, you have the opportunity to participate in University of Missouri research projects which have the potential to benefit you as well as other older adults around the world. You may be asked to participate in research projects. Your participation is **voluntary**. If you choose not to participate, it will not affect your stay at TigerPlace in any way. Your name or other identifying information will never be used in any publication or teaching materials without your specific permission. The following research projects are currently underway at TigerPlace:

INTEGRATED HOME SENSOR NETWORK FOR MONITORING OLDER ADULTS

The Eldertech Research Team at TigerPlace is developing an integrated monitoring system that reliably captures data about older adults in the home in a noninvasive manner, balancing the needs of health, safety and privacy. We are installing sensor networks including motion sensors in each room of apartments at TigerPlace, a stove temperature sensor which monitors cooking activity and a sensor that lies in the bed to measure restlessness, pulse, and breathing. We use the data from these sensors to develop an activity profile of the resident. This network is the foundation for detecting changes quickly so we can help you be as independent, healthy, and strong as possible.

TELEHEALTH EQUIPMENT

Telehealth equipment monitors vital signs such as blood pressure, pulse rate, weight, and pulse oxygenation. We are installing Telehealth monitoring equipment in apartment of volunteers at TigerPlace. We use the data to supplement the registered nurse (RN) care coordination and help older adults remain healthy.

TECHNOLOGY TO DETECT EARLY SIGNS OF ILLNESS IN OLDER ADULTS

In this study, we are developing an early illness sensor system that uses the sensor data to detect early sign of illness or decline in function (a person's ability to walk, do the things one would normally do every day, or be active as much as you would like to be). We are using the early illness sensor system in a pilot study to find out if it improves or maintains the health of older adults by helping the RN care coordinator at TigerPlace detect early signs of illness or functional decline. Ultimately, we want to help older adults stay healthy and independent as long as possible.

AUTOMATIC SENSING SYSTEM TO DETECT FALLS AND FALL-RISK IN ELDERS

An innovative technological approach using radar sensors is being validated in this study to automatically detect falls when they happen or when the risk of falls is increasing. We want to prevent falls or intervene quickly after a fall. By detecting falls or increasing fall risk early, this new technology can act as a trigger for elders, family members, or health care providers to improve physical function or better manage illnesses that are precipitating falls.

**June 2004 - TigerPlace Opened
Included in the Per Member Per Month (PMPM) fee**

RN Care Coordination

RN on site 3 days per week for wellness center

Admission health assessment including
MDS, SF12, Fall Risk, GDS, MMSE, Health Assessment, Care Plan

6-month assessments

ICF assessments every 60 days for those who qualify

RN on call 24-hours per day

Wellness Center

2 hours 3 days per week

Exercise Classes - 5 days per week

4 Aging in Place visits per year

Weekly Social Work visits

Connections to Students and University of Missouri activities

Happy Feet

Weekly Pawsitive visits

Opportunity to participate in research

Private Pay Services

The residents may purchase additional private pay services such as medication management and personal care services from Sinclair Home Care for a fee.

Aide was available in the mornings

**February 2011
Included in the Per Member Per Month (PMPM) fee**

RN Care Coordination

RN on site 5 days per week

Admission health assessment including
MDS, SF12, Fall Risk, GDS, MMSE, Health Assessment, Care Plan
Elopement Risk, Self-administration of medications

6-month assessments

ICF assessments every 60 days for those who qualify

RN on call 24-hours per day

Wellness Center

8 hours per day 5 days per week

Exercise Classes - 5 days per week

4 Healthy Steps dance classes per week added in 2011

4 Aging in Place visits per year

Weekly Social Work visits

Connections to Students and University of Missouri activates

Happy Feet **and Hands**

Weekly Pawsitive visits

Veterinarian services once per month – Dr. James Creed makes a “house call” each month

Opportunity to participate in research - **now offering technology to detect symptoms of illness early while maintaining privacy**

Private Pay Services

The residents may purchase additional private pay services such as medication management and personal care services from Sinclair Home Care for a fee.

Long Term Care Insurance

Evening aide services were added as care needs increased

TigerPlace

Included Services

- *Two Meals Daily*
- *Weekly Housekeeping*
- *Weekly Linen Service*
- *Concierge and Transportation*
- *Consumer Planned Social Events on and off Community Campus*
- *Daily Exercise Classes (Tai Chi; Yoga; Routine Exercises)*
- *Tiger Total Fitness Center – Fitness room equipped with treadmill; Nu Step (recumbent exercise bike); rowing machine; free weights; jetted whirlpool*
- *Annual Wellness Review Performed by a Registered Nurse*
- *Registered Nurse on Call*
- *Four In-Home visits annually by a Registered Nurse*
- *Tiger Care Center – staffed with Nurses through The Sinclair School of Nursing of Missouri University*
- *TigerPlace is designated as an Aging in Place Community. It is the only one in the United States. This unique designation eliminates the need for people to move to a higher care setting.*
- *Pets are always welcomed at TigerPlace*
- *All Utilities, Ethernet and Cable except private Telephone Service which can be obtained through Century Tel.*
- *All leases are month to month with a 30 day notice requirement*



What is the Eldertech Aging in Place Project?

The Eldertech team examines and develops technology to assist individuals in maintaining independence throughout retirement.

What is "Aging In Place"?

As the needs of older adults change due to the challenges of growing older, the "Aging in Place" paradigm is an innovative approach that combines gracious retirement living with flexible health-care services that change with the residents' needs.

TigerPlace is an "Aging in Place" facility that collaborates with the Eldertech team on research of novel elder-care technologies.



About us:

The University of Missouri Eldertech Aging in Place Project brings together the existing critical mass of University of Missouri (MU) health providers, researchers and educators who are focused on the needs of the rapidly growing older adult population.



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The Eldertech Aging in Place Project

THREE KEYS TO SUCCESSFUL AGING IN PLACE:



TECHNOLOGY

COLLABORATION



INDEPENDENCE

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AGING IN PLACE

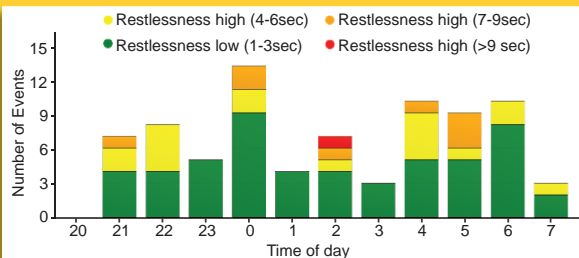
What kind of studies are currently being conducted?

The Eldertech team in collaboration with TigerPlace is currently conducting many different studies that aim to improve and develop elder-care technologies. Some things that researchers are currently focusing on include:

- ★ Health event detection
- ★ Fall detection
- ★ Exercise safety

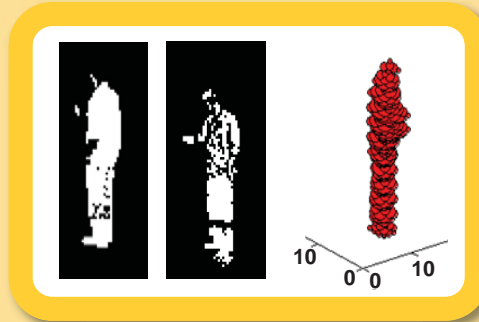
Health event detection

Through the use of a novel group of sensors that measures sleep restlessness, heart rate, and respiration, researchers are examining how this information can be used to detect various health events.



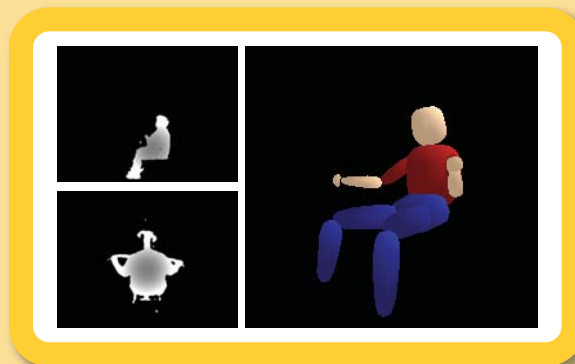
Fall detection

Falls in the home can cause serious health problems. The Eldertech team is currently researching how sensors can be used in the home to detect falls and other hazardous events while maintaining the privacy of the individual.



Exercise safety

Researchers are currently investigating how range-of-motion feedback can be used to improve the safety of exercise.



How can I help?

The Eldertech team is conducting many different studies that need older adult participation. Research participants are essential to the studies. You can help advance medical technology as well as experience the benefits of having the technologies in your residence by signing up for one of the studies.



Confidentiality

Privacy is of the utmost concern. Information collected and produced by our studies will not identify you as an individual. This confidential information will not be given to anyone who is not part of our project without your written consent, except as required by law.

Participant rights

- Participation is voluntary.
- If you decide to participate, you can change your mind and drop out at any time.