



THE 7th ANNUAL
SENIOR COMMUNITY SERVICES

REIMAGINE AGING CONFERENCE

NOVICE TO EXPERT:
TECH TOOLS FOR SENIORS & CAREGIVERS



THURSDAY,
SEPTEMBER 29, 2022
12:30 PM - 4:30 PM

METROPOLITAN BALLROOM
5418 WAYZATA BLVD
GOLDEN VALLEY, MN

Presented by **Allianz** 



**DEPARTMENT OF
ADMINISTRATION**

Reimagine Aging– September 29, 2022

MN Assistive Technology Program, STAR – Amy Perron

Minnesota STAR Program

- System of Technology to Achieve Results (STAR)
- Minnesota's federally funded Assistive Technology Act Program
- Housed within the MN Department of Administration
- Providing services to ALL MINNESOTANS
 - No proof of disability required.
 - There is no cost for the STAR Program services



Federal Definition

...**any item**, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is **used** to increase, maintain, or improve functional **capabilities** of individuals with **disabilities**. [20 U.S.C. Chapter 33, Section 1401 (25)].

Minnesota STAR Program Services

- Device Demonstrations
- Device Equipment Loans
 - Short-term
 - Open-Ended (limited availability)
- Information and Assistance



The Process - How does it Work?

- Decide which device to be requested.
 - Unsure? Call or email STAR or a contract partner for consultation.
- Call or email STAR to arrange for device for device demonstration or an equipment loan.
- Complete appropriate paperwork and surveys



Types of Equipment

- Vision
- Hearing
- Daily Living
- Cognition/Learning
- Speech Communication
- Environmental Adaptations



- Mobility
- Computer Related
- Recreation/Leisure



Contract Partners



Contact us

- MN STAR Program Main Website- www.mn.gov/star/
- MN STAR Program Device Library- <https://mn.at4all.com/>
- Email- star.program@state.mn.us
- Telephone- 651-201-2640





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Reimagine Aging Conference – September 29, 2022

Licensed Social Worker, Senior Outreach & Caregiver Services Program – Krystal Wiebusch



Most “care” for seniors is being done by informal caregivers



Informal caregivers
burn out if they
can't find balance

Involving others
in the care can
be overwhelming





Hiring senior services
or moving to senior
housing does not
always work out



Families must look to technology to weave the safety net around their treasured one

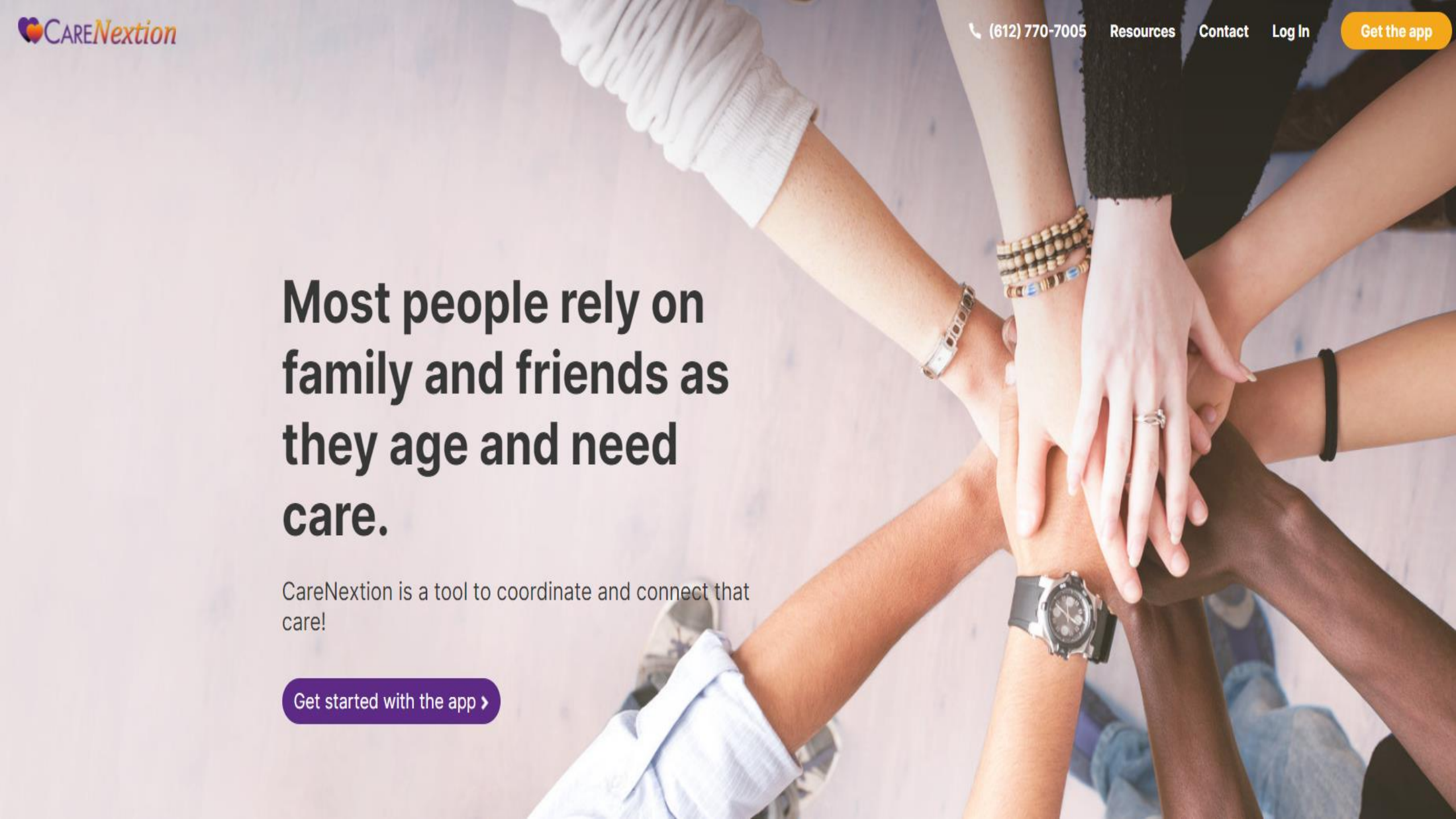
Most popular tools:

1. GPS technology
2. Health tracking and reminders
3. Personal emergency response systems
4. Cameras
5. Robot companion pets
6. Software applications and online support communities to coordinate informal care





www.carenextion.org

A top-down photograph of several people's hands stacked together in a circle, symbolizing support and community. The hands are of various skin tones and are wearing different accessories like bracelets and watches. The background is a light-colored wooden floor.

Most people rely on family and friends as they age and need care.


CareNextion is a tool to coordinate and connect that care!

[Get started with the app >](#)

Resources


These Minnesota resources are compiled by professionals using feedback from their older adult clients and caregivers. This information does not constitute endorsement or recommendation by Senior Community Services.



Sort By 

55-Alive Driving / Defensive Driving Class for Seniors (AARP)


Cost for AARP members - \$15; non-members - \$20. Payment by cash or check only. Class will be held in the AARP Conference Room located on the 2d floor west side of the Mall.

 Multiple Locations

Driver Assessment & Training


A Brush with Kindness

*Must fill out application

 Multiple Locations

Outside Maintenance Home Maintenance Home Remodeling Safety & Home Modification Low-Income Programs

A Little Help, Inc.

 Multiple Locations

Caregiver Support Services

Food

Financial

Health Care

Hoarding

Home Care

Home Maintenance

Hospice

Legal

Mental Health

Multicultural Services

Safety

Social

Technology

Transportation

Low-income Programs





Care Team: Grandma Mille








Overview

Task Calendar

Journal

Members

Invite

	Deb Taylor
	Deb
	Sara
	Krystal Wiebusch
	Collin Brehmer
	Becky Allard
	Joe Kaul

Upcoming Tasks

Add New Task

Oct 4	8:00-11:00 AM home health Unassigned	...
Oct 6	12:00-2:00 PM Walking Assigned to: Deb Taylor	...
Oct 7	12:00-2:00 PM Walking Unassigned	...
Oct 8	11:00-11:00 AM Lunch w/ Mike Assigned to: Deb	...
Oct 8	12:00-2:00 PM Walking Unassigned	...
Oct	8:00-11:00 AM	...

Who benefits from using CareNextion?



SERVE COMPASSIONATELY



SUPPORT INDEPENDENCE



EMPOWER CAREGIVERS



CONNECT COMMUNITY

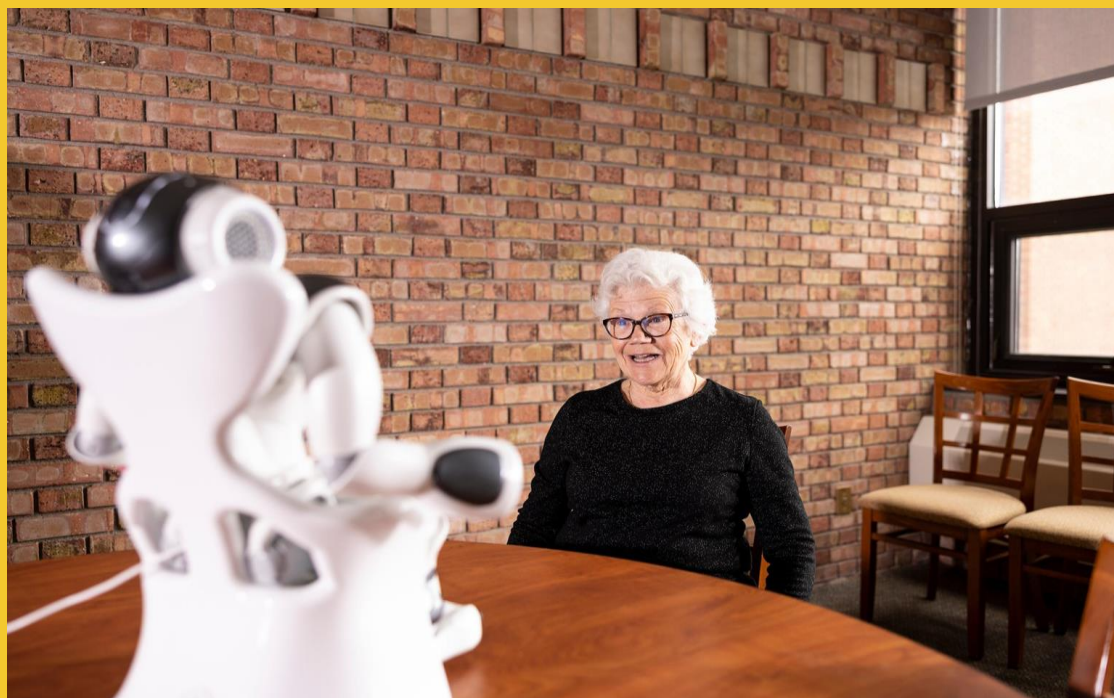


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Contact Us

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Arshia Khan, Ph.D.

**Professor, Computer Science
Swenson College of Science and Engineering
University of Minnesota Duluth**

**Humanoid
Robots
in
Dementia
&
Elderly Care**

Agenda

- A little about my work
- Define the problem
- My solutions



DECRS

Demetia and Elderly Care
Robotics and Sensing



Introduction

**My team:
Students, Robots and Myself**

**Where: DECRS lab
Swenson College of Science and
Engineering
University of Minnesota Duluth**



Robot assistive technologies in following areas



- Dementia and Elderly care
- Children with Autism spectrum and communication disorders
- Cardiac rehab after open heart surgery
- Bipolar disorder management
- And more...



Uniqueness of my research

- **Humanoid Robots**
 - *Conversational*
 - *Various sensors*
- **Sensors:**
 - *Wearable*
 - *Spatial*





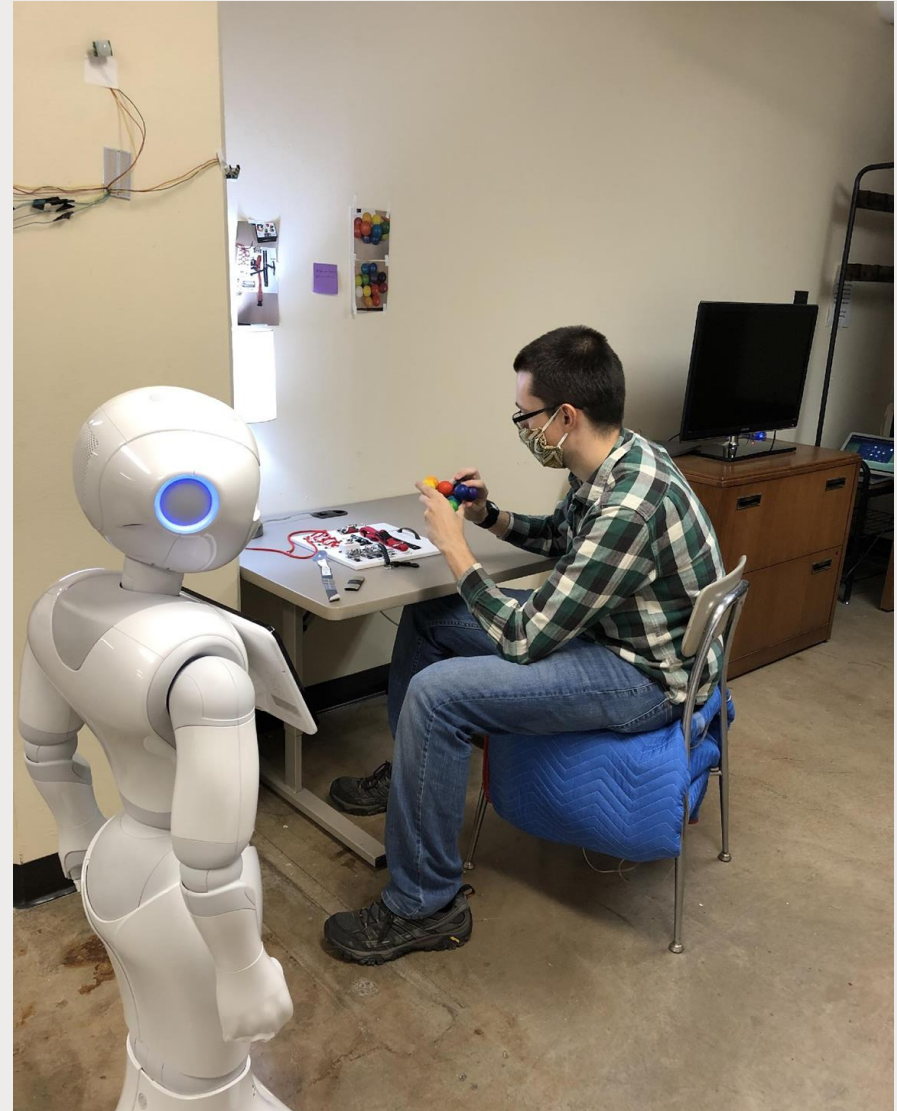
Some current projects...

- Intelligent dementia friendly living space – Bold ideas grant
- Design of an intelligent pillbox
- Gossip Bot
- Rem therapy bot
- Yoga/Exercise bot
- Robotics in aid of children with communication disorders
- Music in dementia care



Intelligent Dementia Friendly living Space

- Includes the following
 - *Technology that works in the background*
 - *User does not need to know how to use the technology*
 - *Behind the scenes aid in care provision*



12.7 million

people age 65 and older are projected to have Alzheimer's dementia by 2050.

\$355 billion

is the projected national cost of caring for people with Alzheimer's and other dementias.

\$256.7 billion

worth of care is provided by family members and other unpaid caregivers.

Problem – We are all aware of!

- **Growth in elderly population**
- **Increase in care provision needs**
- **Healthcare worker shortages**
- **Care costs**

Reference: Alz.org- Facts and Figures



Objectives of my research

Is twofold:

- *Early detection*
- *Maintaining the quality of life*



Humanoid Robots: Augmenting care in Nursing Homes- Monarch

- <https://app.frame.io/reviews/cdba3e0b-f6d5-4a2d-b4b5-0b1c4bdc55f8/73ad8923-43af-4209-b301-ee7c02b77e9e>



Robots in nursing homes

- Address three domains
 - *Emotional/social wellbeing*
 - *Cognition wellbeing*
 - *Physical wellbeing*

Robot Deployment in 8 Nursing homes so far



Robot Deployment





Robots In Nursing Homes

Robots In Nursing Homes





Robots In Nursing Homes

Outcomes:

- **Improvement in patient outcomes:**
- **Maintaining and preventing further reduction in quality of life by interventions employing**
 - *Robotics*
 - *AI in action*
 - *Proactive technology rather than reactive technology*
- **Help address medical worker shortages**
 - *Robots performing repetitive mundane tasks*
 - *Tone of robot does not change*
 - *Allow the existing staff to tend to more important tasks*



Projected Outcomes

- **successful diversion or discharge of residents to the residents' prior home or other community-based alternatives;**
- **adoption of new technology to improve quality or efficiency;**
- **improved quality as measured in the Minnesota Nursing Home Report Card;**
- **reduced acute care costs;**



Questions?

