

# Evaluating a Home Safety Program for Veterans with Dementia

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# Why Home Safety

- ◆ The rate of injury for those 65 and over is twice that of middle aged people.
- ◆ Thirty per cent of people age 65 and older are involved in falls each year, the leading cause of death from unintentional injury in the home.
- ◆ People age 65 and older are more likely to die in a fire except for children below the age of 6.
- ◆ If a person with dementia can walk, they will wander. (Alzheimer's Association)

# Where do Fatal Falls Occur

- ◆ 60% happen at home
- ◆ 30% occur in public places
- ◆ 10% occur in health care institutions

([www.cdc.gov/ncipi/factsheets/falls.htm](http://www.cdc.gov/ncipi/factsheets/falls.htm))

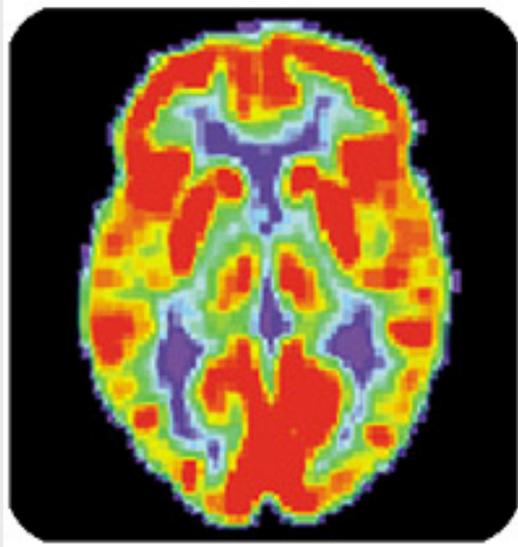
# Cognitive and Motor Changes in Dementia

- ◆ Memory Loss
- ◆ Poor Judgment
- ◆ Confusion
- ◆ Diurnal Rhythm Reversal
- ◆ Delusions
- ◆ Hallucinations

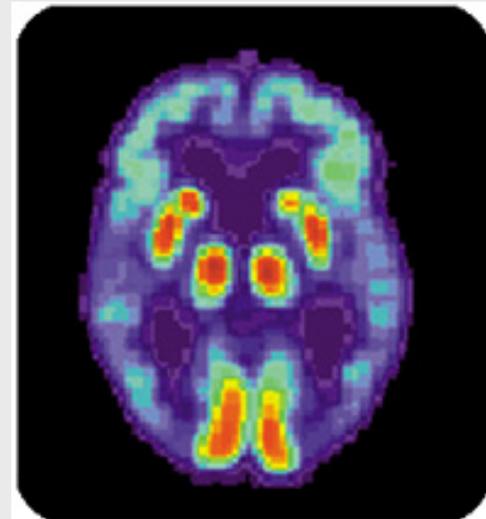
## *AD and the Brain*

### The Changing Brain in Alzheimer's Disease

No one knows what causes AD to begin, but we do know a lot about what happens in the brain once AD takes hold.



Pet Scan of  
Normal Brain



Pet Scan of Alzheimer's  
Disease Brain

# Cognitive and Motor Changes (cont.)

- ◆ **Visual Impairments**
- ◆ **Loss of Balance**
- ◆ **Abnormal Gait**
- ◆ **Decreased Reaction Time**

# Firearm Access and Automobile Driving Among Veterans with Dementia



Office of the Medical Inspector

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# Firearms and Dementia

- ◆ Spangenberg, et al. (1999) *Journal of the American Geriatrics Society* 47:1183-6.
- ◆ Sample of 106 patients and family members in New Hampshire and South Carolina
- ◆ 60% of households had a gun
- ◆ 44% of owners kept the guns loaded

# **“Safety Enhancement to Prevent Home Injury to Veterans with Alzheimer’s Disease”**

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# Research Questions

- ◆ What are the environmental dangers for injury risk and accidents in homes?
- ◆ What is the range of home environmental modifications to which families agree?
- ◆ What are the costs and logistics of making home safety modifications?
- ◆ Can home safety modifications be standardized?

# Sample

- ◆ **52 Veteran/Caregiver dyads**
- ◆ **Average age of veteran = 77**
  - **Primarily Caucasian men (3 women)**
  - **Education: 48% college credit or graduate**
    - 26% HS Diploma**
    - 14% Grade School**
- ◆ **Type of Residence: 67% Single Family Home**
  - 12% Condominium**
  - 19% Multiple Family**
  - 2% Apartment**

# Sample (cont.)

- ◆ **Caregiver Relationship**
  - Spouse: 83%
  - Adult Child: 12%
  - Sibling: 5%
- ◆ **Caregiver Average Age: 69**
- ◆ **Veteran disease severity MMSE: Mean = 16**
- ◆ **Veteran functional Status: PSMS Mean = 11**

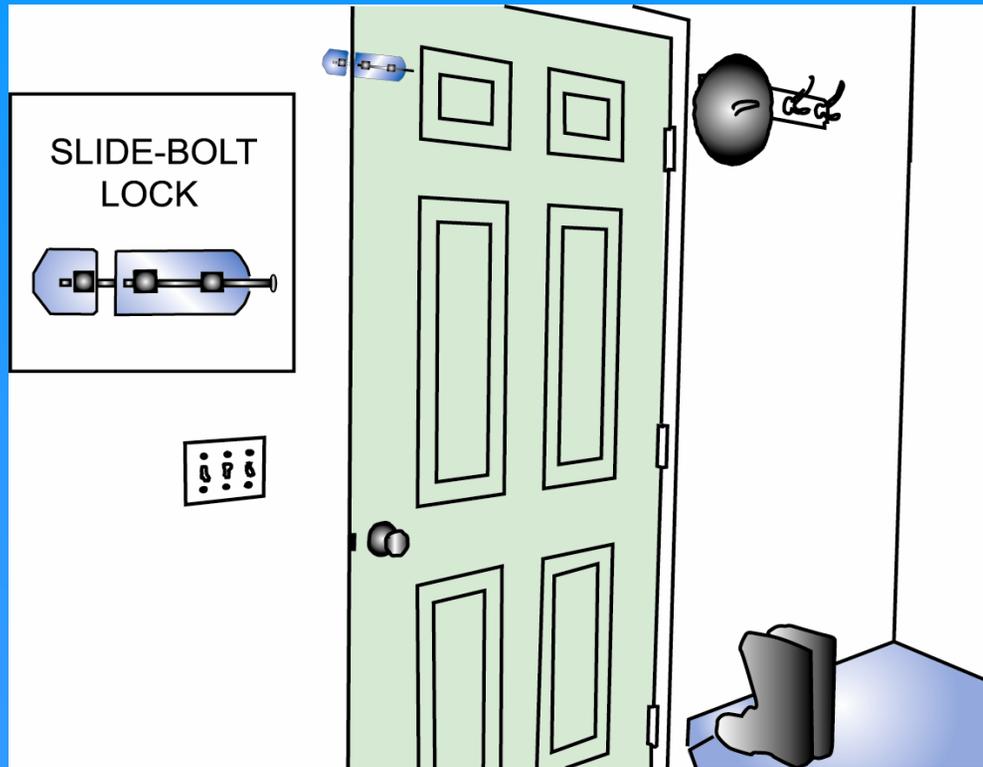
# **“My Home is My Castle”**

- ◆ **Requires deep appreciation of the personal and cultural context of this setting**
- ◆ **Establishing Trust**
- ◆ **Partnership with caregivers who provide care at home “36”/7**

# Risk of Injury in Homes

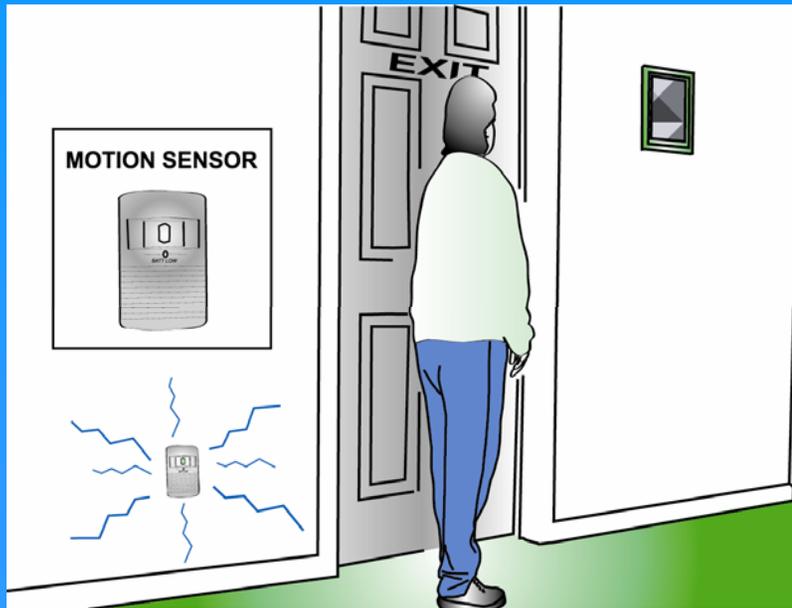
- ◆ Falls/Tripping: >10 incidents
- ◆ Exiting Alone: 10 incidents
- ◆ Stove incidents: 6
- ◆ 1 Firearm and 2 Knife incidents
- ◆ 1 Driving incident
- ◆ 2 Toxic substances
- ◆ 2 fires (smoker; clothes dryer)

# Make Exits Safer



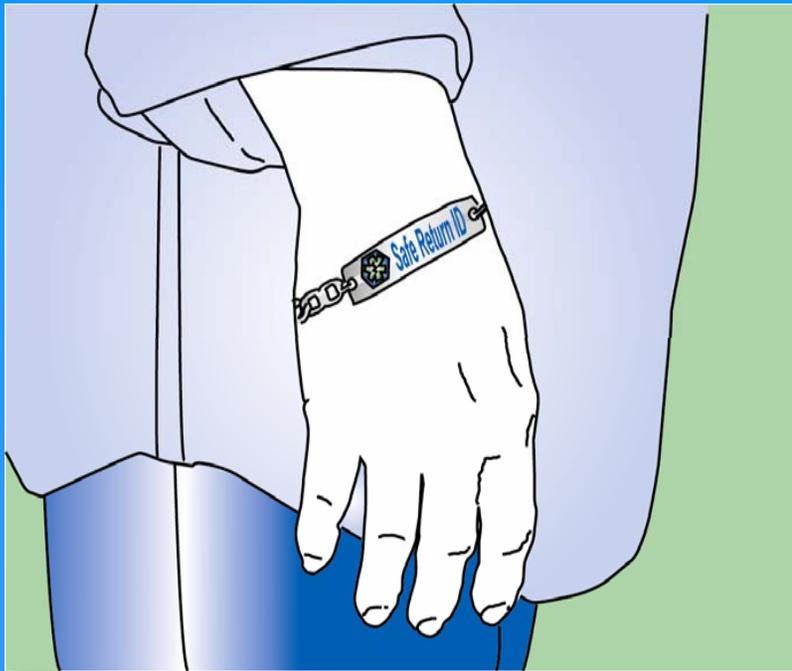
- ◆ Put a slide-bolt lock at the top or bottom of doors to the outside, so the person will not notice it.

# Make Exits Safer



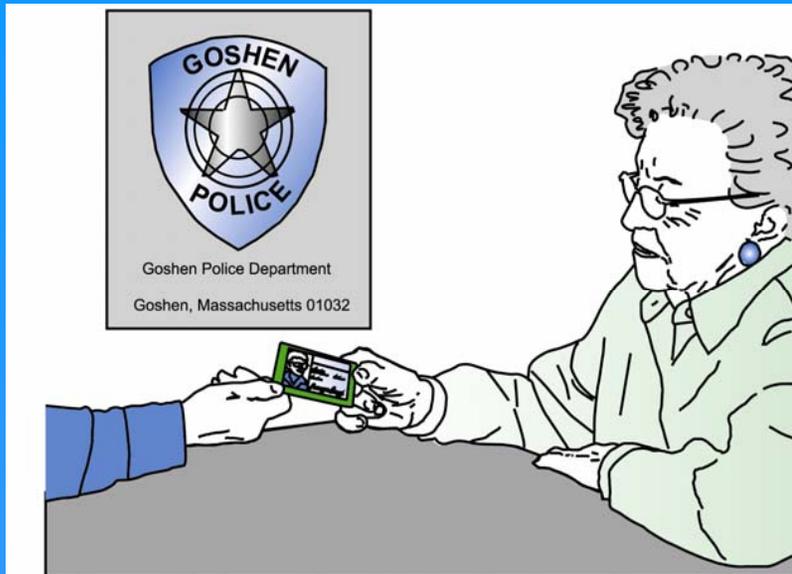
- ◆ Use a motion sensor to warn you when the person wanders to an exit door or to a risky room such as the kitchen.

# Wandering



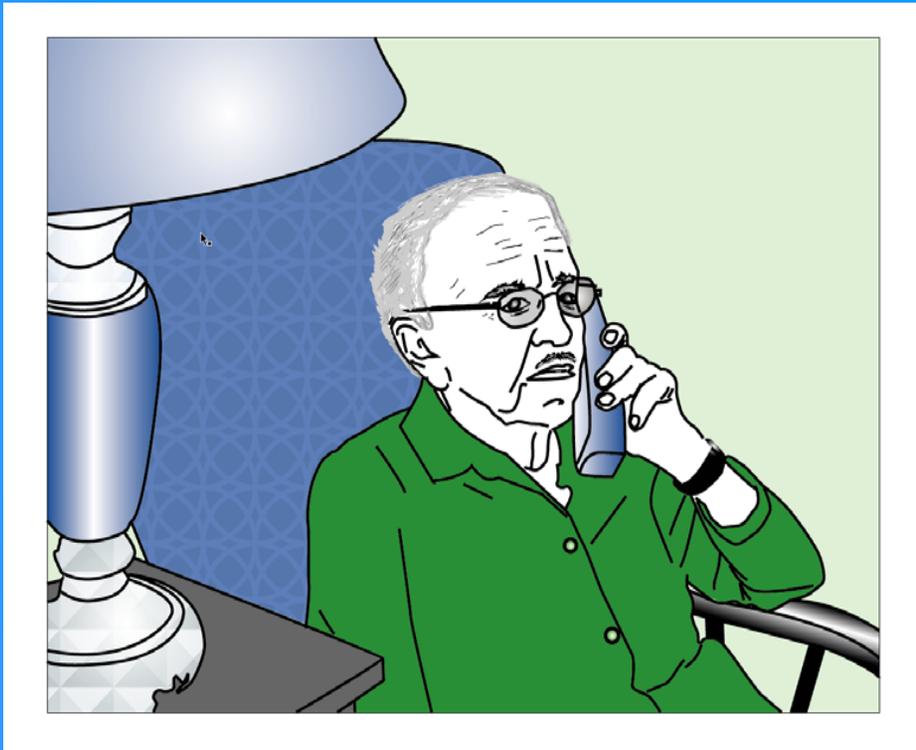
- ◆ Send for an identification bracelet from the Alzheimer's Association "Safe Return" Program.
- ◆ Call 1-800-548-2111 for information.

# Wandering



- ◆ Give the name and a recent picture of the person to your local police in case the person wanders away and gets lost.

# Wandering



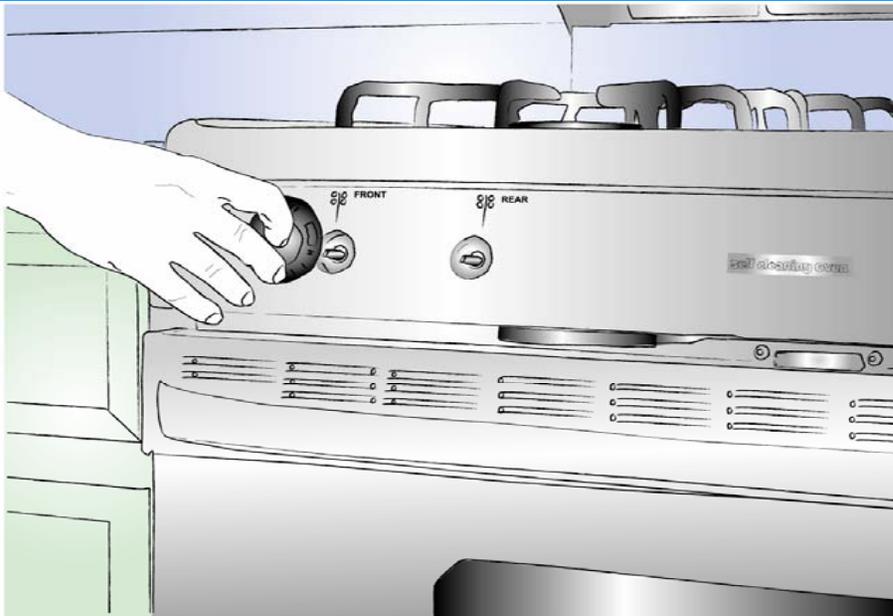
Tell trusted neighbors  
that the person has  
memory problems  
and might get lost.  
Keep a list with their  
names and phone  
numbers

# General Living Areas

- ◆ **Remove scatter rugs**
- ◆ **Put contrasting tape on the edge of steps to highlight stairs**
- ◆ **Increase the brightness of current lamps and fixtures**

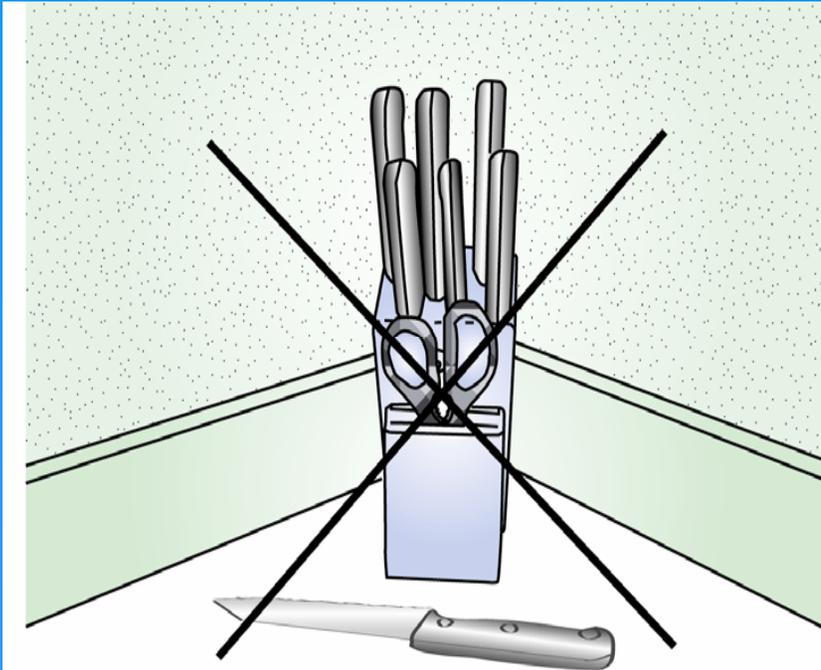


# Kitchen Safety



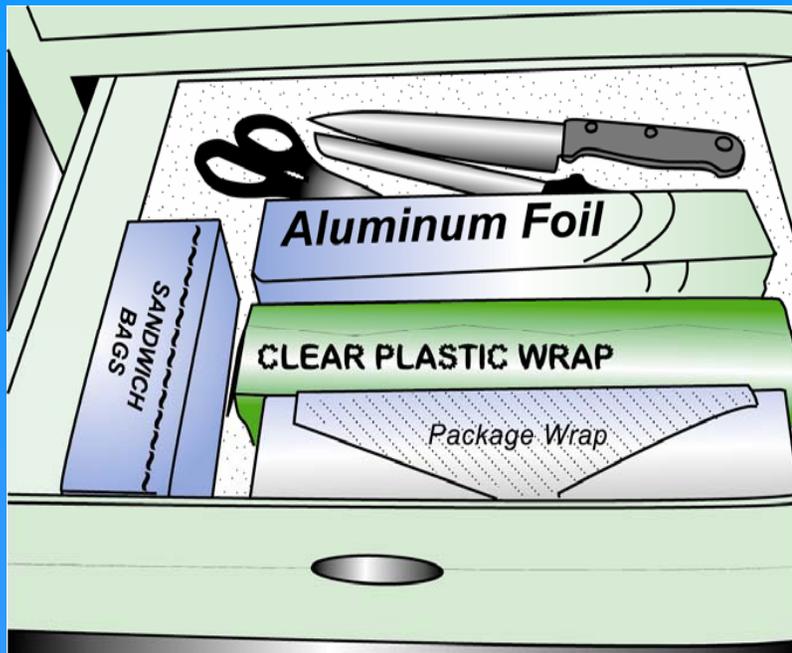
- ◆ Remove stove knobs and hide them in a nearby drawer.
- ◆ You can also use stove knob covers made for child safety.

# Kitchen Safety



- ◆ Remove scissors and knives from counters and drawers.

# Kitchen Safety



- ◆ Keep one large and one small knife for your use hidden in a drawer or cabinet.

# Safe Firearms Practices

- ◆ **ASK if there are firearms in the house.**
- ◆ **Ideally, remove the firearms and ammunition from the house.**
- ◆ **At least remove the ammunition; lock the firearms.**

# Driving Safety

- ◆ If the care-recipient is still driving:
- ◆ <http://www.thehartford.com/alzheimers>
- ◆ Family awareness and guidance
- ◆ Has he/she gotten lost or made errors while driving, e.g. parking on wrong side of street or turning into wrong lane?

# Easing the Transition from Driver to Passenger

- ◆ Let others do the driving
- ◆ Reduce the need to drive
- ◆ Balance the social needs
- ◆ Early planning to limit driving
- ◆ Take the keys and/or disable the car as a last resort

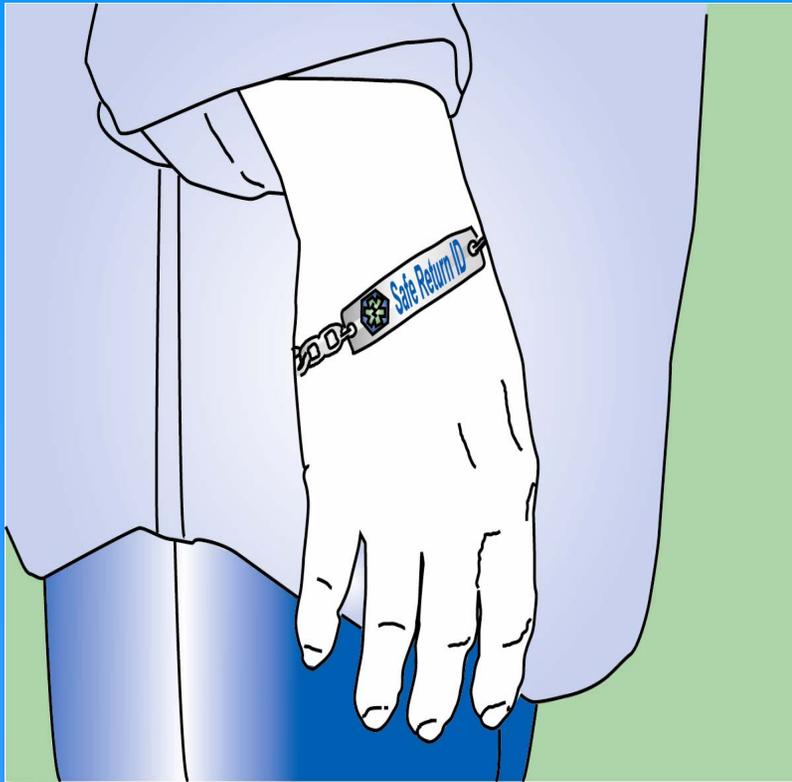
# Learning Strategies

- ◆ **Multi-modal approach**
  - **Home Visit**
  - **Demonstration/Practice**
  - **Written recommendations**
  - **Use of photographs**
  - **Telephone contacts for follow up**

# Guidelines for Consumer Education

- ◆ Reader should see action that is recommended
- ◆ Present information in bite-size steps
- ◆ Text goes to the right of the picture
- ◆ Use clear background and simple line drawings
- ◆ Colors: neutral and easy to read

# Wandering



- ◆ Send for an identification bracelet from the Alzheimer's Association "Safe Return" Program.
- ◆ Call 1-800-548-2111 for information.

# Learner Verification

- ◆ Comprehension
- ◆ Persuasion
- ◆ Self-Efficacy
- ◆ Attractiveness
- ◆ Acceptability

Doak, C.C., Doak, L.G., & Root, J.H.

*Teaching Patients with Low Literacy Skills*

Phila: Lippincott, 1996

# Readiness to Make Changes

- ◆ “He’s not ready yet”
- ◆ “He’s never done that before”
- ◆ Understand the nature of the illness
- ◆ Unpredictable changes
- ◆ **Autonomy-Safety-Identity-Dignity**

# Gaps in Supervision

# Safety Resource List

- ◆ Motion Sensor (24.99)
- ◆ Slide Bolt Lock (6.99)
- ◆ Grab bars ( 24.00)
- ◆ Colored Duct Tape (4@ 3.99 )
- ◆ Stove knob covers (7.99)
- ◆ Tub Chair ( 57.45)
- ◆ Bathtub Rail ( 49.99)
- ◆ Nightlights ( 3.99)

# Costs of Home Safety Items

- ◆ **\$4576. - Total**
- ◆ **\$88. - Average per family**
- ◆ **\$10. - Minimum**
- ◆ **\$249. - Maximum**

# Worksheet to Make the Home Safer

- ◆ Research-tested modifications that are effective and acceptable to families
- ◆ Includes resource list of safety items and where they can be purchased

[www.alzresearch.bu.edu](http://www.alzresearch.bu.edu)

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