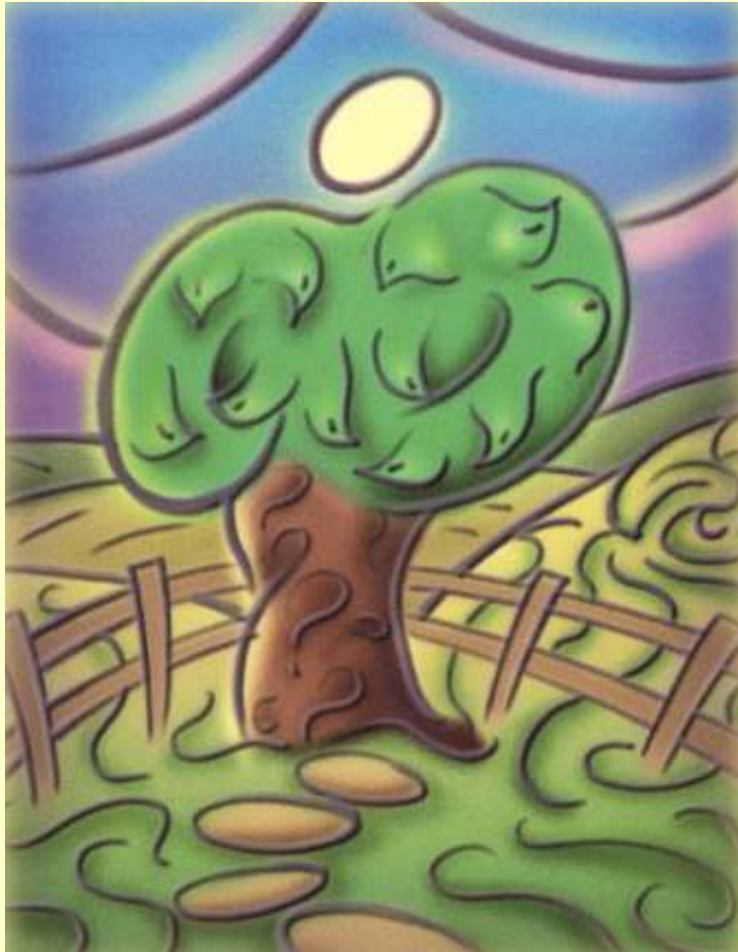


Assistive Technology for Dementia & Mental Illness



**ATIA Conference
January 30 – February 2, 2008
Orlando, FL**

**Peggy S. Shireley, M.Ed., ATP
Interagency Program
for Assistive Technology (IPAT)
400 E. Broadway Avenue – Suite 306
BISMARCK, ND 58501
888-540-4728**

www.ndipat.org



Learning Objectives



Participants will learn about:

- The state of aging & health in America
- The needs of persons with dementia as identified in the “AT Demonstration & Education Project – 2007”
- The range of assistive technology (AT) for persons with dementia





Aging and Health in America



“The aging of the U.S. population is one of the major public health challenges we face in the 21st century. One of the CDC’s highest priorities is to increase the number of older adults who live longer, high-quality, productive, and independent lives.”



*Julie Louise Gerberding, MD, MPH
Director, Centers for Disease Control*

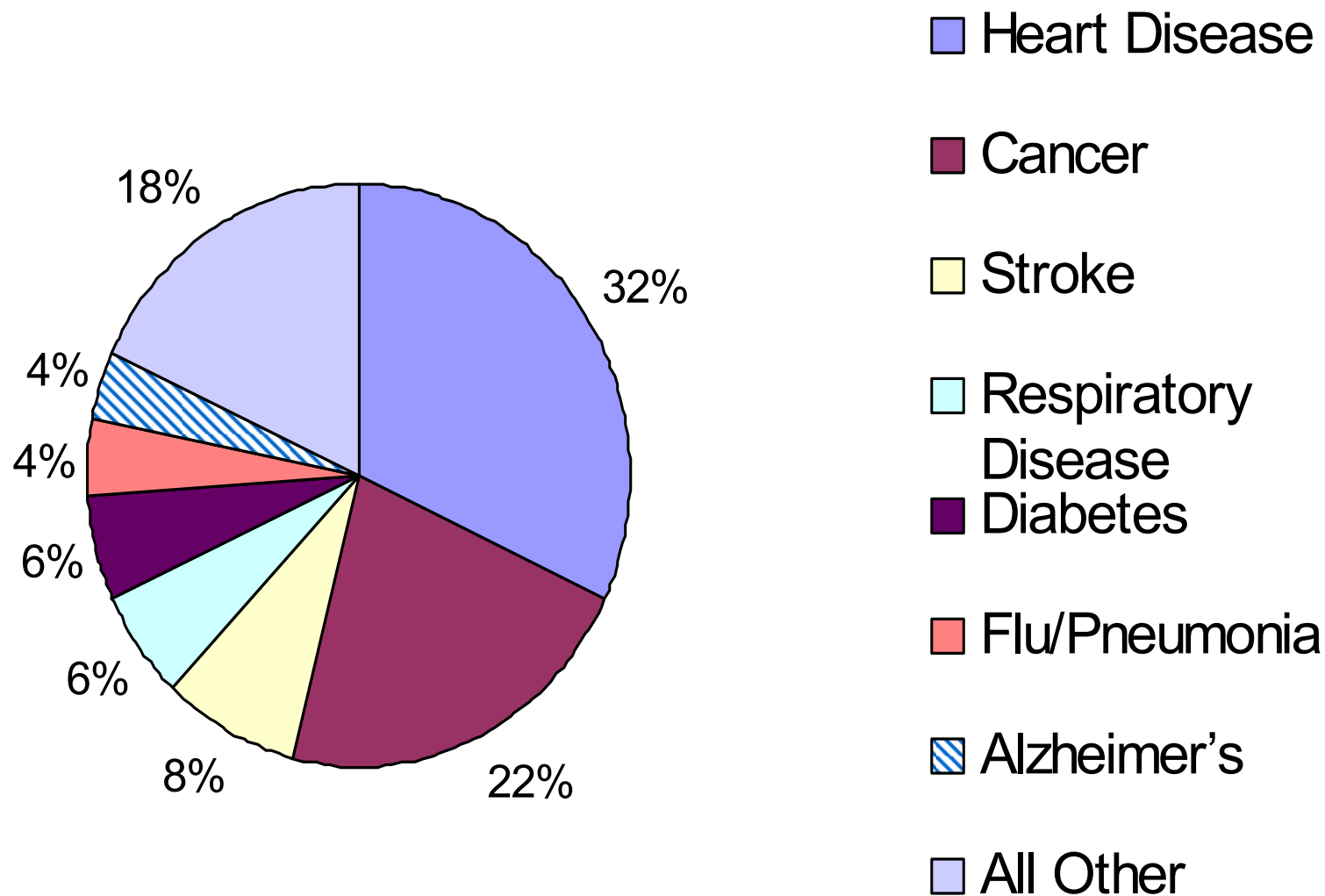


Aging in the U.S.



- Improved medical care and prevention efforts have created a shift in the leading causes of death
- From infectious diseases and acute illnesses to chronic diseases and degenerative illnesses
- Leading causes of death have changed, so has old-age

Causes of US Deaths Over Age 65 2002





Mortality from 2000-2004



US Deaths from:

- Heart disease -8%
- Breast cancer -2.6%
- Prostate cancer -6.4%
- Stroke -10.4%
- Alzheimer's disease **+32.8%**





Dementia Specific 2004



- CDC reported Alzheimer's disease as the "underlying cause of death" for 65,829 Americans



- Dementia was the 7th leading cause of death for people of all ages



- Dementia was the 5th leading cause of death in people 65 and older



Dementia Snapshot



- The highest death rate attributed to Alzheimer's disease in 2003 was in North Dakota – 336 deaths
- Why? State with one of the highest percentages of people 85 years or older
- Half of those 85 years or older suffer from Alzheimer's disease
- In 2007 4 million Americans are 85+; by 2050 19 million Americans will be 85+





Dementia Defined

Dementia is a syndrome characterized by acquired, persistent impairment of multiple cognitive domains – memory, language, attention, executive function, and visuospatial ability – severe enough to impair competence in daily living, occupation, and social interaction.

(Grabowski & Damasio, 2004)



Symptom Pattern



- Gradually worsening difficulty in remembering **new** information;



- Followed by – confusion, disorganized thinking, impaired judgment, trouble with expression, and disorientation.



- Need for help with day-to-day activities – bathing, dressing, eating



- Ultimately, death



Prevalence of Dementia

- 2007 estimate = 5 million+ U.S. residents are living with dementia
- 1 out of 8 people age 65 and older
- Nearly 1 out of 2 people over age 85
- Today – every 72 seconds a U.S. resident is diagnosed with dementia
- By 2050 – every 33 seconds a U.S. resident will be diagnosed with dementia





Prevalence of Dementia



- By 2030 – the number of people 65 and over with dementia is estimated to be 7.7 million



- This represents a greater than 50% increase over the number currently affected





Costs of Dementias

- Direct and indirect costs amount to over \$148 billion annually
- In 2005 Medicare spent \$91 billion on beneficiaries with dementias – that number is predicted to more than double to \$189 billion by 2015
- Medicare beneficiaries with dementias use significantly more services and are of significantly higher cost than other beneficiaries

Cost of Dementias



- 29% of Medicare beneficiaries age 65+ with dementia are also Medicaid beneficiaries
- Of those, about half are nursing home residents, and half were living in the community
- The care of a person with dementia, viewed as custodial care, is **not** covered by Medicare & most health insurance plans

Cost of Dementias



- Almost 10 million Americans are caring for a person with dementia
- 1 out of 3 of these caregivers is 60 years or older
- Their unpaid care giving provided 8.5 billion hours of care valued at almost \$83 billion dollars



Cost of Dementia



- The average cost for the illness from diagnosis to death is \$174,000, the third most expensive disease in the U.S.
- More than half of the states in America provide more than a **billion** dollars in unpaid dementia care each year



North Dakota AT Demonstration and Education Project 2007



Target Population =

People experiencing substantial impairments to memory or cognitive abilities due to dementia



Goal =



- Develop training materials specific to assistive technology and dementia
- Provide AT assessments and training to the affected population



Outcomes



People Served:

- 9 AT assessments were completed
- 8 presentations on AT for dementia were provided, reaching 107 people caring for a family member or serving a client with a diagnosis of dementia



Outcomes



Increased knowledge, awareness and access to AT for dementia:

- Staff, service providers, family members & those with dementia
- IPAT Technology Access Centers have increased inventory to include devices for people with dementia
- Devices are available for loan



Lessons Learned



Needs identified consistently by those with a loved-one living at home with dementia:



- A means to dispense medications safely, on schedule and easily



- A means to connect with others in an emergency



Lessons Learned



Reaching family members early on is key to:



- Promoting safety for the person with dementia, and



- Providing care-giver support through the use of assistive technology





Summary Report

To read the “Assistive Technology Demonstration & Education Project” summary report in its entirety, go to:



www.ndipat.org



**Publications – AT Outcomes Reports –
ND Protection & Advocacy Project Final
Summary Report**





AT Devices for Enhancing Life



A. AT Solutions for Memory



B. AT Solutions for Safety & Security



C. AT Solutions for Task Completion



AT Devices for Memory

Medication Reminders



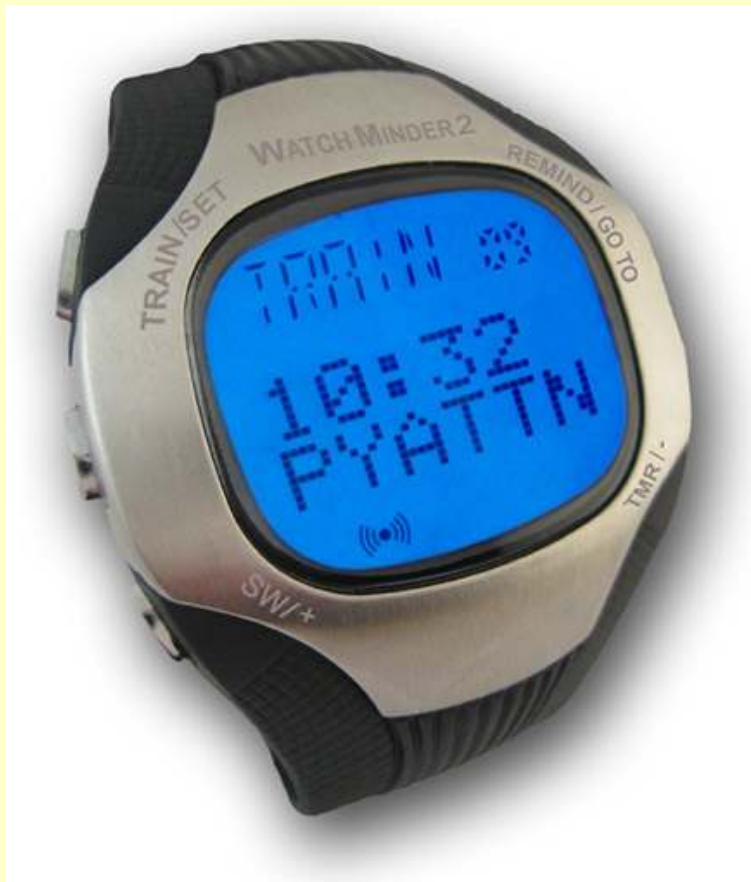
Vibrating Pager

- 12 alarms
- Wear on belt or place in pocket
- \$76
- 1-800-549-0095
- www.epill.com



AT Devices for Memory

Medication Reminders



Watchminder

- Wristwatch that can vibrate up to 30X/ day
- Displays a selected text message
- \$99
- 1-800-961-0023
- www.watchminder.com



AT Devices for Memory

Medication Dispensers



ActiveForever.com

MedReady

- Alarmed, automated dispenser
- Stores medication under lock and key
- Holds 7 days @ 4X/day
- \$150-\$200
- 1-800-377-8033
- www.activeforever.com



AT Devices for Memory

Medication Dispenser



MD.2

- Automatic pill dispenser up to 6X/day
- Fee for service monitoring via phone
- Reminder system for non-oral medication
- \$750
- 1-800-549-0095
- www.epill.com



AT Devices for Memory

Bathroom Aids



Water Leak Flood Alarm

- Self-contained electronic device that sounds alarm when the sensor contacts water
- Place on sink, tub
- \$12
- 1-877-412-3600
- www.testproducts.com



AT Devices for Memory

Bathroom Aids



Automatic Faucet Control

- Replaces existing aerator
- Touching the wand will turn water on – no contact shuts water off
- \$15
- 1-800-752-3238
- www.alzstore.com



AT Devices for Memory

Bathroom Aids



Anti-Scalding Device

- Automatically shuts water off at 117F
- Sink or showerhead models available
- \$37
- 1-800-752-3238
- www.alzstore.com



AT Devices for Memory

Bathroom Aids



Hand-held Showerhead

- Has pause or on-off control on spray head
- \$21
- 1-800-777-5655
- www.amconservationgroup.com



AT Devices for Memory

Bathroom Devices



Assistive Tub Bar

- Portable, suction cup action
- Place horizontally, vertically or diagonally
- Holds up to 300 lbs
- \$25
- 1-800-858-4979
- www.wdrake.com



AT Devices for Memory

Locating Devices



“Now You Can Find It”

- Wireless electronic locator
- 8 RF receiver discs
- \$50
- 1-800-344-5555
- www.sharperimage.com



AT Devices for Memory

Locating Devices



Valet Stand with Drawer

- Allows clothing to be hung in layers
- Encourages dressing in order
- \$80
- 1-800-591-3869
- www.target.com

AT Devices for Memory

Kitchen Devices



Stove Guard

- Turns the stove off after a pre-set time
- Based on presence in the kitchen
- \$300
- 1-800-931-3707
- www.save-on-security.com



AT Devices for Memory

Kitchen Aids



Look & Cook Cookbook

- Step-by step picture cookbook
- Triggers memory for meal preparation
- \$50
- 1-800-327-4269
- www.attainmentcompany.com



AT Devices for Memory

Kitchen Devices



Digital-programmable Coffeemaker

- Set-on and off times
- \$55
- www.bdappliancestore.com



AT Devices for Memory

Kitchen Devices



Appliance Safety Lock

- Mounts with adhesive
- Allows user to turn lock on/off
- Oven, freezer, fridge, microwave
- \$5
- 1-877-228-4501
- www.kidsafeinc.com



AT Devices for Memory

Reminder Aids



Pocket Talker Ultra

- Helps the listener focus on the conversation, TV, radio
- \$165
- 1-888-477-2995
- www.soundclarity.com



AT Devices for Memory

Reminder Aids



Senior Easy Remote

- Simplifies the options available
- 5 favorite channels, volume, on/off, mute channel up/down
- \$30
- 1-800-752-3238
- www.alzstore.com



AT Devices for Memory

Reminder Aids



Vocal Smoke Alarm

- Allows for recorded wake-up command & verbal escape directions
- \$39
- 1-800-367-9836
- www.smarthome.com

AT Devices for Safety & Security

Alternative Telephones



Clarity P400 Amplified Photo Phone

- Program numbers under familiar faces
- \$70
- 1-800-825-6758
- www.harriscomm.com



AT Devices for Safety & Security

Alternative Telephones



Dial-less Phone

- Individual can receive calls, but is not able to call out
- \$53
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Alternative Telephones



Jitterbug & Jitterbug Emergency Cell Phones

- Larger numbers, larger screen, fewer features
- \$147 + calling plan
- 1-800-276-0263
- www.firststreetonline.com



AT Devices for Safety & Security

Alternative Telephones



Help at Hand

- Emergency Dialer
- Dials pre-selected numbers
- Plays a recorded message
- \$200
- 1-800-522-6294
- www.maxiaids.com



AT Devices for Safety & Security

Alerts and Alarms



Fall Guard Chair Alert

- Alerts caregiver when person rises
- Provides verbal prompt to sit back down
- \$110
- 1-888-940-0605
- www.dynamic-living.com



AT Devices for Safety & Security

Alerts and Alarms



Floor Mat with Wireless Remote Alarm

- Step on the mat and an alarm sounds
- \$260
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Alerts & Alarms



Door Alarm

- Monitor with remote plug-in alarm
- Use on doors, windows, cabinets
- \$50
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Alerts and Alarms



Keypad Door Alarm

- Alarm will sound if anyone exits without punching the code
- \$40
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Alerts and Alarms



Gem Track Personal GPS & Tracking System

- Web or cell phone based auto tracking system
- \$400 + activation fee
- 1-800-654-7966
- www.bricksecurity.com



AT Devices for Safety & Security

Locking Systems



Confounding Door Lock

- Works by pulling and rotating
- In-swinging doors only
- \$28
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Locking Systems



No Start Car Battery Switch

- Keeps the car from starting
- Keeps all settings intact
- \$37
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Locking Systems



Invisible Cabinet Lock

- Magnetic lock and key
– no apparent knobs
- Store 'key' in safe place
- \$15
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Locking Systems



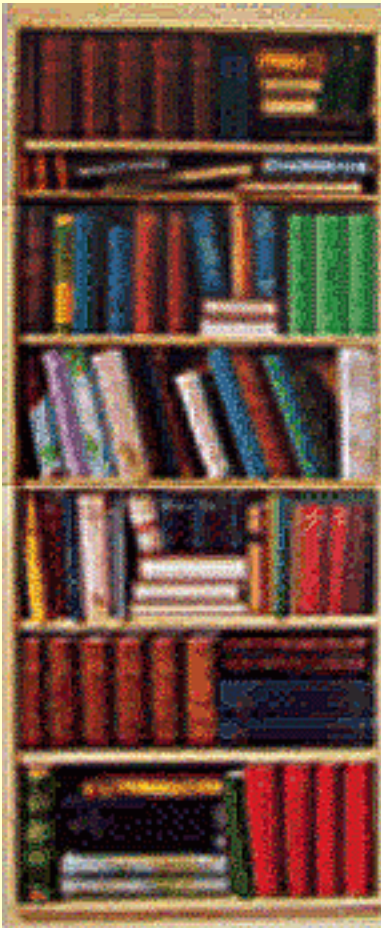
Appliance/Cabinet Lock

- Multiple purpose latch
- Adjustable lengths
- Adhesive attachment
- \$5
- 1-877-228-4501
- www.kidsafeinc.com



AT Devices for Safety & Security

Limiting Access



Door Mural

- Full color photo of bookshelves to camouflage doors
- Double-sided adhesive
- \$39
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Limiting Access



Stray Away Alarm

- Alerts caregiver when person gets a set distance away (20 ft)
- Good for use in crowded public places
- \$26
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Limiting Access



Stop Sign Banner

- Nylon visual barrier
- Adjusts from 36" – 60"
- Velcro or screw mount
- \$27
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Identification Devices



Car Seat Belt

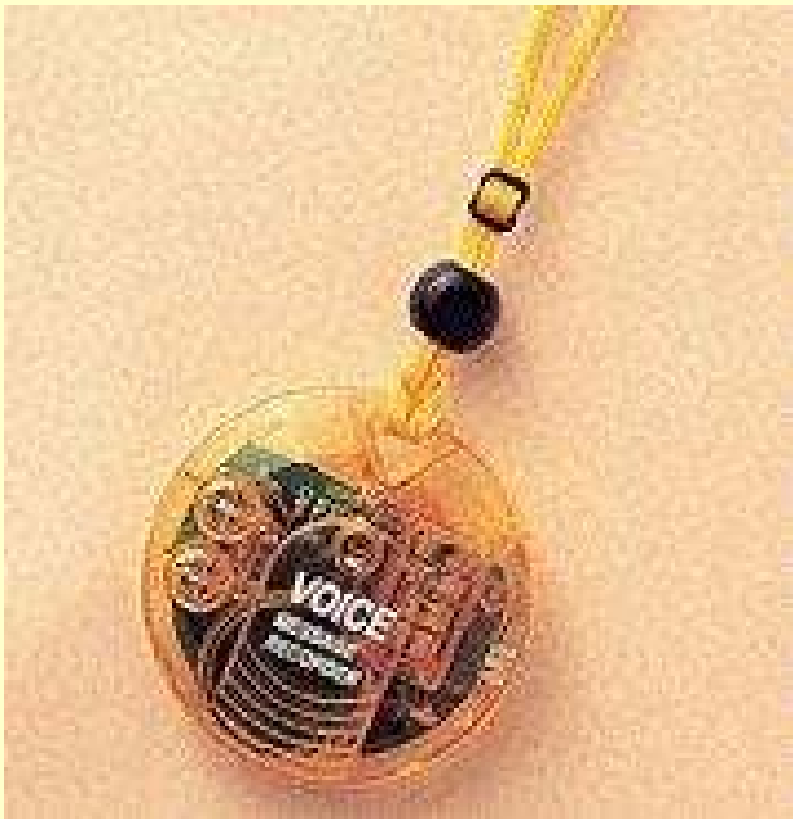
Emergency ID Pocket

- Snap on pocket for chest seat belt
- Holds pertinent medical information
- \$10
- 1-800-752-3238
- www.alzstore.com



AT Devices for Safety & Security

Identification Devices



Digital Recorder

- 30 second recording time
- Name and address
- \$10
- www.globalsources.com

AT Devices for Task Completion

Reminder Aids



3 Event Talking & Recording Clock

- Announcing remaining time or elapsed time
- Names the event
- \$10
- 1-800-468-4789
- www.lssproducts.com



AT Devices for Task Completion

Reminder Aids



StepPad

- Record step-by-step directions
- Play for cue – REW for previous step, FF for next step
- \$30
- 1-800-327-4269
- www.attainmentcompany.com



AT Devices for Task Completion

Reminder Aids



Time Tracker – Visual Tracker and Clock

- Set timer for amount of time to lapse
- Listen and see time
- \$30
- 1-800-734-8019
- www.sensoryedge.com



AT Devices for Task Completion

Reminder Aids



Time Timer

- Tangible way to watch time elapse
- Audible signal option
- Wrist watch option
- \$30
- 1-877-771-8463
- www.timetimer.com

AT Devices for Task Completion

Task Organizers



Lingo

- 8 message auditory cueing device
- Use photo cues on buttons
- \$179
- 1-800-322-0956
- www.ablenet.com

AT Devices for Task Completion

Task Organizers



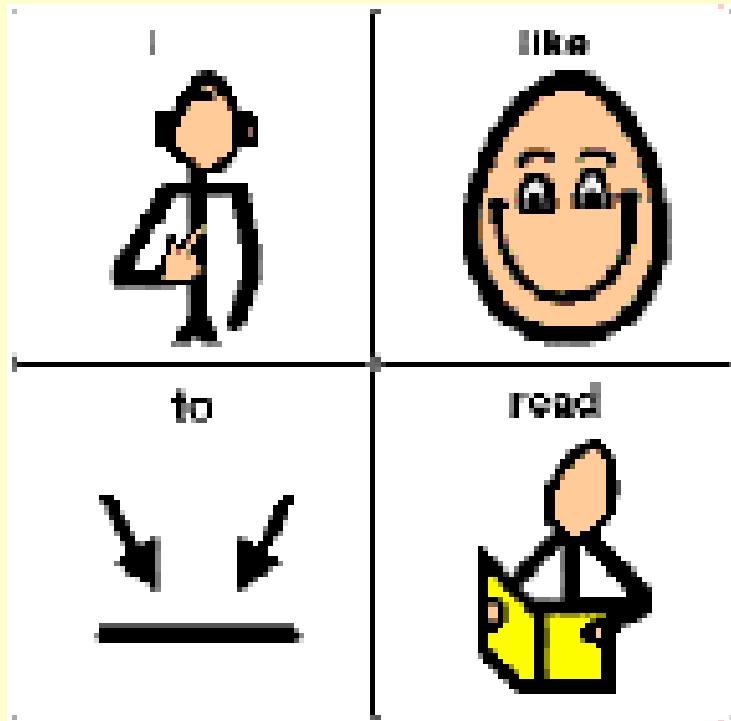
VoiceCue

- Holds up to 5 messages
- Set clock to play-back messages at set times
- \$40
- 1-800-327-4269
- www.attainmentcompany.com



AT Devices for Task Completion

Task Organizers



- Use symbol, picture or word based communication software to create individualized task sheets
- Laminate and keep in the areas the tasks are most likely to occur

AT Devices for Task Completion

Pagers

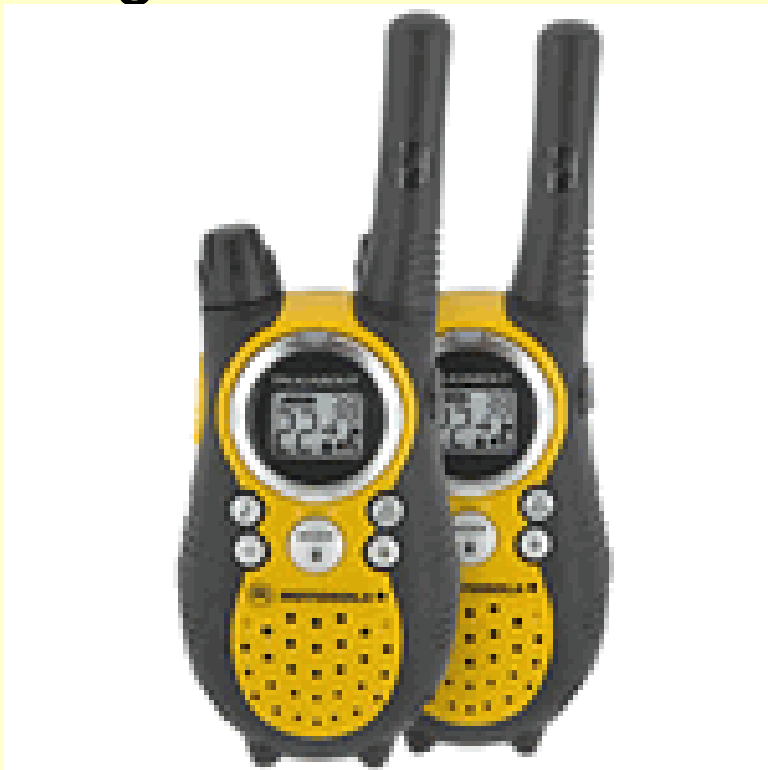


Personal Pager

- Signal a caregiver
- Vibrates or auditory alarms
- \$50
- 1-888-940-0605
- www.dynamic-living.com

AT Devices for Task Completion

Pagers



Motorola Walkie Talkie

- Two way radio
- 5 mile range
- \$175
- 1-888-560-5600
- www.wirelesspro.com





AT for Dementia

Remember – to help older persons with dementia lead safe, independent and productive lives for as long as possible – consider assistive technology across all environments; and consider it now rather than later.

