

# Role of Environment in Caring for Persons with Dementia

Laura N. Gitlin, Ph.D.  
Professor, Director, Center for Innovative Care in Aging  
Johns Hopkins University  
[lgitlin1@jhu.edu](mailto:lgitlin1@jhu.edu)

July 24, 2015

# Overview

- ◆ **Conceptual framework for role of environment**
- ◆ **Living at home with dementia**
- ◆ **Therapeutic environments:**
  - Home
  - Hospital
  - Community

# Funding Sources

- ◆ **Research funded by:**
  - National Institutes of Health
  - Alzheimer's Association
  - PA Dept. of Health, Tobacco Funds
  - Rosalynn Carter Caregiver Institute/Johnson & Johnson Institute
  - Administration on Aging
  - Veterans Administration
- ◆ **No disclosures/no sources of conflict**
- ◆ **Gratitude to the many teams I work with**

# Six Primary Goals of Dementia Care

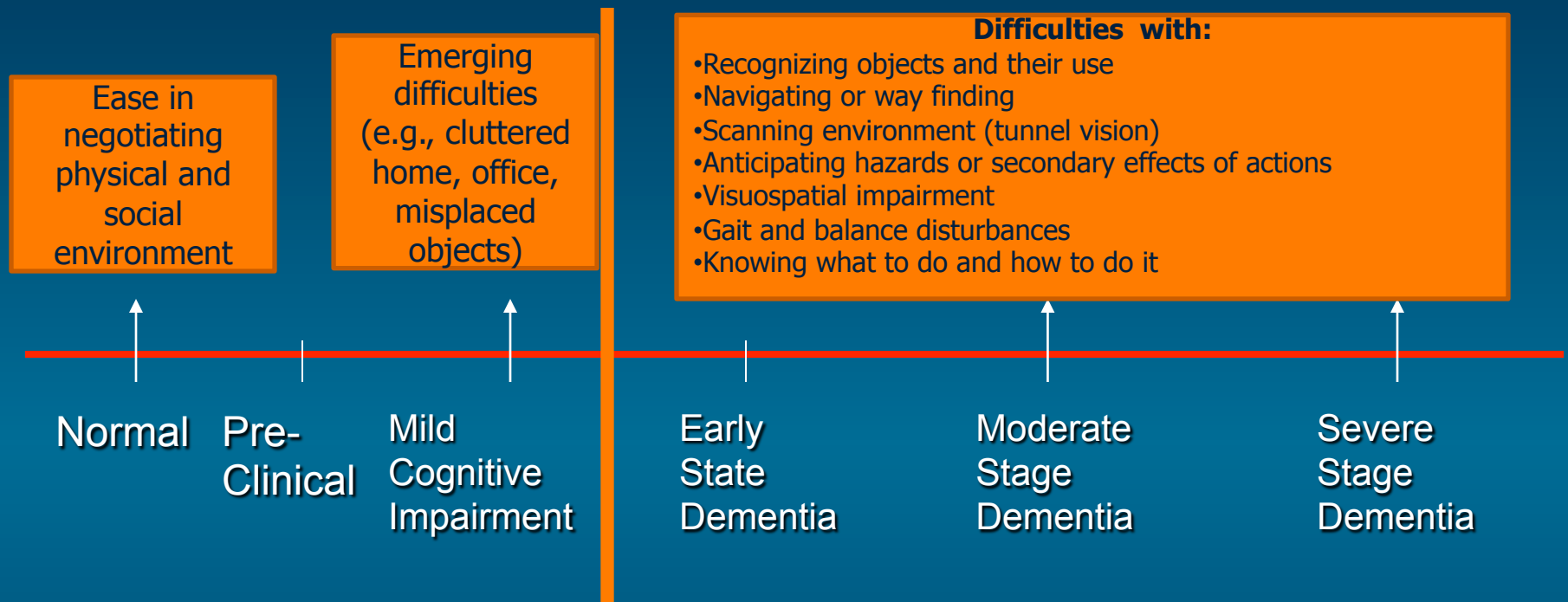
- ❑ Improve and maintain quality of life
- ❑ Prevent, reduce, address behavioral symptoms
- ❑ Maintain function and engagement in activities
- ❑ Attend to medical management of comorbidities
- ❑ Support families
- ❑ Care coordination over disease progression

# Living Environments

- ◆ Neglected but important consideration in dementia care
- ◆ Consistent evidence that appropriate environments can support or negatively impact:
  - Everyday functioning
  - Orientation
  - Activity engagement
  - Behaviors
  - Safety
  - Community integration
- ◆ Health care and living environments can put a person at risk for falls, functional dependence, delirium, disorientation, confusion, agitation, aggression

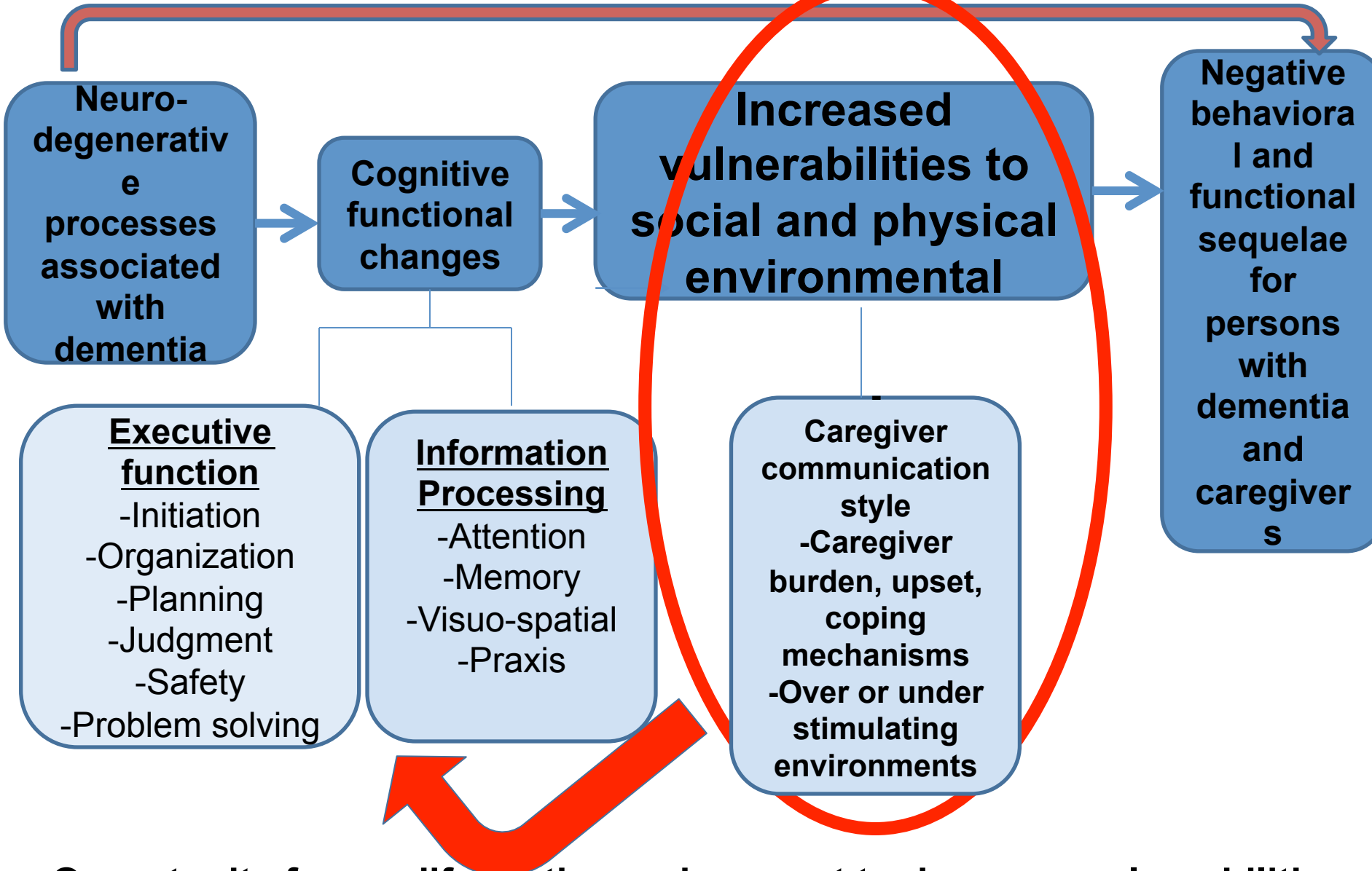


# Clinical Trajectory of Dementia and Role of Environment



As competencies decline, environments do not.

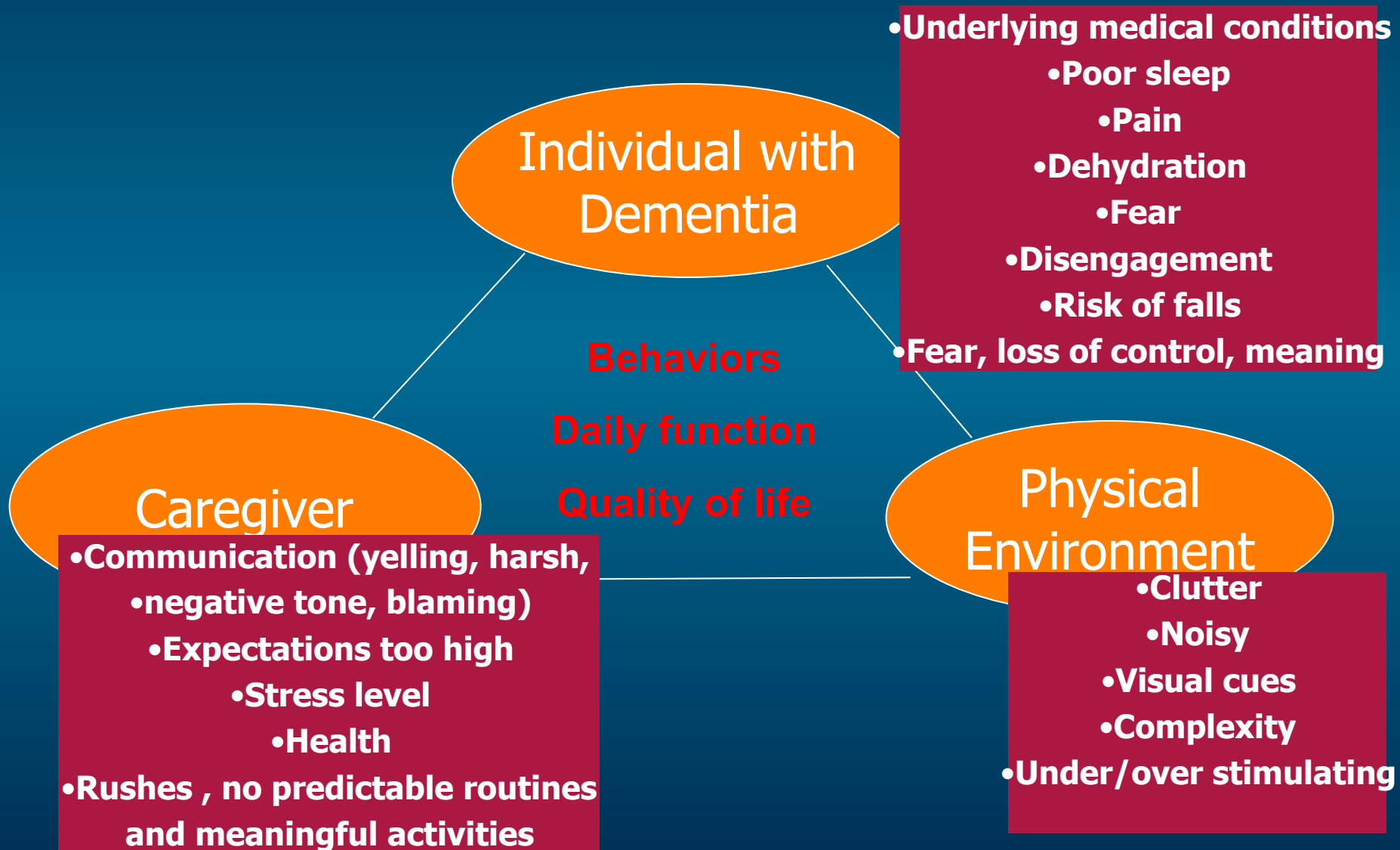
Environment is experienced as imposing  demands



**Opportunity for modifying the environment to decrease vulnerabilities and compensate for cognitive functional changes which in turn may improve cognitive functioning**

Adapted from Kales, Gitlin, Lyketsos, 2015

# 3 Prong Context





# Home Environments: What do they look like?

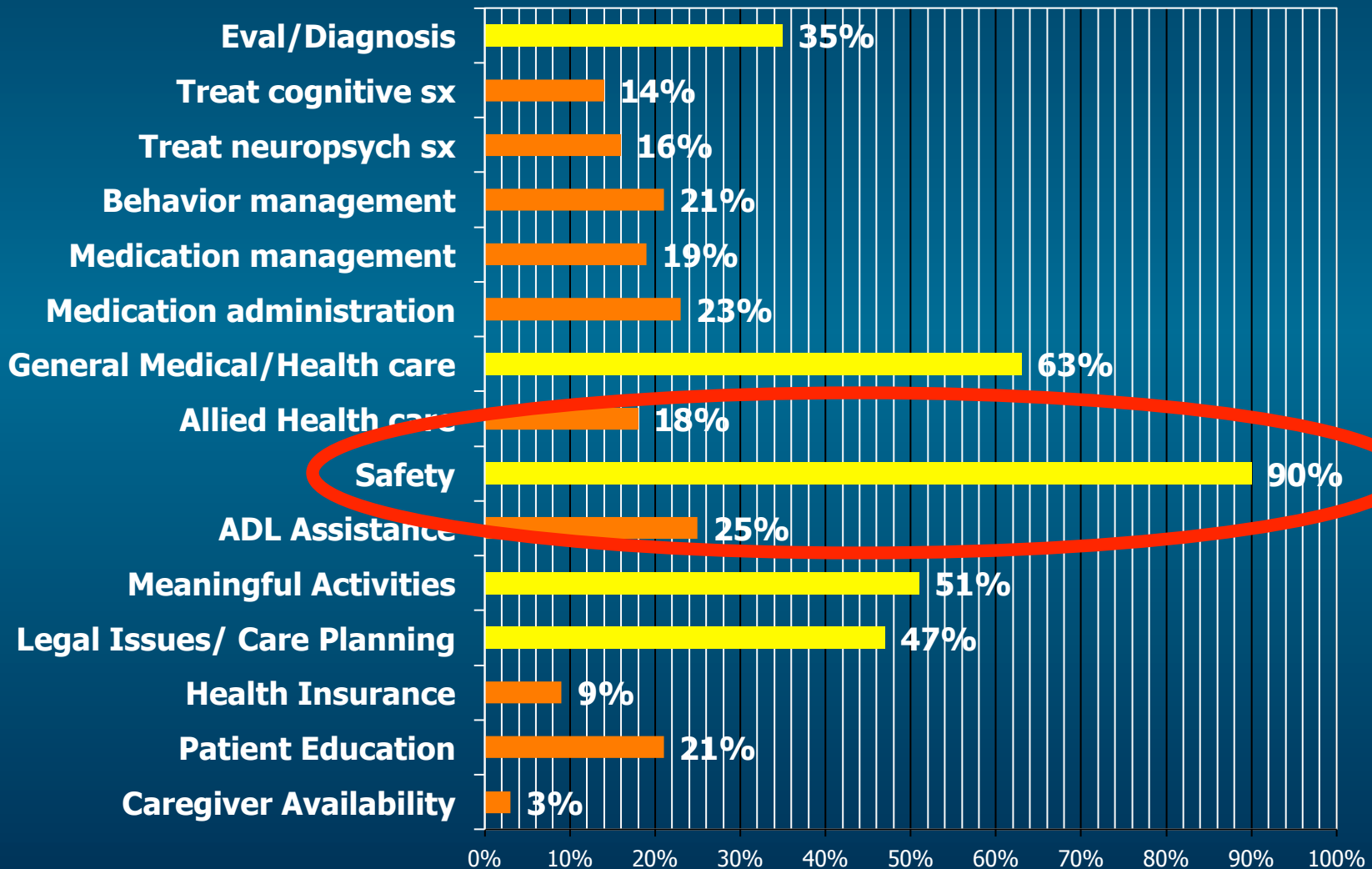




# Unmet needs by domain (N=303)

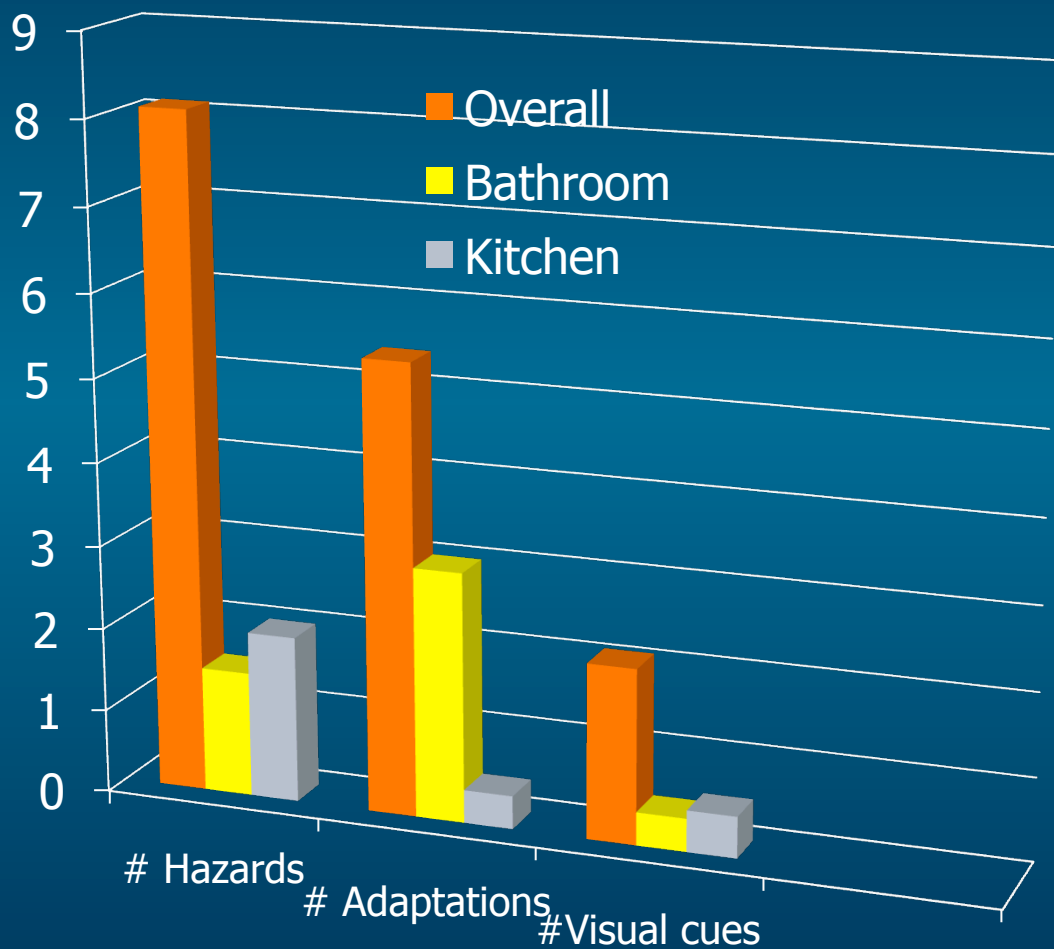
## % at least 1 unmet need

(Dr. Samus, GSA presentation 2012)



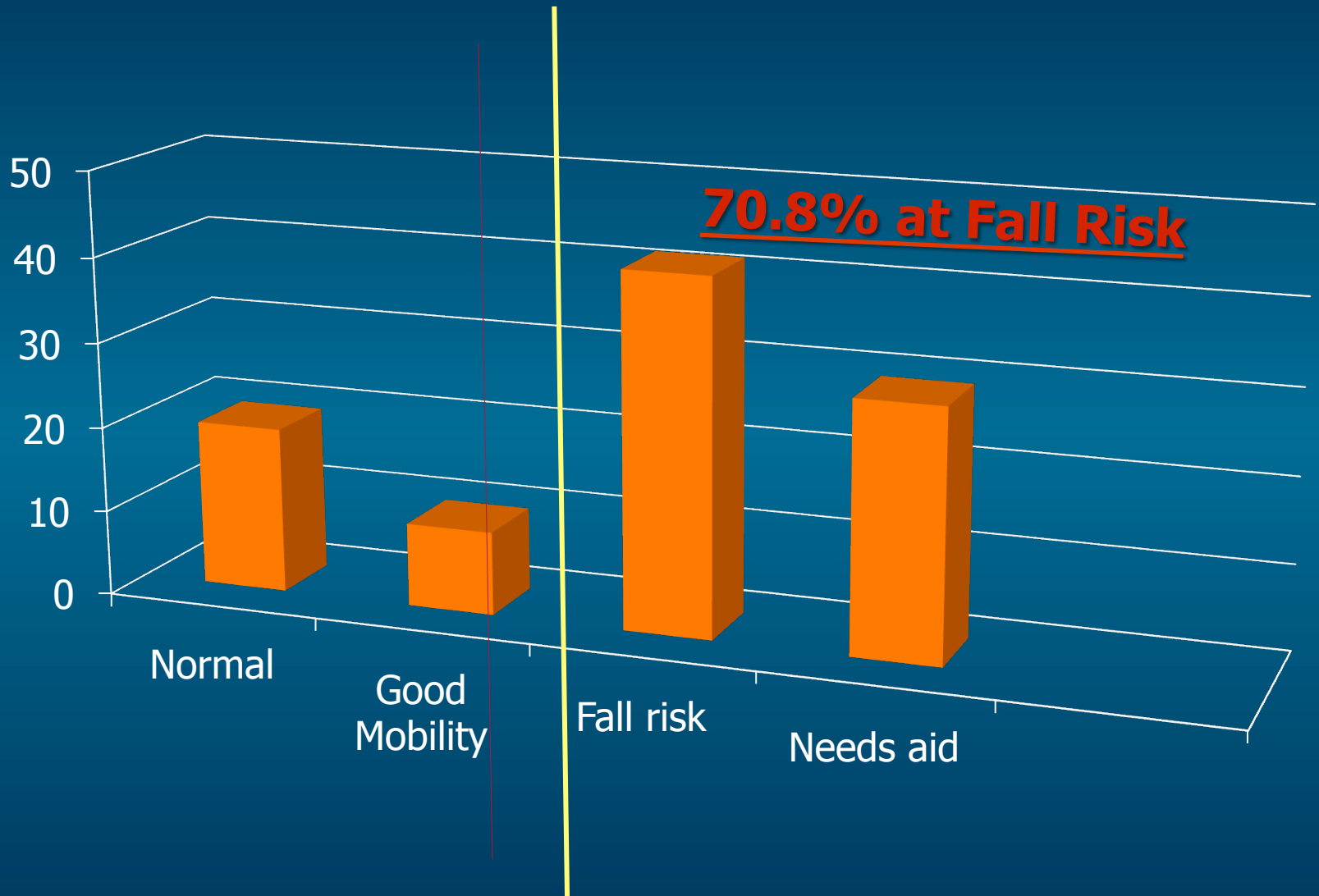
# Home Safety (N=88)

## COMMONLY OBSERVED HAZARDS

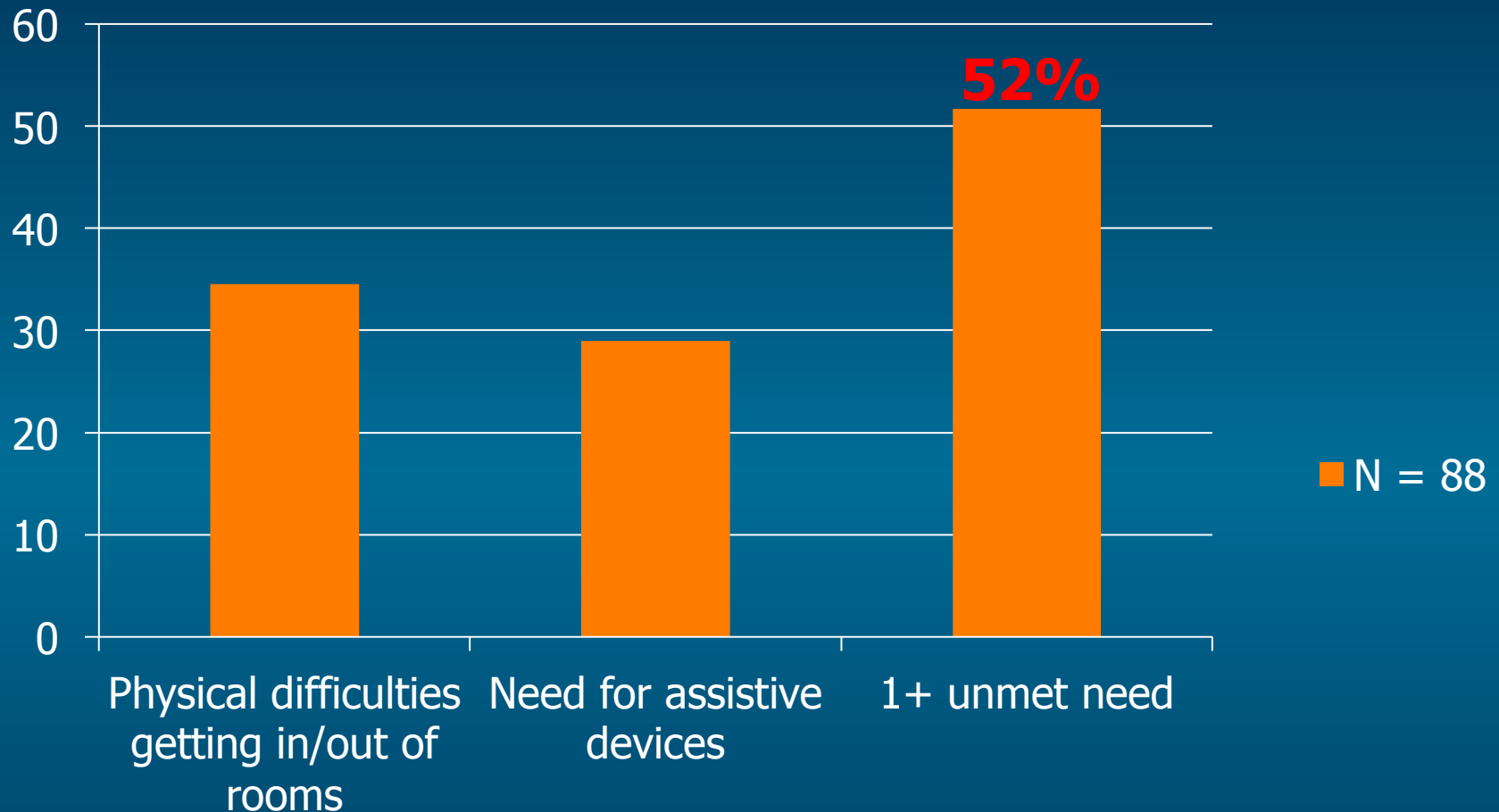


- ◆ Driving
- ◆ Smoking
- ◆ Risk of and injury from falls
- ◆ Ingestion of dangerous substances
- ◆ Exiting home and getting lost
- ◆ Inappropriate medication taking including OTC use
- ◆ Injury to self or others from sharp objects
- ◆ Fire or burns from inappropriate use of stove/oven/microwave
- ◆ Inability to respond to crisis
- ◆ Susceptibility to financial scams
- ◆ Inappropriately letting people in home
- ◆ Poor hydration and/or nutrition

# Time Up and Go Test (N=82)



# Unmet Environmental Needs (N=88)

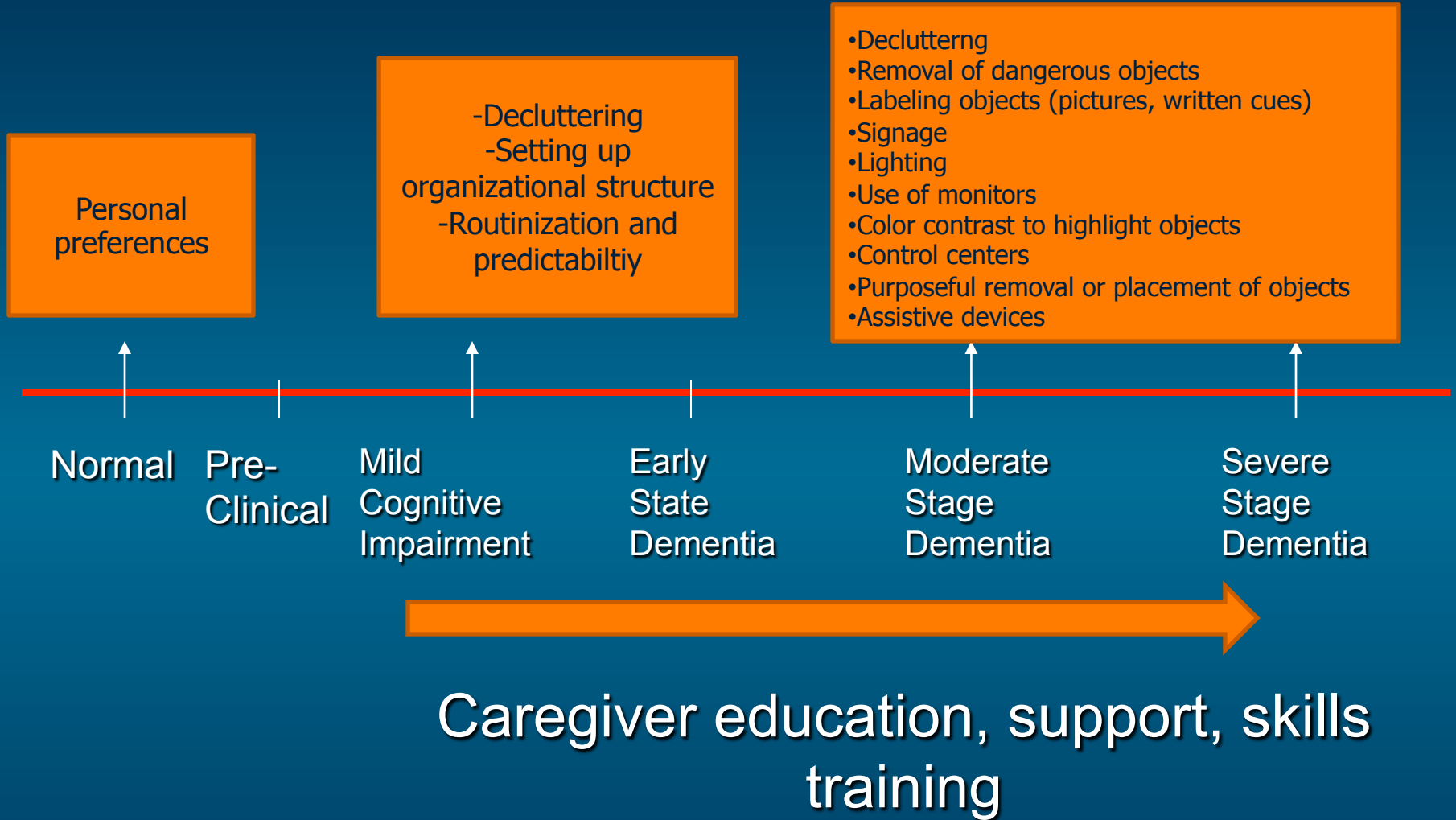


**Environmental unmet needs associated with lower perceived quality of life by person with dementia**

**Gitlin et al., 2014**

# **Therapeutic Use of Environment**

# Therapeutic Use of Environment



# Impact of Cluttered Environment on Dressing

- ◆ Unable to choose appropriate clothing
- ◆ Overwhelming
- ◆ Clean and dirty clothing get mixed up
- ◆ Increased agitation
- ◆ Increased dependence in





# Environmental Strategies

## Strategies:

- Color contrast
- Object Placement
- Previous habits

## Outcome:

- Increased independence



# Impact of Cluttered Environment on Engagement

- ◆ Too cluttered
- ◆ Too much noise (Radio, TV always on)
- ◆ Lack of appropriate objects for stimulation
- ◆ Lack of appropriate activities for meaningful engagement
- ◆ Unclear what to do in this environment and how to effectively engage
- ◆ Unsafe



# Environmental Strategies

## Declutter

- Low demand
- Appropriate level of stimulation
- Comfortable and calming



# Positive Environmental Cues



- Behavior: “I’m afraid my uncle will leave the house if I’m not watching him every minute.”
- Strategy: Monitoring devices (Comfort Zone); Safe Return program; Camouflage door





White commode on white wall

Disorienting cue



Red duct tape for color contrast



# Environmental Strategies Supporting Eating

## Case Scenario

- Distractible
- Poor eating
- Fear of malnutrition

## First Set of Strategies

- Red placemat
- White plate
- One food item
- Cereal
- Spoon





## Use of turban

- Culturally appropriate
- Preservation of role
- Reduce distraction



# Labeling Objects

- ◆ Behavior: “My husband can’t find his clothes in the morning and starts rummaging through everything.”
- ◆ Strategy: Label pertinent objects: cabinets, drawers etc.



# Grooming



- ◆ **Behavior:** “My husband’s doesn’t care for his hygiene as well as he used to.”
- ◆ **Strategy:** Set out only the items needed for the activity

# Verbal, Written and Visual Cues



# Rail Installation and Tape on Steps: Improves Safety and Mobility



- Control center
- Engagement
- Rail for balance



## CONTROL CENTER

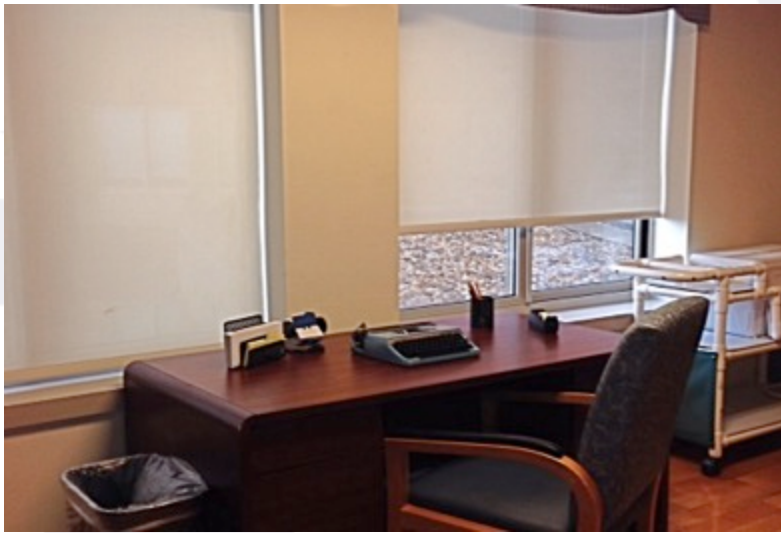
- Needed objects in one location
- Activity engagement
  - Medication
  - Food
  - Telephone



# **Hospital Environments**







**Activity Station: Clerical**



**Activity Station: Workbench**

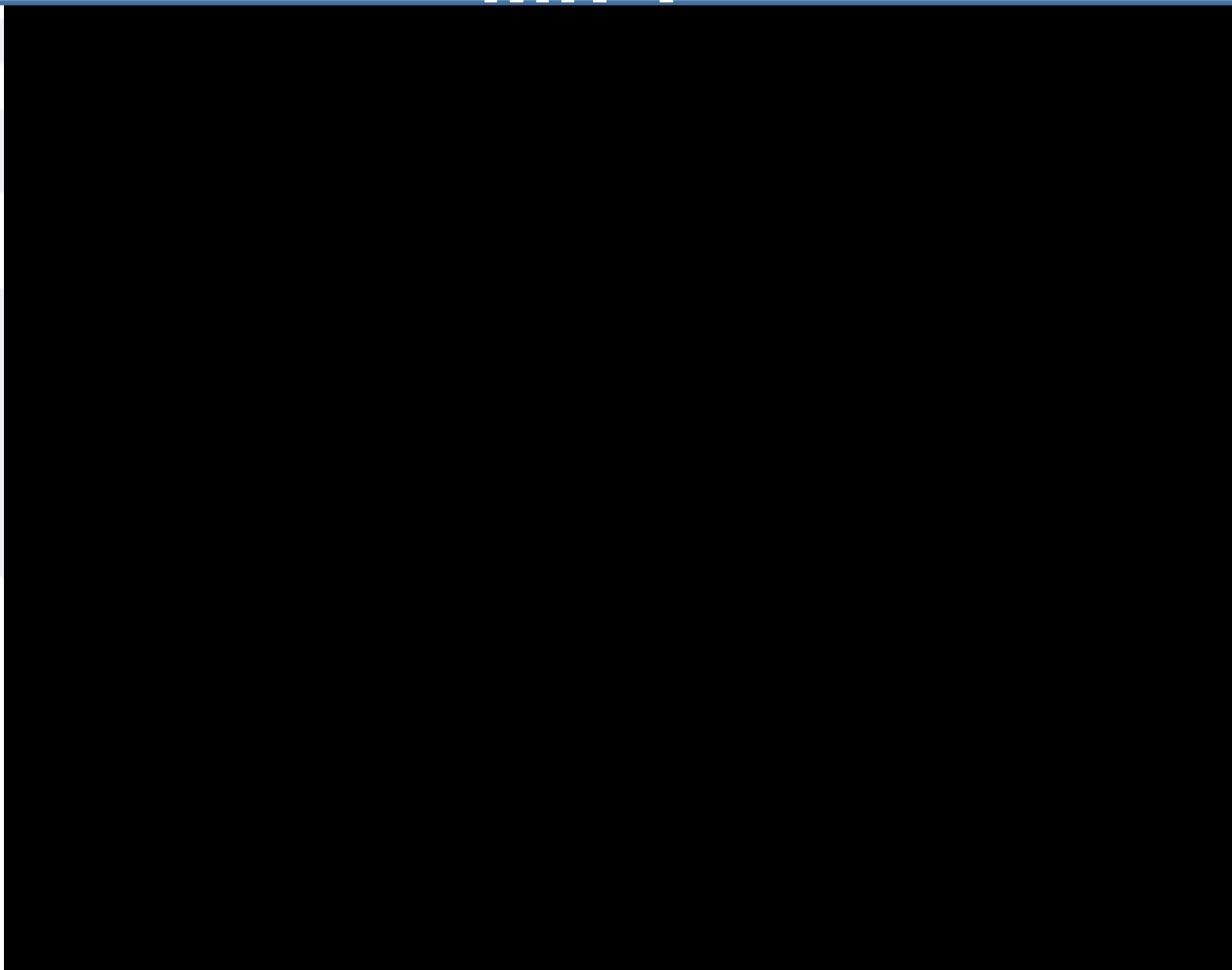


**Activity Station: Kitchen & Laundry**

# Mr. T

- 73 year old
- Diagnosed at age 70
- Lives with new wife of 3 years
- Architect
- Admitted for excessive shadowing, restlessness, agitation

Mr. T



# **Dementia Friendly Community**

## **What is it?**

**A community where people with dementia are empowered to have high aspirations and feel confident, knowing they can contribute and participate in activities that are meaningful to them (Alzheimer's Society)**

# Dementia Friendly-Communities



# The Need for Dementia Friendly Communities

- People with dementia face barriers in taking part in activities they previously enjoyed
- 66% of people with dementia feel they cannot contribute to their community
- Many people with dementia do not feel supported and a part of their community

DFCsurvey: Are there things that you used to do but have stopped doing?

| Activity                 | Stopped or reduced attendance (%) |
|--------------------------|-----------------------------------|
| Everything               | 9                                 |
| Shopping                 | 23                                |
| Going to library/reading | 11                                |
| Group activities         | 8                                 |
| Eating out               | 8                                 |
| Exercise                 | 22                                |
| Religious services       | 3                                 |
| Transport                | 16                                |
| Getting out of the house | 28                                |
| N/A                      | 8                                 |
| No                       | 9                                 |

Source: [http://www.alzheimers.org.uk/site/scripts/documents\\_info.php?documentID=1843](http://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=1843)

# Bruges, Belgium

- Police have a database of citizens with dementia that allows for a quicker search if they go missing
- Choir specifically for people with dementia
- Staff at shops trained to look out for people with dementia





# Hogewey Project in Netherlands

- Village created for people with dementia
- Provides a normal environment for persons with dementia
- All staff work incognito, ensuring that residents feel they are living a normal life while receiving all the care they need
- Houses are shared between 5 to 6 residents with similar interests so they can continue their previous lifestyle



# Memory Cafés available in the UK



- “Not for profit” organization
- Support people with dementia and their caregivers
- Provides a safe and understanding environment
- Spend time sharing information and support others
- Take part in fulfilling activities
- Easy to access schedules and locations

# Santiago Chile



- Kintun Adult Day Center embedded in a Senior Center which is embedded in a Community Center involving all ages
- Designed to integrate persons with dementia and their families within the community at large
- Physical space embedded in a community, intergenerational space



# Take Home Points

- ◆ Environment (social and physical) important part of caring for individuals with dementia
- ◆ Environmental strategies can:
  - Prevent, reduce, minimize certain behavioral symptoms
  - Enhance functional independence
  - Integrate a person with dementia into daily life/community
  - Improve quality of life
- ◆ Environmental strategies must be tailored to:
  - Presenting care challenge
  - Individual capabilities
  - Family preferences
- ◆ Not a “one size fits all approach”
- ◆ Environmental approaches should be combined with other strategies (caregiver education) and use of meaningful activities to be most effective