Trends for Aging in Place
Two Decades of Supporting Person-Centered Care
What is Person-Centered Care in the Built Environment?

- **Community.** Outdoor access; support for physical challenges and cultural diversity; and the community has a voice in the design of their built environment.
- **Meaningful Engagement.** Space for family/guests in rooms; places for private conversation, contemplation, meditation & grieving; and spaces supportive of meaningful activities.
- **Comfort & Dignity.** Easy access to food & beverages; easily accessible drop-off point for those receiving care.
- **Choice.** Personalization of spaces; food and dining options; and bathing options (bath & shower).
- **Courtesy & Concern.** Spaces support confidentiality, maneuverability, sensory experiences, views, and personalization.
Rothschild Regulatory Task Forces
# 2012 Life Safety Code Adoptions

<table>
<thead>
<tr>
<th>STATE</th>
<th>ADOPTION TYPE</th>
<th>NOTES</th>
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<tbody>
<tr>
<td>AL</td>
<td>Direct</td>
<td>In process to go from 2006 to 2012 Edition</td>
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<tr>
<td>CT</td>
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<td></td>
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<tr>
<td>DE</td>
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<tr>
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<tr>
<td>LA</td>
<td>Reference</td>
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<tr>
<td>MA</td>
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<tr>
<td>MD</td>
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<td>MO</td>
<td>Direct</td>
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<tr>
<td>ND</td>
<td>Direct</td>
<td>Unincorporated Areas only</td>
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<tr>
<td>NE</td>
<td>Direct</td>
<td>Adopted for healthcare. Awaiting CMS action to implement.</td>
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<td>VT</td>
<td>Direct</td>
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**19 States**
Demographic Trends: We’re Getting Older

(The Next Four Decades, The Older Population in the United States: 2010 to 2050, U. S. Census Bureau)
“Supported by income from Social Security, pensions and investments, as well as an increasing number of paychecks from delaying retirement, older people not only weathered the economic downturn that began in 2007 but made significant gains…”

(NYT, 6-14-15)
Financial Resources by Age

- **Percentage of the population who are working**

- **Median household income**
  - **ALL HOUSEHOLDS**
  - **SENIORS AGES 65-74**

- **Consumer spending**
  - Average annual household expenditures

<table>
<thead>
<tr>
<th>AGE</th>
<th>1989*</th>
<th>2013</th>
<th>CHANGE</th>
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<tr>
<td>75 and older</td>
<td>$29,907</td>
<td>$34,382</td>
<td>+15%</td>
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<tr>
<td>65-74</td>
<td>$39,738</td>
<td>$46,757</td>
<td>+18</td>
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<tr>
<td>55-64</td>
<td>$53,762</td>
<td>$55,892</td>
<td>+4</td>
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<td>45-54</td>
<td>$67,770</td>
<td>$60,524</td>
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<tr>
<td>35-44</td>
<td>$66,861</td>
<td>$58,784</td>
<td>-12</td>
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<tr>
<td>25-34</td>
<td>$50,129</td>
<td>$48,087</td>
<td>-4</td>
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<tr>
<td>Under 25</td>
<td>$31,143</td>
<td>$30,373</td>
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<tr>
<td>All consumers</td>
<td>$52,246</td>
<td>$51,000</td>
<td>-2</td>
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</table>

(NYT, 6-14-15)
Boomer Preferences: The Experience

- Want choices; one size does not fit all
- Have purchasing power to seek right experiences
- Physically active so very mobile
- Seek intellectual challenges
- Many have never lived alone before
- No longer tied to the traditional family home (majority plan to move)
- Want to be in a large community, but one like where they lived and worked; not a Golden Ghetto age segregated community
Where Will We Age?

- Mobile homes/RV Parks
- Assisted Living
- Cruise Ships
- NORC
- CCRC
- Co-Housing
- Home
Elder Co-Housing

- Deliberate neighborhood design around 20-40 private residences (single or multi-family)
- Physical layout and building orientation encourage a sense of community, e.g. facing residences, shared walkways
- Separate common house with kitchen, dining and living rooms
- Shared recreational areas and green spaces
- Guest rooms for visitors and/or caregivers
- Utilization of universal design elements
Elder Co-Housing Communities

221 communities; 36 states

(ChHousing, 2015)
Continuing Care Retirement Communities (CCRC)

- Single operator/owner
- Avge. Size is 330 units of independent, assisted and nursing care
- Approx. 1900 CCRCs in the U.S. (Leading Age, 2012)
- Residents move from one type of housing to another on a single campus as level of care changes
- Common dining rooms, activity centers, health and wellness centers, outdoor recreation and often aquatic centers
- Can include houses, cottages, clusters, townhouses, duplexes and apartments
- Services include a broad range from meals, transportation, health monitoring, security and home health services
Accessory Dwelling Units (ADU)

- Small living areas or separate buildings which are part of a single family residence lot, e.g. apt. over garage, house in the backyard, or basement apt.
- Elders live in the Accessory Unit so that primary care may be delivered by relatives living in the main unit
- Elders may share in child rearing responsibilities
- Accessory Units often used for rental revenue and for affordable housing options
- Respond to changing family space and income needs
Impact of Regulatory Change on ADU Permits: Portland

City of Portland ADU Permit Applications

- SDC Waiver Begins
- Spring 2010

Number of Permits

Year Submitted

Source: City of Portland, Bureau of Planning and Sustainability
Naturally Occurring Retirement Communities (NORCs)

- First recognized in New York in 1984
- AARP estimates 36% of those over 55 are living in some type of NORC (2005)
- Neighborhoods or buildings in which a large segment of the residents have aged in place on an ad hoc basis
- Neither originally designed nor intended to meet the particular health and social services needs and wants of elders
- Buildings must be retro-fitted to support elder needs
- Elders are actively engaged in planning for common activities
- Necessary to bring in required services such as nursing, health promotion, health monitoring, case management, transportation, education, exercise, and social programming
RV Retirement Parks for Seniors: Creates New Experiences

- 9.3% of households over age 55 own an RV (U. of Michigan Study, 2011)
- Approx. 49 sites in the U.S. (Best Guide Retirement Communities)
- Limited to age 55+
- Children only allowed as visitors
- Planned activities
- Wellness facilities
- Pool
- Club house
- Pet friendly
Age, Gender and Relative Risk of Fire Fatality, 2010

Leading Causes of Fire Deaths in the Home for Adults 65 Years of Age and Older

Persons with Limitations in Activities of Daily Living by Age

“…Health problems are episodic, chronic, and progressive.”

(The Metlife Report on Aging in Place 2.0, Metlife, 2010)
Physical Challenges for Elders

- Mobility
- Vision
- Acoustics
Mobility Challenges

Physical Motions
- Walking
- Lifting
- Climbing
- Bending
- Grasping
- Reaching
- Holding
- Sitting/rising

Activities of Daily Living
- Bathing
- Dressing
- Eating
- Transferring
- Toileting
- Getting around inside
- Housework
- Preparing meals
Use of Mobility Devices

Figure 1. Proportion of population using mobility devices, by age and device.

(National Institute on Disability and Rehabilitation Research, 2000)
Low Vision

- Impacts 17 million people in the U.S.
- ADA addresses only legal blindness
- Built Environment Issues
  - Glare
  - Low contrast
  - Low illuminance
  - Wayfinding
  - Surfaces
  - Finishes
  - Indoor/outdoor transitions

(https://www.nibs.org/?page=lvdc_guidelines)
Poor Acoustics and Noise

- Impacts 37% of those over age 65
- Creates or exacerbates stress
- Causes sleep loss
- Causes fatigue
- Leads to confusion
- Contributes to heart disease and diabetes
- Increases dependence on pain killers
- Induces anger and rage
- Impairs response to dangerous situations

Other Physical Challenges for Elders

- Smell
  Diminished sense due to illness, smoking, and trauma

- Touch
  Decreased sensitivity due to exposure to sun, skin disease, medication, dehydration

- Memory
  Dementia and Alzheimer’s Disease negatively impact memory leading to risky behavior
Potential Hazard: Durable Medical Equipment

- Primarily and customarily used to serve a medical purpose to improve the quality of life of persons at home
- Not useful to a person in the absence of illness or injury
- Ordered or prescribed by a physician
- Reusable
- Designed for use in the home
Durable Medical Equipment: Examples

- electric wheelchairs
- electric hospital beds
- electric traction equipment
- kidney machines
- ventilators, portable oxygen
- monitors
- electrical lifts
- nebulizers, infusion pumps
- bili blankets and bili lights
DME U.S. Expenditures Historical and Projected 2000-2019

For the Years Ended and Ending December 31, 2000 – 2019P
($) in billions

2000 – 2009 CAGR: 3.5%

2009 – 2019P CAGR: 4.8%

Source: Center for Medicare and Medicaid Services

(Harris Williams & Co., 12-26-12)
Non-DME Medically Related Equipment in the Home

- Humidifiers
- De-humidifiers
- Electric air cleaners
- Elevators
- Stairway lifts
- Electric posture and lift chairs
- Heat lamps
“With the aging of the Baby Boomers and their parents, the home environment is becoming a crucial element in providing care, improving the quality of life, and staying independent. More than 80% of older adults would like to stay in their current dwellings and never move. Unfortunately, their homes, described as ‘Peter Pan housing’ (built for people who never grow old), often lack supportive features and contain both hazards and barriers.”

(Jon Pynoos, PhD, UPS Foundation Professor of Gerontology, Policy and Planning, Andrus Gerontology Center, University of Southern California)
Life Safety Opportunities

- Egress: Thresholds, ramps, wayfinding
- Doors: Door widths, door and cabinet hardware, e.g. locks and levers
- Power: Back-up batteries and generator; exposed cabling; outlet height
- Kitchen: Appliances, ventilation, controls that warn if left on
- Lighting: Illuminated rocker light switches, motion sensors, increased illumination levels
- Bathroom: Safety water temperature controls
The Challenge: Safety Regulation

- Define characteristics of dwellings for regulation
- Identify relevant regulations
- Create task forces to work with the wider regulatory community on regulatory change
The Challenge: Safety Education

- Define characteristics of dwellings for safety education
- What is the message?
- What are the most appropriate channels for dissemination?
  - Associations
  - Long term care communities
  - Advocacy groups
- What are the best dissemination vehicles?
  - Brochures
  - Training
  - Social media
NFPA Mission

Reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education.

Working together to make the Life Safety Code a catalyst for quality of life.