



The Hulda B. & Maurice L.

Rothschild
FOUNDATION

Trends for Aging in Place

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**Two Decades of
Supporting
Person-Centered Care**

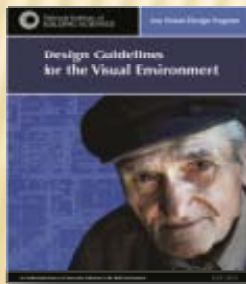
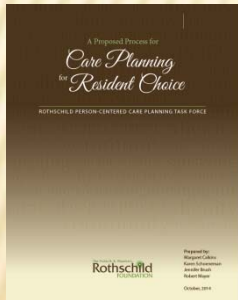
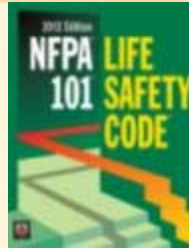


What is Person-Centered Care in the Built Environment?

- **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.



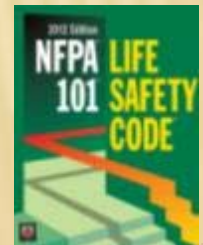
Rothschild Regulatory Task Forces



2012 Life Safety Code Adoptions

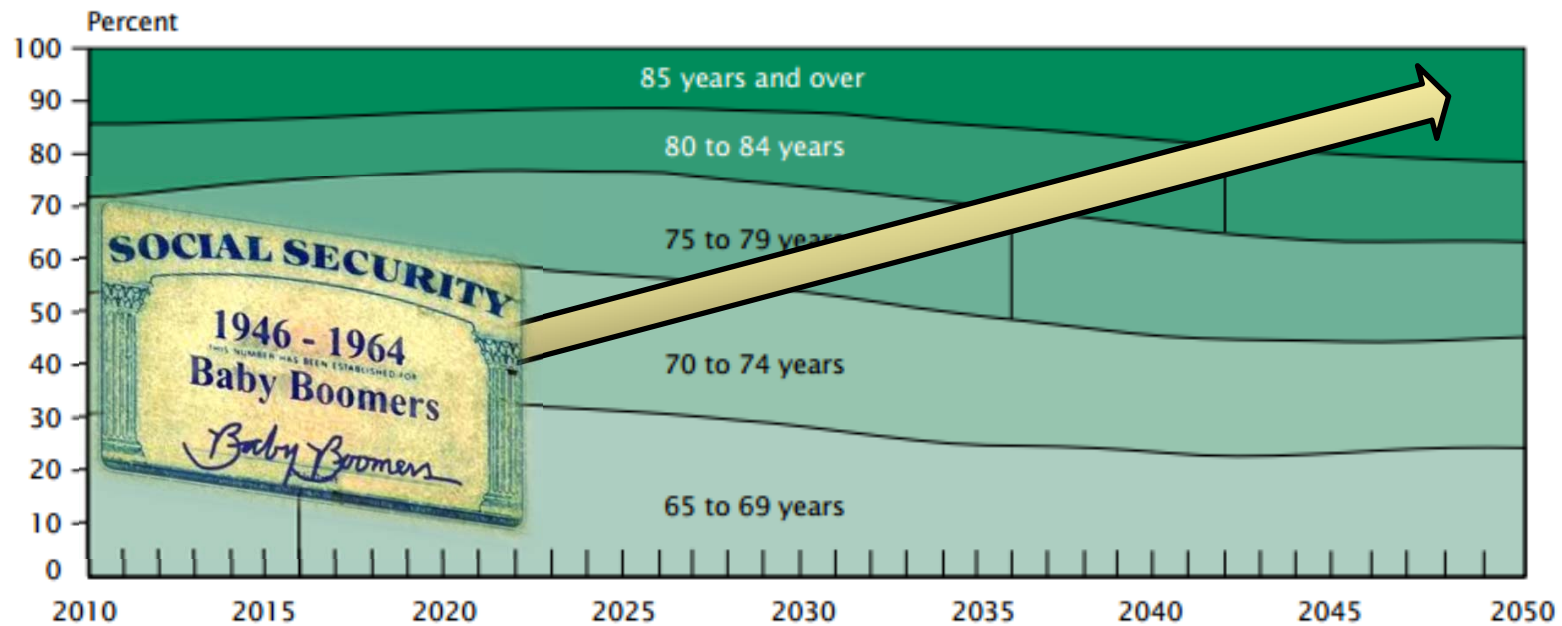
NFPA 101 - 2012 STATE ADOPTIONS		
STATE	ADOPTION TYPE	NOTES
AL	Direct	In process to go from 2006 to 2012 Edition
CT	Direct	
DE	Direct	
FL	Direct	
GA	Direct	
HI	Reference	
LA		
MA	Reference	Department of Health Only
MD	Direct	
MO	Direct	Department of Agriculture Only
ND	Direct	Unincorporated Areas only
NE	Direct	Adopted for healthcare. Awaiting CMS action to implement.
NV	Direct	
OK	Reference	
RI	Direct	
SC	Reference	
TN	Direct	Department of Health Only
TX	Direct	
VT	Direct	

19 States



Demographic Trends: We're Getting Older

Distribution of the Projected Older Population by Age for the United States: 2010 to 2050

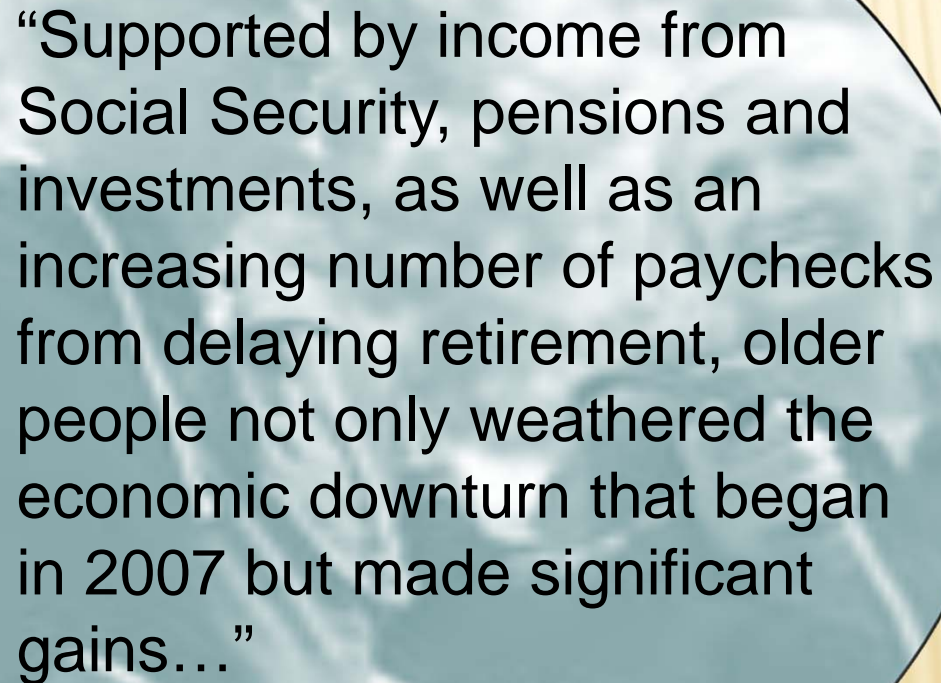


Note: Line indicates the year that each age group is the largest proportion of the older population.

Source: U.S. Census Bureau, 2008.

(The Next Four Decades, The Older Population in the United States: 2010 to 2050, U. S. Census Bureau)

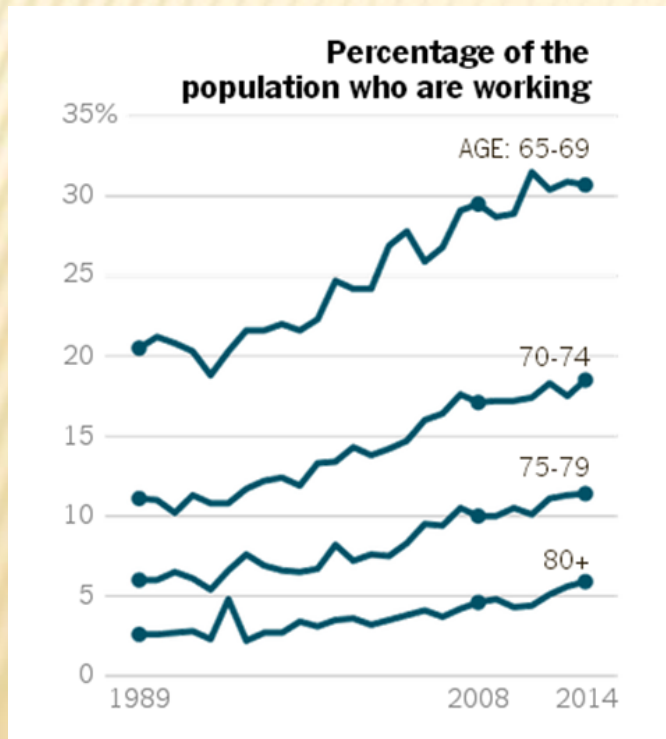
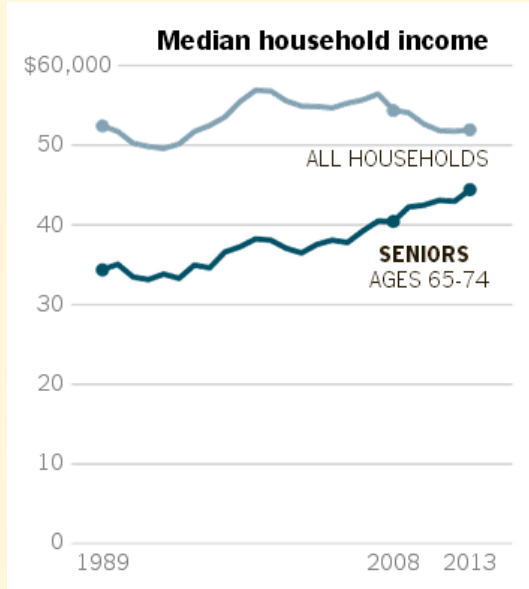
Boomers and Financial Resources



“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



Consumer spending
Average annual household expenditures

AGE	1989*	2013	CHANGE
75 and older	\$29,907	\$34,382	+15%
65-74	39,738	46,757	+18
55-64	53,762	55,892	+4
45-54	67,770	60,524	-11%
35-44	66,861	58,784	-12
25-34	50,129	48,087	-4
Under 25	31,143	30,373	-2
All consumers	52,246	51,000	-2

(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?



NORC

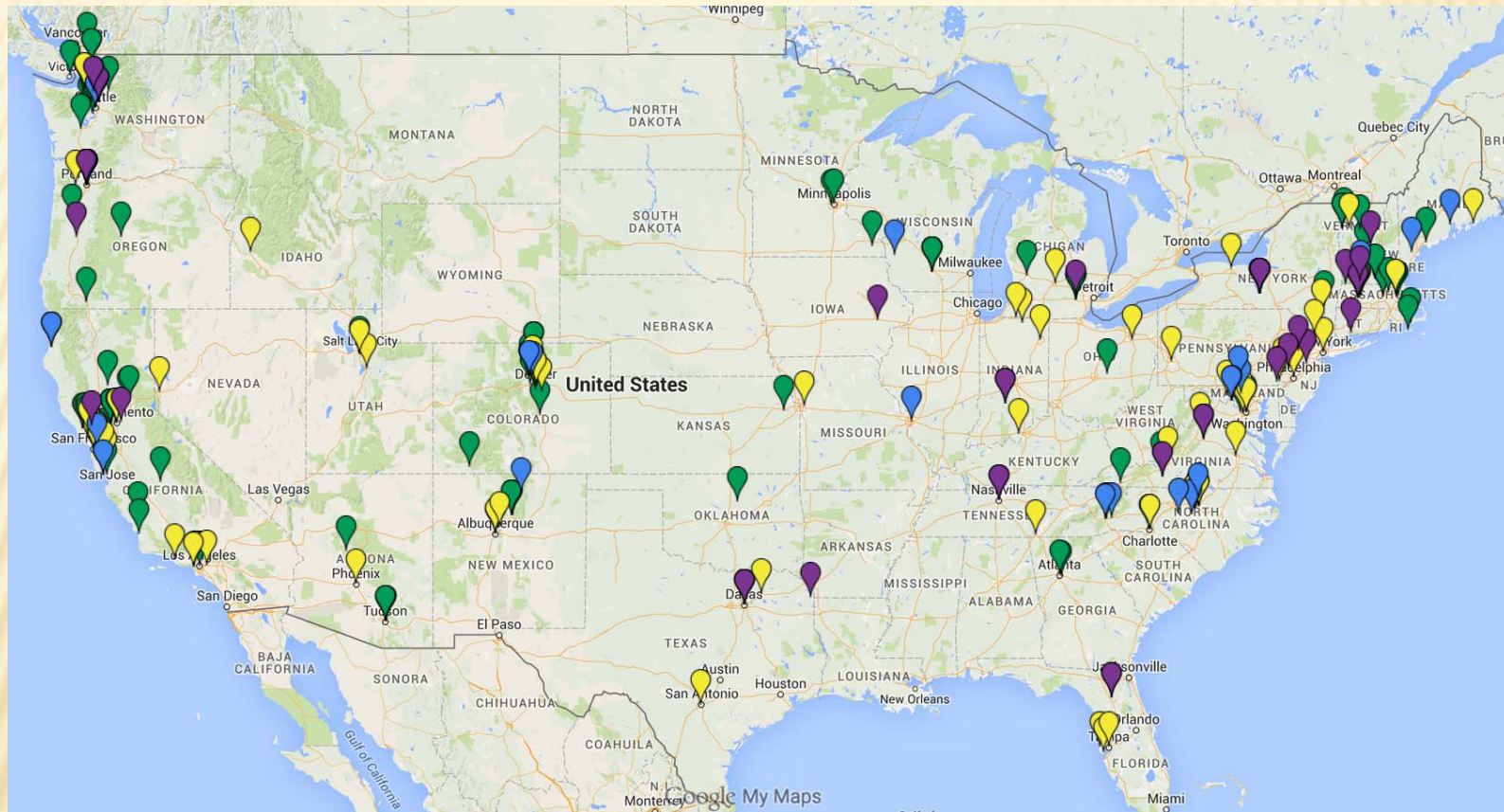
Assisted Living
Cruise Ships

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

(CoHousing, 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

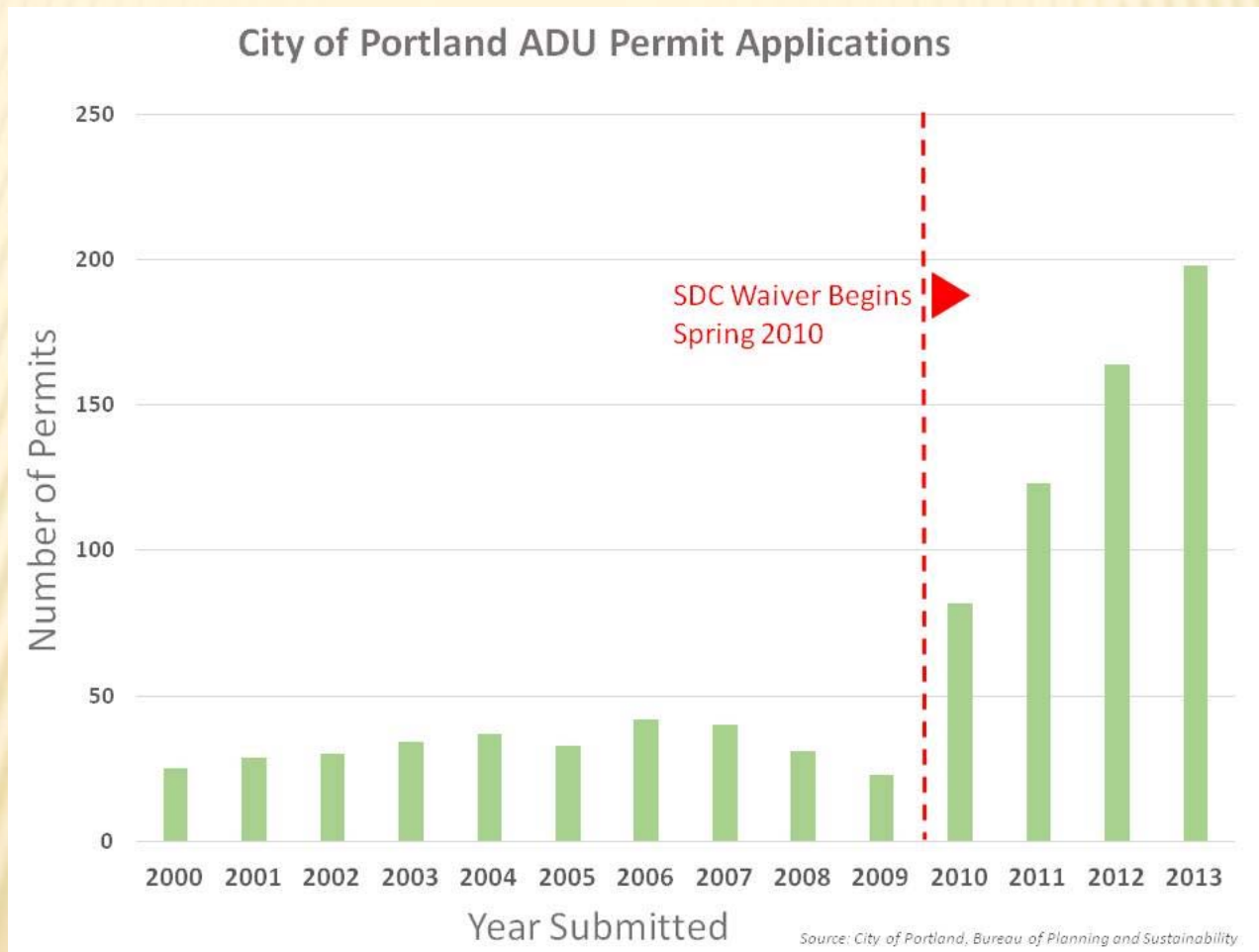


Accessory Dwelling Units (ADU)

- 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



Naturally Occurring Retirement Communities (NORCs)



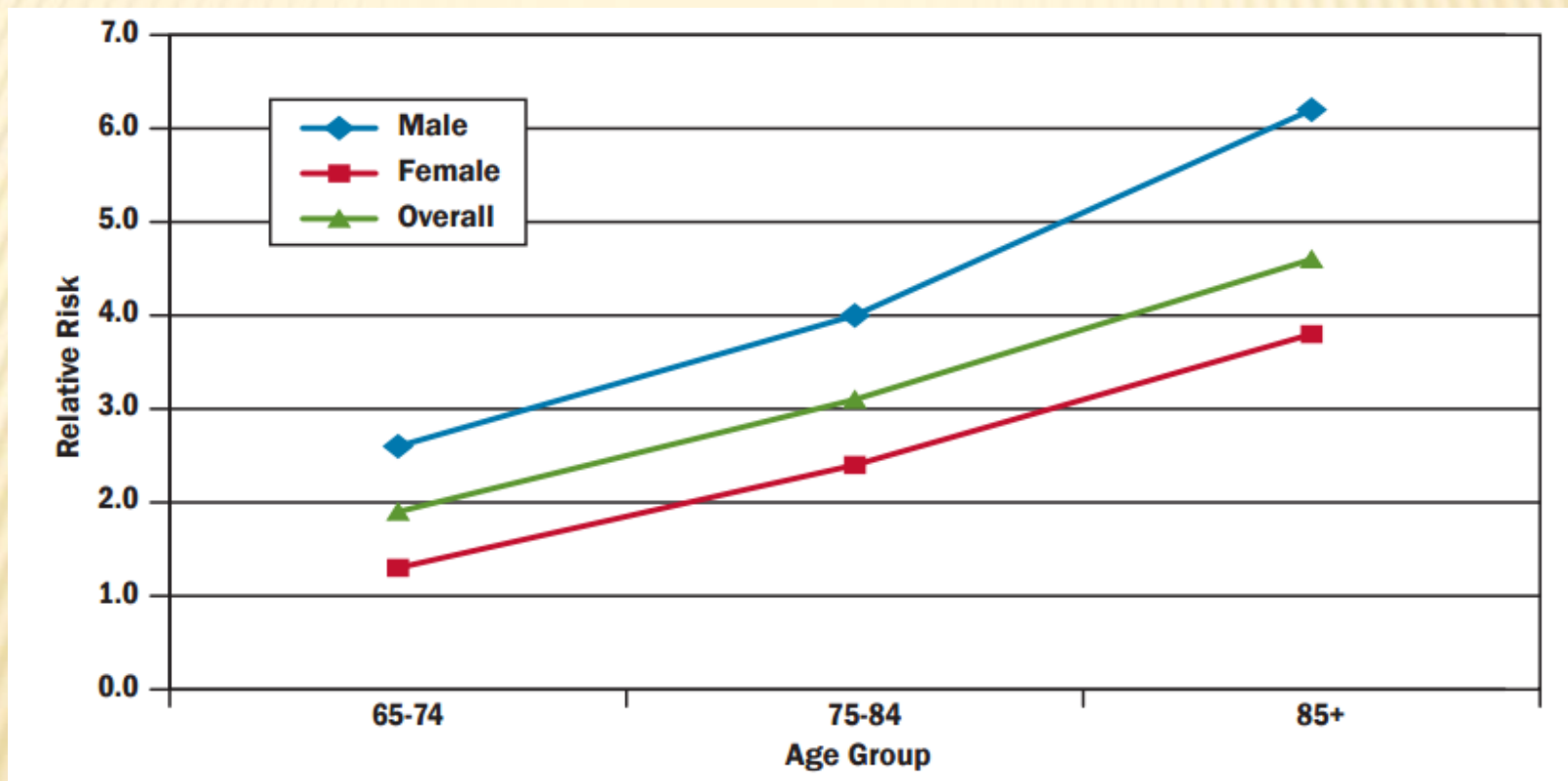
- First recognized in New York in 1984
- AARP estimates 36% of those over 55 are living in some type of NORC (2005)
- Neighborhoods or buildings in which a large segment of the residents have aged in place on an ad hoc basis
- Neither originally designed nor intended to meet the particular health and 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

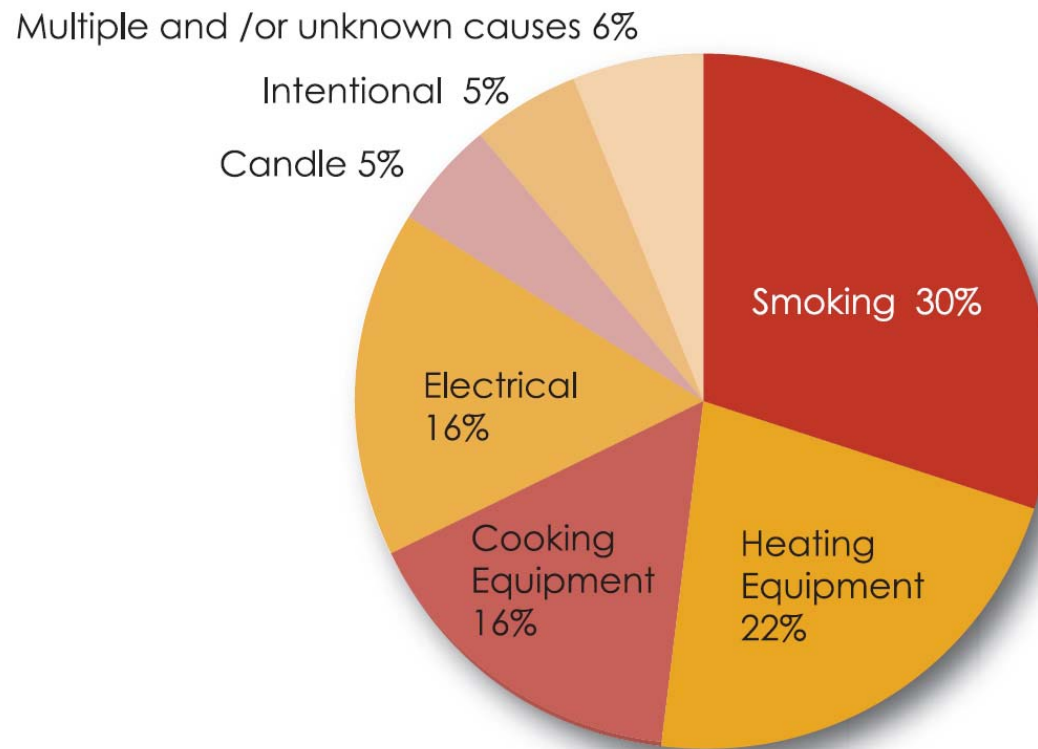


Age, Gender and Relative Risk of Fire Fatality, 2010



(FEMA Topical Fire Report Series, Vol. 14, Issue 9, August, 2013)

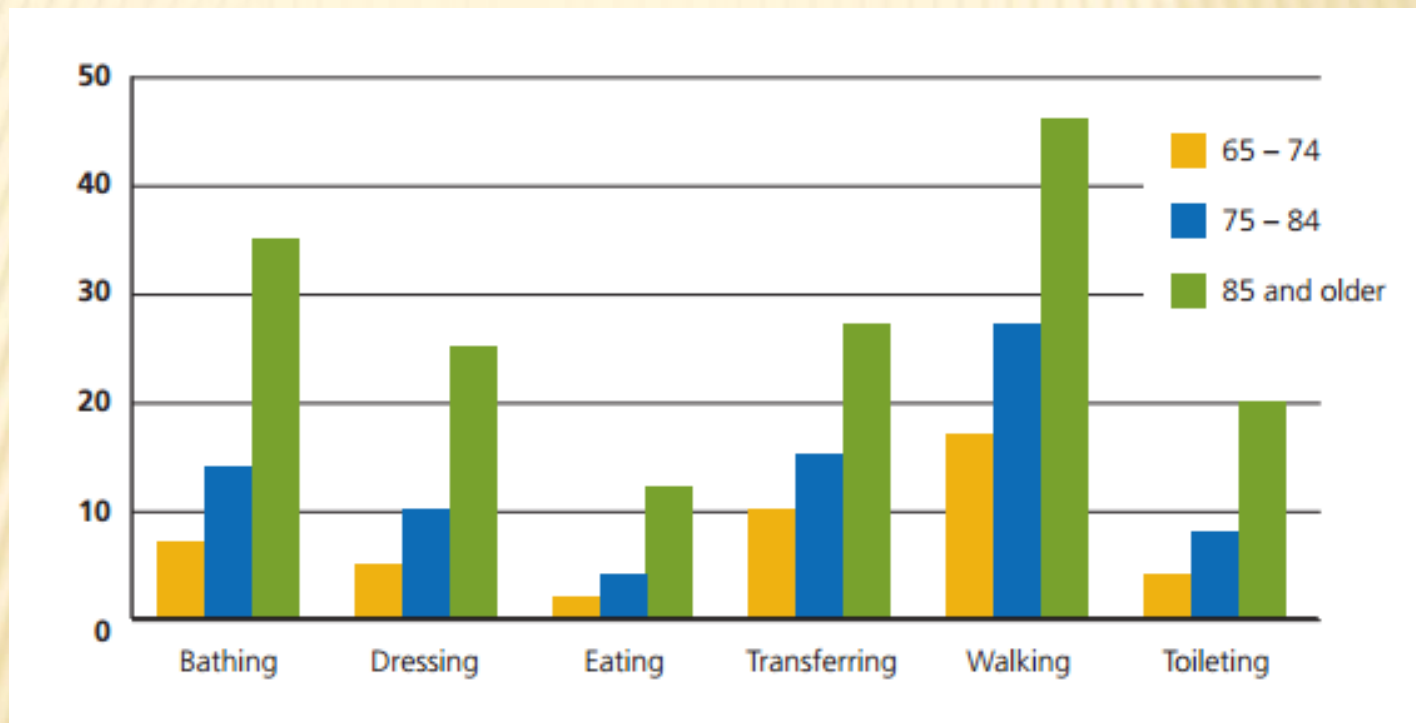
Leading Causes of Fire Deaths in the Home for Adults 65 Years of Age and Older



(“Characteristics of Home Fire Victims,” NFPA, July 2008)

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

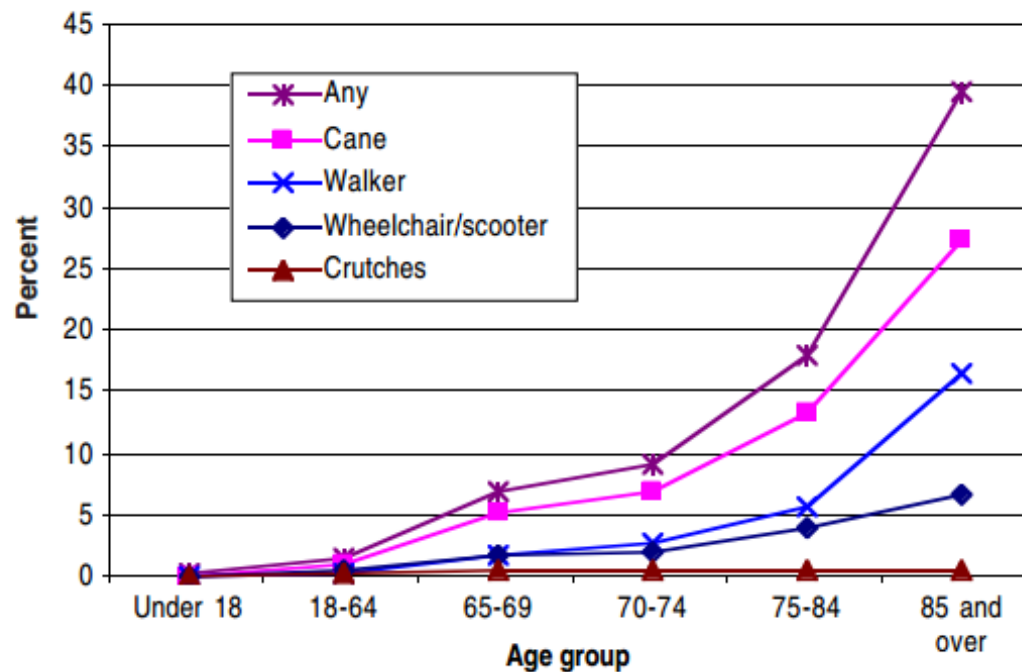


Activities of Daily Living

- Bathing
- Dressing
- Eating
- Transferring
- Toileting
- Getting around inside
- Housework
- Preparing meals

Use of Mobility Devices

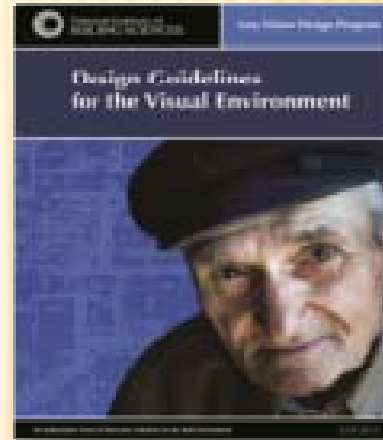
Figure 1. Proportion of population using mobility devices, by age and device.



(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)

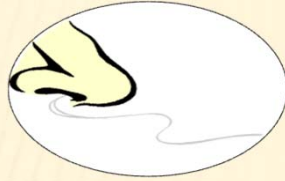
Poor Acoustics and Noise

- **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**

(Federal Interagency Forum on Aging-Related Statistics, *Older Americans 2004: Key Indicators of Well-Being*. November 2004)

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

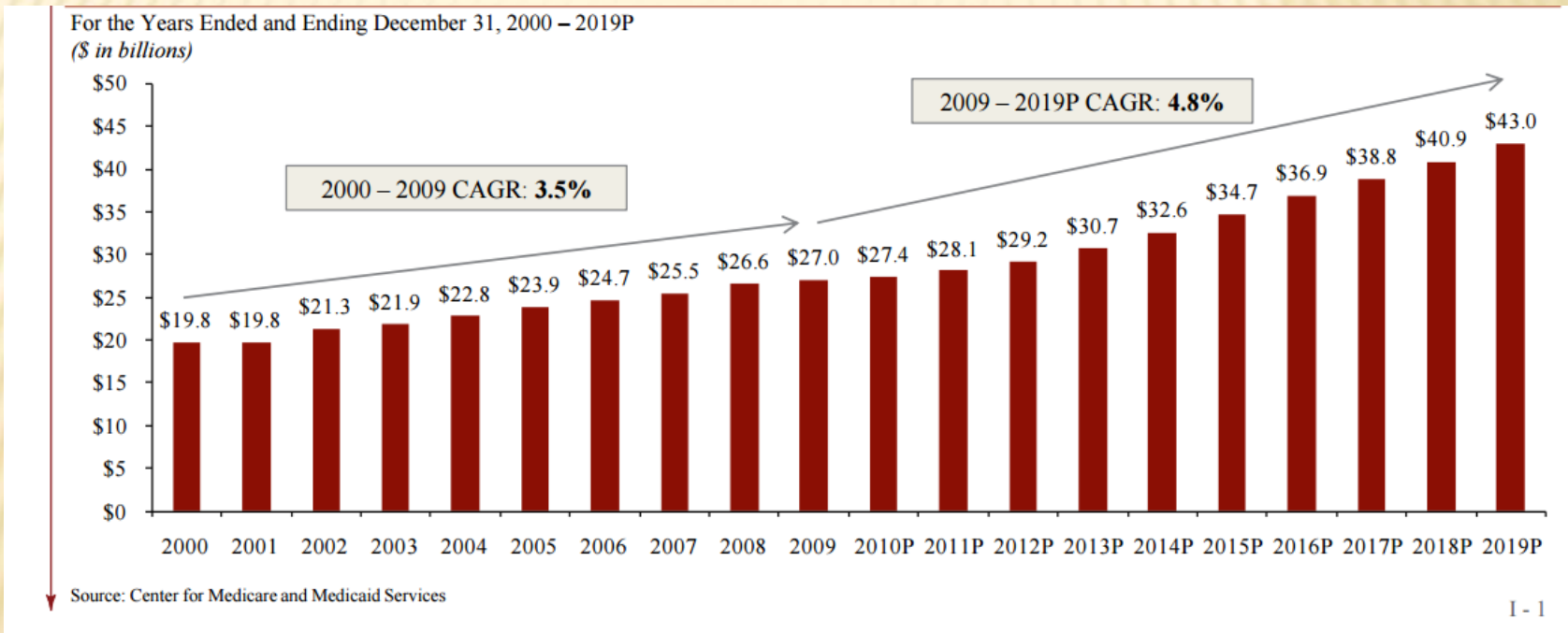


Durable Medical Equipment: Examples

- 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



(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



Aging at Home Design Challenges

“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
of fire and
the
Working together
to make the Life Safety
Code a catalyst
for quality of life
Providing
consensus
standards, research,
and education.



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