

# Investing for an Aging Population

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Going Green: Intelligent  
Investments for Public Housing

Boston, MA

July 14, 2011

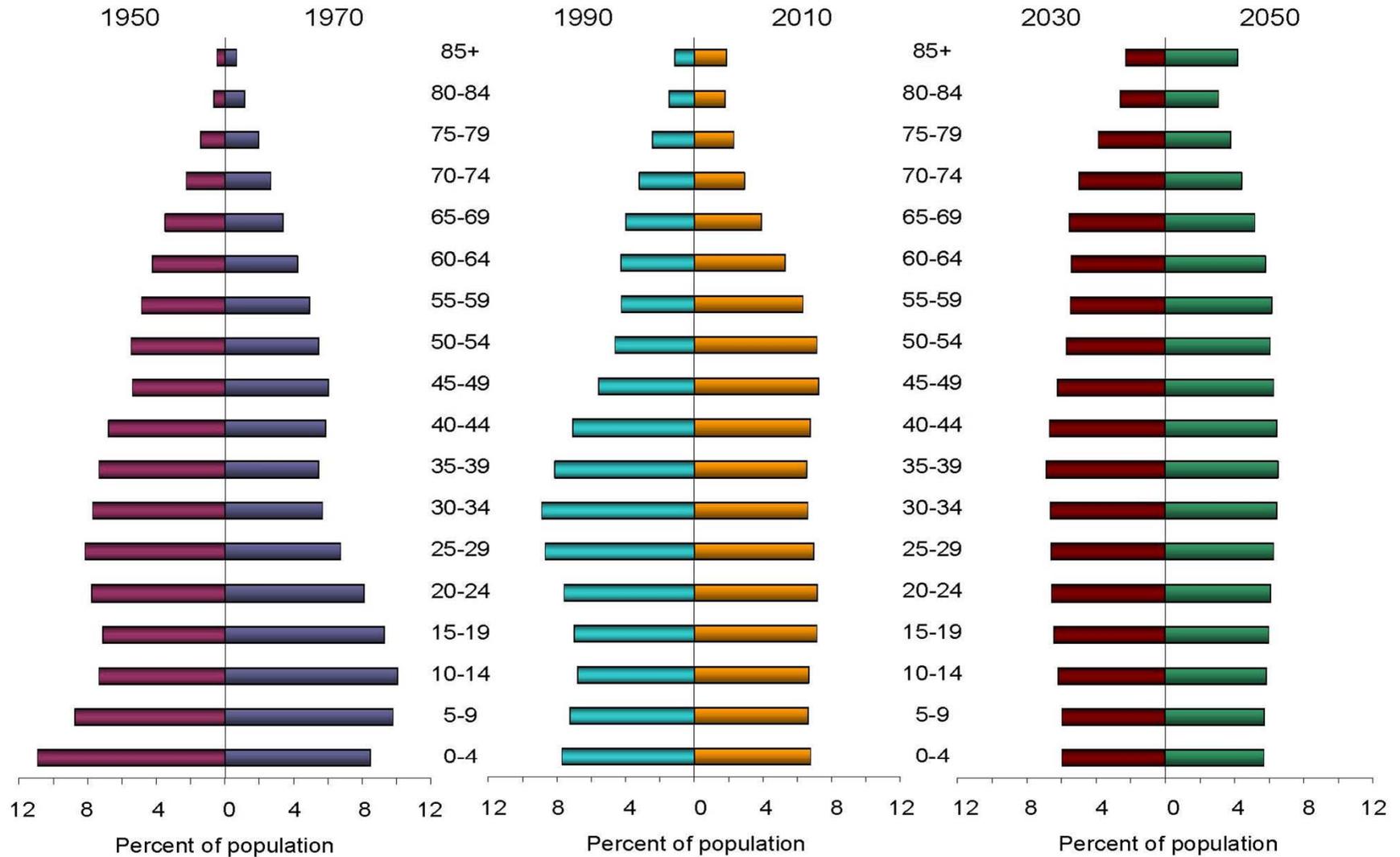
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# Why the MIT AgeLab?



Life Tomorrow

# The Changing Age Distribution In The United States, 1950 - 2050



# Disruptive Demographics

- People are living longer, are healthier, better educated and wealthier
- Increasingly heterogeneous older adult population
- Facing the challenges – and **opportunities** – that a sizable older adult population offers
- Older adults today and tomorrow approach older age with different expectations: “not your parents’ retirement”



## What Is the MIT AgeLab?

A global partnership between MIT and industry to invent the future of aging by understanding the preferences of older adults and their families to develop innovative technologies, products and services that promote active and healthy living throughout the lifespan.

Focus on research that improves the quality of life for older adults and those who care for them.



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# Why MIT?

- Focus on envisioning the future, on the opportunity to make a positive difference
- How technology will change *how we age* and *how we do things (work, play, etc.)* as we grow older
- Thinking about aging from a systems perspective: not just individuals or institutions, but a web of connected people and organizations



# Demographics of Public Housing

- Aging faster than the general population
- In NYC Public Housing: 35.7% HH headed by someone age 62+; 18.3% of residents 62+
- Estimate overall that 31% of public housing residents are age 62+ (Nat'l Ctr for Health in Public Housing)
- Compare with the national population: about 13% ages 65+; 2010 projection of 18.4% age 60+

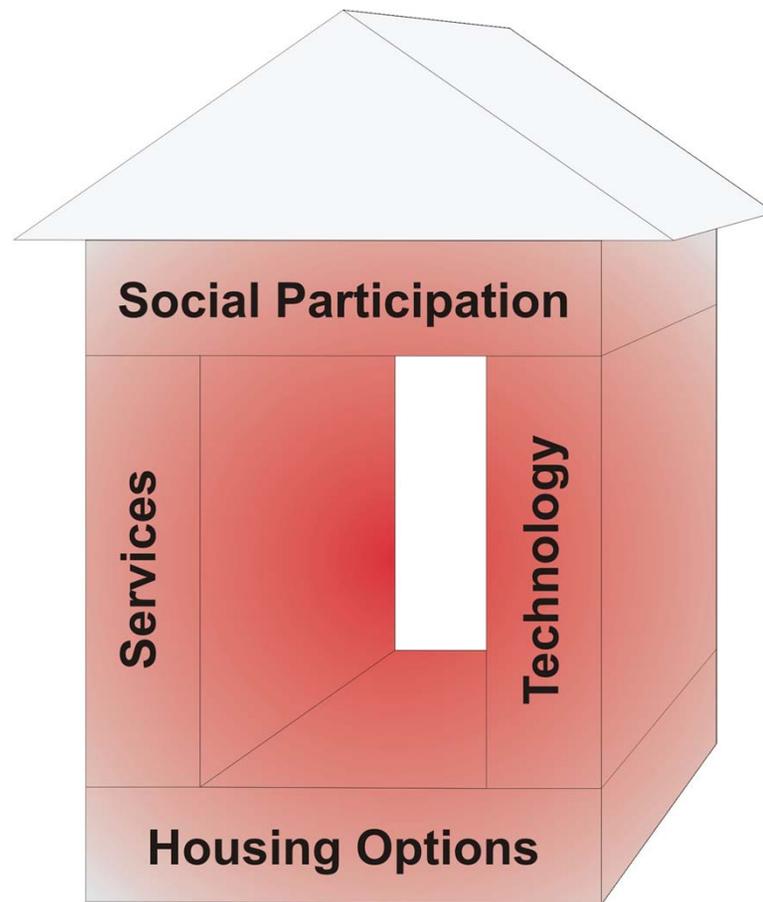
# We All Want to Age in Place

- Aging in the community strongly preferred to living in institutional care settings: 82% of Americans report that they want to stay in their homes as they age
- Living in the community less expensive than living in institutional care settings

# Unique Questions and Opportunities

- How can we help public housing residents age in place more successfully?
- Shift from thinking about home as individual unit to home as system
- What role can technology play in helping people age in place in public housing? Services?
- How can home location, in conjunction with individual abilities, affect people's capacities to access other features of the system

# Home as System to Enable Successful Aging in Place



Source: Osl 2010

# Is Housing Age-in-Place Ready?

- What makes housing some place where people can age in place successfully?
  - Physical features, layout
  - Accessibility to community resources
- Public housing at a relative advantage compared with the private market
- As investments are made in housing – regardless of why – they should reflect universal design principles to create spaces that can accommodate a range of people and needs

# What Features Make Aging in Place Easier?

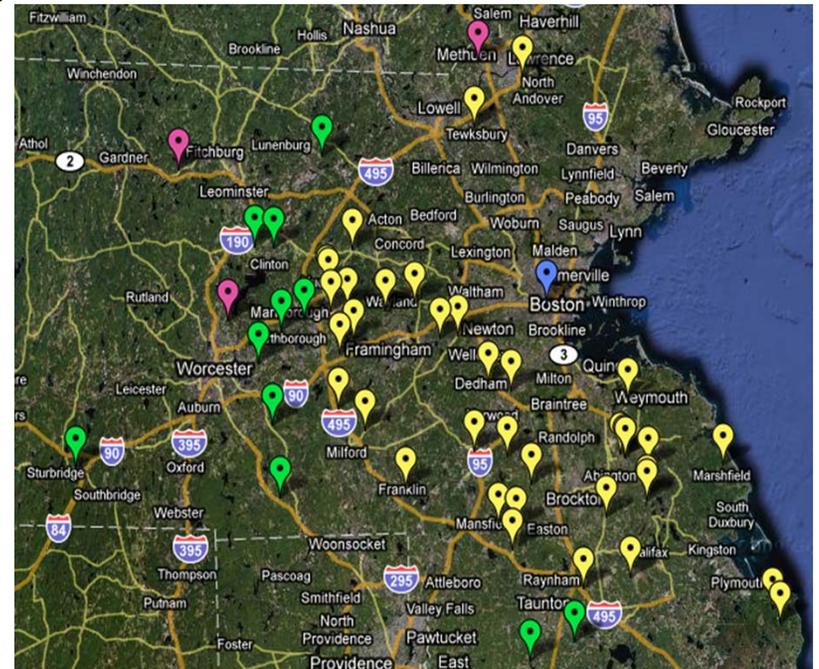
- Physical access in the home itself, particularly if someone has mobility concerns
- Safety features
- Comfort and convenience
- Physical setting and mobility outside the home

# Designing for Older Adults: The Ideal

- The structure:
  - Level or zero step means of egress
  - Doorways & halls wide enough to accommodate wheelchairs
  - First floor master bedroom and bath
  - No step shower
  - No thresholds
  - Room to move wheelchair, walker in kitchen and bath
- Location: Access to community, resources, multiple modes of transportation (walking, transit, etc.)

# Designing for Older Adults: Does the Reality Meet the Ideal?

- Study of features and design of housing specifically marketed to adults age 55 and older: so-called active adult or lifestyle communities
- Do these communities incorporate the features we would look for in housing to facilitate aging in place successfully?
- Empirical study of active adult housing in the metro-Boston area, fall-winter 2009-2010



# Preliminary Results

- Remarkable consistency across different housing communities
- Typical high-level accommodations:
  - First floor master suites
  - Low thresholds when moving from area to area on this level
  - Some grab bars in place (e.g., in fiberglass shower units) and some could support grab bar installation
  - Features like paddle door handles
- Little incorporation of other means to allow aging in place
  - No level or zero step entrances
  - Bathroom and kitchen design do not anticipate the use of assistive devices
  - Physical location is often remote, not a real community, automobile transportation required
  - Services not available through the community
- Notion of the “hidden program”

# Services and Aging in Place

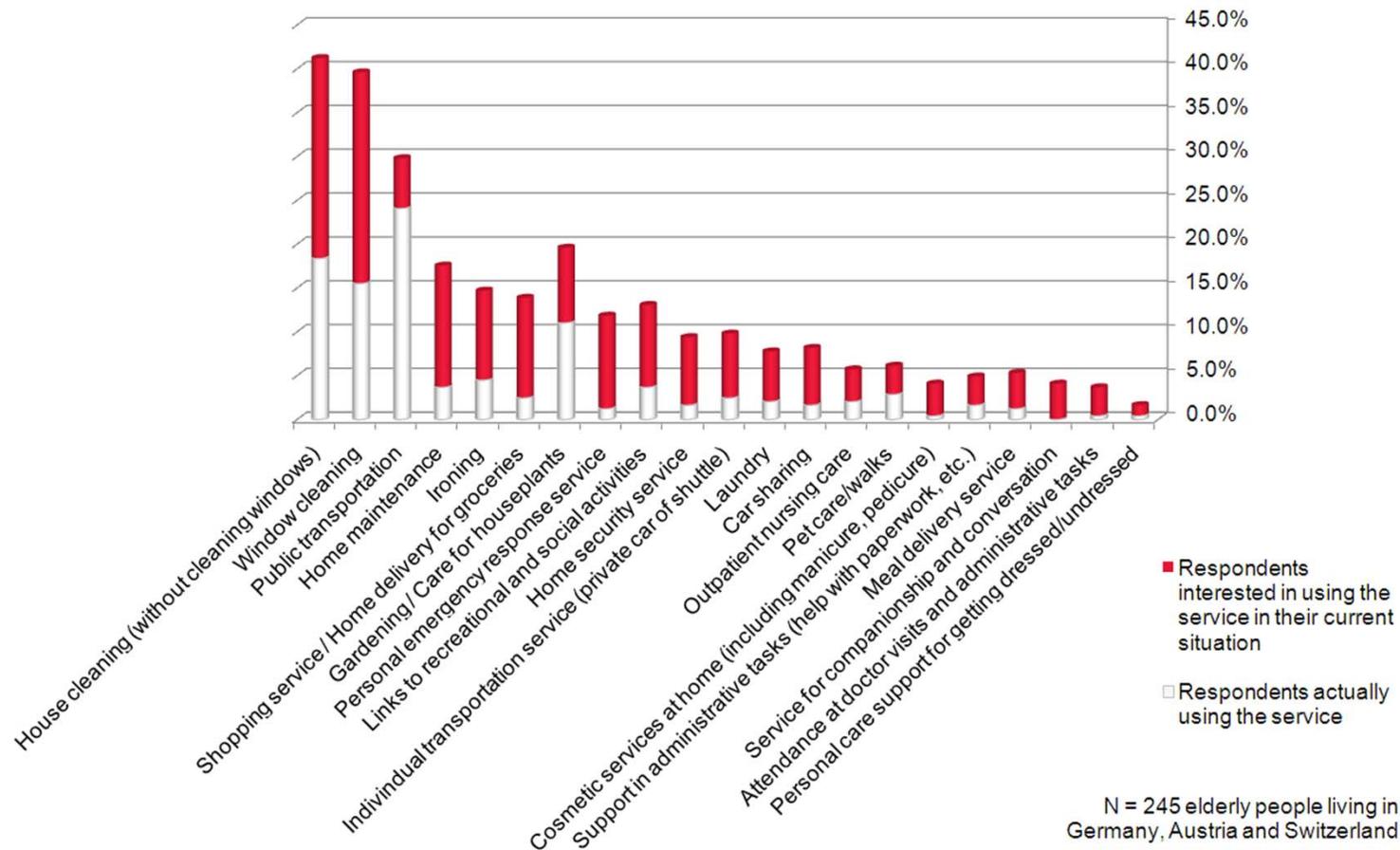
## What Are Services? Services include, but are not limited to:

- House cleaning
- Window cleaning
- Laundry and ironing
- Lawn and yard maintenance
- Snow removal
- Curbside trash pick up
- Curbside recycling pick up
- Home repairs – major (e.g., re-painting exterior, re-roofing, etc.)
- Home repairs – minor (e.g., repairing or replacing a light fixture, plumbing repair, etc.)
- Home maintenance tasks (e.g., replacing lightbulbs, etc.)
- Home security service
- Shopping service for groceries
- Home delivery of groceries
- Medication refills and home delivery of medication
- Pet care/walks
- Care for houseplants
- Help with paperwork and filing any forms, etc.
- Individual transportation services – private car or shuttle
- Car sharing
- Public transportation/transit
- Personal emergency response service (e.g., LifeLine)
- Hair care and cosmetic services in the home
- Personal care support for getting dressed, washing, personal hygiene, etc.
- Outpatient nursing care
- Someone to accompany you to doctors' visits
- Links to recreational and social activities
- Links to volunteer work
- Service for companionship and conversation
- Walking or exercise buddy service

# How Can Services Help?

- Services can enable people to stay comfortably in their homes longer
- Current examples: Beacon Hill Village; SAIL in Madison, WI; programs in Europe
- What are people looking for in services?
  - Verified, trusted providers
  - Integration of services
- Barriers to use:
  - Cost
  - Stigma
  - Culture

# Interest in Services vs. Actual Use



Source: Osl, P.: Dienstleistungen für Independent Living: Kundenanforderungen, Potenzialbewertung und Handlungsempfehlungen; University of St. Gallen, St. Gallen 2010

# Issues for Services to Facilitate Aging in Place

- Do people view services as something they can/should use?
- Cost – no current viable business model, but social support in the US might model on programs in Europe
- Trusted providers

# Technology and Aging in Place

- Technology: been held out as the solution to helping people age in place for a number of years
- AARP survey (2008): Nearly 60% of adults 65+ would be willing to use technology to support their ability to stay in their own home, e.g., use of an activity monitor.
- Like services, adults' reported willingness to use has been below actual use
- The reality has not matched the promise – why?

# Barriers to Technology Adoption and Aging in Place

- Perceived benefits of technology (perceived usefulness)
- Costs of learning to use (perceived ease of use), financial costs
- Privacy and independence versus security
- Identifying the job of the technology

# Social Participation

- Social connections an important element of QoL
- Isolation among older adults a source of depression
- How can the home facilitate social participation?
- How can social participation and integration serve other goals?

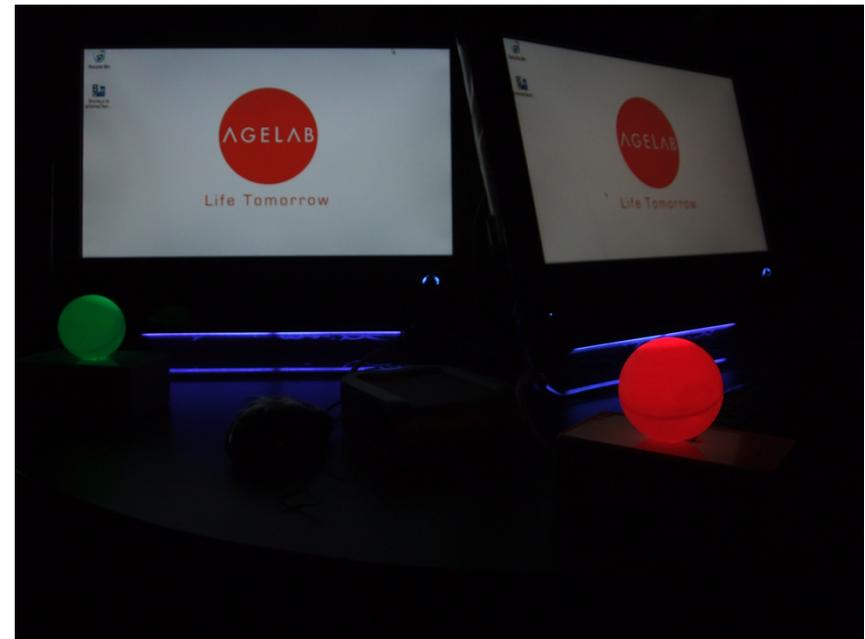
# Internet Use and Older Adults

- 38% of adults age 65+ go on line
- 70% of those ages 50-64 go on line
- Older adults less likely to have broadband access, but they have the highest growth rates in adoption
- Most older adults use e-mail and search – less use of social media

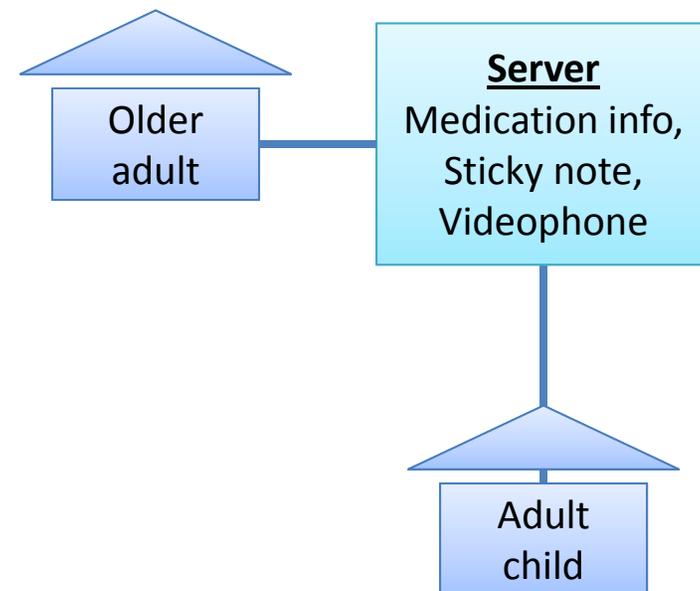
Source: Pew Internet & American Life 2009, 2010

# e-Home

- How can technology help older adults live independently longer?
- Focus on medication compliance and social connections
- Impact of reminder system on compliance and family communication
- Pilot study of 4 older adults – adults child pairs in the field



# The e-Home System



## Functions

- Medication reminders and tracking
- Shared sticky notes
- Videophone

# The Future of Aging and Public Housing

- Opportunities to prepare and plan for an aging population
- Chance to make investments that reflect the changing demographics and needs of the people who live there
- How can technologies and services be integrated into housing models to enable more successful aging in place



## Find Us on the Web



[agelab.web.mit](http://agelab.web.mit.edu)

**volunteer** – check out resources – **read and comment on** *Disruptive Demographics* – **learn**



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