TOOLS

UNIVERSAL DESIGN STRATEGIES: IMPACT OF AGING CONSIDERATIONS CHECKLIST

Instructions

This tool is meant to support a universal design approach to environments for aging populations. The following items should be considered as general guidelines (or "thought starters"), and not as comprehensive specifications. The considerations are best reviewed at the very beginning of a project, even before programming, to assess strengths, identify needs, and establish a vision for short- and long-term plans. Upon project completion, this tool can guide a discussion around implementing processes that align with the new design. Understanding the universal design approach can help your organization select the best strategies and design options for your project.

This tool is structured around three sectors of the built environment:

(1) Home and community (residential)
(2) Healthcare
(3) Workplace

Home and Community (Residential)		
Strategy/Goal	**Built Environment (Design)**	**Universal Implications**
"Aging in Place" • in one's own home and community (Centers for Disease Control and Prevention, 2013) • in assisted living or long-term care	☐ Features that require minimal physical effort ☐ Features that support resident choice and decision-making ☐ Features that are easy to clean and maintain ☐ Features that reduce energy consumption ☐ Elements that create a "real home" (in senior care facilities), such as private rooms/baths and open kitchens ☐ Familiar surroundings (in senior care facilities), such as people, objects, and pets ☐ Main living on single story ☐ Wheelchair-accessible (e.g., 36" doors, wide hallways, lower or height-adjustable cabinets and counters) ☐ Full bath with bathtub on main level ☐ Bracing in bathroom walls for installation of grab bars ☐ Slip-resistant flooring (Cohen et al., 2015; National Association of Home Builders, 2016; Steinfeld & Maisel, 2012)	☐ Supports changing needs throughout the life course ☐ Accommodates either short-term or chronic disabilities ☐ Increases suitability of housing for a wider range of users and potential buyers ☐ Increases cost savings ☐ Improves market value for homeowners ☐ Facilitates self-sufficiency and safety for persons living alone (ASID Design for Aging Council, 2016; Cohen et al., 2015)

Home and Community (Residential)		
Strategy/Goal	**Built Environment (Design)**	**Universal Implications**
Village movement	☐ Infrastructure that accommodates multiple travel modes, particularly walking and bicycling ☐ Community centers within walking distance ☐ Services located together (e.g., grocery stores, library, doctor's office) (AARP, 2010; Takano, Nakamura, & Watanabe, 2002; Thomas, 2011; World Health Organization, 2007)	☐ Supports social connectivity (people engage with one another more when they walk vs. drive) ☐ Enables coordination of services among intergenerational members ☐ Allows for a variety of community events, combatting the risk of social isolation ☐ Facilitates self-sufficiency and psychosocial wellbeing (AARP, 2010; Lund, 2003)
Active living	☐ Walkable neighborhoods (destinations within ¼ mile of home) ☐ "Green streets" or landscape-based features ☐ Sufficient number of easily accessible public restrooms (Handler, 2014; Lund, 2003; Takano et al., 2002)	☐ Encourages residents of all ages to leave home on foot ☐ Increases physical activity ☐ Decreases social isolation ☐ Ensures basic needs are met (e.g., eliminating the "bladder leash" effect for residents who want to leave their homes) (Handler, 2014; Lund, 2003)
Hospital at home • In-home acute care • Recovery at home: Sweden's "Esther model"	☐ Simple, intuitive technologies for in-home video teleconferencing ☐ Wheelchair-accessible (e.g., 36" doors, wide hallways, lower or height-adjustable cabinets and counters) ☐ Features that are easy to clean and maintain ☐ Full bath with bathtub on main level with grab bars ☐ Slip-resistant flooring (Hume & Looney, 2016; Klein, Hostetter, & McCarthy, 2016)	☐ Reduces risk of infection, falls, delirium, and functional decline associated with most healthcare environments ☐ Reduces risk of readmission ☐ Improves continuity of care for individuals of any age between the hospital and home ☐ Supports faster recovery by minimizing stress in a familiar environment (Gray, Winblad, & Sarnak, 2016; Klein et al., 2016)

Healthcare		
Strategy/Goal	**Built Environment (Design)**	**Universal Implications**
Universal rooms	☐ Standardized layout of inpatient rooms in shape, size, and headwall equipment (monitoring and communication technology mounted on the wall nearest the patient's head) (Pati et al., 2009)	☐ Accommodates all levels of acuity ☐ Supports standardized clinical processes/procedures ☐ Eliminates/minimizes the need to transfer patients to multiple rooms or units (Pati et al., 2009; Price & Lu, 2012)
Acuity-adaptable rooms	☐ Rooms designed with the potential for "light" renovation (Pati et al., 2009)	☐ Facilitates lower costs by enabling the modification of rooms to handle all acuity levels ☐ Increases potential to meet changing population needs over time (Pati et al., 2009)
Emergency Department triage (geriatric triage)	☐ Options for quiet and privacy ☐ Safe, enabling environment ☐ Ensure high visibility, handrails, shock-absorbing flooring, and low beds (Boltz, Parke, Shuluk, Capezuti, & Galvin, 2013)	☐ Improves overall ED efficiency by separating treatment tracks for older people ☐ Reduces stress for older patients (Adams & Gerson, 2003)
Telemedicine	☐ Technology and infrastructure to support telemedicine ☐ Storage and access for telemedicine carts ☐ Fixed telemedicine equipment (pan-tilt-zoom cameras and microphones) (Hume & Looney, 2016)	☐ Enables telemedicine services for any patient room ☐ Allows remote caregivers to observe/evaluate/consult with patients ☐ Facilitates support for onsite caregivers (Hume & Looney, 2016)
Improve wayfinding	☐ Intuitive building layout ☐ Clear signage both inside and outside ☐ Universal healthcare symbols included in signage ☐ Maps/floorplans with orientation markers ☐ Decentralized information desks/kiosks ☐ Visual cues (e.g., landmarks, colors, unique features) ☐ Intuitive routes for both able-bodied and disabled persons ☐ Broadband internet capabilities to support smartphone wayfinding apps ☐ Minimal changes in flooring color contrast (can be confused for change in flooring height by the visually impaired) (Bosch & Gharaveis, 2017; Hablamos Juntas, 2010; Huelat, 2007; S. Lee & Kline, 2011; World Health Organization, 2007)	☐ Facilitates safe and efficient navigation ☐ Reduces stress and frustration due to difficulty finding destination in a timely manner ☐ Improves patient satisfaction, which can affect reimbursement for healthcare organizations (Bosch & Gharaveis, 2017; Huelat, 2007)

Workplace		
Strategy/Goal	**Built Environment (Design)**	**Universal Implications**
Accessible design	☐ Products, services, and environments are designed to be readily usable by most users ☐ Products or services are adaptable to different users (adaptable user interfaces) ☐ Standardized interfaces are compatible with special products for persons with disabilities (Persson, Ahman, Yngling, & Gulliksen, 2014)	☐ Widens scope of potential candidates and customers ☐ Increases usability of the workplace for most workers (Persson et al., 2014)
Flexible work arrangements • Remote work • Telecommuting • Job sharing • E-learning • Alternative hours/schedules • Paid family leave • Partial retirement options	☐ Flexible options for desk sharing ☐ "Nomadic" workstation location options ☐ Design to support efficient technology setup (e.g., laptops, unclaimed workstations, remote desktop support, power and plug-in capabilities throughout workplace) (Brownell & Kelly, 2013)	☐ Decreases costs for office space ☐ Supports workers who have caregiving responsibilities ☐ Increases job satisfaction ☐ Decreases likelihood of leaving the workforce (Brownell & Kelly, 2013)
Promote healthy lifestyles • Active living • Fitness programs • Smoking cessation programs • Healthy building design	☐ Close proximity to recreation facilities ☐ Onsite gyms and/or small group activity spaces (for yoga, meditation, aerobics, etc.) ☐ Private spaces for in-office preventative health and wellness services (e.g., annual exams, massage, acupuncture, therapy) ☐ Adjustable workstations (e.g., sit-stand desks) ☐ Visible, centrally located stairway (as well as easily accessible elevator options) (Brownell & Kelly, 2013; Dill et al., 2010; Hedge, 2014; K. K. Lee et al., 2012)	☐ Enhances health status of workforce ☐ Increases workplace satisfaction ☐ Improves productivity (Brownell & Kelly, 2013; Shain & Kramer, 2004)
Intergenerational teams	☐ Variety of workspace environments (both open and private options) ☐ Space for mentoring and collaboration (Bennett, Pitt, & Price, 2012; Brownell & Kelly, 2013)	☐ Supports exchange of knowledge between older and younger workers ☐ Helps to break down generational stereotypes (Brownell & Kelly, 2013)

For additional considerations, refer to the Impact of Aging Issue Brief:
Piatkowski, M. & Taylor, E. (2016). Universal Design: Designing for Human Needs (Research brief). Concord, CA: The Center for Health Design.

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