



Engineering Sciences Section - 2015

D17 Additions to Accessibility Standards for Nursing Home and Assisted Living Residents in Toileting and Bathing

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After attending this presentation, attendees will: (1) understand the nature and extent of the needs of frail elderly adults in daily living; (2) be informed about the evidence base identifying gaps in toileting and bathing sections of the Americans with Disabilities Act (ADA) and American National Standards Institute (ANSI) Standards; (3) be informed of assisted-use supplements needed to meet ADA and ANSI Standards; (4) see research underway at the Georgia Institute of Technology's Center for Assistive Technology and Environmental Access and at IDEAS, Inc. where sufficient evidence does not exist regarding assisted use; and, (5) see a demonstrated example of the forensic process applied to creating new standards.

This presentation will impact the forensic science community by describing the work of a task force created to propose supplements to the 2010 ADA Standards for Accessible Design and the ANSI 2009 A117.1 Standard for Accessible and Useable Buildings and Facilities. For the purpose of this project, the Hulda B. and Maurice L. Rothschild Foundation partnered with the American Institute of Architects (AIA) Design for Aging Knowledge Community. This presentation was initiated by the Hulda B. and Maurice L. Rothschild Foundation, a national philanthropy focused on improving the quality of life for elders in nursing homes throughout the United States.

This task force is comprised of individuals committed to providing quality environments for *all* individuals, especially including frail elderly adults. Representatives include those of the foundation, architects, interior designers, researchers, providers, and others working collaboratively toward the goal of ensuring that standards which govern design of our environments provide for both safety and quality of life for *all* users. Since the ADA Accessibility Guidelines were initially issued in 1991, millions of Americans have benefited from changes to the built environment that provide greater opportunity and enhanced participation in society. Like most accessibility standards, they are intended to promote *independence*, generally based upon the stature, strength, and abilities of younger adults with a single disability, most of who transfer directly from wheelchair to toilet. In fact, much of the initial research utilized in development of the guidelines was based upon the physical challenges of returning veterans from the Vietnam War. These standards were developed around the capabilities of adults who: (1) have upper body strength; (2) can make sliding transfers; (3) have full cognition; and, (4) transfer independently.

Since the development of these early guidelines and standards, demographics of the population of people with disabilities have changed dramatically and now the limited functional abilities of the growing number of frail and elderly persons are not being adequately served by existing design standards as cited by the AIA Guidelines of 2002, which stated, "Hospital patients, and especially nursing facility residents, due to their stature, reach, and strength characteristics, typically require the assistance of caregivers during transfer maneuvers. Many prescriptive requirements of model accessibility standards place both elderly persons and caregivers at greater risk of injury than do facilities that would be considered non-compliant."

Initial phase of this project produced a white paper providing an evidence base and recommendations for *assistive* accessibility standards as supplements to the ADA and ANSI Standards to support and optimize functional abilities of frail elderly adults, reduce falls, and improve caregiver safety.

Recommendations for toilet room design are based on how frail elders transfer to the toilet with and without assistance and how space needs for staff and equipment must be accommodated. Changes in the bathing and showering area standards would provide *assistive* design options better enabling the person-centered care being mandated by the Centers for Medicare and Medicaid Services. Further, the proposed changes are consistent with the intent of 2002 AIA Guidelines that called attention to the disparity between accessibility standards and the needs of older adults and their caregivers.



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Forensically, adoption of supplementary guidelines and standards for residential care environments will reduce ambiguously based law suits regarding personal injury from falls for frail elders and back injuries to caregivers. Jurisdictional authorities will be able to make more informed decisions about accessible design for frail elders in assisted living and nursing home communities. Forensic expert architects, specialized in ADA and ANSI compliance will have strong bases upon which to investigate, report, and testify in court.

This presentation will conclude with a description of research progress and an example of successful forensic endeavor.

Frail Elderly, Assisted, Standards