



Universal Design for Health Care Facilities

Addressing Safety, Access to Care for a Diverse Patient Population

Imagine an older man waiting in front of the door to a health care facility men's room. He stands uncomfortably for a few moments before it becomes obvious that he can no longer hold in his need to use the bathroom. As his pant leg dampens, he walks away from the door in shame. This is a scene that James Terry observed on one of his many visits to health care facilities across the country. "The man was gone before it occurred to me what was happening," says Terry, who is a partner in the architecture and access compliance firm Evan Terry Associates. "He was waiting for someone to come out of the men's room because the door was too heavy for him to open. A few minutes of maintenance time would have made that men's room accessible to this man and others like him."

Accessibility is one of the tenets of an emerging design philosophy known

as Universal Design. Also referred to as *universal access*, Universal Design is a concept that, when applied to environments, ensures that facilities, products, and services are usable by all people. "The heavy door to the men's room is an example of the often simple ways in which Universal Design can eliminate barriers to patient care while improving patient safety in health care facilities," says Terry. "Universal Design encourages organizations to go beyond the minimum requirements set by law to make facilities and services universally usable."

Exceeding Minimum Requirements

Many different local and state building codes, as well as civil rights laws, address the requirements of accessibility. On the federal level, of course, the Americans with Disabilities Act (ADA) prohibits discrimination against, or segregation of, people with disabilities in all activities, programs, or services. Its parameters greatly affect the design, construction, and operation of buildings and facilities as

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—Paul Schyve, M.D., senior vice president, The Joint Commission

well as the products that go into them.

As the principles of Universal Design propose, adhering to ADA requirements still leaves room for organizations to improve barriers to care and reduce risks to safety. "Certainly, safe and accessible design begins with the ease of admission to a facility and specific protective features within," says Paul Schyve, M.D., senior vice president, The Joint Commission. "In more precisely considering the needs of individuals with physical, communication, and cognitive disabilities, Universal Design extends to clinical areas and even clinical equipment. For example, it's clear that a barrier to care exists in facilities without an in-floor medical scale that can accommodate bariatric patients or those in wheelchairs, since patients who are not properly weighed often cannot be properly diagnosed and treated," Schyve says. "Universal Design complements a patient-centered approach to care because it is a concept driven by understanding the individual patient's experience of care."

Principles of Universal Design

PRINCIPLE ONE: Equitable Use

"Equitable Use" is the first of seven principles of Universal Design.

The seven principles of Universal Design, which are outlined in the sidebar at right, emphasize the need to accommodate a patient population of diverse abilities. The first step toward this goal is for health care professionals to pay closer attention to those receiving inadequate care, says Schyve. "Once you are aware of individual patient needs, you can look at your current environment as a whole and determine how it can be improved through these principles," he says. "Like the in-floor medical scale, advances in technology continue to provide facilities with other opportunities to improve access for the hearing impaired or those with language barriers."

Involving Patients in the Process

As Schyve suggests, organizations that adopt Universal Design make a commitment to involving patients in the process. "It requires a team approach of observation and participation, and patients with disabilities have to be a central part of that team," says Terry. "You can gain insight into issues of care and safety through patient interviews and surveys as well as from health care professionals who consistently observe the movements of patients in their care, but people with disabilities should also serve as leading consultants alongside those professionals."

It is through this team approach that organizations can begin to implement particular elements of Universal Design in their facility rather than put it off until the next major remodeling project.

"Obviously, remodeling a facility or departments within a facility, or building a new facility, is the most opportune time to integrate Universal Design," says John Fishbeck, R.A., associate director, Division of Standards and Survey Methods, The

The Seven Principles of Universal Design

These seven principles offer designers guidance to better integrate health care facility features that meet the needs of as many users as possible.

Principle One: Equitable Use

The design is useful and marketable to people with diverse abilities.

Principle Two: Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

Principle Three: Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

Principle Four: Perceptible Information

The design effectively communicates necessary information to the user, regardless of ambient conditions or the user's sensory abilities.

Principle Five: Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Principle Six: Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

Principle Seven: Size and Space for Approach and Use

Appropriate size and space are provided for approach, reach, manipulation, and use, regardless of the user's body size, posture, or mobility.

Please note that the principles of Universal Design address only universally usable design, while the practice of design involves more than consideration for usability. Designers must also incorporate other considerations, such as economic, engineering, cultural, gender, and environmental concerns, in their design processes.

Source: The Center for Universal Design: *The Principles of Universal Design*, Version 2.0. Raleigh, NC: North Carolina State University, 1997.

Joint Commission. "But many of its principles are perfectly applicable to older, existing buildings. When you consider the cost of even one lawsuit arising from an unsafe environment, you realize that making positive changes is more than an investment in doing the right thing, as important as that is."

In fact, as Terry contends, many changes designed to accommodate persons with disabilities also benefit those

considered to be average patients. "Lower counters throughout a facility, better-positioned magazine racks in waiting areas, the removal or adjustment of protruding objects such as an overhead television in patient rooms and spaces, and grab bars in bathroom shower stalls enhance safety for all patients," he says. "Even the selection of chairs in a waiting room can affect the safety of patients of various ages,

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conditions, and sizes. Chairs without arm rests can be difficult for weaker patients to get out of, while chairs with arm rests can be difficult for larger patients to fit into. Providing a variety of different chairs considers the needs of a diversity of patients and their families."

Solutions Don't Always Require Remodeling

In another of his visits to health care facilities, Terry observed an elderly woman pushing her elderly husband in a wheelchair through a waiting area that was partially carpeted. "There was a bad transition where the carpet met the floor, and it took the woman five tries with increasing speed each time to finally get the chair over that bump," he says. "This is a danger that can easily be eliminated. The same is true of doorway thresholds that pose a fall risk to patients and to older people who serve as volunteers in the health care setting. These are design changes that don't necessitate a remodeling project."

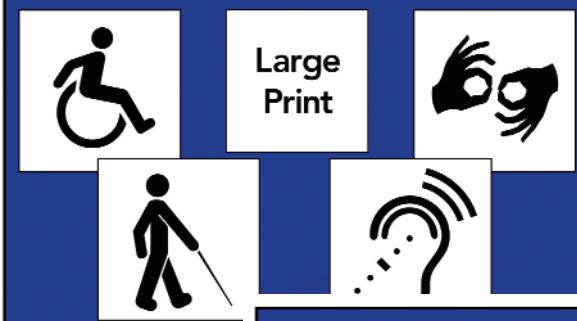
Despite the aging U.S. population, many of whom may soon join the ranks of those in wheelchairs or with vision or hearing issues, the benefits of Universal Design have yet to fully take hold in the health care industry. "While there is still a lot of work to do in promoting Universal Design, its solutions register with health care organizations once they recognize their own safety and access deficiencies," says Schyve. "As the patient population changes, these solutions will become more evident. This is a design concept that will help organizations lead patients toward a healthier future. But it is also a concept that can benefit patients today."



Some Universal Design Principles

Principles of Universal Design

PRINCIPLE ONE: **Equitable Use**



Principles of Universal Design

PRINCIPLE FOUR: **Perceptible Information**



Principles of Universal Design

PRINCIPLE SIX: **Low Physical Effort**



Principles of Universal Design

PRINCIPLE SEVEN: **Size and Space for Approach and Use**

