Universal Design and Age-Friendly Design: How to future-proof our cities, buildings and homes

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Photos: Susan Ruptash

MANY PEOPLE STILL THINK OF universal and barrier-free design as 'specialized' design, something that is to be applied here and there when necessary. This attitude has left us with a legacy of cities and buildings that are tough to negotiate with rough, uneven decorative pavers on our sidewalks; steps at entrances; narrow, heavy doors; and inaudible sound systems. We are now looking at a huge inventory of built environment that needs to be retrofitted in order to accommodate access for people with disabilities. This can lead to hasty, expensive, poorly designed, or add-on solutions.

Universal Design takes a more global approach, first defined by a group of researchers at North Carolina State University, which outlines seven basic principles: equitable use, flexibility, simple and intuitive design, perceptible information, tolerance for error, low physical effort and adequate space for approach and use. By incorporating these principles into the buildings and cities we are designing today, we will dramatically reduce the need to retrofit them in the future. What could be more sustainable than future-proofing our built environment?

As we age, many people do not like to think about how their needs might change later in life. This may be partly due to a history of associating accessible design with sterile, institutional design. It doesn't have to be that way. The last decade produced an amazing array of beautiful accessible solutions—elegant lever handles, gorgeous cantilevered sinks—simple, good design. It is smart to think about these issues *before* you need them. Buying or building a new house or condo is a rare event that offers a huge opportunity to future-proof your home. That doesn't mean installing ramps and grab bars everywhere, but it might mean selecting a new home that has very few, or no, steps or installing plywood supports in some walls to make it easy to install grab bars later. This is an issue for everyone, not just those who have a sudden need that can mean that their home no longer works for them.

FUTURE-PROOFING OUR CITIES

The fabric of our cities and communities must also address the principles of universal design. This includes considering age-friendly elements such as safe curb-cuts that don't fill up with snow and ice in the winter, visual and audible traffic signals and alternate "fast and slow" pedestrian crossing signals that will give older and disabled persons enough time to safely cross the road.

Good way-finding and signage can make a critical difference in the ability for someone to safely get where they're going. Other initiatives for age-friendly communities include more strategically placed benches, safer sidewalks, slopes and ramps instead of stairs where possible, more thoughtful placement of trash and recycling receptacles that allow freer pedestrian movement and more and better access to public transit. In

dealing with that for older persons, we're dealing with that for everyone.

FUTURE-PROOFING YOUR HOME

You have a golden opportunity if you are moving, building or renovating to consider aspects of universal design in your home, even if you don't need the features now. If you are purchasing a new house or condo, thinking about these things now may help sway your decision about what to buy and will save you money in the long run. More and more people are choosing to stay in their homes later in life rather than move to specialized facilities—why not make it possible now so that you have the freedom to decide later? As more people think this way, the resale value of your home may be increased if it incorporates a basic level of accessibility.

GETTING IN AND OUT

On the most basic level, you will need to be able to get into your home. The most common barriers to getting in are stairs and door widths. Falling, and fear of falling, are the primary reasons that people need to move as they age, and steps are a major contributor to falls. Make sure that doors are at least 915mm (36") wide, although wider is better. Don't think of this just for wheelchairs and scooters – it is necessary for using a walker or a service animal (guide dog) or if someone is supporting you when you are unsteady. Don't forget access from your car and the surrounding sidewalks, and outdoors onto terraces, decks and gardens. A strong connection to the outdoors is important at all stages of our lives.

GETTING AROUND

Minimum width and clearance requirements continue once you are inside. Hallways should be a minimum of 1100mm (3'-7"). Pay attention to door swings, particularly with larger doors, as they can block corridors. Sliding doors can be a good option, as long as they are easy to operate. Floor and ground surfaces should be smooth, level, hypo-allergenic and non-slip. Cushioned flooring, such as linoleum or cork, is safer and more fall-friendly than hard tiles. Low-pile, tight carpets are better than plush, thick carpets. Make sure that all essential living functions can be accommodated on the ground level in the future, including your bedroom and a full bathroom.

THE BATHROOM

If you can, plan a large, spacious bathroom now—luxurious now, functional and necessary later. Another approach is to plan an adjacent space (a closet or spare room) that will allow you to expand the bathroom in the future. If it's possible, installation of a combination of a walk-in shower and a bathtub offers the flexibility of choice. Bathing is an important and relaxing ritual for many people and the right design can help make it easier to get in and out safely. Other tips:

- Good lighting
- Low mirrors
- Doors that swing out or slide to prevent someone from getting trapped inside if they fall
- Higher toilets

EASY LIVING

I believe that people are often forced to move out of their homes because the design has caused the tasks of everyday living to become too difficult. Forward thinking can help your home work with you, not against you, as you age. Things that can help you live your life more comfortably and easily are:

- Lower cabinets and appliances (no microwaves over the stove) – keep things within easy reach
- Lever handles – not just doors and faucets, but also cabinets, window hardware and controls, such as thermostats
- Lower switches and higher plugs with colour contrast to make them easy to find
- Materials that are friendly to allergies and chemical sensitivities
- Good lighting, higher light levels at work, focused on work and task areas, low glare

Although most of these features can be integrated into your home today, you may wish to wait. However, keep them in mind when you are buying or renovating and you will find that your home can grow with you as you age.

There are many terms used to describe these areas of design—barrier-free design, universal design, age-friendly design and design-for-all. Some of these terms have clear definitions; some are used interchangeably. I do not think of this as specialized design; I think of it as smart design.

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