

Housing Health for the Elderly:
Assessing Harm Inside the Home

Christina Bobek, BA, RN

Boise State University

April 26, 2010

Contact Information:
Phone: (805) 795-0538
3727 Crescent Rim Dr., Boise, ID 83706
Email: ChristinaBobek@boisestate.edu

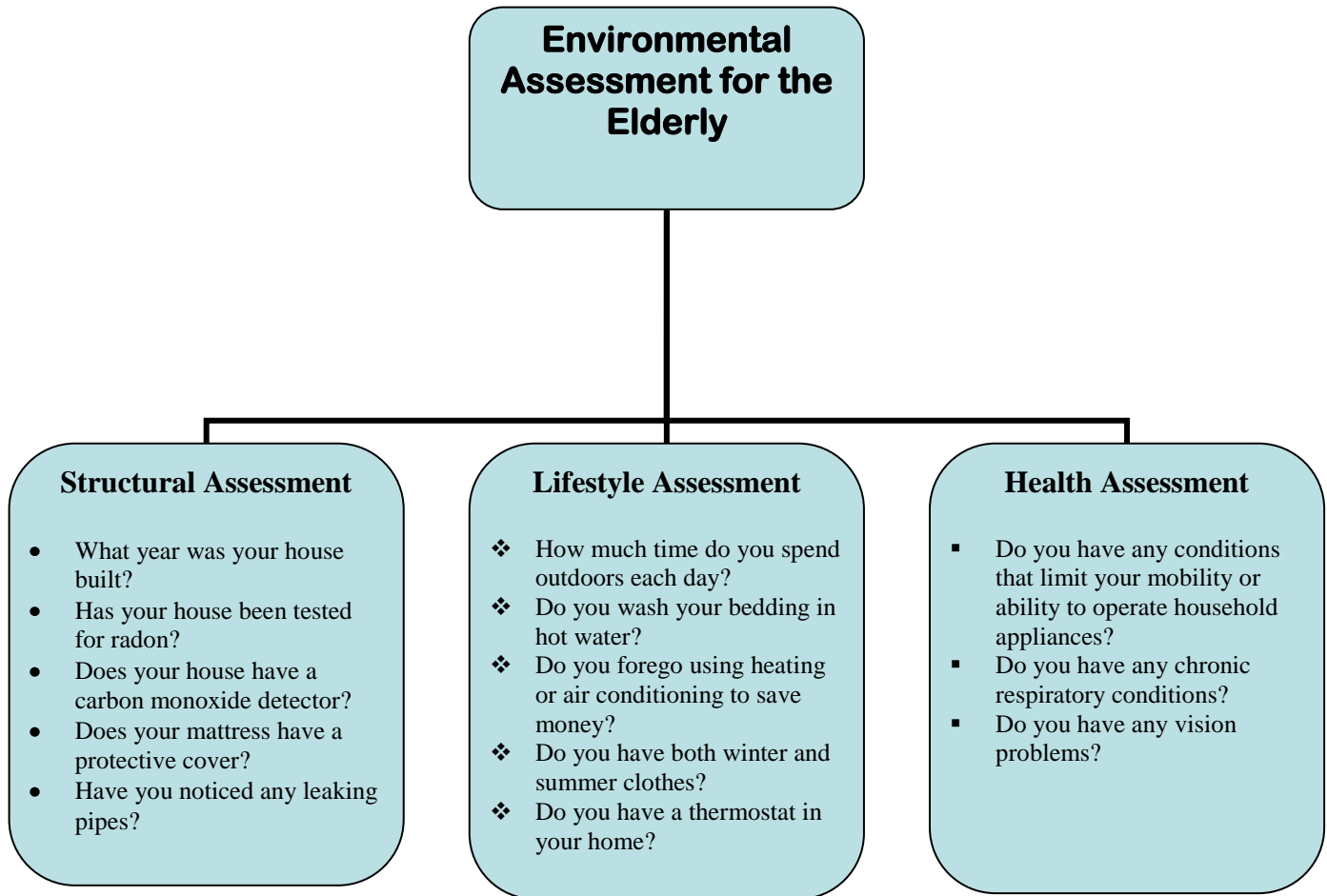
The concept of the environment impacting health is not novel. In the 19th century, Florence Nightingale developed her “Environment Theory”, which defined health based on factors such as proper ventilation, warmth, and clean bedding. Today, science has given words to dangers inside the home. There is **radon** in the air, **arsenic** in the water, and *Dermatophagoides farinae*—the lowly dust mite—in the bed sheets. Even air “fresheners” betray their name and emit toxic chemicals. These chemical air fresheners are strategically placed to cover up the musty odor coming from the basement with the leaky pipe. That smell is mold that produces spores that, in turn, are inhaled into the lungs. These dangers are impossible to escape because humans spend 90% of their time indoors—at home, work, and school (Srinivasan, O’Fallon, & Dearry, 2003).

The 65 and older population is often neglected when advocating for environmental health. Publicity and advocacy has focused primarily on children—especially children ingesting lead-based paint chips and attending asbestos-plagued schools. But the elderly, retired and unlikely to be playing tag in the park, may spend closer to 100% of their time inside their house. Society may assume them to be safely ensconced. After all, they are not in their homes eating paint chips.

But, according to the Centers for Disease Control and Prevention (CDC), housing should provide for physiological needs, including “an atmosphere of reasonable chemical purity” (Olson, 2007, n.p.). Proper ventilation and fresh air are essential to health. In Idaho, 32% of people 65 and older have a physical disability, making simple tasks such as walking to the mailbox difficult (Idaho Department of Health and Welfare [IDHW], 2006). The act of opening a window or turning on a fan can reduce the levels of carbon monoxide and dry out mold from the bathroom. But 55% of elderly Idahoans have arthritis, which can make this simple act prohibitively difficult (IDHW, 2006). And if they can open their windows, do they fear that an intruder might take advantage?

In addition to biological and chemical dangers, indoor temperature is a concern for the elderly. Advanced age is a dominant risk factor for heat-related death (CDC, 2003). Some houses may not have an air conditioner; or the resident, living on a fixed income, may not use it in order to save money. This increases vulnerability for dehydration and heat stroke. The other extreme—hypothermia—is equally dangerous. The same financial burden that limits air conditioner use can also keep the elderly from properly heating their homes during winter.

The CDC has made “Environmental Health” a focus area of the *Healthy People 2010* initiatives. A sub-category of this focus area, “Healthy Homes and Communities,” is committed to reducing indoor allergens and substandard housing as well as increasing the number of homes tested for radon. Nurses can help their elderly clients identify the health of their house by performing simple environmental assessments tailored to this population. The diagram below can help guide your assessment and determine if the client’s house is a place of health or harm.



References

- Centers for Disease Control and Prevention. (2003). Heat-related deaths — Chicago, Illinois, 1996–2001, and United States, 1979–1999. *MMWR*, 52(26). Retrieved from <http://www.cdc.gov/mmwr/PDF/wk/mm5226.pdf>.
- Idaho Department of Health and Welfare. (2006). *Senior Health Report*. Boise, ID: Author.
- Olson, D.K. (2007). *Environmental health online modules*. University of Minnesota School of Public Health. Retrieved from <https://cpheo1.sph.umn.edu/EHO/index.asp>.
- Srinivasan, S., O’Fallon, L.R., & Dearry, A. (2003). Creating healthy communities, healthy homes, healthy people: Initiating a research agenda on the built environment and public health. *American Journal of Public Health*, 93(9), 1446-1450.
- U.S Environmental Protection Agency. (n.d). The inside story: A guide to indoor air quality. Retrieved from <http://www.epa.gov/iaq/pubs/insidest.html#Intro1>.