

COMPUTING AND A PUBLIC HEALTH PROBLEM: AN INNOVATIVE SOLUTION TO FALL PREVENTION FOR OLDER ADULTS

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BACKGROUND AND GOALS

- ◎ Over 30% of community-dwelling adults over 65 will fall each year¹ resulting in 1.8 million emergency room visits, 460,000 hospitalizations, and 13,600 deaths²
- ◎ In 2007, an estimated \$325 million was spent managing falls and fall-related health care costs³
- ◎ The number one risk factor for a fall is leg muscle weakness and poor balance⁴
- ◎ Goal: Build a low-cost training solution specifically for senior users by modifying existing technology

¹*Injury Facts: DataBytes: Leading Causes of Death: An excerpt of Injury Facts.* (2003). National Safety Council.

²CDC. (2003). CDC: Web-based Injury Statistics Query and Reporting System (WISQARS). Retrieved February 15, 2009, from *National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.*

³Statistics NCSCHS. (2008). Retrieved February 18, 2009 from NCSCHS Web site: <http://www.schs.state.nc.us/SCHS/>.

⁴Tinetti ME, Speechley M, & Ginter SF. (1988). Risk factors for falls among elderly persons living in the community. *N Engl J Med.* 319: 1701-1707.

RESULT

- ① Web-based prototype
- ① User completes exercises after watching video segments
- ① Wii Remote strapped to user, tracking his motion

