

Cost-Effectiveness of a Statewide Falls Prevention Program: Healthy Steps for Older Adults



Abstract: **OBJECTIVES:** Pennsylvania's Department of Aging has offered a falls prevention program, "Healthy Steps for Older Adults" (HSOA), since 2005, with about 40,000 older adults screened for falls risk. In 2010 to 2011, older adults 50 years or older who completed HSOA ($n = 814$) had an 18% reduction in falls incidence compared with a comparison group that attended the same senior centers ($n = 1019$). We examined the effect of HSOA on hospitalization and emergency department (ED) treatment, and estimated the potential cost savings. **STUDY DESIGN:** Decision-tree analysis. **METHODS:** The following were included in a decision-tree model based on a prior longitudinal cohort study: costs of the intervention, number of falls, frequency and costs of ED visits and hospitalizations, and self-reported quality of life of individuals in each outcome condition. A Monte Carlo probabilistic sensitivity analysis assigned appropriate distributions to all input parameters and evaluated model results over 500 iterations. The model included all ED and hospitalization episodes rather than just episodes linked to falls. **RESULTS:** Over 12 months of follow-up, 11.3% of the HSOA arm and 14.8% of the comparison group experienced 1 or more hospitalizations ($P = 0.04$). HSOA participants had less hospital care when matched for falls status. Observed values suggest expected costs per participant of \$3013 in the HSOA arm and \$3853 in the comparison condition, an average savings of \$840 per person. Results were confirmed in Monte Carlo simulations (\$3164 vs \$3882, savings of \$718). **CONCLUSIONS:** The savings of \$718 to \$840 per person is comparable to reports from other falls prevention economic evaluations. The advantages of HSOA include its statewide reach and integration with county aging services

About the Speaker: Dr. Lin is Research Professor of Health Economics in the Ohio State University College of Nursing. She obtained her MS in Finance from Kellogg Graduate School of Management, Northwestern University and PhD in Health Economics from Vanderbilt University. She has dedicated her career to the study of health economics and outcomes research. She has extensive experiences in quantitative analysis using large data and has been engaged in research initiatives which focused primarily on costs, utilization, and outcomes of health care services, immunization (influenza, pneumococcal, HPV), prevention of fall injuries, and intervention programs for underserved populations. In her time with the University of Pittsburgh, she taught and mentored some graduate students, medical students and junior faculty in the university, and have undertaken more than 30 research projects as either principal investigator, co-principal investigator, or co-investigator. She has published more than 100 articles in peer-reviewed journals. She has offered services to the academic community as grant proposal reviewer for the National Institutes of Health, Centers for Diseases Control and Prevention, and Clinical and Translational Science Institute; and served as a manuscript reviewer for peer-reviewed journals.

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Carmen Zoom