wiha Wisconsin Institute for Healthy Aging

Wisconsin Institute for Healthy Aging – Evidence-Based Prevention/Health Promotion Programs

Programs Meet the U.S. HHS Administration on Aging Criteria for Highest-Level Evidence-Based Programs

PROGRAM	HEALTH FOCUS | INCIDENCE & COST | REACH IN WISCONSIN	PROVEN OUTCOMES & SAVINGS
Living Well with Chronic Conditions is a 6-week, evidence-based intervention that decreases health care utilization through self-management in people with chronic conditions. The program is delivered by trained leaders and is also available in Spanish in Wisconsin as **Tomando Control de su Salud.** **Developed by:** Kate Lorig, DPH at Stanford University in 1992.	**Focus: Chronic conditions** – e.g., arthritis, diabetes, heart disease, chronic obstructive pulmonary disease **Incidence and Cost:** ◆ 80% of older adults have at least one chronic condition; 50% have 2 or more ◆ 95% of health care dollars spent on older adults attributable to chronic conditions ◆ 2 of 3 deaths in the U.S. are attributable to heart disease, stroke, cancer, and diabetes **Reach in Wisconsin through 2016** *(instituted in 2007)* ◆ 9,038 participants in workshops ◆ 1,030 workshops held statewide ◆ 64 counties and 2 tribes have held workshops	**People who participated in the 6-week intervention demonstrated:** **NATIONAL** ◆ 27% reduction in average emergency department (ED) visits in the first six months following the intervention.[1] ◆ **21% reduction** in average ED visits in first twelve months following the intervention.[1] ◆ **22% reduction** in average number of hospitalizations in first six months post intervention.[1] **IN WISCONSIN** ◆ Network Health members: **24% fewer** encounters with health care system.[3]

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Sources

[1] **Ory, Marcia G., PhD, MPH, et al., "Successes of a National Study of the Chronic Disease Self-Management Program: Meeting the Triple Aim of Health Care Reform," Medical Care, Volume 51, Number 11, November 2013.**

Summary: Meta-analysis of data collected at baseline, 6-month and 12-month assessments, using 3 types of mixed-effects models to provide unbiased estimates of intervention effects from 1,170 community-dwelling program participants nationwide. Triple Aim-related outcome measures: better health (e.g., self-reported health, pain, fatigue, depression), better health care (e.g., patient-physician communication, medication compliance, confidence completing medical forms), and better value (e.g., reductions in emergency department (ED) visits and hospitalizations in past six months. Results showed significant improvements for all better health and better health care outcomes measures from baseline to 12-month follow-up. Odds of ED visits significantly reduced from baseline to 12 month follow-up. Significant reductions in hospitalization from baseline to 6-month follow-up.

[2] **"Program Impact Report: Oregon's Living Well with Chronic Conditions," Dr. Viktor E. Bovbjerg and Ms. Sarah Jane Kingston, August 5, 2010, Oregon State University College of Health and Human Sciences.**

Summary: Researchers from Oregon State University College of Health and Human Sciences applied findings from national articles summarizing this program's findings, relying only on articles with sound research design, rigorous methods and thorough analysis, with description of measures and instrumentation, including documentation of reliability and validity of self-report measures, descriptions of participant recruitment and retention and appropriateness of statistical analyses, similar populations and appropriate, quantified outcomes. The latter included: length of follow-up for outcomes; estimates for both subjective (e.g., quality of life, health status) and objective (e.g., utilization) outcomes, with measures of variation (e.g., standard deviations, confidence intervals); disaggregated health care utilization data (e.g., separate estimates for outpatient, inpatient and emergency department use); and presentation of results from appropriate statistical analyses. They used a conservative "duration of effect" of only two years post-intervention and a participant workshop completion rate of 71%, which is comparable to Wisconsin experience. They used utilization costs from the mid-point of the period of their data collection, using mean cost of hospital day in Oregon from the U.S. Census Bureau's State and Metropolitan Area Data Book and the mean cost of an ED visit from the Agency for Healthcare Research and Quality Medical Expenditure Panel Survey. They used a per participant program cost of $375, which is consistent with the national average used by the National Council on Aging. Using these assumptions, they calculated the cost-savings from Oregon's 3,919 participants (.3% population penetration) between 2005-2009, and concluded that participants avoided 557 ED visits, 557 avoided hospitalizations and 2,783 avoided hospital days. Total savings: $7,136,068.

[3] **Network Health presentation at 2012 Healthy Aging Summit – Neenah, Wisconsin** *(available from WIHA)*

Summary: Mike Van Ryzin, (former) director of Quality Improvement at Network Health (insurance company) presented data that measured the number of encounters with the health care system of their members who successfully completed the workshop. Members who completed a workshop had 24% fewer encounters in the six months following the workshop compared to the six months prior to the workshop.

See also:

– Lorig, K., Sobel DS, Stewart AL, et al., "Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial." Med Care. 1999;37:5-14

– Lorig, K., Ritter P., Stewart AL, et al., "Chronic disease self-management program: 2–7 year health status and health care utilization outcomes." Med Care. 2001;39:1217-1223.

– Lorig, KR, Sobel DS, Ritter PL, Laurent D, Hobbs M., "Effect of a self-management program on patients with chronic disease," Eff Clin Pract 2001; 4:256-62/

– Lorig, Kate, DPH, et al., "Spanish Diabetes Self-Management With and Without Automated Telephone Reinforcement: Two randomized trials," Diabetes Care, Volume 31, Number 3, March 2008.

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Healthy Living with Diabetes (HLWD) is based on Living Well with an emphasis on diabetes support. It is also available in Spanish in Wisconsin as **Vivir Saludable con Diabetes** **Developed by:** Kate Lorig, DPH at Stanford University in 1997.	**Focus: Type 2 diabetes** **Incidence and Cost in Wisconsin:** ◆ 475,000 Wisconsin adults have diabetes; 1.45 million have pre-diabetes ◆ Diabetes is the leading cause of blindness, heart disease, stroke, and lower extremity amputations ◆ Diabetes costs Wisconsin $4.07 B in direct health costs and $2.7 B in indirect costs **Reach in Wisconsin through 2016** *(instituted in 2012)* ◆ 2,462 participants in HLWD workshops ◆ 277 HLWD workshops held statewide ◆ 46 counties have held HLWD workshops	**People who participated in the 6-week intervention demonstrated:** **NATIONAL** ◆ **53% reduction** in ED visits.[1] ◆ **Improvements in A1C.**[2] ◆ Reductions in health distress, symptoms of hypo- and hyperglycemia.[3] ◆ Improvements in self-rated health and communication with physicians.[3] **IN WISCONSIN** ◆ Network Health members: **24% fewer** encounters with health care system.[4]

Sources

[1] Lorig K, Ritter PL, Villa F, Piette JD. Spanish diabetes self-management with and without automated telephone reinforcement. Diabetes Care 2008:31(3):408-14.
View abstract: www.ncbi.nlm.nih.gov/pubmed/18096810?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

[2] Lorig, DrPH, Ritter, Ory and Whitelaw, "Effectiveness of a Generic Chronic Disease Self-Management Program for People With Type 2 Diabetes: A Translation Study," The Diabetes Educator, September/October 2013 39:655-663
View abstract: www.medscape.com/medline/abstract/23782621

[3] Lorig K, Ritter PL, Villa FJ, Armas J. Community-based peer-led diabetes self-management: A randomized trial. The Diabetes Educator 2009 July-August;35(4):641-51.
View abstract: www.ncbi.nlm.nih.gov/pubmed/19407333

[4] Network Health presentation at 2012 Healthy Aging Summit – Neenah, Wisconsin *(available from WIHA)*
Summary: Mike Van Ryzin, (former) director of Quality Improvement at Network Health (insurance company) presented data that measured the number of encounters with the health care system of their members who successfully completed the workshop. Members who completed a workshop had 24% fewer encounters in the six months following the workshop compared to the six months prior to the workshop.

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Stepping On is a 7-week, evidence-based intervention proven to decrease the incidence of falls. The program is delivered by trained leaders and is also available in Spanish as **Pisando Fuerte.** **Developed by:** Lindy Clemson, OT, PhD, University of Sydney, Australia. Adapted for U.S. audiences by Jane E. Mahoney, MD, University of Wisconsin-Madison.	**Focus: Falls Prevention** **Incidence and Cost:** ◆ In 2008, 918 deaths were caused by falls — more than motor vehicle crashes.[1] ◆ 90% of fall-related deaths and 70% of fall-related, in-patient hospital stays involve people age 65 and older.[1] ◆ Approximately 40% of people admitted to a nursing home had a fall in the 30 days prior to admission.[1] ◆ 27% of fall-related nursing home admissions, totaling 4,401 in 2007, were long-term admissions; one of every ten admissions in 2007 involving a fall resulted in a long-term stay (i.e., more than 100 days).[1] ◆ Hospitalization and emergency department visits due to falls cost $800 million each year. Over 70% of these costs are paid by government insurance programs such as Medicare and Medicaid (12%).[1] **Reach in Wisconsin through 2016** *(instituted in 2008)* ◆ 12,411 participants in Stepping On workshops ◆ 1,243 Stepping On workshops held statewide ◆ 66 counties have held Stepping On workshops	**People who participated in the 7-week intervention demonstrated:** **IN AUSTRALIA** ◆ **31% reduction** in falls [2] **IN WISCONSIN** ◆ **51% reduction** in falls [3] ◆ **70% reduction** in ED visits due to a fall [4]

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Sources

[1] **Kopp, B., MPH, Ofstead, C., PhD., "The Burden of Falls in Wisconsin," Wisconsin Department of Health Services, August 2010.**

Summary: Reports from Wisconsin Department of Health Services acknowledging the significant public health problem of unintentional falls in Wisconsin. The report describes the large burden falls place on individuals, families and communities throughout Wisconsin. The report's data is from the Behavioral Risk Factor Surveillance System. The report lists falls as the leading cause of injury-related deaths in Wisconsin, The report suggests resources and prevention strategies that can reduce the burden, including information Stepping On and other evidence-based prevention programs in Wisconsin.

[2] **Clemson, Lindy, et al., "The Effectiveness of a Community-Based Program for Reducing the Incidence of Falls in the Elderly: A Randomized Trial," Journal of American Geriatrics Society, 52:1487-1494, 2004.**

Summary: Researchers from the Schools of Occupation and Leisure Services, Behavioral Sciences, Health Sciences, School of Public Health and Health Sciences from the University of Sydney, and one hospital and Area Health Service in Sydney, Australia studied the effectiveness of Stepping On, the multifaceted community-based program using cognitive-behavioral learning in small-group learning environment in reducing falls in at-risk people living at home. Study design was a randomized trial with 310 community-dwelling, independent, cognitively intact subjects age 70 and older who had fallen in previous 12 months or had a fear of following. Subjects were followed for 14 months. Researchers stratified subjects into blocks of four, according to gender and number of falls in the previous 12 months. With a primary outcome measure of number of falls, the study concluded that individuals who completed Stepping On experienced a 31% reduction in falls.

[3] **Mahoney J, Gangnon R, Clemson L, Gobel V, Lecey V. Evaluation of Stepping On Implementation Across Wisconsin. 65th Annual Meeting, Gerontological Society of America, San Diego, CA, 2012.** View abstract: www.sciencedirect.com/science/article/pii/S0022437514001170

[4] **Mahoney J, Abramson B, Wise M, Ford J, Dattalo M. Bringing Healthy Aging to Scale: A Randomized Trial of a Quality Improvement Intervention to Increase Adoption of Evidence-Based Health Promotion/Disease Prevention Programs by Community Partners, 2012.** Funding for this project was provided by the UW School of Medicine and Public Health from the Wisconsin Partnership Program