

# Rebecca Seguin

## Web Bio

### Information

### Biography

#### Biographical Statement

I began my career as an exercise physiologist, first working in cardiac and pulmonary rehabilitation, and then developing individual and group programming for clients with cardiovascular disease, diabetes, osteoporosis, arthritis, HIV, and multiple sclerosis. I later completed my M.S. in Nutrition Communications and Ph.D. in Food Policy and Applied Nutrition.

Over the past decade, my work has focused on chronic disease prevention and public health. I am interested in behavioral theory, health communications, and the context in which people develop, change, and maintain health behaviors. In 2003, I co-developed a comprehensive curriculum and training program for implementing research-based programming for midlife and older women. To date, 3,000 health educators in 48 states have been trained to implement these community-based physical activity and nutrition programs in predominantly non-urban areas.

My current research focuses on understanding how people's social, food, and physical activity environments influence behavior over time—particularly in rural communities. I am also working on community mobilization and capacity building initiatives with health educators who serve rural areas. The goal is to provide training and evaluation tools to help them engage residents to become involved in programs and policies to improve their food and physical activity environments through collective action.

### Teaching

### Professional

#### Current Professional Activities

Field Member, Nutritional Sciences, Cornell University

Faculty Affiliate, Cornell Population Center, Cornell University

Faculty Affiliate, Bronfenbrenner Center for Translational Research, Cornell University

Adjunct Faculty Member, Tufts University, Boston MA

Adjunct Faculty Member, Fred Hutchinson Cancer Research Center, Seattle WA

## **Research**

### **Current Research Activities**

My current research focuses on community-based nutrition and physical activity interventions and dissemination research, particularly targeting rural and limited resource audiences. We are interested in understanding how people's social, food, and physical activity environments influence health behaviors, overall quality of life, and health outcomes such as obesity and chronic disease. Much of our work involves community mobilization and capacity building initiatives with cooperative extension educators and other community leaders. We are also studying how CSA programs that target low-income families affect diet-related factors as well as the possible economic impact on small farmers.

## **Extension**

## **Education**

### **Education**

2009-2011 NIH (NIA) T32 Postdoctoral Fellow, Group Health Research Institute. Seattle, WA.

2008 Ph.D. Food Policy and Applied Nutrition Tufts University Boston, MA

2004 M.S. Nutrition Communications Tufts University Boston, MA

1998 B.S. Clinical Exercise Physiology Boston University Boston, MA

## **Courses**

### **Courses Taught**

NS 1600, Introduction to Public Health

NS 7040, Grant Writing

NS 4030, Teaching Apprenticeship

NS 4010, Empirical Research (Independent Study)

## **Websites**

## **Administration**

### **Administrative Responsibilities**

- Faculty Search Committee (2014)
- College of Human Ecology Dean's Diversity Committee (2013-present)
- Division of Nutritional Sciences Academic Affairs Committee (2013-present)

## Publications

### Selected Publications

#### Original Research

- Folta SC, **Seguin RA**, Chui K, Clark V, Corbin MA, Goldberg JP, Heidkamp-Young E, Lichtenstein A, Wiker N, Nelson ME. *National dissemination of the StrongWomen – Healthy Hearts Program: a community-based program to reduce risk of cardiovascular disease among midlife and older women*. In review.
- Stefanick ML, Limacher MC, Wassertheil-Smoller S, Bird CE, Brunner RL, Garcia DO, Mackey RH, Johnson KC, LaMonte MJ, Leng XI, LaCroix A, Robinson JG, **Seguin RA**, Tindle HA. *The relationship of cardiovascular disease to physical functioning in women surviving to age 80 and over in the Women’s Health Initiative*. In review.
- Wanigatunga AA, Bea JW, Braswell J, Garcia L, LaMonte M, Limacher M, Manini TM, Nassir R, Ockene J, Sarto GE, **Seguin RA**, Sourdet SS, Stefanick M, Waring M. *Physical impairment and body weight history in postmenopausal women: the Women’s Health Initiative*. In review.
- Zaslavsky O, Palgi Y, LaCroix A, **Seguin RA**, Post S, Tindle T, Hingle M, Woods N, Cochrane B, Garcia L, Schnall E, Rillamas-Sun E, Shrira A. *The limits of optimism: the effect of dispositional optimism on age-related and death-related change in global quality of life*. In review.
- Woods NF, Cochrane BB, Seeman TA, La Croix AZ, Tindle HA, Zaslavsky O, Bird C, Johnson K, Manson J, Ockene J, **Seguin RA**, Wallace B. *Aging well: observations from the Women’s Health Initiative Study*. In review.
- **Seguin RA**, Aggarwal A, Vermeulen F, Drewnowski A. *Consumption of foods away from home linked with BMI and diet quality in adults*. In review.
- Foraker R, Abdel-Rasoul M, Kuller L, Jackson R, Van Horn L, **Seguin RA**, Safford M, Wallace R, Kucharska-Newton A, Robinson J, Martin LW, Agha G, Hou L, Allen N, Tindle H. *Cardiovascular health and incident cardiovascular disease and cancer: the Women’s Health Initiative*. In review.
- **Seguin RA**, Connor LM, Nelson M, LaCroix A, Eldridge G. *Understanding barriers and facilitators to healthy eating and active living in rural communities*. *J Nutr Metab*. 2014; 1-8. **PMC: in Process**
- **Seguin RA**, Folta SC, Sehlke M, Nelson M, Heidkamp-Young E, Fenton M, Junot B. *The StrongWomen Change Clubs: engaging residents to catalyze positive change in food and physical activity environments*. *J Environ Public Health*. 2014; 1-6. **PMC: in Process**
- Shrira A, Zaslavsky O, LaCroix AZ, **Seguin RA**, Post S, Tindle H, Hingle M, Woods N, Cochrane B, Garcia L, Schnall E, Rillamas-Sun E, Palgi Y. *Global quality of life moderates terminal change in physical functioning among older adult women*. *Age Ageing*. 2014; 1-5. **PMC: in Process**

- Vyas A, Rubenstein L, Robinson J, **Seguin RA**, Vitolins MZ, Kazlauskaitė R, Shikany J, Cirillo D, Snetselaar L, Wallace R. *Diet drink consumption and the risk of cardiovascular events: a report from the Women's Health Initiative*. J Gen Intern Med. 2014;63(12). **PMC: in Process**
- Folta SC, Lichtenstein AH, **Seguin RA**, Goldberg JP, Corbin MA, Wiker N, Gauker J, Chui K, Nelson ME. *The Strong Women-Healthy Hearts Program in Pennsylvania: RE-AIM analysis*. Translational Behavioral Medicine. 2014; 1-9. **PMC: in Process**
- Sitaker M, Kolodinsky J, Jilcott S, **Seguin RA**. *Do entrepreneurial food systems innovations impact rural economies and health?* Am J of Entrepreneurship (*Special Issue: Rural Entrepreneurship*). 2014;7(2). **PMC: in Process**
- Zheng C, Beresford SA, Van Horn L, Tinker LF, Thomson CA, Neuhauser ML, Di C, Manson JE, Mossavar-Rahmani Y, **Seguin RA**, Manini T, LaCroix AZ, Prentice RL. *Simultaneous association of energy consumption and activity-related energy expenditure with cardiovascular disease, cancer, and diabetes risk among postmenopausal women*. Am J Epidemiol. 2014; 180(5);526-535. **PMC4143077**
- Hingle MD, Wertheim BC, Tindle HA, Tinker L, **Seguin RA**, Rosal MC, Thomson CA. *Optimism and diet quality in the Women's Health Initiative*. J Acad Nutr Diet. 2014; 114; 1036-1045. PMC4071123
- Sternfeld B, Guthrie KA, Ensrud KE, LaCroix AZ, Larson JC, Dunn AL, Anderson GL, **Seguin RA**, Carpenter JS, Newton KM, Reed SD, Freeman EW, Cohen LS, Joffe H, Roberts M, Caan BJ. *Efficacy of exercise for menopausal symptoms: a randomized controlled trial*. Menopause. 2014;21(4): 330-338. **PMC3858421**
- Aggarwal A, Cook AJ, Junfeng J, **Seguin RA**, Moudon AV, Hurvitz P, Drewnowski A. *Access to supermarkets and fruit and vegetable consumption*. Am J Public Health. 2014; 104(5); 917-923. PMC3987578
- **Seguin RA**, Buchner D, Lui J, Allison M, Manini T, Wang CY, Manson J, Messina C, Patel M, Moreland L, Stefanick M, LaCroix A. *Sedentary behavior and mortality in older women: the Women's Health Initiative*. Am J Prev Med. 2014;46(2); 122-135. PMC3896923
- Schneider KL, Andrews C, Hovey K, **Seguin RA**, Manini T, LaMonte M, Margolis K, Waring M, Ning Y, Sims S, Ma Y, Ockene J, Stefanick M, Pagoto SL. *Change in physical activity after a diabetes diagnosis: opportunity for intervention*. Med Sci Sports Exerc. 2014; 46(1); 84-91. PMC4028702
- Manini TM, LaMonte M, **Seguin RA**, Manson J, Hingle M, Garcia L, Stefanick M, Rodriguez B, Sims S, Song Y, Limacher M. *Modifying effect of obesity on the association between sitting time and incident diabetes in post-menopausal women*. Obesity. 2014;22(4); 1133-1141. PMC3968183
- Rillamas-Sun E, LaCroix AZ, Waring ME, Kroenke CH, LaMonte MJ, Vitolins MZ, **Seguin RA**, Bell CL, Gass M, Manini TM, Masaki KH, Wallace RB. *Obesity and late-age survival without major disease or disability in older women*. JAMA Intern Med. 2014; 174(1); 98-106. PMC3963496

- **Seguin RA**, Eldridge G, Lynch W, Paul L. *Strength training improves body image and physical activity behaviors among midlife and older rural women.* Journal of Extension, 2013:15(4). **PMC: in Process**
- Sims S, Kubo J, Desai M, Bea J, Beasley J, Manson J, Allison M, **Seguin RA**, Chen Z, Michael YL, Sullivan SS, Beresford S, Stefanick M. *Changes in physical activity and body composition in postmenopausal women over time.* Med Sci Sports Exerc. 2013: 45(8); 1486-92. PMC3715578
- Mossavar-Rahmani Y, Tinker LF, Huang Y, Neuhouser ML, McCann S, **Seguin RA**, Vitolins M, Curb JD, Prentice RL. *Factors relating to eating style, social desirability, body image and eating meals at home increase the precision of calibration equations correcting self-report measures of diet using recovery biomarkers: findings from the Women's Health Initiative.* Nutr J. 2013:12(63). PMC3658913
- Neuhouser ML, Di C, Tinker L, Thomson C, Sternfeld B, Mossavar-Rahmani Y, Stefanick M, Sims S, Curb D, LaMonte M, **Seguin RA**, Johnson KC, Prentice RL. *Physical activity assessment: biomarkers and self-report of activity-related energy expenditure in the WHI.* Am J Epidemiol. 2013: 177(6); 576-85. PMC3626043
- LaCroix AZ, Freeman EW, Larson J, Carpenter JS, Joffe H, Reed SD, Newton KM, **Seguin RA**, Sternfeld B, Cohen L, Ensrud KE. *Effects of escitalopram on menopause-specific quality of life and pain in healthy menopausal women with hot flashes: a randomized controlled trial.* Maturitas. 2012: 73(4); 361-8. PMC3645479
- Folta S, **Seguin RA**, Ackerman J, Nelson ME. *A qualitative study of leadership characteristics among women who catalyze positive community change.* BMC Pub Health. 2012:12(383). PMC3406954
- **Seguin RA**, LaMonte M, Tinker L, Lui J, Woods NF, Michael Y, Bushnel C, LaCroix AZ. *Sedentary behavior and physical function decline in older women: findings from the Women's Health Initiative.* J Aging Res. 2012. PMC3364591
- Woods N, Cochrane B, LaCroix AZ, **Seguin RA**, Zaslavsky O, Liu J, Beasley JM, Brunner R, Espeland MA, Goveas JS, Lane DS, Manson JE, Mouton CP, Robinson JG, Tinker LF. *Toward a positive aging phenotype for older women: observations from the Women's Health Initiative.* J Gerontol A Biol Sci Med Sci. 2012: 67(11):1191-6. PMC3474469
- Reed SD, Guthrie KA, Joffe H, Shifren JL, **Seguin RA**, Freeman EW. *Sexual function among nondepressed women in a trial of escitalopram for vasomotor symptoms: findings from the MsFLASH Network.* Obstet & Gynecol. 2012:119(3); 527-38. PMC3345186
- **Seguin RA**, Heidkamp-Young E, Kuder J, Nelson ME. *Improved physical fitness among older female participants in a nationally disseminated, community-based exercise program.* Health Educ & Behav. 2012:39(2); 183-90. PMC3727397
- Michael Y, Smit E, **Seguin RA**, Curb JD, Phillips L, Manson JE. *Serum 25-Hydroxyvitamin D concentrations and physical function.* J Womens Health.

2011;20(11); 1603-8. PMC3216069

- **Seguin RA**, Palombo R, Economos CD, Hyatt R, Nelson ME. *Strength training and older women: a cross-sectional study examining factors related to exercise adherence.* **J Aging Phys Activ.** 2010;18(2). PMC20440031.
- Folta SC, Lichtenstein AH, **Seguin RA**, Goldberg JP, Nelson ME. *A community-based program to reduce cardiovascular disease risk factors in rural sedentary, overweight and obese mid-life and older women.* *Am J Public Health.* 2009;99(7); 1271-7. PMC2696662
- **Seguin RA**, Palombo R, Economos CD, Hyatt R, Nelson ME. *Factors related to leader implementation of a nationally disseminated community-based exercise program: a cross-sectional study.* *Int J Behav Nutr Phys Act.* 2008;62(5). PMC2614422
- **Seguin RA**, Economos CD, Hyatt R, Palombo R, Reed PNT, Nelson ME. *Design and national dissemination of the StrongWomen Community Strength Training Program.* *Prev Chronic Dis.* 2008;5(1). PMC2248774
- Folta SC, Goldberg JP, Lichtenstein AH, **Seguin RA**, Reed PN, and Nelson, ME. *Factors related to cardiovascular disease risk reduction in midlife and older women: a qualitative study.* *Prev Chronic Dis.* 2008;5(1). PMC2248795
- Nelson ME, **Seguin RA.** *Targeted exercise for promoting bone health in women.* *American Journal of Medicine and Sports.* 2004;6(2); 92-96.
- **Seguin RA**, Nelson ME. *The benefits of strength training for older adults.* *Am J Prev Med.* 2003;25(3Sii); 141-149.

#### Scholarly Review Articles

- **Seguin RA**, Nelson ME. *Physical activity: a key to wellness throughout the ages.* *Nutrition Updates.* 2002;11.
- **Seguin RA.** *Clinical Tool: Benefits of strength training for older adults, with physician and patient handouts.* *Nutrition in Clinical Care.* 2002;5(3).
- **Seguin RA**, Nelson ME. *In the Literature: Epidemiology of sarcopenia.* *Nutrition in Clinical Care.* 2000;3(6).
- **Seguin RA**, Nelson, ME. *Practical Review: The role of exercise on bone health.* *Nutrition in Clinical Care.* 2000;3(3).
- **Seguin RA**, Nelson ME. *In the Literature: Depot Medroxyprogesterone Acetate may reduce bone mineral density.* *Nutrition in Clinical Care.* 2000;3(2).

#### Books, Book Chapters, and Curricula

- **Seguin RA**, Taylor K, Paul L. *StrongWomen Strength Training Program Guide: Training Tips and Exercise Modifications Guidelines.* Fred Hutchinson Cancer Research Center and Montana State University, 30 pages, 2012.
- **Seguin RA**, Kennedy M, Nelson ME. *The StrongWomen Booster Pack: Additional Exercises for your StrongWomen Programs.* Fred Hutchinson Cancer Research Center and Tufts University, 71 pages, 2011.

- Nelson ME, **Seguin RA**, Goldberg J, Lichtenstein A, Folta S. *The StrongWomen Healthy Hearts and Weight Management Tool Kit: A Program Leader's Guide to Conducting Physical Activity and Nutrition Programs for Women*. Tufts University, 576 pages, 2008.
- **Seguin RA**, Nelson ME. *Aging Well Through Sound Nutrition and Physical Activity*. Chapter in *Women's Retirement Guide*. The Heinz Family Foundation, 2006.
- Nelson ME, **Seguin RA**. *Physical Activity and Older Adults: Impact on Physical Frailty and Disability*. Chapter in: *Measurement Issues in Aging and Physical Activity*, edited by Weimo Zhu and Wojtek Chodzko-Zajko. Human Kinetics, 2006.
- **Seguin RA**, Nelson ME. *Better Bones At Menopause: Supporting Your Skeleton*. Chapter in: *Menopause: Beyond Convention*, edited by Mary Tagliaferri, Isaac Cohen, and Debu Tripathy. Penguin Putnam, 2006.
- **Seguin RA**, Buchner D, Epping J, Nelson, ME. *Growing Stronger: Strength Training for Older Adults*. Centers for Disease Control and Prevention (CDC). 112 pages, 2004.
- Nelson ME, **Seguin RA**. *The StrongWomen Tool Kit: A Program Leader's Guide to Conducting Strength Training Programs for Women*. Tufts University, 189 pages, 2003.