

Shape the Path: Background

THE ISSUE

The World Health Organization tells us that “mobility...is the best guarantee of retaining independence and being able to cope” – especially as we age. We broadly refer to mobility as the physical capacity of individuals to move. Mobility is a key factor to one’s health and is embedded into the activities we perform every day. Limited mobility is a significant risk factor for further physical disability and brain health impairments – and is associated with an increased risk of early death. Therefore, maintaining mobility is fundamental to healthy aging and to retaining one’s independence for as long as possible. This is particularly true for men who are at high risk for diseases often born of inactivity (e.g., cardiovascular disease, diabetes). However, currently little evidence about the factors contributing to mobility of older men exists.

OUR TEAM & PARTNERS

The Shape the Path program brings together a team of interdisciplinary researchers from the Centre for Hip Health and Mobility (www.hiphealth.ca) to investigate and develop novel approaches to understand older men’s experiences of mobility, including its relationship to their health. For this project we will call upon our vast network of community partners to move our research findings into action to make a difference to the mobility and health of men in Canada and beyond. This research is funded as a team grant by the Canadian Institutes for Health Research (CIHR) and will be rolled out over a five-year team (2014-2019).

OVERARCHING RESEARCH QUESTIONS

How do older men understand mobility and physical activity and the (inter)relationship of each to their health?

1. How do older men’s masculine identities, roles and relations shape their experience of mobility and physical activity in the context of their everyday activities?
2. What are the determinants (barriers and facilitators) of older men’s mobility and physical activity in three distinct settings (community, home, residential care)?
3. Can evidence-based interventions (in various settings) enhance mobility and physical activity for older men?
4. What factors influence sustained implementation of best practices/programs related to men’s mobility, physical activity and health (e.g. across macro - government, community - and micro - individual - levels)?

Shape the Path: Project Descriptions

PROJECT I: SEEK TO UNDERSTAND

Lead: Alison Phinney

Project Coordinator: Manpreet Gill

The purpose of this study is to better understand older men's experiences of their mobility, and to hear their views on what helps them be *more able*, and what makes them *less able* to move about their homes and neighbourhoods, and the importance of this in their daily lives. We will gather this information primarily by using [qualitative methods](#). This includes spending time with the men and asking questions as they go about their usual activities. To hear a range of perspectives we will talk to 25-30 men over the age of 60 from different cultural backgrounds and living situations in the Greater Vancouver area. This will include men living at home with or without home care services, and men who live in residential care.

PROJECT II: MEN ON THE MOVE

Lead: Dawn Mackey

Project Coordinator: Alexander Perkins

Men on the Move is an [intervention study](#) designed to promote mobility for men through the uptake of physical activity among men over the age of 60 who are physically inactive. Specifically, Men on the Move is evaluating the effects of a **choice-based physical activity model** paired with an **active transportation model**. The choice-based physical activity model encourages older men to use existing community-based resources to create and implement actions plans for physical activity. It also provides ongoing face-to-face and telephone-based support. The active transportation model provides transit passes and personal travel planning to promote use of transit and walking to destinations of interest. The Men on the Move study team uses cutting-edge tools, such as accelerometry and travel diaries, to measure the effects of these intervention strategies on physical activity.

PROJECT III: MOBILE @ HOME

Lead: Joanie Sims-Gould

Project Coordinator: Yasmin Yassin

More than 1.4 million Canadians receive publicly-funded home care services annually and this number is expected to increase. Home care clients often have limited mobility, compounded by physical inactivity. This renders them at risk for falls and fractures which lead to mobility-disability. Older people who sustain a fall-related injury often require more home care support. **Physical activity and functional re-training reduces the risk of mobility-disability.**

The core focus of Mobile @ Home is to:

- I. **Determine the characteristics** of older people in receipt of home care with specific attention to their mobility ('who are these people?').
- II. Identify the key **features and feasibility** of a physical activity **intervention** for older people receiving home care using a (re)ablement approach ('what do they need/want to aid mobility?').
- III. Apply this research knowledge and **intervene** with this targeted physical activity program.

PROJECT IV: SAFE MOBILITY FOR MEN IN RESIDENTIAL CARE

Lead: Steve Robinovitch

Project Coordinator: Yijian Yang

For older men in residential care (RC), mobility is often challenging due to the associated risk for falls and injuries. This project seeks to develop best practices for care providers in promoting safe mobility in RC. Our objectives are to:

1. Analyze the biomechanics of safe mobility in men in RC, by measuring real-life movement patterns (walking, transferring, falls, and near falls) with video and wearable sensors. Tracking men over time, we will compare tasks performed successfully versus unsuccessfully (leading to imbalance and/or falling). We will also examine balance recovery and injury avoidance strategies in falls and how clinical, environmental, and behavioural variables associate with safe mobility and falls.
2. Develop a physical activity (PA) handbook for men in RC. The handbook will be informed by: (i) literature synthesis; (ii) evidence on how falls occur in RC; and (iii) surveys with care providers on the PA programs available to men in RC, and how the success of these programs depends on demographic and clinical characteristics.

PROJECT V: CHARACTERIZING MOBILITY TRENDS IN CANADIAN MEN ACROSS LIFE STAGES: WHAT CAN WE LEARN FROM NATIONAL SURVEY DATA?

Lead: Meghan Winters

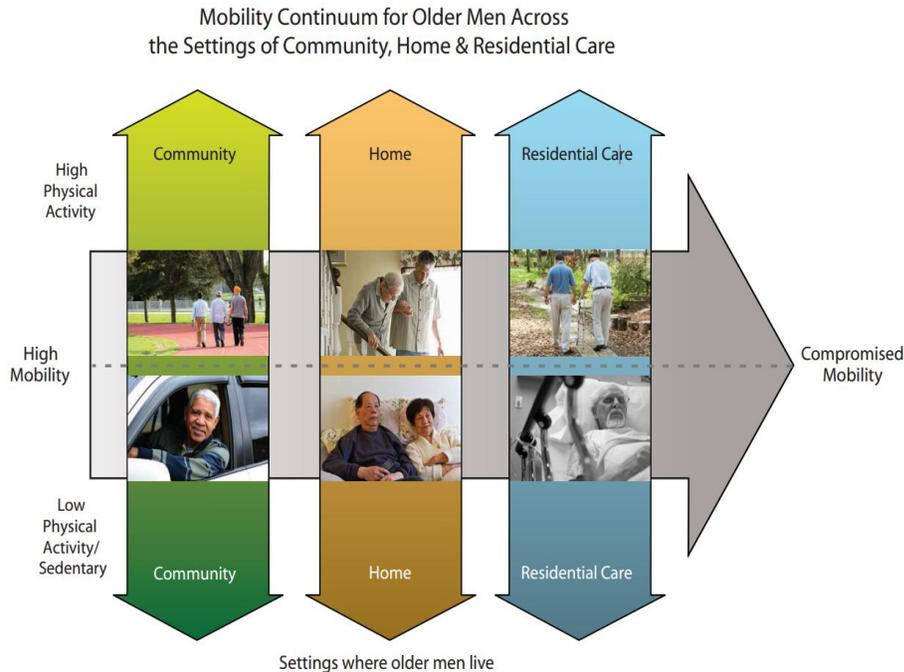
Project Coordinator: [none currently]

A more in-depth understanding of older men's behaviour across the population at large is crucial to help direct targeted attention to increase health promoting behaviour.

At different life stages, certain individual- and neighborhood-level factors may carry stronger influences. For example, life changes such as giving up a drivers' license, may change the destinations one can access, their use of public transit, or engagement in social activities. This project is an in-depth examination of data from national surveys (e.g., Canadian Community Health Survey-Healthy Aging Survey in the Statistics Canada Research Data Centre) to help us learn more about activity (or inactivity) behaviours, how this differs for men and women, and across time and geographical location.

Shape the Path: Tables and Figures

FIGURE 1. Mobility continuum for older men across settings



Description: A visual depiction of the range of mobility (from high to compromised) and the connection with physical activity. Our goal is to increase physical activity and enhance mobility in the community, home care and in residential care settings.

FIGURE 2. Mobility and its relationship to physical activity

	Physical Activity – ‘Active’	Physical Activity – ‘Inactive’
Mobility ‘capacity’ – ‘Mobile’	MOBILE & ACTIVE	MOBILE & <u>IN</u>ACTIVE
Mobility ‘capacity’ – ‘Mobility-Disability’	<u>MOBILITY-DISABILITY</u> & ACTIVE (less mortality than mobility-disability & inactive →→→box to right)	<u>MOBILITY-DISABILITY</u> & <u>IN</u>ACTIVE (higher mortality than mobility-disability & inactive)

Description: The ‘quadrants’ illustrate how older people can be categorized based on their ‘capacity’ for mobility and for their level of physical activity (‘action’). Importantly, it is possible for older people to move between quadrants and in some cases ‘reverse’ mobility-disability¹ or delay progression to mobility-disability² with effective physical activity interventions.

FIGURE 3. Theoretical framework and guiding approaches and methods

Our team is framed by a set of theories (Socio-ecological Framework, Systems Theory, Lifecourse Theory and Hegemonic Masculinity). Our approach draws on the tenets of Integrated Knowledge Translation and a commitment to the development and implementation of novel interventions. We use a range of methods in our research which include visual, ethnographic, quantitative, qualitative and mixed methods. Participants in our research include older men, their caregivers, service providers and stakeholders.

