

## **Proposal for DfE (formerly DEL) scholarships for the academic year 2017/2018**

**Proposed supervisors:** Prof David R Thompson; Dr Chantal F Ski

**Clinical Expert Advisors:** Dr Loreena Hill (Research Fellow, Queen's University); Dr Susan Connolly (Consultant Cardiologist)

**Title:** ManGuard: an on-line CVD risk reduction program

**Background:** In Northern Ireland, Belfast especially so, men have a high mortality rate from cardiovascular disease (CVD)<sup>1</sup>. Men at midlife (ages 40-65) experience an elevated risk compared to other stages of life, engaging in high rates of modifiable risk behaviours, such as inactivity, smoking, obesity and poor diet, increasing their susceptibility to CVD<sup>2,3</sup>. Previous CVD programs have been reactive in modifying risky health behaviours after CVD diagnosis, rather than adopting innovative, cost-effective prevention strategies. Men at midlife are also difficult to engage in behaviour change programs due to work and family commitments, and a lack of gender-specific content. Online health promotion programs are accessible, including by those with limited access to health care e.g. time poor<sup>4-6</sup>. Such programs are viewed favourably by workplaces, given ease in administration and relatively low costs. This research will investigate the feasibility of an innovative, workplace-based online program to address CVD risk factors and modify behaviour.

**Aim:** To explore engagement and motivation of men at midlife via an online CVD risk reduction program promoting positive and sustainable lifestyle changes.

### **Objectives:**

1. To develop an on-line CVD risk reduction program targetted at men in midlife
2. To undertake a feasibility study in a sample of men at midlife
3. To conduct a randomised controlled trial (RCT) to evaluate the effectiveness of the program in reducing CVD risk.

**Methods:** A mixed methods design will be used. Stage 1: develop an on-line program that adheres to current CVD guidelines evidence. Stage 2: conduct a feasibility study of the online program. Stage 3: an RCT assessing program effectiveness.

### **Expected outcomes:**

- Reduction in CVD risk among men at midlife in the workplace
- Development and evaluation of a highly structured, accessible, theoretically and evidence-based on-line program
- Engagement of stakeholder groups including workforce providers, government and occupational health agencies likely to benefit from this program targeting middle-aged men
- Reduction in risk of other associated chronic conditions such as Type 2 diabetes
- Impact at an international level e.g. achieving optimal physical and mental health outcomes in this population are well-aligned with the recently-released WHO Action Plan 2013-2020.

<sup>1</sup>BHF CVD Statistics – Northern Ireland 2017; <sup>2</sup>Burton N, et al. Mid-aged adults' sitting time in three contexts. *Am J Prev Med* 2012;42:363-73; <sup>3</sup>Gough B. 'Real men don't diet': An analysis of contemporary newspaper representations of men, food and health. *Soc Sci Med* 2007;64:326-37; <sup>4</sup>Carnethon M, et al. Worksite wellness programs for cardiovascular disease prevention a policy statement from the American Heart Association. *Circulation* 2009;120:1725-41; <sup>5</sup>Roblin D, et al. Evaluation of a worksite wellness program designed to reduce cardiovascular risks. *J Ambul Care Manage* 2013;36:272-9; <sup>6</sup>De Vries H & Brug J. Computer-tailored interventions motivating people to adopt health promoting behaviors. *Patient Educ Counsel* 1999;36:99-105