**Multi-level workplace intervention to improve cardiovascular outcomes in contact centre call agents: Study protocol**

*David Gavin1, Abigail Millard2, Madeleine Cochrane2, Nicola Hopkins2, David Low2, Rebecca Murphy2, Sam Shepherd2, Paula Watson2, Hannah Timpson3, Lisa Jones3, Alan Haycox4, Brendan Collins5, Genevieve Healy6, Charlotte Edwardson7, David Dunstan8, Lee Graves2*

*1Liverpool John Moores University, 2Research Institute for Sport and Exercise Sciences, Liverpool John Moores University, 3Public Health Institute, Liverpool John Moores University, 4Management School, University of Liverpool, 5Department of Public Health and Policy, University of Liverpool, 6School of Public Health, The University of Queensland, 7Diabetes Research Centre, University of Leicester, 8Baker IDI Heart and Diabetes Institute*

**Introduction:** Highly active adults have lower rates of adverse health outcomes, including all-cause mortality, coronary heart disease, diabetes and stroke. In addition to meeting the physical activity guidelines, reducing total and prolonged periods of sedentary behaviour appear important for health. Contact centres are a key setting to target these behaviours, as call agents predominantly sit at work and have low autonomy over working practices. This study aims to evaluate the effect of a participant-informed workplace physical activity and sedentary behaviour intervention on cardiovascular risk parameters at 9-months post-baseline, in highly sedentary call agents.

**Methods/Design:** A two-arm 9-month pilot cluster randomised controlled trial will be implemented in one contact centre in the North West of England. Treatment arms include a multi-level workplace intervention group and a control group. Assessments will occur at three-time points, being baseline, and 3 and 9 months after the intervention starts. The intervention group will receive support and resources to move more and sit less across a 9-month intervention period. The 9-month intervention period includes an intensive (months 0-3) and maintenance phase (months 4-9). Assessments will include flow mediated dilation, intima media thickness and blood pressure variability.

**Discussion:** This study will be the first to explore the short- and medium-term effects of a move more, sit less intervention on cardiovascular outcomes in contact centre call agents. Strengths include the objective measurement of traditional and novel cardiovascular risk markers and activity outcomes. Findings will inform health and well-being policy and practice in contact centres.