

# Project 2 Final report

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## 1 INTRODUCTION

To understand the effect of physical activity on 7-year all-cause mortality, the proposed grant application outlines a randomized trial to investigate a novel intervention called “ACTUP.” This intervention is designed to increase physical activity by a fixed 30% (individual-specific) among sedentary older adults. Participants will be asked to wear wrist-worn accelerometers for 7 days to objectively measure their physical activity levels. Activity will be evaluated using the Total Monitor Independent Movement Summary (TMIMS), calculated as the mean value over the 7-day period.

The study has two primary aims. First Aim is to determine whether the ACTUP intervention leads to a reduction in the risk of 7-year all-cause mortality (the primary endpoint) in sedentary adults aged 60-75 at the group-average level. The second Aim is to explore whether the efficacy of the ACTUP intervention is moderated by gender, assessing if there are gender-specific differences in the treatment effect.

**2    METHOD**

**3    RESULTS**

**4    APPENDIX**