

ABSTRACT SUBMISSION AIC 2016: #38

1. **Title:**

Scalability of Transform-Us! to reduce children's sitting and promote physical activity

2. **Author(s):**

Harriet Koorts, Jo Salmon, Anna Timperio, Adrian Bauman, David Lubans, Chris Lonsdale, Amanda Telford, Nicola Ridgers, Lisa Barnett, Karen Lamb

3. **Key words:**

Implementation trial, children, physical activity, sedentary behaviour, intervention scalability

4. **Abstract text:**

a. **Background**

Transform-Us! is an efficacious behavioural and environmental intervention to increase children's physical activity and reduce sedentary behaviour in the classroom, school and home setting. Following success of the Transform-Us! efficacy trial (2010-2013), the program will be disseminated and implemented over 5 years via the Victorian State Government and associated health and educational organisations. Our aim is to assess the real-world scalability and effectiveness of Transform-Us! when implemented State-wide across primary schools in Victoria, Australia.

b. **Methods**

This implementation trial involves program dissemination to all government, independent, and Catholic education primary schools across Victoria (n=1,786). Mixed-method multi-level data will be collected at the systems, organisational and individual level to assess program Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM framework) at scale. Reach, adoption, implementation and maintenance (organisational-level) will be assessed via counts and adopted program elements. Qualitative data will identify implementation processes. Effectiveness and maintenance (individual-level) will be measured using a quasi-experimental pre-post non-equivalent group design among a subsample of 20 schools in Victoria and 20 matched control schools in NSW. Primary outcomes (effectiveness) include children's objectively assessed physical activity and sitting time via ActivPAL accelerometers. Propensity score analysis will determine the dose-response relationship between implementation and outcomes. Moderating analyses will be used to determine thresholds of program effect.

c. **Conclusion**

This study will determine the replicability and population-wide effectiveness of the Transform-Us! program at scale. Our findings will inform education policy and practice on effective and sustainable ways to modify school environments to promote physical activity and reduce sedentary behaviours population-wide.