

January 22, 2018

Ensuring Statistical Power in Step-Wedge Designs with Unequal Cluster Sizes

Phase II of the TEC4Home project is a randomized trial of the effectiveness of Home Health Monitoring in patients with COPD. Patients will be recruited from 22 hospitals across BC with hospitals randomized using a step-wedge design. If the randomization is unconstrained, large variability across hospitals in the number of patients enrolled increases the risk that the trial will be underpowered. I will discuss the heuristics underlying this problem and potential solutions.

Learning Objectives:

1. Complex study designs involve complex power calculations.
2. The risk that the realized power (achieved in the actual study) will be lower than the (pre-study) target power should be considered when designing a randomization plan.

Hubert Wong, PhD

Associate Professor, UBC School of Population & Public Health

Associate Head, CIHR Canadian HIV Trials Network Head, Biostatistics, Centre for Health Evaluation & Outcome Sciences Lead, Real World Clinical Trials Methods Cluster, BC SUPPORT Unit

Rounds are held weekly on Mondays from 12:00 pm to 1:00 pm in the VGH Research Pavilion, Room 700, 7th Floor, 828 West 10th Avenue, Vancouver, BC.

Visit www.C2E2.ca for information about previous and upcoming rounds. If you are interested in presenting or attending remotely please email pamela.lee@ubc.ca.