# Minutes of the Population-Level Estimation Workgroup

May 4, 2016

Present: Ian Wong, Kenneth Man, Jenna Reps, Peter Rijnbeek, Martijn Schuemie, Rae Woong Park, Students in South Korea

Martijn discussed the SelfControlledCaseSeries package in detail. This package implements the Self-Controlled Case Series (SCCS) design. Because the SCCS is conditioned on whether subjects have the outcome of interest, this design is robust to differences between subjects that are constant over time. To correct for time-varying confounding, the SCCS package can correct for age, season, pre-exposure, event-dependent censoring, and other exposures. Using a set of negative controls, the SCCS was found to still be biased even when applying extensive adjustments. We hypothesize that SCCS remains sensitive particularly to confounding by indications.

Ian noted that conditions occurring in a pre-exposure window could be indicative of confounding by indication. Perhaps a model can be fitted with not just all exposures, but taking prior conditions into account as well. Ian suggested we turn the traditional way of doing studies around: rather than relying on expert opinion to inform the study design, we let the data formulate the model, but only accept the model if it agrees with expert opinion.

Several participants expressed interest in hearing about “Identifying the important questions that can be answered using observational research”, so this will be presented in two weeks by Martijn.