**Minutes of the Population-Level Estimation Workgroup**

Februari 2nd 2017

Present: Alejandro Schuler, Cornelius Raths, Hugh Kawabata, Jamie Weaver, Jing Huang, Josh R, Marc Suchard, Melissa Rost, Yaromir, Yong Chen

## Short round of introductions

Martijn Schuemie, Research fellow at Janssen R&D, co-lead of this workgroup

Marc Suchard: Professor in statistics at UCLA, co-lead of this workgroup

Alejandro Schuler: 3rd year PhD student in Nigam’s group

Cornelius Raths: Data scientist at NANTHEALTH (California), interested in optimal treatment paths, genomics

Hugh Kawabata: retired from Bristol-Myers Squibb

Jamie Weaver: Janssen R&D. Background in epi & statistics. Interested in method development and evaluation.

Jing Huang: Post doc at University of Pennsylvania in professor Chen’s group. Is exploring data heterogeneity, accounting for error in observational studies.

Josh R: Develops software. Phd in genetics

Melissa Rost: Research scientist at Georgia Tech. Also interested in patient-level prediction

Nigam Shah: Stanford

Yaromir Shpilevskiy: Developer

Yong Chen: Assistant professor in biostatistics at University of Pennsylvania. Interests are statistical and computational methods to account for measurements errors (e.g., misclassifications) and missing data.

## Future research topics

Martijn presents some of his ideas for future research topics that we could pursue. He invites others to comment and maybe add other ideas.

Nigam: For the smooshed comparator, I would first show PS fails before going to the pairwise comparisons.

Nigam: Perhaps idea 3 (smooshed comparators) and idea 2 (combining calibrated estimates across databases) could be merged?

Marc: In the smooshed comparators problem, dependence between estimates is important. We’d better not call it meta-analysis to avoid confusion, since it has to be something different.

Yong: The smooshed comparator problem seems related to network meta-analysis. Inference function can take care of indepence. Thinks he can solve this. Martijn will follow up.

Marc: PS for smooshed comparator could be more complicated than simple logistic. Maybe only match each target person to one comparator when doing the pairwise comparisons, thus avoiding dependencies.

Yong: Also interested in topic 6 (systemtic informed priors). Has been working on something similar in terms of phenotype detection accuracy? Traditional done through chart review. Proposes to minimize sample size needed for review.

Jamie: Is volunteering to present on March 2 about his CSCCS work