Population-Level Estimation Workgroup

Martijn Schuemie

&

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Meetings

- Merged meetings with PLP workgroup. One meeting per hemisphere per month
    - 1st Wednesday of the month: East
    - 1st Thursday of the month: West
    - For details, see OHDSI Wiki: http://www.ohdsi.org/web/wiki/doku.php?id=projects:workgroups:est-methods

Development: CohortDiagnostics package

- Package with Shiny app for diagnosing cohorts

- Will be embedded in estimation and prediction study packages

- Can be used in a network research setting
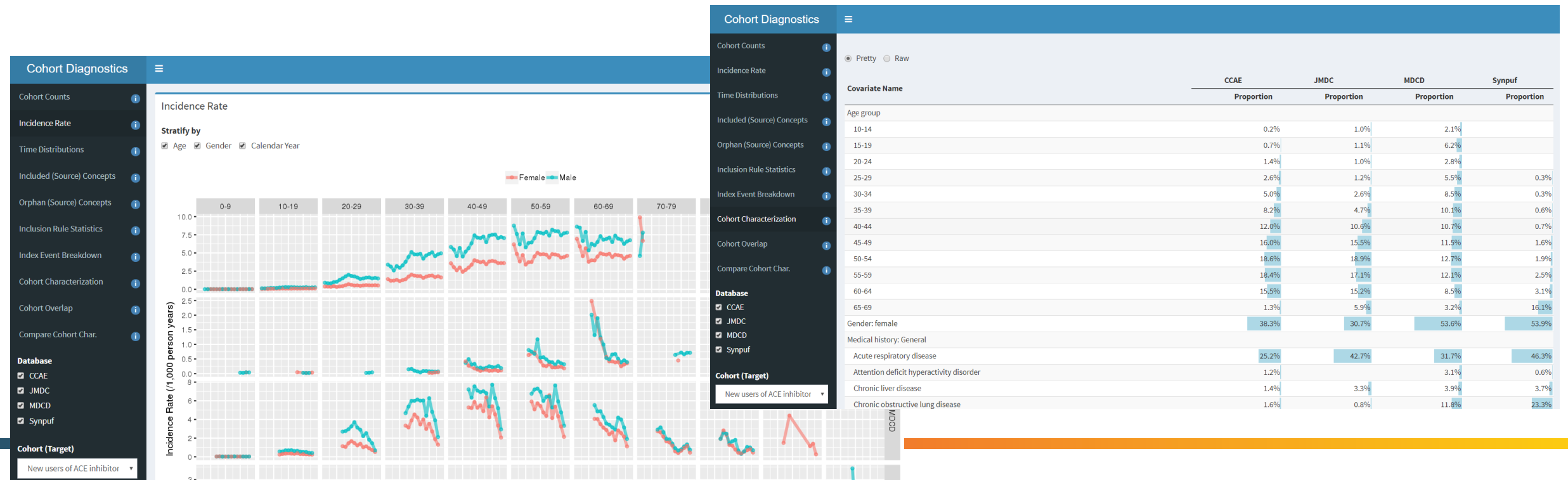
Research: small-counts meta-analysis

- Network studies produce estimates per site, combine using meta-analysis.

- When (outcome) counts are low, the normality assumption in standard meta-analysis doesn't hold.

- Simulations show this can lead to large bias, especially when there are many sites (n > 10)

- We have develop a viable solution for this.

Lead: Martijn Schuemie

Research: Balance on unmeasured confounders?

- Large-scale propensity models include > 10,000 covariates.

- Anecdotal evidence suggests balancing on this many covariates leads to balance on unmeasured covariates.

- Performing systematic evaluation, by removing (whole sets of) covariates, and see if balance on the held-out covariates.

Lead: Ray Chen

Research: other ML algorithms for propensity models

- We currently use large-scale regularized logistic regression (LASSO) to fit our propensity models.

- Evaluating other machine-learning (ML) algorithms

- Evaluating on simulated data, will move to real data

Lead: Yuchen Guo (Mimi)