PLP 2025 OKRs

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PatientLevelPrediction Workgroup

We meet monthly (2nd Wednesday of the month at 9am ET) to discuss and perform research into best practices for developing prediction models using observational healthcare data.

We also maintain multiple R packages that enable prediction model development for data in the OMOP CDM format.

https://github.com/OHDSI/PatientLevelPrediction

https://github.com/OHDSI/DeepPatientLevelPrediction

1. Improve workgroup study dissemination

- Create calendar with 2025/2026 conferences of interest to:
  - i) disseminate our research and collaborate with external groups
  - ii) get together face to face more often.

  add calendar to PatientLevelPrediction website.

- Improved dissemination on monthly call – use 10 minutes per call to let people discuss/highlight recent studies/publications.

- Improved communication of R package future development using GitHub project tracking.

Next workgroup meeting: 9am ET tomorrow (Feb 12th)

2. Make it easier to use OHDSI prediction R packages

- Perform user and developer survey to find bottlenecks/challenges.
- Increase training on tools – create updated YouTube videos/Ehden academy.
- **Submit PatientLevelPrediction R package to CRAN in 2025.**
- Create new test data for Eunomia that is more suitable for prediction.
- Create docker container for prediction studies.

Congrats to Egill Fridgeirsson for already getting into CRAN: https://cran.r-project.org/web/packages/PatientLevelPrediction/index.html

3. Perform Research in PatientLevelPrediction

- Federated learning: i) novel methods and ii) comparison of federated learning vs single database model. Submit journal paper.
- Investigate the benefit of incorporating different data sources: i) impact of data granularity and ii) does adding labs/imaging/NLP improve prediction? Submit journal paper.
- Temporal features: can we develop better models by adding time as a dimension for features? Submit journal paper.
- Transfer learning: i) novel methods and ii) compare transfer learning in small data vs developing model in small data. Submit journal paper.

Last year we had 3+ papers published via collaboration within this workgroup