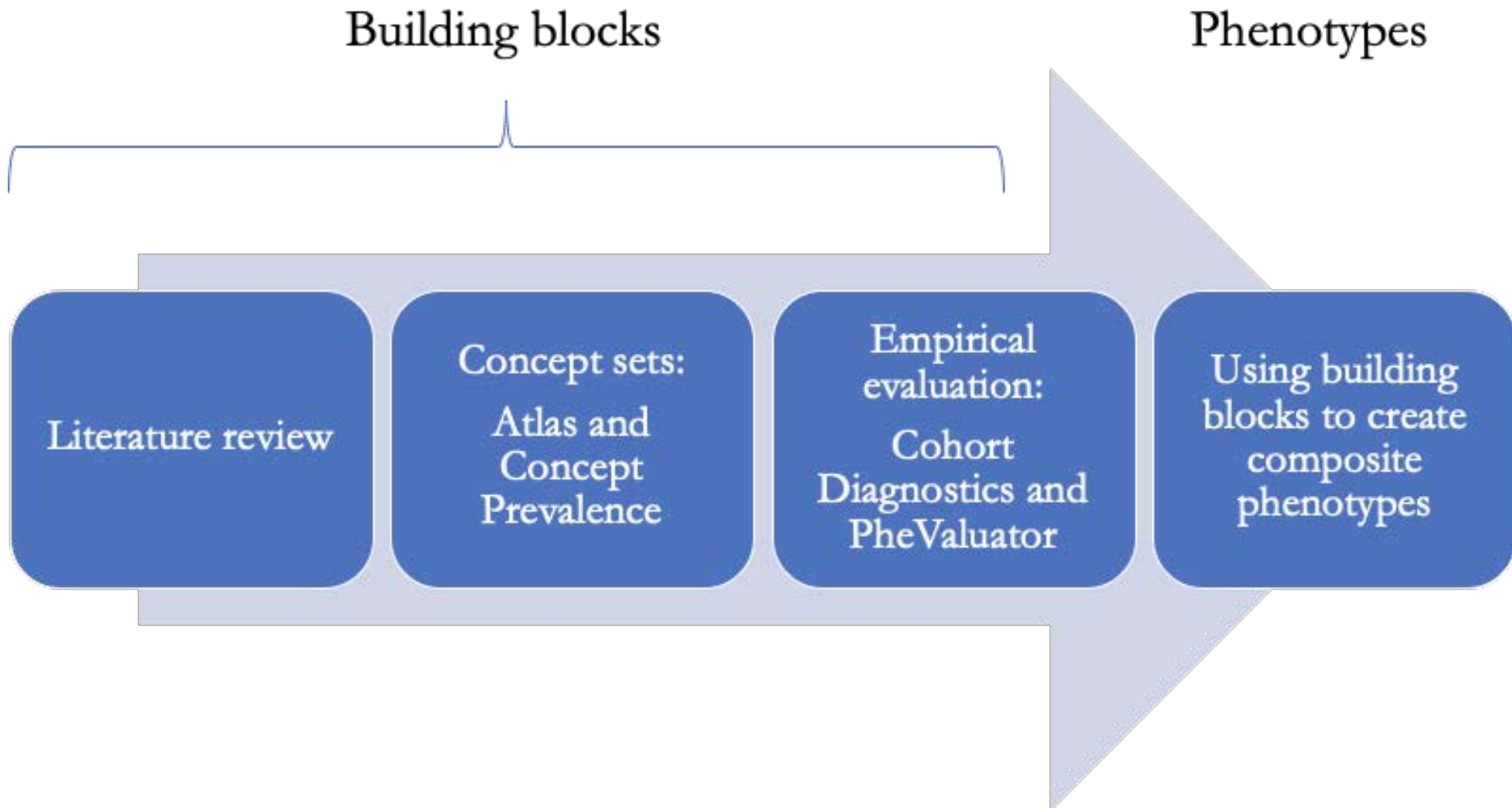# Phenotype development and evaluation

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Systematic process we followed

Three lesson we learned

1. To create composite phenotypes we first have to create and validate building blocks.

Example: pneumonia is used in 29 different phenotypes.

2. Phenotypes are driven by their intended use.

Example: how to find influenza?

- Narrow: diagnosis of influenza or test result
- Broad: suspected, confirmed, symptoms (fever AND (cough OR dyspnea OR malaise OR fatigue OR myalgia))

3. Phenotypes require knowledge of the data: data exploration is a must!

Exploring the data: creating comprehensive concept sets

Exploring the data: capturing coding practices

Malaise

Malaise OR (malaise and fatigue)
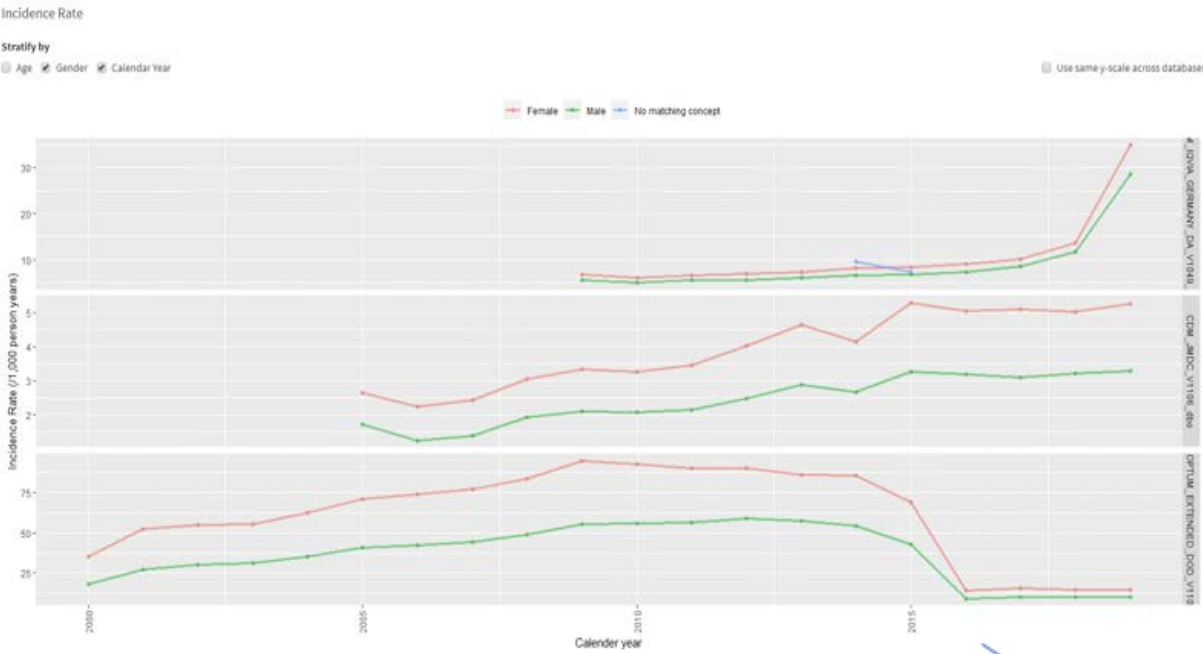
Incidence rate dropped,
need to add fatigue
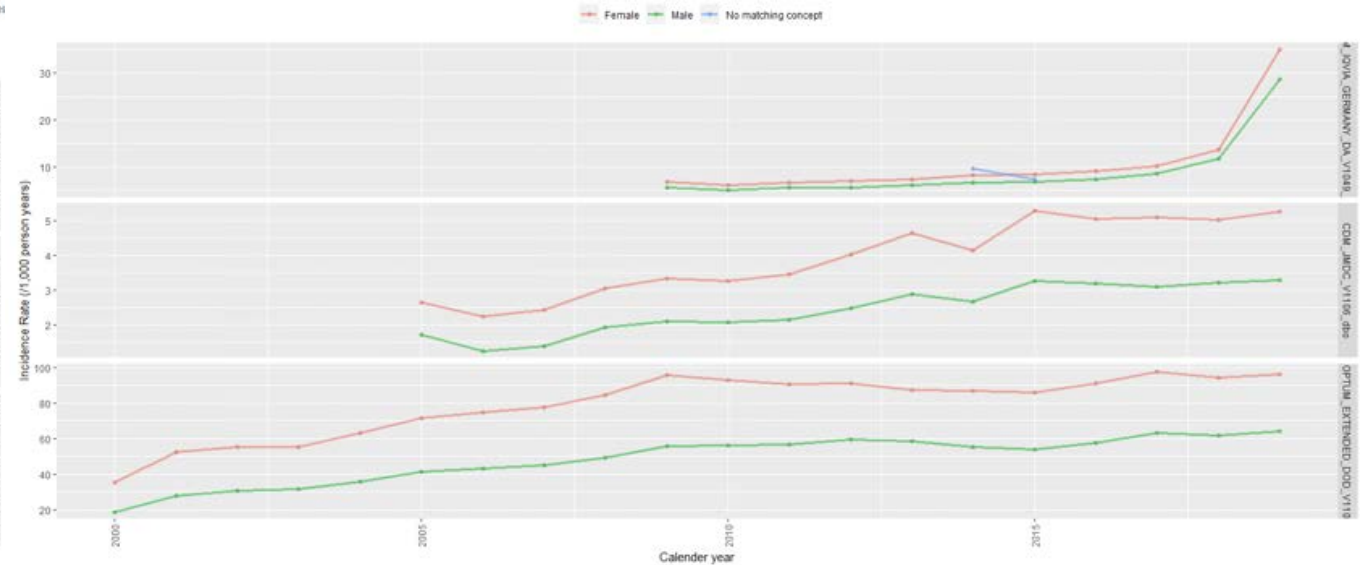
Final Results

- Literature reviews done for 36 phenotypes
- 355 cohorts created in atlas-covid19.ohdsi.org
- 114 validated and reviewed cohorts for prediction,

estimation and characterization on

atlas.ohdsi.org

- Results of Covid19CohortEvaluation are posted on data.ohdsi.org

Next Steps

- Complete the remaining cohorts for characterization
- Finalize the CohortEvalution package for all cohorts and run across the OHDSI network
- Write a paper about our phenotyping experience