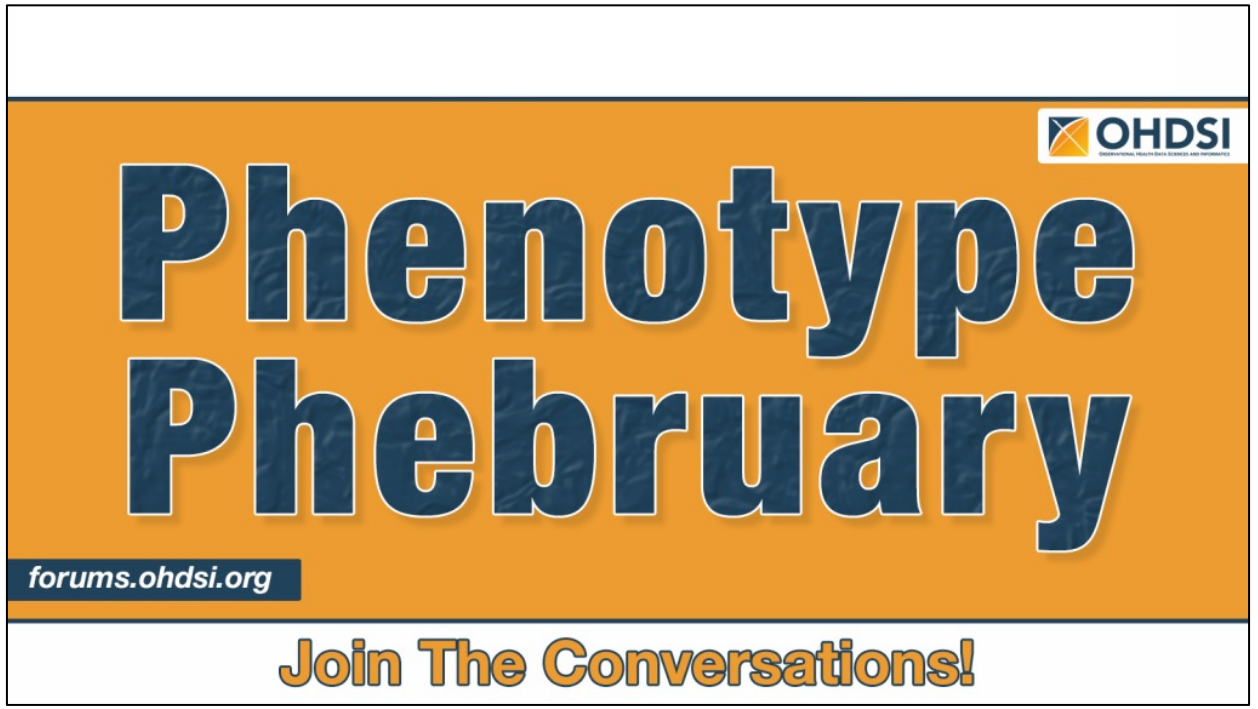
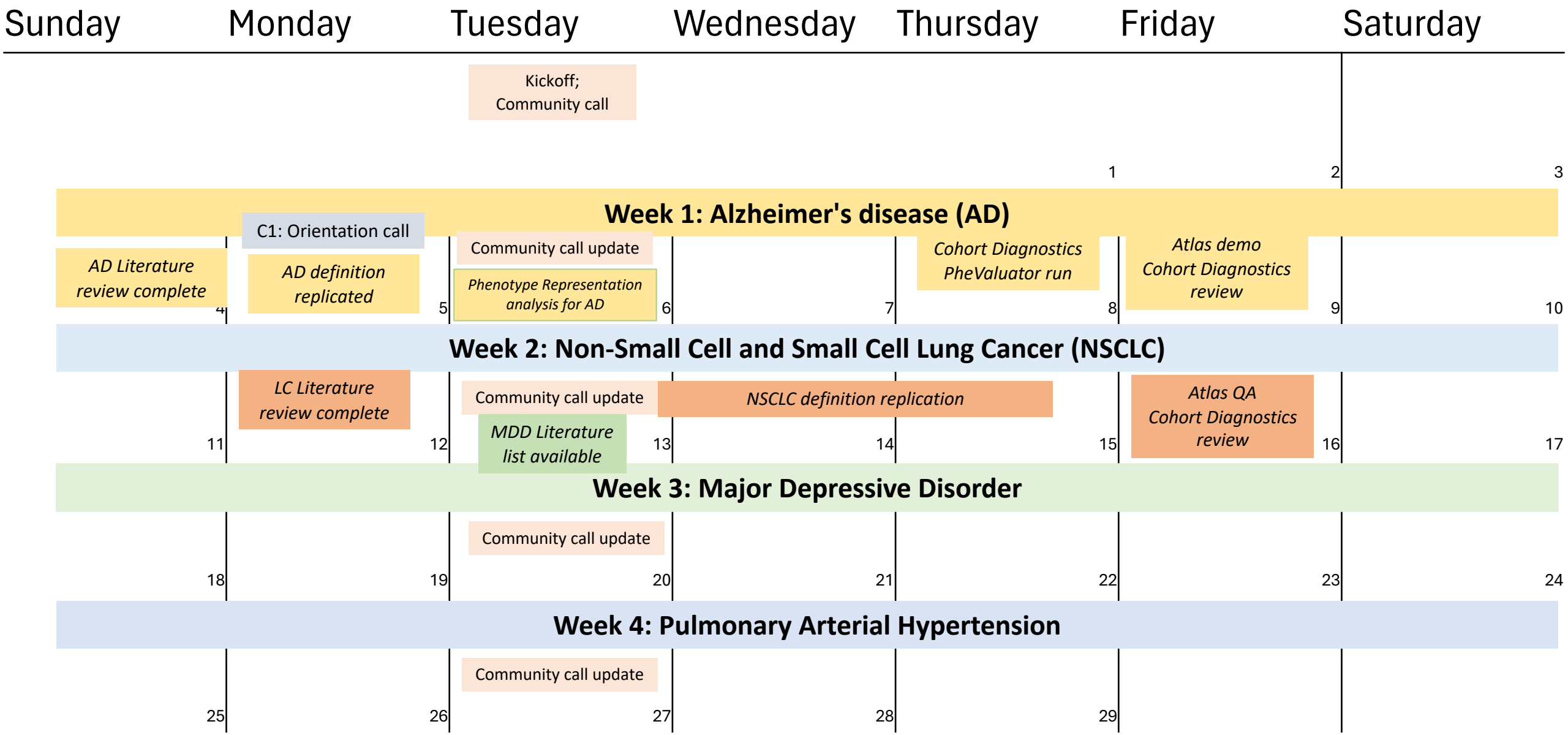
2024 Edition



February 13th, 2024

Community call update

Phenotype Phebruary 2024 Calendar



Understanding Alzheimer's Disease Definitions: A Review from Phenotype February 2024

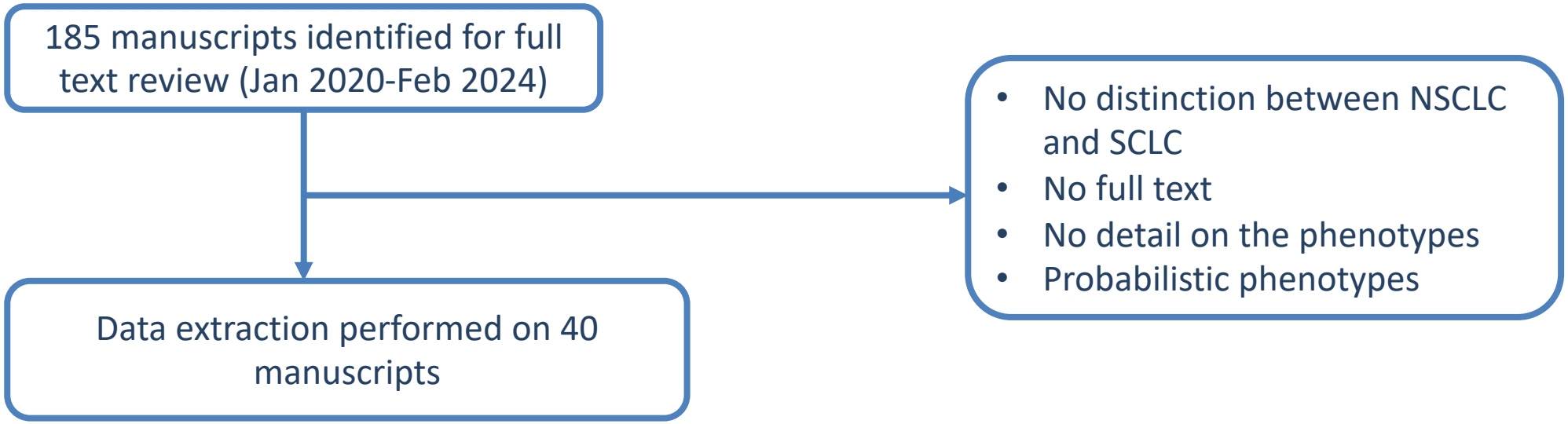
- Subject Count & Incidence Rate Variability
  - Up to 6-fold variation observed
  - Highlights the impact of differing criteria
- Overlap in Subject Identification
  - Ranged between 5% to 70%
  - Indicates heterogeneity in identified populations
- Consistent Age and Gender Distribution
  - Uniform across different definitions
  - Suggests reliability of these demographic factors in AD research
- AD-Specific Diagnosis in ADRD Population
  - Accounts for 5-20% of cases
  - Emphasizes the index date misspecification with treatments and other types of AD observed to prior to AD diagnosis
- Data Domains Utilized
  - Diagnosis codes, drug exposure, care setting (visit/type provider)
  - Represents variation in how data is captured for AD

PheValuator results

Description	sensitivity95Ci	ppv95Ci
Earliest event of Alzheimer's disease per Ponjoan	0.728	0.843
30 CCW Alzheimers disease	0.541	0.953
27 CCW Alzheimers disease	0.714	0.920
27 CCW Alzheimers disease and related disorders or senile dementia	0.829	0.669
27 CCW Alzheimers disease and related disorders or senile dementia - Bynum-EM revision	0.828	0.669
27 CCW Alzheimers disease and related disorders or senile dementia Bynum-standard revision	0.652	0.721
Alzheimers disease per Harris JAD 2023	0.699	0.721
Alzheimer dementia per Grande 2020	0.531	0.972
Alzheimer disease per Chen 2020	0.714	0.920
Alzheimers disease per Imfeld, 2013	0.364	0.845

W2: NSCLC and SCLC Phenotypes

What did we do?



- Cancer registry linked with administrative claims: 16 SEER-Medicare, 3 others
- Other data sources (administrative claims, EMR, Oncology EMR, …)

Next steps

- Study package
- Open call to plan the manuscript
- LC cohort replication task
- Literature scan for other conditions

Summary

- All phenotypes are more complex than sheer condition
  - There are always additional requirements (stages and modifiers, biomarkers, treatments)
- If NSCLC is **extracted** from the mixed phenotypes
  - Everyone is using a different code list
  - The list is heavily dependent on the database provided
  - ICD9/10 lacks histology information
  - ICDO only in registries
- Each phenotype has additional time coverage/washout/follow-up requirements
  - They usually depend on the purpose of the study

→ There is a strong time and database dependency when defining the logic, code list and the additional criteria

→ NSCLC or SCLC do not exist as such