Population Health Modeling: Day 5

Yale SCHOOL OF PUBLIC HEALTH
Data Science and Data Equity

Brief Review

- Basic philosophical and ethical principles for public health research and public health modeling
- Outbreak Investigations- lots of moving parts in any data collection/analysis process
- Everything you need to know about *Streptococcus pneumoniae*
- First run, time series analysis

Brief Overview

Time series analysis: designing a research question and modifying code

Time series analysis: data viz, prepare presentation and poster materials

Time Series Analysis – Nepal Data

- Nepal introduced PCV10 in 2015
  - (serotypes 4, 6B, 9V, 14, 18C, 19F, 23F, 1, 5, 7F)
- Multiyear serotype-specific early pediatric nasopharyngeal carriage dataset (nepal.csv)
- Multiyear serotype-specific yearly carriage and IPD dataset (nepal_gps.csv)

Time Series Analysis – Peru Data

- Peru introduced PCV7 in 2009 (4, 6B, 9V, 14, 18C, 19F, 23F) PCV10 in 2011 (4, 6B, 9V, 14, 18C, 19F, 23F, 1, 5, 7F) PCV13 in 2015 (4, 6B, 9V, 14, 18C, 19F, 23F, 1, 5, 7F, 3, 6A, 19A)
- Multiyear etiology-agnostic weekly data on pneumonia, hospitalizations, and mortality (peru.csv)
- Multiyear serotype-specific yearly pneumococcal carriage and IPD data (peru_gps.csv)

Time Series Analysis: Malawi Data

- Malawi introduced PCV13 in 2011 (4, 6B, 9V, 14, 18C, 19F, 23F, 1, 5, 7F, 3, 6A, 19A)
- Multiyear vaccine-type or non-vaccine-type yearly ncidence data (malawi.csv)
- Multiyear serotype-specific carriage and IPD data (malawi_gps.csv)

Check-In, Rank your Countries