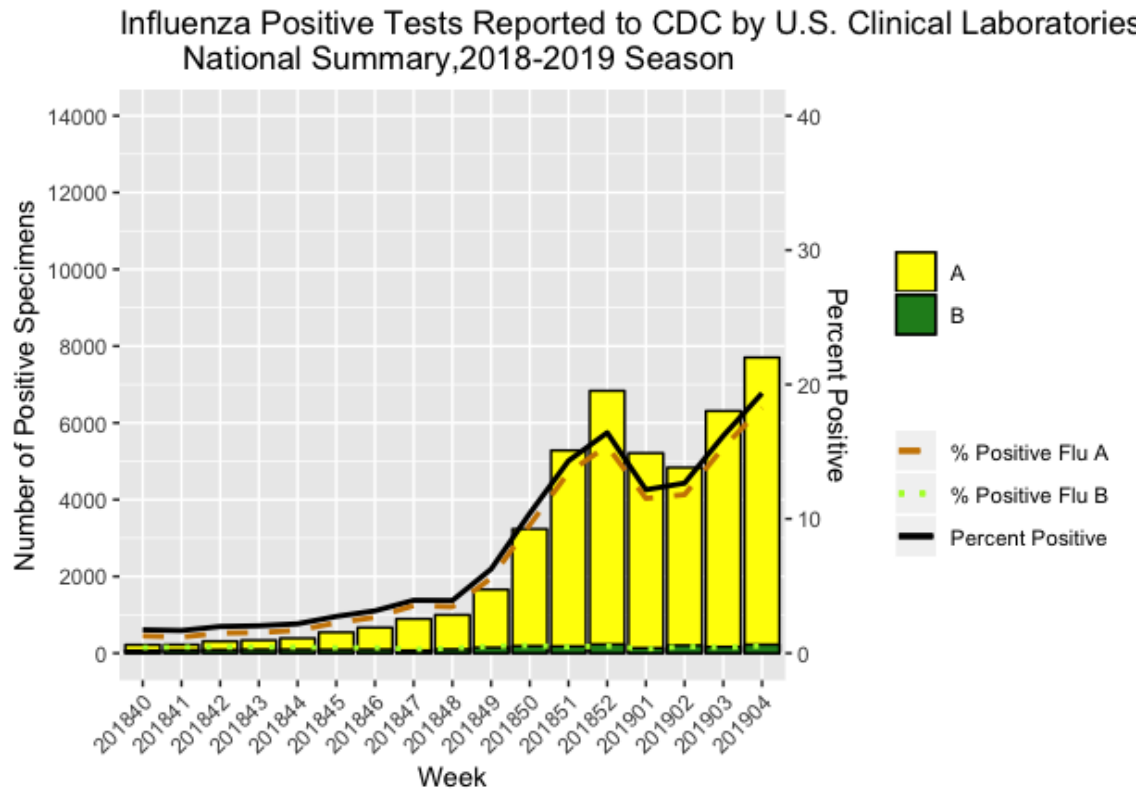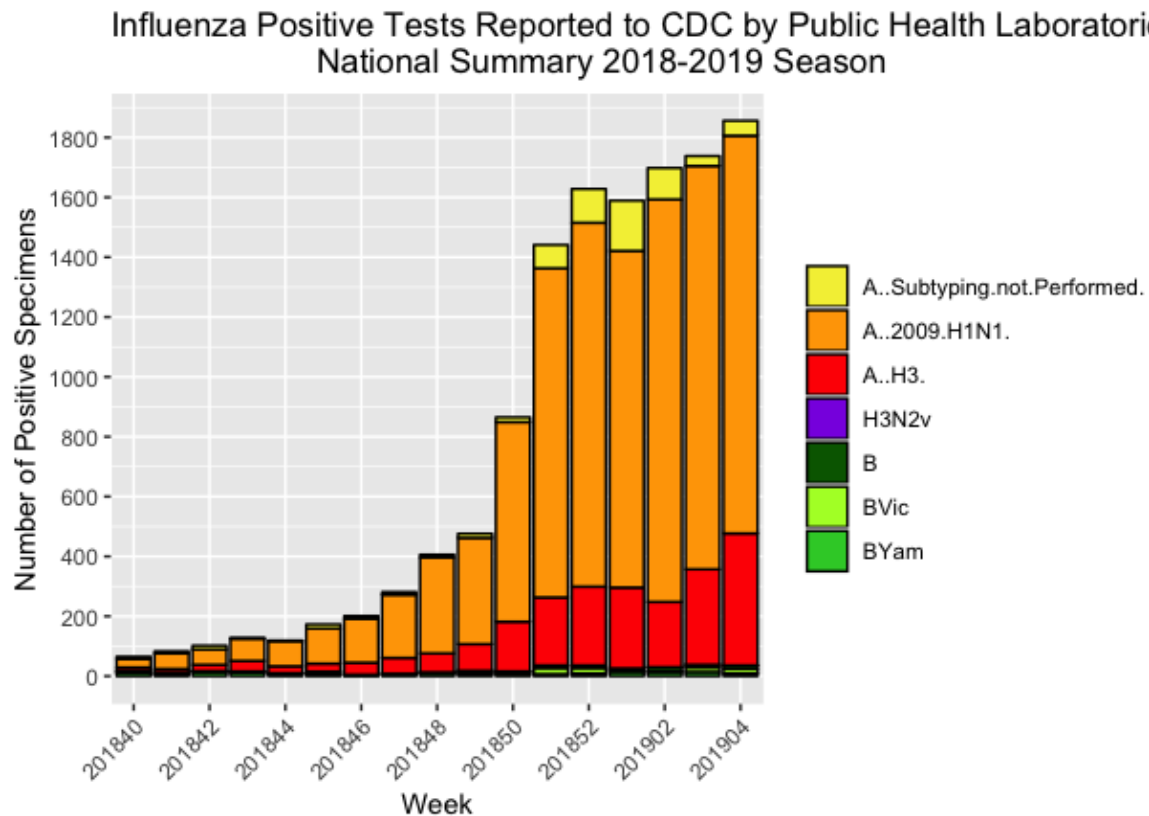# Lab 1 Part 2: Analysis

Task 4:
Plot 1:

The following graph shows the number of positive cases for influenza as reported by US Clinical Laboratories for a 16-week period till the end of 4th week of January 2019 across the nation. The number of influenza type B cases are significantly lower than type A cases.

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories National Summary,2018-2019 Season
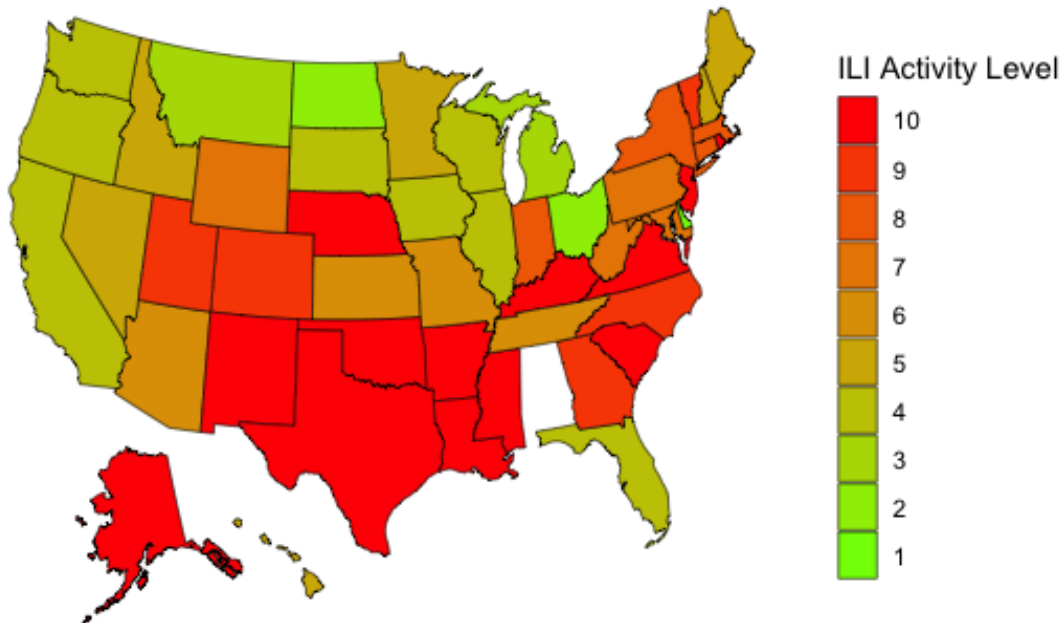
Plot 2:

The following plot depicts the influenza test results as reported by Public Health Laboratories for the same 16-week period ending in 4th week of January 2019 across the nation. This plot shows a further bifurcation of the number of sub types of influenza reported in the entire country.
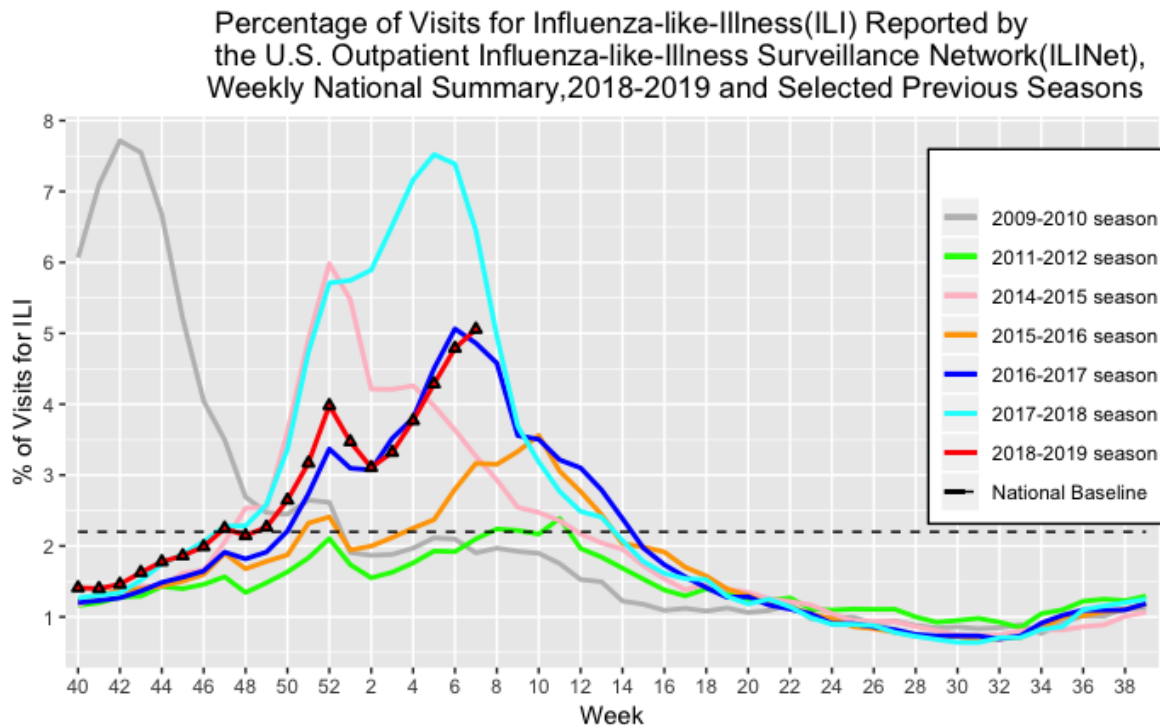
Plot 3:

Center for Disease Control (CDC) contained influenza like illness(ILI) data from week 40 of 2018 to week 4 of 2019. The heat map below plots the ILI activity levels for the latest week 4 of 2019 ending on January 26, 2019. Legend for the heat map is represented in descending order indicating higher activity levels with a darker gradient of red and areas of lower activity with a cooler gradient of green color.

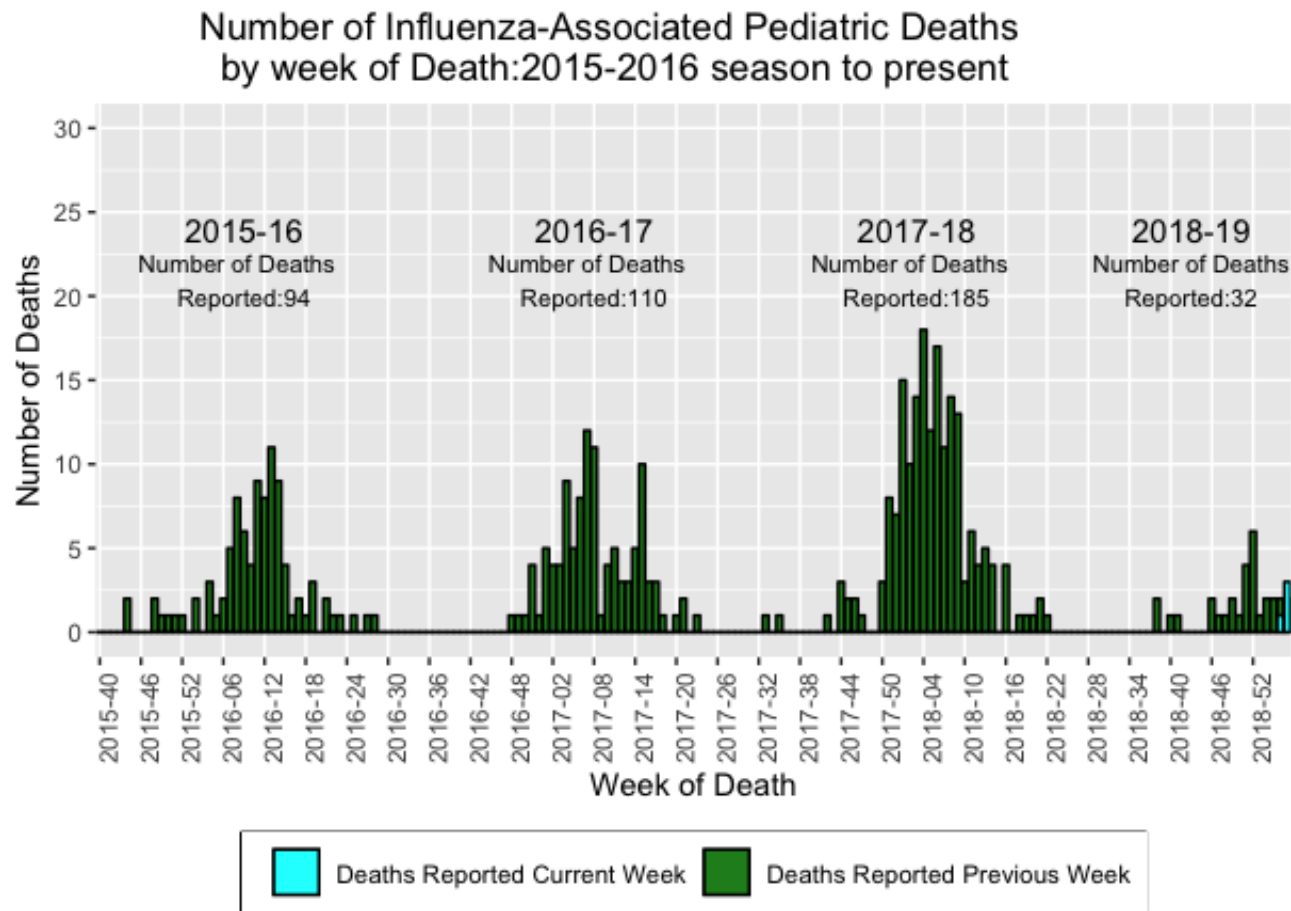2018-19 Influenza Season Week 4 ending Jan 26,2019

Plot 4:

The following plot depicts successive line plots for the percentage of visits to clinics for influenza like Illness (ILI) for multiple seasons. Each season is depicted using a distinct color as shown in the legend. The National Baseline is a dotted plot indicating the standard base for the nation.

Percentage of Visits for Influenza-like-Illness(ILI) Reported by the U.S. Outpatient Influenza-like-Illness Surveillance Network(ILINet), Weekly National Summary,2018-2019 and Selected Previous Seasons
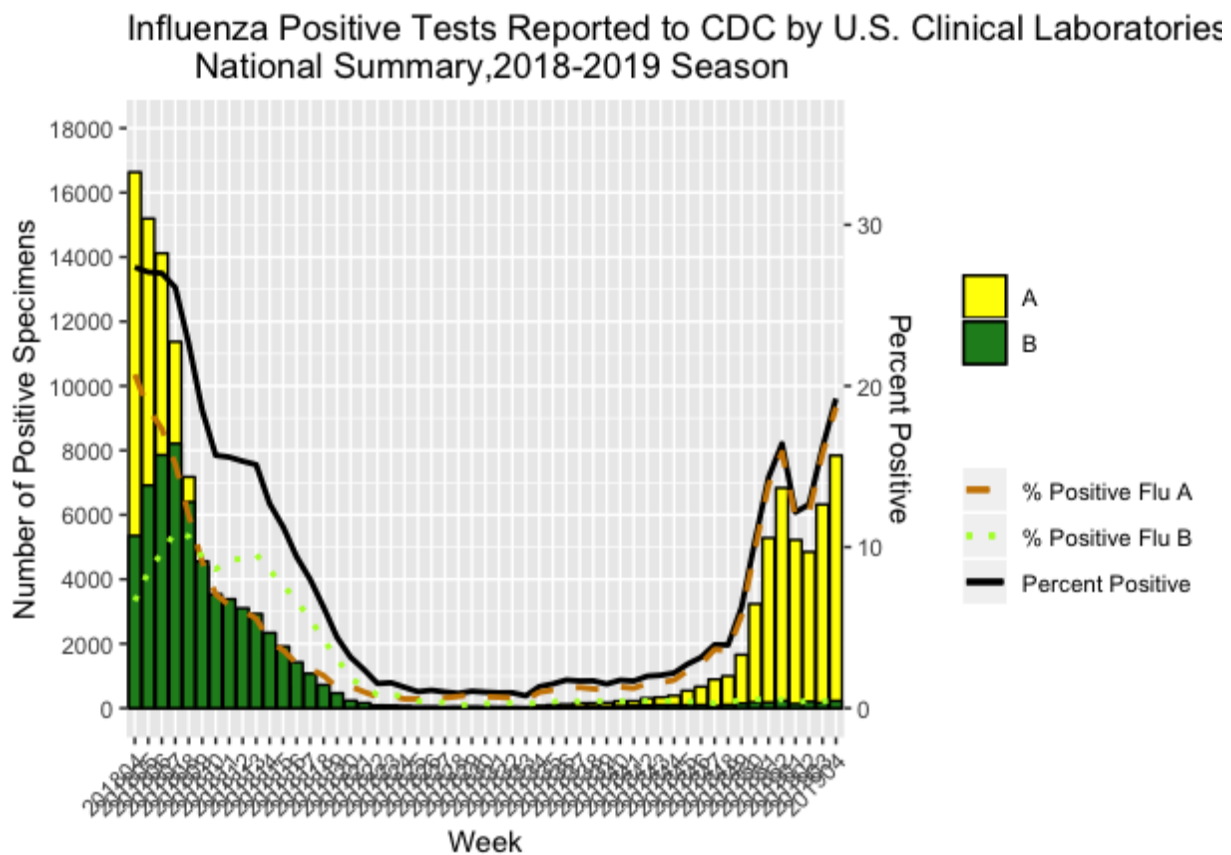
Plot 5:

The following plot is a bar graph indicating the number of pediatric deaths related to influenza spread across multiple seasons starting from 2015-16. The blue bar plot indicates the deaths reported in the current week of January 2019 ending on 28th. The number of deaths for each season is calculated using filters and displayed using ggplot string annotations.

Number of Influenza-Associated Pediatric Deaths by week of Death:2015-2016 season to present
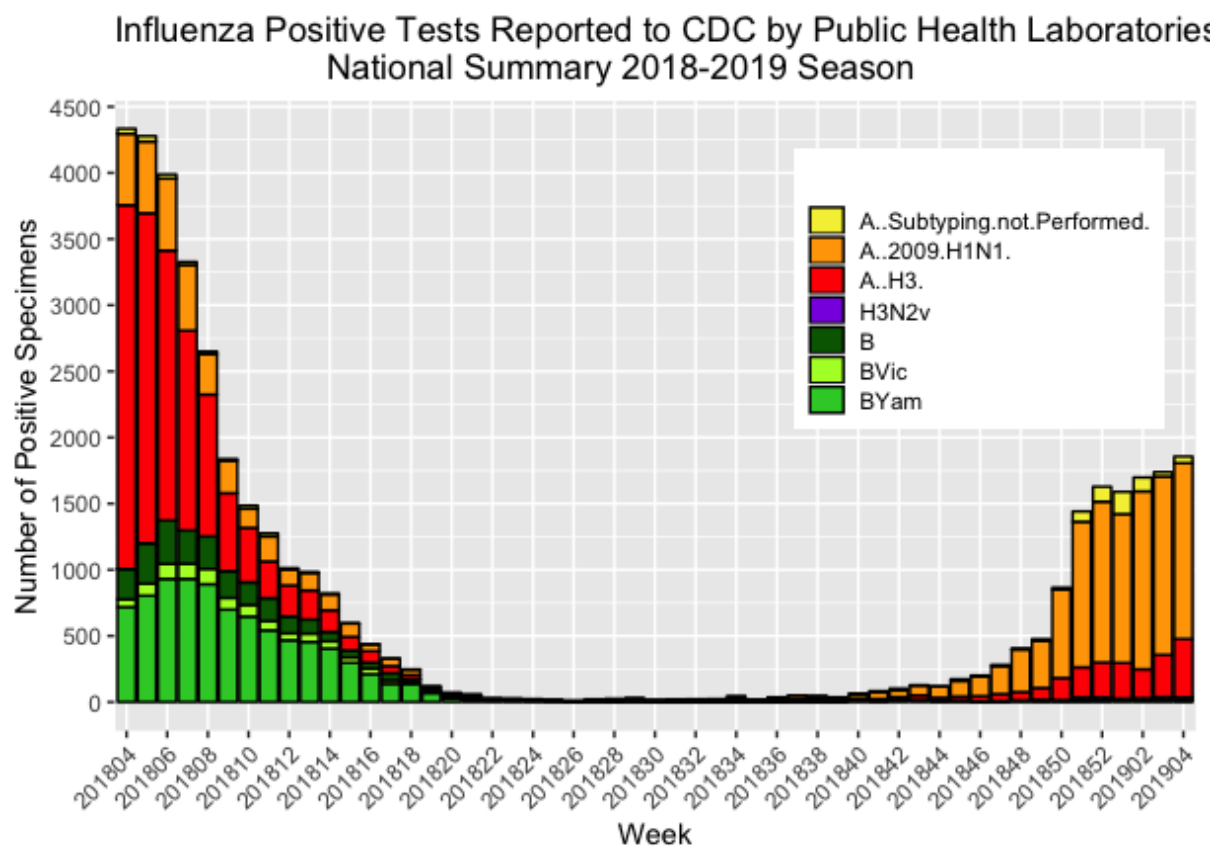
Task 5:

Plot 1:

The following plot indicates Influenza positive tests for the entire 52 weeks starting from week 4 of 2018 and ending at week 4 of 2019 across the nation.

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories National Summary, 2018-2019 Season

Plot 2:

The following plot depicts the influenza test results as reported by Public Health Laboratories for a 52-week period starting on the 4th week of 2018 and ending on 4th week of January 2019 across the nation.

Influenza Positive Tests Reported to CDC by Public Health Laboratories National Summary 2018-2019 Season

Task 6
Plot:

The following plot indicates Influenza positive tests for the entire 52 weeks starting from week 4 of 2018 and ending at week 4 of 2019 for only the New York state.

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, New York Summary,2018-2019 Season