

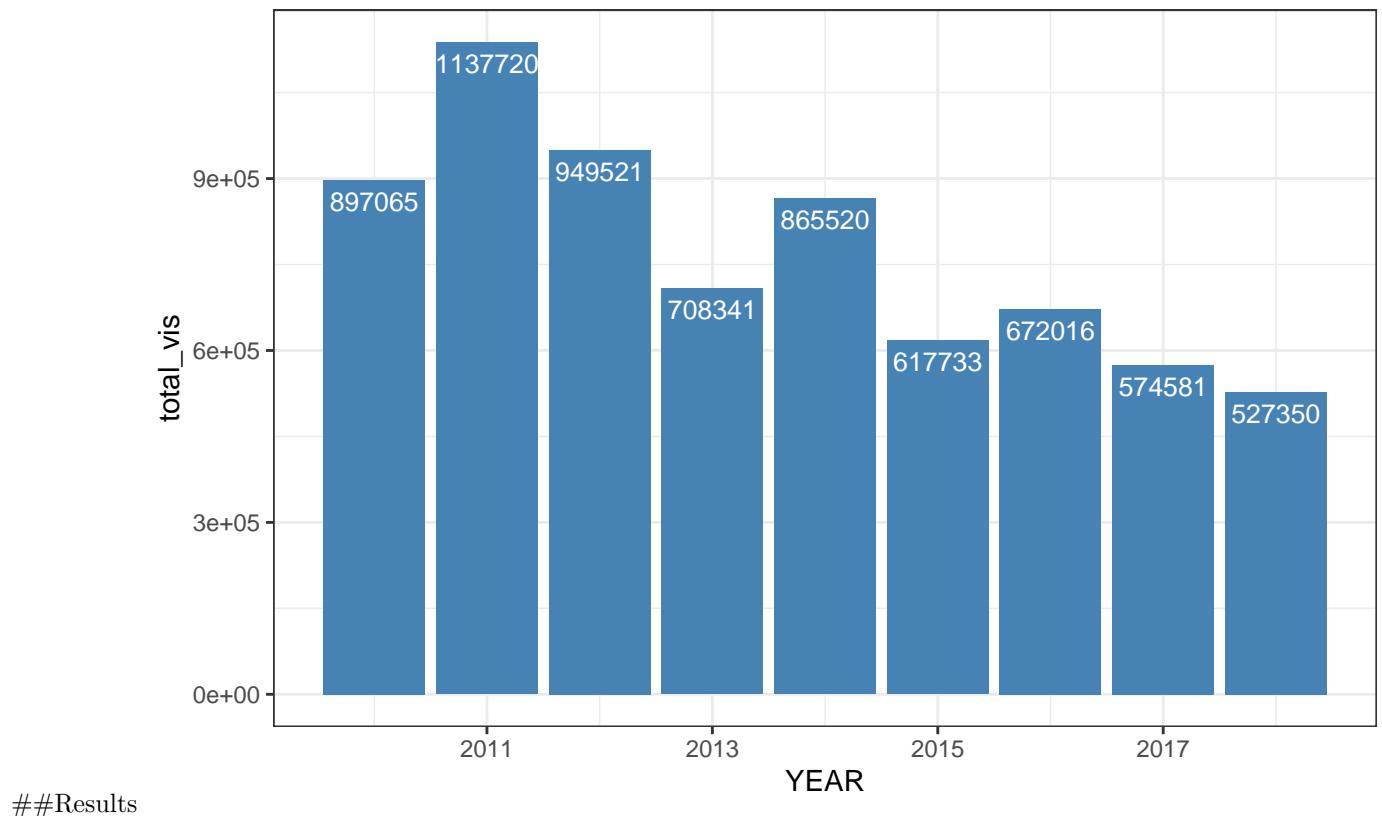
Welcome to my website!

Maddy Kline

##Introduction

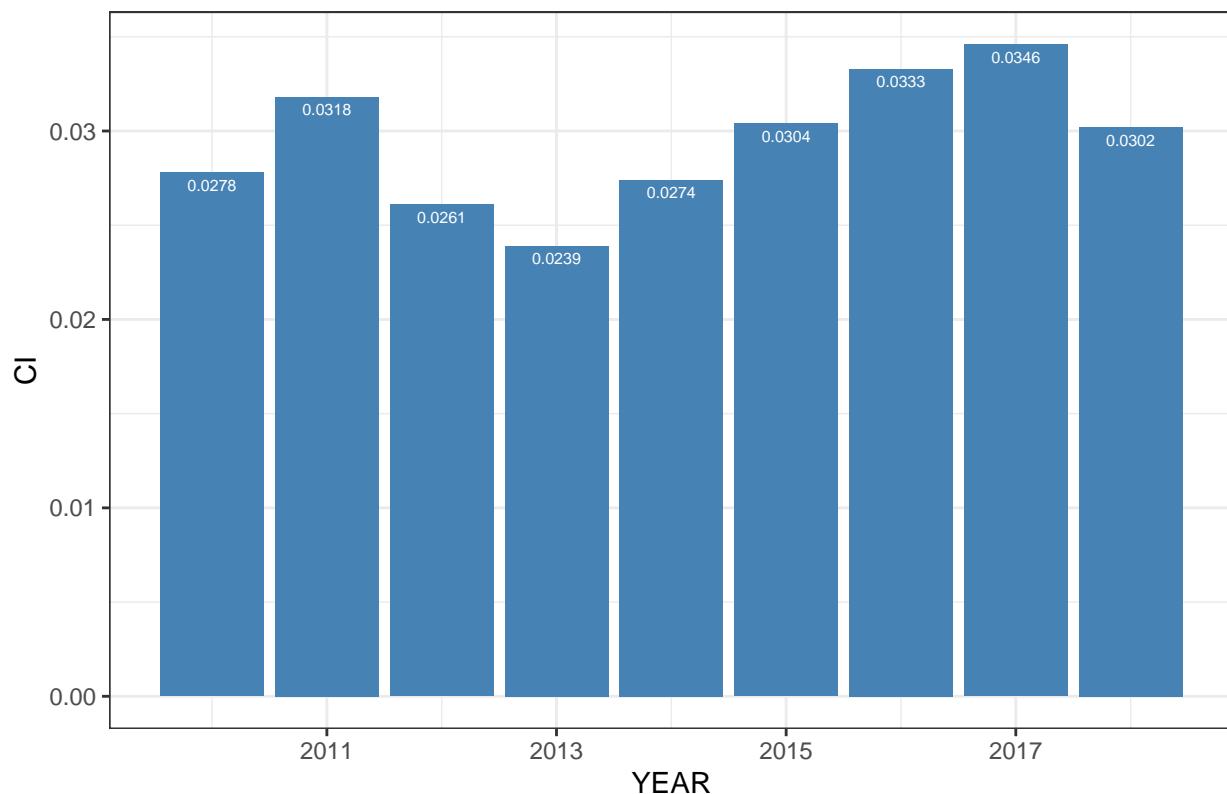
Streptococcal pharyngitis, known colloquially as “strep throat,” is the number one cause of pharyngitis in children, accounting for 15-30% of pharyngitis between the ages of 5-15, and up to as many as 35-40% of cases during the winter and early spring. There is an estimated prevalence is 37% among children¹²³. Symptoms typically include a characteristic sore throat, sometimes alongside fever, abdominal pain, or headache. Streptococcal pharyngitis is caused by group A Streptococcus, or Streptococcus pyogenes, and is clearly diagnosed with the rapid antigen detection test, throat culture, or NAAT. Treatment with the appropriate penicillin antibiotics is recommended to decrease the chance of some complications, including acute rheumatic fever, which can cause lasting cardiac valvular damage. There are known geographic patterns across the US for some other respiratory illnesses, including influenza, which is known to start in the south east and rise in other parts of the country after that.⁴ Comparatively little is known about the geographic distribution of streptococcal pharyngitis in the US. The MarketScan database, comprised of insurance claims data from private insurers across the US, provides an opportunity to investigate the distribution of streptococcal pharyngitis in the US. Claims data for streptococcal pharyngitis were extracted from MarketScan, separated by year 2010-2018, month, sex, age group, and state. Data for flu with the same properties was also extracted from MarketScan for comparison, and vaccination data for flu and PCV were obtained through CDC FluVax and ChildVax respectively. The question we seek to address is whether rates of streptococcal pharyngitis are different in different parts of the country, and if so, what factors contribute to these differences.

Total Strep Pharyngitis Visits by Year US

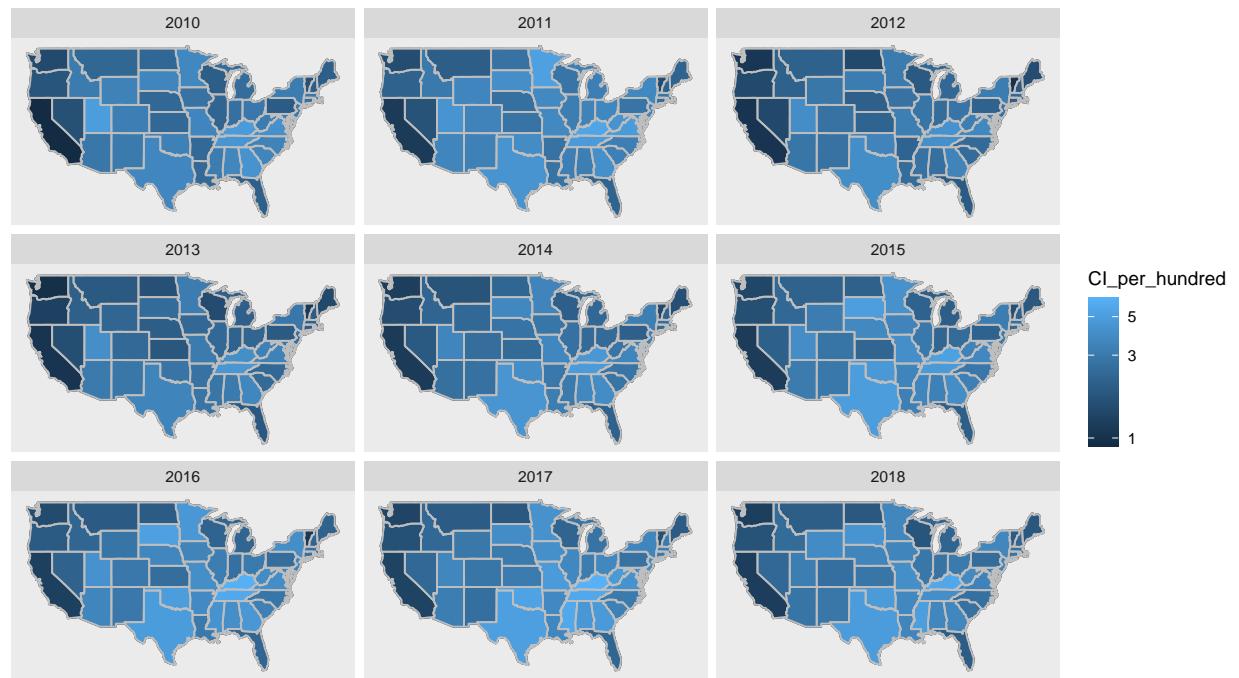


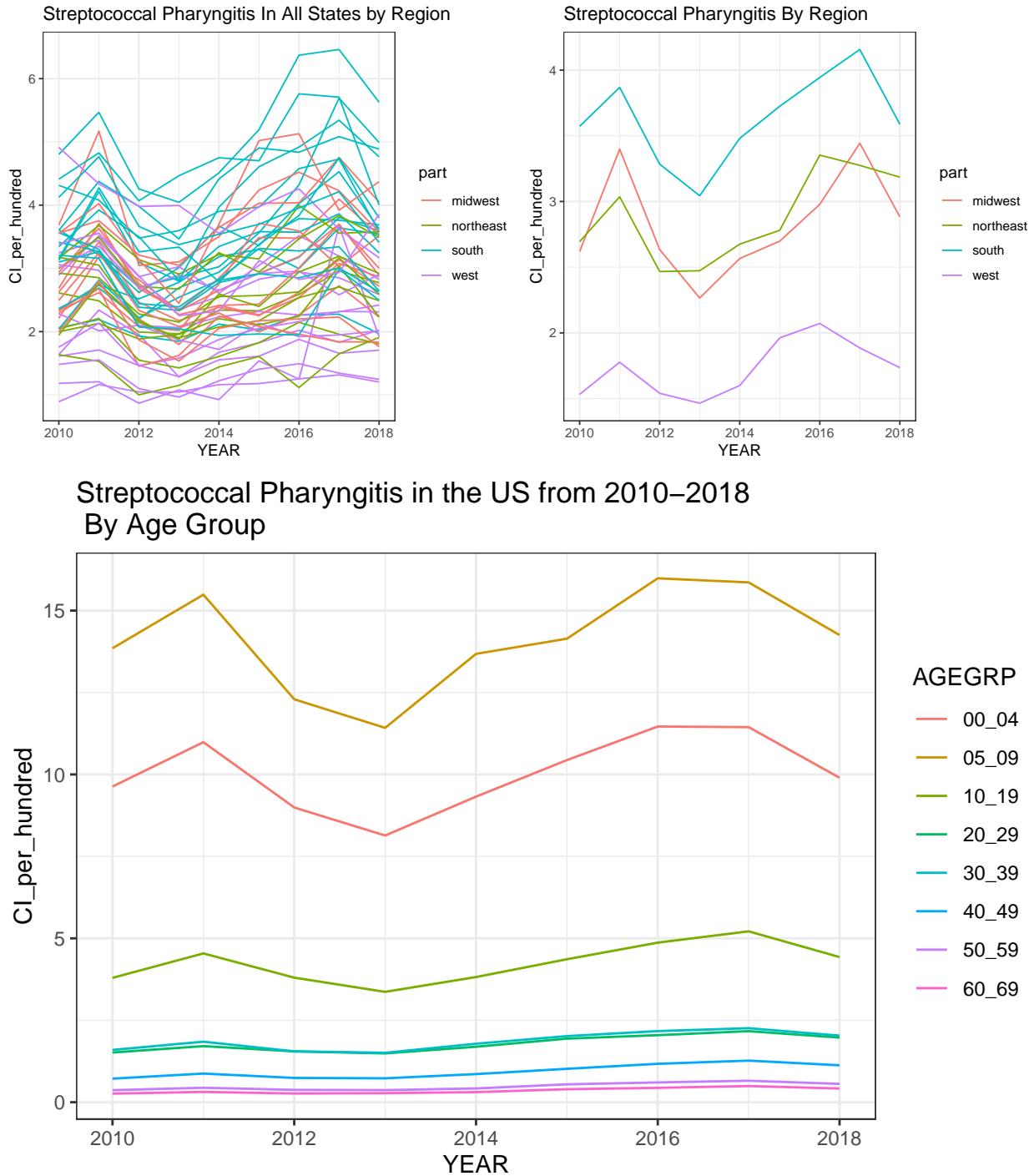
##Results

Total Strep Pharyngitis Visits per Member by Year US

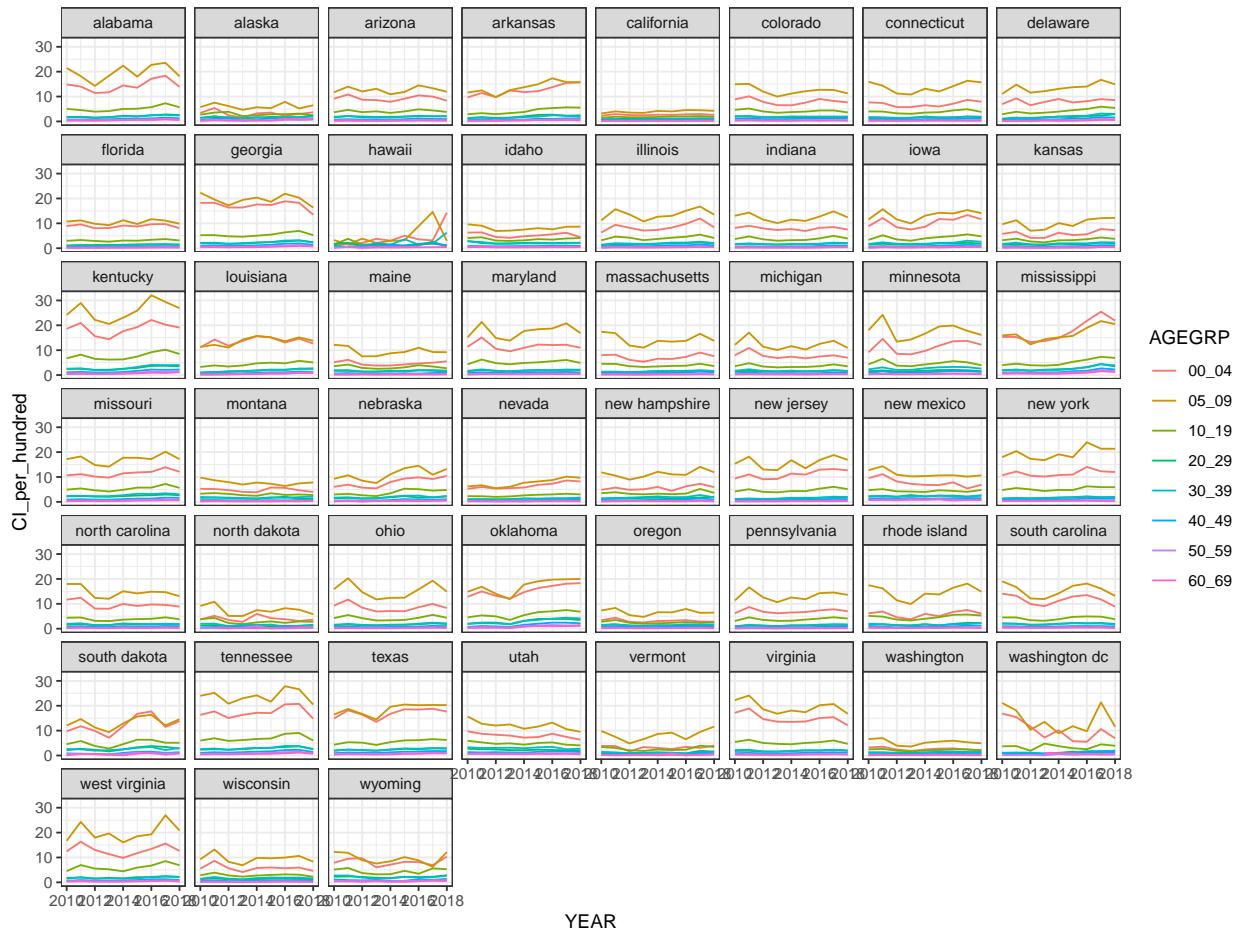


Cumulative Incidence of Streptococcal Pharyngitis from 2010–2018
All Ages

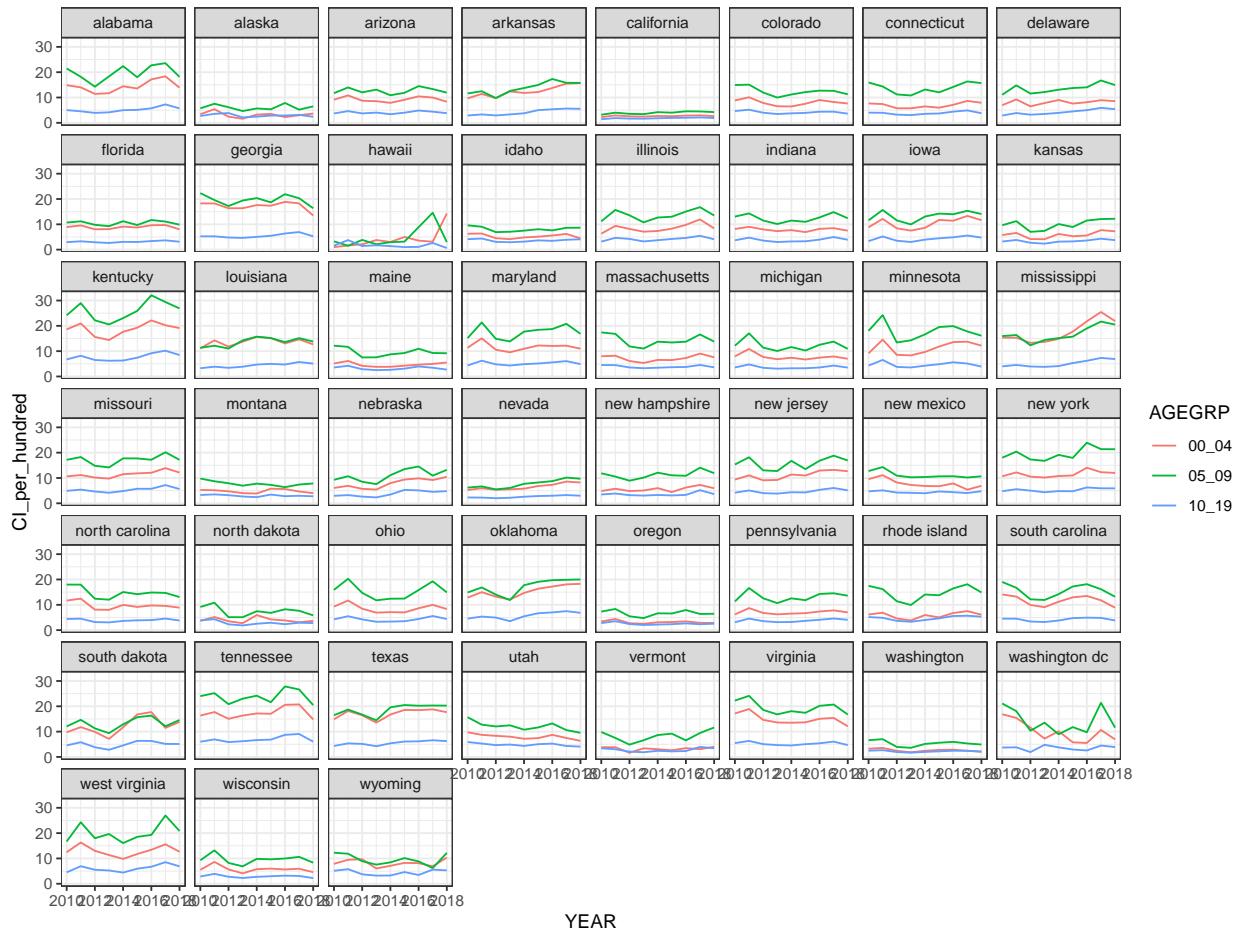


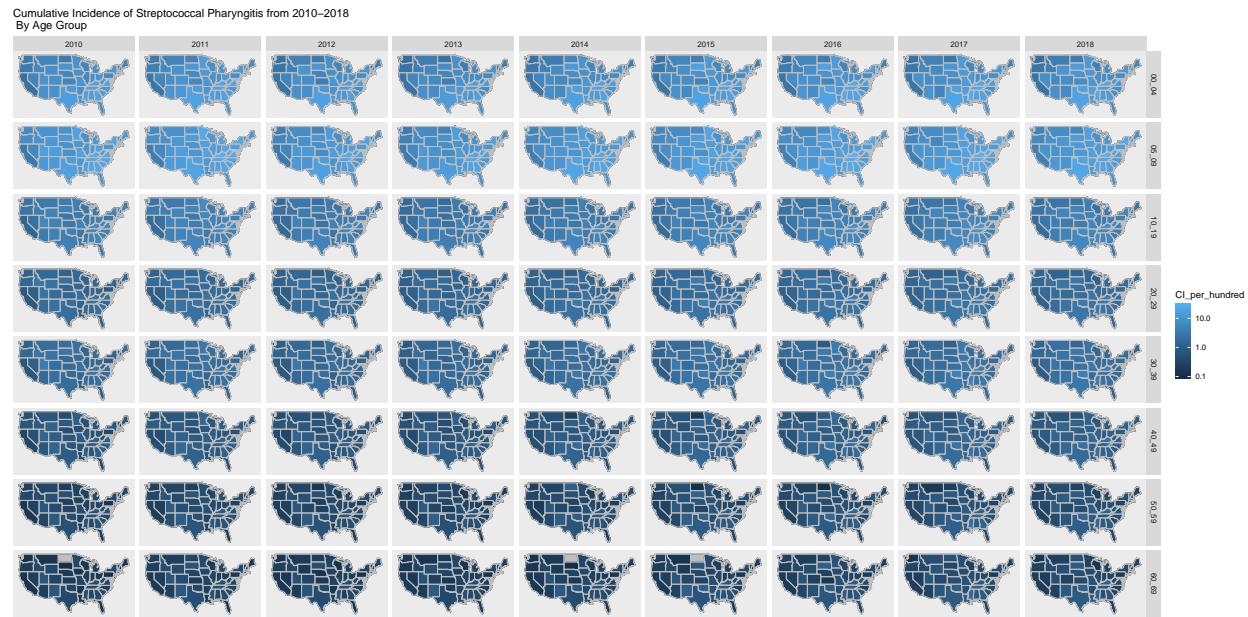


Streptococcal Pharyngitis in the US from 2010–2018
By State and Age Group

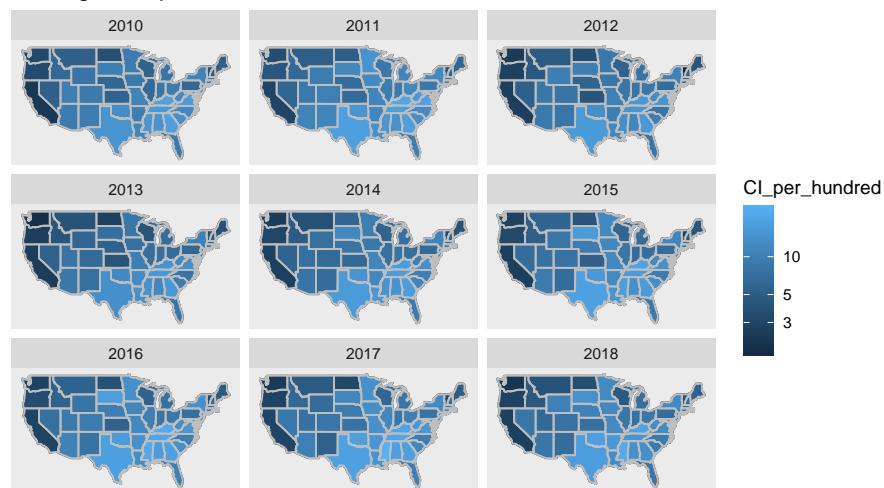


Streptococcal Pharyngitis in the US from 2010–2018
By State and Younger Age Groups

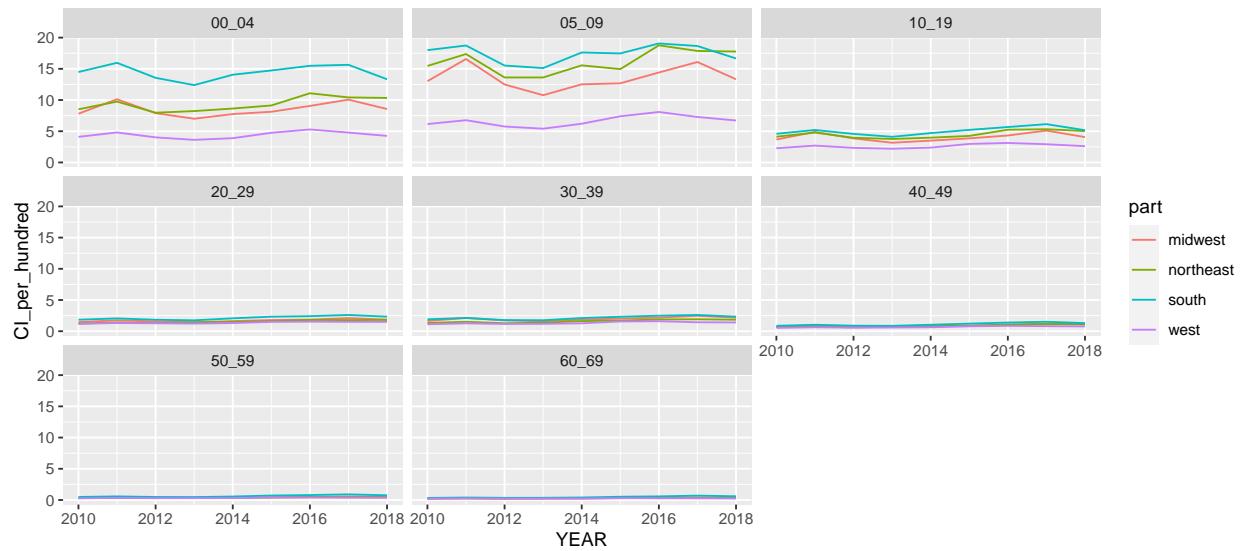
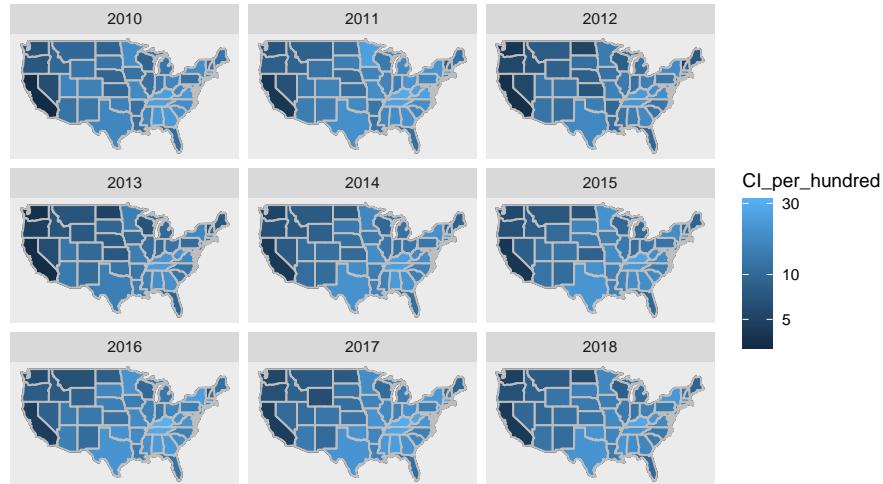




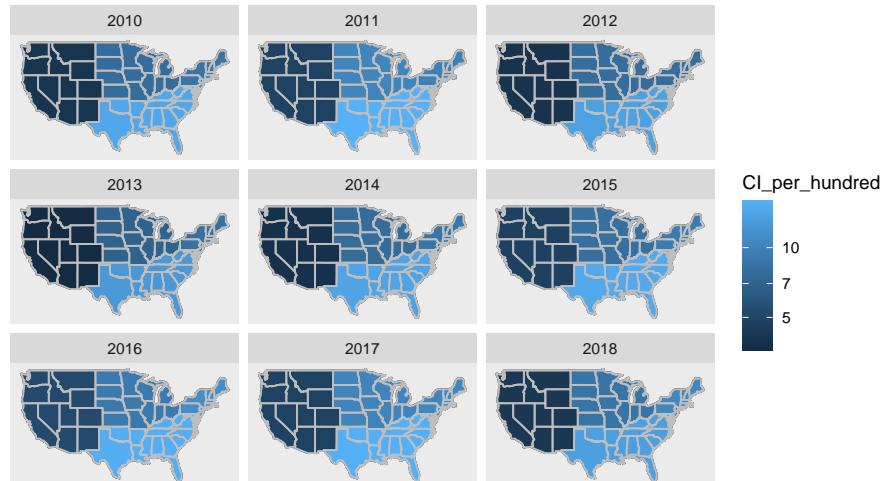
Cumulative Incidence of Streptococcal Pharyngitis from 2010–2018
0–4 Age Group



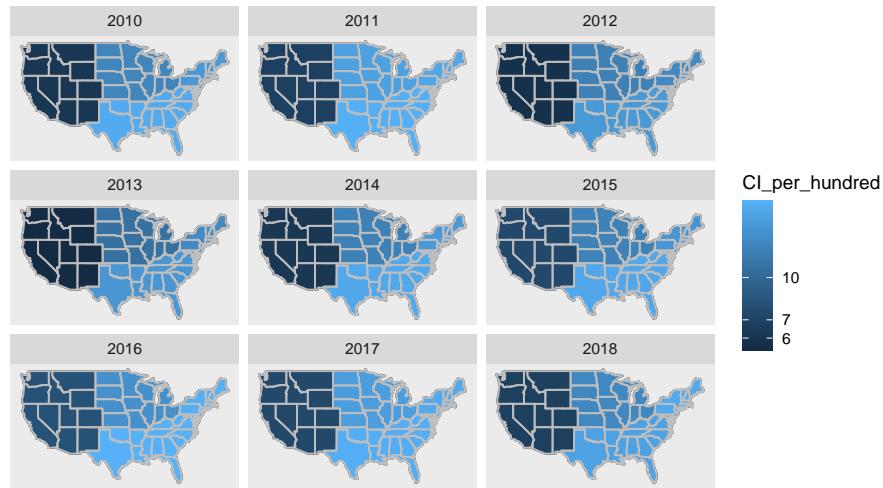
Cumulative Incidence of Streptococcal Pharyngitis from 2010–2018
5–9 Age Group



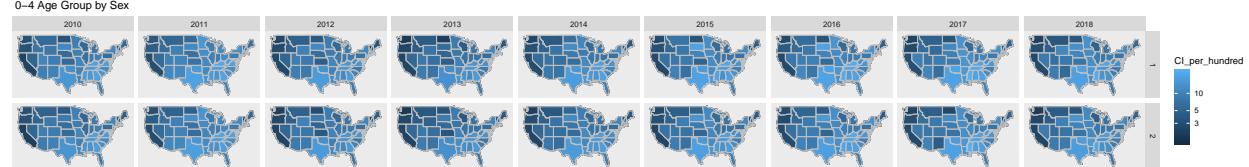
Cumulative Incidence of Streptococcal Pharyngitis from 2010–2018
0–4 Age Group by Region

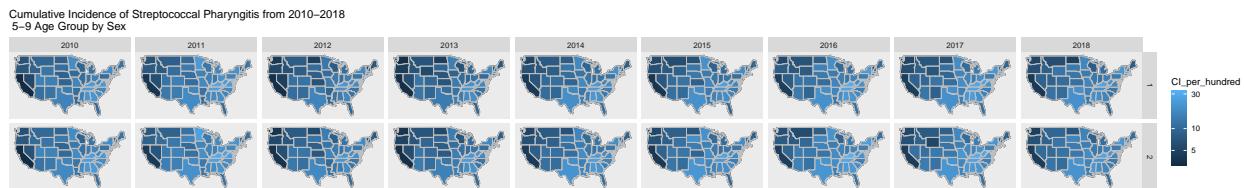


Cumulative Incidence of Streptococcal Pharyngitis from 2010–2018
5–9 Age Group by Region



Cumulative Incidence of Streptococcal Pharyngitis from 2010–2018
0–4 Age Group by Sex





##Conclusions

##Appendix

##References 1. Ellen R Wald. Group A streptococcal tonsillopharyngitis in children and adolescents: Clinical features and diagnosis. <https://www.uptodate.com/contents/group-a-streptococcal-tonsillopharyngitis-in-children-and-adolescents-clinical-features-and-diagnosis/print?search=strep>. 2. Bisno, A. L. Acute Pharyngitis: Etiology and Diagnosis. Pediatrics 97, 949–954 (1996). 3. Luo, R. et al. Diagnosis and Management of Group a Streptococcal Pharyngitis in the United States, 2011–2015. BMC Infect Dis 19, 193 (2019). 4. Weekly U.S. Influenza Surveillance Report | CDC. <https://www.cdc.gov/flu/weekly/index.htm>.