

Temporal Trends in Appropriateness of Ambulatory Antibiotic Prescribing in South Carolina

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Background

- Previous studies have reported high levels of inappropriate ambulatory antibiotic prescribing in the United States
- Previous work demonstrated decreased ambulatory antibiotic prescribing in South Carolina from 2012-2017 with the largest decrease in pediatrics

Aims

- This population-based cohort study examines temporal trends in appropriateness of ambulatory antibiotic prescribing in South Carolina between 2012-2017

Methods

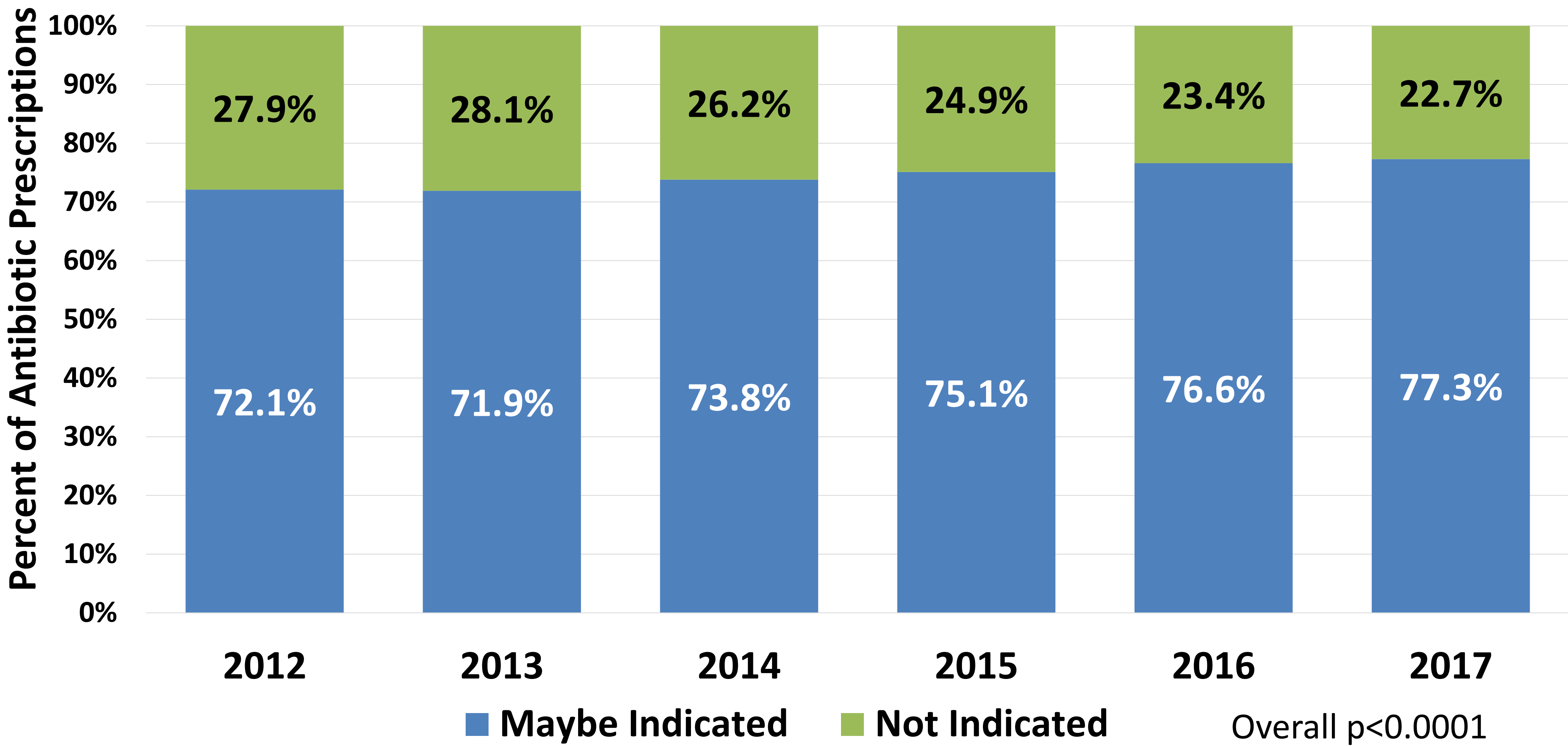
- Aggregated pharmacy claims data for oral antibiotic prescriptions for South Carolina residents <65 years old were matched with primary diagnosis codes from medical claims within 14 days of the pharmacy claim
- Appropriateness of antibiotics was defined as maybe indicated or not indicated based on diagnosis codes
- Chi-square tests were used to examine overall temporal trend in appropriateness and the trends across age group and gender

Results

- During the 6-year study period, 3,133,379 prescriptions were identified
- Overall, 25.6% of antibiotic prescriptions filled were not indicated

The proportion of patients receiving antibiotic prescriptions for inappropriate indications in ambulatory settings decreased from 27.9% to 22.7% between 2012 and 2017 in South Carolina.

Figure 1: Prescription Appropriateness from 2012 to 2017



Results Cont.

Figure 2: Not Indicated Conditions

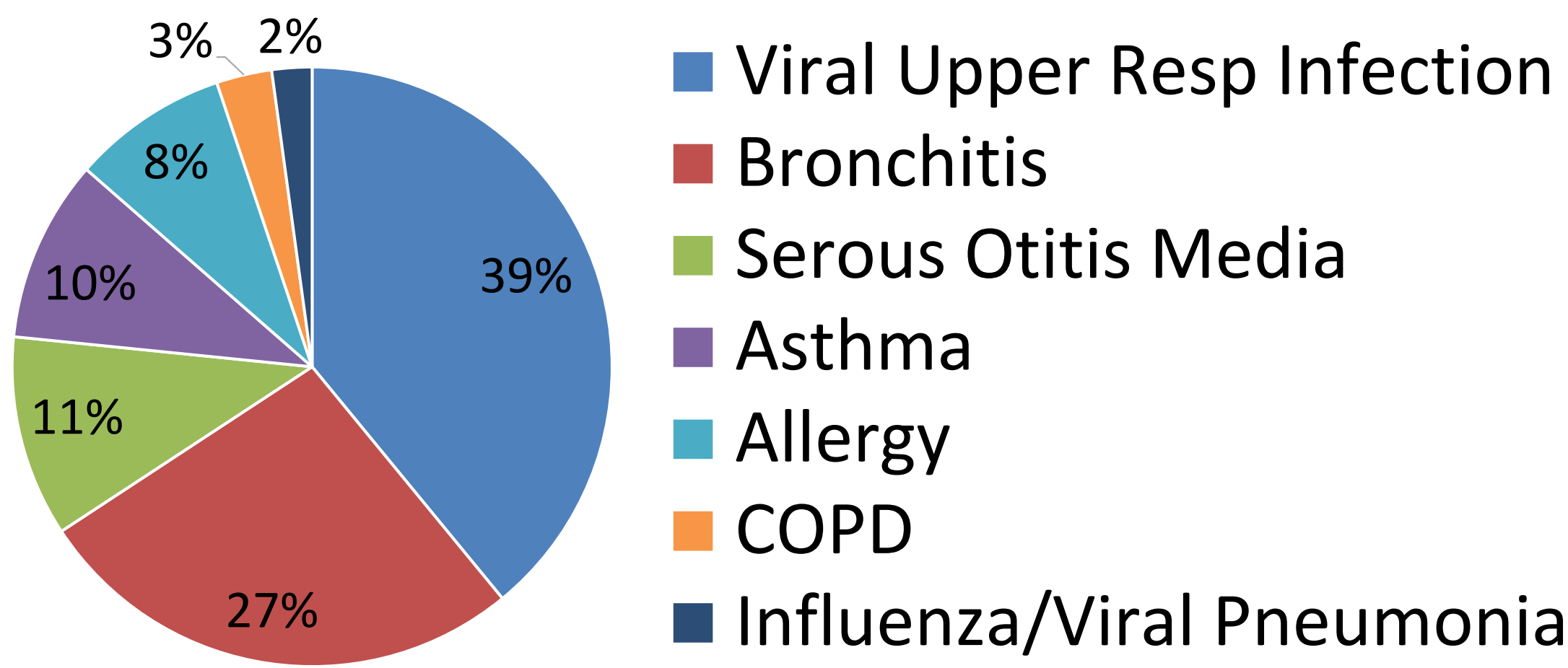
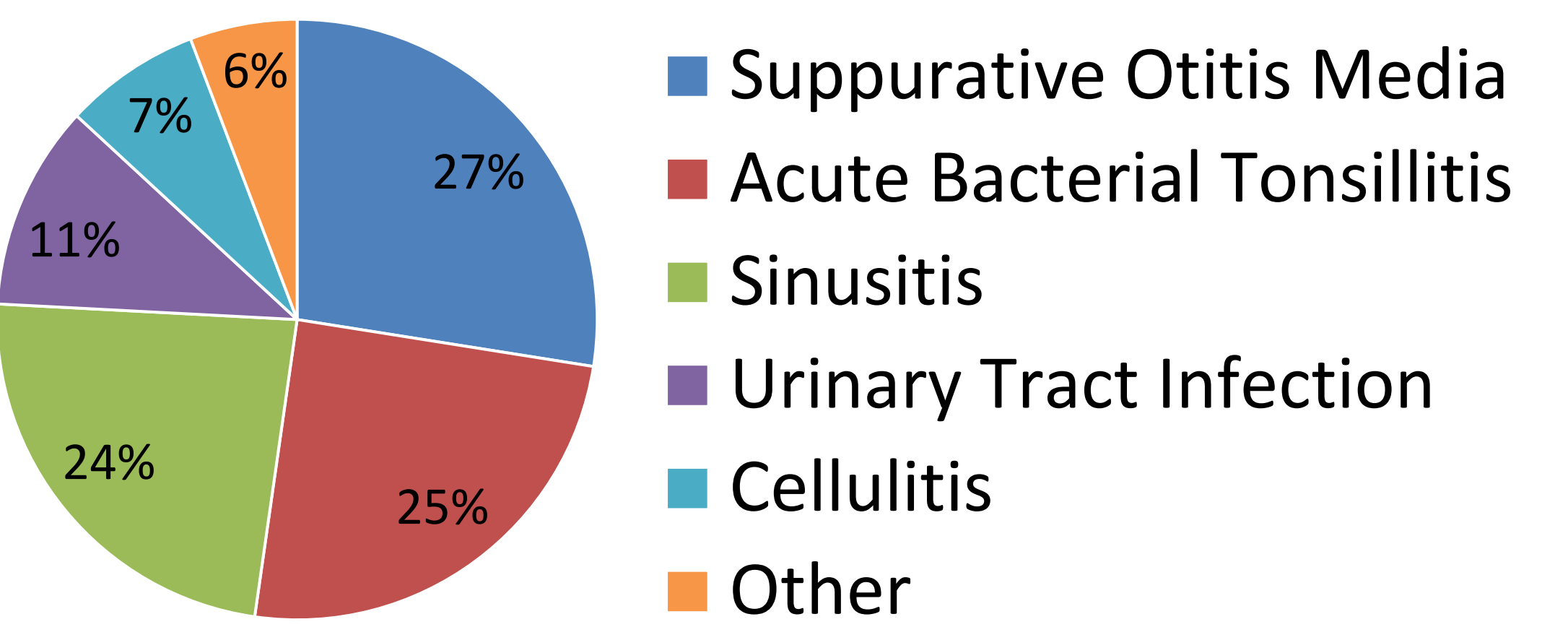


Figure 3: Maybe Indicated Conditions



- While women filled more antibiotic prescriptions, they were less likely than men to have a not indicated condition (24.7% vs 27.1%, p <0.001)
- Prescribing for not indicated conditions was more likely in adults aged 40-64 (33.7%) than those aged 18-39 (23.5%) and <18 (24.2%) [p<0.001]

Conclusions

- The observed decline in inappropriate ambulatory antibiotic prescribing from 2012 to 2017 in South Carolina represents welcomed news
- Further improvements in ambulatory antibiotic stewardship efforts are needed particularly in men ≥40 years old with acute viral respiratory infections