Real-World Healthcare Resource Utilization by Older Adults with Respiratory Syncytial Virus (RSV): A Retrospective Claims Analysis





Jenna Wildeman, BS, PharmD Candidate^{1,2}; Christopher Diehl, PharmD, MBA, BCACP³; Alyssa Tutino, PharmD, BCGP³; Kevin Lynch, PharmD, BCPS, MS, MBA⁴; Tom Heard, PharmD, BCGP⁴; Justin Bender, BS³; Erin Stanton³ 1. University of Washington, 2. Academy of Managed Care Pharmacy (AMCP) Foundation/ Pfizer, Inc. Managed Care Summer Intern, 3. Excellus BCBS, Rochester, New York, 4. Pfizer, New York, New York

Background

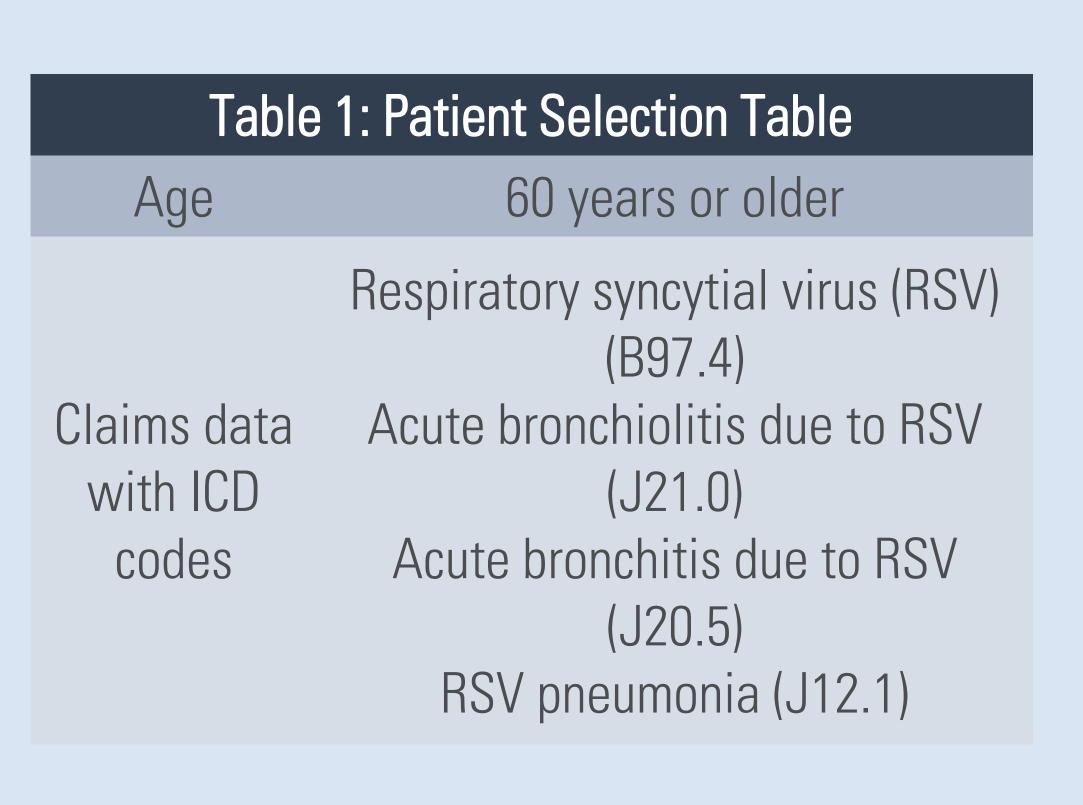
- Respiratory syncytial virus (RSV) is a common respiratory virus that typically causes cold-like symptoms. RSV is transmitted through direct contact with respiratory secretions. In the United States, transmission is highest during fall and peaks during winter. Most RSV infections self-resolve within a week or two but can result in more severe infections such as bronchiolitis and pneumonia causing life-threatening illness. Each year in the United States, approximately 60,000-160,000 older adults are hospitalized and 6,000-10,000 die due to RSV infection.
- Antiviral medication is not routinely used in the treatment of RSV. Supportive care is a mainstay of treatment in most patients. Therefore, preventative measures such as infection control and immunization are crucial to prevent RSV infection.
- It is estimated that the annual national direct cost burden of RSV hospitalizations in the U.S. was \$1.5-\$4.0 billion for adults aged ≥60 years.²
- The goal of this analysis was to evaluate the healthcare resource utilization and cost associated with RSV in adults 60 years or older who may be eligible for the RSV vaccine recently introduced in May 2023. This analysis is crucial for understanding the economic impact of RSV and optimizing vaccination strategies.

Objectives

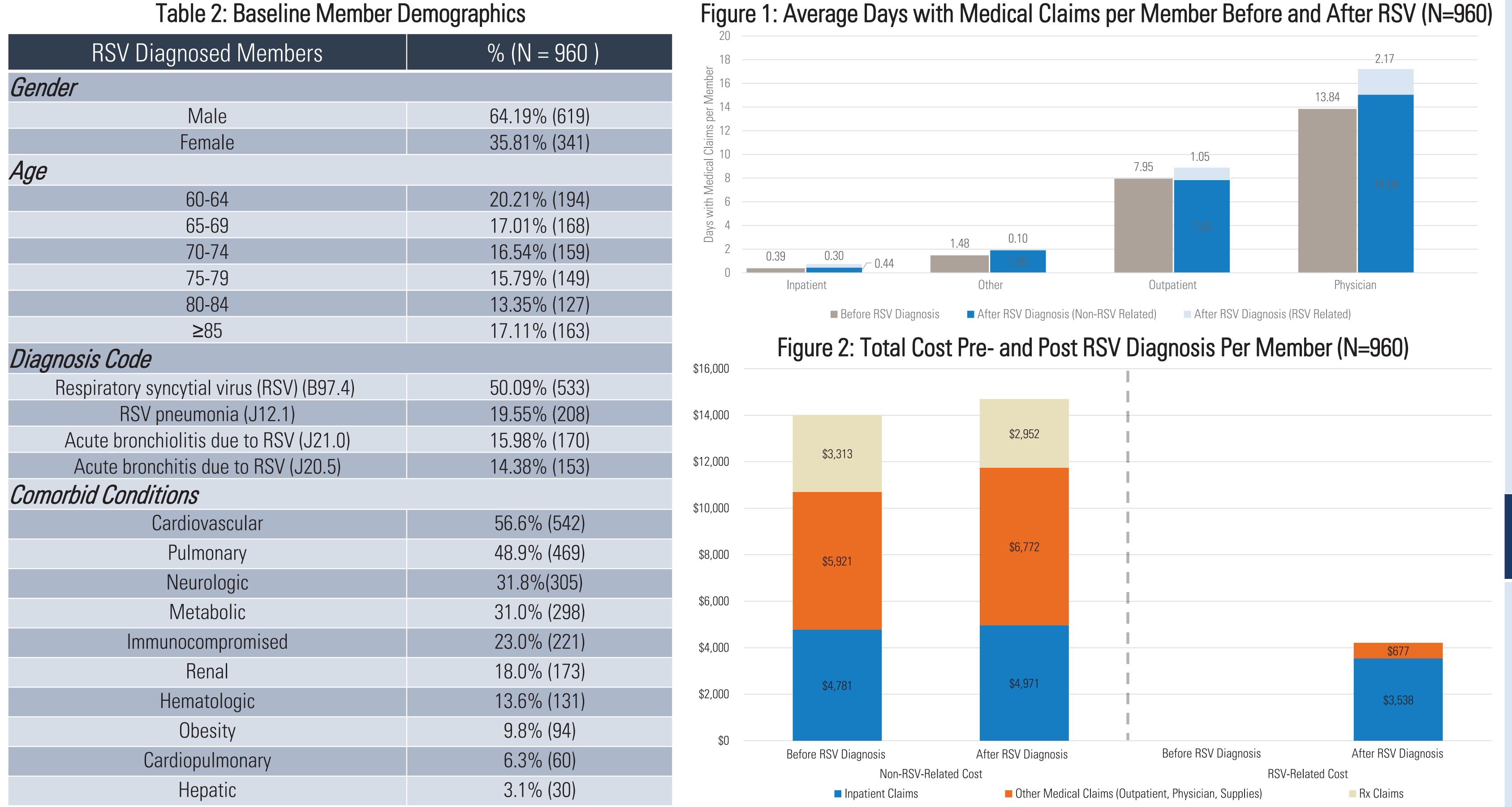
- **Primary Objective**: Characterize RSV-related health care resource utilization and costs for Medicare and commercial health plan members aged ≥60 years using a retrospective claims analysis.
- Secondary Objective: Assess the prevalence and impact of comorbid conditions on RSV-related health care costs for inpatient, outpatient, and physician visits. Analyze how the number and types of comorbid conditions influence cost.

Methods

- A retrospective observational analysis was done using medical and pharmacy claims from a regional health plan in New York state providing coverage to over one million members.
- The index date is defined as the date a claim was incurred with a primary diagnosis of RSV, within the measurement period of July 1, 2022, to December 31, 2023.
- The total cost of medical care includes health care expenditures incurred six months before and after the index date.
- A total of 960 members aged 60 years or older diagnosed with RSV were included in the analysis.
- The subgroup analysis includes utilization and costs analyses on inpatient and other medical claims (defined as outpatient, physician office visits, and medical supplies).

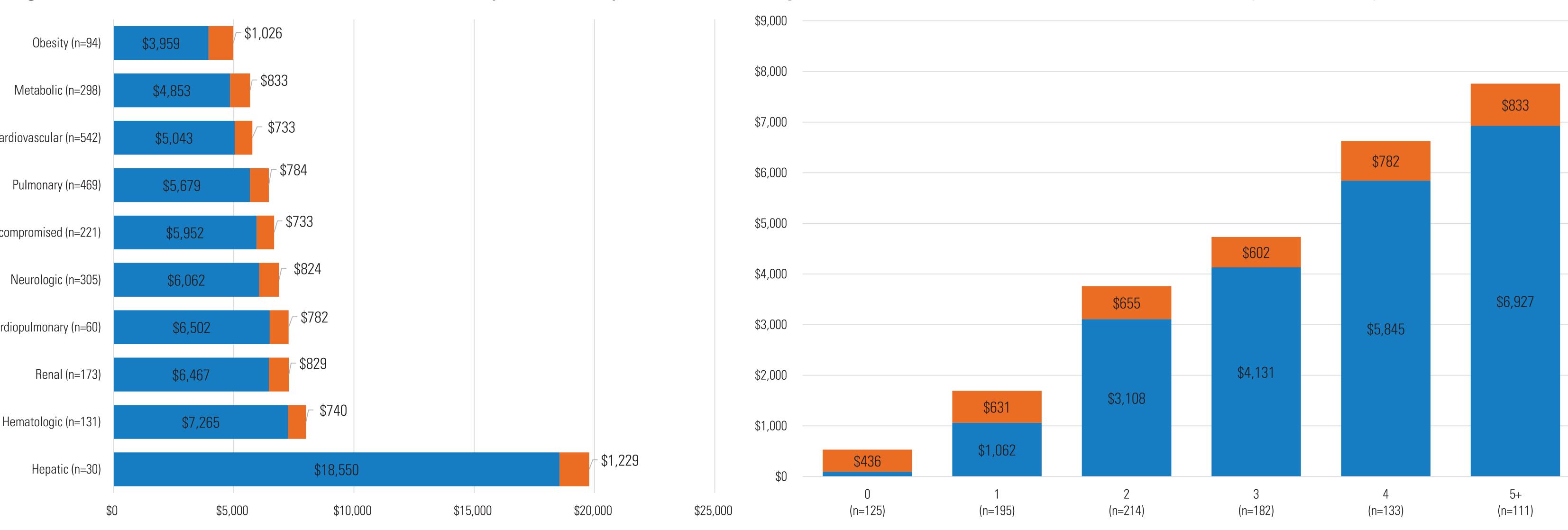


Charts and Tables





Disclosures: Kevin Lynch and Thomas Heard are employees of Pfizer Inc. AMCP Foundation receives funding for the Managed Care Internship from Pfizer Inc.



Results

- Typical RSV-related utilization after diagnosis showed an average of 0.30 inpatient days, 1.05 outpatient days and 2.17 physician visits per member over a 6-month period, highlighting a substantial rise in healthcare needs associated with RSV.
- The average RSV-related medical cost 6 months post-RSV diagnosis for these services was \$4,215 per member. For all patients diagnosed with RSV, the total RSV-related medical cost amounted to \$4,046,534.
- The total cost per RSV diagnosed member increased approximately 34.9% (\$4,896) in the 6 months following their diagnosis compared to the 6 months prior. The medical claims increased by 49.1% (\$5,257) and Rx claims decreased by 10.9% (-\$361).
- The most common comorbidities with RSV-diagnosed members were cardiovascular (56.5%), pulmonary (48.9%), neurologic (31.8%), metabolic (31.0%), and immunocompromised (23.0%).
- RSV-related medical costs per member were highest for hepatic conditions at \$19,779, followed by hematologic conditions at \$8,005, renal conditions at \$7,296, cardiopulmonary conditions at \$7,284, and neurologic conditions at \$6,886.
- As the number of comorbidities increased, so did the average RSV-related medical costs, rising from \$530 with no comorbidities to \$7,760 with five or more.

Discussion and Conclusion

- RSV diagnoses imposes a significant impact on healthcare costs, with an average expense of \$4,215 per member and a total expenditure exceeding \$4 million for the studied cohort. After an RSV diagnosis, there is a notable 34.9% increase in total costs per member, primarily driven by a 49.1% rise in medical claims. This highlights a substantial escalation in healthcare needs and expenses following RSV.
- Despite a 10.9% decrease in prescription claims, the overall cost impact is dominated by the increase in inpatient medical claims. This indicates that the inpatient medical care associated with RSV is considerably more expensive than outpatient care.
- RSV diagnoses are often linked to various comorbidities, including cardiovascular, pulmonary, neurologic, metabolic, and immunocompromised conditions. Among these, hepatic conditions incur the highest costs at \$19,779 per member, while obesity results in the lowest costs at \$4,985. This suggests that focusing vaccination efforts on individuals with high-risk and costly comorbidities could be particularly beneficial.
- The cost of RSV increases with the number of comorbidities, which helps underscore the significant financial burden RSV imposes in older adults, especially in those with multiple comorbidities.
- These findings align with updated CDC guidance recommending RSV vaccination for individuals 75 years and older and higher risk individuals 60-74 years with certain underlying conditions.³
- Optimizing vaccination strategies through member and healthcare provider education could mitigate the high costs associated with RSV and help prevent hospitalizations. Tailoring interventions to manage RSV in high-risk populations, specifically older adults with multiple comorbidities, can lower costs and enhance patient outcomes.

References

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