

Nasopharyngeal Carriage of Potential Bacterial and Viral Pathogens in Hospitalized Patients with Respiratory Symptoms

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 Abstract #47909

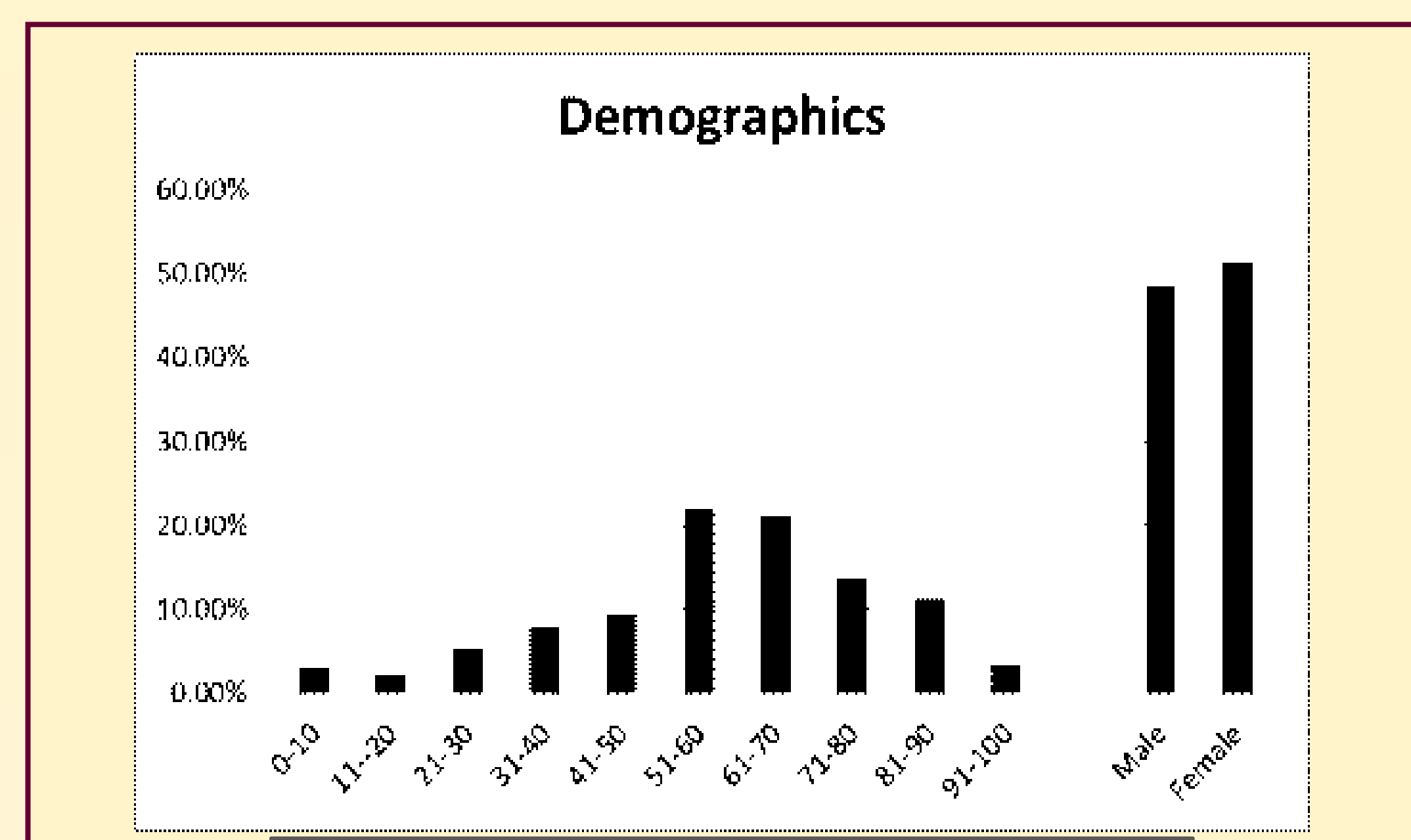
Background

To determine the frequency of detecting potentially pathogenic bacterial and viral gene targets in respiratory specimens collected from symptomatic patients during the 2013-2014 influenza season

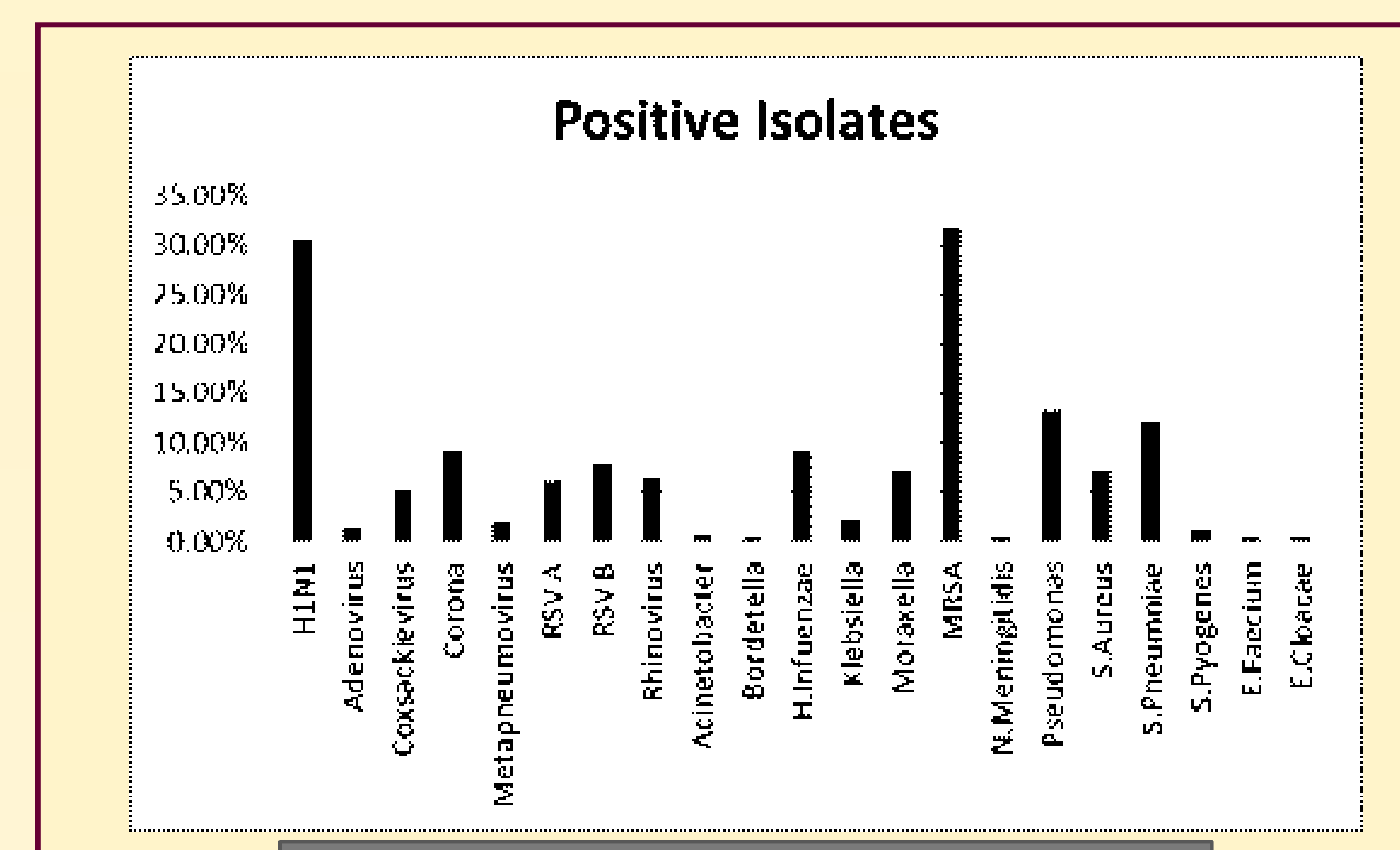
Methods

- Retrospective study
- 264 hospitalized patients with respiratory symptoms
- Respiratory samples obtained and screened for 22 different viruses, 16 bacteria, and 5 genetic drug resistance targets by Target Enriched Multiplex Polymerase Chain Reaction

Results



Study Population Demographics

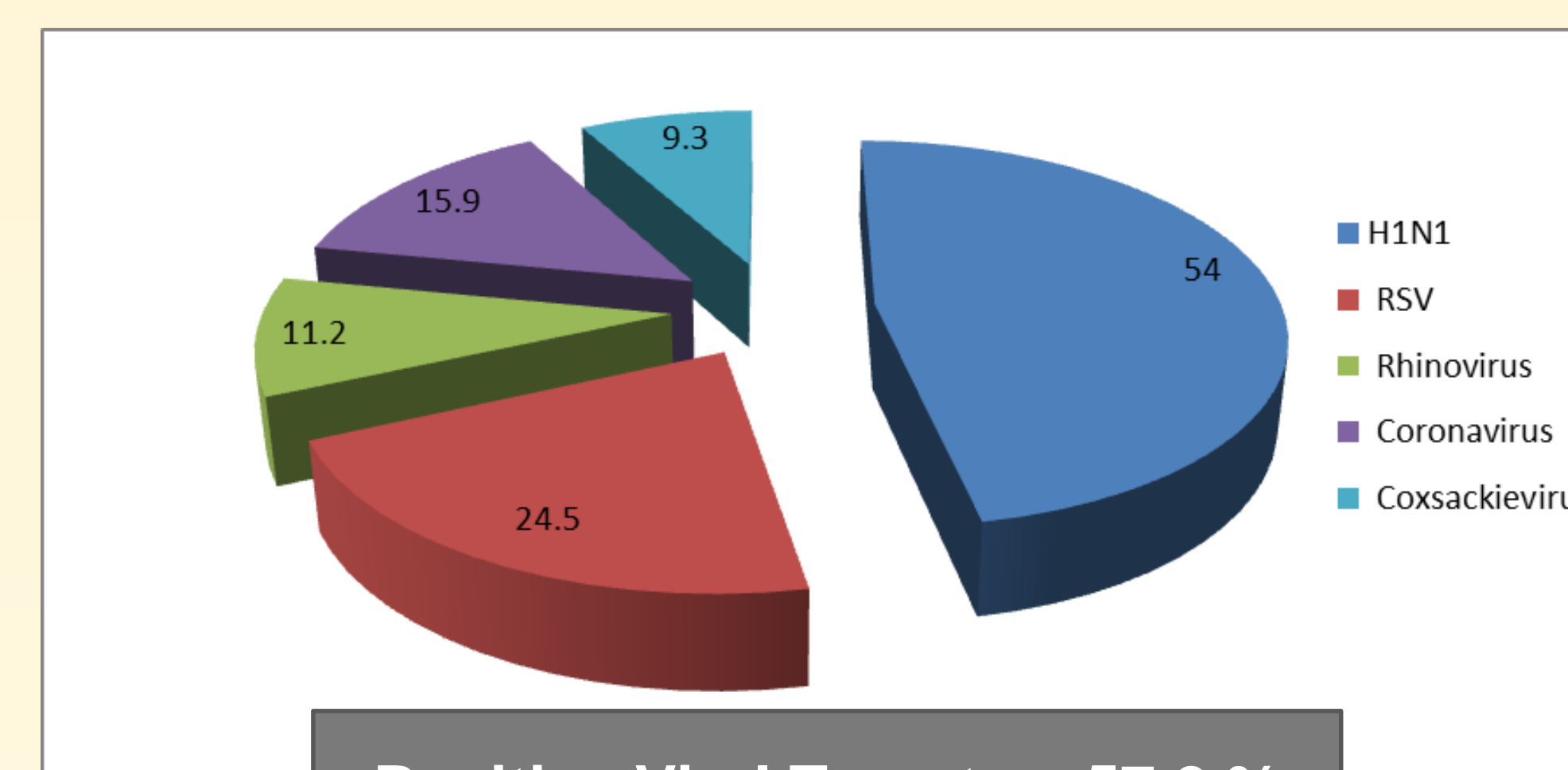


Positive Bacterial and Viral Isolates

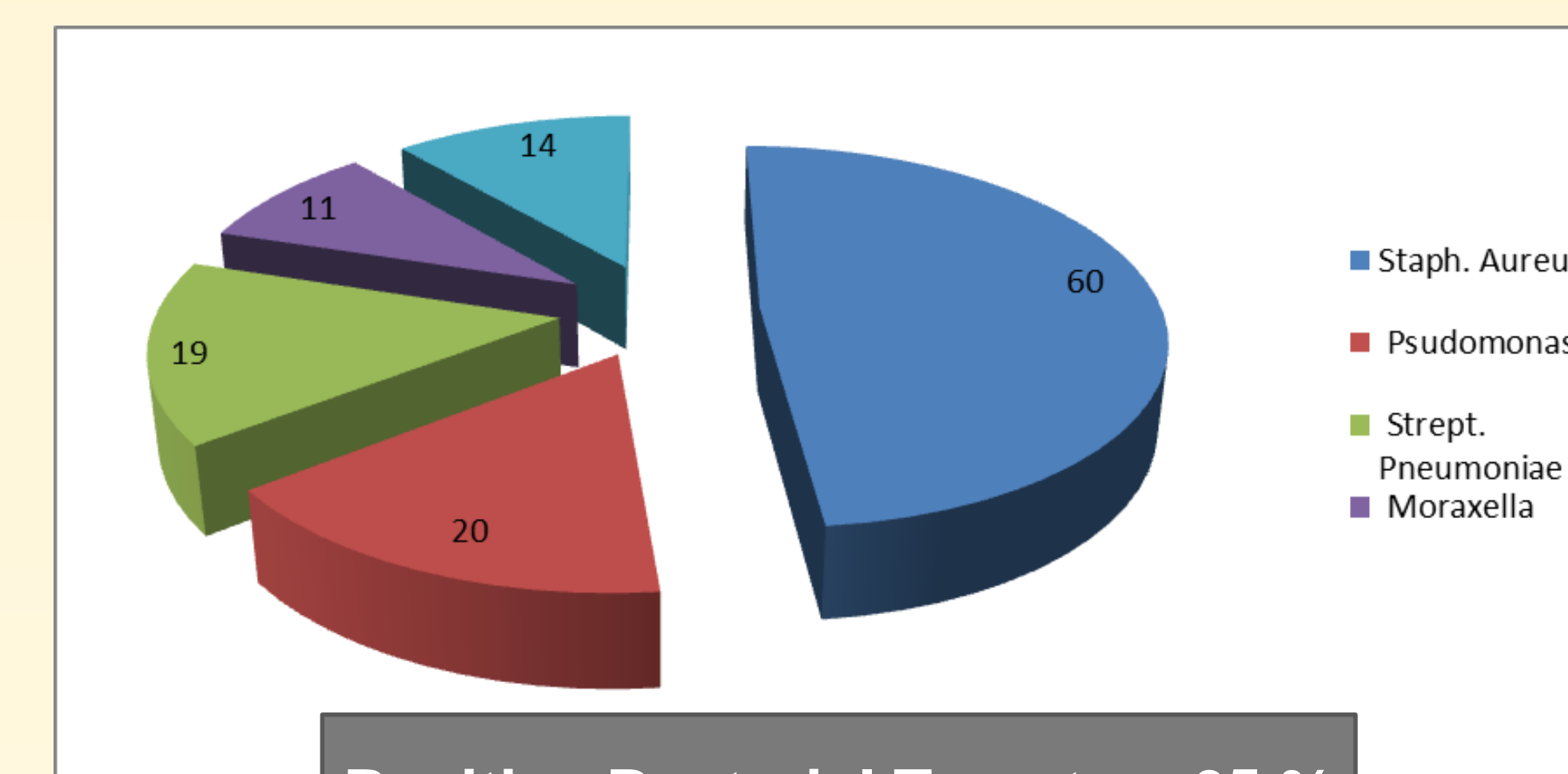
Positive Viral and Bacterial Gene Targets – 25 %

More than one Bacterial Target – 17 %

More than one Viral Target – 9 %



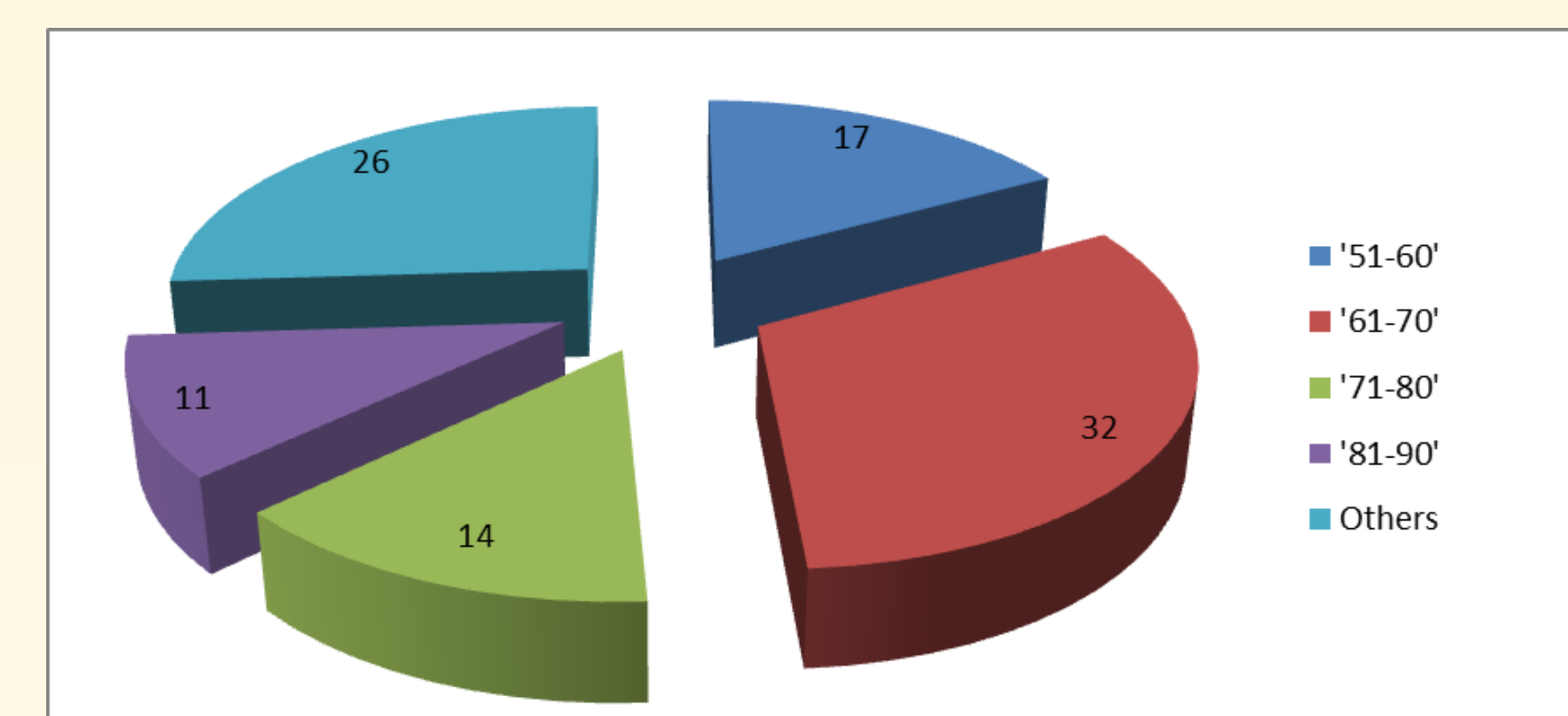
Positive Viral Targets – 57.2 %



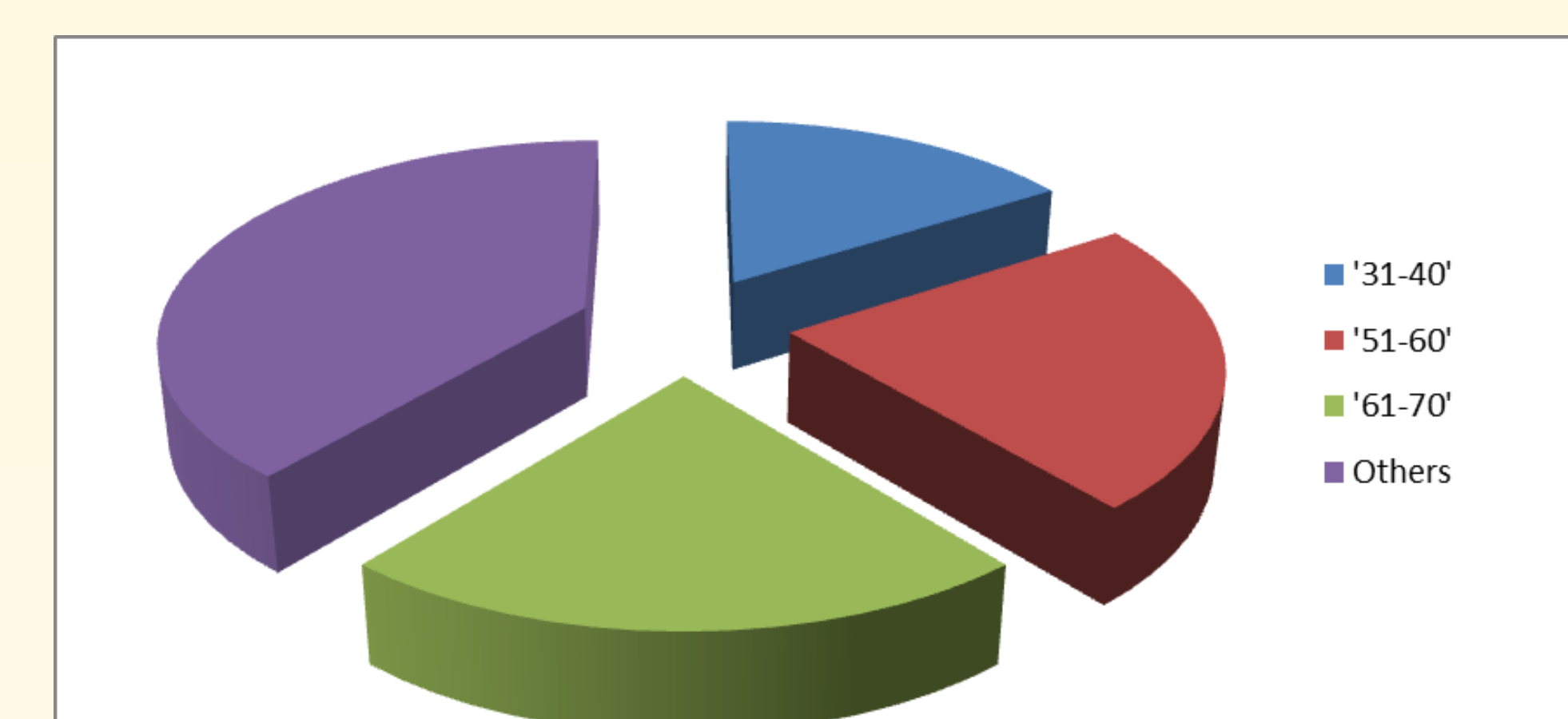
Positive Bacterial Targets – 65 %

MRSA accounted for 81.5 % of *S. aureus* and 12 % of those were PVL gene positive

Of H1N1 positive patients 25 % had co detection of MRSA, 9 % *Pseudomonas* and 11% *Streptococcus Pneumoniae*.



MRSA Positive- 58% Females



H1N1 Positive- 59% Females

Out of the co positive bacterial isolates 17% had co detection of MRSA and *Pseudomonas*

Out of the co positive viral isolates 16% had co detection of H1N1 and Rhinovirus

Conclusion

Hospitalized patients with respiratory symptoms admitted during the influenza season 2013-2014 showed high rate of H1N1 detected of 30%, it showed co-detection of viral and bacterial targets, females were more commonly infected . Those with other viral infections were commonly RSV and coronavirus. Detection of MRSA target was high in our patient population whether been carrier or infected. H1N1 and MRSA were detected more common in elderly.

Future Directions

- Repeating the study in symptomatic patients in the summer season to compare the nasopharyngeal carriage for any seasonal variation.
- Studying outcomes in patients with codetection of different viral and bacterial targets to see any difference in morbidity or mortality.

Acknowledgement

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