## INTRODUCTION

- 12 million pediatric COVID-19 cases since March 2020
- Average positivity rate among pediatric patients lower than adult counterparts (4.3% vs. 14.3%)
- Public health measures by the government enacted in an attempt to slow the spread of the virus
- Multiple foreign studies have noted a shift in the usual seasonality of other respiratory viruses as a result of public health orders

## BACKGROUND

- Saravanos et al. (2022) RSV shifted to summer from winter and autumn
- Van Brusselen et al. (2021) Reduction in RSV due to public health measures by governments
- Vittucci et al. (2021) 80.66% reduction in respiratory infections in the community

## AIMS

- Were public health measures effective in reducing viral infections in the community?
- Was there a shift in seasonality of common respiratory viruses during the pandemic?
- Document the epidemiology of COVID-19 and other common respiratory viruses at Saint Peter’s University Hospital

## METHODS

- Study has been approved by the Saint Peter’s University Hospital Institutional Review Board
- Descriptive retrospective review of RVPs and COVID-19 PCRs from 1/1/2020 – 2/28/2022
- **Inclusion:** Patients 18 years or less who had a RVP or COVID-19 PCR test performed
- **Data collected:** Gender, age, race/ethnicity, test results
- t-test to determine statistical significance
- Aggregate data used to determine epidemiology

## RESULTS

### Positive Viral PCRs from 1/1/2020 - 2/28/2022

**Graph showing the number of positive RVPs and COVID-19 PCRs over time.**

- RSV Epidemiology in Australia before and during COVID-19
- The disappearance of respiratory viruses in children during the COVID-19 pandemic

### COVID-19 Positivity Rate in Relation to Positive Case Totals

**Graph showing the COVID-19 positivity rate and its relation to positive case totals.**

- Increase in COVID-19 positivity due to social distancing measures
- Statewide public health measures shown to decrease total positive cases of all viruses

## DISCUSSION

- Total 4,513 RVPs and 14,750 COVID-19 PCRs performed in 1/1/2020 – 2/28/2022
- Statewide public health measures shown to decrease total positive cases of all viruses
- No regular RSV and Influenza season during the pandemic
- All viruses originally “disappeared” at the start of pandemic
- Rhinovirus persistant more than other viruses
- Rise in RSV cases in the Summer of 2021
- COVID-19 positivity rate mimics the NJ statewide trend

## REFERENCES

1. Saravanos GL; Hu N; Homaira N; Muscatello DJ; Jaffe A; Bartlett AW; Wood NJ; Rawlinson W; Kesson A; Lingam R; Britton PN; (2022, February). From https://www.cdc.gov/mmwr/volumes/69/wr/mm6932e3.htm?_cid=mm6932e3_w
2. Van Brusselen D; De Troeyer K; Ter Haar E; Vander Auwera A; Poschet K; Van Nuijs S; Bael A; Stobbelaar K; Verhulst S; Van Herendael B; Willems P; Vermeulen M; De Man J; Bossuyt N; Vanden Driessche K; (2021, June). From https://pubmed.ncbi.nlm.nih.gov/34733808/