

## INTRODUCTION

- World Health Organization declared novel coronavirus disease 19 (COVID-19) outbreak a global pandemic in March 2020.
- Two years into the COVID-19 pandemic, knowledge about how SARS-CoV-2 infection affects pediatric population is still lacking.
- Widespread symptomatic illness in children was uncommon and likely due to school closure, cancellation of group activities and strict masking.
- During the Omicron surge in NYC from November 2021 to February 2022, pediatric COVID-19 cases increased.
- According to New York State Department of Health statistics, 9% of children aged 5-11 and 35% of adolescents aged 12-17 were vaccinated.
- There are no studies on the incidence and presentation of children and adolescents aged 0-17 years who tested positive for COVID-19 during the Omicron surge.

## OBJECTIVE

To explore reasons for visiting pediatric emergency department in those who tested positive for COVID-19 with and without vaccine during Omicron wave.

## METHODS

- Design:** Retrospective chart review
- Setting:** Flushing Hospital Medical Center (FHMC) and Jamaica Hospital Medical Center (JHMC)
- IRB:** Approved by FHMC and JHMC
- Time Frame:** November 2021-February 2022
- Inclusion criteria:** Children and adolescents aged 0-18 years tested for COVID-19 between November 1, 2021 and February 28, 2022
- Exclusion criteria:** Children and adolescents not tested for COVID-19
- Statistical analyses:** Descriptive statistics using percentages

## RESULTS

Figure 1: Age Groups

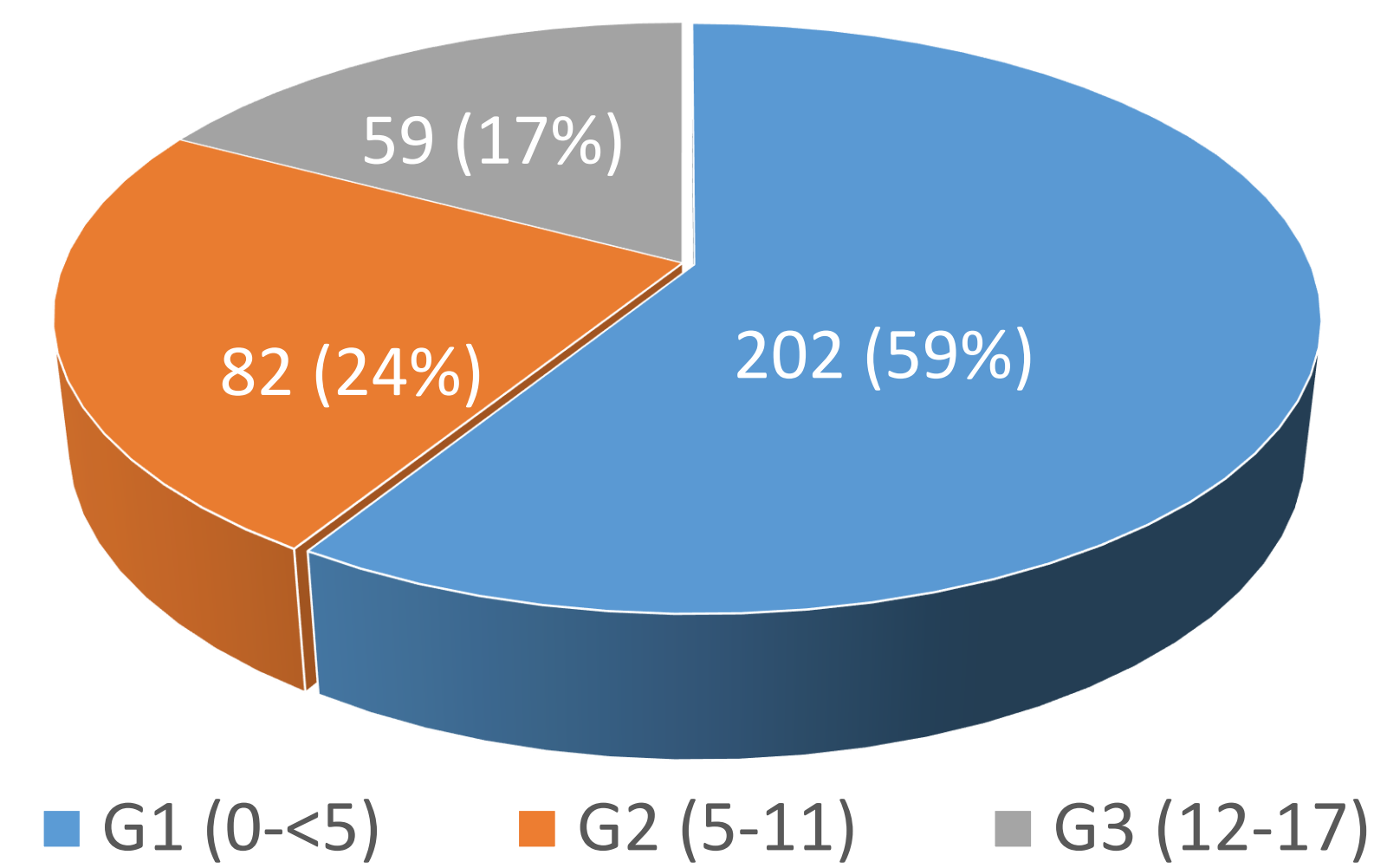


Figure 2: Ethnicity

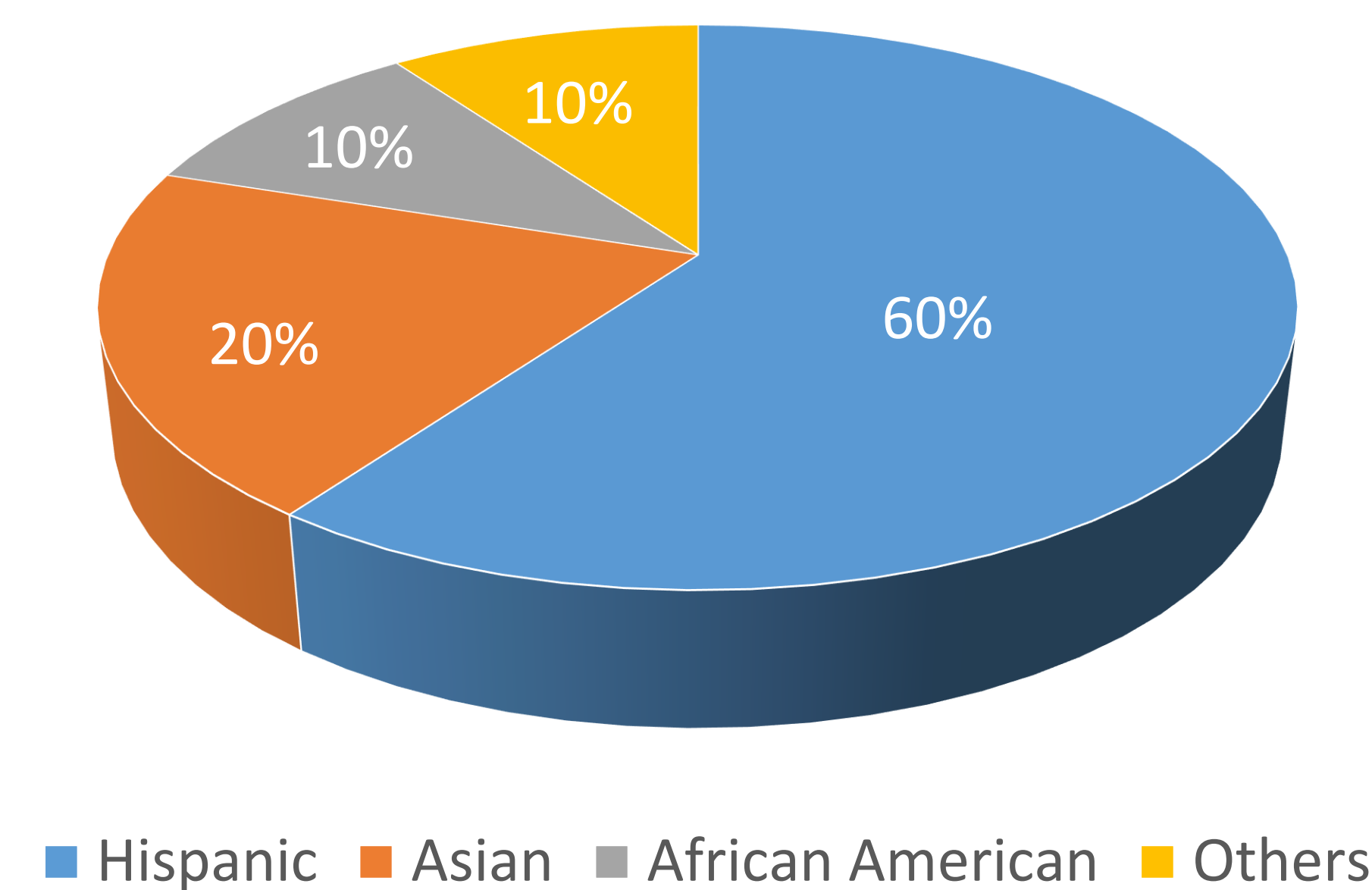


Table 1. Clinical characteristics of the sample.

	Overall (%)	0-5 years n (%)	5-12 years n (%)	12-18 years n (%)
<b>Vaccine Status</b>	28 (9)	Not eligible	18 (24)	10 (17)
<b>Hospitalization</b>	148 (44)	120 (59)	18 (24)	10 (17)
<b>Presenting diagnosis</b>				
<b>COVID-19</b>	140 (42)	54 (29)	47 (62)	39 (77)
<b>Respiratory (total)</b>				
<i>Upper respiratory infection</i>	89 (26)	64 (35)	20 (26)	5 (10)
<i>Bronchiolitis</i>	4 (1)	4 (2)	0	0
<i>Croup</i>	17 (5)	15 (8)	2 (3)	0
<i>Pneumonia</i>	3 (<1)	3 (2)	0	0
<i>Asthma</i>	4 (1)	4 (2)	0	0
<b>Gastrointestinal</b>				
<i>Gastroenteritis</i>	11 (3)	8 (4)	2 (3)	1 (2)
<b>Neurological</b>				
<i>Convulsion</i>	4 (1)	3 (2)	1 (1)	0
<b>Genitourinary</b>				
<i>Urinary tract infection</i>	2 (<1)	2 (1)	0	0
<i>Hematuria</i>	1 (<1)	1 (<1)	0	0
<b>Surgical</b>				
<i>Inguinal hernia</i>	1 (<1)	1 (<1)	0	0
<i>Appendicitis</i>	1 (<1)	0	0	1 (2)
<b>Other</b>				
<i>Otitis</i>	8 (2)	6 (3)	1 (1)	1 (2)
<i>Lymphadenopathy</i>	2 (<1)	1 (<1)	0	1 (2)
<i>Fever</i>	8 (2)	7 (4)	1 (1)	0

## RESULTS

- Charts reviewed: 311**
- Age groups:** G1 0-5 years: 59%, G2 5-12 years: 24%, G3 12-18 years: 17%, Figure 1
- Ethnicity:** Hispanics 60%, Asians 20%, African American 10%, Figure 2
- Hospitalization:** Majority of patients requiring admission were from G1 (74%)
- Most common diagnosis, Table 1**  
In all groups, majority of patients presented for symptoms of viral infection (G1 >80%, G2 > 90%, G3 >90%)  
Symptoms of upper respiratory infection were most frequent in all groups (>80%)

## CONCLUSIONS

- Majority of the patients seen and tested positive for COVID-19 was in the unvaccinated G1 group.
- Hispanic and Asian were the predominant ethnicity.
- Higher number of unvaccinated in G2 may be due to the later authorization for vaccine use.
- Upper respiratory infection symptoms were the most frequent complaint of Omicron variant.
- Of those hospitalized, the greatest number was in the unvaccinated.
- We report descriptive data from Omicron surge in NYC among pediatric population.

## ACKNOWLEDGEMENT

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