

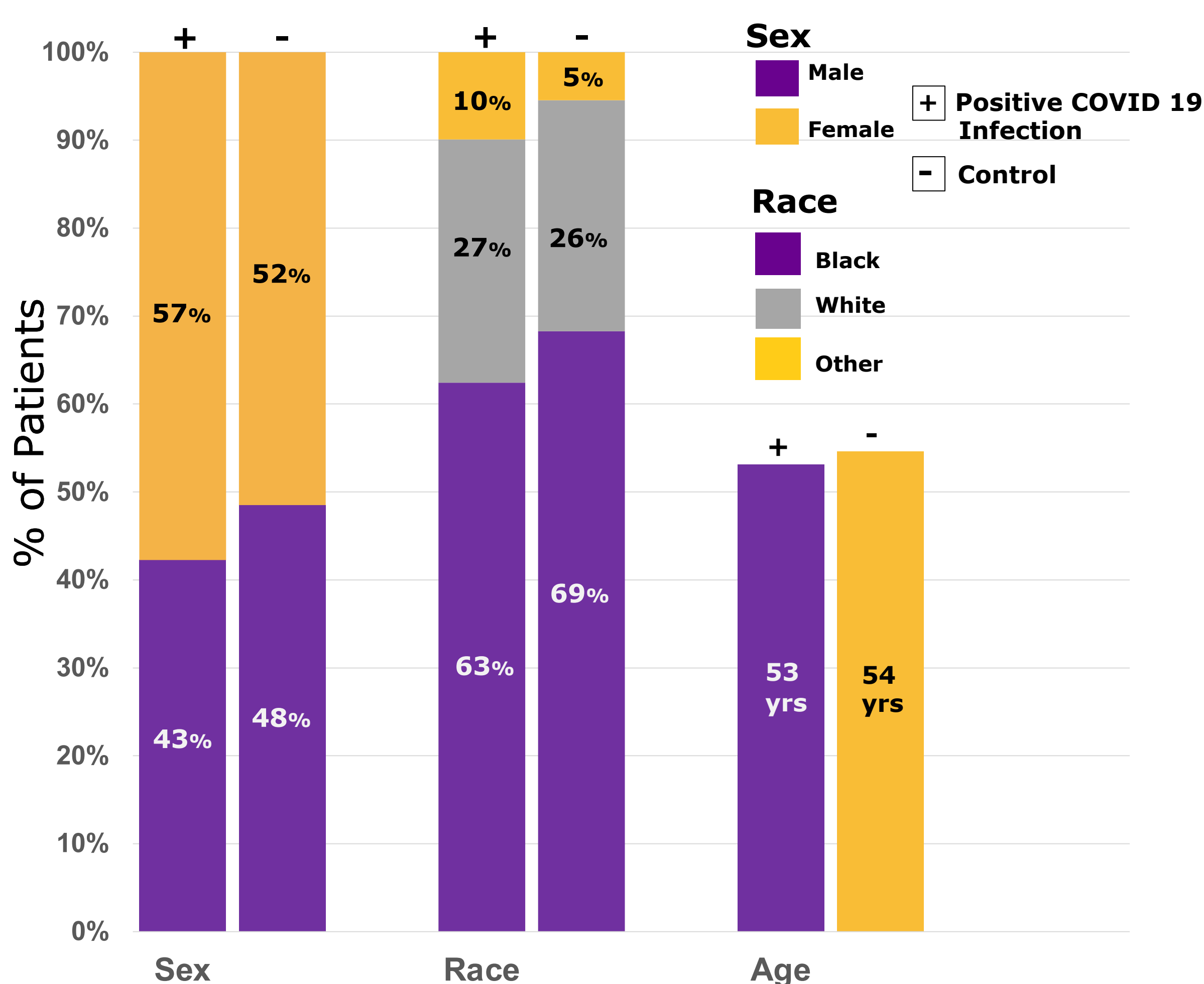
## INTRODUCTION

- As of April 6, 2023, the COVID 19 pandemic has reached a total of 762,201,169 confirmed cases
- The long term sequelae of COVID-19 infection is not yet understood, however the last coronavirus pandemic resulted in numerous long-term health problems
- These long-term effects create the potential for previously infected to seek care in the emergency department (ED).
- Understanding how the population will utilize the Emergency Department post-COVID-19 infection is valuable predictive data.

## OBJECTIVES

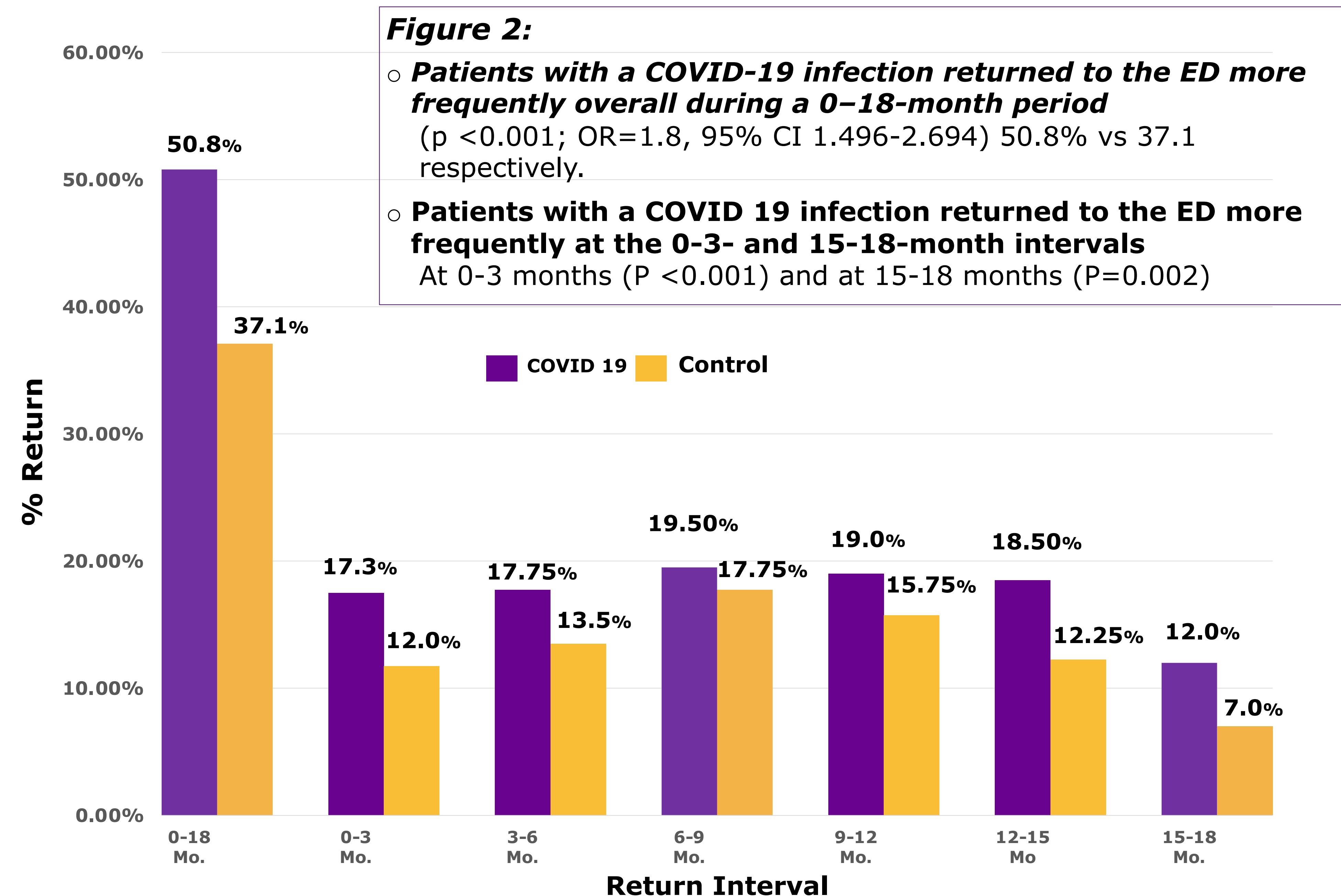
- Determine if there is an association between COVID-19 infection and subsequent ED utilization.
- Describe the most common reasons for return visits in this population.

## MATERIALS & METHODS



**Figure 1: Both control and COVID-19 cohorts were matched for age, sex, and race.** The average age was 53 yr. vs 54 yr. (P=0.02) for the COVID vs Control cohorts, respectively. The most common race was Black (63% vs 69%), the second most common was white (27% vs 26%) (p<0.001). The study was mostly female, with 57% vs 52% respectively (p=0.02).

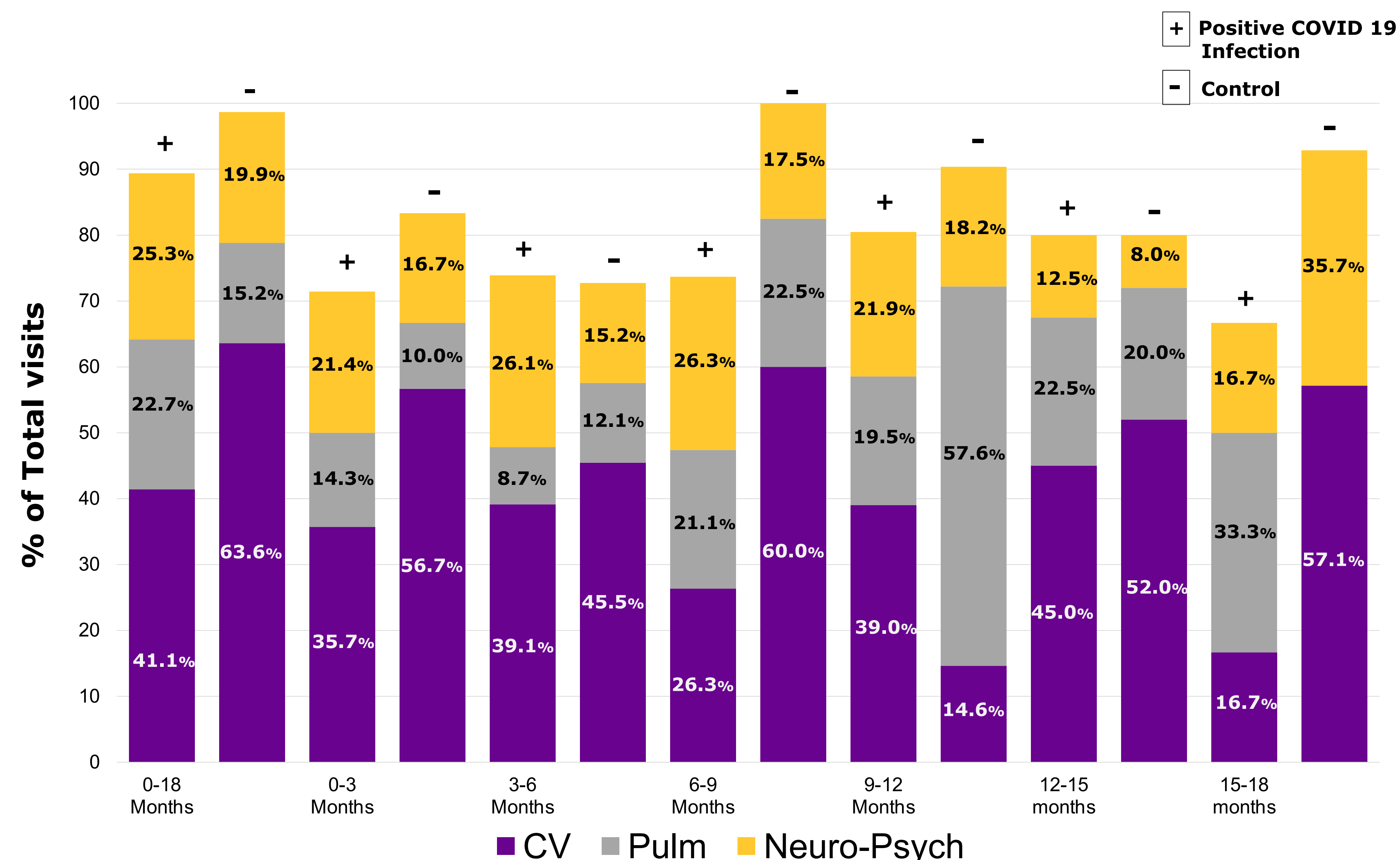
## RESULTS



**Figure 2:**

- Patients with a COVID-19 infection returned to the ED more frequently overall during a 0-18-month period (p < 0.001; OR=1.8, 95% CI 1.496-2.694) 50.8% vs 37.1% respectively.
- Patients with a COVID 19 infection returned to the ED more frequently at the 0-3- and 15-18-month intervals At 0-3 months (P < 0.001) and at 15-18 months (P=0.002)

**Figure 3: The most common chief complaints for both groups is Cardiovascular.** Overall, 41% of COVID patients returned with a CV complaint. Neuro Psych was the second most common. The 15-18 mo. COVID group was more likely to present with pulmonary complaints (P=0.02)



## DISCUSSION

- A positive COVID-19 Infection was associated with repeat visits to the ED within 18 months following primary infection.
- The difference in return rate between COVID and non-COVID patients occurred within the first 6 months.
- It is possible that COVID-19 is exacerbating underlying medical conditions, requiring more intervention, or an underlying COVID-19 sequelae could be resulting in specific increased complaints amongst infected patients.
- Further identification of chief complaints at each visit, may help identify if a COVID-19 infection is responsible for a rise in specific complaint following primary infection.

## NEXT STEPS

- As further data is gathered on the long-term clinical consequences of COVID-19 Infection.
- Further identification of specific chief complaints at each visit may help identify if a COVID-19 infection is responsible for specific ED visits
- Further analysis of how underlying medical conditions impact return frequency
- As COVID 19 cases continue to rise, Emergency Departments will need to take further investigation into preparing for possible long-term patients

## ACKNOWLEDGEMENTS & REFERENCES

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