

# CLINICAL MANIFESTATIONS OF COVID-19 INFECTION IN HEALTHCARE WORKERS IN IRELAND

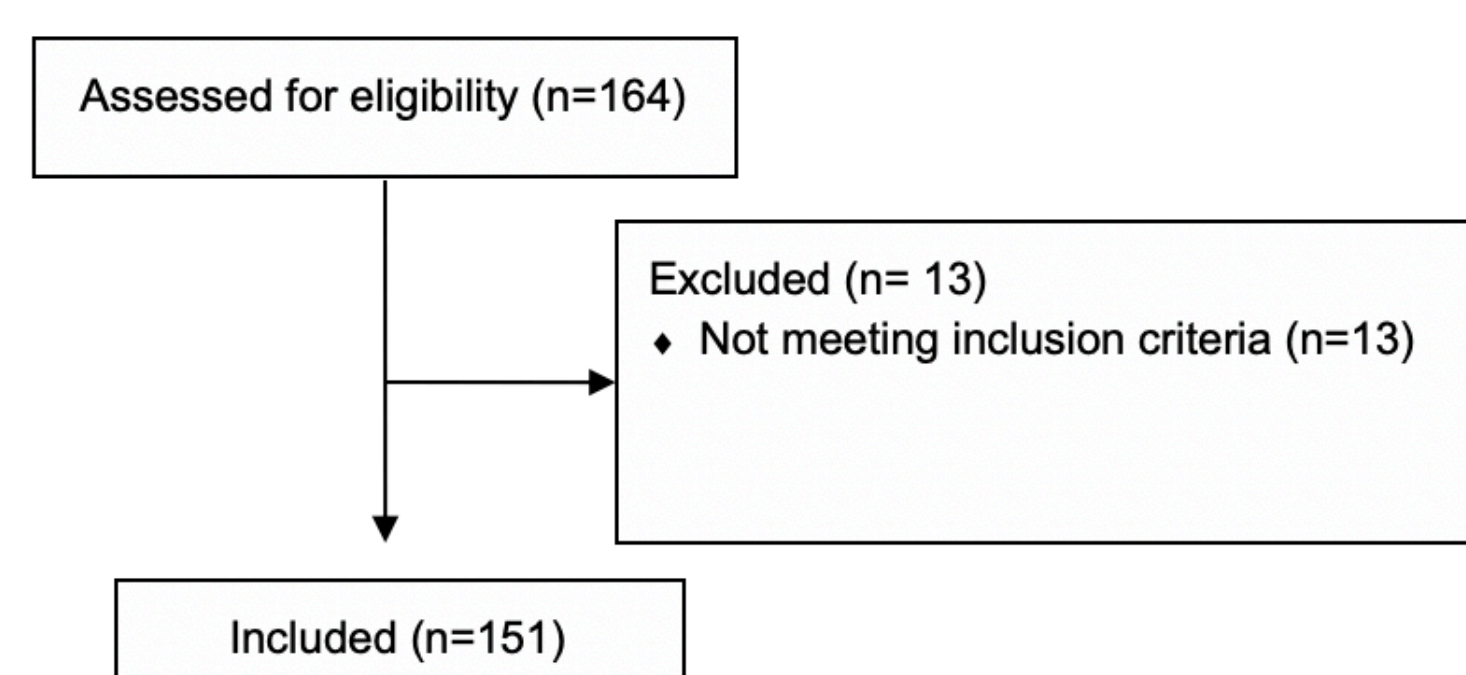
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## Introduction

- Healthcare workers represent 30.3% of Covid-19 cases in Ireland.
- Our center utilizes a symptom based screening approach.
- We aimed to improve our screening process by examining the presenting symptoms of Covid-19 in our staff.

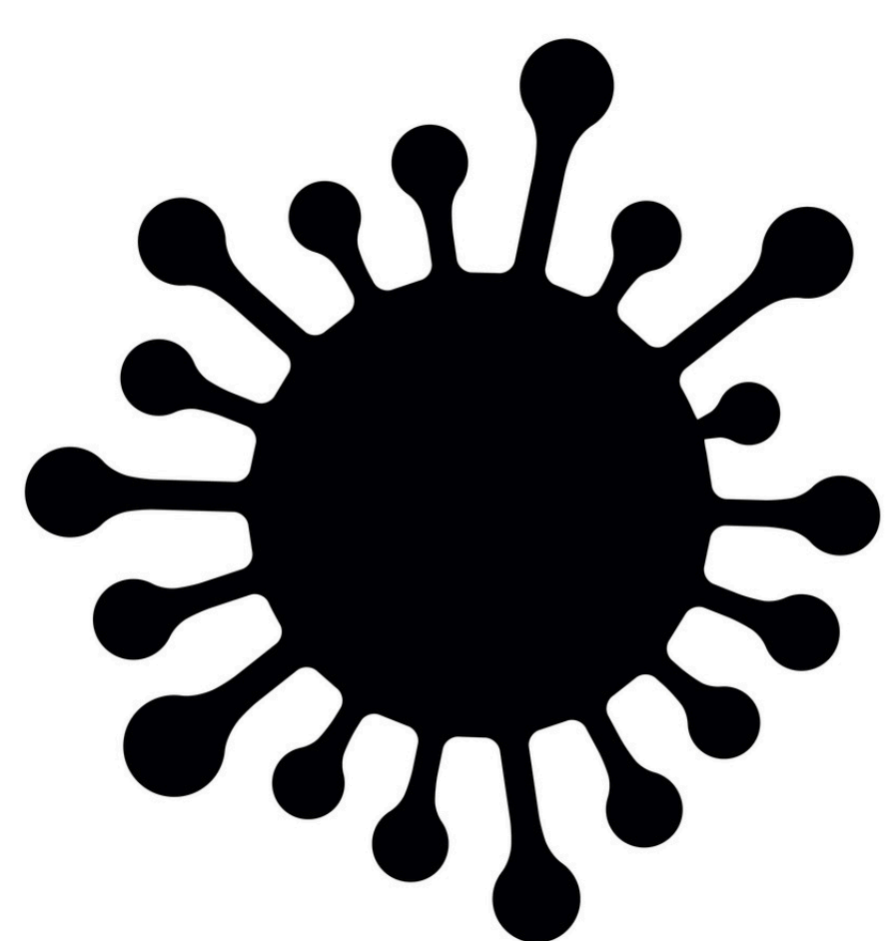
## Methods

A retrospective cohort study was completed on all symptomatic Healthcare Workers in the South East of Ireland who tested positive for Sars-CoV-2 over a 3 month period in the first surge of the Covid-19 pandemic.



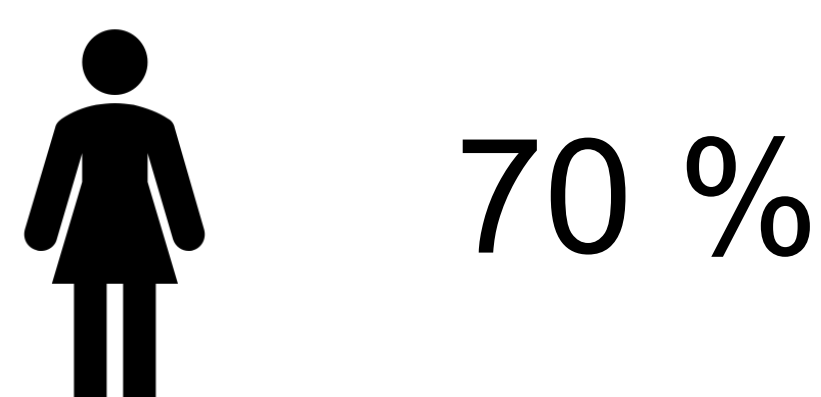
Our primary outcome was to determine the prevalence and distribution of symptoms of Covid-19 infection in our cohort.

We subsequently subdivided our patients by age, sex and disease severity to compare the differing characteristics of these groups.

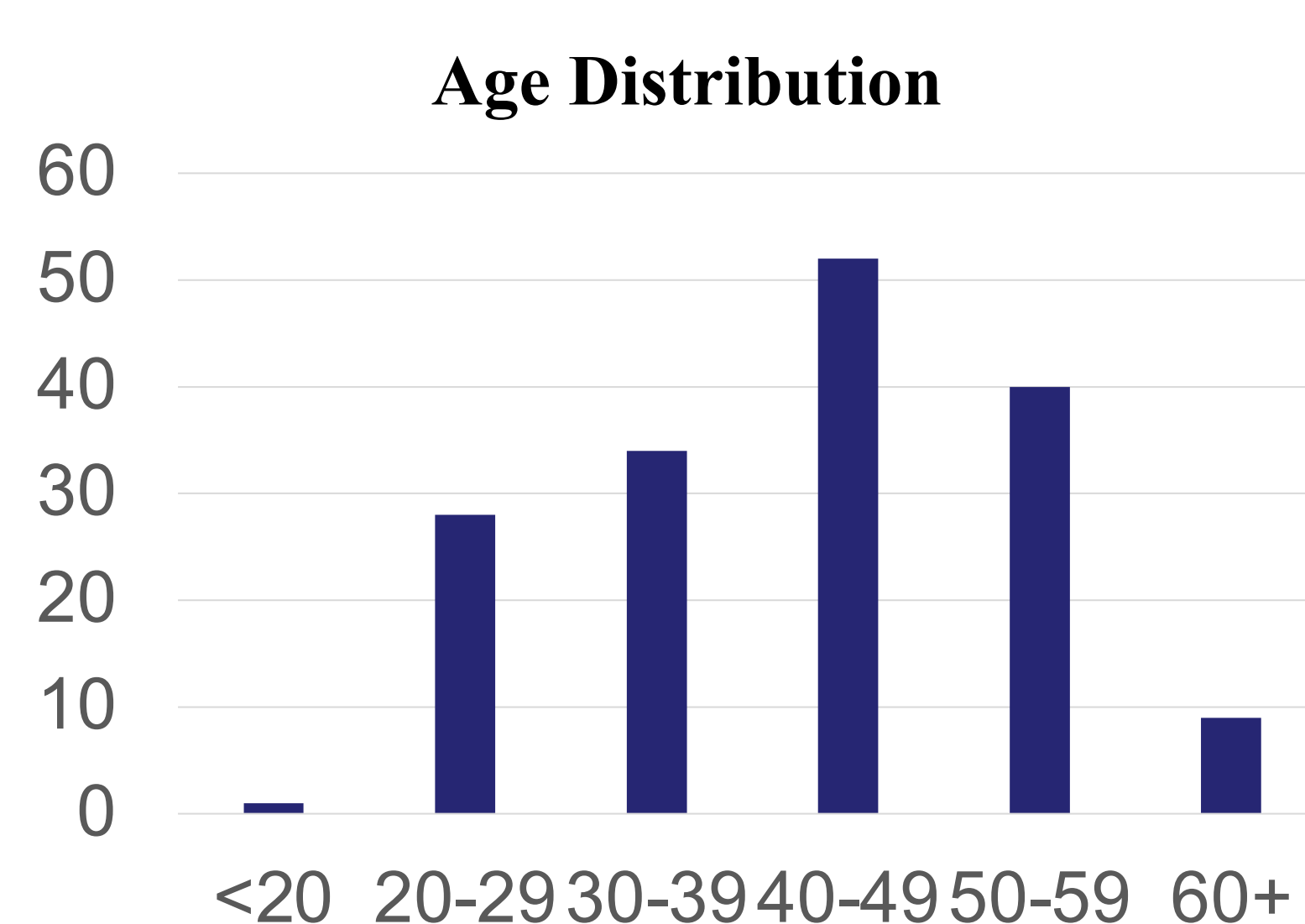


## Demographics

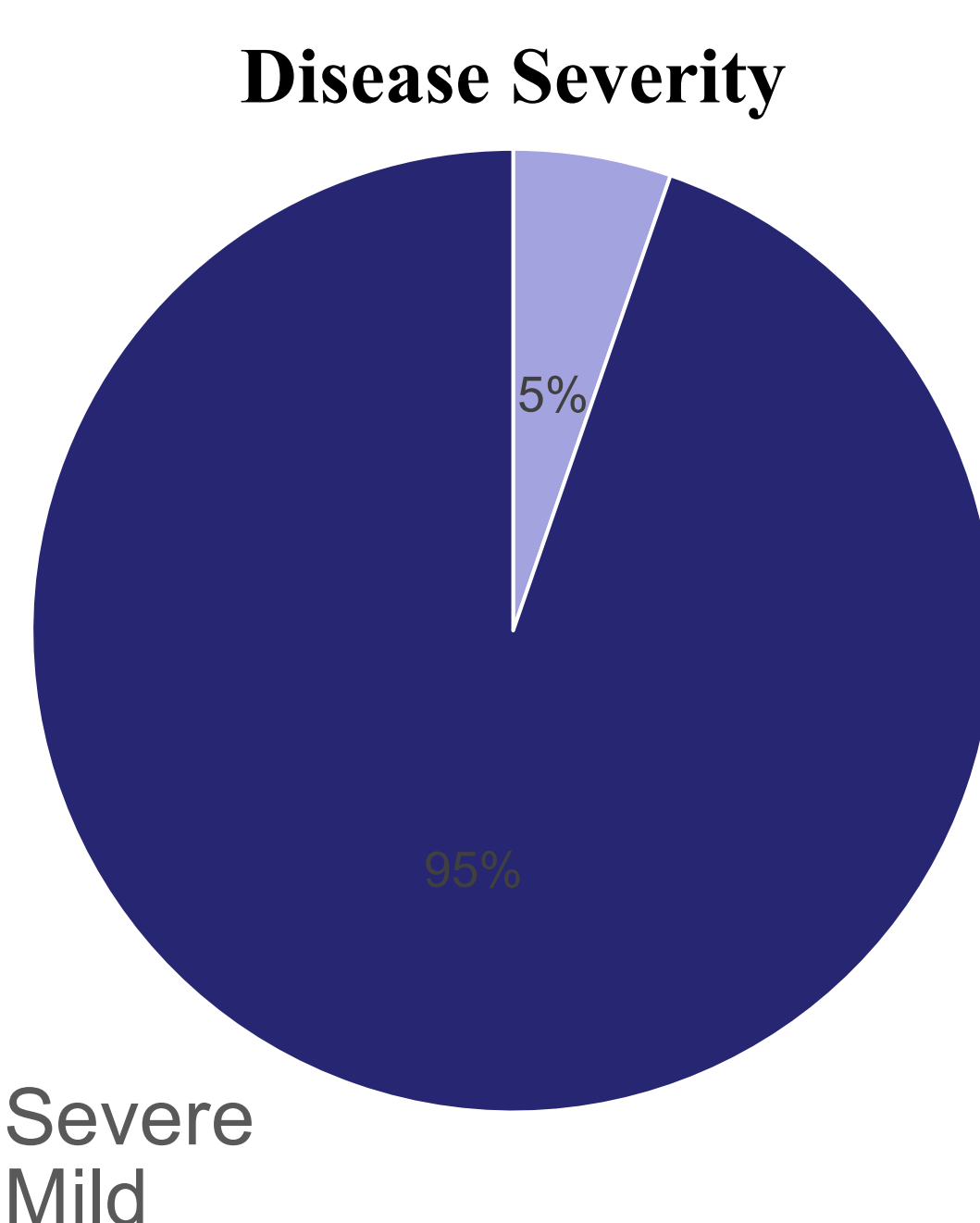
In total 151 healthcare workers were included. 106 (70%) were female.



Age ranged between 18 and 66 years with a mean of 42.

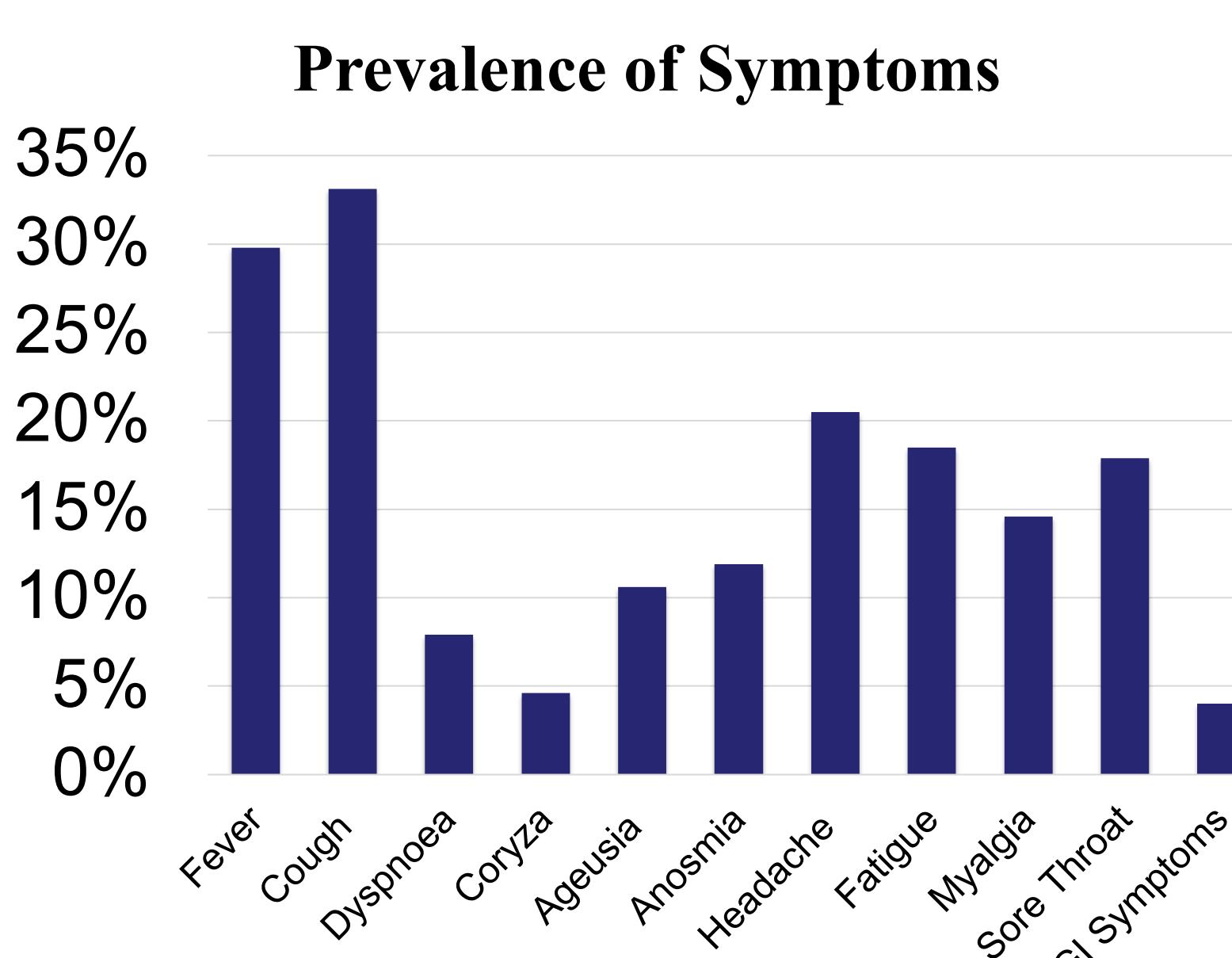


8 (5%) healthcare workers were admitted to hospital and there were two deaths.



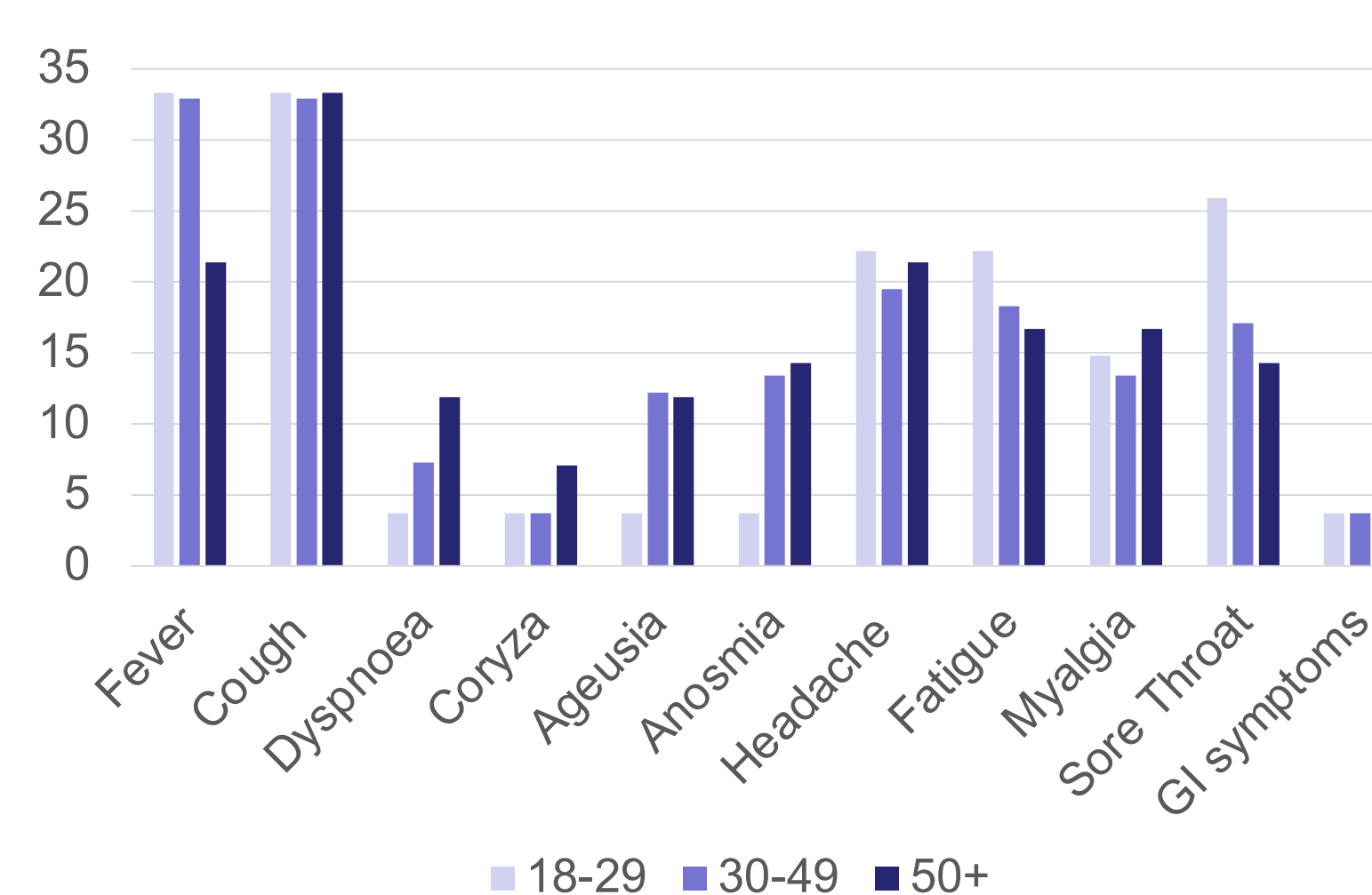
## Results

As seen below the most common symptoms described were cough (33%), fever (30%) and headache with dyspnoea, coryza and GI symptoms the least common.



## Results

When patients were divided into age categories some trends were seen. For example dyspnoea was 3 times more common in those over 50 year than those under 30 years.

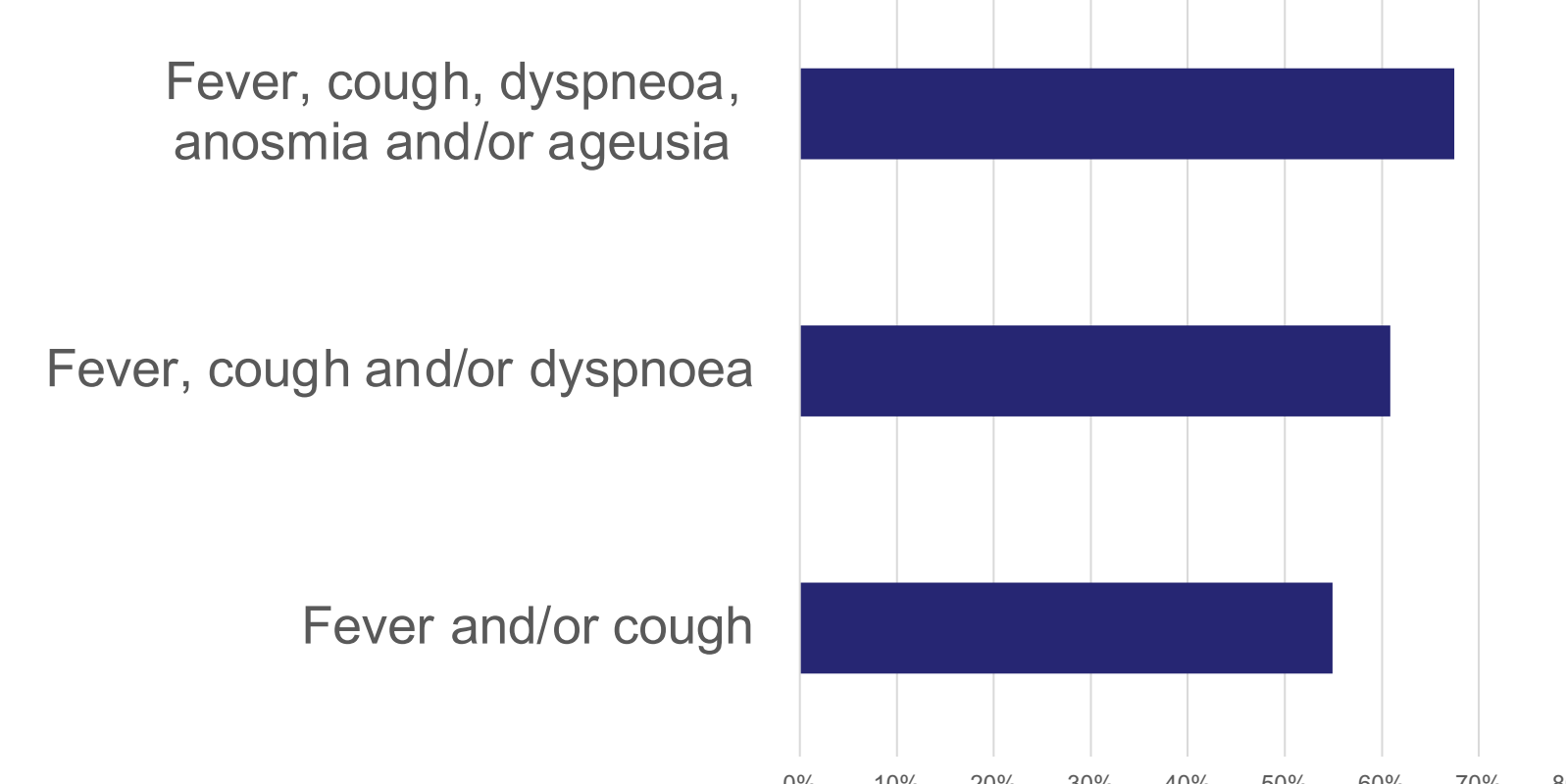


Male and female healthcare workers had similar rates of severe disease.

| Characteristic | Total           | Mild          | Severe     |
|----------------|-----------------|---------------|------------|
|                | N= (151)<br>(%) | 143<br>(94.7) | 8<br>(5.3) |
| Age            |                 |               |            |
| <20 years      | 1 (0.7)         | 1 (100)       | 0 (0)      |
| 20-29 years    | 26 (17.2)       | 26 (100)      | 0 (0)      |
| 30-39 years    | 33 (21.9)       | 33 (100)      | 0 (0)      |
| 40-49 years    | 49 (32.5)       | 46 (93.9)     | 3 (6.1)    |
| 50-59 years    | 35 (23.2)       | 30 (85.7)     | 5 (14.3)   |
| >60 years      | 7 (4.6)         | 7 (0)         | 0 (0)      |
| Sex            |                 |               |            |
| Male           | 45 (29.8)       | 43 (95.6)     | 2 (4.4)    |
| Female         | 106 (70.3)      | 100 (94.3)    | 6 (5.7)    |

All patients who developed severe disease were over the age of 40 years.

### Effectiveness of symptom based screening



When we examined the effectiveness of different symptom based screening methods we discovered the the Irish national screening methods would have discovered 68% of patients.

## Discussion

We found low rates of symptoms of Covid-19 infection in our cohort of healthcare workers.

The majority of research to date has been completed on hospitalized patients. In these studies patients tend to report high rates of symptoms at presentation. For this reason symptom based screening tends to pick up high proportions of positive patients.

This is in contrast to our findings. The majority of the patients in our study had mild disease and we found overall low rates of reported symptoms.

This demonstrates the challenge of symptom based screening to detect a high proportion of healthcare workers with Covid-19 infection.

Other screening methods have been evaluated. Thermal scanners have limited evidence or real world data to back up their use. Serial PCR tests while sensitive and specific are costly and difficult to role on on a large scale setting .

## Conclusion

❖ In contrast to studies which focus on hospitalized patients our study found comparatively low rates of symptoms.

❖ The Irish national screening program would have detected only 68% of our symptomatic staff.