

Force and has been associated with respiratory outbreaks in the past. A two-week arrival quarantine was implemented in March 2020. Effects on subsequent testing for COVID-19 after an arrival quarantine is unknown.

**Methods**

The first four weekly cohorts of trainees who underwent an arrival quarantine between March 16-April 13 were monitored during their 7 week training for COVID-19 symptoms. Symptoms, medical testing, and days removed from training were collected on every patient with possible COVID-19 symptoms including cough, shortness of breath, or fever. Testing during the two-week arrival quarantine were compared to the subsequent five weeks of training. Nominal variables were compared by chi squared or Fisher's exact test as appropriate. Continuous variables were compared by Mann-Whitney U Test.

**Results**

A total of 2,573 started training during study period, 89 (3.4%) had symptoms concerning for COVID-19 and were tested. 5 (6%) patients tested positive, all of whom in the arrival quarantine. Compared to patients who completed quarantine (n=29), patients in the arrival quarantine who tested negative for COVID-19 (n=54) were tested more often (26 trainees a week vs. 5.8 later in training, p=< 0.01), and received more rapid flu tests (74% vs. 38%, p=<0.01) and multiplex respiratory PCR (15% vs. 0%, p=0.05). Trainees in quarantine were isolated longer for symptoms than patients who completed quarantine (median 3 vs. 2, p=0.01). There was no difference in presenting symptoms for trainees in quarantine or after quarantine.

**Conclusion**

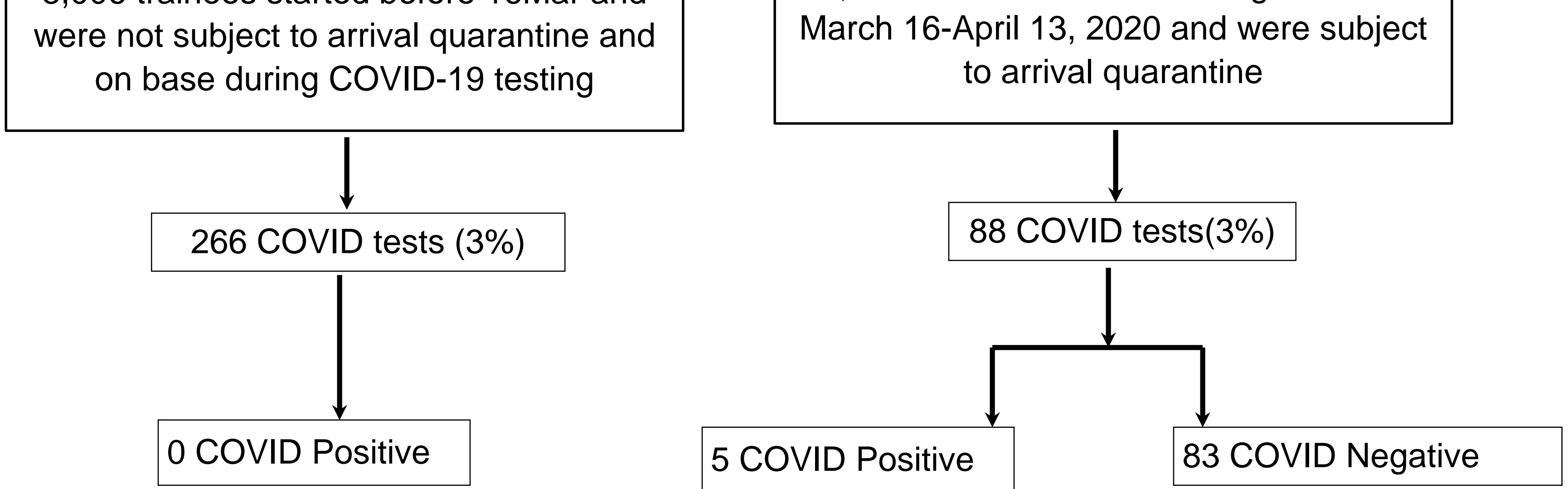
Arrival quarantine appears to be an effective NPI, which in conjunction with other interventions prevented any COVID-19 transmission after quarantine completion. For those who went through arrival quarantine, there was more intense initial testing and initial longer symptomatic patient isolation, this was balanced by fewer symptomatic patients, less testing, and shorter isolations later in training.

# Introduction

- COVID-19 has been associated with outbreaks in congregant settings during pandemic.
- Basic Military Training provides a model for COVID-19 response with insight that can guide response for other institutions drawing young, healthy people from around US with risk factors for outbreak.
- In COVID-19, utility of arrival quarantine is unknown in preventing outbreaks and decreasing subsequent testing.
- We hypothesized that quarantine would be associated with increased COVID-19 testing, and would result in overall reduced testing compared to cohorts who did not undergo quarantine.

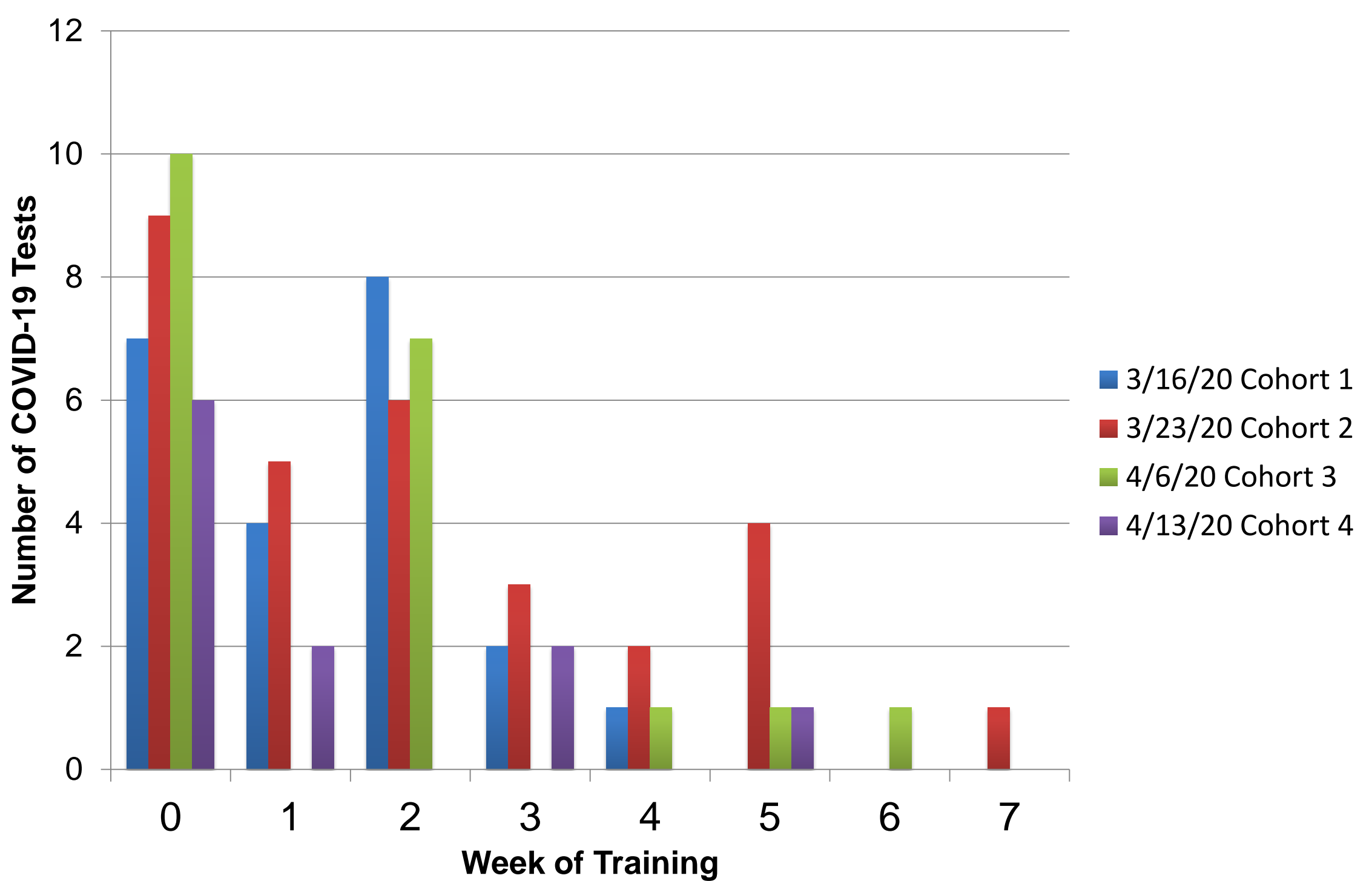
# Methods

- Retrospective analysis of 10,579 basic trainees at JBSA-Lackland
- Tests at provider's discretion for symptomatic patients only
- Data collected: Arrival date, testing performed, symptoms at presentation, days removed from training
- Comparisons:
  - For those who underwent arrival quarantine: Testing during 14 day arrival quarantine vs. after completion of arrival quarantine (day 15 or after)
  - Testing after day 14 during last four weeks before implementation of arrival quarantine vs. first four weeks after implementation of arrival quarantine
- Statistical analysis performed with Pearson's Chi Squared and Fisher's Exact Test.



Workflow showing trainees meeting inclusion criteria for trainees who arrived on or before week of April 13, 2020.

**Figure 2.**



Bar graph showing testing symptomatic COVID-19 testing by week for first four cohorts that underwent 14 day quarantine showing more testing earlier in training. Weeks 0,1, and portions of week 2 represent time in quarantine.

**Table 1.**

	During Arrival Quarantine (n=54 tests)	After Completion of Arrival Quarantine (n=29 tests)	p-value
COVID tests per 1000 trainee-weeks	10.5	2.25	<0.0001
Respiratory Viral Panel	8 (15%)	0	0.05
Flu	40 (74%)	11 (38%)	0.001
Days Removed From Training if COVID-19 Negative	3 (2-5)	2 (2-3)	0.01

Table comparing testing rates and isolation days for trainees in first 14 days of training (arrival quarantine) compared to that same group of trainees after arrival quarantine. This data show quarantine associated with increased rates of testing and more days removed from training, even in COVID-19 negative patients.

- COVID test
- trainee v
- Symptom
- Chest Pa
- Dyspnea
- Cough
- Headach
- Fever
- Chills
- Nausea
- Vomiting
- Diarrhea
- Myalgia
- Sore Thro
- Amnesia
- Runny N
- Signs
- T>100.4
- SpO2<94
- Tests Ore
- Respirato
- Flu

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