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DEVELOPMENT OF DRIVE-THROUGH AND MAIL-IN SYSTEMS FOR OBTAINING SURVEILLANCE RESPIRATORY SPECIMENS IN A PEDIATRIC CYSTIC FIBROSIS CENTER

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Background

- Routine surveillance cultures are an essential part of health maintenance for people with cystic fibrosis (CF).
- The Cystic Fibrosis Foundation (CFF) recommends that respiratory cultures be obtained every three months.
- The CF Care Center at Children's Mercy Kansas City (CMKC) also obtains respiratory cultures when there is an acute change in respiratory symptoms.
- The COVID-19 pandemic resulted in ambulatory clinic closures and an inability to obtain surveillance respiratory cultures.
- A creative solution for obtaining respiratory cultures was needed during the pandemic.

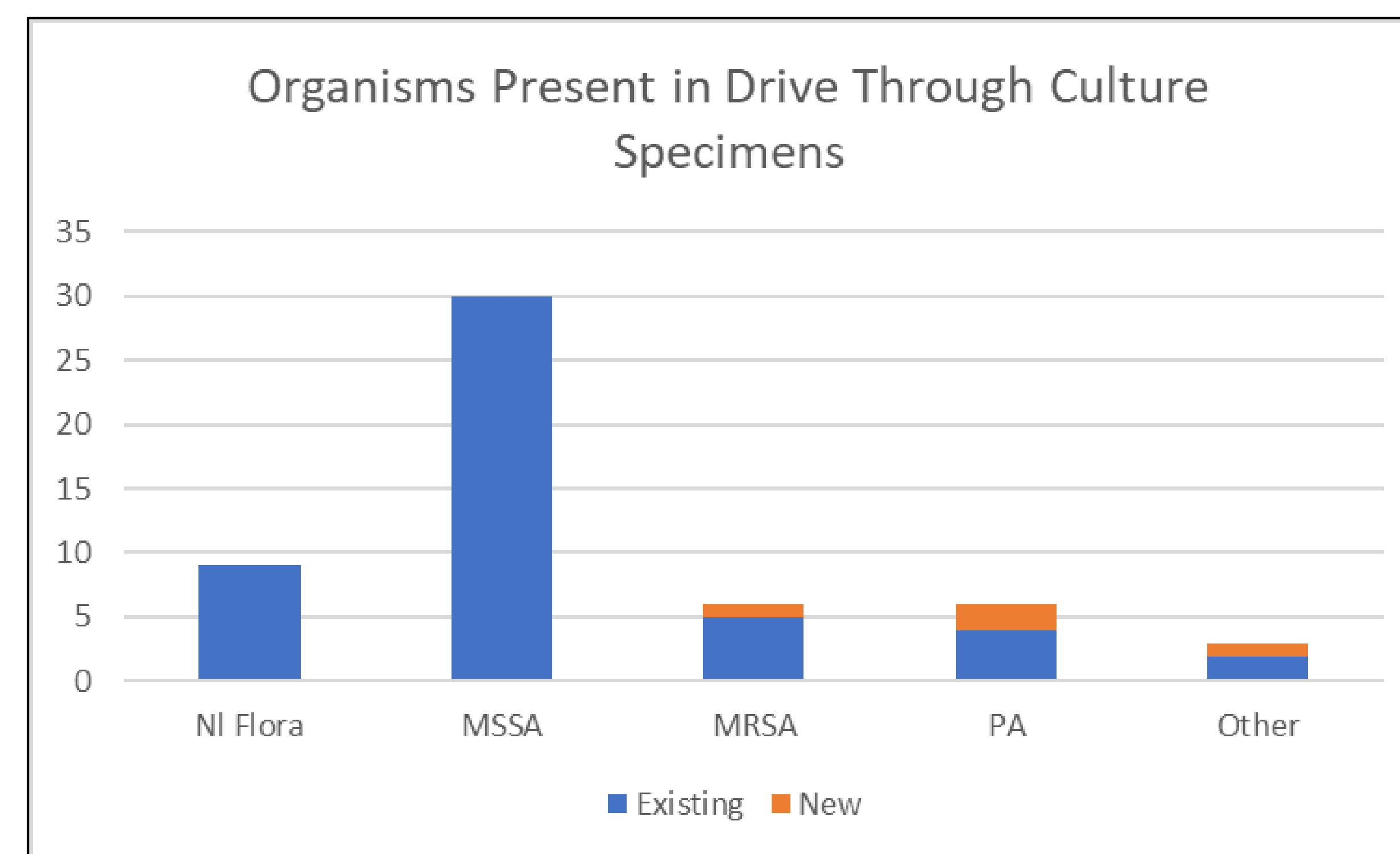
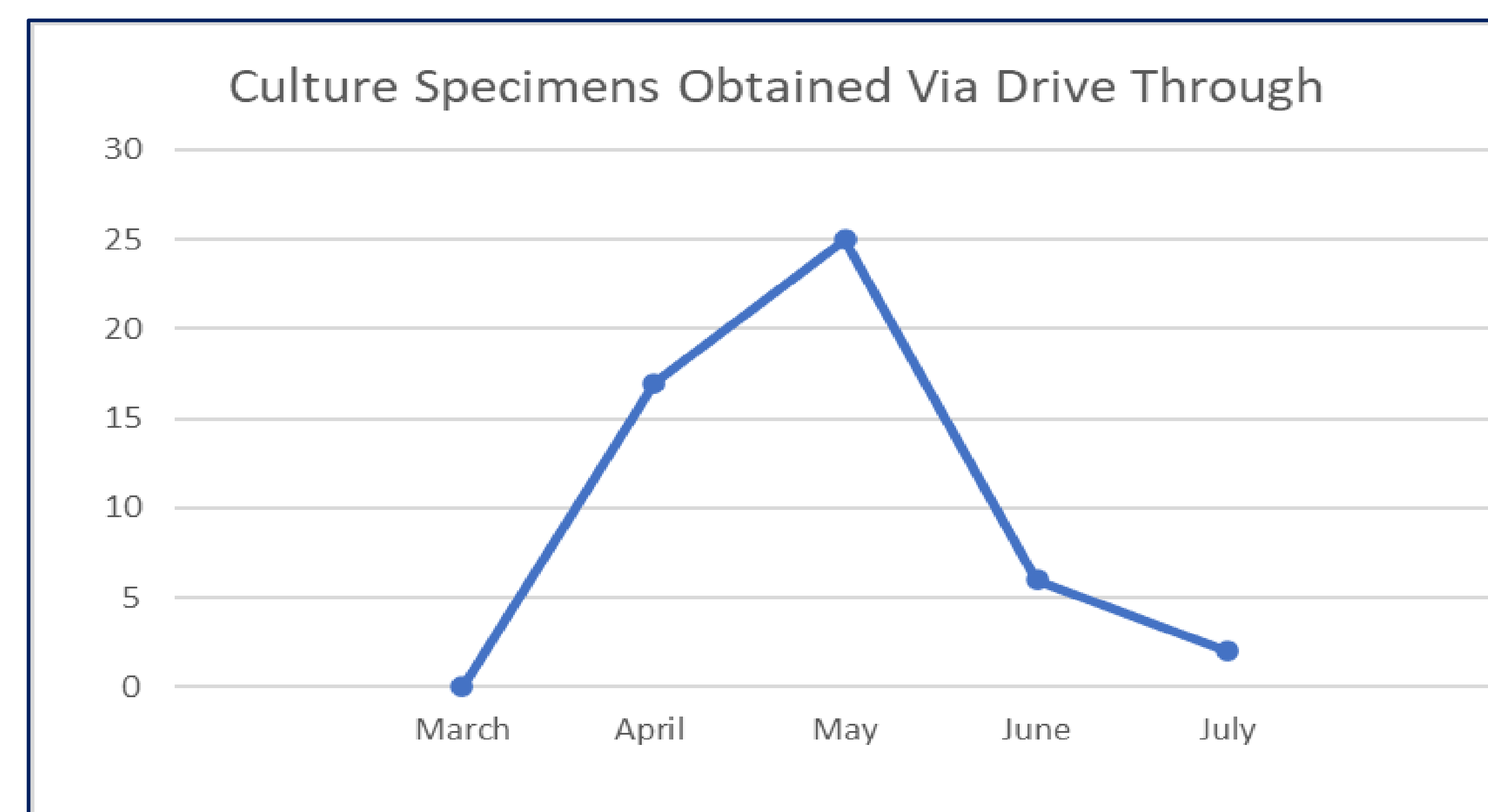
Methods

- CMKC developed a drive-through respiratory specimen collection process.
- Target population was CMKC patients who were due for a culture and lived within an hour of the Kansas City metropolitan area (N= 96).
- A drive-through service was operated one day a week for 2 hours.
- Families were contacted and scheduled for a specific appointment time.
- Specimens were obtained in a drive-through parking lot.
- Staff donned gown, gloves, and mask per CF and COVID-19 guidelines.
- Specimens were delivered to the Microbiology laboratory between collections.
- A pilot with six specimens was completed the first week and then was increased to twelve the following week.

Methods (continued)

- People with CF who were unable to attend the drive-through culture service were offered the option to provide a mail-in sputum specimen.
- Eligible patients were identified and educated regarding the process and a sputum collection kit with detailed instructions was sent to family.
- Specimens were returned in a cooler with frozen ice pack via FedEx and were routed directly to the Microbiology lab.

Results



Results (continued)

- The drive-through culture collection service was offered from April 22nd, 2020 through July 1st, 2020.
- It was offered weekly for 7 weeks and then every other week, for a total of 9 weeks.
- During that time there were 96 eligible patients and 50 participated.
- In four instances a patient was found to have a new emergence of a respiratory pathogen that warranted a change in management.
- The mail-in sputum specimen service started on May 1st, 2020. Four patients have participated to date.
- Twenty three percent of CMKC CF patient population obtained a routine surveillance culture during the timeline of the project using one of these two methods.
- People with CF and their caregivers provided positive feedback regarding the experience.
- Thirteen families did decline to attend the drive-through culture service, many not wishing to drive to Kansas City. Some families preferred to wait until their child could be seen in person as they perceived them to be doing well.

Conclusions

- The development of drive-through and mail-in culture systems allowed CMKC to obtain essential surveillance data during the COVID-19 pandemic.
- Limitations of this project included a lack of ability to obtain pharyngeal swabs/specimens for people living outside of the Kansas City metro area.

• The authors have no relevant disclosures.