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## Background

- The New York State Early Hearing Detection and Intervention (NYS EHDI) Program works to ensure that all infants receive hearing screening by one month of age, those who fail the screening have diagnostic testing by three months of age, and those with diagnosed hearing loss are enrolled in appropriate early intervention services by six months of age.<sup>1</sup>
- These guidelines are very important because “hearing loss can affect a child’s ability to develop communication, language, and social skills.”<sup>2</sup>
- Although the importance of EHDI guidelines is well-established, the occurrence of the global COVID-19 pandemic caused a disruption in follow-up services related to hearing screening for infants.

## Purpose

- The NYS Disaster Emergency Declaration was established from March 7, 2020 to June 24, 2021 and many audiology practices closed for weeks/months.
- The main purpose of this study was to examine the impact of COVID-19 on follow-up services.

## Methods

**Data Source:** The NYS Early Hearing Detection and Intervention- Information System (NYS EHDI-IS).

**Study Cohort:** Infants born in New York State in the calendar year 2019 and 2020.

**Method:** To identify changes in adherence to follow-up recommendations, we used the NYS EHDI-IS data to compare the percentage of infants who did not receive follow-up who were born in 2020 versus 2019.

**Indicator:** The percentage of infants who did not receive follow-up was calculated using the formula below:

$$\frac{\text{\# infants did not receive a diagnostic evaluation or were lost to documentation}}{\text{\# infants who did not pass their most recent screening}} \times 100$$

## Findings

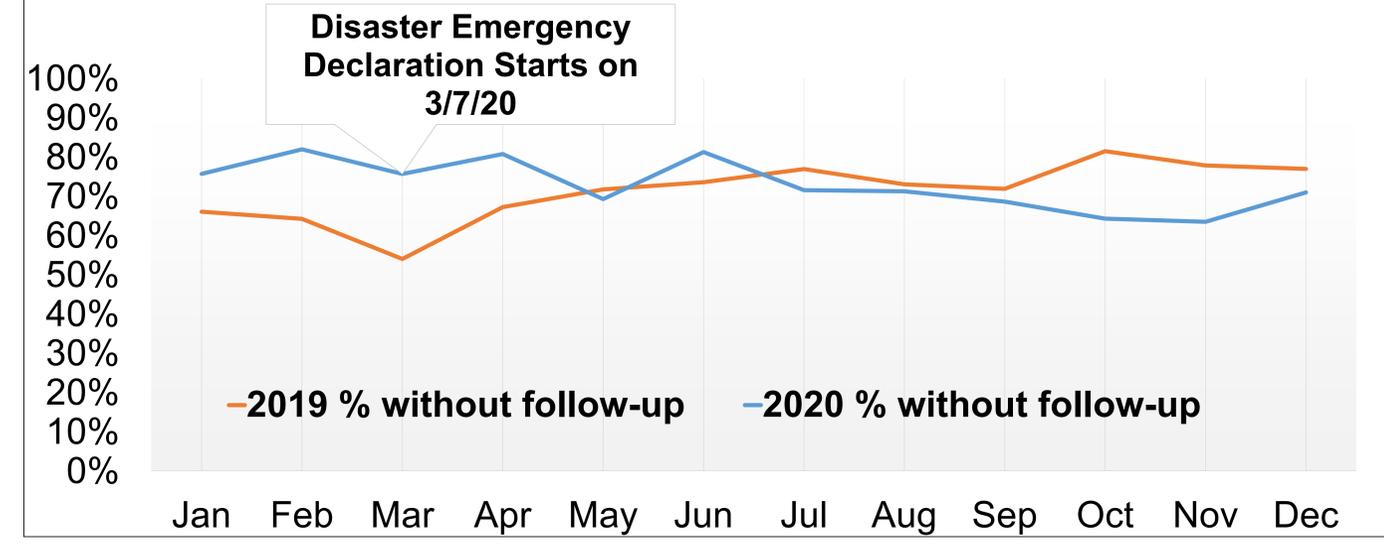
1. The COVID-19 pandemic has had a negative impact on the adherence to hearing follow-up requirements in NYS.
2. A greater percentage of infants born in March, April and June of 2020 did not receive diagnostic evaluation or were lost to documentation (76%, 81% and 81% respectively) compared to infants born during those same months in 2019 (54%, 67% and 74% respectively) (see Figure1).
3. However, the difference between the 2019 and 2020 percent of infants who did not receive diagnostic evaluation decreased by July, such that the rates were similar (see Figure 1).

## References

1. Joint Committee on Infant Hearing. Year 2019 position statement: Principles and guidelines for early hearing detection and intervention programs. The Journal of Early Hearing Detection and Intervention 2019; 4(2), 1-44.
2. Centers for Disease Control (2020, December). Hearing Loss Treatment and Intervention Services. <https://www.cdc.gov/ncbddd/hearingloss/treatment.html>

## Findings (Cont)

**Figure 1: % of Infants Without Follow-Up After Failed Hearing Screening: Pre and Post Disaster Emergency Declaration in NYS**



## Conclusions

1. Delayed diagnosis of hearing loss can cause cognitive, social and communication delays in infants who are deaf or hard of hearing (DHH). Understanding how COVID-19 impacted diagnostic services is vital to ensuring continuous care for infants who are DHH.
2. In the event of future disease outbreaks, efforts need to including care coordination

## Limitations

1. Some of the infants reported as being “without follow-up” were likely seen by an audiologist and received the recommended follow-up services but the results were never reported into the NYS EHDI-IS; hence, they were lost to documentation.

## Potential Future Research Ideas

1. Identify areas in NYS that had higher follow-up rates throughout the pandemic and identify best practices regarding documentation and diagnostic follow-up.
2. Examine racial disparities in follow-up rates pre- and post- COVID-19 state of emergency in NYS.
3. Assess the scope and magnitude of healthcare delivery interruption on NYS Early Intervention Program referral and enrollment in services for infants with suspected or confirmed hearing loss during the same time frame (calendar year 2019-2020).