



Arkansas Department of Health Infant Hearing Program

**EARLY HEARING DETECTION AND
INTERVENTION**

2023

ANNUAL REPORT



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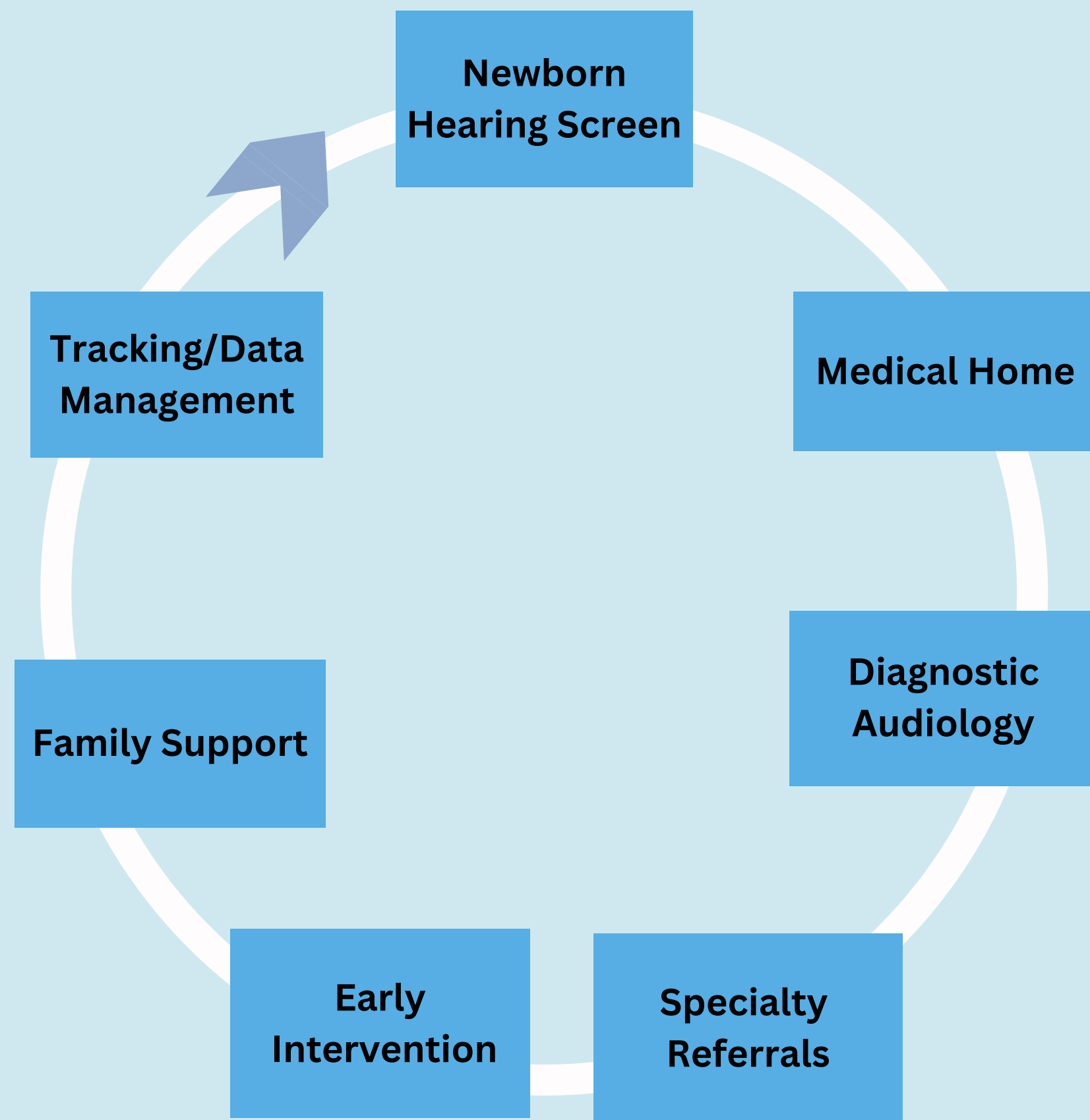
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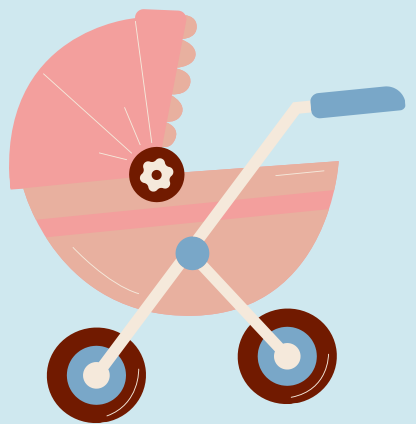
PROGRAM OVERVIEW

The Arkansas Department of Health's Infant Hearing Program (IHP) serves as the Early Hearing Detection and Intervention (EHDI) program for Arkansas. EHDI programs were created to support children 0-3 years of age and their families. Approximately 3 of every 1,000 infants are diagnosed with a hearing condition each year. Ninety percent of Deaf/Hard of Hearing (DHH) children are born to hearing parents. Many of these infants do not have risk factors or signs indicating a hearing condition. As a result, identification of hearing conditions are often delayed until the child is as old as three years. Infants with undiagnosed hearing conditions are at an increased risk of developing significant delays in language acquisition.



1

All infants should receive a hearing screening before one month of age.



3

All infants who do not pass the screening should receive a diagnostic evaluation before three months of age.



6

DHH infants should begin early intervention services by six months of age.

PROGRAM GOALS

Ensure all infants receive a newborn hearing screen no later than 1 month of age.

Increase the number of infants receiving a diagnostic evaluation no later than 3 months of age.

Increase the number of DHH infants enrolled in early intervention (EI) no later than 6 months of age.

Increase the number of families enrolled in family-to-family support services no later than 6 months of age.

Connect families to DHH adults for guidance and mentorship no later than 9 months of age.

Increase IHP's capacity to lead efforts and engage all stakeholders in the state EHDI system.

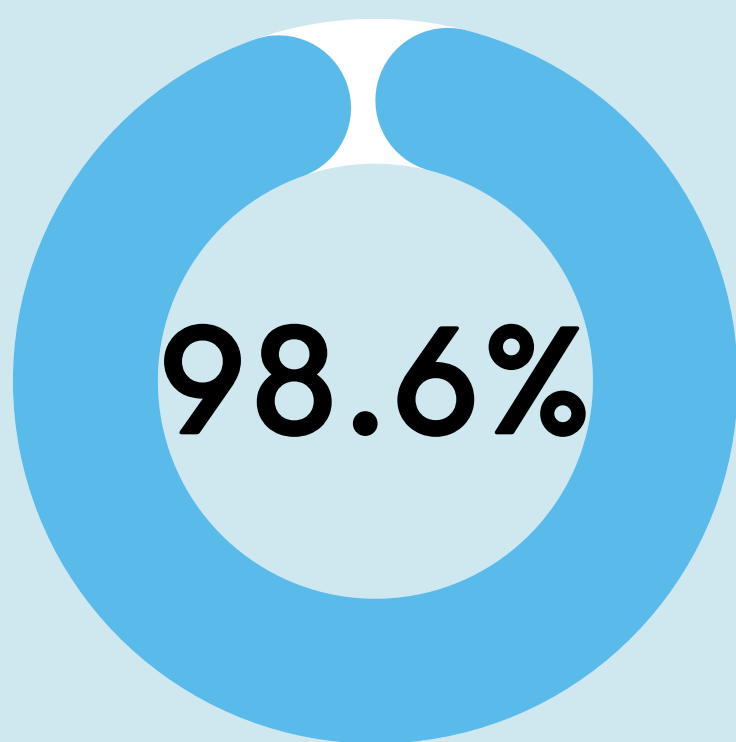


The IHP strives to increase the number of children and families receiving early identification and appropriate intervention to decrease the risk for developmental delays in learning language. The program follows the Centers for Disease Control and Prevention (CDC) guidelines to reach this goal through **EHDI-IS Optimization** by improving the collection, management, and efficient use of diagnostic and intervention data in accordance with EHDI-IS Functional Standards . **Stakeholder Engagement** is conducted to promote and support collaboration efforts with partners to support tracking and surveillance activities within the jurisdiction in addition to providing technical assistance during the reporting process. Lastly, **Data Submission and Dissemination** occurs to develop data reports and disseminate information among internal and external stakeholders.

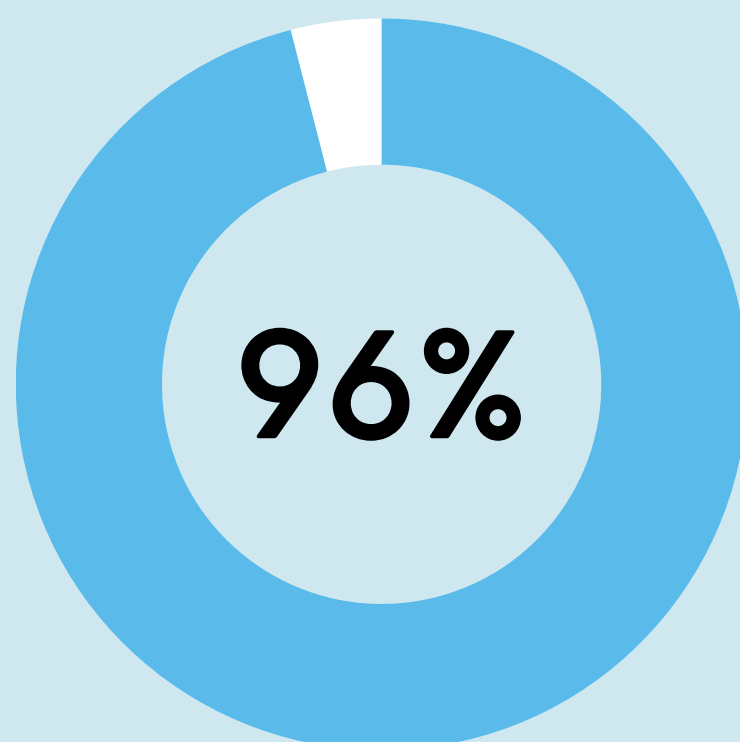
SCREENING



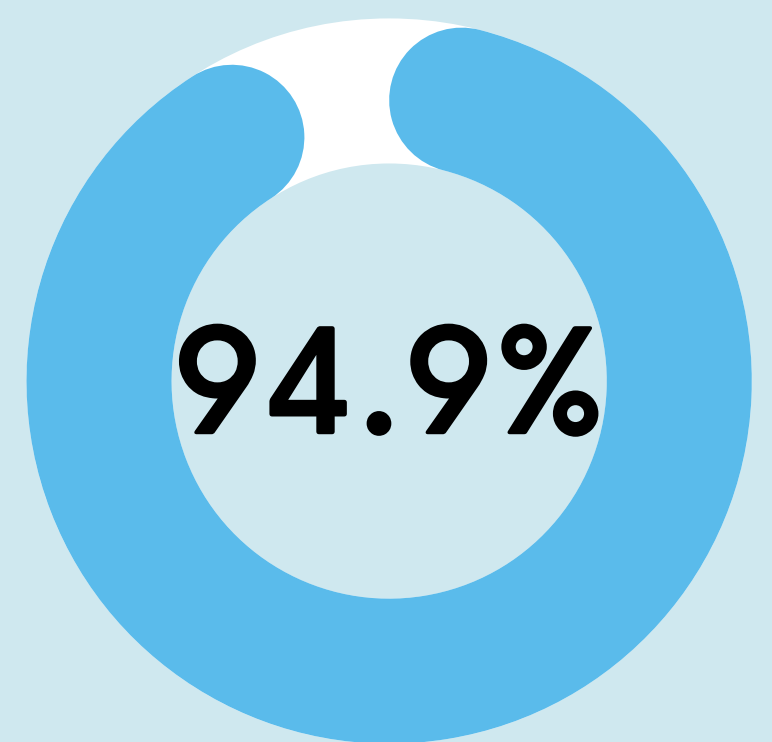
Per the recommended guidelines from the Joint Committee on Infant Hearing (JCIH), the IHP works to ensure that all infants receive a hearing screening and rescreening, if necessary, by one month of age. According to vital records, a total of 35,153 babies were born in the state of Arkansas in 2021.



34,917 hearing records were reported to the EHDI Program documenting 34,451 infants receiving a hearing screening.



33,079 infants received a hearing screening by 1 month of age.

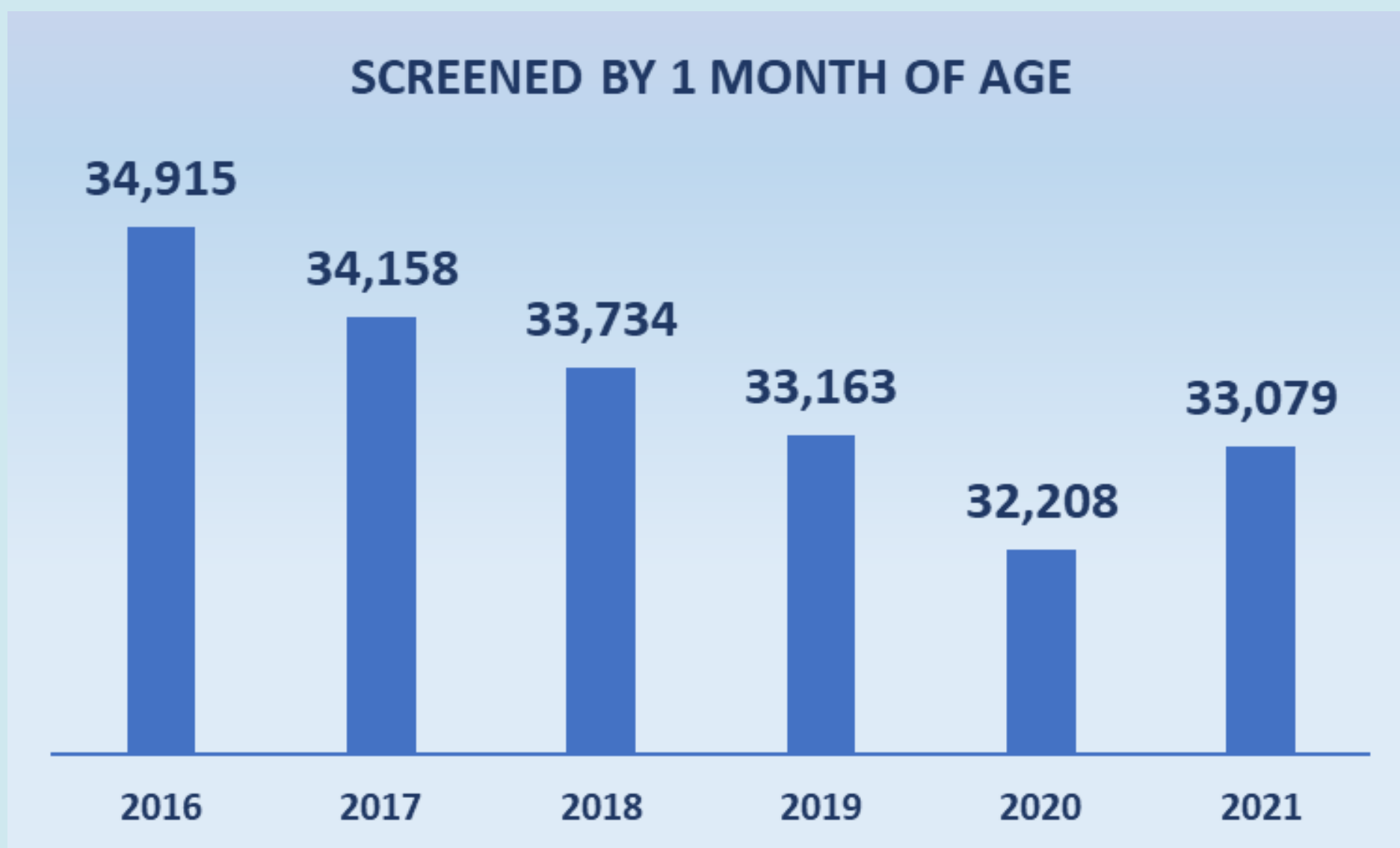
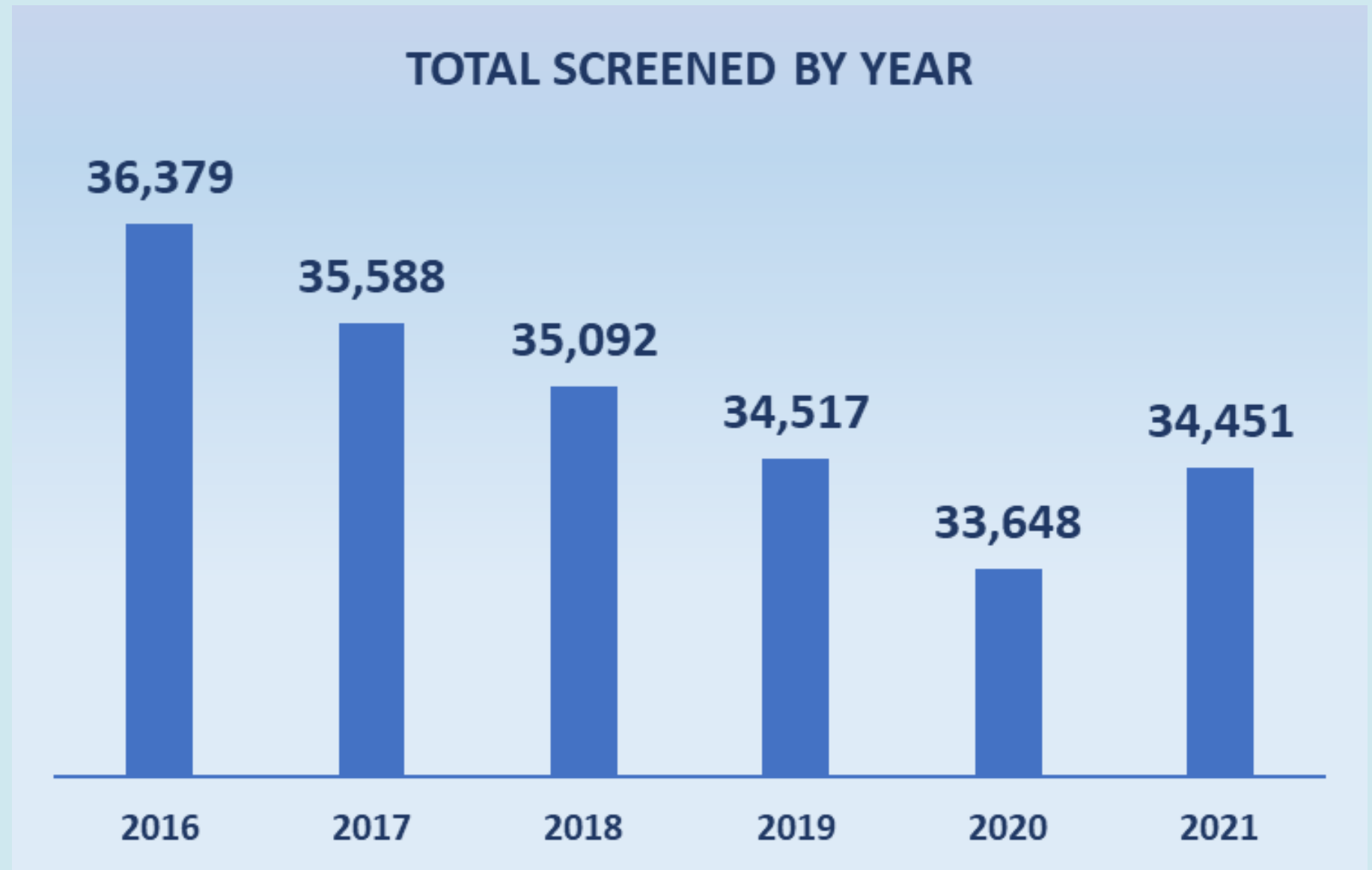
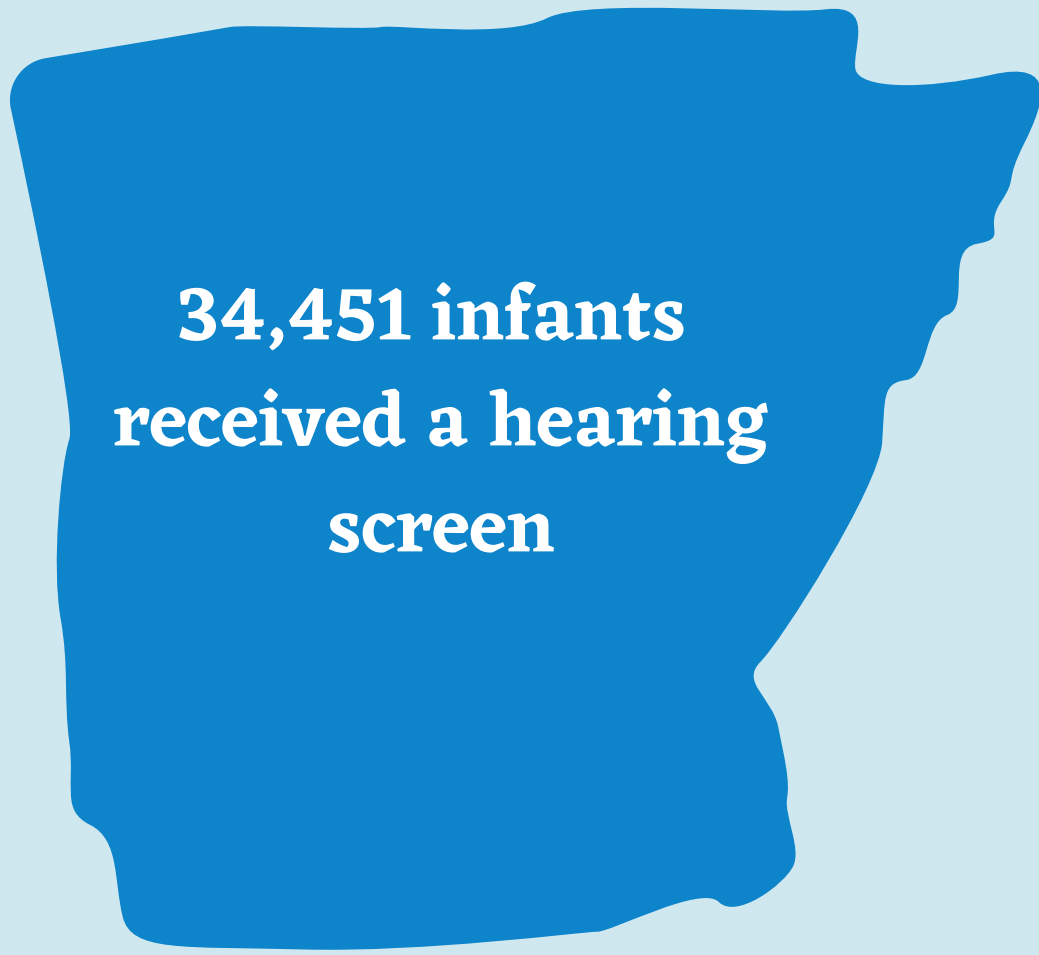


32,697 infants received a screening by 1 month of age and did not require further testing.

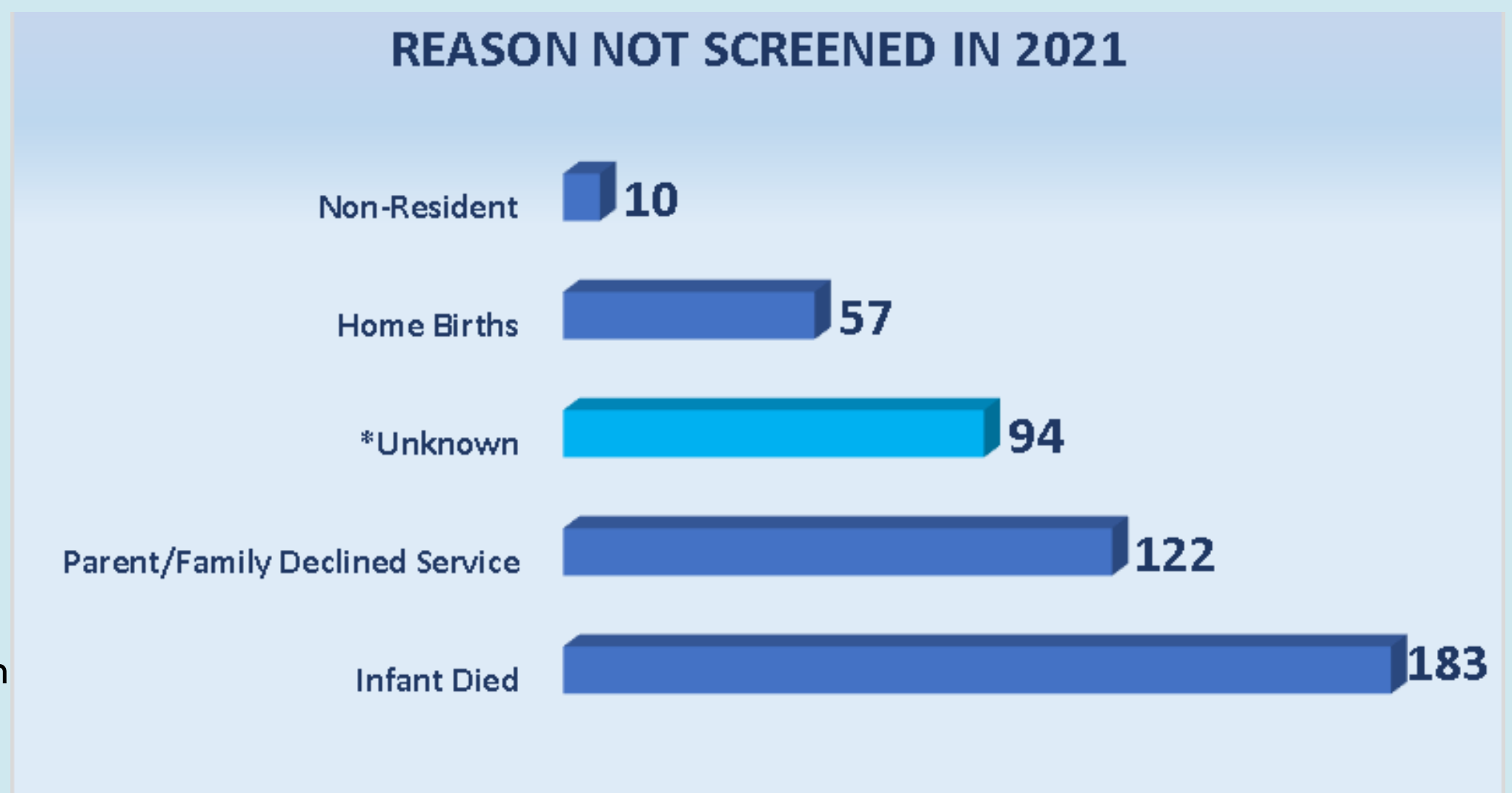


Quick Facts

According to the Arkansas 2021 ERAVE Hearing Screening and Follow-up Survey report, there were 34,451 infants that received a screening, 33,924 infants received a passing result and 32,697 infants passed by one month of age.



In 2021, 466 infants were documented as not receiving a newborn hearing screening.

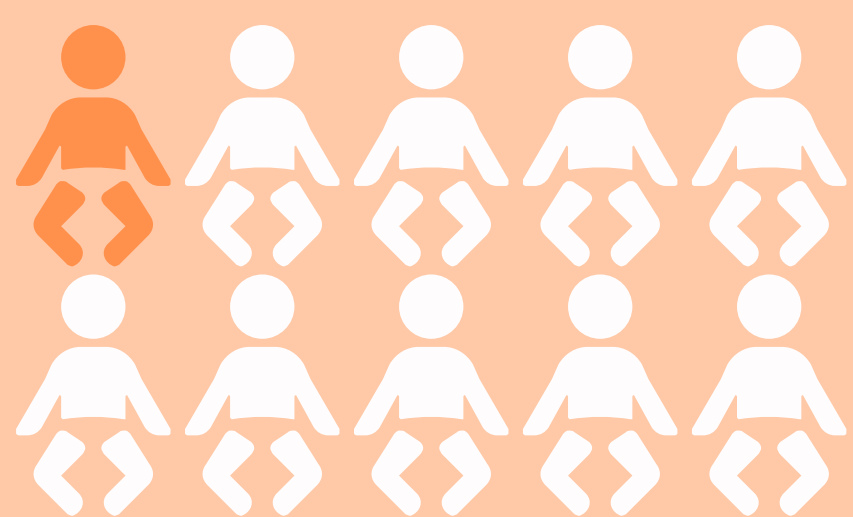


*Unknown includes infants without a documented reason for not receiving a hearing screening and parents that were unable to be contacted or unresponsive.

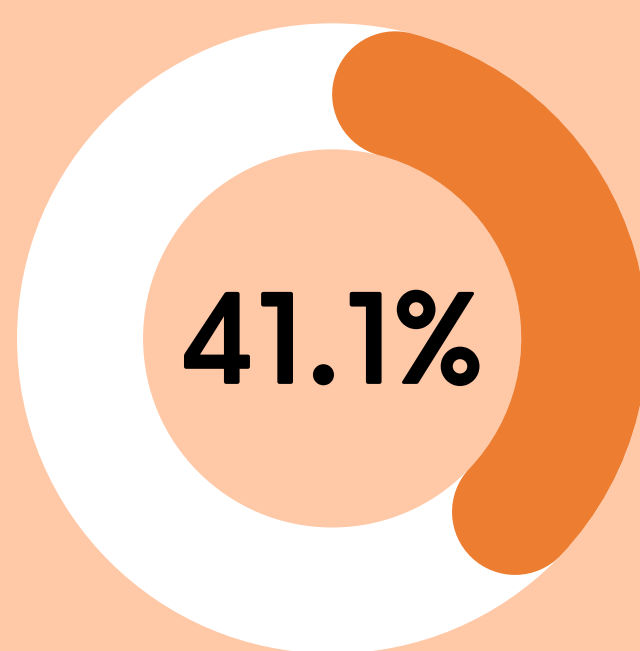
DIAGNOSTIC

Following the recommended guidelines from the JCIH, the IHP strives to ensure all infants who do not pass the newborn hearing screening receive a diagnostic evaluation by three months of age.

3



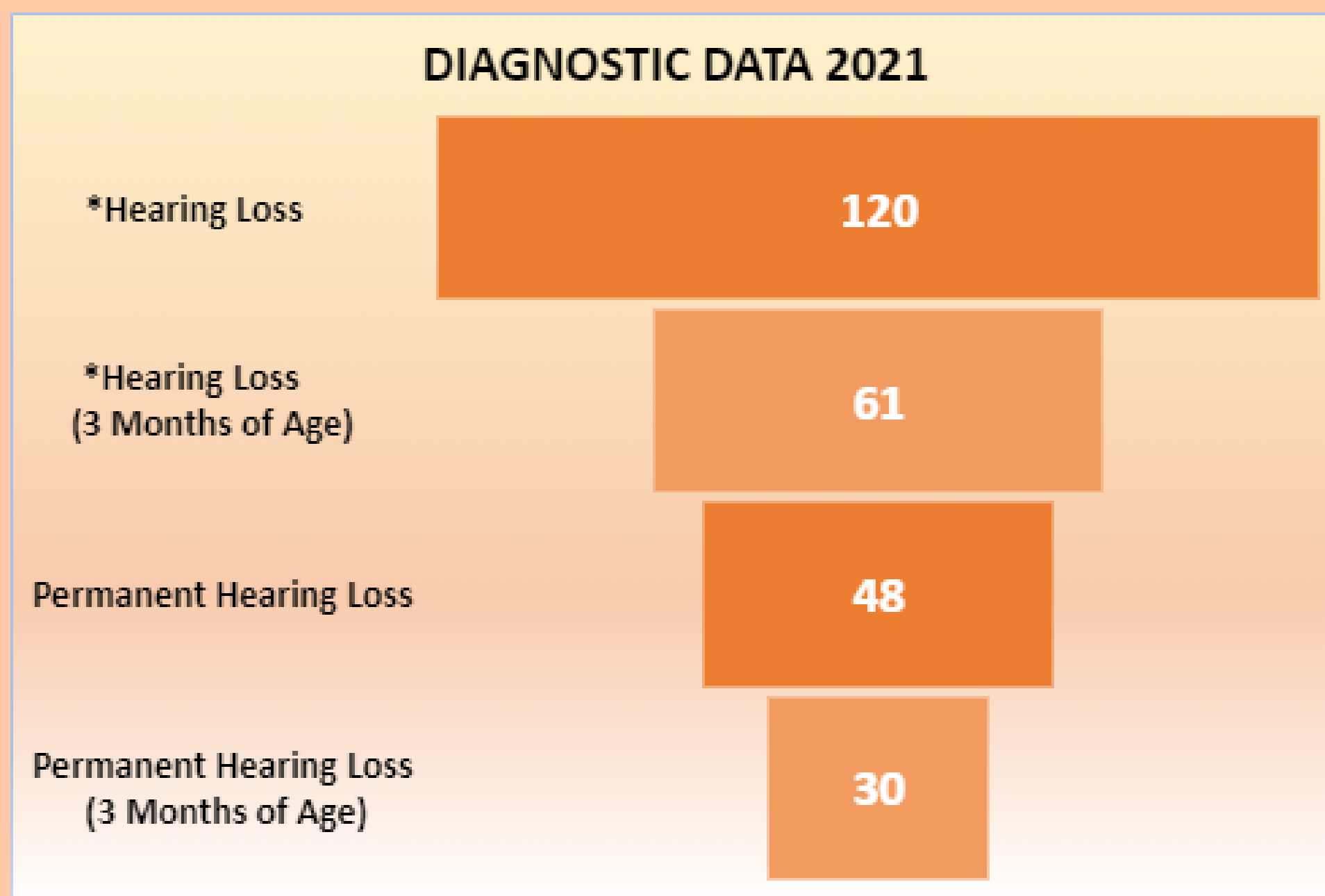
527 infants did not pass the newborn hearing screen.



217 infants received a completed diagnostic evaluation indicating normal hearing or a hearing condition.

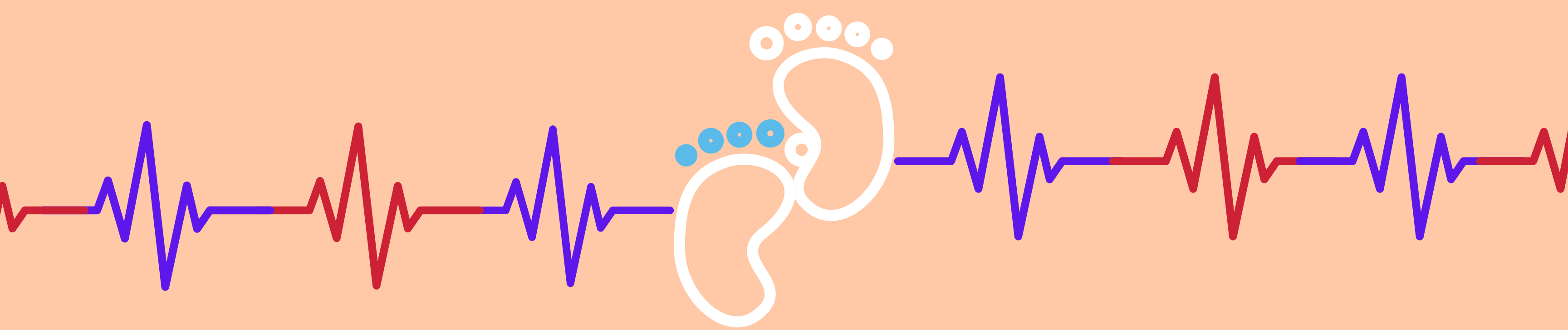


310 infants missed a diagnostic evaluation after not passing the screen.



*Hearing loss includes cases of permanent and non-permanent loss.

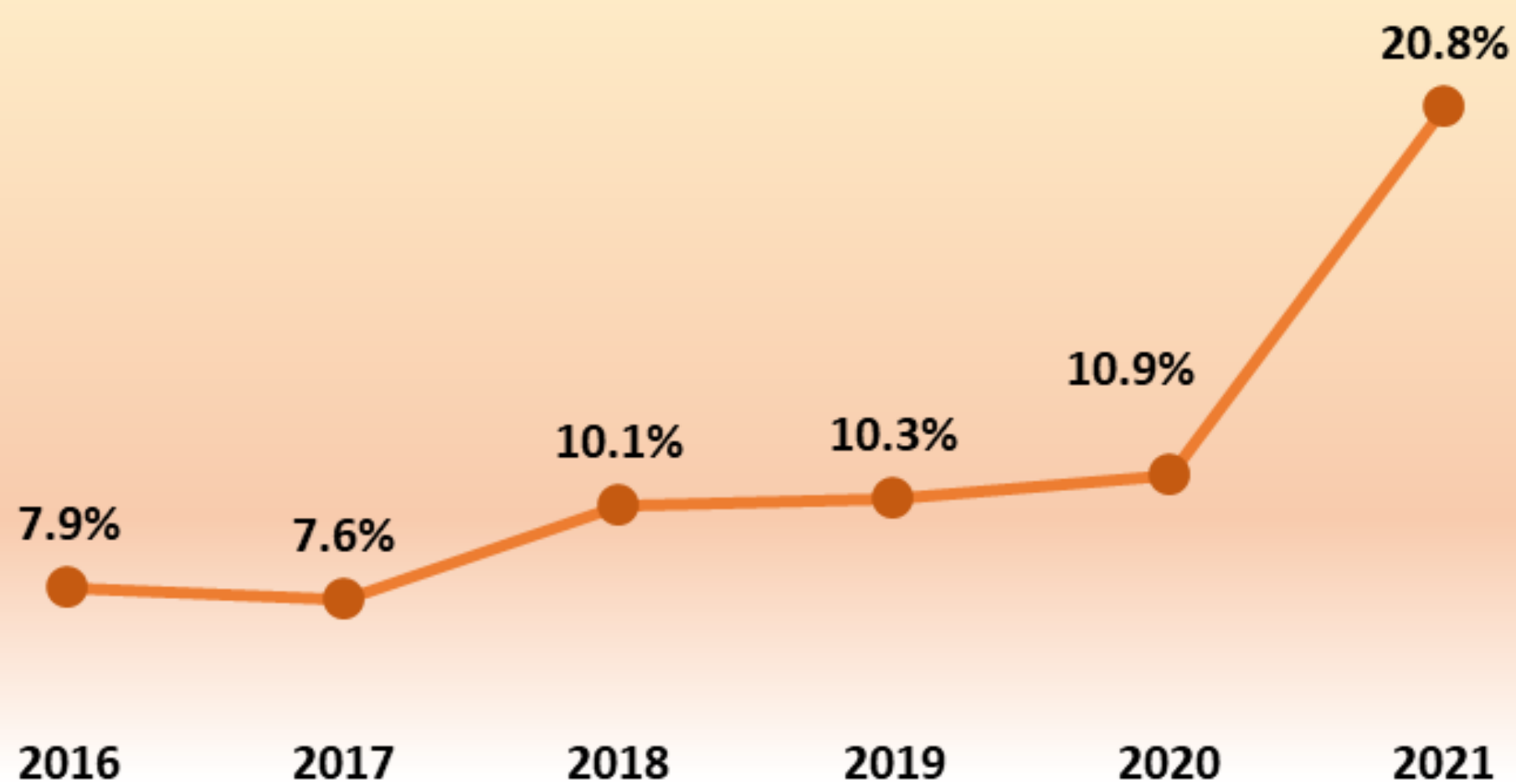
According to the 2021 diagnostic data, 120 infants were identified as having a hearing condition. Of those 120 infants identified, 61 infants were diagnosed within the recommended guideline of three months. Additionally, 48 infants were identified as having a permanent hearing condition and 30 of those infants were diagnosed within the recommended guideline of three months.



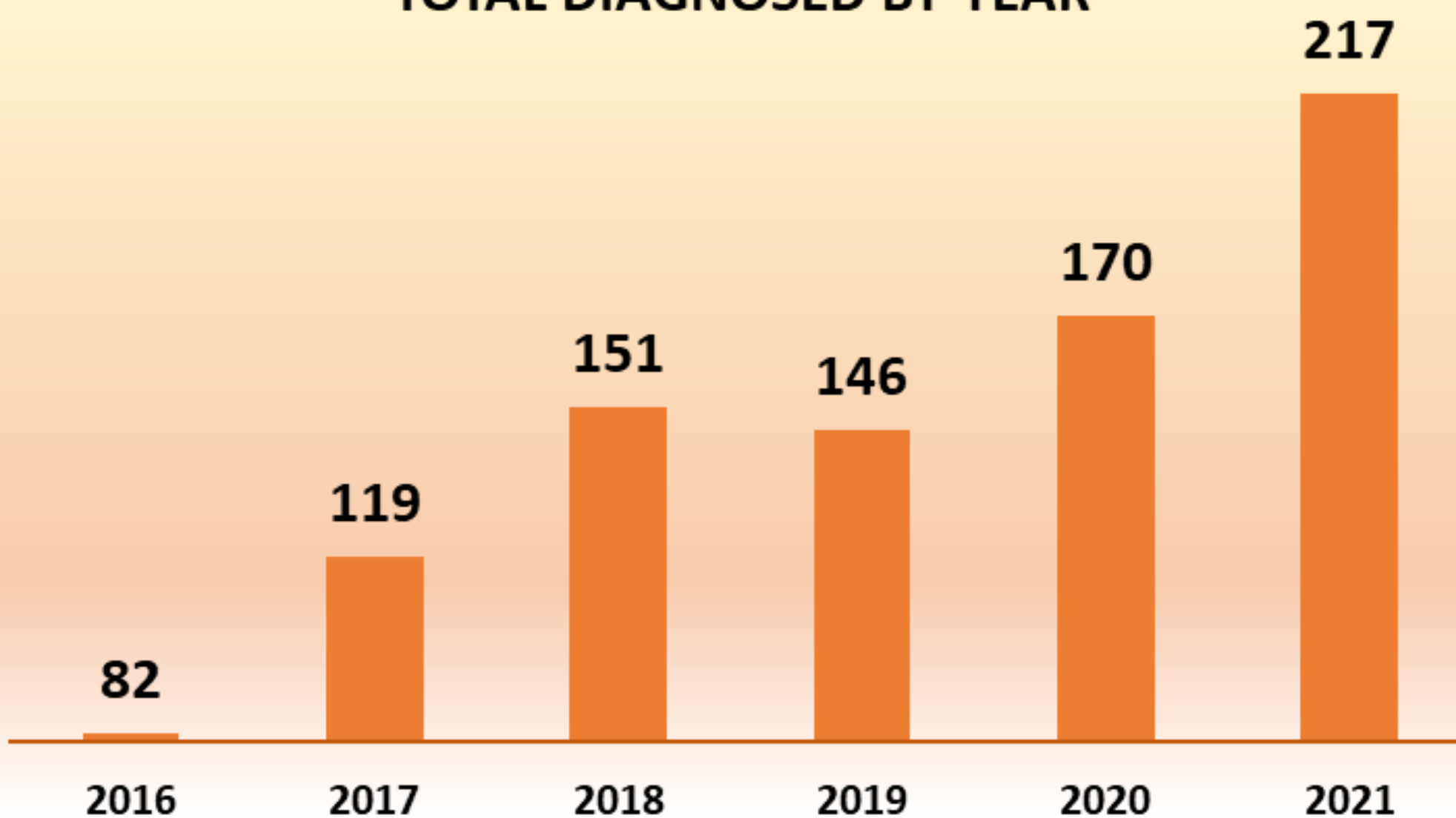
QUICK FACTS

In 2021, 21% (217) of the infants that did not pass the screening received a diagnostic evaluation by three months of age. This data indicates an increase in the number of infants receiving a completed diagnostic evaluation in comparison to the 2020 data where 11% (170) of the infants received an evaluation by three months of age.

PERCENT DIAGNOSED BY 3 MONTHS OF AGE



TOTAL DIAGNOSED BY YEAR



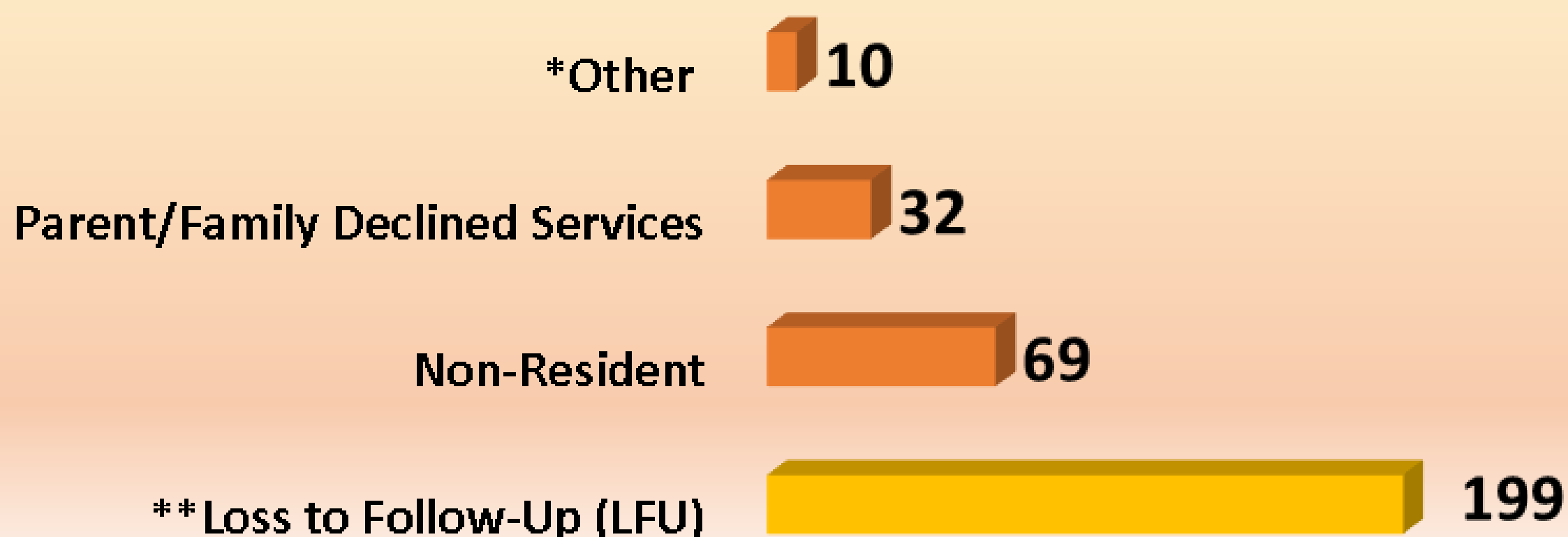
WHAT ARE THE REASONS INFANTS DO NOT RECEIVE A DIAGNOSTIC EVALUATION?

In 2021, the state had a total of 310 infants that did not receive a diagnostic evaluation after not passing the newborn hearing screening. Of those infants, 3.2% received no diagnostic evaluation due to the infant expiring, medical reasons, or were awaiting an audiologic diagnosis at the time of the report. Twenty-Two percent of the infants that received no diagnostic evaluation moved out of the state and 10.3% declined to receive services for their infant. Lastly, 64.1% of these infants were documented as lost to follow-up (LFU) after not passing the screening due to their parents being inaccessible, unresponsive to attempts of contact, or other unknown reasons.

WHAT ARE WE DOING TO DECREASE THE NUMBER OF INFANTS THAT DO NOT RECEIVE A DIAGNOSTIC EVALUATION?

Throughout the project period the IHP and partners worked to improve the capacity of the state EHDI system by engaging health professionals. The IHP investigated new opportunities to promote an increased number of infants receiving timely diagnostic evaluation through the distribution of quality educational materials indicating why and when evaluation should occur. IHP staff delivered education on key aspects of the EHDI program to professionals and/or service providers, as well as presentations outlining recommended screening practices, health professionals' role in the EHDI system, opportunities for collaboration with the EHDI program and the dissemination of data during advisory board meetings, state association meetings, and continuing education series. These meetings also provided a forum for stakeholders to provide feedback regarding opportunities for improvement in the EHDI system. As a result, the IHP developed and distributed a toolkit for otolaryngologists (ENTs), community organizations offering home visiting and prenatal clinics statewide.

REASON FOR NO DIAGNOSTIC EVALUATION 2021



*Infant expired, unable to test due to medical reasons, or awaiting diagnosis
**Unknown, unable to contact, or parents/family contacted but unresponsive

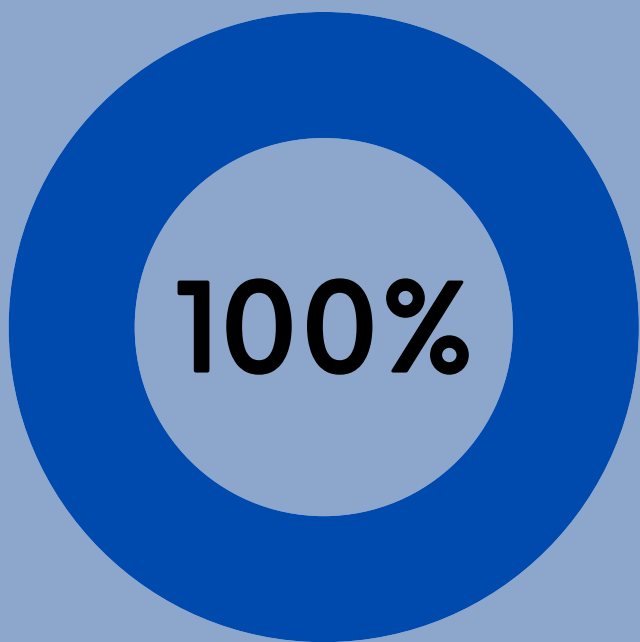
EARLY INTERVENTION

Following the recommended guidelines from the JCIH, the IHP strives to ensure all DHH infants are enrolled in EI services by six months of age.



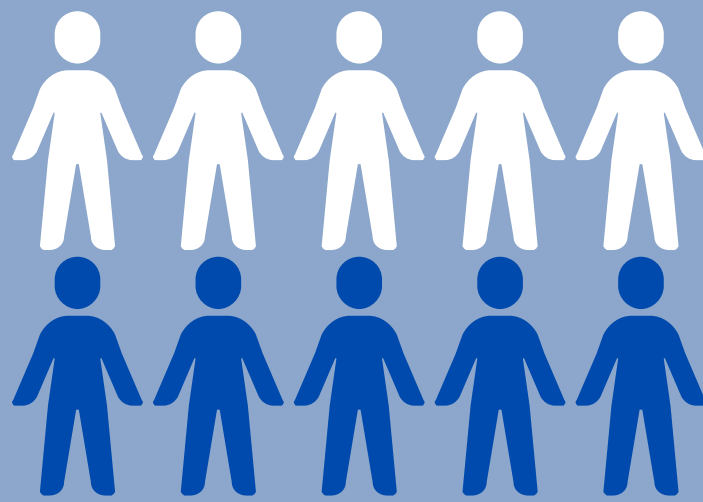
48

In 2021, 48 infants were diagnosed with a permanent hearing condition in Arkansas.

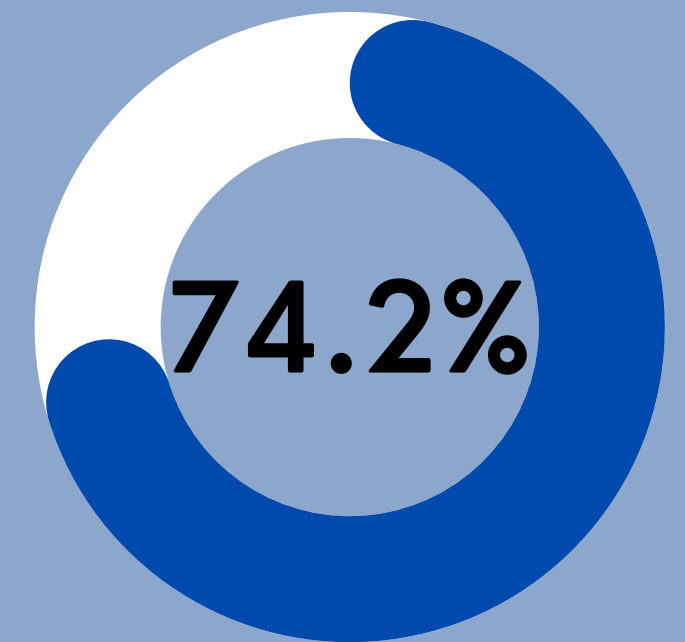


100%

48 infants were referred to EI services, 23 infants were referred before 6 months of age.



Of the 48 infants referred, 35 (72.9%) infants were enrolled in EI services.



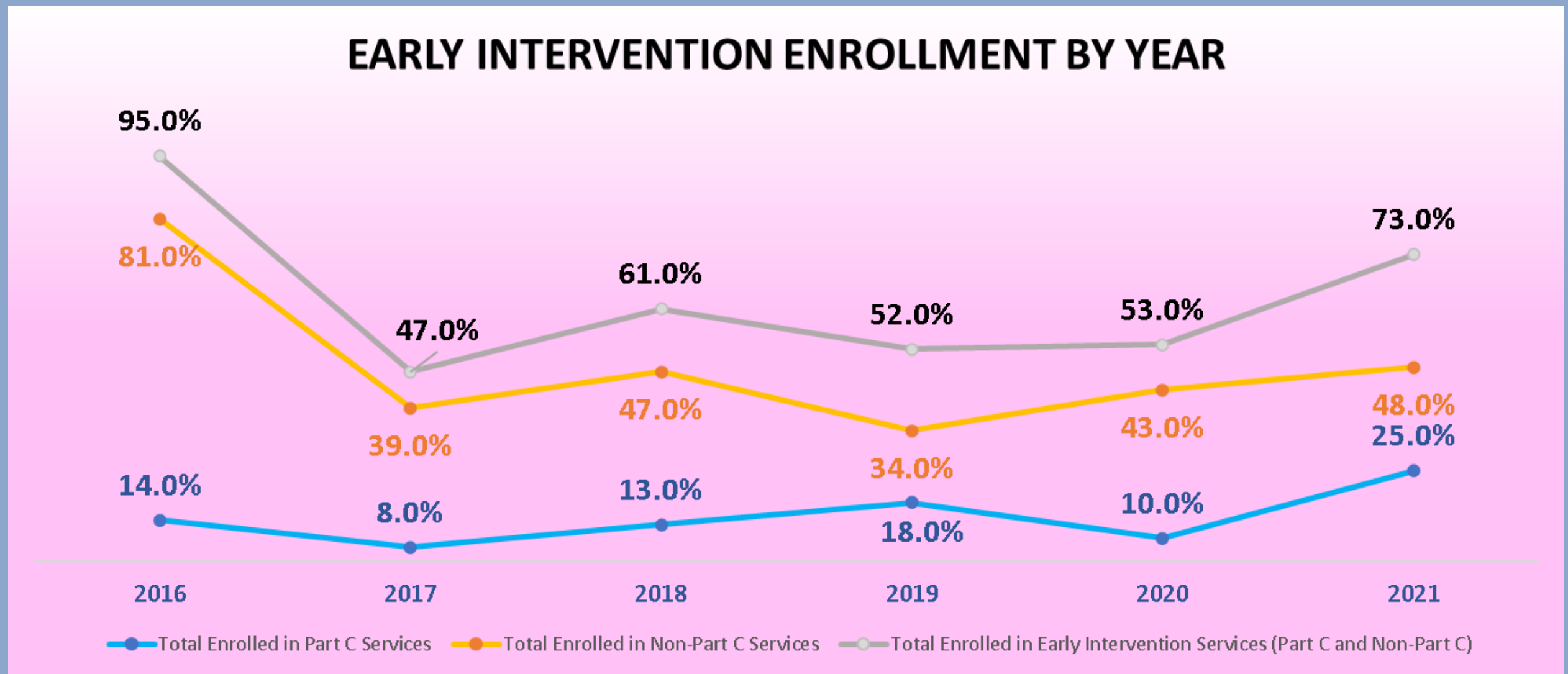
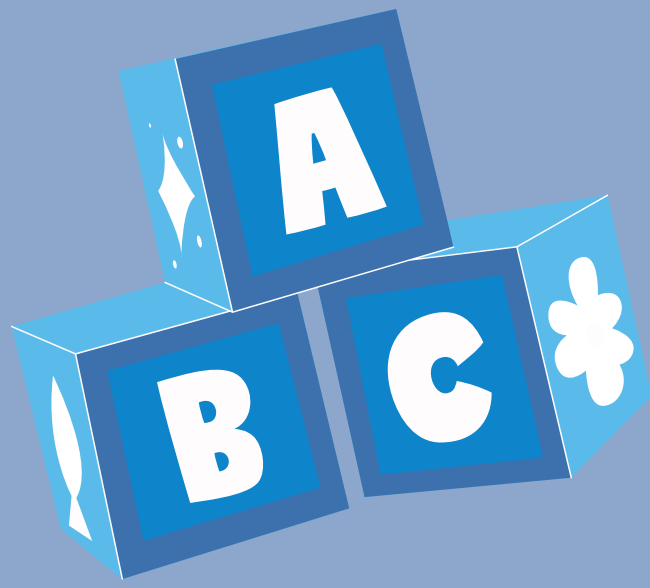
74.2%

26 infants were enrolled in EI services before 6 months of age.



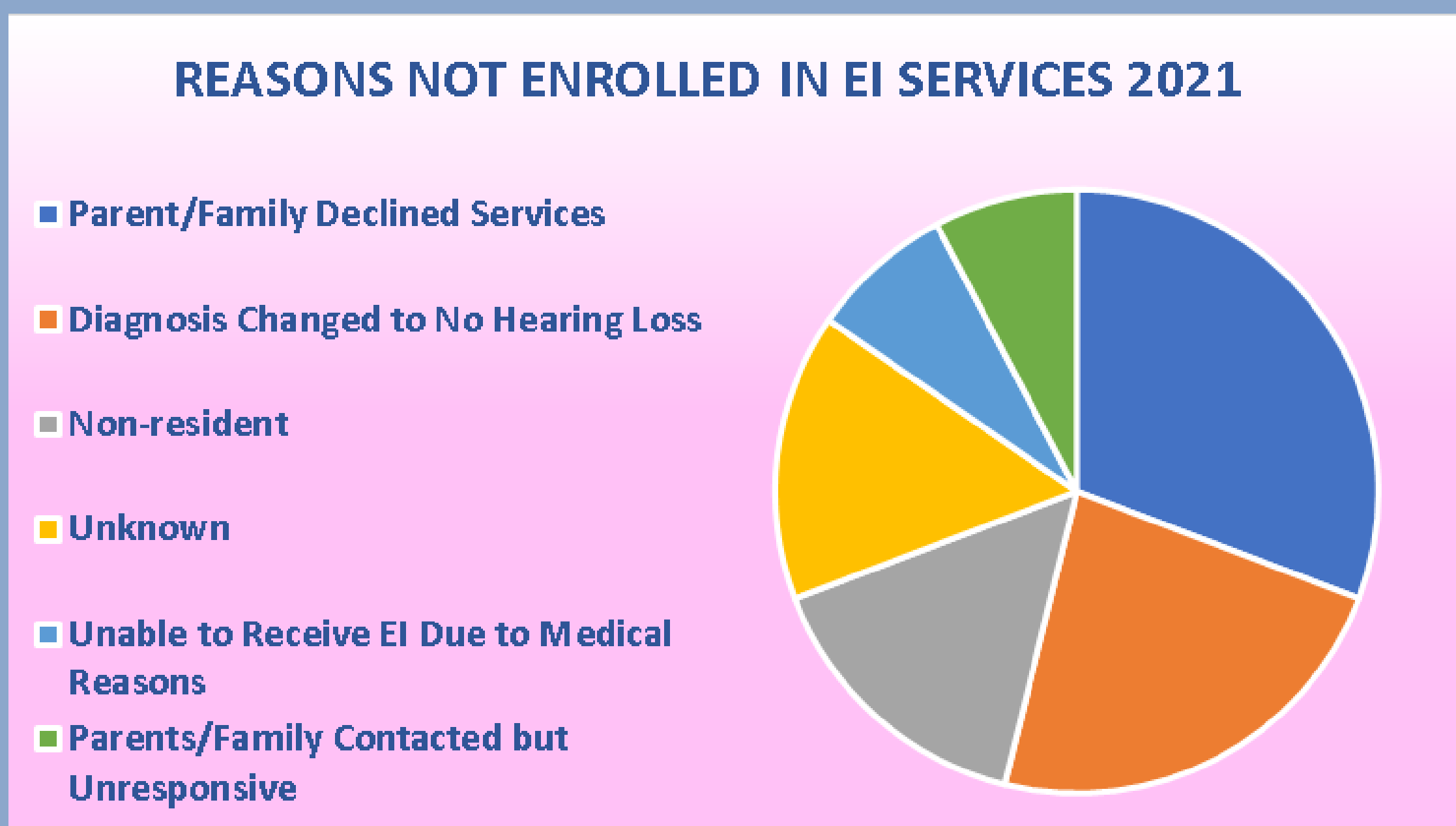
QUICK FACTS

In 2021, 73% of DHH children were enrolled in EI services. The IHP, saw an increase in EI enrollment from the previous year's report of 53%. EHDI data from recent years consistently shows higher enrollment in Non-Part C services when compared to enrollment in Part C services. The program continued working to identify Non-Part C service providers to collect documentation of enrollment in EI services.



REASONS NOT ENROLLED

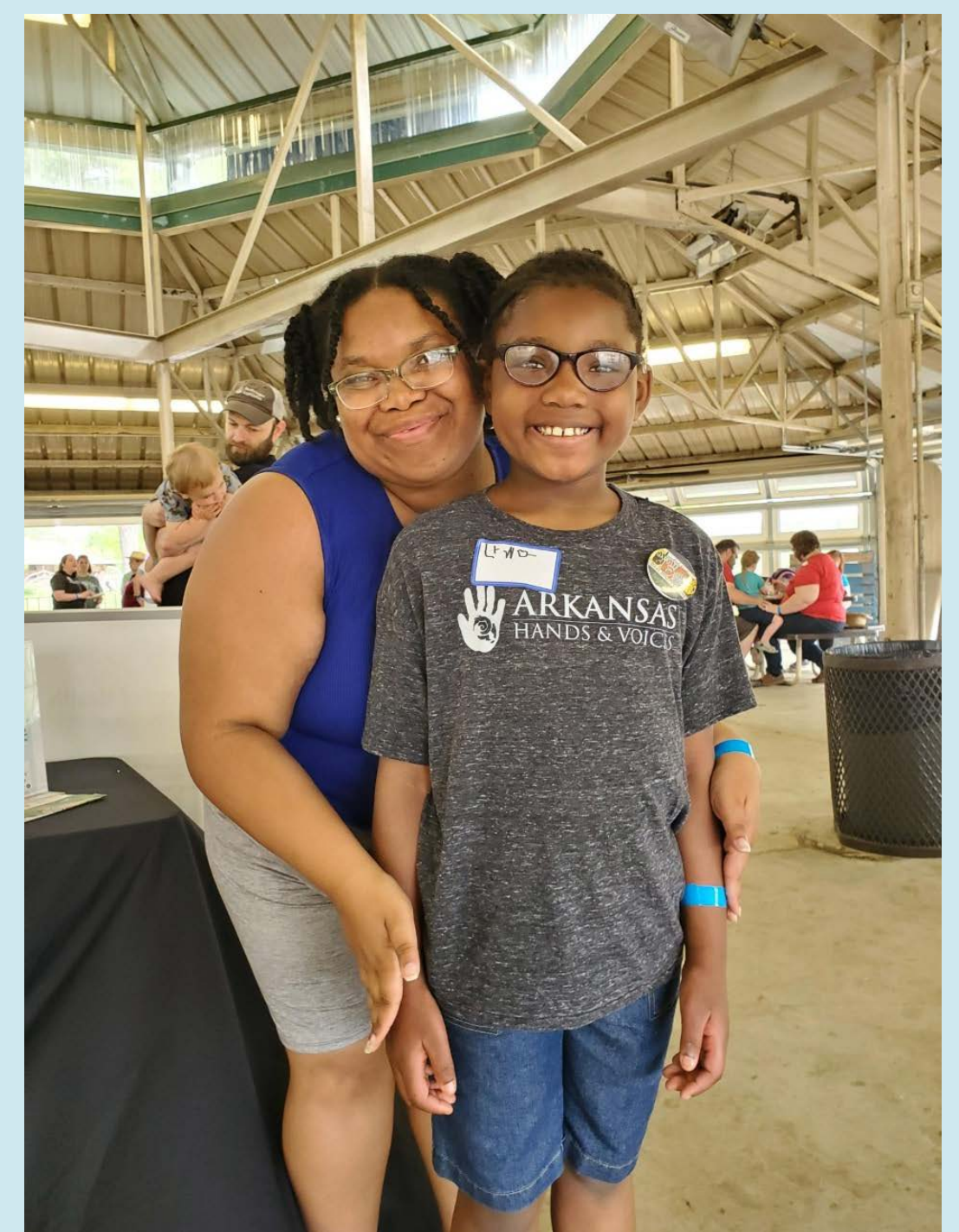
In 2021, the program reported 13 babies without documentation of enrollment in EI services .



FAMILY ENGAGEMENT

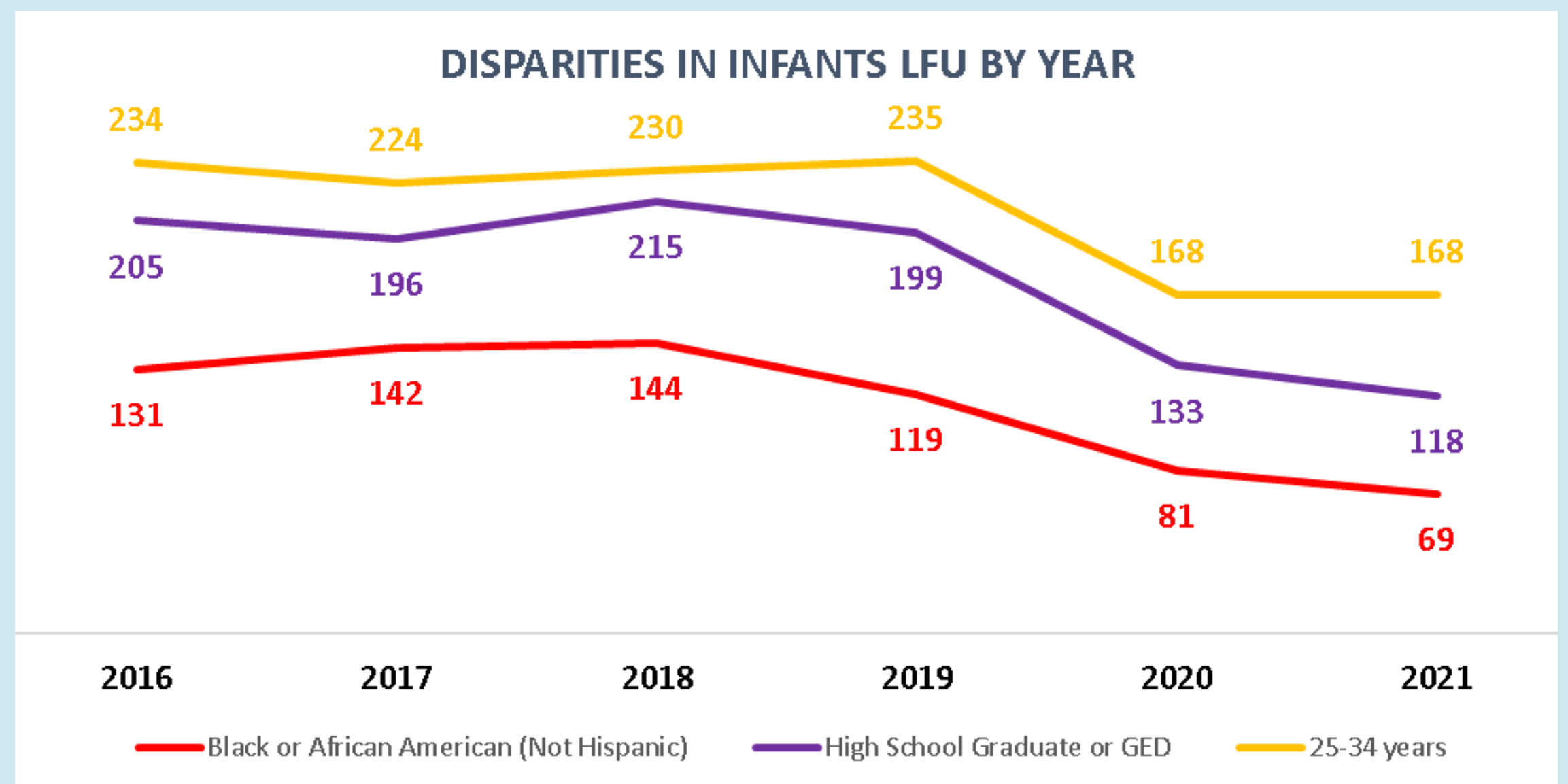
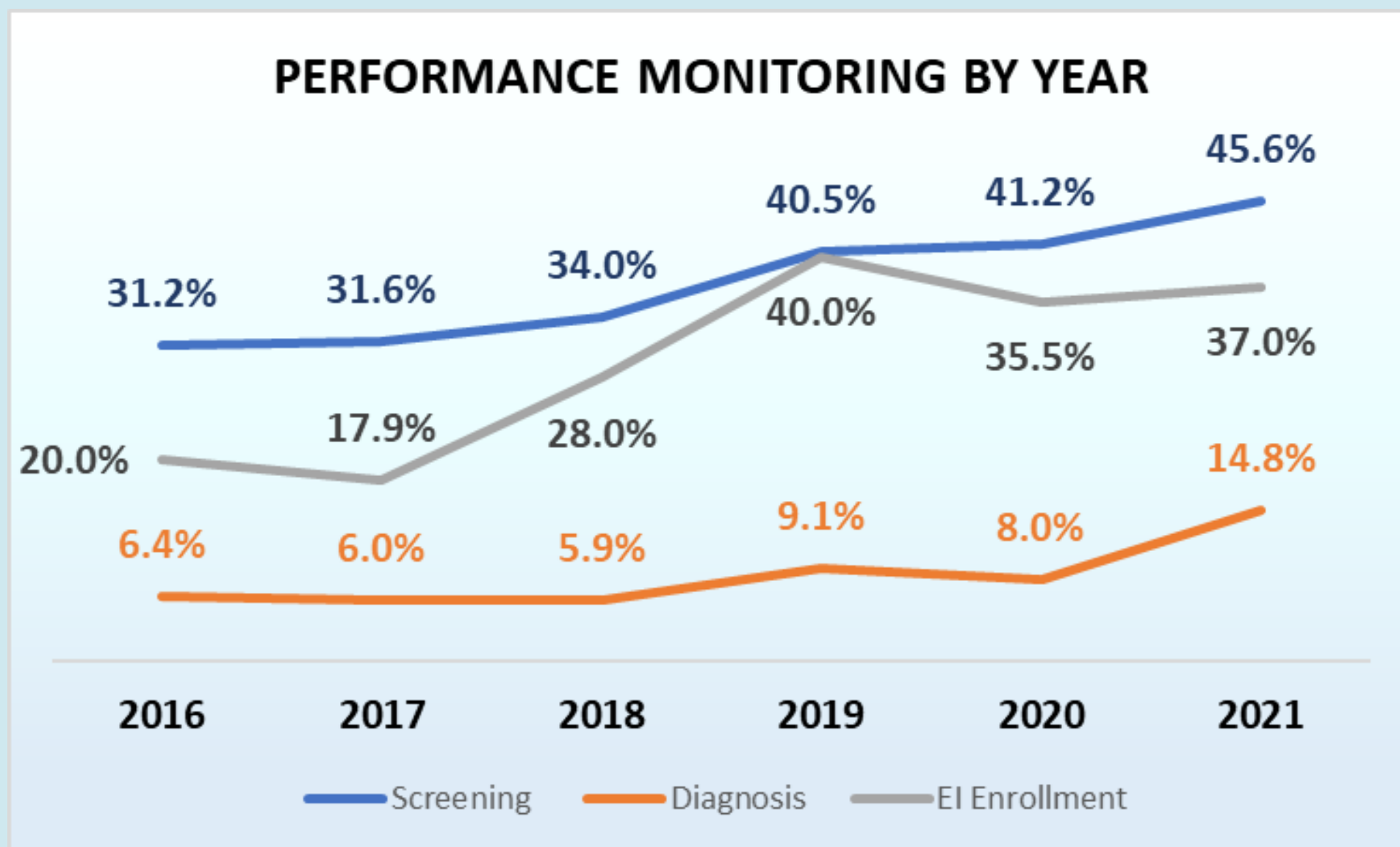
The IHP sustained collaborative efforts with Arkansas Hands and Voices (AR H&V) to increase enrollment in family-to-family support services (FSS) amongst families with DHH children. As a result of the partnership, AR H&V completed media activities to reach families and providers by expanding their website to include a “What’s Next” section. This new section of their website highlights the importance of timely rescreening and referrals for diagnostic evaluation after not passing a newborn hearing screening. Additionally, AR H&V is currently developing educational materials for distribution to primary care physicians in the IHP’s five priority counties, areas with the highest numbers of infants documented as LFU. AR H&V provided the following additional FSS activities during the current project period allowing families with 78 DHH children to gather and connect with one another in various areas of the state:

- Back to School Bash
- Pumpkin Patch Event
- Zoo Day
- Sign, Speak, Run
- Bi-Monthly Educational Advocacy Newsletters
- Guide By Your Side (GBYS)
- Advocacy, Support, and Training (ASTra) Program



Source: Hands and Voices Family Zoo Day Event

PERFORMANCE TRENDS



A review of the IHP's performance reports indicate the counties with the highest number of infants LFU after not passing the hearing screening are Craighead, Benton, Pulaski, Sebastian, and Greene. Furthermore, the report identified the maternal age group 25-34 years, maternal education level of "High School Graduate or GED" and the maternal race African American documented the highest number of infants who did not receive follow-up evaluation after not passing the newborn hearing screening.

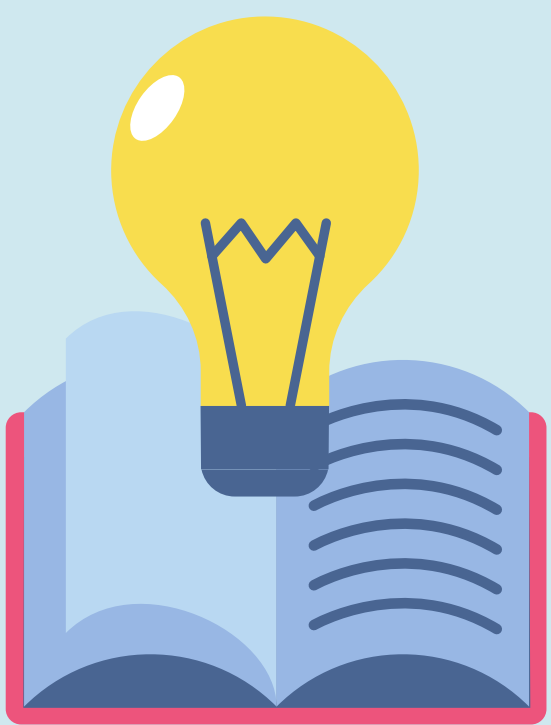
Source: IHP dataset download date: January 26, 2023

ADH Epidemiologist Report run February 3, 2023 (2021 data) and March 24, 2023 (2016-2020 data)



UPCOMING ACTIVITIES

- Prenatal Education
- Provider Education
- Data Analysis Supporting Quality Improvement
- Innovative Partnerships



Next steps for the upcoming budget year include increased promotion of EHDI best practices, collaboration with non-traditional partners and the continued implementation of quality improvement projects to track changes promoting the effectiveness of the state EHDI system. The IHP will work collaboratively with stakeholders to complete the following activities:

- Increase outreach activities to provide additional resources to the Hispanic and Marshallese populations (i.e. media campaign).
- Partner to provide trainings and presentations to professionals serving DHH children and their families.
- Increase engagement with primary care physicians to remove barriers delaying follow-up care after not passing the newborn hearing screen.
- Establish new partnerships with early childhood organizations.
- Increase access to newborn hearing screening statewide by enhancing the IHP's equipment loan program.
- Revising/Creating new educational materials.



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