

Expanding Access to Pediatric Diagnostic Audiology

Early Hearing Detection and Intervention Meeting, 2024

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Massachusetts Department of Public Health

Universal Newborn Hearing Screening



Genesis of Project



CARES Act funding, Maternal and Child Health
Telehealth Capacity in Public Health Systems
Direct Awards



Received \$50K, equipment purchases allowed



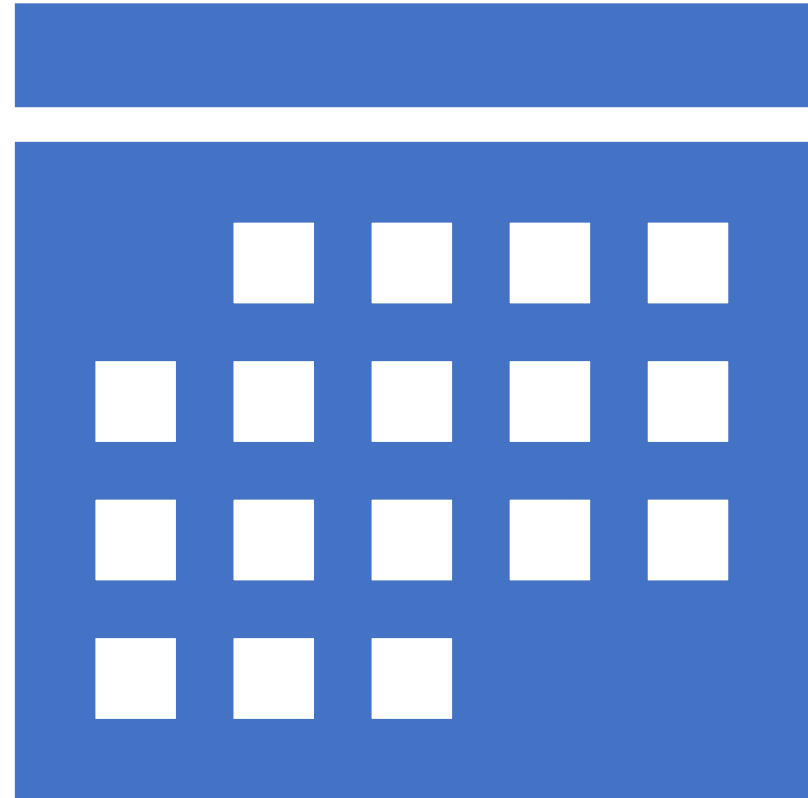
Demonstration project

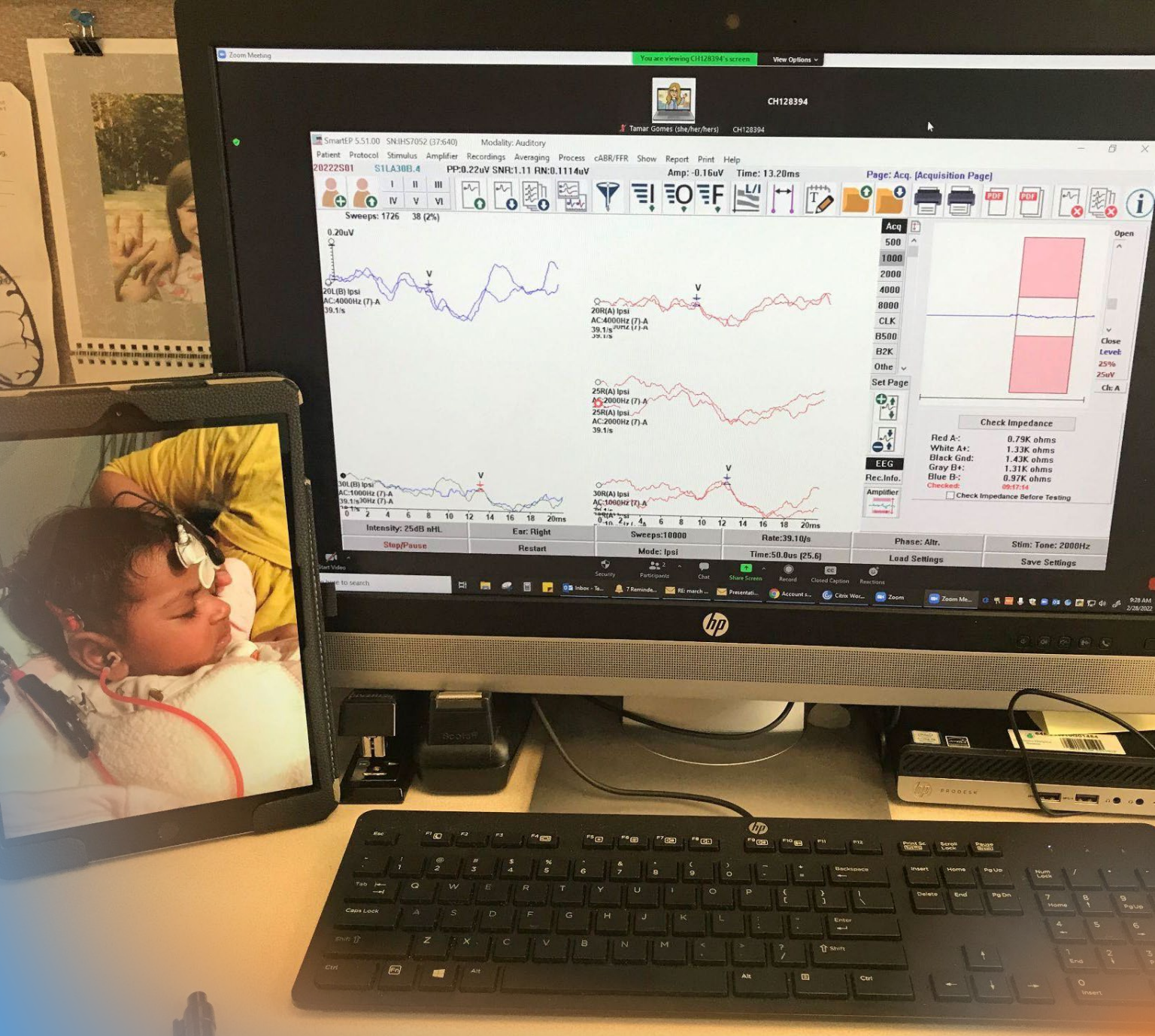


Collaboration between MA DPH, Boston
Children's Hospital and Cape Cod Hospital

Timeline

- Project funding period October 2020-April 2021, no cost extension until June 2021
- Project put on hold to work out legal, administrative and billing issues
- Restarted February 2022





How it works

- Babies in the area that refer on their hearing screen are offered an appointment for diagnostic testing performed remotely at Cape Cod Hospital
- Appointments are twice a month on Fridays
- Family goes to CCH, nurses from CCH have been trained to assist with diagnostic testing
- Audiologist at Boston Children's remotely controls the testing
- If additional testing is needed, family is referred to a Boston Children's site
- Results are reported to EHDI program
- EHDI program owns equipment and pays for annual calibration

How do we measure impact?

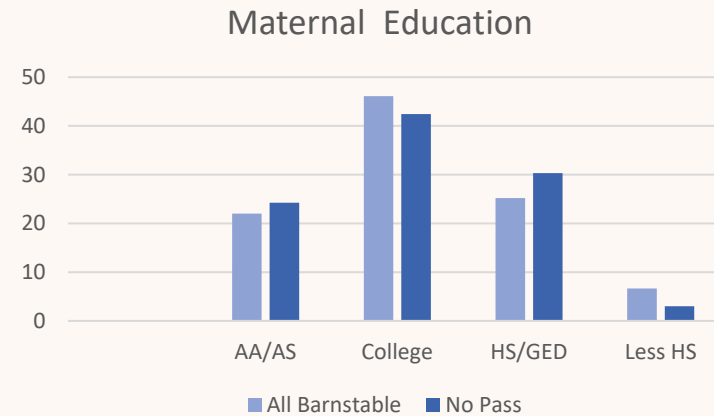
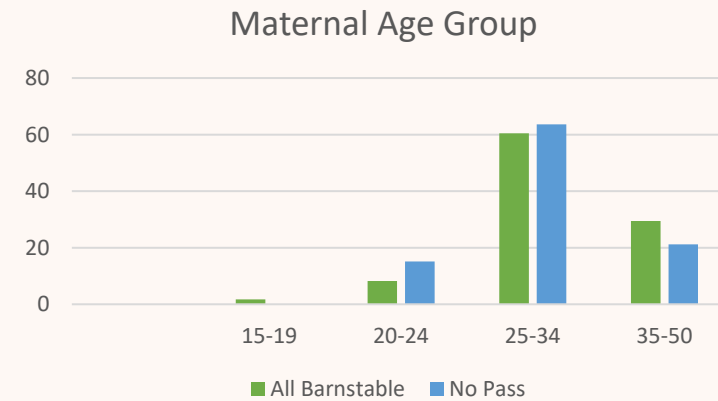
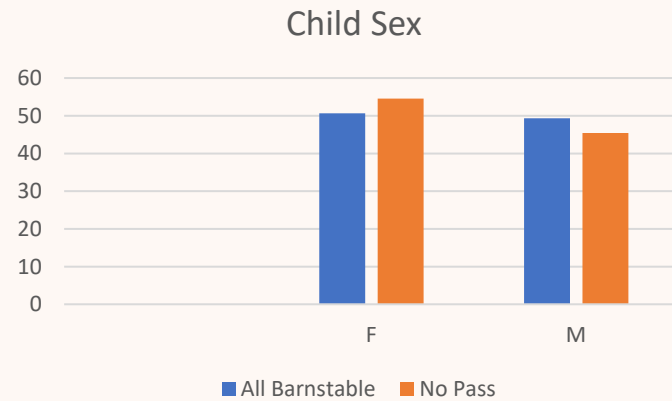
- Referred babies choosing remote site for diagnostic testing
- Characteristics of those families
- Lost to follow up rate
- Time to first appointment
- Time to diagnosis
- Time to early intervention

A high-angle photograph of a person with dark skin, wearing a white t-shirt and blue jeans, sitting at a light-colored wooden desk. They are leaning forward, typing on a silver laptop. To the left of the laptop is a tablet displaying the same keyboard layout. To the right of the laptop are several sheets of paper, some with handwritten notes and a pen. The background shows a white bed and a wooden wall.

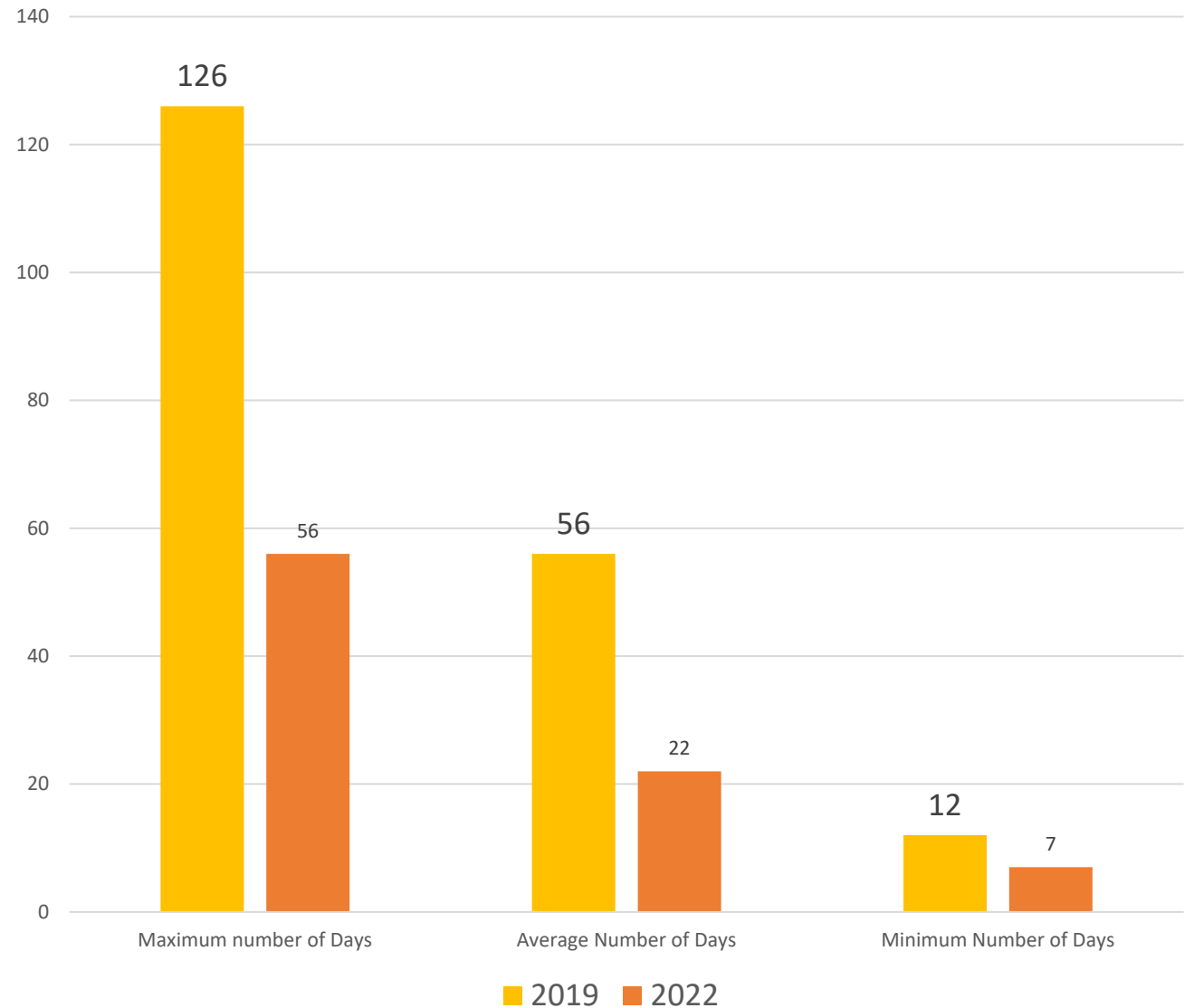
Data snapshot

- Looked at babies born in 2022 (last data set closed) and compared to 2019 (2020 excluded, program partially in place in 2021)

Demographic Characteristics of the Catchment area (Screened, Screen-No Pass)



Time Between Screening and first Diagnostic Appointment
(Babies that did not pass screen at Cape Cod Hospital and evaluated at Remote ABR site)





What do families think?

- Phone survey of mothers of babies born in 2022, 27 were seen at the remote ABR site
- 11 mothers answered the phone, 10 of those remembered the hearing testing
- 9 spoke English, 1 Haitian Creole and an interpreter was used
- 10 did not pick up call, name not in voice mail
- 5 were no longer valid phone numbers
- 1 message was left, never connected



What do families think?

- 9 of 10 reported they were very satisfied with scheduling (1 did not remember the scheduling process)
- 9 of 10 reported they were very satisfied with appointment availability
- 8 of 10 reported they were very satisfied with the travel time to the appointment
- 10 out of 10 reported that they were very satisfied with the overall experience
- 10 out of 10 would recommend remote ABR testing to other families

I was so glad not to have to go to Boston for the test.

–Parent

It felt like a long time to wait, but I don't know how long the wait usually is.

–Parent

I wish more services were available like this.

–Parent

At first, I didn't realize the person doing the test wasn't in the room with us. The staff worked together so well.

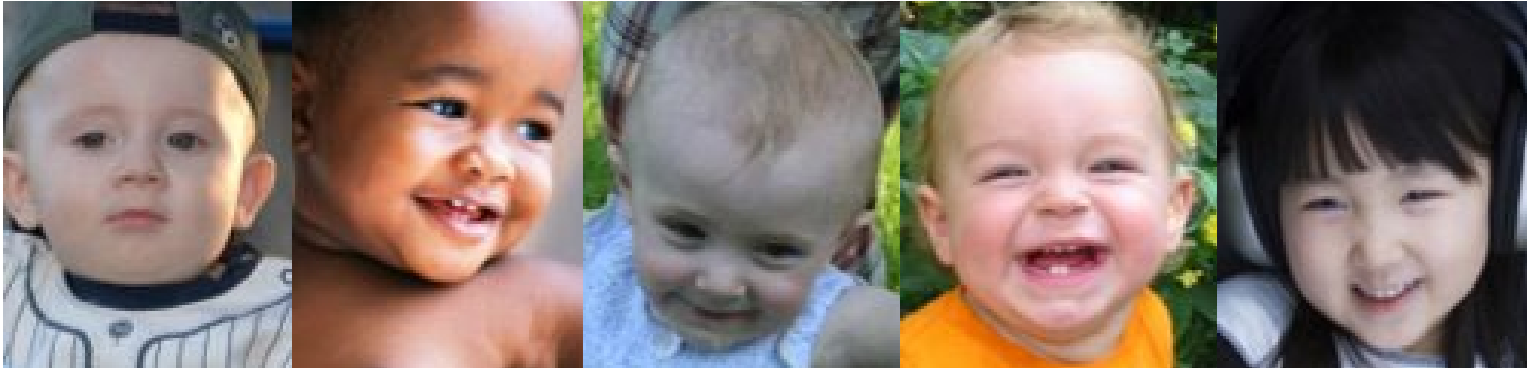
-Parent



Conclusions and Future Activities

- Limitations of small numbers
- Improvement to the EHDI goal of diagnosis by three months of age
- No families identified with a child with reduced hearing through the program in 2022
- Continue to monitor timeliness





Thank you!

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