

Insights

Hearing a Chance to Improve: QI's Impact on State Audiology Services

Hearing loss is a common birth defect in the United States, affecting one to three babies per 1,000 live births. In Louisiana, most children receive hearing screenings at birth, but the number receiving appropriate follow-up care when diagnosed with potential hearing loss was only 38 percent a few years ago. The state's Early Hearing Detection and Intervention (LA EHDI) program had strategies for improving how audiologists connected and followed up with children who had reported hearing loss, but, admittedly, the strategies weren't working. It took a new approach, of embracing quality improvement (QI) to help the LA EHDI achieve their goals for children receiving appropriate follow-up.

"When I started in this department in 2010, we were running a lot of initiatives, having taskforce meetings with audiologists and trying to connect with parents, but we weren't having a lot of success," said Jeanette Webb, LA EHDI's Follow-up Coordinator. "We spent a lot of energy on strategies we thought would work, and we weren't using the data as well as we could have because the follow-up data took months to collect."

LA EHDI joined the NICHQ-led Improved Hearing Screening and Intervention Services ([IHSIS](#)) collaborative in 2011, which brought QI methods to states that wanted to improve follow-up and early intervention services for infants who failed their hearing screening. At first, QI seemed like another process on top of the other activities, but then Webb had an epiphany—QI was a new way to approach the changes they were struggling to make.

"We had some good programs and ideas, but we were ultimately too disorganized to be as effective as we'd have liked," said Melinda Peat, MCD, LA EHDI's Hearing, Speech and Vision Program Manager. "What QI did was make us realize how we could better organize our programs and clean up internally to really start pushing our initiatives forward."

Learning and Progressing

As LA EHDI became more adept at using QI strategies, it was able to adjust how they organize their initiatives and find inefficiencies within their current strategies. When the LA EHDI team debriefed after the first Learning Session with NICHQ, their first objective was to improve internally-directed strategies before engaging extended partners. For example, when audiologists reported babies as lost to follow-up (LTF), LA EHDI was not acting on these reports

as consistently and timely as needed to be effective. The department reorganized the triage procedure so that staff members were contacting families and pediatricians as soon as the LTF reports were received.

Over the course of many Plan-Do-Study-Act (PDSA) cycles, the department constantly revised and improved the strategies so that audiologists were reporting LTF by 2 months of age; pediatricians received faxback forms even as young as 3 weeks of age when LA EHDI had no documentation of follow-up and mailed parent letters by 6 weeks of age if no documentation for all babies who failed their newborn hearing screening. The faxback PDSA also yielded responses that some babies received follow-up and pediatricians had reports from audiologists, but that LA EHDI had never received the documentation. A PDSA was developed to test faxes and emails to audiologists requesting follow-up reports.

“Prior to using QI techniques, we’d send audiologists a semiannual report of babies with no documentation. Their responses to the reports varied but overall were not successful with LA EHDI obtaining the needed information,” said Webb. “As a result of LA EHDI’s new Information System database, we are able to receive data about the outpatient follow-up appointments that are scheduled before babies are discharged.”

Recently, these strategies have been modified to include sending physicians and parents information about pending, upcoming appointments. These correspondences go out weekly so many of the babies may only be 1 week old.

“Through new database and PDSA cycles, we’ve seen a significant reduction in LTF. QI strategies learned in our NICHQ Collaborative greatly improved our ability to manage tasks in a more organized, timely and consistent manner while giving us better tools for how to use our data to drive our interventions for improvement,” Webb said.

A Culture of QI

LA EHDI didn’t stop using QI methods once the collaborative ended. Instead, the team further embraced the lessons they learned and used them for other internal initiatives. This helped foster a real culture of innovation and change within the department, allowing for work to be more focused on reducing barriers that prevent children from receiving optimal care. Whenever there’s a challenge or an opportunity for improvement, Webb and Peat encourage others to use PDSA cycles.

“There’s no such thing as a bad PDSA. You can always learn from them, even if your idea didn’t work how you thought it would,” Webb said.

QI has proven so effective that other departments through the state are starting to recommend it. In fact, the state health department recently encouraged some programs to learn about the methodology.

“The state health agency recommended I participate in a webinar recently, and it turned out to be all about QI philosophy,” said Peat. “The learning collaborative brought QI to us before the state decided that we should be using it.”

QI has become an integral part of LA EHDI's strategic planning, especially as it looks for further opportunities to serve children with hearing loss. Through careful testing and studying, the department can help create tools and services to ensure that fewer patients are lost to follow-up.