

EHDI
State Coordinator Meeting 2015

PALAU

Reduce Final Nursery Refer Rate

- Why was this strategy tested?

Palau EHDI wanted to identify gaps within the system with risk of losing infants born during the weekend and to reduce final nursery refer rate

- What was the process for identifying the strategy?

We noticed a very high nursery refer rate of babies born during the weekend and a very high rate of outpatient initial screening. Babies born during the weekend and discharged within 24 hours did not get their initial hearing screening in the nursery due to:

- hearing technicians not working during the weekends
- Unclear process on who is to conduct hearing screening when technicians are off
- Rotation and shortage of nurses within the wards

- What is the potential for the strategy to improve LTFU/D?

By conducting two stage hearing screening in the nursery, training additional nurses to conduct hearing screening during the weekend, and retrain hearing technicians

PDSA Cycles

- Cycle #1 – Create a data tracking sheet to reduce final nursery refer rate
- Cycle #2 – Verify data with birth registry for number of babies born during the period and extract weekly data for cleaning and check accuracy
- Cycle #3 – Train additional OB nurses and new born hearing technicians
- Cycle #4 – Implement two stage hearing screening

Cycle 1

- Plan
 - Create a data tracking sheet to validate completeness and accuracy of the data in order to determine baseline data.
- Do
 - Collect data from hearing screening log sheet and compared it to EHDI IS from May 1, 2014 to July 31, 2014 as baseline data
- Study
 - Noticed a discrepancy in number of births between EHDI IS and Birth Registry
 - Data validation process identified 8 babies discharged during the weekend who did not receive hearing screening.
 - We also noticed 9 babies that were never screened prior to discharge on a weekend who received their initial screening during the two weeks outpatient screening.
- Act
 - Adopt – Continue this process to test data accuracy both in the nursery and outpatient clinic and to monitor data quality and accuracy

Cycle 2

- Plan
 - Develop a system to eliminate the discrepancy in number of births between EHDI IS and Birth Registry
- Do
 - Extract weekly data for cleaning and check accuracy
 - Verify EHDI IS data and nursery log book with birth registry for number of babies born and screened
- Study
 - Cleaned and verified that all babies who received hearing screening matches the number of babies born in the birth registry
 - Review made us aware of an alternate logbook with results that is used by OB nurses to document results
- Act
 - Adopt – Continue this process to test data accuracy; the number of babies born in the EHDI-IS database matches the number of babies born in the birth registry

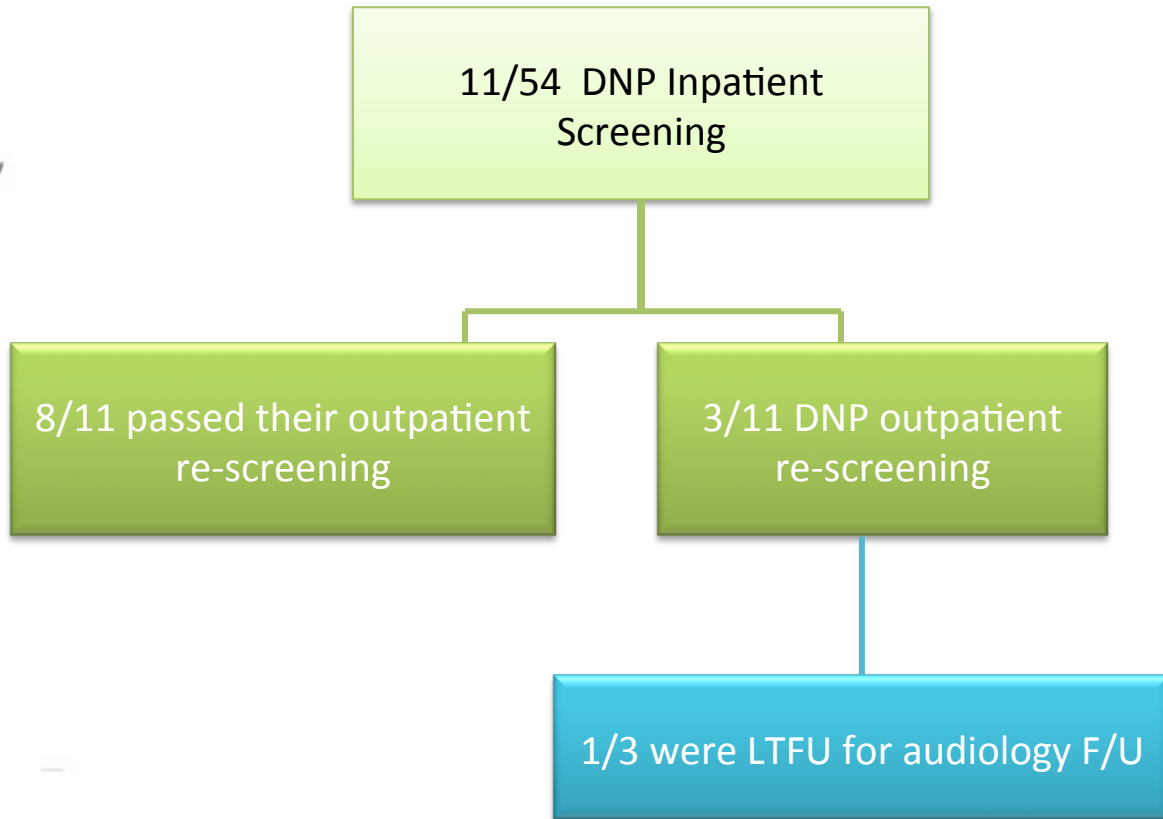
Cycle 3

- Plan
 - 72% of babies that referred on initial screening did not receive a second screening prior to discharge
 - Implement second hearing screening prior to discharge
- Do
 - Revise existing processes and protocols so that second hearing screening is implemented by September 2014
- Study
 - Collected data from October 1 to December 31, 2014 and verified if second screening was conducted and compared nursery refer rate from this period to baseline data.
 - Only 25% babies that referred on initial screening did not receive a second screening prior to discharge
 - Of the 16 babies that referred on initial screening 6 passed the second screening.
- Act
 - Adopt – Revise protocols and SOPs to address second hearing screening prior to discharge and continue to monitor.

Cycle 4

- Plan
 - Develop a process for reducing the number of babies discharged during the weekend who did not receive hearing screening by training additional OB nurses and new born hearing technicians
- Do
 - Newborn screening coordinator provided refresher training for hearing screening technicians including accurate documentation
 - Train OB nurses using the NCHAM curriculum on OAE screening so that they can perform the initial screening before hospital discharge when EHDI staff is not available
- Study
 - 100% of babies received initial screening prior to discharge!
 - Additional training plus 2 stage inpatient screen reduced the nursery refer rate from 20% to 16%
- Act
 - Adopt – Continue to train additional nurses who are rotated to OB ward every quarter when necessary and continue to monitor the data

Palau Baseline Data from May 1, 2014 to June 30, 2014



8/54 LTFU Never Screened

Palau QI Study Data

October 1, 2014 – December 31, 2014



9/57 DNP Inpatient Screening

9/9 passed their outpatient re-screening

0/57 LTFU Never Screened*

Reduced never screened from 15% to 0%!
Reduced final inpatient refer rate from 20% to 16%!

*Does not include NICU babies that could not be screened

Moving Forward

- Next PDSA cycle?
 - Continue to monitor improvements to assure they stay steady
 - Conduct continuous cycles until initial newborn hearing screening is improved in the nursery and that refer rate is reduced to 2%
- Overall what have you learned from testing this strategy?
 - We learned that due to shortage of nurses, they are rotated to all the wards and that not all of them have been trained to conduct newborn hearing screening. We also learned that it is important for the newborn hearing screening technicians to conduct second hearing screening and that protocols need to be revised to address this issue. Additionally, we also learned that there are systems discrepancy that we needed to address in order for systems to integrate.
- What advice would you give to other states who want to test this strategy?
 - There is no perfect system. By testing this strategy, it helped us identify system gaps and possible solutions to address those gaps.



Thank you!