Learning How to Make the EHDI Connections on Time

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Benchmarks and Quality Indicators

*JCIH (2007)*

- Regular measurement of performance
- Monitoring of measurements
  - Inter-program comparison
  - Continuous quality improvement
- Benchmarks represent the minimal requirements for a high quality EHDI program
Quality Indicators for Screening

- Complete screening by 1 month of age (> 95%)
- Infants who fail screening process (< 4%)
Quality Indicators for Confirmation of Hearing Loss

- For infants who fail the screening process, a comprehensive audiological evaluation is completed by 3 months of age (90%)
- For infants with bilateral hearing loss amplification is received within 1 month of confirmation of hearing loss (95%)
Quality Indicators for Early Intervention

- Confirmed hearing loss eligible for Part C, signed IFSP by 6 months of age (90%)
- Acquired or late-identified hearing loss, signed IFSP within 45 days of diagnosis (95%)
- Confirmed hearing loss, receive first developmental assessment with a standardized test for language, speech, and non-verbal cognitive development by 12 months of age (90%)
Utah Profile

- Annual births: 56,000
- NHS implemented: 1999
- Reporting to DOH: Required
- Tracking System: HiTrack
Utah Performance: Screening
Evaluation Period 2005-2006

Surveys mailed February 2008

Screening Process

• 104,628 screened (98%)
  • Meets indicator

• 732 evaluations recommended (.006%)
  • Meets indicator

• 956 lost to follow-up after inpatient referral (16%)
  • Did not finish screening process
Evaluation of Utah Performance

- Survey: mailed to parents

- Groups:
  - Group 1: Confirmed hearing loss (144)
    - Response rate 27% (n = 34)
  - Group 2: Evaluation in process (246)
    - Response rate 11% (n = 20)
Group 1: Confirmed Hearing Loss  
(n = 34)

- **Age Identified**
  - 21 infants by 3 months of age
    - Meets indicator
  - 13 infants > 3 months of age
Group 1: Confirmed Hearing Loss

Age fit with hearing aids
- 26 fit with hearing aids
  - Average age 9 months
    - Range 2 mo to 30 mo
  - 11 fit within 1 month of diagnosis
- 8 not fit with hearing aids
  - 4 unilateral
  - 1 moved out of state
  - 1 mild bilateral loss
  - 1 passed screening
  - 1 incomplete testing
Group 1: Confirmed Hearing Loss

Entry into Early Intervention

- 9 months average age of entry into early intervention program
  - Range 1 to 30 months
Group 2: Evaluation in Process
(n = 20)

- **Age Identified**
  - 9 infants by 3 months of age
    - Meets indicator
  - 10 infants > 3 months of age
  - 1 did not receive Dx evaluation
Group 2: Evaluation in Process

Age fit with hearing aids

- 7 diagnosed with hearing
  - 4 bilateral
  - 2 unilateral
  - 1 inconclusive
- 3 fit with hearing aids
  - Average age fit = 15 mo
    - 10 months / 12 months / 22 months
    - None meet indicator
Entry into early intervention

- 5 months average age of entry into early intervention program ($n = 6$)
Lessons Learned

• Based on parent comment (Confirmed Hearing Loss):
  • Inadequate information provided to parents
    • Difficulty determining appropriate next steps
  • Many delays in obtaining needed services
  • Inadequate loaner system
  • Inadequate financial support available for services/products needed
  • Inadequate communication among professionals
  • Inconsistent knowledge among professionals on what is needed

• Based on parent report (Evaluation in Process):
  • Inappropriate testing procedures and delays in diagnosis
  • Insufficient locations to obtain testing
  • Insufficient information provided
System Changes to address:

- Did not finish screening process
  - Midwives as screeners
  - Birth Certificate Application Process
  - Fostering Health Children

- Late Confirmation of Hearing status / Delays in Dx
  - New pediatric equipment purchased (TTTNAA)
  - Additional of appointment times for sedated ABR’s

- Late Fitting of Hearing aids (not enough infant and pediatric audiologists?)
  - LEND Audiology Supplement Grant
System Changes to address:

- Late or No Entry in EI
  - Development of PIPTOTS data system through CHARM

- Poor Communication between Providers
  - Grand Rounds (and other) presentations by Chapter Champion
  - Institute Fax Back system between audiologist and Medical Home

- Insufficient information for Parents
  - AAP/NCHAM “Roadmap incorporated into Provider Book
  - New Parent Notebook
  - Direct referral to EI from EHDI

- Statewide Loaner System?
Next Steps

- Results were reported at the annual DOH meeting with the NHS coordinators and audiologists
- A survey of children born in 2007 and the first half of 2008 is being conducted.