Examining Language Outcomes at the National Level

EHDI Conference
March 9, 2009
Presenters

Allison Sedey, University of Colorado-Boulder
Allison.Sedey@colorado.edu

Elizabeth Seeliger, Wisconsin Sound Beginnings
Elizabeth.Seeliger@dhs.wi.gov
Additional Authors

• Christine Yoshinaga-Itano, University of Colorado-Boulder
  • Christie.Yoshi@colorado.edu
• Barbara Schrag, Arizona State Schools for the Deaf and the Blind
  • BSchrag@asdb.state.az.us
• Kathryn Kreimeyer, University of Arizona
  • kreimeye@email.arizona.edu
Today’s Topics

- Describe a CDC-supported national outcomes database project
  - Project goals
  - Benefits of participation
  - Eligible participants
  - Description of assessment protocol
- Share experiences of participating states
- Present initial data
Project Goals

• Support states in assessing outcomes
• Assist states in using results to inform intervention
• Examine feasibility of a national outcomes database
• Determine program, child, and family characteristics related to successful outcomes
Services Provided by Colorado

- Assessments scored
- Profile sheet created
- Written report of results
- Comparison of scores to hearing and deaf/hoh norms
- Database creation and maintenance
- Annual accountability report characterizing state’s performance (including subgroups)
Benefits for Children and Families

- Includes parent input in assessment process
- Measures skills across variety of areas
- Identifies potential delays in a timely fashion
- Objectively monitors progress over time
- Compares performance to hearing children
- Compares performance to d/hoh children
Benefits for Children and Families

• Assists in IFSP/IEP goal development
• Provides data-driven approach to educational programming decisions
• Contributes toward a seamless transition to Part B
Benefits for Programs

• Provides statewide and program-specific accountability data
• Examines outcomes in subgroups of children
• Informs personnel preparation needs and areas for program improvement
• Provides networking opportunities with other states
Benefits to All

- Contribution to a national database
  - Improve our understanding of language strengths and limitations of children with hearing loss
  - Identify factors that are predictive of more successful language outcomes
Eligible Participants

- Ages 3 months to 4 years
- Unilateral or bilateral loss
- Conductive, sensori-neural, or mixed
- Any degree of permanent hearing loss from mild to profound
- Multiple disabilities or hearing loss only
- English or Spanish as language of the home
Assessment Components

- Demographic form
- Release of audiologic information
- Minnesota Child Development Inventory
- MacArthur-Bates Communicative Development Inventories
- Additional assessments on request (e.g., play, listening skills, speech intelligibility, etc.)
Minnesota Child Development Inventory (1992)

- Multiple areas assessed
  - Language, Motor, Social, Self Help, Pre-Literacy
- Parent-report instrument
- Scales adapted to reflect abilities in both spoken and sign language
- Normed on hearing children
- Colorado norms available for d/hoh children
MacArthur-Bates Communicative Development Inventories

- Assesses spoken and sign vocabulary
  - Expressive and receptive for younger children
  - Expressive vocabulary for older children
- Parent-report instrument
- Normed on hearing children
- Colorado norms available for d/hoh children
Participating States

- 5 states are currently completing assessments
- 2 states have committed to participating and have developed an action plan
- 8 states have expressed a strong interest in participating
Flexibility of the Process

- Option to use one or both assessment tools
- Inclusion of state’s own instruments
- Inclusion of additional Colorado assessments
- Timing of assessment administration
- Number of times child is assessed
Implementation Challenges Reported by States

- Some parents need assistance with forms
  - Can be time consuming for providers
  - Particularly time consuming with illiterate families
  - But opportunity to teach about development and improve observation skills
- May be perceived as “extra work”
  - Critical to train providers in the value of assessment and use of assessment as part of the intervention process (not a separate “extra” activity)
Implementation Challenges Reported by States

• Training on assessments for providers often needed
• Obtaining and coordinating Human Subjects research approval
• Finding funding ($50 fee per assessment – negotiable depending on services provided)
Wisconsin’s Experience

Partnership’s
  • UC – Colorado at Boulder
  • University Center of Excellence – Waisman Center
  • Wisconsin Department of Health Services
  • Wisconsin Department of Public Instruction

Procedures
  • IRB
  • Tool selection
  • Evaluation: Child, program and interventionist
Initial Data Collection

- 5 states have completed assessments
  - Arizona
  - Idaho
  - New Mexico
  - Utah
  - Wyoming
Assessments Completed

• 72 children assessed
• Each assessed 1 to 4 times
• 137 assessments completed

• Excluded children with other significant disabilities in data analysis (6 assessments)
Determining Language Quotient

Language Age/Chronological Age x 100

- If LQ = 100, Language Age = CA
- If LQ < 100, Language Age < CA
- If LQ > 100, Language Age > CA

LQs of 80+ are within the normal range compared to hearing children
Kent Communication Subscale: Median Language Quotients
Minnesota CDI: Median Language Quotients

![Bar chart showing median language quotients in different states. The x-axis represents states (1 to 5) and the y-axis represents language quotient. The chart shows the comparison between expected language (Exp Lang) and language composition (Lang Comp).]
Minnesota CDI: Percent in Average Range, Borderline and Delayed

- **Average Range**
  - Exp. Lang: 70%
  - Lang Comp: 60%

- **Borderline**
  - Exp. Lang: 10%
  - Lang Comp: 15%

- **Delayed**
  - Exp. Lang: 5%
  - Lang Comp: 20%
MacArthur Expressive Vocabulary: Median Language Quotients
MacArthur: Percent in Average Range, Borderline and Delayed

- Average Range: 50%
- Borderline: 20%
- Delayed: 30%
For Additional Information

For additional information about the project and/or to inquire about joining this effort contact:

Allison Sedey
Allison.Sedey@colorado.edu
303: 492-0078