

Meeting the EHDI Challenge: Strategies for Accurate Reporting

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- This presentation will (not) include discussion of pharmaceuticals or devices that have not been approved by the FDA or if you will be discussing unapproved or "off-label" uses of pharmaceuticals or devices.

Reporting: Are we on the same page?

	Screening			Diagnostics				Intervention		
	Total Occurrent	Pass Before 1 Month of Age	Not Pass Before 1 Month of Age	Not Pass After 1 month but Before 3 Months of Age	Normal Hearing Before 3 Months of Age	Normal Hearing After 3 Months but Before 6 Months of Age	Hearing Loss ID* Before 3 Months	Hearing Loss ID* After 3 Months but Before 6 Months of Age	Enrolled in Part C EI* Before 6 Months of Age	Enrolled in <u>non</u> -Part C EI* Before 6 Months of Age
Maternal Ethnicity	2005 Intervention Data (Occurrent Births)									
Hispanic or Latino						Data Item				
Not Hispanic or Latino						Value				
Unknown						<i>Total Cases Hearing Loss (from Diagnostic section)</i>				
Maternal Race*	<i>Referrals to Part C Early Intervention (EI)</i>									
White						<i>Total Referrals to Part C EI</i>				
Black or African American						Eligible for Part C EI				
Asian						Not Eligible for Part C EI				
Native Hawaiians & other Pacific Islanders						Eligibility Unknown				
American & Alaska Natives						<i>Total Not Referred to Part C EI and Unknown</i>				
Other						<i>Total Referred, Not Referred, and Unknown (automatically calculated)*</i>				
						<i>Enrolled in Part C Early Intervention (EI)</i>				
						<i>No Diagnosis / Undetermined</i>				
						<i>Part C EI</i>				
						<i>of Age</i>				
						<i>of Age</i>				
						<i>of Age</i>				
						<i>known</i>				
						<i>Unknown</i>				
						<i>Unable to Contact / Unresponsive / Unknown</i>				

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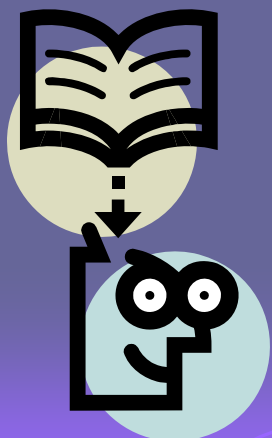
Outline



- RIHAP Data Collection
- Defining Data Elements
- Reporting Strategies
- Questions

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RIHAP Data Collection



- Record Creation
 - Screening Protocols
 - Newborn Data Collection
- RITRACK Evolution
 - Summary Data
 - Detail Data
- Data Systems Integration

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Screening Protocols

- Well-Baby
 - OAE -> Redo OAE -> AABR -> Rescreen
- NICU
 - OAE -> AABR -> DxABR
- AABR
 - AABR -> OAE -> DxABR



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Newborn Data Collection

R₁HAP Rhode Island Hearing Assessment Program

Women & Infants Hospital of Rhode Island
 101 Dudley Street
 Providence, Rhode Island 02905-1400
 Fax # (401) 277-3700
 TTY # (401) 277-3701

SOUND SCREENING

Child's Name: _____ Sex: _____ Screened: _____
 Initial? _____
 Medical Record #: _____ Bed? _____
 Rescreen? _____
 Date of Test: _____ Consent? _____
 Time of birth: _____ am / pm Date of birth: ____/____/____

Private Pediatrician

Mother's name: _____
 Mother's Med. Rec. #: _____
 Baby's first name: _____
 Telephone: _____
 Address: _____

Comments: _____ Gest. Age: _____
 _____ Time screen begun: _____ Time screen completed: _____

Risk Factors 1994 JCIH IF APPLICABLE

<input type="checkbox"/> Family hx of congenital loss	<input type="checkbox"/> congenital infection
<input type="checkbox"/> <1500 grams birthweight	<input type="checkbox"/> cranio-facial anomaly
<input type="checkbox"/> bacterial meningitis	<input type="checkbox"/> mechanical vent > 5 days
<input type="checkbox"/> multiple courses ototoxic meds	<input type="checkbox"/> appar 0-4 hrs or 0-6hrs
<input type="checkbox"/> syndrome associated with SE	<input type="checkbox"/> risk tags
<input type="checkbox"/> exchange for hyperbilirubinemia	<input type="checkbox"/> other

GM Screen Results ABR Screen Results Audiologist

right	left	right	left	Recommendation:
_____	_____	_____	_____	Rescreen (R)
_____	_____	_____	_____	Rescreen
_____	_____	_____	_____	Res. V/A (A)
_____	_____	_____	_____	Inc. VWA(I)
_____	_____	_____	_____	Monitor V/A
_____	_____	_____	_____	DN ABR (A)

Audiologist Signature: _____ Date Entry: _____ Date: _____

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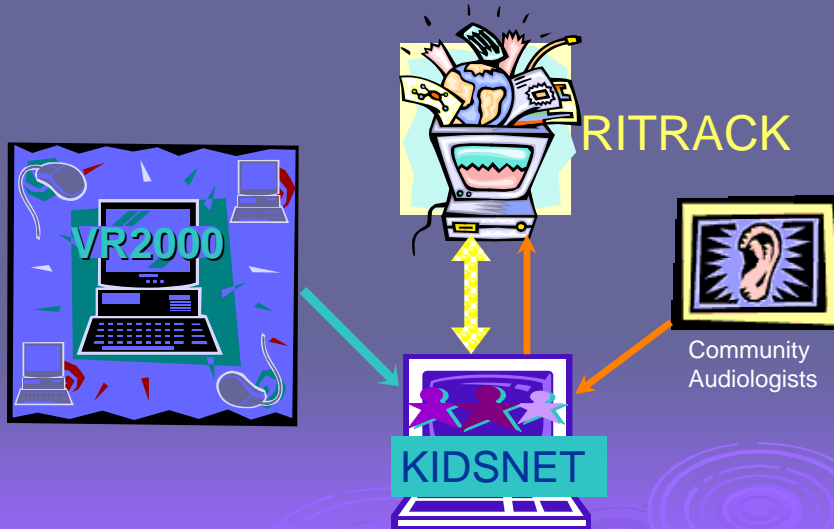
Risk Factors

- ⦿ Based on JCIH Recommendations
- ⦿ Position Statement
 - ⦿ 1994
 - ⦿ 2000
 - ⦿ In Process - 2007



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Data Systems Integration

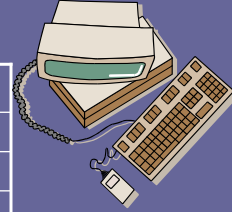


RITRACK Evolution

- 1993 Original RITRACK
 - Summary Data Capture
- 2002-2003 RITRACK Re-Design
- 2004 New RITRACK
 - Detail Data Capture



Summary Data System



January						
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



22 - Still in Hospital

23 - Inpatient Screening, OAE Only

24 - Inpatient Screening, AABR Only, Audiological Recommendation Assigned

31 - Outpatient Rescreen Completed

Detail Data System



January						
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
		30	31			



22 - Still in Hospital

23 - Inpatient Screening, OAE Only

24 - Inpatient Screening, AABR Only, Audiological Recommendation Assigned

31 - Outpatient Rescreen Completed

Screening Result Calculation (SRC) and Audiological Recommendations for Follow Up

SRC	Audiological Recommendation	Other Factors
Pass	None	None
	Medical Monitoring	Risk Factors
Refer	Rescreen	Protocol and Nursery
	DxABR	
Incomplete	Outpatient Initial	Protocol and Nursery
Invalid	Outpatient Initial	None
N/A	** Review of Coding for Possible Error**	None

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Defining Data Elements

- Follow Up Rates
- Refer Rates
- Date of Birth



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Follow Up Rates Outpatient Initial Screen

Data Items Required

- 1) Flag for Recommendation for Outpatient Screening
- 2) Flag for Initial Screen Event
- 3) Date of Event
- 4) Screening Result (SRC)= Not Null for Initial Screen



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Screen Shot of Data Capture

Calculated Summary Information			
Child Summary	Risk Factors	Initial Screen	Rescreen
Date	01/03/04	Facility	01 -- WOMEN & INF
Language	ENGLISH	Interpreter	<input type="checkbox"/>
			<input type="checkbox"/> Outpatient
			<input type="checkbox"/> Re-admit
			<input type="checkbox"/> NICU Protocol
	Ear	Screener ID	Results
TEOAE	Right	002 -- LOMBARDI, L.P.N.	3 -- FAIL
	Left	002 -- LOMBARDI, L.P.N.	1 -- PASS

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Follow Up Rates Rescreen

Data Items Required

- 1) Flag for Recommendation for Rescreen
- 2) Flag for Rescreen Event
- 3) Date of Event
- 4) Screening Result (SRC)= Not Null for Rescreen Event



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Follow Up Rates Diagnostic Testing Follow Up

Data Items Required

- 1) Flag for Recommendation of Diagnostic Testing
- 2) Flag for Diagnostic Event
- 3) Date of Event
- 4) Outcome** or Hearing Loss Diagnosis Information



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Follow Up Rates

Diagnostic Testing Follow Up for Confirmatory Diagnosis of Hearing Loss

Data Items Required

- 1) Flag for Recommendation of Diagnostic Testing
- 2) Flag for Diagnostic Event
- 3) Date of Event
- 4) Hearing Loss Diagnosis Information that equals a Confirmed HL (SNL, Conductive, AN, Mixed)



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Refer Rates

Inpatient Refer Rate By Age At Screening

Data Items Required

- 1) Flag for Inpatient Screening
- 2) Date of Event
- 3) Screening Result (SRC)= Refer/Fail/Did Not Pass



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Refer Rates Rescreen Refer Rate

Data Items Required

- 1) Flag for Recommendation for Rescreen
- 2) Flag for Rescreen Event
- 3) Date of Event
- 4) Screening Result (SRC)= Refer/Fail/Did Not Pass



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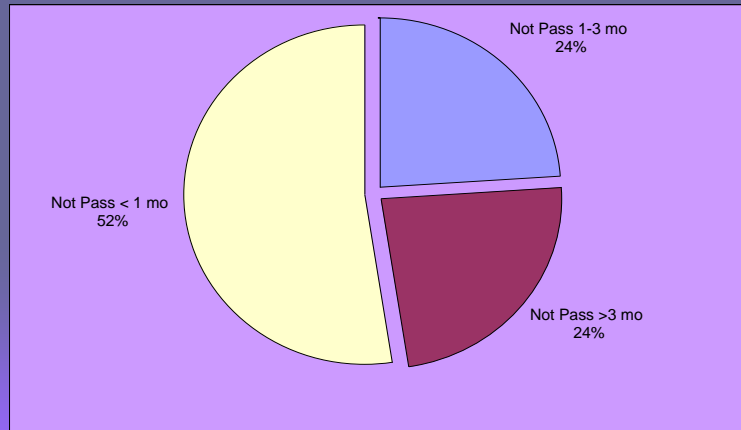
Date of Birth



- ⚙️ When to use Adjusted DOB?
- ⚙️ When to use Actual DOB?

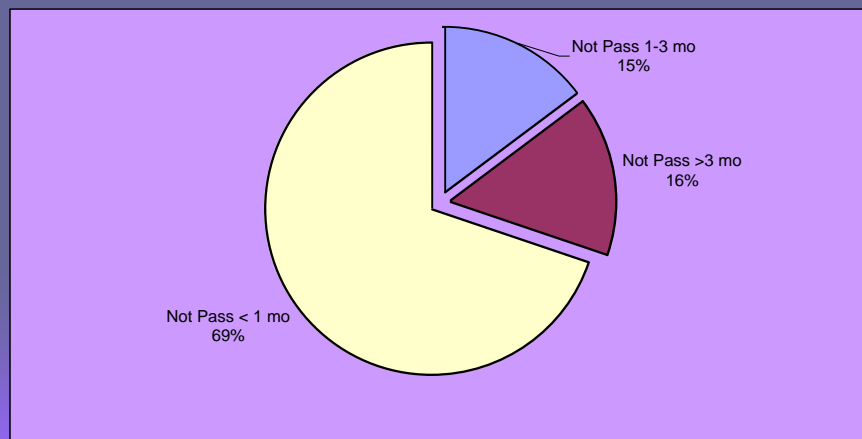
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Age at Non-Pass Screening Result (Based on Actual DOB for 122 infants)



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Age at Non-Pass Screening Result (Based on Adjusted DOB for 122 infants)



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Additional Reporting Strategies

- Data from multiple sources
 - Vital Records
 - Hospital Data
- Analyze results from multiple perspectives
 - Audiological Recommendation
 - Screening Result Calculation
- Diagram approach to Identify Outliers

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Diagram Approach for Hearing Screen Data

Example: DOB October – December 2006

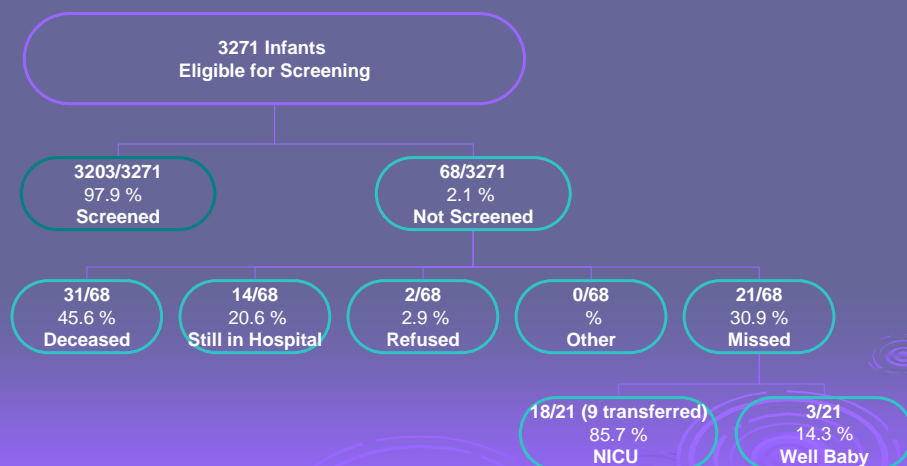
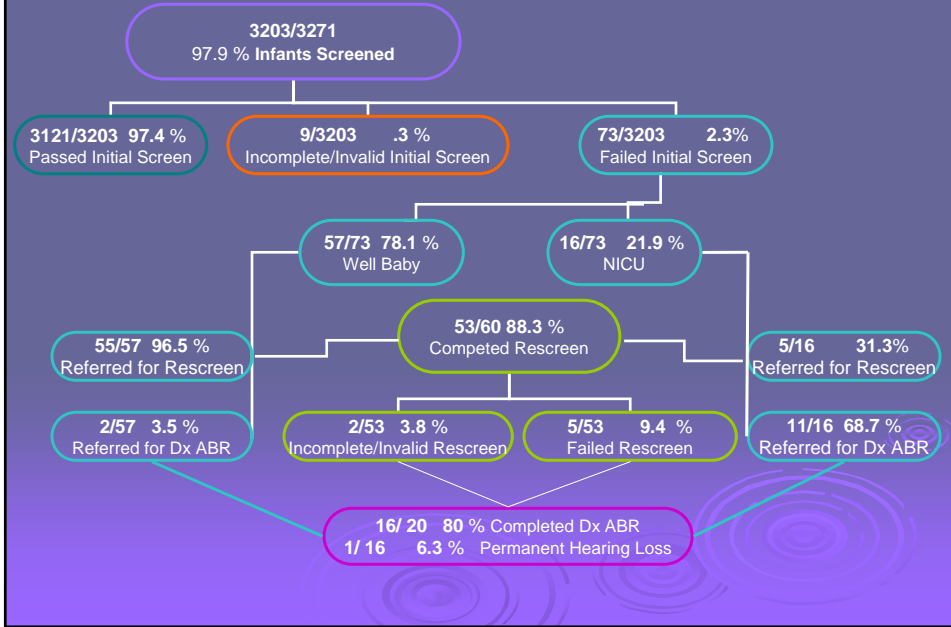


Diagram Approach for Hearing Screen Data

Example: DOB October – December 2006



DSHPSHWA

	Screening			Diagnostics				Intervention		
	Total Occurrent	Pass Before 1 Month of Age	Not Pass Before 1 Month of Age	Not Pass After 1 month but Before 3 Months of Age	Normal Hearing Before 3 Months of Age	Normal Hearing After 3 Months but Before 6 Months of Age	Hearing Loss ID* Before 3 Months	Hearing Loss ID* After 3 Months but Before 6 Months of Age	Enrolled in Part C EI* Before 6 Months of Age	Enrolled in non-Part C EI* Before 6 Months of Age
Maternal Ethnicity										
Hispanic or Latino										
Not Hispanic or Latino										
Unknown										
Maternal Race*										
White										
Black or African American										
Asian										
Native Hawaiians & other Pacific Islanders										
American Indian & Alaska Natives										
Unknown										
Other										

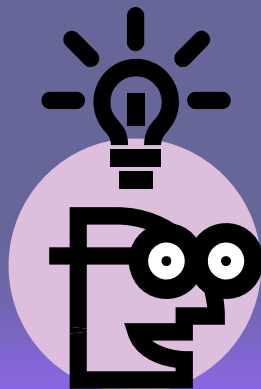
2005 Intervention Data (Occurrent Births)	
Data Item	Value
Total Cases Hearing Loss (from Diagnostic section)	
Referrals to Part C Early Intervention (EI)	
Total Referrals to Part C EI	
Eligible for Part C EI	
Not Eligible for Part C EI	
Eligibility Unknown	
Total Not Referred to Part C EI and Unknown	
Total Referred, Not Referred, and Unknown (automatically calculated)*	
Enrolled in Part C Early Intervention (EI)	
No Diagnosis / Undetermined	Part C EI
Total with No Diagnosis	of Age
Audiologic Diagnosis in Process (Awaiting Diagnosis)	of Age
Infant Died / Parents Declined Services	known
Non-resident or Moved Out of Jurisdiction	
Unable to Contact / Unresponsive / Unknown	

Some DSHPHWA Challenges

- Late onset: Passed screen ->Normal Hearing, presents for Diagnostic Testing at Later Date
- Intervention/Part C: What is the working definition of a *non*-Part C EI Program?
- Race/Ethnicity and its impact on reporting

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Questions



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