
Increasing Data Quality and Program Evaluation Capacity

EHDI Conference

February 21, 2011

Kristen Becker, Research Analyst

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Objectives

- Show participants ways to:
 - Utilize a data quality coordinator and/or program evaluator within an EHDI Program
 - Develop an EHDI evaluation plan
 - Assess data quality and make recommendations based on data
 - Integrate data from two hearing screening data systems during a transition period



Background

- EHDI “Extreme Home Makeover” increased data and tracking capabilities. Two additional staff members were added to the team to increase data and evaluation capacity.

Kristen Becker,
Research Analyst

Meuy Swafford,
Data Quality Coordinator

Helen Cotton-Leiser,
Parent Coordinator

Ben Spencer,
Administration Specialist

Claudia Bingham,
Program Unit
Manager

Bridget Roemmich,
EHDI Program
Coordinator

Julie Hass,
Follow-up Specialist

Data Quality Coordinator & Evaluator Roles

Data Quality Coordinator

- Implement data management activities
- Assist in system developments
- Develop reports/queries

- Data quality control
- Updates to advisory board
- CDC reports
- Data driven recommendations

Evaluator

- Refine and track evaluation plan
- Link with Assessment and Evaluation Unit
- Assist with grant applications and reports
- Monitor implementation and trainings

Data Management Activities

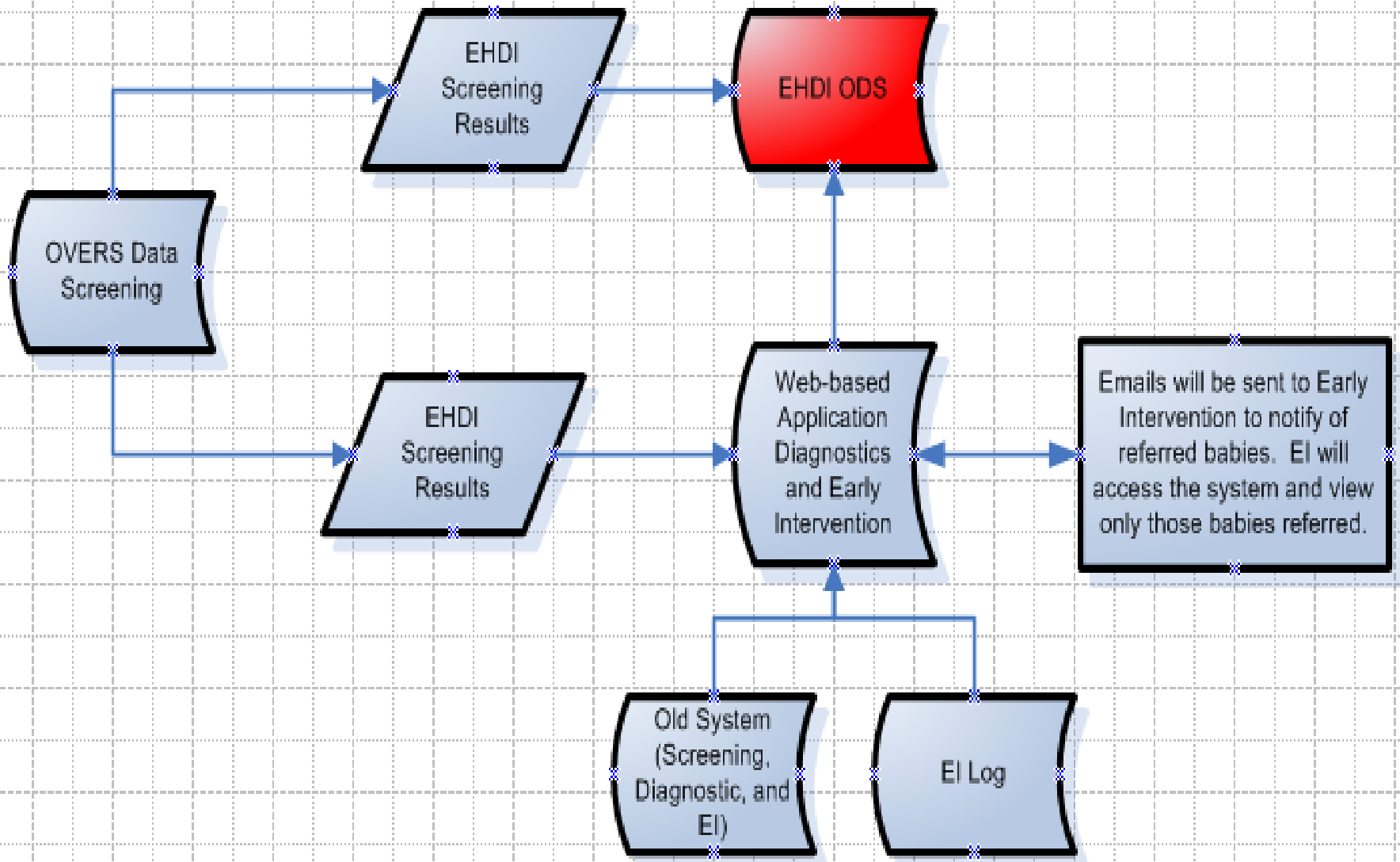
- Data quality assessments
 - Identify problems and solutions for each milestone
- Data quality checks
 - Monitor data for consistency
 - Assure accuracy
 - Validate through Unit and Regression Testing
- Data dictionary

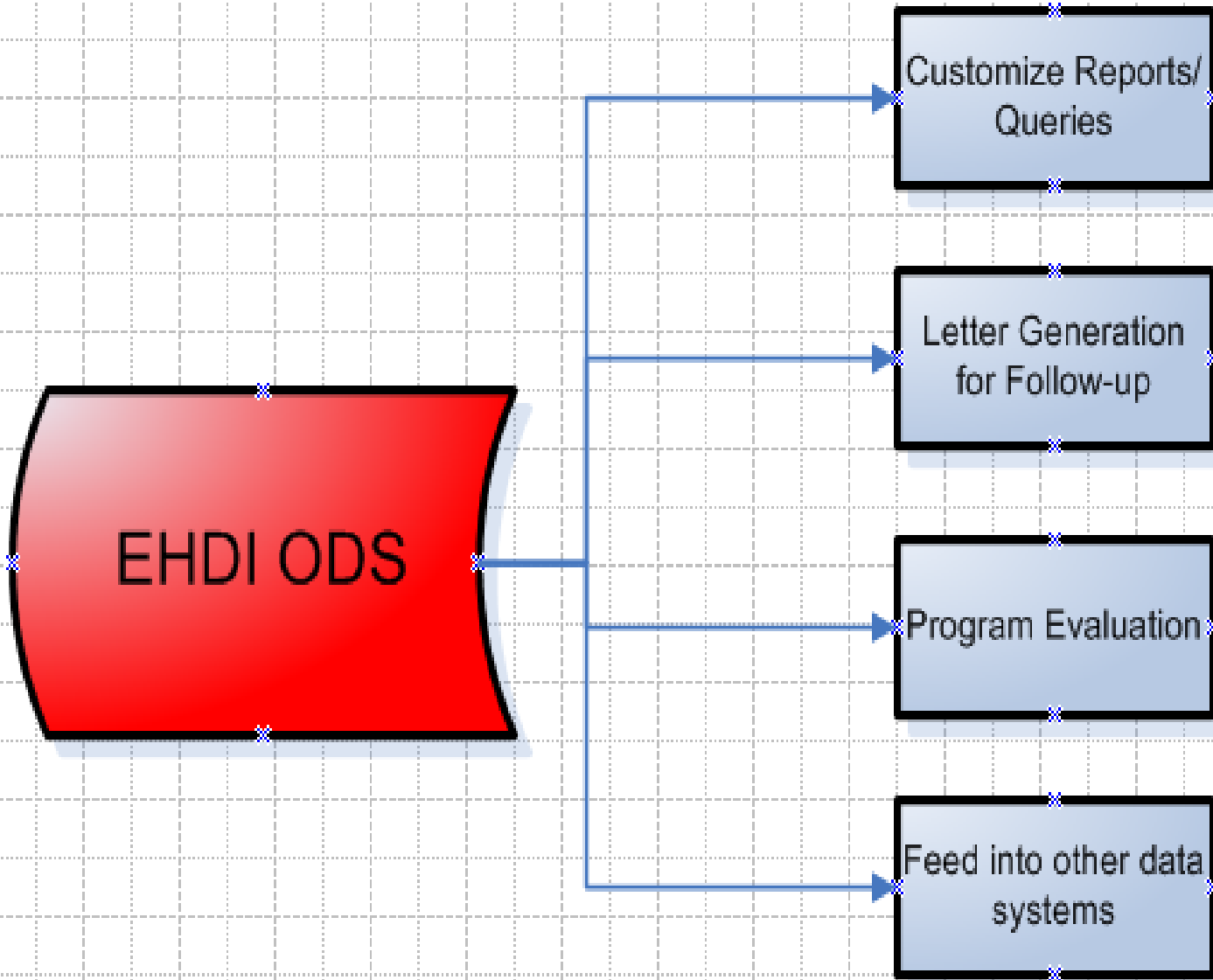


Integrating systems

- Benefits
 - Data warehouse
 - Historical data, supports decisions
 - Operation data stores (ODS)
 - Near real time data
 - Integrate data from multiple data systems
 - Link data for 1,3, and 6 milestone
- Challenges
 - Cross-system consistency
 - Duplicated client data
 - Unable to link data between systems







Customize Reports/Queries

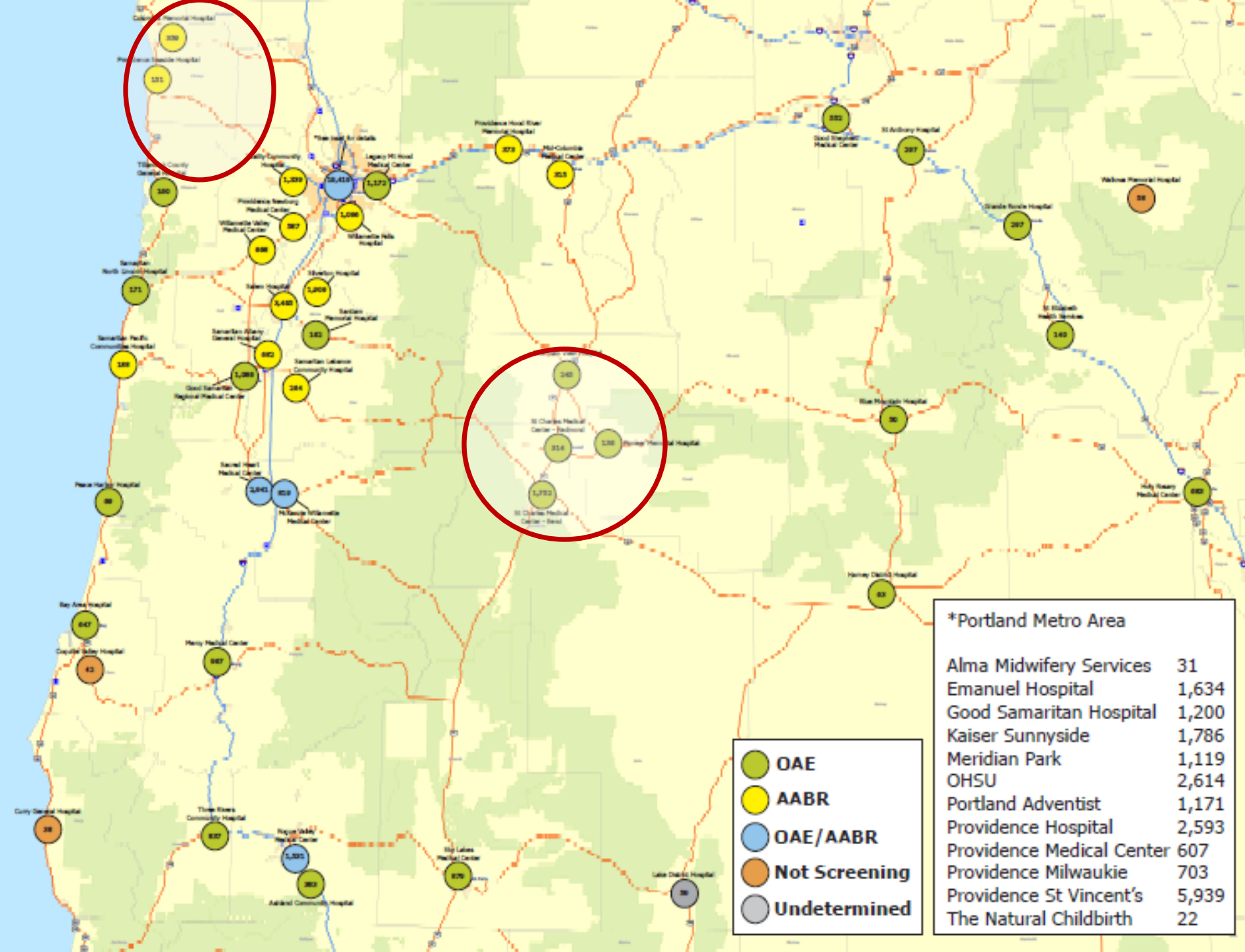
- State
 - CDC Survey
 - Scorecard
- Hospital
 - Screening rates
 - Diagnostic follow-up/loss to follow-up rates
 - Summary reports
 - Time: Max, Min, and average time completion for each milestone.



Loss to Follow-up Report

- Birth Facility/Geographical Region
- Placement of Diagnostic Equipments

Follow-up Report							Birth Date Range From: 7/1/2009 To: 12/31/2009	
Name	Medical ID	DOB	Inpatient	Outpatient	DX	DX Test Facility	# of Days between Scrn to DX	
Medical Center ~265								
		07/08/2009	07/09/2009	07/27/2009	09/17/2009		52	
		07/14/2009	07/15/2009	09/02/2009			0	
		07/14/2009	07/15/2009				0	
		07/16/2009	07/18/2009				0	
		07/17/2009	07/20/2009	08/18/2009	11/06/2009		80	
		07/20/2009					0	
		07/30/2009	07/31/2009				0	
		07/31/2009	08/01/2009	09/17/2009	09/17/2009		0	
		08/03/2009					0	
		08/08/2009	08/11/2009				0	
		08/14/2009	08/14/2009				0	
		08/23/2009	08/24/2009		09/22/2009		29	



***Portland Metro Area**

Alma Midwifery Services	31
Emanuel Hospital	1,634
Good Samaritan Hospital	1,200
Kaiser Sunnyside	1,786
Meridian Park	1,119
OHSU	2,614
Portland Adventist	1,171
Providence Hospital	2,593
Providence Medical Center	607
Providence Milwaukie	703
Providence St Vincent's	5,939
The Natural Childbirth	22

- OAE
- AABR
- OAE/AABR
- Not Screening
- Undetermined

Hospital Summary Report

- Aggregate data
- Numbers and percentages

OVERS Hospital Summary Report - Goals Met
Birth Date From: 7/1/2010 To: 12/31/2010
Birth Facility: [REDACTED]

Summary - Goals Met

Total Screened:	2804	Total Clients:	2873	Total Not Screened:	69	2%
Pass:	2760	98%		Transferred:	0	0%
Refer:	44	98%		No Info.:	58	84%
Screened by 1M:	2784	2%		Missed:	8	12%
		99%		Refused:	1	1%
				Unable to Test:	2	3%

Goals: Screened by 1 Month

2007 JCIH Position Statement - 95%
CDC National Goals - 98%
State Goal by 2015 - 100%

Letter Module

- Individual/massing mailing
- Track follow-up activities
 - Out-of-hospital births (OOH)
 - “Referred” for further audiological evaluation

Referral Letter

OOH Home Search

CaseID	[REDACTED]	Test Date	1/2/2010
DOB	1/1/2010	Right	Pass
ClientName	[REDACTED]	Left	Refer
MotherName	[REDACTED]	Living	Y
HomeAddress	[REDACTED]		
CityStateZip	Happy Valley, OR 97086		
Screening ID	195		
Screening Status	Inpatient		

Print Date	Letter Type	Notes	TimeStamp
11/19/2010	Parent Diagnostic		11/19/2010 3:00:21 PM

Data Quality Coordinator & Evaluator Roles

Data Quality Coordinator

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- Assist in system developments
- Develop reports/queries

- Data quality control
- Updates to advisory board
- CDC reports
- Data driven recommendations

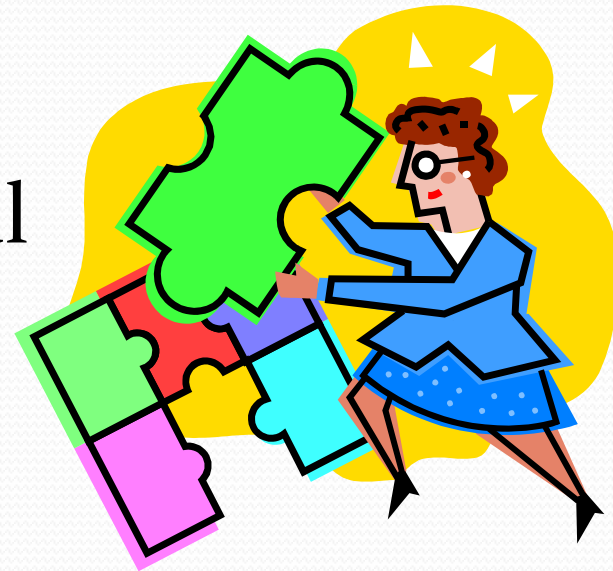
Evaluator

- Evaluation plan
- Link with Assessment and Evaluation Unit
- Assist with grant applications and reports
- Monitor implementation and trainings

Evaluator Role:

Refine and track evaluation plan

- Staff person dedicated to evaluation plan
 - Developing and Refining
 - Tracking
 - Reporting: Formal & Informal



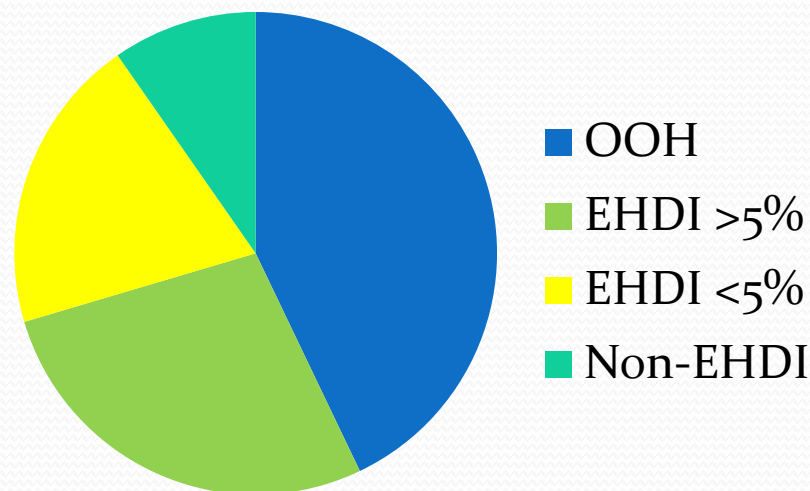
Process Measure(s)	Grant Target(s)	Data to Collect	Data Collection Methods/Source	Frequency of Reporting/Notes
1. The EI status for all infants with a diagnosed hearing loss.	100% of infants with a hearing loss will have a known EI status by 2012. (HRSA)	For all infants with a diagnosed hearing loss: EI status- enrolled, not enrolled, or LFU. If not enrolled, reason not enrolled.	-Audiology assessments -EI referral and enrollment data	Monthly
2. The number and type of LFU cases between the hearing screening and the audiology assessment.		For all infants with a failed hearing screening: track their geographic location and reason for the lack of assessment.	-Screening data -Audiology assessments	Monthly
3. The number and type of LFU cases between the audiology assessment and EI enrollment.		For all infants with a diagnosed hearing loss: track their EI status (see above), their geographic location and the reason for the lack of EI enrollment.	-Audiology assessments -EI referral and enrollment data	Monthly
4. The ongoing success rate for each follow-up method.		Develop a list of follow-up methods. Track the success rate of each method on a monthly basis (% of follow-ups that result in the recommended action being taken).	Tracking log for each follow-up method. Audiology assessments and EI records.	Monthly
5. The average length of time for completion of each milestone (screening, assessment, and enrollment) among cases in which these milestones are completed.		For all infants who were screened- what is the average length of time between birth and screening? For all infants who received a diagnostic assessment, what is the average length of time between screening and assessment? For all infants who enroll in EI, what is the average length of time between assessment and enrollment?	-Screening, assessment, and enrollment data	

Evaluator Role: Evaluation plan reports

774 births with no screening information:

- 332 from out-of-hospital births
- 213 from EHDI hospitals with >5% LFU
- 154 from EHDI hospitals with <5% LFU
- 75 from volunteer and non-mandated screening hospitals

LFU Births



Evaluator Role:

Link to Assmt. and Evaluation Unit

- Evaluator works within a larger “Assessment and Evaluation” Unit
- Collaboration around evaluation methods and strategies
- Connections with Vital Stats and PRAMS staff
- Connections with other MCH programs



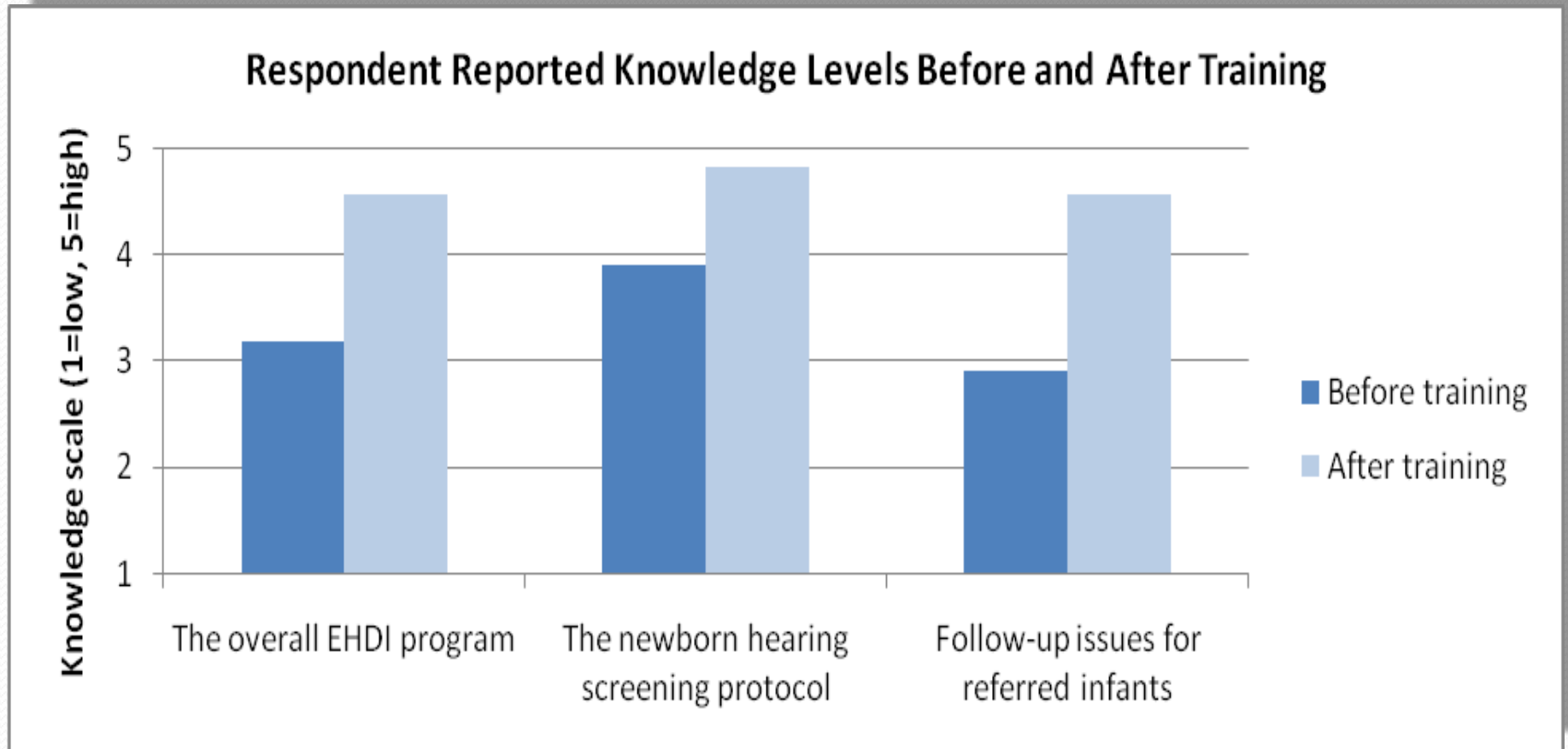
Evaluator Role: Assist with Grants

- Refine evaluation plans for specific grants
- Write evaluation section of grant application (15% of upcoming CDC grant)
- Write evaluation section of grant reports



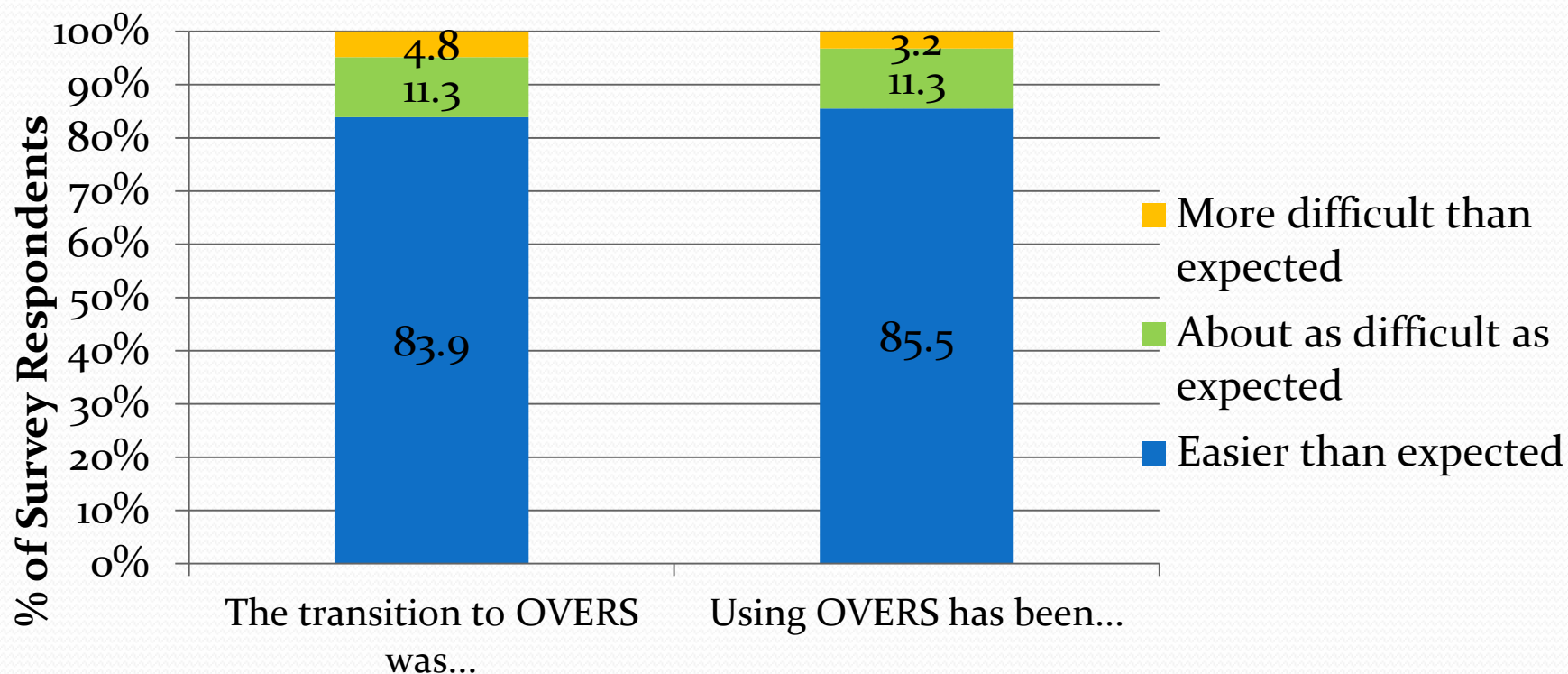
Evaluator Role: Monitor Implementation and Trainings

- Survey training participants for knowledge gains



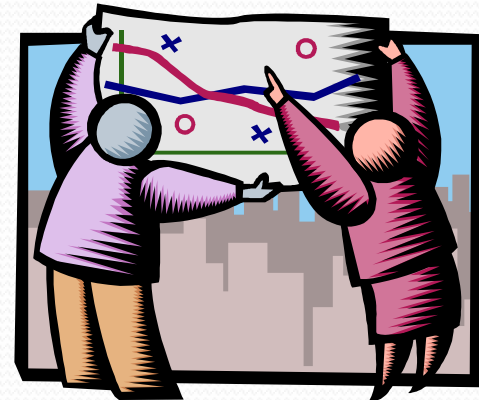
Evaluator Role: Monitor Implementation and Trainings

- Monitor transition to new screening and audiology reporting system



Data/Evaluation Team: Shared Roles

- Quality control: Checks and balances
- CDC reporting
- Updates to advisory board
- Data-driven recommendations



Data/Evaluation Team:

Data-driven recommendations

1. Increase focus on OOH births and follow-up methods
2. Increased focus on clarity and follow-up for diagnostic assessments
3. Electronic Early Intervention referrals

Both a data coordinator and an evaluator can be useful in an EHDI program!



Thank You!

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