

OZ Systems

Making good decisions for children
using our innovative technological
solutions.

Drum roll please!

And some prizes

OZ Systems

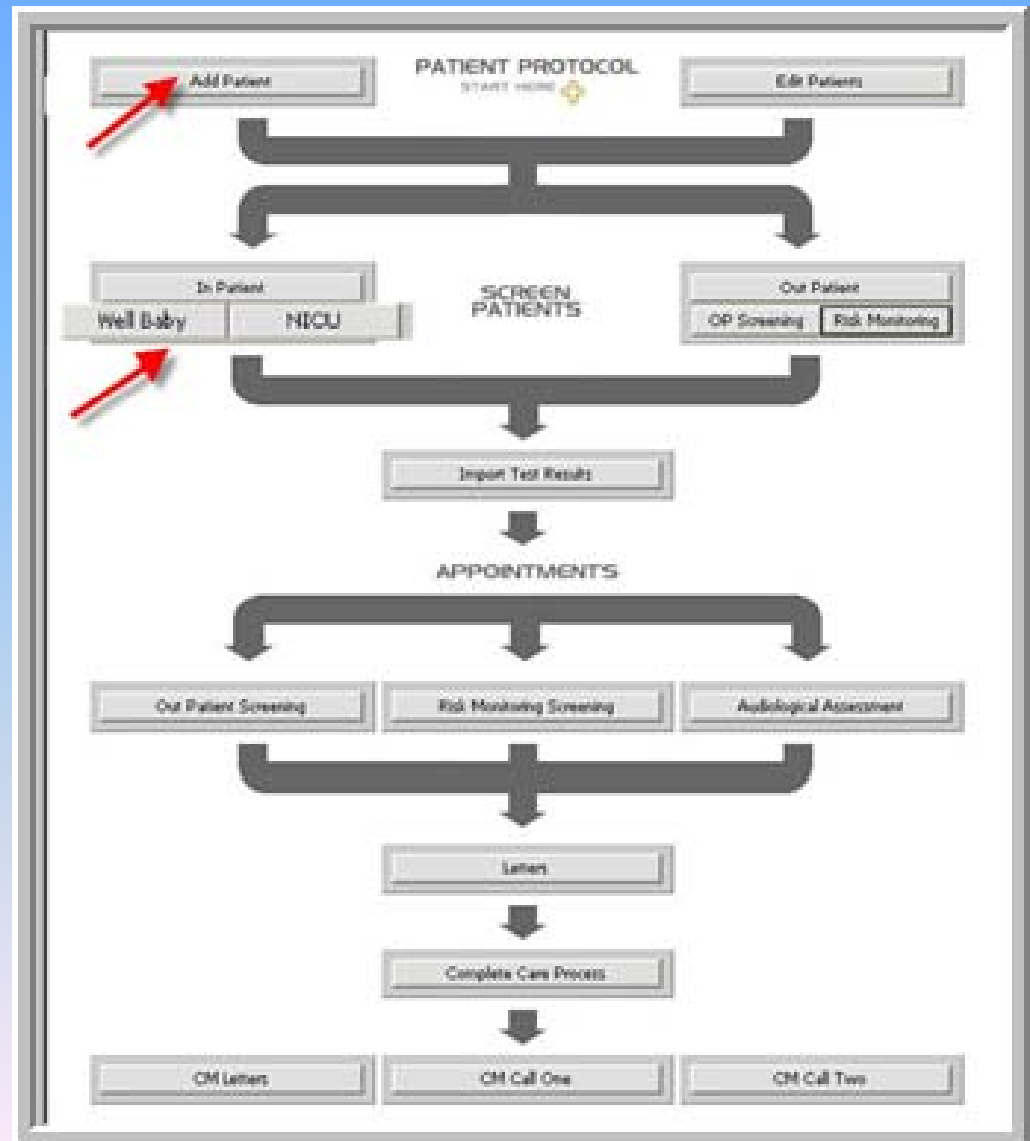


eSP™ for State EHDI

Capacity Building through Verifiable Data

Verifiable Data with OZ eSP™

Daily Screening Protocol



Verifiable Data with OZ eSP™

An individual child hearing record per CDC

Patient: California, Susan (Female) [Edit Patient](#)
Medicaid No.: NA **Medical Record No.:** 12345678

Demographics: Date of Birth: 04/24/2008 Place of Birth: Biggest & Best Birth Facility GA: 37 Birth Weight: 2980	Location: <input checked="" type="radio"/> Inpatient <input type="radio"/> Outpatient Discharge Date: <input type="text"/>	Core Risks Cranio-facial anomalies Y Exchange transfusion for elevated bilirubin U Family hx of hearing loss U NICU > 48 hours U Other Risks (0)
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Primary Contact Details: [View/Add Contacts \(0\)](#)
Ms. Sarah California (Mother) Phone: no phone data
 12345 Cal Way Language: English
 Apt. No. 1
 Dallas, TX 75225

Last Case Note: [View/Add Case Notes \(0\)](#)
 no note available

Patient Summary: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Patient Outcome</td><td>In Process</td></tr> <tr><td>Consent</td><td>Screen Only</td></tr> <tr><td>Nursery</td><td>Well Baby</td></tr> </table>	Patient Outcome	In Process	Consent	Screen Only	Nursery	Well Baby	Screening Summary: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td></td><td style="text-align: center;">Right</td><td style="text-align: center;">Left</td></tr> <tr><td style="text-align: center;">OAE</td><td style="text-align: center;">ND</td><td style="text-align: center;">ND</td></tr> <tr><td style="text-align: center;">AABR</td><td style="text-align: center;">Pass</td><td style="text-align: center;">Pass</td></tr> </table>		Right	Left	OAE	ND	ND	AABR	Pass	Pass	Tasks: <div style="background-color: #f08080; padding: 2px; text-align: center;">Letters To Produce</div> <div style="background-color: #f08080; padding: 2px; text-align: center;">Appointments Required</div> <div style="background-color: #f08080; padding: 2px; text-align: center;">Contact Info Required but not Present</div>
Patient Outcome	In Process																
Consent	Screen Only																
Nursery	Well Baby																
	Right	Left															
OAE	ND	ND															
AABR	Pass	Pass															

Patient Professional Contacts:

	Name	Service Type	Phone
View	Remove	Biggest & Best Birth Facility	Birth Screen Provider
Add Professional Contact			

eSP™ EHDI for verifiable data

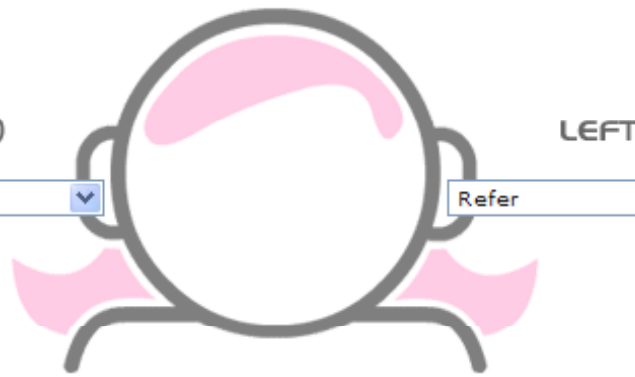
Child Information quick links: select a page

Enter test results data:

Patient: Sample, Patient (Female) 📄
Birth Cert. ID: NA **Medical Record No.:** 123456789

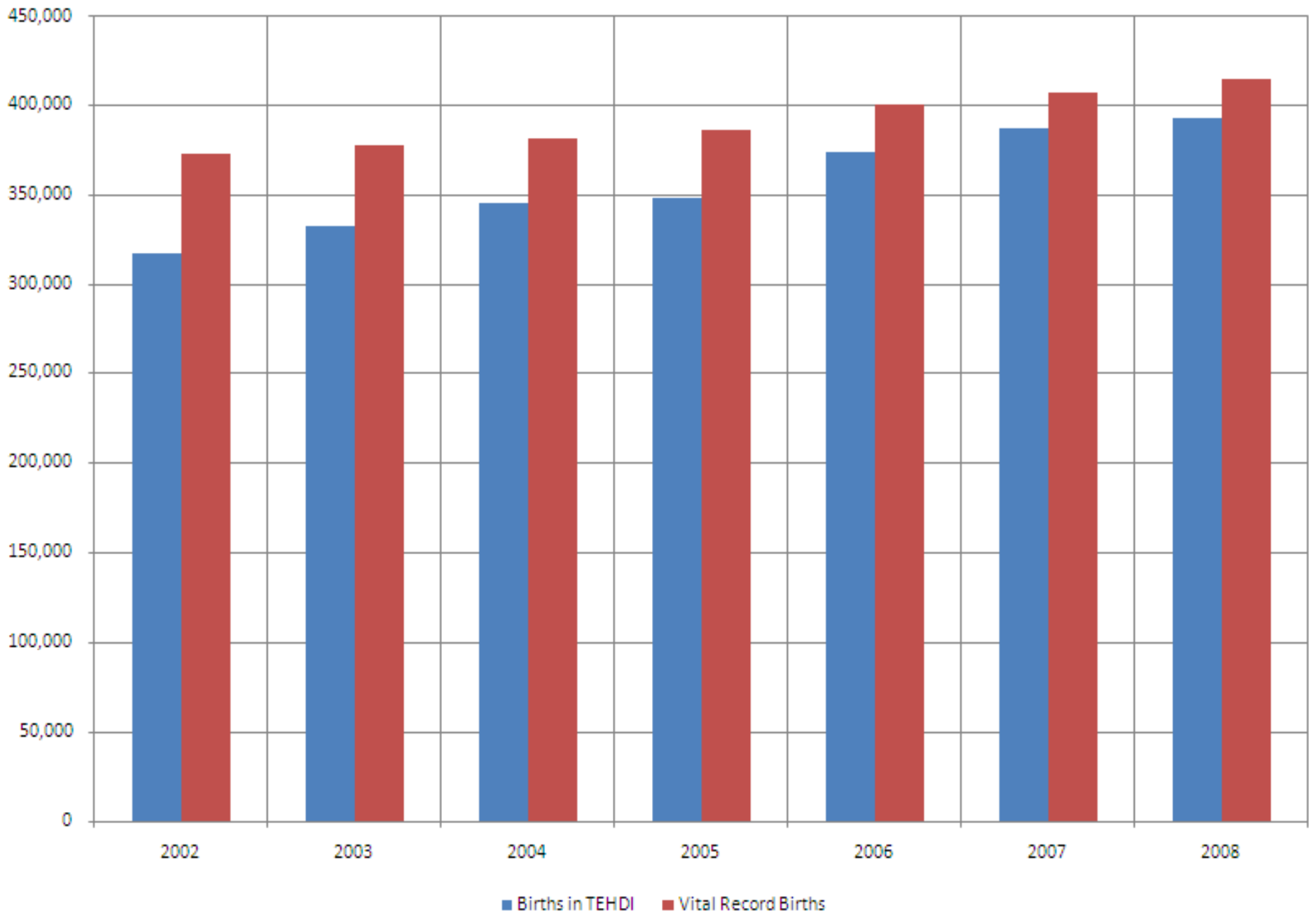
testing location In Patient <input type="button" value="v"/>	testing services provider ZZZ Delete <input type="button" value="v"/>	
testing technique DPOAE <input type="button" value="v"/>	technology employed Generic OZ7 <input type="button" value="v"/>	equipment used select equipment <input type="button" value="v"/>

RIGHT EAR (R) Refer **LEFT EAR (L)** Refer



nursery: Well Baby test type: Birth Screen
screener: Mitchell, Brenee date/time of screen: 09/02/2009 19:18:05

State Births



Audiology Available Now!



Audiology Application

AUDIOLOGY CARE

PATIENTS NEEDING OP SCREENING OR DIAGNOSTICS

Appointments Needed	Appointments Pending	Past Due Appointments			
Screening	Diagnostics	Screening	Diagnostics	Screening	Diagnostics

PATIENTS NEEDING COMMUNICATIONS

Generate Letters

PATIENTS NEEDING REFERRALS

ECI	Otologic Evaluation	Habilitation
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PATIENT SEARCH

Advanced Search

Current Synopsis

Mile Stones


Audiologic Assessments

Patient: **Sample, Patient (Female)** 

Medicaid No.: **NA** Medical Record No.: **123456789**

Date of Assessment: 09/24/2009

Facility: ZZZ Delete

Tested By: Mitchell, Brenee (Mrs.) 

ABR

ASSR

OAE

Tympanometry

BOA

VRA

Play

Puretone

Synopsis

Stimulus	Frequency (Hz)						
	Click	500	1,000	2,000	3,000	4,000	
Right Ear <input checked="" type="radio"/> Insert <input type="radio"/> Headphone	<input type="radio"/> Unmasked <= 45	<input type="radio"/> Unmasked <= 30	<input type="radio"/> Unmasked <=	<input type="radio"/> Unmasked <=	<input type="radio"/> Unmasked <= 60	<input type="radio"/> Unmasked <=	Reset
Left Ear <input checked="" type="radio"/> Insert <input type="radio"/> Headphone	<input checked="" type="radio"/> Unmasked <= 45	<input checked="" type="radio"/> Unmasked <= 30	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <= 65	<input checked="" type="radio"/> Unmasked <=	Reset
Right Ear Bone	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	Reset
Left Ear Bone	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	<input checked="" type="radio"/> Unmasked <=	Reset

Save

Save & Return to Summary

Cancel

Audiology

Current Synopsis

MileStones

Audiologic Assessments

Patient: [Sample, Patient \(Female\)](#) 

Medicaid No.: NA Medical Record No.: 123456789

Date of Assessment: 09/24/2009

Facility: ZZZ Delete

Tested By: Mitchell, Brenee (Mrs.) [Edit](#)

ABR

ASSR

OAE

Tympanometry


BOA

VRA

Play

Puretone

Synopsis

Date of Assessment: 09/24/2009 

Facility: ZZZ Delete

Tested By: Mitchell, Brenee (Mrs.)

Right Ear:

Type of Hearing Loss:

Degree of PHI:

Recommendations:

- Not Yet Determined
- Auditory Neuropathy
- Sensorineural
- Conductive
- Mixed
- Within Normal Limits



Left Ear:

Type of Hearing Loss:

Degree of PHI:

Recommendations:

- Slight
- Mild
- Moderate
- Moderate Severe
- Severe
- Profound

Notes:

Testing was performed during natural sleep.

Use this Session to determine Audiological Outcome.

Save & Close

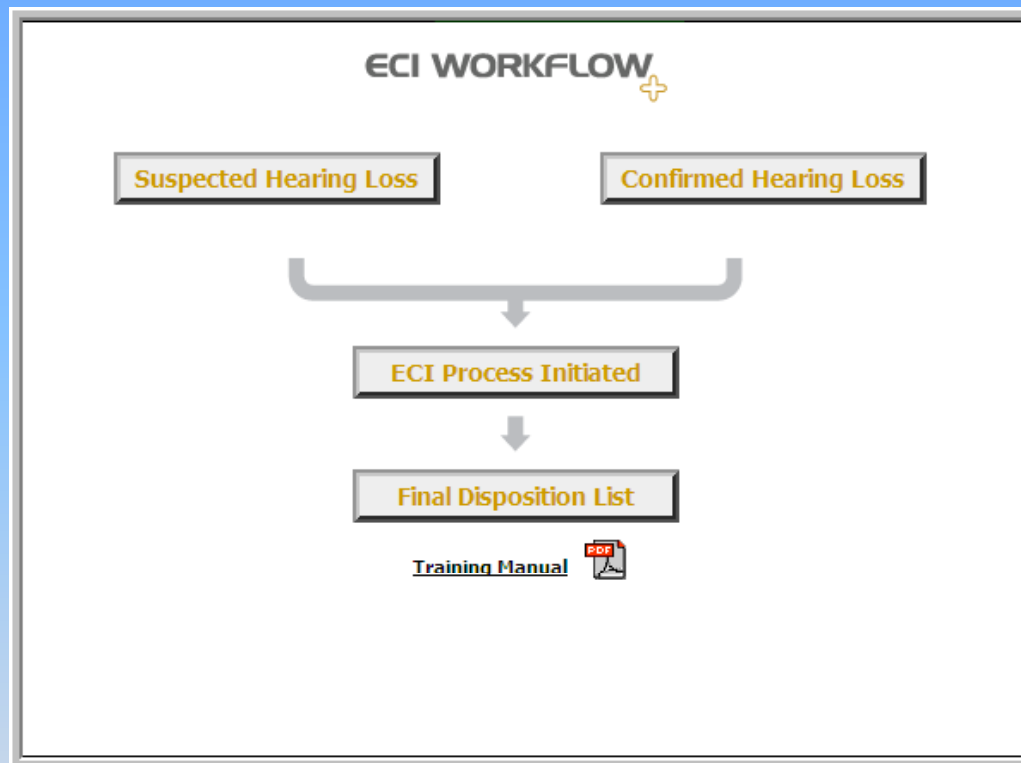
Save & Return to Summary

Cancel

Audiology Access

- ▶ EHDI staff enters outpatient screening or audiology results
- ▶ Audiologists enter outpatient screening or their own diagnostic results on a baby online
- ▶ Statistical reporting and aging analysis to measure your state against CDC goal of Diagnosis by 3 months

Available now!



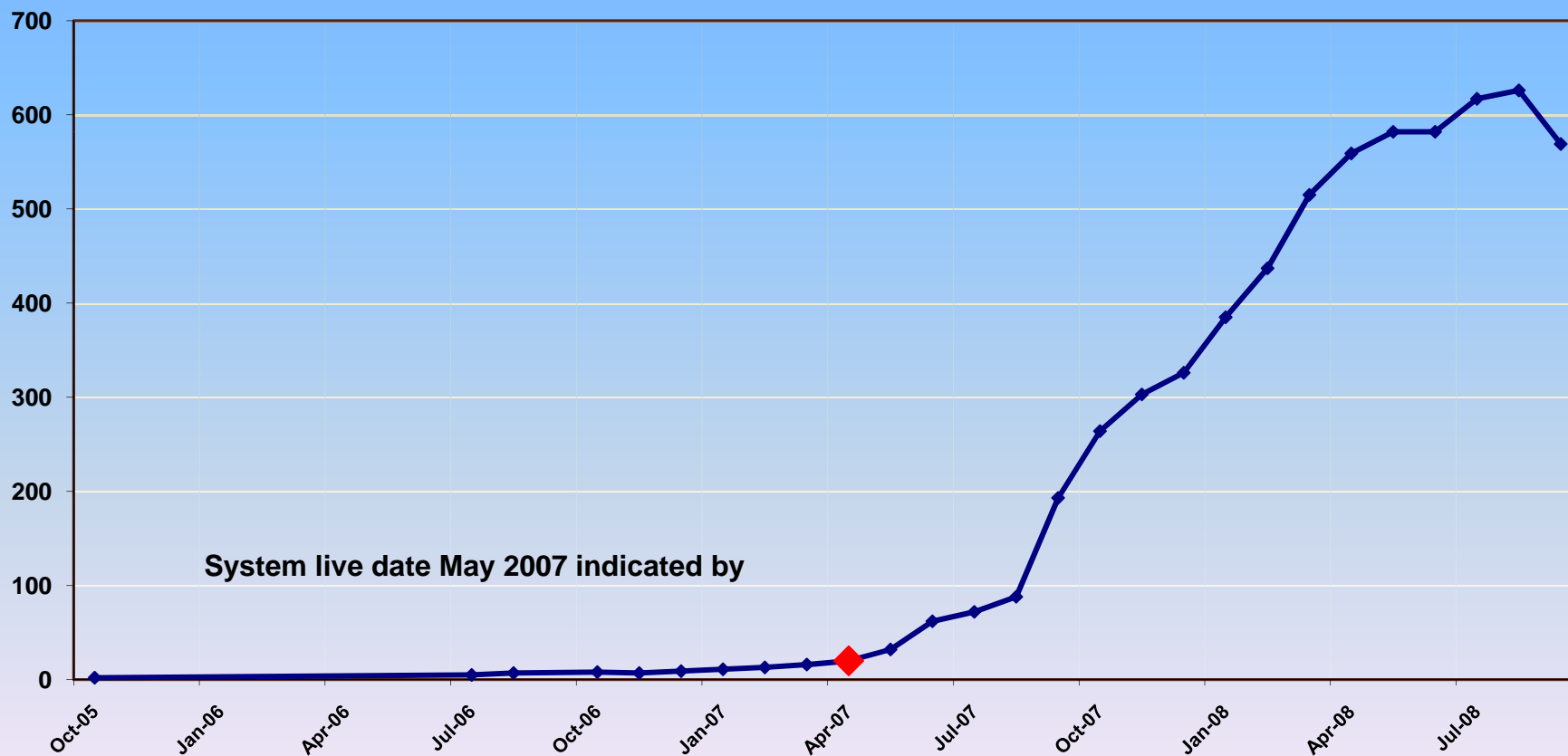
E I Application

Refer electronically to Part C



Part C Referrals through TEHDI

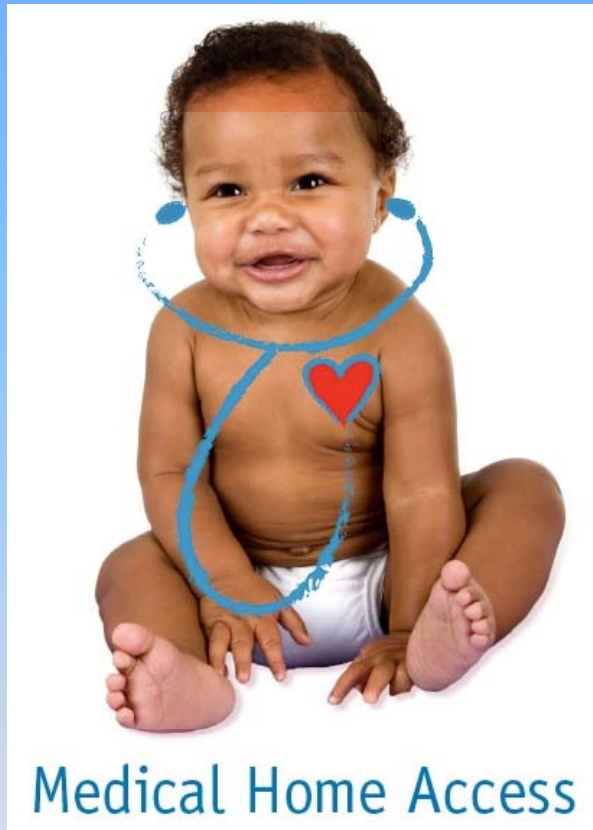
Trailing 12 months



Early Intervention Referral

- ▶ EHDI staff or Audiologist refer baby electronically through eSP™ EI
- ▶ Select the “correct” EI provider by zip code or county
- ▶ Statistical reporting and aging analysis to measure your state against CDC goal of Intervention by 6 months

Available now!



Provider Access Tool
(PAT)

Medical Home Access

Provider Access is the gateway to comprehensive hearing health records for Medical Home Providers. This web based tool allows providers to review their patients' hearing health record and highlight needed follow up care.



www.oz-systems.com

Medical Home Access

The screenshot shows the Z Systems Provider Access eSP interface. At the top, there is a header with the Z Systems logo and the text "PROVIDER ACCESS eSP SCREENER PLUS". Below the header, the main content area displays "MEDICAL HOME PHYSICIAN WORKFLOW eSP SCREENER PLUS for Jones-PAT, Sally, NP". A central panel titled "Options:" contains five buttons: "Patients Who Need Follow-Up", "Patients I Have Not Reviewed", "Find-A Patient-Not On My List", "All My Patients", and "Manage My Account". At the bottom left, there is a logo for "AAP Screening Information". At the bottom right, there are links for "logout", "support", and "contact".

- ▶ Links to your eSP™ EHDI – IS
- ▶ Can be configured for other databases
- ▶ Displays screening results JIT information

eSP™ Available for Border Babies



Patient: Sample, Patient (Female) [Edit Patient](#)**Birth Cert. ID: NA Medical Record No.: 123456789****Demographics:**Date of Birth: 09/01/2009
GA: 38
Birth Order: 1 Of 1
Calculated GA: 41Overall Outcome: In Process
Place of Birth: ZZZ Delete
Birth Weight: 3434
Nursery: Well Baby
Mother's Date of Birth:**Location:** Inpatient Outpatient[Set](#)**Primary Contact Details:**[View/Add Contacts \(0\)](#)**Ms. Mother Sample (Mother)**

Phone: 907-123-4567

123 Sample Street
Sampletown, AK 99999

Language: English

Last General Case Note:[View/Add Case Notes \(0\)](#)

no note available

Professional Contacts:


	Name	Service Type	Phone
View Remove	ZZZ Delete	Birth Screen Provider	
View Remove	Early Intervention Program/ ILP	Early Childhood Advisor (Part C of IDEA)	907-714-6447

[Add Professional Contact](#) **Hearing** **Outcome: Bilateral Hearing Loss - In Process**

OZ Systems

» Capacity building thru
Integrated Systems

Available Now eSP™ Integrated Systems

Patient: Baby, Baby Boy (Female)  Edit Patient
Birth Cert. ID: 1234 **Medical Record No.:** build829911452620102SD7

Demographics:

Date of Birth:	11/10/2008	Overall Outcome:	In Process
GA:	32	Place of Birth:	ALASKA NEONATOLOGY ASSOC
Birth Order:	1 Of 1	Birth Weight:	3500
Calculated GA:	38	Nursery:	Well Baby
		Mother's Date of Birth:	6/29/1978

Location: Inpatient Outpatient Set

Primary Contact Details: View/Add Contacts (0)

Mom D/G Trait Probable, alpha thal Hemoglobin_2build8 (Mother)

Phone: **no phone data**
Language: **English**


Last General Case Note: View/Add Case Notes (0)


no note available


Professional Contacts:

	Name	Service Type	Phone
View Remove	ALASKA NEONATOLOGY ASSOC	Birth Screen Provider	
View Remove	ALVAREZ, SARAH MD	Submitter	

Add Professional Contact

+ Hearing  **Outcome: Normal Hearing**

+ Metabolic  **Outcome: Disorder(s) Detected**



Available now: Integrated EHDI and NBS Programs

Child Information 		quick links: <input type="text" value="select a page"/>	
Patient: Testing, Sample (Male)  Birth Cert. ID: NA Medical Record No.: jc-107			
Metabolic and Genetic Specimen			
Patient Information:			
Date of Birth:	9/19/2007	Time of Birth:	12:43 PM
Birth Weight:	3333 g	Birth Order:	1 of 1
		Race:	Black
		Ethnicity (Hispanic):	No
PCP/Medical Home Information:		Submitter Information:	
Send Report to PCP/Medical Home:	Address:	Name:	NEYHART, JOY DO
Doctor's Code:	Telephone Number:	Code:	AK3390
		Address:	3268 HOSPITAL DR STE D JUNEAU AK 998017800
Hospital Information:		Mother's Information:	
Name:	ZZZ THALIA TEST FAC	Name:	ROSE, MOTHER
Code:	AKJOHN	Date of Birth:	4/5/1985
Address:	2112 THALIA STREET	Address:	ANCHORAGE, AK 11111
Telephone Number:	JUNEAU AK 99801	Telephone Number:	
Lab Information:			
Card Specimen Type:	1st Specimen	Lab Specimen Type:	1st Specimen
Kit Number:	051106324	Accession (lab) number:	20071840192
Specimen Information:			
Date and Time of Specimen Collected:	9/22/2007 5:00:00 PM	Specimen Status:	Disorder(s) Detected
Age at specimen collection:	12 Hour(s)	Present Weight:	4025 (g)
		Transit Time:	0 Hour(s)
Other Factors:			
Food source last 24 hours:	other not specified	Transfusion:	Date of Last RBC Transfusion:
Hyperalimentation:			

Available now: Integrated EHDI and NBS Programs

Metabolic  **Patient Outcome: Disorder(s) Detected**

Consent: Full

Patient Outcomes:

Description	Status
Patient Case	Open
Metabolic Outcome	Disorder(s) Detected

Review Case :

Does Not Need Review:

Needs Review by:

No Reviews:

Other Factors:

Hyperalimentation: Transfused: Date of Last RBC Transfusion:

Last Metabolic Case Note:
no note available

Most Recent Specimen Summary: 9/22/2007 5:00:00 PM

Test	Evaluation	Test	Evaluation
T4	Normal	Amino Acids	Normal
Phenylalanine	Normal	Acylcarnitines	Normal
Biotinidase	Normal	Hemoglobinopathies	Probable S Trait
CAH	Normal	CF	Normal
GALT	Normal		

Alaska Resources 

Result	Evaluation	Reference
13.3 ug/dL	Normal	** Age Adjusted **
< 200 uM	Normal	Normal < 200 uM
Has Color	Normal	Normal Has Color
24.08 ng/mL	Normal	** Age Adjusted **
Fluorescence	Normal	Normal=Fluorescence
Normal	Normal	Normal
Normal	Normal	Normal
Hemoglobinopathies	FAS	Normal = FA
CF	Normal	** Age Adjusted **

We can help

- ▶ Automatic Import for Demographic Data (AIDD)
 - HL 7 messaging
 - Configuration File
- ▶ Lab messages imports
- ▶ Real time access through web-services and well-tested web-based systems

Compare

- ▶ Server hardware and
- ▶ Network hardware costs
- ▶ Network intensive
- ▶ Framework: Citrix application, client access licensing
- ▶ Needs Microsoft Terminal Services
- ▶ Delayed Data
- ▶ Immediate data access
- ▶ No delays – 3000 concurrent users
- ▶ No legal ownership problems
- ▶ Automatic updates
- ▶ Read and write access with permission driven rules

CITRIX (Web-enabled)

eSP™ Web-Based

OZ Systems

»» Capacity Building through
Program Support

Capacity Building through Program Management Support



MARYLAND EHDI ACHIEVEMENTS 2008

ACHIEVEMENTS

1. 36,191 records of verifiable birth and screening data entered into eSP™ for 2008*.
2. Fully implemented eSP™ by August 1, 2008.
3. 37 birth hospitals were trained in Maryland from May -July 2008.
4. 85 hospital screeners and staff representing all MD birth facilities and State staff attended eSP™ trainings.
5. Provided monthly feedback to hospitals on their performance in newborn hearing screening metrics.
6. Identified programs that met distinguished standards in providing newborn hearing screening care.
7. State Averages for 2008 met *Standard* or *Distinguished* criteria for four out of five compliance metrics.

2008 State Average Compliance Metrics		
% Screened	95.7%	Standard
% Pass Both	95.8%	Distinguished
% of Referred or Missed with Contact Info	95.5%	Standard
% NICU records still In Process	7.2%	Distinguished

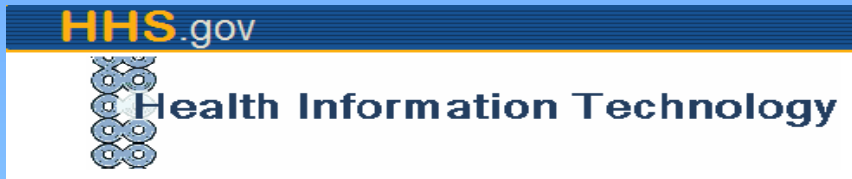
8. By the end of 2008, 68% of hospitals in Maryland were using the demographic import tool.
9. Audiologists at private facilities began using eSP™ to track and enter data beginning in November 2008.
 - a. Web based training provided for 18 Audiologists in MD.
10. Increased ability to provide follow care for NICU and at risk populations from time of birth.

OZ SYSTEMS SUPPORT OF MDEHDI

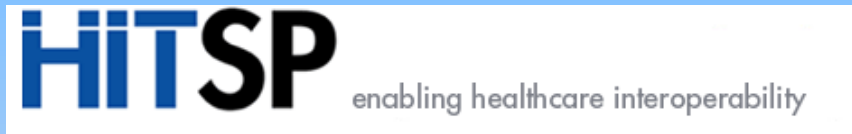
1. OZ Systems has equipped Emilio, a customer support specialist to train hospitals in demographic imports.
2. Monthly web meetings held to address user questions and communicate State reminders.
3. Web-based trainings available on demand.
4. Distribution of electronic and hard copy training materials to all hospital screeners in MD.
5. Distribution of electronic training materials for Audiologists.
6. Compliance reports provided on a monthly and annual basis.
7. OZ Program Coordinator presented at State EHDl meeting to highlight benefits of eSP™.

*This figure represents part of the birth cohort of 2008. Users began entering data in May 2008.

OZ attends to standards so you can attend to babies



AHIC; NeHC, ONC



Standards panel between public and private sectors for sharing information



Improving the way Health care Systems share information

Health Information Security and Privacy Collaboration (HISPC)



OZ Systems

- » Capacity building through
Verifiable data
New Applications
Program Support
Disaster Recovery, Secure
Hosting

How Safe and Secure are your EHDI data?




The Importance of Disaster Recovery



OZ Systems' Response

- ▶ Level IV Data Center: Texas
- ▶ A second Level IV Data Center: Arizona
- ▶ Eight redundant paths to the Internet
- ▶ Diverse connections including fiber, copper and microwave
- ▶ 99% uptime history

So how much does eSP™
cost?

A young girl with long dark hair, wearing blue denim pants and sandals with white daisy flowers, stands behind a large grey rectangular sign. The sign contains the text 'working wonders in information management SM'. The background is white, with two vertical blue-to-pink gradient bars on either side of the girl.

working
wonders in
information
managementSM