

# Missouri Department of Elementary and Secondary Education

## Division of Special Education



Report on First Steps Children Identified through the Newborn  
Hearing Screening Program having Permanent Hearing Loss

December 2008

Under the Newborn Hearing Screening law, Section 191.931 RSMo, the Missouri Department of Elementary and Secondary Education shall “monitor the delivery of early intervention services to those infants identified by the newborn hearing screening program and report annually to the department of health.” Eligible infants and toddlers are served by the Missouri First Steps Program under Part C of the Individuals with Disabilities Act.

This report is divided into two sections as follows:

1. Analysis of the number of children enrolled in First Steps and identified through the newborn hearing screening program during calendar year 2007.
2. Early intervention services provided to Newborn Hearing Screening children in the First Steps Program under an Individualized Family Services Plans (IFSP).

*Previous versions of this report included all levels of hearing loss identified through the Newborn Hearing Screening Program. Beginning with 2007, only children with permanent hearing loss and undetermined type of hearing loss are included in this report.*

*Personally identifiable information has been redacted pursuant to provisions of the Family Educational Rights and Privacy Act (FERPA), incorporated by reference in the Individuals with Disabilities Education Act (IDEA).*

### *Section One: Children Identified by the Newborn Hearing Screening program and enrolled in the First Steps program*

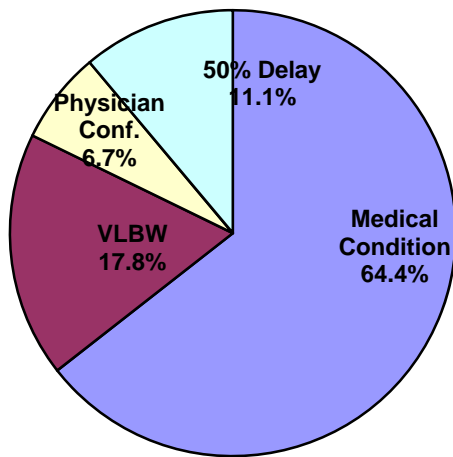
As of November 18, 2008, 46 children born in 2007 were identified with permanent hearing loss and 76 with an undetermined type of hearing loss by the Department of Health. Of the 122 children on the Hearing Screening list and born in 2007, 56 were found in the First Steps database (45.9%); 45 had been determined eligible for First Steps services based on one of Missouri’s First Steps program eligibility criteria (50% delay in one developmental domain, medical condition associated with mental retardation/developmental delay, physician confirmation of other condition associated with mental retardation/developmental delay, or very low birth weight) and received services through an Individualized Family Service Plan (IFSP). Forty-two had active IFSPs as of November 18, 2008. It is important to note that the 122 children include those who have received incomplete results through testing and those who have unknown types of loss based on what has been reported to the Department of Health and Senior Services (DHSS). Children

<u>2007 Newborn Hearing Screening List (Permanent and Undetermined Type)</u>	
122 total children	
56 in First Steps Database	
45 reached IFSP	
	3 inactivations
	3 deceased
	42 active IFSPs

who are determined to be suffering from middle ear pathology (e.g., fluid in the middle ear from colds, ear infections) and who do not have a permanent hearing loss could be removed from the list at a later date based on updates received from audiologists.

Of 2007's 45 First Steps eligible children, 29 (64.4%) were determined eligible based on Medical Condition associated with MR/DD, 8 (17.8%) based on Very Low Birth Weight, 5 (11.1%) based on 50% delay in one developmental domain, and 3 (6.7%) due to Physician Confirmation of other condition associated with MR/DD.

**2007 NHS Children with IFSPs  
(by Primary Eligibility)**



Of the 122 children on the 2007 list, 34 were deemed to have sensorineural hearing loss. Twenty-one of them (61.7%) were referred to First Steps, and 16 were found eligible (eligibility rate: 76.27%).

<b>2007 NHS Children by Degree of Hearing Loss and First Steps Status</b>					
<i>Type of Loss</i>	<i>Children</i>	<i>Referred to FS</i>	<i>% Referred</i>	<i>Received IFSP</i>	<i>Eligibility %</i>
Sensorineural	34	21	61.7%	16	76.2%
Auditory Neuropathy	5	3	60.0%	3	100.0%
Mixed	2	1	50.0%	1	100.0%
Permanent Conductive	5	2	40.0%	0	0.0%
Incomplete Testing and/or Unknown Type	76	29	38.2%	25	86.2%
<b>Total</b>	<b>122</b>	<b>56</b>	<b>45.9%</b>	<b>45</b>	<b>80.4%</b>

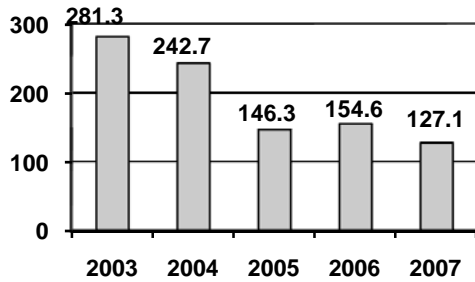
The 45 First Steps eligible children born in 2007 had the following primary diagnoses, 17 of which (37.7%) are related to hearing loss (those related to hearing loss are in boldface below).

- **Hearing Loss – 9**
- Down’s Syndrome – 8
- Disorders Relating to Extreme Immaturity of Infant or Low Birth Weight Status – 8
- **Sensorineural Hearing Loss – 7**
- Unspecified Delay in Development – 2
- Multiple Congenital Anomalies, so described – 2
- Other and Ill-Defined Perinatal Conditions – 2
- Cleft Palate and/or Cleft Lip – 1
- Congenital Cytomegalovirus Infec. – 1
- Encephalopathy, Unspec. – 1
- Epilepsy - 1
- Microcephalus – 1
- **Mixed Conductive and Sensorineural Hearing Loss - 1**
- Streptococcal Meningitis – 1

Below is a chart outlining First Steps referral sources. Of the 56 NHS children born in 2007 and referred to First Steps, data shows that the most common primary referral sources for children with hearing concerns in the First Steps system have been the NICU (30.3%), Parent (28.6%), and Hospital (other than NICU) (21.4%). With the NICU leading the way with the most referrals, this demonstrates attempts by the Department of Elementary and Secondary Education to increase the NICU involvement have been successful.

<b>First Steps Referral Sources for NHS Children by Year of Birth</b>	
<i>Referral Source</i>	<i>2007</i>
Parent	16
NICU	17
Hospital (other than NICU)	12
Physician (including Psych.)	1
Parents as Teachers	2
Other Health Care Provider	6
Head Start/Early Head Start	1
Social Service Agency (inc. DFS)	1
<b>Total</b>	<b>56</b>

**Avg. Age (in days) at Referral by Year of Birth**



The national Early Hearing Detection and Intervention (EHDI) goal regarding First Steps is to have infants enrolled in the First Steps program by 6 months of age (approximately 180 days). The table to the left shows the average age at first referral by birth year.

### *Section Two: Early Intervention Services*

IDEA and the Missouri state regulations require that First Steps funds may only be used for Early Intervention services that an eligible child needs but is not currently entitled to under any other Federal, State, local or private source. Services and assistive technology reported in this section reflects only those services paid for with Part C funds.

As of November 18, 2008, there were 208 active authorizations for NHS Children in First Steps. Of these authorizations, the top three categories were:

- 1) Special Instruction with 17.8% (37 authorizations);
- 2) Physical Therapy with 15.4% (32 authorizations);
- 3) Occupational Therapy with 14.4% (30 authorizations).

<b>Service Type</b>	<i>AT Service</i>	<i>Consultation, Facilitation with Others</i>	<i>Direct Child Service</i>	<i>Evaluation, Assessment</i>	<i>Family Education, Training, Support</i>	<i>Evoked otoacoustic</i>	<i>Tympanometry (impedance testing)</i>	<i>Visual Reinforcement Audiometric</i>	<i>Number of Children</i>
<b>Assistive Technology</b>			60						9
<b>Audiology</b>	9		2	1	3	3	3	3	8
<b>Nutrition Services</b>				1					1
<b>Occupational Therapy</b>		9	20	1					17
<b>Physical Therapy</b>		8	23	1					19
<b>Social Work</b>		1							1
<b>Special Instruction</b>		5	25	1	6				21
<b>Speech Language Pathology</b>		6	14	1					14
<b>Vision Services</b>		1	1						4
<b>Grand Total</b>	<b>9</b>	<b>30</b>	<b>145</b>	<b>6</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>3</b>	