



Office of Data System Management, Special Education

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

February 2011

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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 (IDEA).

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 2009.
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).*

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

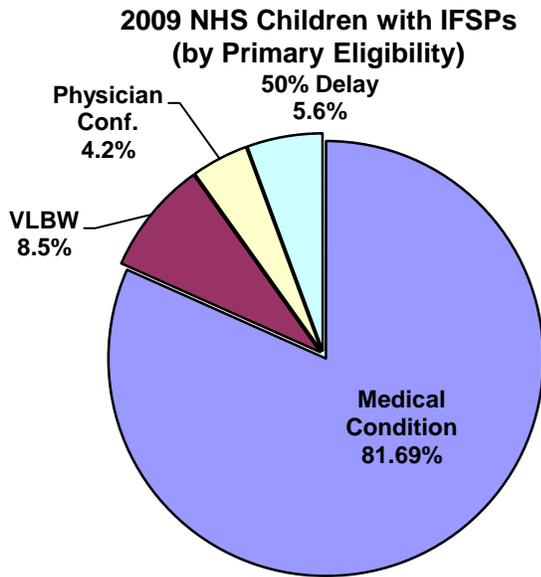
As of February 7, 2011, 91 children born in 2009 were identified with permanent hearing loss and 11 with an undetermined type of hearing loss by the Department of Health (DHSS) for a total of 102 children. Of the 102 children on the Hearing Screening list and born in 2009, 82 were found in the First Steps database (80.4%); 71 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). Eleven out of the 82 children found in the First Steps database were either unable to locate or withdrawn from the program.

Sixty-nine children had active IFSPs as of February 7, 2011. It is important to note that the 102 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 DHSS. Children 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.

<u>2009 Newborn Hearing Screening List (Permanent and Undetermined Type)</u>	
102 total children	
82 in First Steps Database	
11 withdrawn/unable to locate	
71 reached IFSP	
	1 withdrawn by parent/guardian
	1 moved out of state
	69 active IFSPs

Of the 102 children on the 2009 list, 42 were deemed to have sensorineural hearing loss. Thirty-seven of these (88.1%) were referred to First Steps, and 30 were found eligible (eligibility rate: 81.1%).

<b>2009 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	42	37	88.1%	30	81.1%
Auditory Neuropathy	5	5	100.0%	4	80.0%
Mixed	3	2	66.7%	2	100.0%
Permanent Conductive	2	2	100.0%	2	100.0%
Incomplete Testing and/or Unknown Type	50	36	72.0%	33	91.7%
<b>Total</b>	<b>102</b>	<b>82</b>	<b>80.4%</b>	<b>71</b>	<b>86.6%</b>



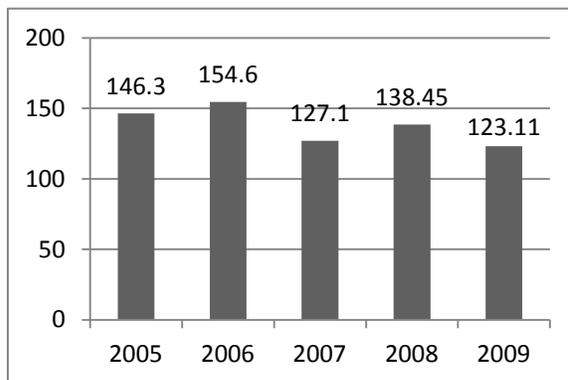
Of 2009's 71 First Steps eligible children, 58 (81.69%) were determined eligible based on Medical Condition associated with MR/DD, 6 (8.45%) based on Very Low Birth Weight, 4 (5.63%) based on 50% delay in one developmental domain, and 3 (4.23%) due to Physician Confirmation of other condition associated with MR/DD.

The 71 First Steps eligible children born in 2009 had the following primary diagnoses, 41 of which (57.8%) are related to hearing loss (those related to hearing loss are in boldface below).

- **Hearing Loss – 26**
- **Mixed Conductive and Sensorineural Hearing Loss - 2**
- **Sensorineural Hearing Loss – 13**
- Cleft Palate and/or Cleft Lip – 2
- Disorders Relating to Extreme Immaturity of Infant or Low Birth Weight Status – 10
- Down Syndrome –3
- Multiple Congenital Anomalies, so described – 5
- Microcephalus – 2
- Other and Ill-Defined Perinatal Conditions – 3
- Unspecified Delay in Development –5

Below is a chart outlining First Steps referral sources. Of the 82 NHS children born in 2009 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 (24.4%), Hospital (22.0%), and Parent (19.6%).

<b>First Steps Referral Sources for NHS Children</b>	
<i>Referral Source</i>	<i>2009</i>
NICU	20
Hospital (other than NICU)	18
Parent	16
Other Health Care Provider	11
Dept. of Health and Senior Services – DHSS	10
Physician (including Psych.)	5
Public Health Facilities/Providers	2
<b>Total</b>	<b>82</b>



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 above to the left shows the average age at first referral by birth year.

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### *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 reflect those services paid for with Part C funds but not limited to Part C funds.

As of February 7, 2011, there were 351 active authorizations for NHS children in First Steps. Of these authorizations, the top three categories were:

- 1) Audiology with 30.20% (106 authorizations);
- 2) Special Instruction with 19.09% (67 authorizations);
- 3) Physical Therapy with 13.11% (46 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>	<b>Total</b>	<b>% of Total Auths</b>
<b>Assistive Technology</b>			39						39	11.11%
<b>Audiology</b>	23	6	21	8		16	16	16	106	30.20%
<b>Nutrition Services</b>		4	5						9	2.56%
<b>Occupational Therapy</b>	1	15	28	1					45	12.82%
<b>Physical Therapy</b>		14	32						46	13.11%
<b>Special Instruction</b>		16	50		1				67	19.09%
<b>Speech Language Pathology</b>		8	29	2					39	11.11%
<b>Grand Total</b>	<b>24</b>	<b>63</b>	<b>204</b>	<b>11</b>	<b>1</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>351</b>	<b>100.0%</b>