

## **Purpose**

Under the Newborn Hearing Screening law, RSMo 191.931, 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 and senior services.” Eligible infants are served by the Missouri First Steps Program under Part C of the Individuals with Disabilities Education Act (IDEA).

This report provides information related to the number of First Steps infants born in 2016 and identified with permanent hearing loss through the newborn hearing screening program.

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## **Infants Enrolled in the First Steps Program**

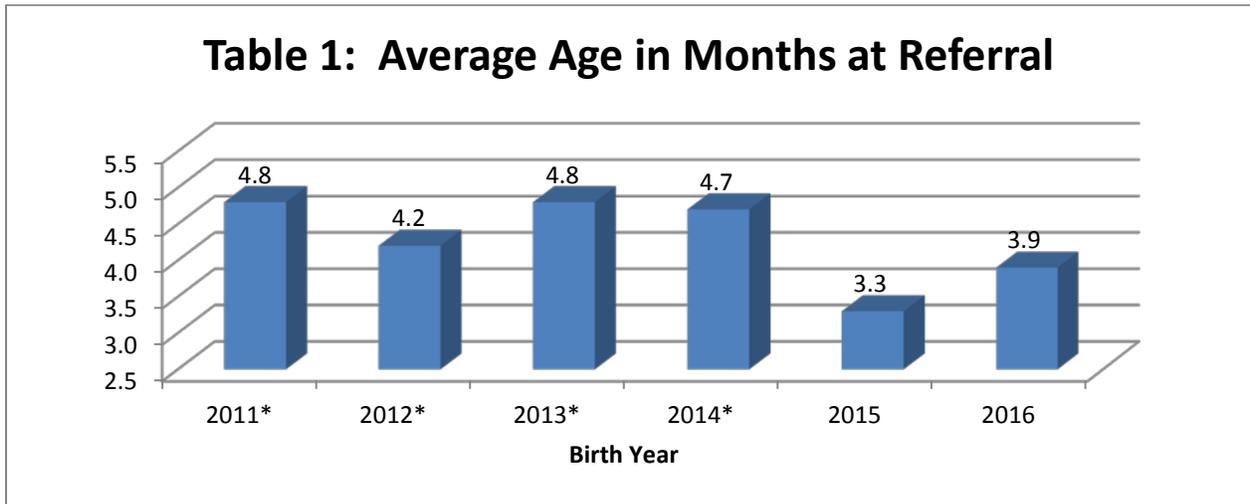
As of March 9, 2018, 105 infants born in 2016 were identified with hearing loss by the Department of Health and Senior Services (DHSS). It is important to note that the 105 infants included infants who received incomplete results or unknown types of loss based on what was reported to DHSS. Infants who were 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 the 105 infants identified by DHSS, 102 (97.1%) had been referred to the First Steps program. Of the 102 infants referred to First Steps, 82 (80.4%) were found eligible and had an Individualized Family Service Plan (IFSP). The remaining 20 infants did not reach IFSP status due to the following reasons: seven children were unable to be located, twelve children were withdrawn by a parent or guardian, and one child moved out of state.

Of the 82 infants who had an IFSP, 79 (96.3%) were in active status at the end of 2016, and the other three had been withdrawn by a parent or guardian.

## Average Age at Referral

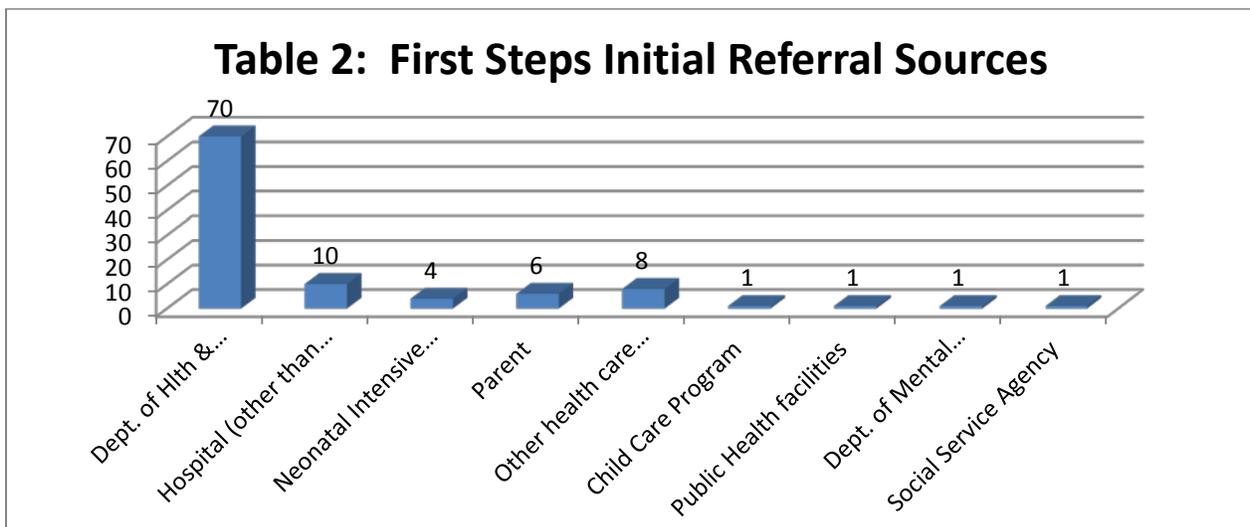
Table 1 represents the average age in months of infants at the time of referral to First Steps for the 102 children referred to First Steps. The average age at referral for infants born in 2016 was 3.9 months. (The average age at the time of initial IFSP for the 82 infants who reached IFSP was 4.7 months).



\*Age at initial IFSP was used for reporting. Currently, age at referral is used for reporting.

## Referral Sources

Table 2 represents the sources of initial referrals to First Steps for infants with hearing loss identified by DHSS. Of the 102 infants referred to First Steps, most initial referrals were made by Dept. of Health and Senior Services (DHSS) with 70 (68.6%), hospitals with 10 (9.8%), and Other Health Care Provider with 8 (7.8%).



## Eligibility Categories

Table 3 provides the primary First Steps eligibility category for the 82 infants determined eligible for services. There were 74 children (90.2%) found eligible due to a diagnosed condition.

**Table 3: Reasons for Eligibility**

Reason for Eligibility	Infants Eligible in 2016	% Eligible
Diagnosed Condition	74	90.2%
Developmental Delay – Half age Delay	5	6.1%
Newborn Condition	2	2.5%
Other Condition	1	1.2%
<b>Total</b>	<b>82</b>	<b>100.00%</b>

## Type of Hearing Loss

Table 4 represents the type of hearing loss and related First Steps referral and eligibility percentages for the 105 infants identified by DHSS. Of the 105 infants, 59 (56.2%) had a sensorineural hearing loss. Of the 59 infants with sensorineural hearing loss, 58 (98.3%) were referred to First Steps and, of those referred, 49 (84.5%) reached IFSP.

**Table 4: Type of Hearing Loss and First Steps Status**

Type of Loss	Infants Identified by NHS in 2016	Referred to First Steps	Reached IFSP	% Reached IFSP
Sensorineural	59	58	49	84.5%
Auditory Neuropathy	4	4	4	100.0%
Mixed	4	4	3	75.0%
Permanent Conductive	1	1	0	0.0%
Conductive	11	11	9	81.8%
Incomplete Testing and/or Unknown Type	26	24	17	70.8%
<b>Total</b>	<b>105</b>	<b>102</b>	<b>82</b>	<b>80.4%</b>

## Service Authorizations

Table 5 represents the First Steps service authorizations for the 79 infants identified by DHSS who were in active IFSP status at the end of 2016. At the end of calendar year 2016, there were 317 active authorizations for the 79 infants with hearing loss. The top three categories of First Steps service authorizations were:

- 1) 131 (41.3%) authorizations for Audiology;
- 2) 107 (33.8%) authorizations for Special Instruction; and
- 3) 36 (11.4%) authorizations for Speech Language Pathology.

	ABR: Audiometry evoked potential	AT Service	Consultation/ Facilitation with Others	Direct Child Service	Evaluation/ Assessment	Family Education/ Training/Support	OAE limited or complete	Tympanometry (impedance testing)	Visual Reinforcement Audiometer	Grand Total	Percentage
Audiology	18	24	1	18	10	1	23	18	18	131	41.3%
Occupational Therapy			5	17						22	6.9%
Physical Therapy			3	18						21	6.6%
Special Instruction			10	62	34	1				107	33.8%
Speech Language Pathology			4	32						36	11.4%
Grand Total	18	24	23	147	44	2	23	18	18	317	100.0%

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