

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 2017 and identified with permanent hearing loss through the newborn hearing screening program.

Infants Enrolled in the First Steps Program

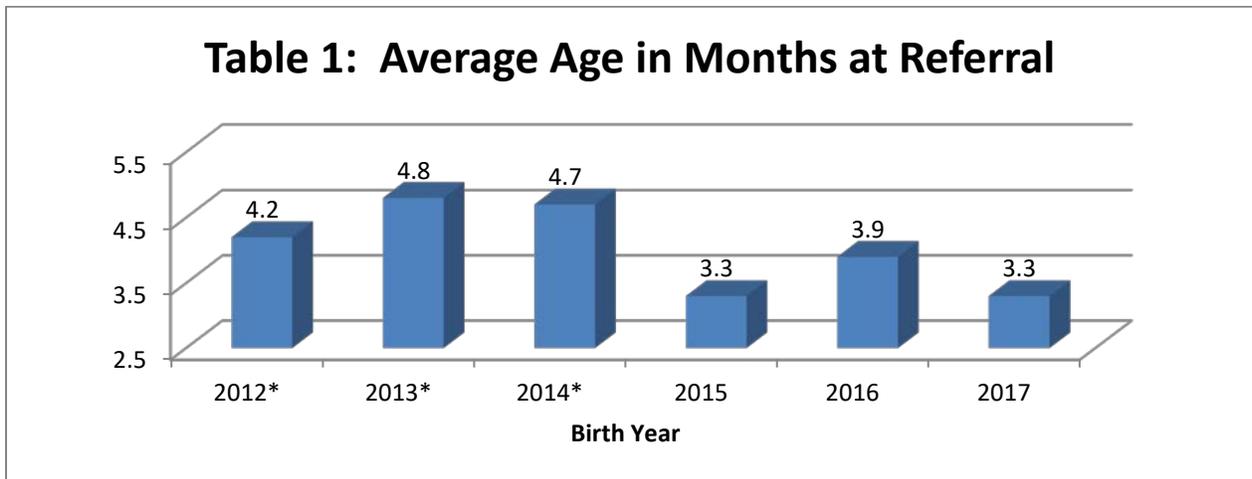
As of March 1, 2019, 113 infants born in 2017 were identified with hearing loss by the Department of Health and Senior Services (DHSS). It is important to note that the 113 infants included infants who received incomplete results or unknown types of loss based on what was reported to DHSS. Infants who 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 113 infants identified by DHSS, 102 (90.3%) were referred to the First Steps program. Of the 102 infants referred to First Steps, 79 (77.5%) were found eligible and had an Individualized Family Service Plan (IFSP). The remaining 23 infants did not reach IFSP status due to the following reasons: fifteen children were withdrawn by a parent or guardian, six children were unable to be located, one child was deceased before reaching IFSP, and one child moved out of state.

Of the 79 infants who had an IFSP, 78 (98.7%) were in active status at the end of 2017, and the other child had been withdrawn by a parent or guardian.

Average Age at Referral

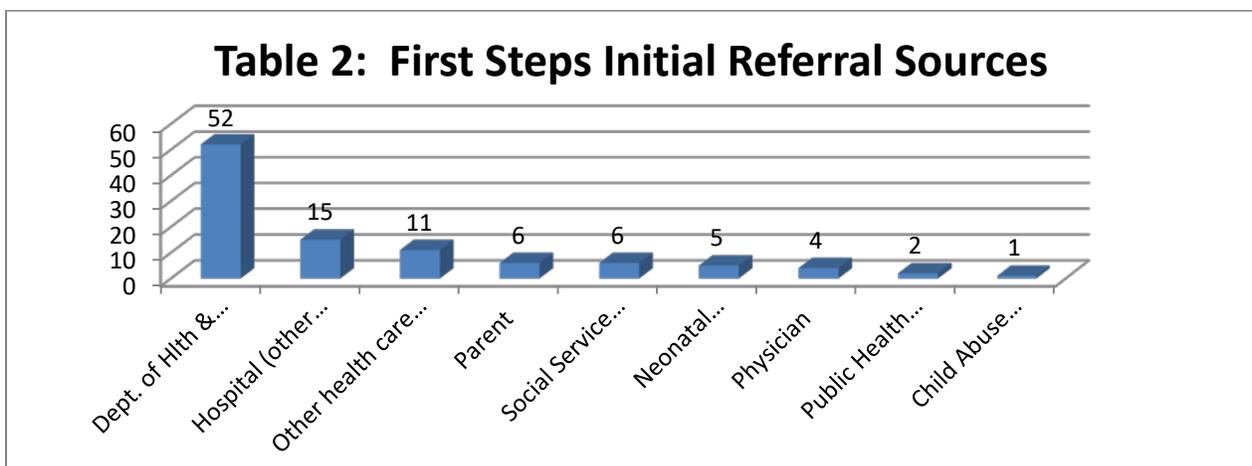
Table 1 represents the average age in months of infants at the time of referral to First Steps for the 102 children referred to First Steps. The average age at referral for infants born in 2017 was 3.3 months. (The average age at the time of initial IFSP for the 79 infants who reached IFSP was 4.2 months).



*Indicates when 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 52 (51.0%), hospitals with 15 (14.7%), and Other Health Care Provider with 11 (10.8%).



Eligibility Categories

Table 3 provides the primary First Steps eligibility category for the 79 infants determined eligible for services. There were 76 children (96.2%) found eligible due to a diagnosed condition.

Table 3: Reasons for Eligibility

Reason for Eligibility	Infants Eligible in 2017	% Eligible
Diagnosed Condition	76	96.2%
Newborn Condition	2	2.5%
Developmental Delay – Half age delay	1	1.3%
Other Condition	0	N/A
Total	79	100.00%

Type of Hearing Loss

Table 4 represents the type of hearing loss and related First Steps referral and eligibility percentages for the 113 infants identified by DHSS. Of the 113 infants, 77 (68.1%) had a sensorineural hearing loss. Of the 77 infants with sensorineural hearing loss, 66 (85.7%) were referred to First Steps and, of those referred, 52 (78.8%) reached IFSP.

Table 4: Type of Hearing Loss and First Steps Status

Type of Loss	Infants Identified by NHS in 2017	Referred to First Steps	Reached IFSP	% Reached IFSP
Sensorineural	77	66	52	78.8%
Auditory Neuropathy	5	5	4	80.0%
Mixed	8	8	7	87.5%
Permanent Conductive	11	11	9	81.8%
Conductive	0	0	0	N/A
Incomplete Testing and/or Unknown Type	12	12	7	58.3%
Total	113	102	79	77.5%

Service Authorizations

Table 5 represents the First Steps service authorizations for the 78 infants identified by DHSS who were in active IFSP status at the end of 2017. At the end of calendar year 2017, there were 344 active authorizations for the 78 infants with hearing loss. The top three categories of First Steps service authorizations were:

- 1) 130 (37.8%) authorizations for Audiology;
- 2) 111 (32.3%) authorizations for Special Instruction; and
- 3) 47 (13.7%) 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	16	25		15	23		25	13	13	130	37.8%
Occupational Therapy			9	22						31	9.0%
Physical Therapy			6	19						25	7.3%
Special Instruction			12	57	39	3				111	32.3%
Speech Language Pathology		1	6	40						47	13.7%
Grand Total	16	26	33	153	62	3	25	13	13	344	100.0%

* ABR – Auditory Brainstem Response

* AT – Assistive Technology

* OAE – Otoacoustic Emissions

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