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Medicaid Reimbursement of Hearing Services for Infants and Young Children

abstract

As newborn hearing-screening programs have expanded, more and more infants and young children need hearing services. Medicaid is one of the primary sources of funding for such services and, by law, must establish payment rates that are sufficient to enlist enough providers to provide services. In this study we compared 2005 Medicaid reimbursement rates for hearing services for infants and young children in 15 states with the payment rates for the same services by Medicare and commercially available health insurance. On average, Medicaid rates for the same services were only 67% as high as Medicare and only 38% as high as commercial fees. Furthermore, most Medicaid rates declined from 2000 to 2005, and many states did not have billing codes for a significant number of the hearing services needed by infants and young children. These factors likely contribute to infants and young children with hearing loss not being able to get the hearing services they need to benefit from early identification of hearing loss. These data also raise questions about the extent to which states are meeting the federal requirement that Medicaid payments be sufficient to enlist enough providers so that care and services are adequately available to the general population in the geographic area. *Pediatrics* 2010;126:S34–S42

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KEY WORDS

deaf, hard-of-hearing, early intervention, newborn hearing screening

ABBREVIATIONS

EHDI—Early Hearing Detection and Intervention
EPSDT—Early and Periodic Screening, Diagnosis, and Treatment
CPT—*Current Procedural Terminology*
HCPCS—Healthcare Common Procedure Coding System

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Approximately 95% of newborns are screened for hearing loss before leaving the hospital, and all states have established Early Hearing Detection and Intervention (EHDI) programs.¹ Consequently, substantially more infants and young children are being identified with hearing loss, and there is a significantly increased need for early audiological, medical, and educational services for these infants and young children. Not surprisingly, concerns about how to pay for such services have been raised.^{2,3}

Because Medicaid is the largest single insurer of children in the United States, its reimbursement policies significantly affect access to care for millions of children. National data show that approximately one-third of all children in the United States are enrolled in Medicaid.⁴ One of the primary mechanisms by which Medicaid services are provided to children is the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program, which is a mandatory benefit that focuses on the prevention and early treatment of children's health problems.⁵

Under Medicaid law,⁶ states have considerable discretion in developing their own payment methods and rates as long as 3 requirements are met:

1. Payment methods and procedures must be consistent with efficiency, economy, and quality of care.
2. Payments must be sufficient to enlist enough providers so that care and services are available to at least the extent they are available to the general population in the geographic area.
3. Except for some special circumstances that are not relevant for this article, providers must accept Medicaid reimbursement as payment in full.

Whether the second statutory requirement is met is particularly important

for families of infants and young children with hearing loss. As discussed in other articles in this supplemental issue,^{7,8} the lack of qualified pediatric audiologists is one of the biggest obstacles to providing high-quality services to infants and young children with hearing loss and their families.² In addition, ensuring that payments are sufficient to enlist enough providers has been the subject of extensive debate and even lawsuits in several states regarding the provision of health care services.⁹

State Medicaid officials recognize that reimbursement rates are often well below the actual cost incurred to provide care to Medicaid-insured children. However, faced with serious fiscal difficulties, most states have elected not to increase provider payments but, rather, to extend coverage to the growing number of children who are eligible for Medicaid. Between 2003 and 2004, one-third of states actually froze or reduced fee-for-service provider payments.^{6,10} Research has also revealed that pediatricians cite low reimbursement as the key factor that limits their participation in Medicaid, and nearly one-third of pediatricians have reported that they would accept more Medicaid patients if reimbursement rates were increased.^{4,9,10}

Until recently, little attention has been directed at the adequacy of Medicaid reimbursement for audiology and speech-language pathology services despite the fact that significant hearing loss is the most frequent birth defect in the United States; ~3 in 1000 newborns have a permanent hearing loss.^{11,12} By the time children reach school age, the prevalence triples to at least 10 in 1000.¹³

In addition to the fact that permanent hearing loss has significant negative impact for a relatively large number of children if it is not identified and treated at a very young age,¹¹ 3 other factors underscore the need for an ob-

jective analysis of Medicaid reimbursement rates of hearing services for children. First, new medical standards and technology for infants and children with hearing loss have been adopted in the last 10 years but may not yet be incorporated into states' EPSDT policies and procedures.¹⁴ Second, a serious shortage of qualified pediatric audiologists is adversely affecting timely access to care for all children, but especially low-income children.^{2,7,8} Third, progress in evaluating and intervening early with children suspected of having hearing loss has not kept pace with our national Healthy People 2010 goals,¹⁵ which call for an increase in the proportion of newborns who are screened for hearing loss by the age of 1 month, have an audiologic evaluation before the age of 3 months, and are enrolled in appropriate intervention before the age of 6 months.

Our study addressed the following questions:

1. Do state Medicaid agencies have reimbursable codes for a comprehensive set of hearing services for children?
2. What are states' payment policies for children's hearing services?
3. Did the amount of reimbursement for children's hearing services change between 2000 and 2005?
4. How do state Medicaid fees for children's hearing services compare to Medicare and commercial fees?

The goal of the study was to assess whether Medicaid is providing payment for children's hearing services in ways that are likely to support or interfere with the provision of timely and appropriate services for children identified with permanent hearing loss.

METHODOLOGY

Information for this study was obtained from a survey of 15 states (Idaho, Illinois, Iowa, Kentucky, Maine,

Maryland, Massachusetts, New Mexico, North Dakota, Ohio, Oklahoma, Texas, Vermont, Washington, and Wyoming) conducted by the Maternal and Child Health Policy Research Center between January and March 2005 and compared with a previous survey conducted between November 2000 and February 2001.¹⁶ Six states (Arizona, Connecticut, Delaware, Minnesota, Oregon, and Tennessee) that relied exclusively on capitated managed care organizations were excluded. Therefore, the fees presented in this article are direct provider payments for services provided to children in fee-for-service arrangements, primary care case management systems, or in managed care organizations that carve out audiology services from a managed care contract.

Sixty-five codes for children's hearing services were examined, including codes for audiologic diagnostic evaluation and treatment services, hearing, speech, and language function tests, hearing aid services, cochlear implant services, and assistive communication services. For each service, we determined whether states had a billable *Current Procedural Terminology* (CPT) code or a Healthcare Common Procedure Coding System (HCPCS) code. We then examined the average, range, and distribution of payments for 2005 and compared them to fees paid in 2000 on the basis of a previous study.¹⁷ To assess payment adequacy, we analyzed differences in 2005 Medicaid and Medicare fees on the basis of Medicare fee schedules for audiologists published by the Centers for Medicare & Medicaid Services.¹⁸ We also analyzed differences in Medicaid and commercial fees on the basis of actuarial data from Milliman, Inc, which conducted an evaluation for the American Speech-Language-Hearing Association of the fees paid for certain hearing assessment and treatment services, sup-

plies, and devices in a typical employer-sponsored health insurance plan. Milliman calculated the prevalence of the procedures and the unit cost of providing the procedures from a large database of commercial claim encounters. The report also used the Milliman health care guidelines, which reflect a level of utilization and charges per service associated with typical employer-sponsored health care coverage in the United States.¹⁹

RESULTS

Data were analyzed with respect to fees paid for various services related to children's health services, how those fees changed from 2000 to 2005, and how the fees compared to fees paid for the same services by Medicare and commercial providers.

Billable Codes, Current Fees, and Payment Trends for Specific Hearing Services

Results are presented for children's hearing services in 5 areas: (1) audiologic, diagnostic, evaluation, and treatment services; (2) audiologic function tests; (3) hearing aid services; (4) cochlear implant services; and (5) assistive communication services.

Audiologic Diagnostic, Evaluation, and Treatment Services

This category included services related to (1) evaluation of speech, language, voice, communication, auditory processing, and aural rehabilitation status and (2) treatment of these disorders. In 2005, 13 of the 15 states in our study had a billable code for diagnostic evaluation services. The average payment rate for this service was \$59.98 (range: \$12.10–\$127.42) as shown in Table 1. The vast majority of states paid rates for these services that were in the lowest to middle fee distribution level (in other words, most states paid between \$12.10 and \$50.54). Medicaid fees for diagnostic

and evaluation services were, on average, 32% higher than fees paid in these same states in 2000, as shown in Table 2.

For audiologic treatment services, 2 states did not have a billable code. For the remaining states, Medicaid agencies reimbursed less for audiologic treatment than for evaluation services and paid, on average, \$39.16 (range: \$10.38–\$69.03). The most likely factor accounting for the wide range in Medicaid payment rates for these 2 services is the length of the visit (15, 30, or 60 minutes), which is not distinguished in CPT codes. Compared with evaluation services, almost one-third of the states had fees for audiologic treatment in the highest fee distribution. Over the 5-year study period, Medicaid fees for this service increased by 21%.

Audiologic Function Tests

To detect permanent hearing loss at an early age, a variety of audiologic function tests are used with infants and young children. Almost all states had billable codes for each of the 15 audiologic function tests analyzed in this study; the exceptions were for select picture audiometry, auditory evoked potentials for evoked response audiometry, and/or testing of the central nervous system (limited), which were not used by 1 to 4 of the 15 states.

Medicaid fees for audiologic tests varied significantly; payment for comprehensive auditory evoked potentials was at the highest average rate (\$90.76), and payment for acoustic reflex testing was at the lowest (\$11.21). There were a number of noteworthy payment patterns. For example, the average payment for CPT code 92587 (evoked otoacoustic emissions: limited) was \$45.05 (range: \$16.00–\$59.01). This test typically requires ~15 minutes by a technician who has had a few hours of training and uses a

TABLE 1 Average Medicaid Fee-For-Service Payment Amounts for Hearing Services in 15 States, 2005

CPT or HCPCS Code	Audiology Services	Average Payment		Range of Payments (Low to High), \$	Lowest Third, %	Middle Third, %	Highest Third, %
		\$	No. of States Reporting				
Audiologic diagnostic, evaluation, and treatment services							
92506	Evaluation of speech, language, voice communication, auditory processing, and/or aural rehabilitation status	59.98	13	12.10–127.42	38.46	53.85	7.69
92507	Treatment of speech, language, voice communication, and/or auditory processing disorder (includes aural rehabilitation), individual	39.16	13	10.38–69.03	38.46	30.77	30.77
Audiologic function tests							
92551	Pure tone screening test	11.97	14	4.00–17.58	21.43	28.57	50.00
92552	Pure tone audiometry, air only	12.62	15	6.00–17.38	13.33	53.33	33.33
92553	Pure tone audiometry, air and bone	19.29	14	13.97–26.06	35.71	42.86	21.43
92555	Speech audiometry threshold	11.37	14	8.99–15.20	50.00	28.57	21.43
92556	Speech audiometry with speech recognition	18.09	15	9.00–40.00	86.67	6.67	6.67
92557	Comprehensive audiometry threshold	36.86	15	28.10–47.42	33.33	53.33	13.33
92567	Tympanometry	15.68	15	5.50–21.00	6.67	33.33	60.00
92568	Acoustic reflex testing	11.21	15	4.50–15.00	13.33	33.33	53.33
92579	Visual reinforcement audiometry	19.66	14	4.50–28.60	7.14	42.86	50.00
92582	Conditioning play	20.82	13	11.88–28.60	23.08	46.15	30.77
92583	Select picture	22.72	11	4.50–35.11	18.18	27.27	54.55
92585	Auditory evoked potentials for evoked response audiometry and/or testing of central nervous system, comprehensive	90.76	15	45.11–140.00	26.67	53.33	20.00
92586	Auditory evoked potentials for evoked response audiometry and/or testing of central nervous system, limited	56.59	11	43.21–72.40	36.36	36.36	27.27
92587	EOEs, limited	45.05	15	16.00–59.01	6.67	33.33	60.00
92588	EOEs, comprehensive or diagnostic	61.48	15	26.00–77.47	6.67	26.67	66.67
Hearing aid services							
92590	Hearing aid exam and selection, monaural	42.86	10	16.92–65.00	20.00	50.00	30.00
92591	Hearing aid exam and selection, binaural	62.84	10	36.24–165.00	80.00	10.00	10.00
92592	Hearing aid check, monaural	18.80	9	10.61–35.00	66.67	22.22	11.11
92593	Hearing aid check, binaural	26.01	10	13.07–45.00	50.00	20.00	30.00
92594	Electroacoustic evaluation for hearing aid, monaural	16.78	8	11.48–16.25	12.50	12.50	75.00
92595	Electroacoustic evaluation for hearing aid, binaural	49.03	7	8.71–200.00	85.71	0.00	14.29
92596	Ear protector evaluation	17.79	7	13.93–23.53	57.14	28.57	14.29
V5010	Assessment for hearing aid	36.00	4	12.56–62.12	50.00	25.00	25.00
V5011	Fitting orientation/checking of hearing aid	24.64	4	5.00–40.00	25.00	25.00	50.00
V5014	Repair, modification of hearing aid	136.37	4	80.48–250.00	75.00	0.00	25.00
V5090	Dispensing fee, unspecified hearing aid	237.38	5	75.00–350.00	20.00	40.00	40.00
V5110	Dispensing fee, bilateral, in the ear	500.00	2	300.00–700.00	50.00	0.00	50.00
V5160	Dispensing fee, binaural, BTE	346.28	8	100.00–700.00	25.00	62.50	12.50
V5241	Dispensing fee, monaural hearing aid, any type	240.94	6	120.00–350.00	16.67	50.00	33.33
V5050	Hearing aid monaural, in the ear	411.69	10	350.00–467.00	20.00	50.00	30.00
V5060	Hearing aid monaural (BTE)	409.39	10	350.00–465.07	20.00	50.00	30.00
V5130	Hearing aid binaural, in the ear	779.28	9	400.00–950.00	11.11	22.22	66.67
V5140	Hearing aid binaural, BTE	775.89	9	400.00–960.68	11.11	22.22	66.67
V5247	Hearing aid, digitally programmable analog, monaural, BTE	529.25	5	350.00–1070.25	80.00	0.00	20.00
V5253	Hearing aid, digitally programmable, binaural, BTE	1022.85	5	400.00–1987.24	60.00	20.00	20.00
V5257	Hearing aid, digital, monaural, BTE	394.00	4	350.00–450.00	50.00	25.00	25.00
V5261	Hearing aid, digital, binaural, BTE	688.00	4	400.00–900.00	25.00	25.00	50.00
V5264	Ear mold/insert, not disposable, any type	30.83	9	15.00–45.00	22.22	33.33	44.44
V5265	Ear mold/insert, disposable, any type	34.43	3	19.80–45.00	33.33	0.00	66.67
V5266	Battery for use in hearing device	3.98	11	1.00–20.00	90.91	0.00	9.09
V5267	Hearing aid supplies/accessories		a	21.50–21.50	a	a	a
V5275	Ear impression, each		a	a	a	a	a

TABLE 1 Continued

CPT or HCPCS Code	Audiology Services	Average Payment		Range of Payments (Low to High), \$	Lowest Third, %	Middle Third, %	Highest Third, %
		\$	No. of States Reporting				
V5299	Hearing service miscellaneous	151.50	4	25.00–401.00	75.00	0.00	25.00
Cochlear implant services							
L8614	Cochlear device/system	15 247.53	4	14 074.16–17 127.00	50.00	25.00	25.00
L8616	Microphone for use with cochlear implant device, replacement	84.36	3	82.70–85.19	33.33	0.00	66.67
L8617	Transmitting coil for use with cochlear implant device, replacement	73.68	3	72.23–74.40	33.33	0.00	66.67
L8618	Transmitter cable for use with cochlear implant device, replacement	20.95	2	20.64–21.25	50.00	0.00	50.00
L8619	Cochlear implant external speech processor, replacement	5366.23	5	41.95–7352.00	20.00	0.00	80.00
L8620	Lithium ion battery for use with cochlear implant device, replacement, each	51.94	3	50.93–52.45	33.33	0.00	66.67
L8621	Zinc air battery for use with cochlear implant device, replacement, each	0.85	3	0.50–1.56	66.67	0.00	33.33
L8622	Alkaline battery for use with cochlear implant device, any size, replacement	0.59	4	0.26–1.56	75.00	0.00	25.00
92510	Aural rehabilitation, following cochlear implant with or without speech processor programming	81.63	12	20.99–132.13	25.00	41.67	33.33
92601	Cochlear implant follow-up exam, <7 y of age	84.82	11	49.00–125.98	27.27	45.45	27.27
92602	Reprogram cochlear implant, <7 y	60.58	11	37.80–87.97	36.36	36.36	27.27
92603	Cochlear implant follow-up exam, >7 y	57.79	11	36.12–83.26	36.36	36.36	27.27
92604	Reprogram cochlear implant, >7 y	40.40	11	24.78–55.75	36.36	27.27	36.36

EOEs indicates evoked otoacoustic emissions; BTE, behind the ear.

^a Data for this service were not reported by any state, or values in the table could not be calculated because there was no range in reported values.

piece of handheld equipment that costs approximately \$4000. Visual reinforcement audiometry (CPT code 92579), on the other hand, had an average reimbursement rate of \$19.66 (range: \$4.50–\$28.60) but requires a specially designed sound booth with an adjoining observation room (which costs at least \$35 000) and an additional \$25 000 worth of equipment. A licensed audiologist with extensive specialized training and an assistant are needed for 1 to 2 hours to complete the test. The Medicaid fee schedules for almost all of the audiologic function tests declined from 2000 to 2005.

Hearing Aid Services

The 29 hearing aid services examined in this study included CPT codes for hearing aid examinations and HCPCS codes for hearing aid fitting and repairs as well as for different types of

hearing aids. Twelve of the 29 hearing aid codes are new since 2000. State Medicaid reimbursement policies for hearing aid services are much more varied than for either diagnostic and treatment services or audiologic function tests. Several states set their fees on the basis of manual pricing or bundled multiple services into a single fee. The hearing aid services least likely to have allowable billing codes were dispensing fees (bilateral, in the ear) and ear impressions. The hearing aid services most likely to be paid on the basis of billed charges are hearing aid repair, hearing aid supplies, and miscellaneous hearing aid services. Five of the 15 states in our sample had no billable codes for digitally programmable hearing aids, and 1 of these 5 states had no billable codes for any hearing aid service. The range of Medicaid payments for hearing aid services is dra-

matic. For example, a provider in the state with the highest rate would be reimbursed 20 times as much for performing an electroacoustic evaluation for a binaural hearing aid as a provider in the state with the lowest rate. Other significant payment differences can be seen with digitally programmable hearing aids, the payment for which ranged from \$350 to \$1070 (monaural) and \$400 to \$1987 (binaural).

Fees for half of the hearing aid codes that existed in both 2000 and 2005 declined over the 5-year period. For example, the average rates for electroacoustic evaluation for hearing aid (binaural) decreased 35%, whereas most other fees declined by ~5%.

Cochlear Implant Services

Of the 13 cochlear implant services analyzed, 10 had been added since 2000.

TABLE 2 Trends in State Medicaid Fee-For-Service Payment Amounts for Hearing Services in 15 States, 2000 and 2005

CPT or HCPCS Code	Audiology Services	Average Payments, \$		Percentage Change
		2000	2005	
Audiologic diagnostic evaluation and treatment services				
92506	Evaluation of speech, language, voice communication, auditory processing, and/or aural rehabilitation status	45.40	59.98	32
92507	Treatment of speech, language, voice communication, and/or auditory processing disorder (includes aural rehabilitation), individual	32.49	39.16	21
Audiologic function tests				
92551	Pure tone screening test	11.67	11.97	3
92552	Pure tone audiometry, air only	13.91	12.62	-9
92553	Pure tone audiometry, air and bone	21.10	19.29	-9
92555	Speech audiometry threshold	11.15	11.37	2
92556	Speech audiometry with speech recognition	NC	18.09	—
92557	Comprehensive audiometry threshold	37.54	36.86	-2
92567	Tympanometry	15.96	15.68	-2
92568	Acoustic reflex testing	11.34	11.21	-1
92579	Visual reinforcement audiometry	20.79	19.66	-5
92582	Conditioning play	25.26	20.82	-18
92583	Select picture	25.86	22.72	-12
92585	Auditory evoked potentials for evoked response audiometry and/or testing of central nervous system, comprehensive	105.82	90.76	-14
92586	Auditory evoked potentials for evoked response audiometry and/or testing of central nervous system, limited	60.14	56.59	-6
92587	E0Es, limited	45.63	45.05	-1
92588	E0Es, comprehensive or diagnostic	62.87	61.48	-2
Hearing aid services				
92590	Hearing aid exam and selection, monaural	63.21	42.86	-32
92591	Hearing aid exam and selection, binaural	65.60	62.84	-4
92592	Hearing aid check, monaural	19.16	18.80	-2
92593	Hearing aid check, binaural	27.03	26.01	-4
92594	Electroacoustic evaluation for hearing aid, monaural	16.87	16.78	-1
92595	Electroacoustic evaluation for hearing aid, binaural	75.52	49.03	-35
92596	Ear protector evaluation	17.02	17.79	5
V5010	Assessment for hearing aid	30.14	36.10	20
V5011	Fitting orientation/checking of hearing aid	21.43	24.64	15
V5014	Repair, modification of hearing aid	87.16	136.37	57
V5090	Dispensing fee, unspecified hearing aid	198.77	237.38	19
V5110	Dispensing fee, bilateral, in the ear	377.25	500.00	33
V5160	Dispensing fee, binaural, BTE	NC	346.28	—
V5241	Dispensing fee, monaural hearing aid, any type	NC	240.94	—
V5050	Hearing aid monaural, in the ear	416.50	411.67	1
V5060	Hearing aid monaural, BTE	416.50	411.69	-1.20
V5130	Hearing aid binaural, in the ear	760.64	779.28	2.50
V5140	Hearing aid binaural, BTE	755.10	755.89	2.80
V5247	Hearing aid, digitally programmable analog, monaural, BTE	NC	529.25	—
V5253	Hearing aid, digitally programmable, binaural, BTE	NC	1022.85	—
V5257	Hearing aid, digital, monaural, BTE	NC	394.00	—
V5261	Hearing aid, digital, binaural, BTE	NC	688.00	—
V5264	Ear mold/insert, not disposable, any type	NC	30.83	—
V5265	Ear mold/insert, disposable, any type	NC	34.43	—
V5266	Battery for use in hearing device	NC	3.98	—
V5267	Hearing aid supplies/accessories	NC	21.50	—
V5275	Ear impression, each	NC	0.00	—
V5299	Hearing service miscellaneous	NC	151.50	—
Cochlear implant services				
L8614	Cochlear device/system	14 101.76	15 247.53	8
L8616	Microphone for use with cochlear implant device, replacement	NC	84.36	—
L8617	Transmitting coil for use with cochlear implant device, replacement	NC	73.68	—
L8618	Transmitter cable for use with cochlear implant device, replacement	NC	20.95	—

TABLE 2 Continued

CPT or HCPCS Code	Audiology Services	Average Payments, \$		Percentage Change
		2000	2005	
L8619	Cochlear implant external speech processor, replacement	5753.61	5366.23	-6.70
L8620	Lithium ion battery for use with cochlear implant device, replacement, each	NC	51.94	—
L8621	Zinc air battery for use with cochlear implant device, replacement, each	NC	0.85	—
L8622	Alkaline battery for use with cochlear implant device, any size, replacement	NC	0.59	—
92510	Aural rehabilitation, following cochlear implant with or without speech processor programming	73.32	81.63	11.30
92601	Cochlear implant follow-up exam, <7 y of age	NC	84.82	—
92602	Reprogram cochlear implant, <7 y of age	NC	60.58	—
92603	Cochlear implant follow-up exam, >7 y of age	NC	57.79	—
92604	Reprogram cochlear implant, >7 y of age	NC	40.40	—

NC indicates no code; EOE, evoked otoacoustic emissions; BTE, behind the ear; —, not applicable.

States in our sample commonly established manual pricing policies for cochlear implant services, and a few states included the cochlear implant device and its replacement in the hospital payment for cochlear implant surgery. Three states included no codes for cochlear implants, and 4 states had no billable code for cochlear implant replacements.

In 2005, state Medicaid payments for the cochlear implant device in the 4 states that covered this code averaged \$15 248 and ranged from a low of \$14 074 to a high of \$17 127. Cochlear implant replacement fees in the 5 states that covered that code paid, on average, \$5366 (range: \$41.95–\$7352). On the basis of reported fee data, cochlear implant replacements were reimbursed at only 22% of the initial implant. Between 2000 and 2005, fees for initial cochlear implants increased by 8%, and fees for replacements decreased by almost 7%.

Assistive Communication Services

Only 3 of the 15 states allowed providers to bill for this service. Of the remaining states, 3 did not provide information about their payment policies, and 9 had no billable code. Although we found no change overall in the pattern of coverage and payment for assistive communication devices services since 2000, 3 states shifted their policies, mostly to be more restrictive.

Comparison of Medicaid to Medicare and Commercial Fees

Average Medicaid fees in 2005 were compared with Medicare and commercial fees to examine the adequacy of Medicaid payment for 21 selected children’s hearing services. Overall, Medicaid’s fees were only 67% of Medicare’s fees and only 38% of commercial fees. Table 3 shows that Medicare fees were consistently higher than Medicaid fees for the audiology services examined. As a proportion of Medicare fees, Medicaid fees ranged from a low of 45% to a high of 88%. As a proportion of commercial fees, Medicaid fees ranged from a low of 37% to a high of 112%. For all but 1 service, commercial fees were considerably higher than Medicaid fees.

State Medicaid agencies allow fee-for-service coverage for a broad range of diagnostic and evaluation tests and treatment services for children related to hearing loss but sometimes restrict reimbursement for specific hearing aid services, cochlear implant services, and assistive communication services. The extent to which these services were covered under EPSDT was not examined as a part of this study. However, federal EPSDT law obligates states to pay for medically necessary services to correct or ameliorate physical conditions identified by a screen regardless of whether the service or

item is otherwise included in the state Medicaid plan.²⁰ Therefore, it may be possible that, on an individual case basis, states approve and cover audiology services for which they do not have billable codes.

CONCLUSIONS

Although a relatively broad array of hearing services for children are covered by state Medicaid programs, fees are low: only 67% as much as Medicare fees and 38% as much as commercial fees for the same services. The impact of such low fees is that providers are less likely to see Medicaid patients, which contributes to the difficulty that children with hearing loss have in getting the services they need. Since 2000, Medicaid fees for more than half of all hearing services for children examined actually declined in our 15-state sample. Thus, it is not surprising that state EHDI coordinators report difficulty in getting audiological evaluations completed for infants who are referred from the newborn hearing-screening programs. There was also significant variation among states in the level of Medicaid reimbursement for most hearing services for children. This variation is not accounted for by whether a state is rural or urban or whether a state has a low or high average per-capita income. It does suggest that the quality of services for hearing

TABLE 3 Comparison of Average Medicaid to Average Medicare and Commercial Fees for Selected Audiology Services, 2005

Selected CPT Code	Audiology Services	Medicaid Average 2005		Medicare Average 2005 Fees, \$	Medicaid Fees as Percentage of Medicare Fees	Commercial Average 2005 Fees, \$	Medicaid Fees as Percentage of Commercial Fees
		\$	No. of Reporting States				
92506	Evaluation of speech, language, voice communication, auditory processing, and/or aural rehabilitation status	59.98	13	131.88	45	114.66	52
92507	Treatment of speech, language, voice communication, and/or auditory processing disorder (includes aural rehabilitation), individual	39.16	13	62.53	63	81.42	48
92552	Pure tone audiometry, air only	12.62	15	118.19	69	19.59	64
92553	Pure tone audiometry, air and bone	19.29	14	27.29	71	27.55	70
92555	Speech audiometry threshold	11.37	14	15.92	71	18.04	63
92556	Speech audiometry with speech recognition	18.09	15	23.88	76	24.94	73
92557	Comprehensive audiometry threshold	36.86	15	49.65	74	51.10	72
92567	Tympanometry	15.68	15	21.98	71	22.78	69
92568	Acoustic reflex testing	11.21	15	15.92	70	15.91	70
92579	Visual reinforcement audiometry	19.66	14	29.94	66	39.96	49
92582	Conditioning play	20.82	13	29.94	70	39.48	53
92583	Select picture	22.72	11	36.76	62	38.75	59
92585	Auditory evoked potentials for evoked response audiometry and/or testing of central nervous system, comprehensive	90.76	15	103.46	88	150.40	60
92586	Auditory evoked potentials for evoked response audiometry and/or testing of central nervous system, limited	56.59	11	75.42	75	87.71	68
92587	E0Es, limited	45.05	15	61.39	73	82.01	55
92588	E0Es, comprehensive or diagnostic	61.48	15	80.72	76	82.46	75
92510	Aural rehabilitation following cochlear implant	81.63	12	138.33	59	112.45	73
92601	Cochlear implant follow-up exam, <7 y of age	84.82	11	135.29	63	75.96	112
92602	Reprogram cochlear implant, <7 y of age	60.58	11	92.85	65	113.56	53
92603	Cochlear implant follow-up exam, >7 y of age	57.79	11	83.75	69	154.13	37
92604	Reprogram cochlear implant, >7 y of age	40.40	11	53.81	75	87.74	46

E0Es indicates evoked otoacoustic emissions.

loss that a child receives depends, in part, on where he or she lives.

Data from this study reveal a consistent pattern of inadequate Medicaid payment levels for a broad set of services related to hearing loss among infants and young children. Such low rates likely have negative consequences for access to audiology services by children from low-income families. At issue, therefore, is the extent to which states are meeting the federal requirement that payments be sufficient to enlist enough providers so that care and services are available to the general population in the geographic area.

Although the study was based on data from 2000 and 2005 in only 15 states, it

still provides important information that can be used to improve services for infants and young children with hearing loss across the country. Participating states were from all regions of the country and were diverse with respect to population density, per-capita income, health care delivery systems, and cultural characteristics of the population. The findings and trends in these data are particularly important given that more current data have not been reported.

Given the benefits that accrue to infants and young children with hearing loss when they receive timely and appropriate hearing services,¹⁴ there is a need to find ways to increase Medicaid reimbursement rates for hearing ser-

vices to young children. Making Medicaid fees comparable to Medicare and commercial fees would be an ideal solution, and it would require closer collaboration between state and federal governmental agencies, state legislatures, state EHD programs, and consumer groups.

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