

**PRIVATE HEALTH INSURANCE COVERAGE OF  
HEARING SERVICES FOR CHILDREN**

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# PRIVATE HEALTH INSURANCE COVERAGE OF AUDIOLOGY SERVICES FOR CHILDREN

## Introduction and Methods

The majority of children are insured by employer-based private health insurance, primarily through health maintenance organization (HMO) plans or preferred provider organization (PPO) plans. Unlike Medicaid, where specific preventive, diagnostic, and treatment benefits must be provided to children, private insurance is not subject to similar federal requirements. A small number of states, however, have recently enacted state mandates requiring private insurers to reimburse newborn screening, diagnosis, and treatment services. Although anecdotal evidence suggests that private health insurance offers limited coverage of hearing services for children, up until now, no studies have been conducted that analyze the scope of available coverage.

The Maternal and Child Health Policy Research Center, with funding from the federal Maternal and Child Health Bureau through the National Center for Hearing Assessment and Management, was asked to examine audiology benefits for children in private health insurance plans. A companion study on Medicaid was also conducted in 2001, consisting of two separate analyses – one on managed care contract specifications<sup>1</sup> and the other on state Medicaid payment policies.<sup>2</sup>

This private health insurance report examines coverage of hearing screening (under the preventive care benefit), evaluation, tests, treatment, hearing aids, cochlear implants, and assistive communication devices. Private health insurance information for

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<sup>1</sup> McManus MA, Hayden MS, and Fox HB. *Medicaid Managed Care Contract Provisions Pertaining to Early Hearing Detection and Intervention Services*. Washington, DC: MCH Policy Research Center, January 2001.

<sup>2</sup> McManus MA, Hayden MS, and Fox HB. *Medicaid Reimbursement of Hearing Services for Children*. Washington, DC: MCH Policy Research Center, July 2001.

this study was obtained by first contacting each state's health insurance commissioner's office to identify the HMO and PPO with the largest number of covered lives. From these plans, we obtained the most commonly sold HMO and PPO product in 1998. Our sample consists of 49 HMO plans and 49 PPO plans, totaling 98 plans.<sup>3</sup> We analyzed audiology coverage policies for children under several sections of each HMO and PPO plan – the benefit descriptions for preventive care, ambulatory care, diagnostic services, hospital care, maternity care, rehabilitative therapies, and durable medical equipment; the definition of terms; and the conditions and exclusions.

Since private health insurance plans did not have a specific section describing audiology services, we examined multiple sections of the benefit plans (as described above). We also created decision rules to judge whether certain services were covered. For example, if routine hearing exams were only covered under the preventive care benefit provided by the primary care provider, we counted this as a screening service not as an evaluation. Audiologic evaluations, tests, and treatment services were considered covered only if they were distinct, identifiable services. This may, however, be a restrictive interpretation if plans considered them covered under the physician benefit (by an otolaryngologist) or under the diagnostic service benefit. When plans were not explicit about their coverage policies we noted them as not specified, as shown on Table I.

Study findings are organized according to three sets of audiology services – screening under preventive care; evaluation, tests and treatment; and hearing aids, cochlear implants, and assistive communication devices. For each set of services, we analyzed the percentage of plans specifying coverage, the limits on each benefit, and the proportion of plans with no information. The conclusion section reviews the key findings and presents policy recommendations.

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<sup>3</sup> For information about other private health insurance benefits important to children with special health care needs, an upcoming report will be released by the MCH Policy Research Center this fall.

## **Private Health Insurance Coverage Results**

### **A. Screening**

Although almost all private health insurance plans in our study offered preventive care for children, very few specifically mentioned hearing screening as a required component of preventive care. Only a third of plans – more often HMOs than PPOs – listed routine hearing screening under their preventive care benefit,<sup>4</sup> as shown in Table I. Two of the 33 plans specifying routine hearing screening imposed monetary or visit limits. One set a monetary limit on all preventive care -- up to \$200/year, and also limited routine hearing screening to every 3 years. The other plan limited routine hearing screening to every 2 years. Only one out of the 98 plans in our sample mentioned newborn hearing screening.

### **B. Evaluation, Tests, and Treatment**

Audiologic evaluations were listed as a benefit in a third of plans. More than half of these plans also specified routine hearing screening under preventive care. Eight of the 33 plans covering audiologic evaluations set limits. All but one of these plans provided coverage only for evaluation of disease or injury. The remaining plan covered audiologic evaluations, including follow-up, only every 3 years. Half of plans failed to specify whether evaluations were covered, and 17% specifically excluded them. It is unclear if evaluations might be covered under the physician benefit. However, it is unlikely that evaluations performed by audiologists would be covered since private plans were often explicit about their coverage policies for other health professionals.

Audiologic tests were mentioned as a covered benefit in 20% of plans, and 4 of the 20 plans set limits on testing. All but one of these plans required testing only for the

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<sup>4</sup> In a few of these plans, routine hearing screening was not specifically mentioned, but reference was made to AAP standards for well child care, which include routine hearing screening. In these instances, we considered routine hearing screening as covered.

purpose of diagnosing an illness or injury, and the remaining plan allowed only one audiometric test for hearing loss per year. As many as 74% of plans provided no information in their benefit contracts regarding coverage of audiologic tests.

Seventeen percent of plans specified coverage of treatment for hearing disorders. Five of the 17 plans covering treatment allowed it only for diseases or injuries.<sup>5</sup> Still, 70% of plans did not specify whether treatment of hearing disorders was a covered benefit. Again, it is unclear if this service would be covered under the physician benefit.

### **C. Hearing Aids, Cochlear Implants, and Assistive Communication Devices**

Eleven percent of private health insurance plans covered hearing aids, and 8 of the 11 plans covering hearing aids imposed limits. Three covered hearing aids only if necessary for a disease or injury, three set monetary limits<sup>6</sup> (add footnote), and two set frequency limits – one every 3 years and one every 5 years. Unlike other hearing services where benefit coverage was often unclear, 83% of plans specifically excluded coverage of hearing aids.

Only 2% of plans listed cochlear implants as a covered benefit. Both of the plans set limits. One plan covered cochlear implants with a \$200 copayment, when determined medically necessary by the primary care provider. The other plan covered 50% of eligible expenses, but no repair, replacements or duplicates, except in the case of a change in medical condition. As many as 84% of plans failed to specify coverage of cochlear implants. Although this service might be covered under the hospital benefit, it is unlikely that this would occur given plans' restrictive medical necessity definitions.<sup>7</sup>

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<sup>5</sup> Plans excluding hearing aid fittings were considered as not covering hearing treatment. If plans covered hearing aids but did not specify coverage of hearing treatment, we presumed treatment would be covered.

<sup>6</sup> One plan set a limit of \$800 in a period of three consecutive years; the second plan set a \$3,000 maximum every three years; and the third plan set of a monetary limit of \$5,000 per year.

<sup>7</sup> Fox HB and McManus MA. A national study of commercial health insurance and Medicaid definitions of medical necessity: what do they mean for children? *Ambulatory Pediatrics*. Vol. 1, No. 1, January – February 2001.

Two percent of plans also mentioned that assistive communication devices were a covered service – under a mandated early intervention benefit for children ages 0-3. In both plans, up to \$5,000 per year of early intervention services were covered, including assistive technology services and devices and speech, physical, and occupational therapy.<sup>8</sup> Again, despite the large number of plans failing to specify assistive communication devices, it is unlikely that plans would consider this a health insurance benefit.

## **Conclusions**

In 1998, private health insurance provided very limited coverage of audiology services, and PPOs offered less coverage than HMOs, except for hearing aids. With respect to newborn hearing screening, only one plan mentioned this as a covered benefit, although a third of plans listed routine hearing screening as part of their preventive care benefit. The same proportion of plans mentioned covering audiologic evaluations, but only about a fifth listed tests and treatment as covered benefits.. Hearing aids were covered in a tenth of plans, and cochlear implants and assistive communication devices each in just 2% of plans. Even when audiology services were covered, many private benefit plans restricted coverage only if associated with a disease or injury, not a congenital condition.

This study revealed not only that few audiology services were covered by private health insurance plans, but also that most audiology services are seldom clearly specified. No plan in our study presented a comprehensive description of its audiology benefit. As a result, families with children, particularly those with or at risk of hearing disorders, would not have sufficient written information about their coverage policies nor would

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<sup>8</sup> Three other plans had special early intervention benefits, but they did not include assistive communication devices.

they be able to make informed decisions about purchasing a private insurance policy that best meets their needs.

The Maternal and Child Health Bureau, with the National Center for Hearing Assessment and Management, the American Speech-Language-Hearing Association, and other interested organizations, should work closely with the National Association of Insurance Commissioners, the Health Insurance Association of America, the American Association of Health Plans, and the Washington Business Group on Health to develop model insurance language as well as to encourage employers, insurers, and managed care organizations to be more explicit about their coverage of audiology services. In addition, educational information should be provided to purchasers about current medical guidelines and standards on hearing screening, evaluation and treatment for infants and children.

Given the inadequacy of audiology benefits for children found in this national sample of commonly sold private health insurance plans, federal and state policymakers should consider both short and long-term strategies to achieve comprehensive private health insurance coverage, consistent with MCHB's core performance outcomes for the year 2010. One approach would be to expand the financial and service responsibilities of Title V agencies to assure the provision of some or all audiology services for children. A second approach would be to enact state mandates requiring private insurers to cover audiology services. A third approach would be to expand Medicaid as a wrap-around policy, at least for coverage of hearing aids and cochlear implants. Each of these approaches has its strengths and weaknesses, which need to be more fully explored. To the extent that a financing initiative for audiology services is part of a broader health care financing strategy to address the serious problem of underinsurance among privately insured children with special health care needs, the more effective and far reaching the outcome will likely be.

**TABLE I**

**PRIVATE HEALTH INSURANCE BENEFIT COVERAGE  
OF AUDIOLOGY SERVICES, 1998**

AUDIOLOGY SERVICES	Total (n=98)	HMOs (n=49)	PPOs (n=49)
1. Newborn Hearing Screening			
Covered	0%	0%	0%
Not Covered	0%	0%	0%
Not Specified	100%	100%	100%
2. Routine Hearing Screening			
Covered	34%	49%	18%
Not Covered	0%	0%	0%
Not Specified	66%	51%	82%
3. Audiologic Evaluation			
Covered	34%	41%	26%
Not Covered	17%	10%	24%
Not Specified	49%	49%	49%
4. Audiologic Tests			
Covered	20%	22%	18%
Not Covered	6%	4%	8%
Not Specified	74%	73%	76%
5. Audiologic Treatment			
Covered	17%	20%	14%
Not Covered	13%	14%	12%
Not Specified	70%	67%	73%
6. Hearing Aids			
Covered	11%	8%	14%
Not Covered	83%	90%	76%
Not Specified	6%	2%	10%
7. Cochlear Implants			
Covered	2%	2%	2%
Not Covered	14%	14%	14%
Not Specified	84%	84%	84%
8. Assistive Communication Devices			
Covered	2%	2%	2%
Not Covered	3%	4%	2%
Not Specified	95%	94%	96%

**Source:** Information was obtained by the Maternal and Child Health Policy Research Center through an analysis of commercial health insurers' contract documents obtained during the fall and winter of 1998.



**MEDICAID REIMBURSEMENT OF  
HEARING SERVICES FOR CHILDREN**

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# MEDICAID REIMBURSEMENT OF HEARING SERVICES FOR CHILDREN

## I. Introduction and Methods

State Medicaid agencies pay for hearing services either as part of a monthly capitated payment to a managed care organization (MCO), or as a fee-for-service (FFS) payment to a provider directly. Direct provider payments are made under three types of arrangements: when a child is not enrolled in any type of managed care and the state Medicaid agency reimburses all Medicaid services; when a child is enrolled in a primary care case management system (PCCM) and the state Medicaid agency reimburses all or most Medicaid services; or when a child is enrolled in an MCO and hearing services are carved out of the managed care contract.

In 1999, 20% of all children were insured by Medicaid.<sup>1</sup> Although state Medicaid agencies vary widely in their use of MCOs, the bulk of children are enrolled in fully capitated MCOs. Of the 44 state Medicaid agencies that responded to our survey, 38 (86%) enrolled some or all eligible children into MCOs on a limited or statewide basis in 1999,<sup>2</sup> as shown in Table I. Five of the 38 states relied exclusively on MCOs. Twenty-seven of the 44 states in our survey (61%) enrolled some or all eligible children into PCCMs on a limited or statewide basis in 1999, and 38 states (86%) retained FFS arrangements, but mostly on a limited basis. Only six states relied exclusively on PCCMs or FFS arrangements in 1999.

State Medicaid agencies establish their fees according to CPT,<sup>3</sup> HCPCS,<sup>4</sup> or state-specific codes. Just over half of the states in our survey used CPT or HCPCS codes

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<sup>1</sup> American Academy of Pediatrics. *Children's Health Insurance Status and Public Program Participation*. Elk Grove Village, IL: American Academy of Pediatrics, 2000.

<sup>2</sup> Fox HB, Austrian JS, Hsu W and Limb S. *An Analysis of States' Medicaid Managed Care Enrollment Policies Affecting Children, 1996-1999*. Washington, DC: Maternal and Child Health Policy Research Center, October 2000.

<sup>3</sup> American Medical Association. *Physicians' Current Procedural Terminology, Standard Edition*. Chicago, IL: American Medical Association, 2000.

exclusively, the remaining states used state-specific codes, but usually for only a handful of services, including hearing aid services. About 40% of states use different rate structures for specific hearing services, depending on whether they are furnished in an inpatient hospital setting, outpatient hospital setting, or clinic setting.

The Maternal and Child Health Policy Research Center, with funding from the federal Maternal and Child Health Bureau through the National Center for Hearing Assessment and Management at Utah State University, was asked to examine variation in state Medicaid payment methods and amounts for a comprehensive set of hearing services for children enrolled in MCOs, PCCMs, and FFS arrangements. In a previous report, we analyzed Medicaid managed care contract specifications for hearing services under the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) benefit.<sup>5</sup>

This study addresses four research questions. First, what hearing service codes do states consider allowable for reimbursement purposes? Second, what are the average and range of Medicaid payment amounts for specific hearing services reimbursed on a fee-for-service basis? Third, what hearing services are most likely to be carved out of MCO contracts and paid for on a fee-for-service basis? Fourth, what recent Medicaid reimbursement changes have been made pertaining to newborn hearing screening and follow-up tests?

The MCH Policy Research Center obtained state Medicaid reimbursement information for 2000 based on a mail survey questionnaire conducted between November 2000 and February 2001. A comprehensive list of hearing services was identified by Karl White of the National Center for Hearing Assessment and Management and Terry Foust of Intermountain Health Care Community Clinics. In each state, we contacted the EPSDT director to identify the Medicaid staff person responsible for reimbursement policy or hearing services. Once identified, the survey was faxed or mailed to that individual. Forty-four states responded to our survey, giving us an 84% response rate. We asked states to provide us with reimbursement information for a comprehensive list

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<sup>4</sup> Health Care Financing Administration. *Alpha-Numeric HCFA Common Procedure Coding System*. Washington, DC: Government Printing Office, 2000.

<sup>5</sup> McManus M, Hayden M, and Fox H. *Medicaid Managed Care Contract Provisions Pertaining to Early Hearing Detection and Intervention Services*. Washington, DC: Maternal and Child Health Policy Research Center, January 2001.

of 39 hearing services. In a few instances states did not provide us with information for all of these services, and were excluded from the relevant service analysis. When state-specific codes were used, we translated these codes into comparable CPT or HCPCS codes. When states paid different amounts depending on the setting, we collected the rates paid to clinics.

Although the reimbursement information we received from states is certainly accurate, the responses we received on hearing services carved out of managed care contracts may be less reliable, particularly for services that may be financed separately under early intervention or health-related special education services, despite the fact that all states not reporting carve-outs for cochlear implants or assistive listening devices were called back for confirmation purposes.

Study results on Medicaid reimbursement policies are presented according to diagnostic and treatment services, audiologic tests, hearing aid services, and cochlear implant and other services. A review of average payment amounts and ranges follows. The report ends with a summary of state reimbursement changes and issues related to newborn hearing screening.

## **II. Reimbursement Findings**

### **A. Audiologic Diagnostic Evaluation and Treatment Services**

The two audiologic diagnostic evaluation and treatment services examined were special otorhinolaryngologic services not usually included in a comprehensive otorhinolaryngologic evaluation or office visit. These are: 1) evaluation of speech, voice, communication, auditory processing, and aural rehabilitation status (CPT 92506) and 2) treatment of these disorders (92507). All but two state Medicaid programs in our study sample (95%) allowed qualified providers to bill on a fee-for-service basis for an audiologic evaluation of speech, language, voice, communication, auditory processing, and aural rehabilitation status in 2000, as shown on Table II. A somewhat smaller proportion of states (86%) had a billable code for treatment of speech, voice,

communication, and auditory processing disorders. Only one of the 36 states (California) that contracted with MCOs carved these two services out of their capitated rates and paid for them on a fee-for-service basis.

Payment amounts for diagnostic evaluation were 50% higher than for treatment, as shown in Table III. For diagnostic evaluation, state Medicaid agencies reimbursed, on average, \$40.20, but fees ranged from a low of \$11.66 to a high of \$63.46. If the difference between highest and lowest amount -- \$51.80 -- were divided into thirds, we would find that 19% of states were paying in the lowest third, 53% were paying in the middle third, and 28% were paying in the highest third. For treatment, state Medicaid agencies reimbursed, on average, \$26.79, with the lowest fee of \$7 and the highest fee of \$47.23. Importantly, differences in Medicaid payment rates for these two special audiologic services may be attributable in part to the length of the visit (15, 30, or 60 minutes), which was not taken into account in the CPT codes. Unfortunately, few states provided us with visit duration information.

## **B. Audiologic Function Tests**

The 13 audiologic function tests with medical diagnostic evaluation that we analyzed use calibrated electronic equipment. Other hearing tests (such as whispered voice, tuning fork) considered part of the general otorhinolaryngologic services were not reported separately. Our survey revealed that almost all states had billable codes for each of the 13 audiologic function tests, as shown on Table II. The few that did not lacked codes for visual response audiometry, select picture audiometry, and evoked otoacoustic emissions (limited). Not unlike the findings described above for audiologic diagnostic evaluation and treatment, we found very few states allowed audiologic function tests to be carved out of their capitated managed care arrangements. The exceptions were California, for all 13 tests; Florida, for 10 tests; and Maryland, for four tests.

Fees for audiologic function tests varied significantly by test, as shown in Table III, with payments for auditory evoked potentials reimbursed at the highest average rate (\$97.72) and acoustic reflex testing at the lowest average rate (\$10.48). Comprehensive hearing evaluation fees, which typically include otoscopic inspection, puretone testing,

tympanometry, and speech threshold as well as the professional time of an audiologist, were on average only \$35.21, and ranged from a low of \$19 to a high of \$64.44. The three audiologic function tests with the greatest variation in payment amounts were select picture audiometry, pure tone screening test (air only), and evoked otoacoustic emissions (limited). More than a ten-fold difference was found among states covering each of these services. Although fee distributions differed by test, only a small proportion of states set rates in the upper third. A handful of states reimbursed for specific audiologic function tests as a percentage of billable charges, not according to a set fee schedule.

### **C. Hearing Aid Services**

The 17 hearing aid services that we examined 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. State Medicaid reimbursement policies for these services were more varied than for diagnostic and treatment services and for testing in that distinct billable codes for these services were not always established. The hearing aid services that were least likely to have allowable billing codes were fitting orientation/checking of aid and ear protector attenuation measurements, as shown on Table II. However, fitting orientation was bundled into a single hearing aid service fee in a third of states. The other service most often bundled with hearing aids was dispensing fees.

Among states using MCOs, eight states carved out one or more hearing aid services. These states were Iowa (which carved out all hearing aid services), California and Maryland (11 out of 17 hearing aid services), New Hampshire (9), Florida (6), Washington (6), Texas (5), and Ohio (2). Hearing aids, of all the services in this category, were the most commonly carved-out service.

The range in state Medicaid payments for hearing aids was dramatic, as shown on Table III. We found a four-fold difference across states in Medicaid fees for a monaural hearing aid -- from \$176 compared to \$883.80. More than a five-fold difference was found in fees for binaural hearing aids -- from \$228 compared to \$1,480.32. Most states, however, set their reimbursement amounts for all hearing aid services in the bottom third of the payment rates.



Compared to diagnostic evaluation and treatment services, many more states (32) allowed at least some hearing aid services to be reimbursed according to billed charges or as some percentage of billed charges. The hearing aid services most likely to be paid on the basis of billed charges were unlisted otorhinolaryngologic services or procedures (in 23 states), repair/modification of hearing aids (14 states), and hearing aids (11 states). States reimbursing the largest number of hearing aid services according to charges were mostly western states (Arkansas, Arizona, Idaho, Indiana, Massachusetts, Montana, New Jersey, Oklahoma, South Dakota, and Wyoming). The state of Texas, unlike any other state reporting, purchased hearing aids for its Medicaid recipients directly.

#### **D. Cochlear Implant Services**

The three cochlear implant services that we analyzed were the device, its replacement, and aural rehabilitation. Unfortunately, 12 states were excluded from our analysis because no information was provided on cochlear devices or replacements. Of the remaining 32 states, 12% reported that they had no separate or bundled hospital reimbursement codes for cochlear devices and cochlear implant replacements. Among the states with a FFS reimbursement mechanism for cochlear devices, a third paid the hospital directly for the device, its implantation, and surgical fees.

Surprisingly, we found that only six states contracting with MCOs reported carving out cochlear implants. These were California, Florida, Iowa, Kansas, Nebraska, and New Hampshire.

State Medicaid payments in the seven reporting states for cochlear devices averaged \$16,430.72, and ranged from a low of \$13,398 to a high of \$20,000. Eight states paid for cochlear devices on the basis of billed charges. Cochlear replacements were reimbursed at only about a third the amount of the initial device. Aural rehabilitation payments were, on average, \$74.12, but ranged from a low of \$12.45 to a high of \$127.

#### **E. Assistive Communication Services**

We examined two services under this category -- adaptive hearing devices and personal FM systems. Like cochlear implant services, a large number of states (13) did not provide us with information about their payment policies. Of the remaining states, as many as two-thirds reported that they did not cover adaptive hearing devices, and almost three-fourths did not cover personal FM systems. Of the states that reported Medicaid FFS payment for assistive devices, eight states reimbursed adaptive hearing devices according to charges and six states reimbursed personal FM systems on the same basis. Only five states reported carving out one or the other service from MCO contracts -- California, Iowa, New Hampshire, New Jersey, and Washington.

Medicaid reimbursement levels for these two services differed significantly among the small number of states that reported their Medicaid fee data. The average fee for adaptive hearing devices among the three reporting states was \$586, but the fees ranged from \$30 to \$1,000 -- more than a 30-fold difference. The average fee for personal FM systems was more than three times higher than for adaptive hearing devices.

#### **F. Changes in Medicaid Reimbursement Policies Pertaining to Newborn Hearing Screening**

In response to new medical guidelines and state mandates for universal newborn hearing screening, we found that only 13 states (30% of those reporting) had adjusted their hospital payment policies. Nine of these states said that the additional cost of newborn screening was factored into their hospital DRG payments. Three -- Florida, South Carolina, and West Virginia -- said that they gave hospitals a separate payment for each newborn screened (South Carolina paid \$26; West Virginia, \$20; and no information was provided by Florida). One state -- California -- developed a new HCPCS code for inpatient infant hearing screening and set its FFS reimbursement rate for certified providers at \$30.<sup>6</sup>

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<sup>6</sup> Two additional HCPCS codes were established in California -- an initial outpatient infant hearing screening and an outpatient infant hearing rescreening, each reimbursed at \$30. If a child received an inpatient screen, then only the outpatient rescreening code is payable. If a child received an initial outpatient screen, he/she is not eligible for the outpatient rescreen. California's program standard is that if a child does not pass an outpatient screen (whether initial or rescreen), he/she needs to have a diagnostic reevaluation done.

A much smaller number of states (three) made adjustments in their reimbursement policies for screening follow-up tests for newborns. Iowa clarified in its physician manual that billing for screening follow-up was allowable and added to its audiology provider manual that the number of qualified providers billing for follow-up should be increased. Both Illinois and West Virginia added a new CPT code to allow audiologists to bill for follow-up tests for newborns.

When states were asked if they had concerns regarding hearing payment policies, 11 states responded. By far, the inadequacy of payment amounts was the most commonly cited issue. This was mentioned as a concern overall and also with respect to new items (e.g., digital programmable hearing aids).

### **III. Conclusions**

The vast majority of state Medicaid agencies in our survey (86%) had fee-for-service mechanisms in place, often in rural areas, to pay providers directly for hearing services. These states allowed reimbursement for most but not all hearing services. Assistive communication services were the least likely to be reimbursed, presumably because states consider them to be educationally related rather than health related. It is unclear, however, why all of the remaining hearing services -- including diagnostic evaluation and treatment services, testing, hearing aid services, and cochlear implant services -- were not reimbursable by Medicaid either under a distinct or bundled code.

Overall, Medicaid fees for hearing services were low and state variation in payment amounts was significant. We found that the majority of audiologic fees were in the bottom third of Medicaid rates. The extent to which such low Medicaid fees contribute to restricted access to audiology providers and services is an issue that requires additional study. It would also be useful to determine how these rates compare to Medicare rates and those paid in the private sector.

State Medicaid agencies using MCOs included most hearing services in their capitated contracts. Only a fifth of states carved out three or four audiologic services. Even hearing aids and cochlear implants were seldom paid outside of MCO contracts. Further study is needed to assess whether MCO capitation rates are sufficient to cover the

costs of needed hearing services by children. In addition, MCO and Medicaid authorization criteria should be examined to evaluate their consistency with current medical standards.

**Table I**  
**State Medicaid Payment Arrangements,\* 1999**

State Respondents	States Using MCOs	States Using PCCMs	States Using FFS
AL		X	X
AZ	X		
AR		X	X
CA	X	X	X
CT	X		
DE	X		
DC	X		X
FL	X	X	
GA	X	X	X
ID		X	X
IL	X		X
IN	X	X	X
IA	X	X	X
KS	X	X	X
KY	X	X	X
LA		X	X
ME	X	X	X
MD	X		
MA	X	X	X
MN	X		X
MS	X	X	X
MO	X		X
MT	X	X	X
NE	X	X	X
NV	X		X
NH	X		X
NJ	X		X
NM	X		
ND	X	X	X
OH	X		X
OK	X	X	X
OR	X	X	X
PA	X	X	X
SC	X	X	X
SD		X	X
TN	X		
TX	X	X	X

**Table I (Cont.)**

<b>State Respondents</b>	<b>States Using MCOs</b>	<b>States Using PCCMs</b>	<b>States Using FFS</b>
UT	X	X	X
VT	X	X	X
VA	X	X	X
WA	X		X
WV	X	X	X
WI	X		X
WY			X
<b>TOTAL:</b>	38	27	38

**Notes:** \*States were counted if MCO, PCCM, or FFS arrangements were used on a limited or statewide basis.

MCOs: Managed care organizations are reimbursed for most or all Medicaid services on a capitated basis.

PCCMs: Primary care case management programs are reimbursed on a fee-for-service basis.

FFS: Fee-for-service providers are reimbursed on a fee-for-service basis.

**Source:** Information was obtained by Fox Health Policy Consultants in telephone interviews with state Medicaid staff during the fall and winter of 1999 and is current as of December 31,1999. In Fox HB, Austrian JS, Hsu W and Limb S. *An Analysis of States' Medicaid Managed Care Enrollment Policies Affecting Children, 1996-1999*. Washington, DC: Maternal and Child Health Policy Research Center, October 2000.

**Table II**  
**State Medicaid Fee-for-Service Reimbursement Policies for**  
**Hearing Detection and Intervention Services, 2000**

<b>Special Hearing Services<sup>1</sup></b>	<b>States Allowing FFS Reimbursement<sup>2</sup></b>	<b>States Allowing FFS Reimbursement as a Bundled Service</b>	<b>States Allowing FFS Reimbursement as an MCO Carve-Out</b>
<b>Audiologic Diagnostic Evaluation and Treatment Services</b> Evaluation of speech, language, voice, communication, auditory processing and/or aural rehabilitation status (92506)	95%	0%	3%
Treatment of speech, language, voice, communication, auditory processing disorder (includes aural rehabilitation); individual (92507)	86	0	3
<b><u>Audiologic Function Tests</u></b>			
Screening test , pure tone, air only (92551)	94	0	5
Pure tone audiometry (threshold); air only (92552)	100	0	5
Pure tone audiometry (threshold); air and bone (92553)	97	0	5
Speech audiometry threshold (92555)	100	0	5
Comprehensive audiometry threshold evaluation and speech recognition (92557)	100	0	8
Tympanometry (impedance testing) (92567)	100	0	8
Acoustic reflex testing (92568)	100	0	5
Visual reinforcement audiometry (VRA) (92579)	89	0	3
Conditioning play audiometry (92582)	97	0	5
Select picture audiometry (92583)	91	0	0
Auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system (92585)	100	0	8
Evoked otoacoustic emissions; limited (92587)	92	0	8
Evoked otoacoustic emissions, comprehensive or diagnostic evaluation (92588)	95	0	8

**Table II (Cont.)**

<b>Special Hearing Services<sup>1</sup></b>	<b>States Allowing FFS Reimbursement<sup>2</sup></b>	<b>States Allowing FFS Reimbursement as a Bundled Service</b>	<b>States Allowing FFS Reimbursement as an MCO Carve-Out</b>
<b><u>Hearing Aid Services</u></b>			
Hearing aid examination and selection; monaural (92590)	91	6	8
Hearing aid examination and selection; binaural (92591)	91	6	8
Hearing aid check; monaural (92592)	79	8	5
Hearing aid check; binaural (92593)	79	9	5
Fitting orientation/checking of aid (V5011)	62	34	5
Repair/modification of hearing aid (V5014)	82	3	13
Electroacoustic evaluation for hearing aid; monaural (92594)	88	3	5
Electroacoustic evaluation for hearing aid; binaural (92595)	74	3	5
Ear protector attenuation measurements (92596)	70	3	3
Unlisted otorhinolaryngological service or procedure (92599)	80	0	11
Hearing aid monaural, in the ear (V5050)	100	0	21
Hearing aid monaural, behind the ear (V5060)	95	0	21
Hearing aid binaural, in the ear (V5130)	95	0	18
Hearing aid binaural, behind the ear (V5140)	92	0	18
Dispensing fee, unspecified (V5090)	88	22	5
Dispensing fee, bilateral (V5110)	73	23	3
Hearing service miscellaneous (V5299)	79	10	5
Battery	97	3	11
Ear mold	100	11	18



**Table II (Cont.)**

<b>Special Hearing Services<sup>1</sup></b>	<b>States Allowing FFS Reimbursement<sup>2</sup></b>	<b>States Allowing FFS Reimbursement as a Bundled Service</b>	<b>States Allowing FFS Reimbursement as an MCO Carve-Out</b>
<b><u>Cochlear Implant Services</u></b>			
<b>Cochlear device/system (L8614)</b>	47%	41%	16%
<b>Cochlear implant external speech processor, replacement (L8619)</b>	56	22	16
<b>Aural rehabilitation following cochlear implant (92510)</b>	89	3	5
<b><u>Assistive Communication Services</u></b>			
<b>Adaptive hearing devices (V5336)</b>	33	0	5
<b>Personal FM systems</b>	27	0	8

**Notes:** <sup>1</sup> Special hearing services are those diagnostic and treatment services not usually included in a comprehensive otorhinolaryngologic evaluation or office visit.

<sup>2</sup> These are states using PCCMs or FFS on a limited or statewide basis. States allowing FFS reimbursement as an MCO carve-out are counted only in the last column on this table.

**Source:** Information was obtained by the Maternal and Child Health Policy Research Center through a mail survey and follow-up telephone and fax communications with state EPSDT coordinators and other Medicaid staff, and is current as of June 30, 2000.

Table III

**State Medicaid Fee-for-Service Payment Amounts for  
Hearing Detection and Intervention Services, 2000**

Special Hearing Services <sup>1</sup>	Average Payments	Range of Payments	Fee Distribution <sup>2</sup>		
			Lowest Third	Middle Third	Highest Third
<b>Diagnostic Evaluation and Treatment Services</b> Evaluation of speech, language, voice, communication, auditory processing and/or aural rehabilitation status (92506) (n=36 states reporting fee information)	\$40.20	\$11.66 - \$63.46	19%	53%	28%
<b>Treatment of speech, language, voice, communication, auditory processing disorder (includes aural rehabilitation); individual (92507)</b> (n=33)	\$26.79	\$7 - \$47.23	15%	61%	24%
<b><u>Audiologic Function Tests</u></b>					
Screening test, pure tone, air only (92551) (n=34)	\$11.53	\$3.60 - \$49.63	97%	0%	3%
Pure tone audiometry (threshold); air only (92552) (n=37)	\$13.10	\$7.50 - \$22.50	46%	43%	11%
Pure tone audiometry (threshold); air and bone (92553) (n=37)	\$19.38	\$8.25 - \$45	68%	27%	5%
Speech audiometry threshold (92555) (n=37)	\$10.52	\$5 - \$21.41	51%	41%	8%
Comprehensive audiometry threshold evaluation and speech recognition (92557) (n=38)	\$35.21	\$19 - \$64.44	50%	42%	8%
Tympanometry (impedance testing) (92567) (n=38)	\$14.13	\$5 - \$23	21%	61%	18%
Acoustic reflex testing (92568) (n=37)	\$10.48	\$3.30 - \$23	46%	46%	8%
Visual reinforcement audiometry (VRA) (92579) (n=29)	\$20.82	\$11.78 - \$39	59%	34%	7%
Conditioning play audiometry (92582) (n=34)	\$22.42	\$7.50 - \$46.72	47%	41%	12%

**Table III (Cont.)**

Special Hearing Services <sup>1</sup>	Average Payments	Range of Payments	Fee Distribution <sup>2</sup>		
			Lowest Third	Middle Third	Highest Third
Select picture audiometry (92583) (n=29)	\$23.06	\$4.50 – \$67.64	69%	24%	7%
Auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system (92585) (n=37)	\$97.72	\$26.50 – \$180	27%	54%	19%
Evoked otoacoustic emissions; limited (92587) (n=32)	\$41.26	\$5.46 – \$70	13%	59%	28%
Evoked otoacoustic emissions, comprehensive or diagnostic evaluation (92588) (n=33)	\$57.79	\$14.69 – \$95	12%	64%	24%
<b><u>Hearing Aid Services</u></b>					
Hearing aid examination and selection; monaural (92590) (n=30)	\$50.28	\$13 – \$244.20	93%	0%	7%
Hearing aid examination and selection; binaural (92591) (n=26)	\$49.70	\$18 – \$165	88%	8%	4%
Hearing aid check; monaural (92592) (n=21)	\$17.03	\$9 – \$35.33	71%	19%	10%
Hearing aid check; binaural (92593) (n=22)	\$24.83	\$12 – \$45	59%	18%	23%
Fitting orientation/checking of aid (V5011) (n=5)	\$19.07	\$6 - \$40	60%	20%	20%
Repair/modification of hearing aid (V5014) (n=14)	\$115.66	\$20 - \$575	93%	0%	7%
Electroacoustic evaluation for hearing aid; monaural (92594) (n=17)	\$14.29	\$5 - \$28.37	42%	50%	8%
Electroacoustic evaluation for hearing aid; binaural (92595) (n=17)	\$34.14	\$5 - \$200	94%	0%	6%
Ear protector attenuation measurements (92596) (n=16)	\$16.82	\$10 - \$25.78	25%	63%	13%
Unlisted otorhinolaryngological service or procedure (92599) (n=3)	\$96.79	\$12.35 – \$250	67%	0%	33%

**Table III (Cont.)**

Special Hearing Services <sup>1</sup>	Average Payments	Range of Payments	Fee Distribution <sup>2</sup>		
			Lowest Third	Middle Third	Highest Third
Hearing aid monaural, in the ear (V5050) (n=28)	\$449.95	\$176 – \$883.80	46%	46%	7%
Hearing aid monaural, behind the ear (V5060) (n=25)	\$453.32	\$176 – \$883.80	52%	36%	12%
Hearing aid binaural, in the ear (V5130) (n=27)	\$779.23	\$228 – \$1,480.32	37%	44%	19%
Hearing aid binaural, behind the ear (V5140) (n=24)	\$762.40	\$228 – \$1,480.32	42%	38%	21%
Dispensing fee, unspecified (V5090) (n=18)	\$193.84	\$75 – \$510	78%	17%	6%
Dispensing fee, bilateral (V5110) (n=11)	\$255.53	\$88.70 – \$600	55%	36%	9%
Hearing service miscellaneous (V5299) (n=3)	\$375.60	\$26.80 – \$1,000	67%	0%	38%
Battery (n=11)	\$2.89	\$1 – \$20	95%	0%	5%
Ear mold (n=25)	\$29.85	\$15 – \$60	56%	36%	8%
<b>Cochlear Implant Services</b>					
Cochlear device/system (L8614) (n=7)	\$16,430.72	\$13,398 – \$20,000	57%	0%	43%
Cochlear implant external speech processor, replacement (L8619) (n=8)	\$5,097.96	\$572 – \$6,402.95	13%	0%	88%
Aural rehabilitation following cochlear implant (92510) (n=28)	\$74.12	\$12.45 – \$127	21%	54%	29%
<b>Assistive Communication Services</b>					
Adaptive hearing device (V5336) (n=3)	\$586.00	\$30 – \$1,000	33%	0%	67%
Personal FM systems (n=2)	\$2,066.13	\$1,935 – \$2,197.25	50%	0%	50%

**Notes:** <sup>1</sup> Special hearing services are those diagnostic and treatment services not usually included in a comprehensive otorhinolaryngologic evaluation or office visit.

<sup>2</sup> The fee distribution was calculated by taking the difference between the highest and lowest fees and dividing by three.

Percentages may not add up to 100 percent due to rounding.

**Source:** Information was obtained by the Maternal and Child Health Policy Research Center through a mail survey and follow-up telephone and fax communications with state EPSDT coordinators and other Medicaid staff, and is current as of June 30, 2000.

**MEDICAID MANAGED CARE CONTRACT  
PROVISIONS PERTAINING TO EARLY HEARING  
DETECTION AND INTERVENTION SERVICES**

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# **MEDICAID MANAGED CARE CONTRACT PROVISIONS PERTAINING TO EARLY HEARING DETECTION AND INTERVENTION SERVICES**

## **I. Introduction and Methods**

In 1999, Medicaid was the source of health insurance coverage for 29 percent of infants, 24 percent of children ages 1 to 5, and 17 percent of children ages 6 to 20.<sup>1</sup> Despite the importance of Medicaid as a major source of health insurance coverage for children, little is known about its coverage and payment policies for hearing screening, diagnosis, and treatment services.

The Maternal and Child Health Policy Research Center, with funding from the federal Maternal and Child Health Bureau, was asked to conduct two separate studies on Medicaid financing of hearing services. The first study, summarized below, is an analysis of Medicaid managed care contract specifications for hearing services under the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) benefit. The second study examines state Medicaid payment policies for hearing services for children enrolled in managed care organizations (MCOs), primary care case management programs (PCCMs), and fee-for-service arrangements (FFS).<sup>2</sup>

This report provides a summary of states' Medicaid managed care contract provisions related to hearing screens for newborns, children, and adolescents. We analyzed what type of hearing screens were specified at what ages, whether the screens were specified for all children or for at-risk children only, and whether plans were required or recommended to perform these screens. Our aim was to determine the extent to which states' Medicaid contracts are consistent with current medical standards and

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<sup>1</sup> Special tabulations from the March 2000 Current Population Survey prepared for the Maternal and Child Health Policy Research Center by Suk-Fong Tang of the American Academy of Pediatrics.

<sup>2</sup> McManus MA, Hayden MS, Fox HB. *Medicaid Reimbursement of Hearing Services for Children*. Washington, DC: MCH Policy Research Center, July 2001.

recommended by the American Academy of Pediatrics (AAP)<sup>3,4</sup> and the Joint Committee on Infant Hearing (JCIH).<sup>5</sup> Information was obtained from a review of the contracts used by the 42 state Medicaid agencies that enrolled children into managed care organizations as of June 2000.<sup>6</sup> Specifically, we examined the EPSDT sections of each state's managed care contract. Where the EPSDT language referenced provider manuals, administrative rules, and periodicity schedules, we examined these documents as well. A single researcher experienced in Medicaid contract analysis performed this review.

## II. Overall Findings

All of the 42 state Medicaid agencies enrolling children into managed care organizations in 2000 included a contract provision for hearing screening as part of their EPSDT benefit requirements.<sup>7</sup> States' contract provisions, however, varied significantly with respect to both the content and periodicity of hearing requirements. Overall, we found that only 26 percent of states' contract requirements pertaining to EPSDT were consistent with national standards for objective hearing screens for newborns.<sup>8</sup> For the post-newborn period, 19 percent were consistent with national standards.<sup>9</sup> States were much more likely to specify subjective rather than objective hearing screening

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<sup>3</sup> Committee on Practice and Ambulatory Medicine. *Recommendations for Preventive Pediatric Health Care (RE9535)*. Elk Grove, IL: American Academy of Pediatrics, April 2000.

<sup>4</sup> Task Force on Newborn and Infant Hearing. *Newborn and Infant Hearing Loss: Detection and Intervention (RE9846)*. *Pediatrics*. 103(2):527-530, February 1999.

<sup>5</sup> Joint Committee on Infant Hearing. *Joint Committee on Infant Hearing Year 2000 Position Statement*. Washington, DC: American Speech-Language-Hearing Association, 2000.

<sup>6</sup> Nine states -- Alabama, Alaska, Arkansas, Georgia, Idaho, Louisiana, Mississippi, South Dakota, and Wyoming -- did not enroll children into fully capitated plans during the study period.

<sup>7</sup> Oregon, which waived EPSDT under a Section 1115 waiver, included a contract specification for hearing screening under preventive interventions for children ages 0 to 10.

<sup>8</sup> The 11 states were Arizona, California, Colorado, District of Columbia, Iowa, Kentucky, Maine, North Dakota, Rhode Island, Tennessee, and West Virginia.

<sup>9</sup> The eight states were Colorado, Florida, Kentucky, Minnesota, North Dakota, Tennessee, Virginia, and West Virginia.

requirements as part of the routine EPSDT screen. Speech and language screening requirements under EPSDT were specified in 36 percent of state Medicaid managed care contracts.

### **III. Newborn Hearing Provisions**

Our study revealed that, in 2000, 11 of the 42 state Medicaid agencies that enroll children into MCOs included in their contracts requirements consistent with AAP and JCIH standards that all newborns receive an objective hearing screen, as shown in Table I. Four of the states specified the use of an electrophysiological test and seven states specified the use of an objective “standardized” test. All but one of these states required plans to conduct this test prior to hospital discharge and the remaining one, in the first month of life. In addition to these 11 states with objective requirements for all children, four states specified newborn hearing requirements but only for at-risk infants<sup>10</sup>-- three prior to hospital discharge, and one within the first month. Also, two states recommended, but did not require, a screen prior to discharge, and another state within the first month of life.

State Medicaid agencies were far more likely to specify subjective rather than objective screening evaluations for newborns as an essential component of the infant’s first EPSDT visit. Thirty-seven of the 42 state Medicaid agencies using MCOs required subjective hearing screens for newborns. Of these, 16 states required the screens prior to hospital discharge, 18 specified screens within the first month of life, and three specified other intervals. Two states simply recommended subjective screens for newborns.

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<sup>10</sup> For neonates (birth through age 28 days), risk factors included illness or condition requiring admission of 48 hours or greater to a neonatal intensive care unit; stigmata or other findings associated with a syndrome known to include a sensorineural and or conductive hearing loss; family history of permanent childhood sensorineural hearing loss; craniofacial anomalies, including those with morphological abnormalities of the pinna and ear canal; and in-utero infection such as cytomegalovirus, herpes, toxoplasmosis, or rubella.



#### **IV. Infant, Child, and Adolescent Hearing Provisions**

Our findings showed that only eight state Medicaid agencies included contract requirements consistent with AAP standards for receipt of an objective test by age four and subsequent objective tests at ages 5, 6, 8, 10, 12, 15, and 18, as shown in Table II. An additional 15 state Medicaid agencies required MCOs to conduct an objective screen for young children by age four (13 states) or five (two states), but the subsequent periodicity specified for objective tests varied widely, ranging from one to nine tests during this post-newborn period. Among these states, the average number of screening tests was five. One state required objective hearing screens only for children and adolescents at high risk of hearing loss but did not indicate in its contract specifications how the plan should identify high-risk children. Eight states had specifications for objective hearing tests by age four but worded these specifications as a recommendation; two of these eight states recommended subsequent screens according to the AAP's schedule.

Importantly, nearly half of the 23 states that required objective screens for infants, children, and adolescents included guidance as to the type of screen that should be performed -- either a bilateral puretone screen (mentioned in eight states), a bilateral screen and a middle ear exam (in one state), and a bilateral screen and a behavioral screen through play audiometry (in one state).

States were more likely to include subjective hearing screening requirements in their contracts for children between one month to 21 years of age, just as they did for newborns. Thirty-eight states required subjective hearing screens. The required periodicity schedules for these screens varied widely across states. In addition, two states included subjective screens in their contracts as recommendations.

## **V. Speech and Language Provisions**

States were far less likely to include EPSDT contract specifications on speech and language development than on hearing function, as shown in Table III. Fifteen states required MCOs to conduct screenings for speech and language development as part of EPSDT visits, but only seven of these states specified the expressive speech and language landmarks that young children were expected to meet, typically including a checklist of basic, age-appropriate milestones. However, just two of these seven states required the identification of specific risk factors, including lack of any speech by 18 months of age; suspicion of hearing impairment; parental or child concern about speech or hearing development; presence of noticeable hyper nasality or lack of nasal resonance; recurrent otitis media; unintelligible speech at age four; or a voice that is monotone, extremely loud, inaudible or of poor quality.

## **VI. Conclusion**

Our study found that the majority of state Medicaid agencies enrolling children into MCOs have not yet incorporated into their contracts screening requirements for hearing that are consistent with current national standards. Joint efforts to improve state Medicaid requirements for hearing screening under EPSDT should be considered by the Maternal and Child Health Bureau, the Health Care Financing Administration, the American Academy of Pediatrics, the American Speech-Language-Hearing Association, and the American Academy of Audiology. This could be accomplished by developing a uniform set of hearing specifications that could be adopted by all states to assure the early identification and treatment of children with hearing impairments. In addition, State Early Hearing Detection and Intervention Coordinators, in conjunction with the National Center for Hearing Assessment and Management, could work closely with state EPSDT coordinators, hospital staffs, and primary care providers to implement Medicaid's hearing screening requirements.

Table I

## State Medicaid Managed Care Contract Provisions for Newborn Hearing Screening, 2000

States	Specifications for Objective Screening Procedures										Specifications for Subjective Screening Evaluations							
	Target Population		Type of Procedure		Time Period				Identifi- cation of Risk Factors	MCO Require- ment	Target Population		Time Period				Identifi- cation of Risk Factors	MCO Require- ment
	All Newborns	Only At-risk Newborns	Electro- physiological	Other <sup>1</sup>	Prior to Hospital Discharge	Within 2-4 Days	Within First Month	Other			All Newborns	Only At-risk Newborns	Prior to Hospital Discharge	Within 2-4 Days	Within First Month	Other		
AZ	X			X	X					X	X			X	X			X
CA	X			X	X					X	X			X	X			X
CO	X		X		X					X	X		X	X	X			X
CT											X		X	X	X			X
DC	X			X	X					X	X		X	X				X
DE	X			X			X				X			X				X
FL											X		X	X				X
HI											X			X				X
IA	X			X	X	X				X	X			X				X
IL											X		X	X	X			X
IN	X		X <sup>2</sup>		X				X		X		X	X	X		X	X
KS																		
KY	X		X		X				X	X	X		X	X	X		X	X
MA											X		X	X	X			X
MD											X		X	X	X			X
ME		X		X	X				X	X	X		X	X	X			X
MI	X			X			X			X	X			X				X
MN											X			X		X		X
MO											X		X	X	X			X
MT											X		X	X	X			X
NC											X		X	X	X			X
ND	X		X		X		X			X	X		X	X	X			X
NE											X		X	X	X			X
NH											X		X	X	X			X
NJ											X		X	X	X			X
NM											X			X	X			X

States	Specifications for Objective Screening Procedures										Specifications for Subjective Screening Evaluations							
	Target Population		Type of Procedure		Time Period				Identification of Risk Factors	MCO Requirement	Target Population		Time Period				Identification of Risk Factors	MCO Requirement
	All Newborns	Only At-risk Newborns	Electro-physiological	Other <sup>1</sup>	Prior to Hospital Discharge	Within 2-4 Days	Within First Month	Other			All Newborns	Only At-risk Newborns	Prior to Hospital Discharge	Within 2-4 Days	In First Month	Other		
NV											X				X			X
NY		X		X				X			X				X			X
OH											X					X <sup>3</sup>		X
OK											X				X			X
OR																		
PA		X		X				X	X		X				X			X
RI	X			X	X					X	X		X	X	X			X
SC		X		X	X													
TN	X		X		X					X	X		X	X	X			X
TX		X		X	X	X	X	X <sup>4</sup>	X	X	X		X	X	X			X
UT	X		X		X						X		X	X	X		X	
VA											X		X		X			X
VT		X		X	X	X	X			X	X		X	X	X			X
WA											X					X <sup>5</sup>		X
WI		X		X				X	X	X	X				X		X	X
WV	X			X	X					X	X					X <sup>6</sup>		X
<b>Total (n=42)</b>	<b>14 (33%)</b>	<b>7 (17%)</b>	<b>6 (14%)</b>	<b>15 (36%)</b>	<b>16 (38%)</b>	<b>3 (7%)</b>	<b>8 (19%)</b>	<b>1 (2%)</b>	<b>6 (14%)</b>	<b>15 (36%)</b>	<b>38 (90%)</b>	<b>0</b>	<b>17 (40%)</b>	<b>20 (48%)</b>	<b>33 (79%)</b>	<b>3 (7%)</b>	<b>5 (12%)</b>	<b>37 (88%)</b>
<b>AAP Criteria</b>	X		X		X				X	X	X		X	X	X			X
<b>JCIH Criteria</b>	X		X		X				X	X	NA	NA	NA	NA	NA	NA	NA	NA

**Source:** Information was obtained by the MCH Policy Research Center through an analysis of states' Medicaid managed care contracts in effect as of June 2000. Provider manuals, administrative rules, and other documents related to hearing were included in the analysis when referenced in the EPSDT sections of the contracts.

**Notes:** <sup>1</sup> Other refers to objective tests "by a standard method."

<sup>2</sup> Indiana's contract recommends a fully automated Auditory Brain Response (ABR) test for all newborns, if available. Objective screening is required for at-risk children, but was not coded.

<sup>3</sup> Ohio's contract specifies six subjective hearing screens during each initial and periodic screening service from age 0 to 1 year of age.

<sup>4</sup> Texas' contract specifies that the objective screen should occur preferably before discharge from the newborn nursery, but no later than 3 months of age.

<sup>5</sup> Washington's contract specifies that the first subjective screen should occur between birth and six weeks of age.

<sup>6</sup> West Virginia's contract specifies a subjective screen at 2 weeks of age.

Table II

State Medicaid Managed Care Contract Provisions for Hearing Screening for Infants, Children, and Adolescents, 2000

States	Specifications for Objective Screening Procedures											Specifications for Subjective Screening Evaluations							
	Type of Procedure				Age for First Screen Following Newborn Screen	Periodicity and Number of Visits					Identification of Risk Factors	MCO Requirement	Periodicity and Number of Visits					Identification of Risk Factors	MCO Requirement
	Middle Ear Exam	Behavioral Response Audiometry <sup>1</sup>	Bilateral Puretone Screening	Other <sup>2</sup>		0-1 Yr.	1-6 Yrs.	6-12 Yrs.	12-21 Yrs.	Other			0-1 Yr.	1-6 Yrs.	6-12 Yrs.	12-21 Yrs.	Other		
AZ				X	3	0	3	2	1			X	4	4	2	3			X
CA			X		3	0	2	2	2				5	5	2	2			X
CO		X	X		4	0	2	3	3		X	X	4	7	4	10		X	X
CT				X	3	0	3	1	3			X	4	4	3	7			X
DC	X <sup>3</sup>		X		3	0	3	1	3			X	4	4	3	6			X
DE				X	4	0	2	2	4				4	7	2	4			X
FL				X	4	0	2	3	3			X	4	7	6	10			X
HI			X	X	4	0	2	1	0			X	5	7	3	5			X
IA				X	4	0	2	1	1			X	4	5	3	3			X
IL				X	3	0	1	0	0			X	3	7	3	4			X
IN			X		4	0	1	0	0			X	4	0	2	3			
				X	3	0	1 <sup>4</sup>	1	2			X							
KS				X	3	0	1	2	4			X	4	7	3	5			X
KY				X	4	0	2	3	3		X	X	4	5	1	7			X
MA			X		3	0	2	1	3			X	4	7	1 <sup>5</sup>	3 <sup>5</sup>			X
MD				X	4	0	2	1	2				4	7	6	6			X
ME				X	3	0	3	1	3		X	X	4	4	3	7		X	X
MI													3	7	3	5			X
MN			X		3	0	3	3	3		X	X	4	7	3	5		X	X
MO	X <sup>6</sup>		X <sup>6</sup>										4	6	2	4			X
MT			X		5	0	1	3	5		X	X	4	7	3	5		X	X
NC													3	7	2	3			X
ND <sup>7</sup>				X	4	0	2	3	3			X	4	5	1	7			X
NE	X				3	0	1	0	0				4	5	1	7			X
			X			0	2	3	3										

Table II (Cont.)

States	Specifications for Objective Screening Procedures											Specifications for Subjective Screening Evaluations							
	Type of Procedure				Age for First Screen Following Newborn Screen	Periodicity and Number of Visits					Identification of Risk Factors	MCO Requirement	Periodicity and Number of Visits					Identification of Risk Factors	MCO Requirement
	Middle Ear Exam	Behavioral Response Audiometry <sup>1</sup>	Bilateral Puretone Screening	Other <sup>2</sup>		0-1 Yr.	1-6 Yrs.	6-12 Yrs.	12-21 Yrs.	Other			0-1 Yr.	1-6 Yrs.	6-12 Yrs.	12-21 Yrs.	Other		
NH													4	7	4	4			X
NJ													4	7	6	10			X
NM				X	5 <sup>8</sup>	0	1	0	0			X	4	7	3	5			X
NV													3	3	3	2			X
NY			X		3	0	3	3	5			X	4	7	3	5			X
OH			X		3	0	2	2	1		X		0	3	2	1		X	X
OK				X	4	0	2	0	2			X	6	3	3	4			X
OR <sup>9</sup>																			
PA													4	7	3	5			X
RI			X		3	0	1	0	0			X	4	7	4	9		X	X
SC			X		<sup>10</sup>	0	0	0	0										
TN				X	4	0	2	3	3			X	4	5	1	7			X
TX			X		4	0	2	1	3		X		4	4	3	7		X	X
UT		X	X		4	0	1 <sup>11</sup>	0	0		X		4	7 <sup>13</sup>	3	5		X	
VA				X	4	0	2	3	5				4	7	3	5			X
VT													4	7	4	9			X
WA													4	6	4	5			X
WI			X		3	0	3	3	2		X	X	4 <sup>14</sup>	8 <sup>14</sup>	3	5		X	X
WV				X	4	0	2	3	3			X	4	5	1	3			X
<b>Total (n=42)</b>	<b>3 (7%)</b>	<b>2 (5%)</b>	<b>17 (40%)</b>	<b>18 (43%)</b>							<b>9 (21%)</b>	<b>23 (55%)</b>						<b>9 (21%)</b>	<b>38 (90%)</b>
<b>AAP Criteria</b>				X	4	0	2	3	3			X	4	5	1	7			X

**Source:** Information was obtained by the MCH Policy Research Center through an analysis of states' Medicaid managed care contracts in effect as of June 2000. Provider manuals, administrative rules, and other documents related to hearing were included in the analysis when referenced in the EPSDT sections of the contracts.

**Notes:** <sup>1</sup> Opinions differed among our experts as to whether we should consider this test subjective or objective. We elected to categorize this as objective.

<sup>2</sup> Other refers to objective tests "by a standard method." One state specified an audiogram, which also fit into this category.

<sup>3</sup> DC's contract recommends middle ear exams by tympanometry, administered with the same periodicity as the required bilateral puretone screens.

<sup>4</sup> Indiana's contract recommends an objective screen by standard method between 12 months and 3 years of age.

<sup>5</sup> Massachusetts' contract specifies an additional three subjective screens between 6 and 12 years of age and an additional six screens between 12 and 21 years of age for at-risk children.

<sup>6</sup> Missouri's contract includes a recommendation for a hearing screen that can include assessment through audiometry and tympanometry or reports by parents. No specification of targeted population or periodicity is included.

<sup>7</sup> North Dakota's contract states that plans must follow either AAP or Bright Futures guidelines; here we have coded the AAP guidelines.

<sup>8</sup> New Mexico's contract specifies age 5 years or prior to entering school.

<sup>9</sup> Oregon waived EPSDT requirements under a Section 1115 waiver, but the Oregon contract specified an infant hearing screen among interventions required for children.

<sup>10</sup> South Carolina's contract specifies an audiometric test for children over the age of 4 but does not specify ages when the test should be performed.

<sup>11</sup> Utah's contract calls for behavioral response audiometry between age 6 months and 4 years.

<sup>12</sup> Utah's contract calls for conventional bilateral puretone between age 4 and 21 years.

<sup>13</sup> Utah's contract specifies an additional middle ear exam by otoscopy and/or tympanometry between age 6 months and 4 years. We counted this exam as subjective since it could be conducted through otoscopy.

<sup>14</sup> Wisconsin's contract specifies a middle ear exam by otoscopy and/or tympanometry 4 additional times between ages 0 and 1 and 5 times between ages 1 to 6 years. Again, we counted this exam as subjective.

Table III

**State Medicaid Managed Care Contract Provisions  
Related to Speech and Language Development for Children, 2000**

States	Provisions on Speech and Language Development			
	Provision Included in EPSDT Language	Specification of Expressive Speech and Language Landmarks	Identification of Risk Factors	MCO Requirement
AZ				
CA	X	X		X
CO				
CT				
DC	X			X
DE	X			X
FL	X			
HI	X	X		X
IA				
IL				
IN	X	X		X
KS				
KY	X			X
MA	X			X
MD				
ME				
MI				
MN	X			X
MO	X	X		X
MT	X	X	X	X
NC				
ND				
NE	X			
NH				
NJ				
NM				
NV				
NY	X			
OH	X			X
OK				
OR*				
PA				
RI	X			X
SC				
TN	X	X		X



**Table III (Cont.)**

States	Provisions on Speech and Language Development			
	Provision Included in EPSDT Language	Specification of Expressive Speech and Language Landmarks	Identification of Risk Factors	MCO Requirement
<b>TX</b>				
<b>UT</b>	X	X	X	
<b>VA</b>	X			X
<b>VT</b>				
<b>WA</b>				
<b>WI</b>	X	X	X	X
<b>WV</b>				
<b>Total (n=42)</b>	<b>19 (45%)</b>	<b>8 (19%)</b>	<b>3 (7%)</b>	<b>15 (36%)</b>

**Source:** Information was obtained by the MCH Policy Research Center through an analysis of states' Medicaid managed care contracts in effect as of June 2000. Provider manuals, administrative rules, and other documents related to hearing were included in the analysis when referenced in the EPSDT sections of the contracts.