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

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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.[1] 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).[2]

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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[1] 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.

[2] 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) [3,4] and the Joint Committee on Infant Hearing (JCIH).[5] 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.[6] 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.[7] 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.[8] For the post-newborn period, 19 percent were consistent with national standards.[9] States were much more likely to specify subjective rather than objective hearing screening

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

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

[5] Joint Committee on Infant Hearing. *Joint Committee on Infant Hearing Year 2000 Position Statement.* Washington, DC: American Speech-Language-Hearing Association, 2000.

[6] 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.

[7] 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.

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

[9] 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[10]-- 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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[10] 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				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[1]	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
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[2]		X				X		X		X	X	X		X	X
KS																		
KY	X		X		X				X	X	X			X	X		X	X
MA											X		X		X			X
MD											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
MT											X			X	X			X
NC											X		X	X				X
ND	X		X		X		X			X	X			X	X			X
NE											X			X	X			X
NH											X		X	X	X			X
NJ											X		X					X
NM											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[1]	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[3]		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[4]	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[5]		X
WI		X		X			X		X	X	X				X		X	X
WV	X			X	X					X	X					X[6]		X
Total (n=42)	**14 (33%)**	**7 (17%)**	**6 (14%)**	**15 (36%)**	**16 (38%)**	**3 (7%)**	**8 (19%)**	**1 (2%)**	**6 (14%)**	**15 (36%)**	**38 (90%)**	**0**	**17 (40%)**	**20 (48%)**	**33 (79%)**	**3 (7%)**	**5 (12%)**	**37 (88%)**
AAP Criteria	X		X		X				X	X	X		X	X	X			X
JCIH Criteria	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: [1] Other refers to objective tests "by a standard method."
[2] 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.
[3] Ohio's contract specifies six subjective hearing screens during each initial and periodic screening service from age 0 to 1 year of age.
[4] Texas' contract specifies that the objective screen should occur preferably before discharge from the newborn nursery, but no later than 3 months of age.
[5] Washington's contract specifies that the first subjective screen should occur between birth and six weeks of age.
[6] 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				Identifi-cation of Risk Factors	MCO Require-ment	Periodicity and Number of Visits					Identifi-cation of Risk Factors	MCO Require-ment
	Middle Ear Exam	Behavioral Response Audiometry[1]	Bilateral Puretone Screening	Other[2]		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[3]		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	 X	4 3	0 0	1 1[4]	0 1	0 2			X X	4	0	2	3			
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[5]	3[5]			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[6]		X[6]										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[7]				X	4	0	2	3	3			X	4	5	1	7			X
NE	X		 X		3	0 0	1 2	0 3	0 3				4	5	1	7			X

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					Identifi-cation of Risk Factors	MCO Require-ment	Periodicity and Number of Visits					Identifi-cation of Risk Factors	MCO Require-ment
	Middle Ear Exam	Behavioral Response Audiometry[1]	Bilateral Puretone Screening	Other[2]		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[8]	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[9]																			
PA													4	7	3	5			X
RI			X		3	0	1	0	0			X	4	7	4	9		X	X
SC			X		[10]	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 0	1[11] 0	0 0	0 0	1[12]	X		4	7[13]	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[14]	8[14]	3	5		X	X
WV				X	4	0	2	3	3			X	4	5	1	3			X
Total (n=42)	**3 (7%)**	**2 (5%)**	**17 (40%)**	**18 (43%)**							**9 (21%)**	**23 (55%)**						**9 (21%)**	**38 (90%)**
AAP Criteria				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: [1] Opinions differed among our experts as to whether we should consider this test subjective or objective. We elected to categorize this as objective.

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

[3] DC's contract recommends middle ear exams by tympanometry, administered with the same periodicity as the required bilateral puretone screens.

[4] Indiana's contract recommends an objective screen by standard method between 12 months and 3 years of age.

[5] 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.

[6] 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.

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

[8] New Mexico's contract specifies age 5 years or prior to entering school.

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

[10] 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.

[11] Utah's contract calls for behavioral response audiometry between age 6 months and 4 years.

[12] Utah's contract calls for conventional bilateral puretone between age 4 and 21 years.

[13] 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.

[14] 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
TX				
UT	X	X	X	
VA	X			X
VT				
WA				
WI	X	X	X	X
WV				
Total (n=42)	**19 (45%)**	**8 (19%)**	**3 (7%)**	**15 (36%)**

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.