BRIEF
REPORTS

Training Requirements and Curriculum Content for Primary Care Providers Delivering Preventive Oral Health Services to Children Enrolled in Medicaid

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BACKGROUND AND OBJECTIVES: Despite the emphasis on delivery of preventive oral health services in non-dental settings, limited information exists about state Medicaid policies and strategies to educate practicing physicians in the delivery of these services. This study aims to determine: (1) training requirements and policies for reimbursement of oral health services, (2) teaching delivery methods used to train physicians, and (3) curricula content available to providers among states that reimburse non-dental providers for oral health services.

METHODS: Using Web-based Internet searches as the primary data source, and a supplemental e-mail survey of all states offering in-person training, we assessed training requirements, methods of delivery for training, and curriculum content for states with Medicaid reimbursement to primary care providers delivering preventive oral health services. Results of descriptive analyses are presented for information collected and updated in 2014.

RESULTS: Forty-two states provide training sessions or resources to providers, 34 requiring provider training before reimbursement for oral health services. Web-based training is the most common CME delivery method. Only small differences in curricular content were reported by the 11 states that use in-person didactic sessions as the delivery method.

CONCLUSIONS: Although we found that most states require training and curricular content is similar, training was most often delivered using Web-based courses without any additional delivery methods. Research is needed to evaluate the impact of a mixture of training methods and other quality improvement methods on increased adoption and implementation of preventive oral health services in medical practices.

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Medical-dental collaborations can facilitate delivery of oral health services for underserved populations and promote their entry into the dental care system. Several professional organizations recommend that medical providers perform oral health assessments of their patients beginning at 6 months of age and address risk factors for early childhood caries (ECC).[1-4] The US Preventive Services Task Force (USPSTF) recommends that all preschool-aged children receive fluoride varnish applications from physicians.[5] Medicaid programs increasingly reimburse physicians for oral health services, and educational opportunities in oral health have increased nationwide.[6]

Despite efforts to promote preventive oral health services in non-dental settings, little information exists about state Medicaid policies and strategies for educating physicians in practice to deliver these services. The aims of this study are to determine: (1) training requirements for reimbursement of oral health services, (2) teaching delivery methods used to train non-dental providers, and (3) curricular content of training options available to providers among state Medicaid programs that reimburse physicians for oral health services.

Methods

We used Internet searches conducted in 2012 and 2013 to gather information on training requirements, teaching methods, and curricular content among states reimbursing non-dental providers for oral health services. In 2014 we surveyed all states

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that offered in-person training and updated Internet searches. We identified Medicaid programs reimbursing medical providers for oral health services using the American Academy of Pediatrics (AAP) website.[7] We identified those states that require training, defined as a state in which physicians must undergo training before they are able to receive Medicaid reimbursement for preventive oral health services, using the links provided in the AAP's state information and resource map or in states' Medicaid websites.

Training delivery methods recommended by Medicaid programs were assessed and classified into three types: online training, in-person training, or training of either type but with an interactive component. Online training was defined as any type of Internet-based training, including slide or written presentations, learning modules, online videos, or webinars. In-person training usually consisted of a lecture presentation but could include question and answer sessions. Interactive training was defined as a supplementary training session with hands-on demonstration activities such as patient positioning for oral screenings or application of fluoride varnish.

Curriculum content was determined through: (1) a review of online training documents, accessible to us through the state's Medicaid Web site, (2) a review of Smiles For Life (SFL) and Protecting All Children's Teeth (PACT) curriculum content, the most common on-line courses recommended by states, and (3) a survey of states using training materials not accessible to us through the Internet. In 2014 we distributed a four-item questionnaire by email to all states that offer in-person training to learn more about the interactive methods and content of the curriculum. Sampled individuals were directly involved with the training courses. The survey assessed the presence of curriculum content in 19 topical areas, grouped into six domains, and the use of interactive training methods. Weekly follow-up emails were distributed to nonrespondents beginning the week after the initial invitation for a maximum of four cycles. After the fourth cycle a follow-up phone call was made to nonrespondents.

We provide descriptive analyses and presentations of training requirements and teaching methods by state and curriculum content for the subset of surveyed states. The Institutional Review Board at the University of North Carolina at Chapel Hill determined that the study was exempt from committee review.

Results

Forty-five states reimbursed primary care providers for oral health services at the time of the study, with 34 states requiring training (Table 1). Of the 11 states that did not require training, eight provide training options through access to various resources posted as links on their websites (Table 1). Online training was the most common delivery method and was used by 32 states (Table 1). Most of these states (n=20) recommended the use of SFL, but three states recommended PACT, and nine had their own web-based training programs. Twelve states used in-person methods, while three used both online and in-person training methods, and four used all three methods (Table 1). Most of the 11 survey respondents confirmed that in-person training was usually completed in an office setting where the trainer could demonstrate fluoride application using one of the practice's pediatric patients.

Table 2 presents results of our survey of curriculum content for the states that provide in-person training sessions and the states that use SFL and PACT. The response from California is excluded because training varies by county. Out of the six categories in our assessment, oral health conditions was not included in training provided by most states.

Discussion

This study revealed that almost all state Medicaid programs reimburse non-dental primary care providers to deliver oral health services in the medical home. Forty-two of the 45 states with Medicaid coverage either required training (n=34 states) or recommended supporting educational materials (n=8 states). Educational content was somewhat consistent across states because many recommend the pediatric oral health modules in SFL's online curriculum, and others use PACT's online curriculum. States that provided in-person sessions and online training through SFL and PACT's national curriculum ensure that curricular content is available to trainees that includes background knowledge of oral health, skills needed to provide the services, patient management, and administrative information. PACT, which was used in Minnesota, Nevada, and Wyoming at the time of the study, covered two additional topics on oral health conditions, as a part of its web-based online curriculum (Table 2).

In 2013, only 4.4% of children younger than 6 years of age in the United States received any preventive oral health services from non-dental providers.[8] Our results reveal some areas where changes in provider training could help promote wider dissemination, adoption, and implementation of oral health services in medical practice. First, the majority of states use online didactic courses as the only method of training. While this method has advantages, particularly for the busy practitioner, its effectiveness falls short of optimal CME strategies. A large body of evidence supports the greater effectiveness of mixed-methods compared to single methods in improving health care providers' knowledge and skills.[9,10]

Few states include an interactive component in their training. Interactive techniques such as hands-on practice, role-play, and case discussions can have a positive effect on

Table 1: Oral Health Training Requirements and Curriculum Delivery Methods for State Medicaid Programs, 2014

	Training Status (n=45)		Delivery Method (n=37)					
State	Training required[1]	Training not required[1,2]	Online Only	Online and In-person (Live)	Online with In- Office (Interactive/Demonstration /hands-on)	In-person (Live) only	In person (Live) with Supplementary Training (Interactive/Demonstration/hands-on)	Mixed Methods Approach (Online, In-Person (Live), and Interactive/Demonstation)
Alabama	x		x[7]					
Alaska	x		x[7]					
Arizona	x		x[7]					
Arkansas*								
California[5]		x**				x		
Colorado	x			x[7]				
Connecticut	x						x	
Delaware*								
D. Columbia*								
Florida		x						
Georgia		x**						
Hawaii*								
Idaho[4]	x			x[7]				
Illinois	x		x[9]					
Indiana*								
Iowa	x				x[9]			
Kansas		x**						
Kentucky	x		x[7]					
Louisiana	x		x[7]					
Maine[6]		x**			x[7]			
Maryland	x		x[9]					
Massachusetts	x							x[7]
Michigan	x							x[7]
Minnesota	x		x[8]					
Mississippi	x							
Missouri	x		x[7]					
Montana		x**	x[7]					
Nebraska		x						
Nevada	x		x[8]					
New Hampshire*								
New Jersey	x							x[7]
New Mexico		x**						
New York		x**						
North Carolina	x						x	
North Dakota[4]	x		x[7]					
Ohio	x		x[9]					
Oklahoma	x		x[7]					
Oregon[6]		x**			x[9]			
Pennsylvania	x		x[7]					
Rhode Island[3]	x		x[7]					
South Carolina	x		x[7]					
South Dakota		x						
Tennessee	x			x[9]				
Texas	x		x[9]					
Utah	x							x[7]
Vermont	x		x[7]					
Virginia	x						x	
Washington	x		x[9]					
West Virginia	x					x		
Wisconsin	x		x[9]					
Wyoming[4]	x		x[8]					
Totals:	34	11	22	3	3	2	3	4

* State does not have a program

** Training not required, website provides training resources for physicians (online courses, videos, slide presentations and reading materials)

1. American academy of Pediatrics. State Information and Resource Map. Available at: http://www2.aap.org/commpeds/dochs/oralhealth/State.html. Accessed August 7, 2014.
2. State website provided information (Florida, Georgia, Idaho, Kansas, Nebraska, North Dakota, Oklahoma, Oregon, Rhode Island, Wyoming)
3. Training varies based on Managed Care Organization
4. Training is informal (e.g. Does not cover entire state, anyone can provide training)
5. California: Training is decentralized; training offered often based on counties within the state
6. Oregon and Maine: Both States work with a partnership or coalition that provides online didactic and interactive training although training is not a requirement for their states.
7. States that use Smiles For Life (63%)
8. States that use PACT (9%)
9. Other Online Curriculum (28%)

Additional Notes:

Only 7 states (15%) use both didactic in person and didactic online training, while 4 states (8%) use all three training delivery methods

Florida, Georgia, Nebraska, Mississippi, and South Dakota no delivery method could be found during search

physician performance and health care outcomes.[10,11] Demonstrations of oral screening and fluoride varnish application techniques should be considered as important supplements to the more common web-based training. We observed that most Medicaid programs that reimburse physicians for oral health services do not provide follow-up training once initial training is complete. Shulman et al[12] suggest that it takes reoccurring reinforcement to have significant effects on practice behavior. Follow-up activities can reinforce skills and motivate and support physicians who have been through the initial sessions.[13]

Table 2: Content of Medicaid Programs Providing In-Person Oral Health Training for Providers (n=35)

Category:	Background Knowledge								Skills		Understanding Guidelines	Patient Management				Oral Health Conditions		Administrative	
State	Trends In Oral Health	Dental Terminology	Oral development	Etiology of dental disease	Risk factors for dental disease	How to perform oral evaluations	Patient positioning information	Fluoride (types, procedures, safety)	AAP or AAPD Oral Health guidelines	Dental questions to ask patient	Anticipatory guidance (e.g. non-nutritive sucking, nutrition)	Information about best practices for preventive oral health services		Managing oral injuries	Child abuse and neglect	Medicaid requirements for providing services	Billing Information	Referral to a dental home	Referral sources
CO	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x	
CT				x	x	x	x	x	x	x	x	x			x	x	x	x	
ID		x		x	x	x	x	x		x	x	x					x	x	
MA	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x		
MI	x	x	x	x	x	x	x	x	x		x	x			x	x	x		
NJ	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
NC	x	x			x	x	x	x	x	x	x	x			x	x	x		
TN	x		x	x	x	x		x		x	x	x			x			x	
UT	x		x	x	x	x			x		x					x	x		
VA	x	x		x	x	x	x	x	x	x	x	x			x	x	x	x	
WV	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x		
Protecting All Children's Teeth (MN,NE, WY)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Smiles For Life (AL,AK,AZ, CO,ID,KY, LA,ME,MA, MI,MO,MT, NJ,ND,OK, PA,RI,SC, UT, VT)	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x	

It is possible that the scope and strategies for training of primary care providers have changed in some states since our assessment. Many states continue to modify their training, and a few have formed expanded partnerships with other states. We found that obtaining current information on training was challenging, and although great efforts were made to obtain the most current information, limitations may exist in that we only examined information that we were able to access. In addition, training can change rapidly from state to state.

More research is needed on how states monitor training outcomes and how strategies, such as follow-up and quality improvement initiatives, can improve delivery of preventive oral health services in medical practices. Primary care physicians should become familiar with recommended guidelines for providing oral health services and seek assistance from available resources to facilitate effective practice implementation. Those responsible for training should be aware of the importance of developing educational sessions that use a mixed methods approach that may include follow-up and reinforcement to help trainees become confident and efficient in delivering preventive services in their practices. Further efforts are needed to promote evidence-based CME approaches in oral health training and practice improvement strategies that will increase implementation and sustainability of oral health integration in medical practices.

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