Access to Dental Services for Children in Medicaid: The Impact of Reimbursement

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Introduction

Studies of health care and public policy generally focus on access to physical health services, where access via health insurance is the key to improved health. While Medicaid programs cover those with the greatest need, the coverage does not always translate to improved health. Providers report various reasons to avoid participation in public insurance programs: low provider reimbursement, payment process inefficiencies, patient compliance and broken appointments[1-3]. Those who do participate may limit Medicaid members to a portion of their practice. This problem is particularly important for Dental Services, where many providers limit or refuse Medicaid patients.

We extend this literature by reviewing changes in policy related to access and utilization of Medicaid dental services[4]. We explore the impact of a 2007 change in policy where dental reimbursement rates for children were increased by 30 percent. Before the 2007 change, the last provider rate adjustment was in 1992.

Purpose

Our research objective is to explore the impact of provider payment rates on utilization of preventive dental services. Did the thirty percent increase in reimbursement rates result in increased utilization of dental services?

Methods

This study is a retrospective study of fee-for-service (FFS) Kentucky child Medicaid recipient utilization of dental services for calendar year 2006-2008. The time period represents two years before and one year after the changes in reimbursement policy were implemented.

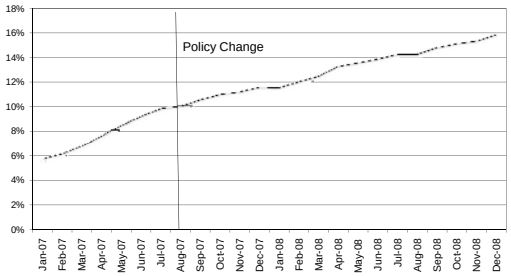
Population Studied

Study subjects were Kentucky Medicaid recipients aged 2-18 with continuous eligibility (rolling 12 month spans) for calendar years 2006-2008. This represents about 300,000 Medicaid members for each monthly period. We use two outcome measures: any preventive visit in the last 12 months, and at least two preventive visits in the last 12 months (for this report, we show the HEDIS dental measure which requires two visits).

Descriptive Statistics n=4,917,083 observations

Variable	Mean	Std. Dev.	Min	Max
Dental Visit Past Year (1)	0.41	0.49	0	1
Dental Visits Past Year (2)	0.11	0.32	0	1
Male	0.52	0.50	0	1
Race (white)	0.84	0.36	0	1
Race (other)	0.08	0.26	0	1
Medicaid Program	0.85	0.35	0	1
KCHIP (no premium)	0.09	0.29	0	1
KCHIP (premium)	0.05	0.25	0	1
Hospital Stay Past Year	0.10	0.29	0	1
Age	10.08	5.21	2	18

Children with two or more preventive dental visits in the past 12 months



Logistic Regression Results

Two Preventive Dental Visits in the last 12 months

Variable	Odds Ratio	Std. Err.	p value	95% Conf.	Interval
Male	0.869	0.00	0.00	0.86	0.87
Policy Change	1.172	0.01	0.00	1.16	1.18
Race (white)	1.151	0.01	0.00	1.14	1.16
Race (other)	0.902	0.01	0.00	0.89	0.92
Medicaid Program	0.648	0.00	0.00	0.64	0.66
KCHIP (no premium)	0.888	0.01	0.00	0.88	0.90
Hospital Stay Past Year	0.922	0.00	0.00	0.91	0.93
Urbanization (USDA)	0.979	0.00	0.00	0.98	0.98
Age group (6-10)	2.894	0.01	0.00	2.87	2.92
Age group (11-14)	2.141	0.01	0.00	2.12	2.16
Age group (15-18)	1.296	0.01	0.00	1.28	1.31
Time Period (month)	1.037	0.00	0.00	1.04	1.04

Omitted group categories: Race (African American), Eligibility Category (KCHIP Premium Eligibility group), Age group 2-5.

Results

The logistic regression results predicting the number of children each month who have utilized two preventive dental service visits in the past 12 months increased by 17% following the implementation of the dental provider fee increase. Our model controls for gender, race, eligibility category, health status, urbanization, and age. Other factors important to predicting dental utilization are age, with younger children more likely to receive services. And eligibility status, where members with higher income levels (reflected by eligibility in KCHIP) are more likely to utilize services.

This presentation reports preliminary results, with additional analysis planned to control for additional eligibility group categories, additional health status measures, and possible comparison groups to reflect baseline changes in dental utilization.

References:

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