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Medicaid Reforms In Oregon And Suboptimal Utilization Of Dental Care by Women of Childbearing Age

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Abstract

Background—The authors studied dental services used by women of childbearing age who were in Medicaid in Oregon during the early 2000's, a period of reforms to expand coverage. They compared claims for pregnant women, non-pregnant women with children, and non-pregnant women without children. They compared differences in claims for women enrolled in managed care and fee-for-service plans.

Methods—The authors computed the proportion of women for whom a dental claim was submitted in 6-month spans for 2000, 2001, 2002 (before reform) and 2005 (after reform).

Results—Before and after reforms, average utilization of pregnant women, adjusted for proportion of the period covered, dropped from .36 (SD=.025) to .22 (SD=.028). Among non-pregnant women with children, average adjusted rates dropped from .49 (SD=.201) to .21 (SD=.078). The pattern was similar among women with no children: rates dropped from .50 (SD=.028) to .19 (SD=.078). Claims for diagnostic services were most frequent. No difference was found between women enrolled in managed care or fee-for-service.

Conclusions—Contrary to the intention, reforms were detrimental to the vulnerable populations Medicaid is intended to serve.

Clinical Implications—Dental care is important for maternal and child health. Utilization is unlikely to improve without changes in Medicaid and care delivery.

Keywords

Access to care; dental care utilization; pregnancy; women's health; vulnerable populations

INTRODUCTION

Health services, and specifically dental services, provided in the perinatal period and between pregnancies benefit both the woman and her infant.^{1,2} Despite its importance, less than half of women receive dental care during pregnancy.³⁻⁵ The reasons are numerous. Women may not realize the importance of dental care during pregnancy,⁶ may believe poor oral health status during pregnancy is normal, or fear that they or their fetus could be harmed by dental treatment.⁷ Dentists may be reluctant to provide care to pregnant women because of liability concerns.⁸ Additionally, low-income women may be unaware of dental insurance benefits available to them, be unable to find care because of a lack of dental providers who accept the lower reimbursement rates offered by the Medicaid program, or face changing criteria for coverage and administrative obstacles to enroll or maintain eligibility.⁹⁻¹¹

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Recognition that oral health is an essential aspect of overall health and well-being led to the inclusion of oral health among the *Healthy People* goals for 2010 and 2020. *Healthy People* 2010 proposed the goal that 56% of the U.S. population would have an annual dental visit (*HP2010* Objective 21-10).¹² This goal has proved difficult to achieve. Federal law does not require states to cover dental care for low-income adults under the Medicaid program. As a result, dental coverage for adults enrolled in Medicaid is limited or nonexistent in most states. As of the year 2009, 33 states provided some dental coverage for low-income pregnant women and new mothers,¹³ yet the effects of these policies on the receipt of services or the health of women, or their children, are not fully known.

Oregon Medicaid Coverage Policy

Oregon underwent a series of health care policy reforms in the 1990s to late 2000s with a goal of expanding coverage to uninsured persons. In 1994, Oregon received a Section 1115 Medicaid Demonstration federal waiver to develop the Oregon Health Plan (OHP), which allowed the state to expand Medicaid coverage to previously uninsured persons with incomes below 100% of the Federal Poverty Level (FPL).¹⁴ The Medicaid coverage was based on a priority list of covered healthcare conditions and treatments, ranked by effectiveness and outcomes. OHP clients received healthcare treatment through prepaid capitation plans and paid a monthly premium ranging from \$6 to 23 per month.¹⁵ Enactment of OHP resulted in a significant increase in enrollees and reduced the uninsured rate from 18% in 1992 to 11% in 1996.¹⁶

Oregon was the first state in the U.S. to implement managed care to reduce costs while expanding coverage. This strategy was considered successful by policy analysts in the 1990s. However, as the number of Medicaid enrollees grew, budgetary concerns over the state's ability to support the expansion surfaced. In 1990, Oregon voters approved Ballot Measure 5 that reduced property taxes and local revenues.¹⁷⁻¹⁹ The ballot measure restricted the state from building a budgetary reserve. A new tax rebate rule in 1995 required the state government to return surplus revenues to taxpayers. From 2001 onwards, Oregon experienced a declining economy and additional budget cuts that led to debates over unanticipated growth of OHP caseloads. Paired with rising cost of pharmaceuticals and medical services in the early 2000s, managed care providers slowly withdrew from participation in OHP programs.

In 2001, the governor directed the OHP Office of Policy and Research to seek a second waiver under the new Health Flexibility and Accountability law (HIFA) to expand coverage up to 185% of the FPL and to secure additional federal matching funds for the Federal Health Insurance Assistance Program (FHIAP).²⁰⁻²² The FHIAP was funded mainly from state revenues as a subsidy for privately-insured clients to afford healthcare. Under the new waiver, Oregon would be allowed to expand OHP eligibility coverage for more people by differentiating OHP into a two-tier program: 1) OHP Plus, to cover the existing prioritized list of services for adults with children, pregnant women, and children, and 2) OHP Standard, to offer limited medical coverage and discontinue all coverage for routine visual, hearing services, durable medical equipment and non-emergent medical services and dental services for childless adults. OHP Standard enrollees would pay a premium, including a \$250 hospital co-payment per admission, and providers could refuse patient visits for those who could not make the co-payments.²³⁻²⁵ The state also requested federal approval to set an enrollment cap for the OHP Standard plan, to establish a lower poverty level for eligibility, and to further reduce benefits when necessary to a level equivalent to the federally mandated Medicaid minimum. Essentially, if the federal waiver were approved, the two-tier program would resolve the budgetary concerns and allow Oregon to maintain the existing OHP coverage while expanding coverage up to 185% of the FPL for more vulnerable populations, including pregnant women and children. The Standard plan would

offer limited benefits for adults not classified as vulnerable: single adults, childless couples, and parents who were not eligible for Medicaid under federal guidelines.

The Centers for Medicare and Medicaid Services (CMS) approved the federal waiver application in 2002, and OHP became a two-tier program in February 2003.¹⁴ Despite the waiver, Oregon failed to secure new matching funding from federal government for the FHIAP program, and the sustainability of the existing OHP plans was in question. Introduction of the two-tier program led to a 53% drop in enrollment overall, from 104,000 in January 2003 to 49,000 in December 2003.¹⁶ OHP Standard enrollees, including those with no income, were required to pay a premium for reduced coverage as well as a higher co-payment for every visit; individuals who failed to pay premiums were dis-enrolled. By July 2004, the state closed the OHP Standard to new enrollment.¹⁴ Current OHP Standard enrollees were required to re-certify every 6 months; individuals who failed to re-certify prior to the last day of coverage were barred from re-enrollment.

In response to the rising number of uninsured individuals, in July 2004, Oregon courts ordered the state to end co-payments for OHP Standard enrollees. By August 1, 2004, the OHP Standard plan restored coverage for emergency dental services, diabetic supplies, respiratory equipment, oxygen equipment, ventilators, chemical imbalances, and mental health services for outpatient treatment. The number of insured individuals continued to decline however because of the policy to drop enrollees who failed to meet the requirements to re-certify every 6 months. By the end of 2004, there was a 53% drop in enrollment because of decertification. At that time, the proportion of Oregonians without insurance reached 17%.¹⁶ Policy makers reacted by passing the 2005-2007 Legislatively Adopted Budget (HB 3108) in which OHP Standard enrollees with family incomes below 100% of the FPL were exempt from paying premiums; those required to pay premiums were provided a grace period of up to 6 months for payment. Later, a Senate Bill (SB 782) eliminated the rule to dis-enroll and disqualify individuals who failed to pay premiums.¹⁶ Policies eliminating the requirement that individuals with incomes less than 100% of the FPL pay insurance premiums came into effect on June 1, 2006.

The Oregon public health policy reforms mark a major transition in Medicaid policy. In this study, the authors examined dental care utilization patterns among Medicaid clients between 2000-2002 and 2005 when reforms took place. The authors focused on the effects of Medicaid policy changes on a subset of the most vulnerable individuals - women with household incomes below 100% of the FPL who were in the childbearing years.

METHODS

Data Sources

Oregon Medicaid enrollment and claims data for women ages 15- to 45-years old in the years 2000 to 2002 and 2005 were obtained from the Division of Medical Assistance Programs (DMAP), Oregon Department of Human Services. These two periods were chosen to correspond to the health care policy reforms described above and followed the publication of a seminal article in the dental professional literature suggesting the increased importance of optimal dental care during pregnancy.²⁶ The Institutional Review Board of the University of Washington approved the study. De-identified enrollment and eligibility files were used for the analysis.

Groups of Women Studied

The authors examined dental service claims for 3 groups of Medicaid-eligible women in the years 2000-2002 and 2005:

1. Women ages 15 to 45 who were pregnant, with household incomes below 100% of the FPL, and on OHP Plus
2. Non-pregnant adult women ages 19 to 45 with at least 1 child, with household incomes below 100% of the FPL, and on OHP Plus; and
3. Adult women ages 19 to 45, neither pregnant nor living with a dependent child, with household incomes below 100% of the FPL, and on OHP Standard.

Dental Benefits

During the period of this study, OHP Plus provided comprehensive dental care benefits and OHP Standard provided only limited dental emergency care. Low-income pregnant women, once pregnancy status was confirmed, were automatically enrolled in OHP Plus. All women were enrolled in Medicaid were automatically assigned to the fee-for-service (FFS) system but could request to receive care from a dental managed care provider. Both programs (FFS or managed care) offered dental coverage during pregnancy and up to 2 months post-partum.

Utilization Rates

Utilization rates were the outcome of interest and were computed based on the number of women who had a claim, divided by the number of women enrolled within each 6-month eligibility period. Eligibility records were sorted into 6 months increments (according to calendar months), matched with the corresponding claim records, and then de-identified. When a woman switched coverage groups, utilization was coded as the group (FFS or managed care) in which she was enrolled the longest during that 6-month period. Dental claims were classified by Current Dental Terminology (CDT) codes.

Analysis

Unadjusted utilization rates for each client group were computed. The number of claims within three categories of CDT codes (diagnostic, preventive, restorative) was also examined. The proportion of each 6-month period in which a woman was covered was calculated by summing the number of days covered and dividing by 180. This calculation was based solely on women who did not switch coverage groups during that period. The adjusted rate for these women was calculated by dividing the number of women with claims by the average proportion of the period of eligibility for that period.

Average adjusted rates were calculated for the periods 2000-2002 and 2005 for each of the 3 client groups (pregnant women, non-pregnant women with at least one child, and non-pregnant women without a dependent child). Within each client group, t-tests were used to compare utilization rates during the 2 time periods (2000-2002 and 2005).

RESULTS

Unadjusted Dental Utilization

Oregon's rate of prenatal medical care provided to low-income women in the year 2005 was average among the states, however the direction of change over time has been negative.²⁷ The rate of dental services provided to low-income women in the childbearing years is even lower. The rate, unadjusted for length of enrollment, for each of the 3 client groups is given in Table 1. In each year, the rates were higher in the first 6 months than in the second. It is likely that rates in the second half of the year declined as administrators, faced with potential budget deficits, restricted enrollment and coverage.

Among the 3 client groups, pregnant women had the lowest utilization rate in every time period examined. The proportion of pregnant women with a claim for receipt of any dental

service ranged from .17 to .21 in the years 2000 to 2002. After Oregon underwent healthcare reform in 2003, the proportion of pregnant women with a claim for receipt of any dental service dropped to .12 and .10 for the two 6-month periods of 2005. Among non-pregnant women with at least one child, the proportion with a claim for a dental service ranged from .27 to .29 in the years 2000 to 2002. By 2005, after reforms, the proportion of women in this client group with any claim dropped to 0.11 and 0.14. We found a similar pattern of utilization among non-pregnant women without children; the proportion with any claim ranged from .26 to .28 in the years 2000 to 2002 and dropped to .10 to .15 in 2005.

Enrollment Period

All Medicaid clients are required to re-certify every 6 months. Thus, continuous enrollment should yield an average of more than 180 days in a 6-month period. We found actual enrollment was substantially less (Table 2). Among pregnant women, the average proportion of time enrolled ranged from .51 to .55 in any 6-month period. The average proportion of time enrolled for pregnant women with at least 1 child ranged from .52 to .71. The average proportion of time enrolled for women who were neither pregnant nor living with a dependent child ranged from .53 to .69 in a 6-month period.

Utilization Adjusted for Proportion of Period Covered

When the adjusted utilization rates in the 2 time periods under study (2000-2002 and 2005) were compared within each client group. Average utilization rates dropped from .36 (SD=.025) to .22 (SD=.028) among pregnant women ($t = 11.46, p < .001$). The rates among non-pregnant with at least 1 child the rates dropped from .49 (SD=.201) to .21 (SD=.078), ($t = 23.78, p < .001$); and among the non-pregnant women without children, the rates dropped from .50 (SD=.028) to .19 (SD=.078), ($t = 19.47, p < .001$).

Seventy-five to 85% of dental all claims were for diagnostic dental procedures; the proportion did not differ by client group. Claims for preventive and restorative care each constituted less than 10% of all procedures billed (data not shown). Approximately 7% of women on OHP Plus received both preventive and restorative dental services during pregnancy; only .01% of them received periodontal services during pregnancy.

Comparisons between payment systems (FFS versus managed care), showed no differences in utilization patterns among women who were: pregnant (on OHP Plus), not pregnant but living with dependent children (on OHP Plus), and women in their child bearing years who were neither pregnant nor living with dependent children (on OHP Standard; data not shown).

DISCUSSION

Oregon was the first state to implement changes to their Medicaid program to prioritize care and implement managed care to control rising costs and to expand coverage to a greater number of uninsured. These public dental insurance reforms were instituted at the same time dentists and physicians began to recognize the importance of dental care for pregnant mothers.²⁶

Medicaid enrollment and utilization are situated within the changing demographic and socioeconomic context of the Oregon economy. Oregon experienced a severe economic slowdown in 2002 and through 2005. During this time, the proportion of Oregonians who were uninsured rose from 12.2 in 2000 to 17.0% in 2004 and slowly declined to 15.6% in 2006. Concomitantly, the proportion of the population living below the FPL increased sharply.²² According to the U.S. Census Bureau Small Area and Poverty Estimates for the years 2000-2005, the proportion of Oregonians in poverty increased from 10.6 to 14.1%.

During the years 2000 to 2005, the rate of live births declined from 14.7 to 14.0 for the state overall and the rate of live births among unmarried mothers grew, from 332 to 368 per 1,000. The majority of the unmarried mothers were single women with household incomes below 100% of the FPL who, therefore, qualified for Medicaid. Given the rising number of live births to unmarried mothers, we expected an increase in Medicaid enrollment during the study period. In contrast, our results show that between 2000 through 2005, the number of women in the childbearing years with insurance coverage dropped substantially (Table 1). The number of eligible pregnant women enrolled in OHP Plus remained stable.

This descriptive paper and the analysis does not control for other factors that might have influenced utilization rates, yet our results suggest that Oregon health care policy reforms from 2000 to 2005 decreased enrollment and dental care use by three vulnerable groups: low-income pregnant women, women with dependent children, and other women in the childbearing years. In the post-reform period, pregnant women had the lowest adjusted utilization of dental services in any 6-month period of eligibility. Despite the insurance benefit available to them, in this study, most pregnant women did not receive dental services early in their pregnancy. The reason why cannot be determined from our data, however others have observed “Arcane eligibility requirements and administrative complexities involved in maintaining and reenrolling in Medicaid result in many women on Medicaid going off the program, causing instability in health insurance and gaps in continuity of care.”²⁸

The time periods examined in this study, 2000 to 2002 and 2005, follow the publication of a seminal paper demonstrating a potential association between periodontal disease in pregnancy and adverse birth outcomes.²⁶ The short period in which low-income women have insurance coverage for dental care, combined with decreasing utilization rates, and dentists’ focus on diagnostics rather than treatment care suggests that neither the state nor the dentists prioritized the care of these vulnerable women. Our analysis demonstrated low utilization of dental services using unadjusted or adjusted rates. The statistical tests were based on adjusted average rates that included only women who did not change between FFS and managed care groups during the time periods used in the analyses.

Changes in public health policy are needed to assure continuous coverage for dental services throughout periods of eligibility. In addition, changes in outreach and linkage could help lower barriers to dental care for low-income women. Connections to public health programs such as the Women, Infants and Children (WIC) nutrition programs and other programs of county health departments and educational districts can and should be expanded. Outreach and linkage appear repeatedly in the general literature as successful strategies to reach the underinsured. Of particular relevance to the present study is a successful dental care intervention project for low-income pregnant women in rural Oregon.¹⁰⁻¹¹ A key finding from that study is that women must understand the insurance benefits that are available to them and believe dentist offices will accept them if they seek care. Concerns of dentists regarding professional liability also bear attention.⁸

During the period of the present study, women were enrolled in either fee-for-service (the default) or managed care dental plans. The state chose to implement managed care in an effort to control costs. The lack of difference in utilization and the extent of care between women enrolled in FFS or managed care suggests the state’s struggle between cost and effectiveness remains unresolved. Most women who receive care do so today from dental managed care organizations. Nevertheless, improving the quality of care—providing more than diagnostics alone—should be possible. Dental care remains a very small portion of the overall Medicaid budget.

CONCLUSIONS

Healthcare policy reforms in Oregon were implemented during a critical time in the dentistry, a time when dentists increasingly recognized the importance of dental care for pregnant women. Yet, our results showed the use of dental care, particularly preventive and restorative care, by pregnant women and mothers was low and became even lower over time. In 2005, the final year we examined, utilization rates for dental services by low-income pregnant women and by women with dependent children were only slightly higher than the rates for non-pregnant women without children who had coverage for dental emergencies only. We conclude that the reforms were detrimental to the very individuals they intended to serve.

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Table 1
Medicaid Enrollees' Unadjusted Use of Dental Services by Pregnancy Status and Oregon Health Plan for a 4-Year Period

Eligibility Period	Pregnant Women (OHP Plus)		Non-Pregnant Women with Dependent Children (OHP Plus)		Non-pregnant Women without Dependent Children (OHP Standard)	
	Utilization Rate	No. Eligible	Utilization Rate	No. Eligible	Utilization Rate	No. Eligible
Pre-Policy Reform Periods						
01/01/2000–06/30/2000	.20	13388	.27	28131	.28	16388
07/01/2000–12/31/2000	.17	9844	.27	22087	.27	13248
01/01/2001–06/30/2001	.21	13280	.28	28351	.28	17492
07/01/2001–12/31/2001	.18	10210	.28	21824	.27	15459
01/01/2002–06/30/2002	.21	13642	.29	27979	.27	20914
07/01/2002–12/31/2002	.18	10276	.28	21658	.26	19000
Post-Policy Reform Periods						
01/01/2005–06/30/2005	.12	14308	.11	5726	.10	4601
07/01/2005–12/31/2005	.10	10749	.14	3476	.15	2738

Table 2
Average Proportion of Period Covered and Adjusted Medicaid Utilization Rates by
Oregon Health Plan Status

Eligibility Period	Pregnant Women (OHP Plus)		Non-Pregnant Women with Dependent Children (OHP Plus)		Non-pregnant Women without Dependent Children (OHP Standard)	
	Proportion of period enrolled	Rate (N)	Proportion of period enrolled	Rate (N)	Proportion of period enrolled	Rate (N)
Pre-Policy Reform Periods						
01/01/2000–06/30/2000	.51	.39 (9341)	.59	.46 (22630)	.57	.49 (14158)
07/01/2000–12/31/2000	.52	.33 (7289)	.54	.50 (16965)	.54	.50 (10817)
01/01/2001–06/30/2001	.55	.38 (8999)	.61	.46 (22338)	.47	.47 (14918)
07/01/2001–12/31/2001	.52	.35 (7628)	.54	.52 (16508)	.53	.51 (12587)
01/01/2002–06/30/2002	.54	.39 (9139)	.63	.46 (21568)	.61	.44 (17867)
07/01/2002–12/31/2002	.52	.35 (7389)	.52	.54 (14581)	.55	.47 (15443)
Post-Policy Reform Periods						
01/01/2005–06/30/2005	.51	.24 (12864)	.71	.15 (4872)	.69	.14 (4404)
07/01/2005–12/31/2005	.51	.20 (9541)	.54	.26 (2764)	.59	.25 (2140)