Washington State Health Care Authority

Report to the Legislature

Expanded Oral Health Care Program for Adults with Diabetes and Pregnant Women

As Required by Engrossed Substitute Senate Bill 6052,

Subsection 213(1)(z)

February 2016

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Executive Summary

This report on Expanded Oral Health was created in response to Engrossed Substitute Senate Bill 6052, Subsection 213 (1)(z) which directs the Health Care Authority (HCA) to (1) conduct a review of its adult dental program in cooperation with and utilizing resources from Washington Dental Services Foundation (WDSF), (2) develop a plan to implement an expanded oral health care program for adults with diabetes and pregnant women, and (3) report back summarizing the authority's implementation plan and an estimation of cost savings.

The current Apple Health adult dental program provides limited benefits and very low reimbursement rates for dentists. As directed by the legislature, HCA developed a plan, described in this report, to provide expanded oral health services to individuals with type 2 diabetes and pregnant women. The goal of this program would be to improve their health overall and thus reduce medical expenditures for individuals in these groups.

However, an independent review of research on this topic, conducted by Milliman (see appendix, pg. 10) did not find a causal relationship between increased oral health care and commensurately reduced medical costs for individuals in these targeted groups. Limitations in existing research include the small number of available studies, small sample sizes (very few clients actually completed the prescribed treatment), the retrospective nature of the studies, and differences between the sample populations in these studies and the Medicaid population.

Given the available research and the issues noted above, estimates of cost savings are difficult to calculate with any statistical significance.

Providing this enhanced oral health program as a demonstration offers Washington State an opportunity to garner additional information on the potential link between patient participation in enhanced periodontal care/maintenance and reduced healthcare costs. Implementation of a demonstration using a randomized controlled trial within a selected geographic area would allow the state to gather the needed information to assess how effective this intervention might be in reducing costs for targeted groups within the Medicaid population.

Background

The legislative report on Expanded Oral Health was created in response to Engrossed Substitute Senate Bill 6052, Subsection 213 (1)(z) which directs the Health Care Authority (HCA) to (1) conduct a review of its adult dental program in cooperation with and utilizing resources from Washington Dental Services Foundation (WDSF), (2) develop a plan to implement an expanded oral health care program for adults with diabetes and pregnant women, and (3) report back summarizing the authority's implementation plan and an estimation of cost savings.

Washington Apple Health Adult Dental Program

The adult dental program population reflects the overall Apple Health (Medicaid) population, including increasing numbers of eligible adults as a result of the Affordable Care Act and individuals with complex physical and behavioral health conditions. Washington's dental program has the fourth lowest provider reimbursement rates in the country and a thinly spread pool of available dentists.

Washington State currently provides dental coverage for adult Apple Health clients, although this has not been a consistently available benefit. Adult dental coverage was available until 2011 when budget cuts went into effect, limiting most adults to emergency services such as tooth extractions and antibiotics for pain. Between 2011 and 2014 dental coverage was only available to pregnant women, individuals in long-term care, and individuals who were eligible under a 1915(c) waiver covering certain medically needy and disabled clients. In January 2014, more comprehensive dental coverage was restored to all Apple Health-insured adults, including the Medicaid Expansion population who received coverage as part of the Affordable Care Act.

In contrast, Apple Health has had tremendous success with access to dental services for children. This is due in large part to higher reimbursement rates for services provided to children and a nationally recognized program called Access to Baby and Child Dentistry (ABCD). The ABCD program is a public-private partnership that recruits and trains dentists to provide preventative care to Medicaid children and lowers barriers for low-income families in accessing care through outreach, while reimbursing participating dentists at an enhanced rate for children from birth through age 5.[1]

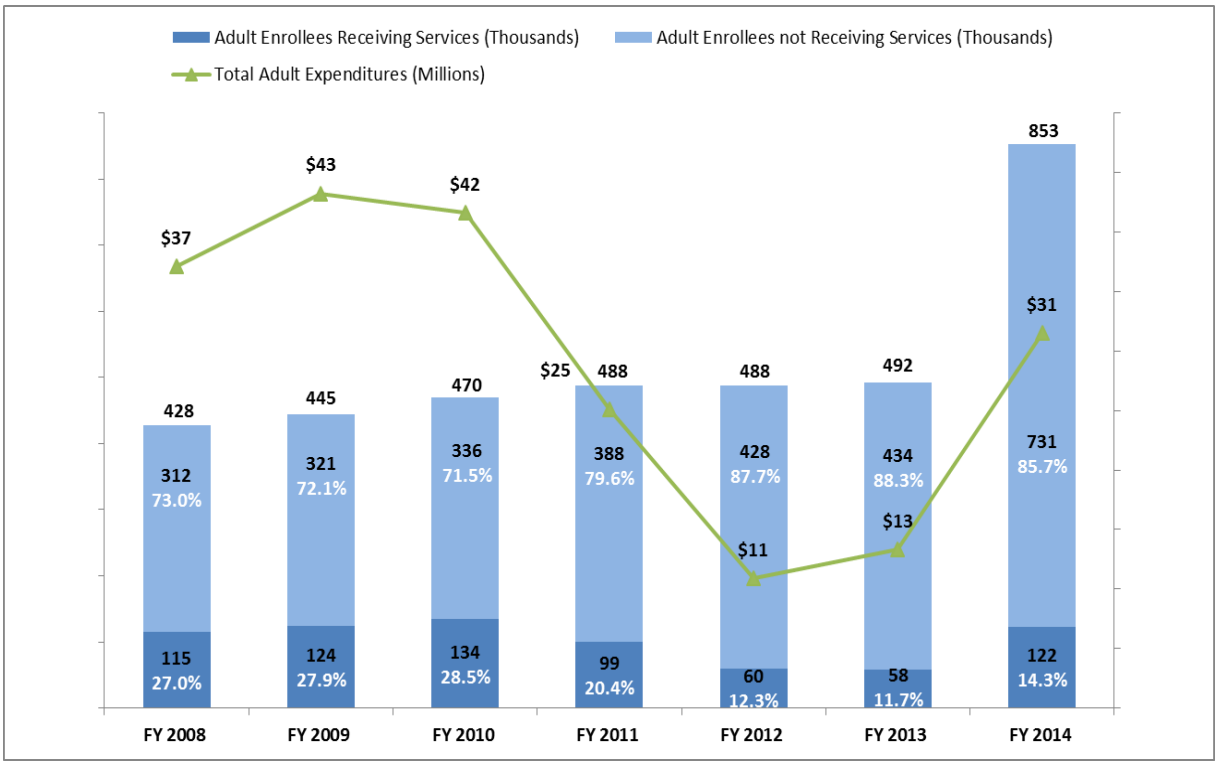
To summarize:

- Average adult dental expenditures per user have varied from $374 in FY 2011 to $423 in FY 2014.

[1] More details on the ABCD program available here: http://abcd-dental.org/.

- In FY 2014, with the first six months of adult dental coverage restoration, expenditures increased to $31M, up from $13M in FY 2013 (excluding Federally Qualified Health Centers—FQHC—expenditures).
- Just 17% of the adult population received services in FY 2014, compared to 28% in FY 2008.
- Adults over age 55 had lower utilization than other adults.
- In FY 2013 and FY 2014, more adults received oral surgery procedures than preventive services.

Trend in Dental Utilization and Expenditures Among Adults — FY 2008 to FY 2014[2]



Note: Excludes FQHC claims and claims with unmatched eligibility data.

The bigger picture for Washington Dental Program Services providers *for patients of all ages* indicates that, "in FY 2014, 95 cents out of every dollar for dental services went to dentists or Community Health Centers," with the balance going to dental hygienists, anesthesiologists, and other dental providers. In 2014, approximately 58 percent of dental services was provided by private practice clinics, while 37 percent was provided by Community Health Clinics.[3]

HCA pays dental claims on a fee-for-service basis for private practitioners. Community Health Centers are reimbursed a flat fee for most patient visits, regardless of the services performed

[2] Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data.

[3] Washington Dental Services Foundation, Washington State Apple Health Dental Program Facts and Figures, FY 2008-2004.

during that visit. 50 percent of adult dental patients were seen at Community Health Clinics in FY 2014—a 19 percent increase from the FY 2008 figure of 31 percent.[4]

Related Research

Publicly available research on dental care and coverage and its relationship to overall health and health care costs for adults with type 2 diabetes and pregnant women is limited.

The most frequently cited study was conducted by Dr. Marjorie Jeffcoat and others.[5] The study hypothesis was that "treatment of periodontal disease reduces medical costs and inpatient hospital admissions." The authors compared medical billing costs over a three-year period for insured people with diabetes who had completed periodontal treatment and were well maintained to insured people with diabetes who did not complete periodontal treatment and did not receive maintenance care. 46,094 patients were included in the study. According to the authors, the group who had successfully completed the treatment or maintenance

> …shows lower medical costs and hospitalizations in the time period following periodontal treatment in patients with diabetes and pregnancy when compared to untreated controls. The difference is both statistically significant and substantial in magnitude…Although the intergroup comparisons are clear, they cannot answer the crucial question of whether differences are caused by periodontal therapy or whether a patient's completion of periodontal therapy arises from a complex of factors that tend to improve health outcomes irrespective of periodontal disease. Some insight can be gained by examining the detailed histories of the outcomes, *but the present evidence is mixed…The question of causality, therefore, must remain open…*[italics added][6]

Milliman, an external actuarial organization, reviewed this study and other available research. Their review is included as an appendix (see page 10).

Their findings are summarized below.

- While there is clear data showing that emergency department utilization for dental issues increases when dental coverage is eliminated, it is not clear whether this is causal or related to other factors.

[4] Washington Dental Services Foundation, Washington State Apple Health Dental Program Facts and Figures, FY 2008-2004.

[5] Jeffcoat MK; Jeffcoat RL, Gladowski PA, Bramson HB, Blum JJ. Impact of periodontal therapy on general health: evidence from insurance data for five systemic conditions. Am J Prev Med. 2014.

[6] Ibid.

- The literature reviewed shows a clear link between diabetes and periodontitis, but there is conflicting evidence on whether controlling or treating periodontitis has a causal effect on reducing the severity of diabetes.
- Most studies focus on commercial populations and find that motivating individuals to complete treatment is difficult. Complicating factors make this level of engagement even more difficult for the Medicaid population.
- All of the studies reviewed are retrospective—the researchers collected data over a period of time and then looked at outcomes for those that completed treatment and those that did not. No information is available regarding:

  (1) complying individuals' medical costs before the study,

  (2) the impacts on individuals' medical costs over time—in the first year vs. the second year, for example—and

  (3) potential effects on medical costs for partial as opposed to full participation (completion of four periodontal visits a year).

There are a small number of studies available on this subject; all are retrospective and involve somewhat different populations than Medicaid clients. In addition, only a small number of patients successfully completed treatment. None of the studies found a causal relationship between expanded dental care and reduced medical costs. As further analysis becomes available from other demonstrations or Washington's own efforts, it may be possible to demonstrate a causal relationship and present dependable savings assumptions for future consideration.

Oral Health Connections (OHC) Demonstration Program

As requested by the proviso, HCA worked with WDSF to develop a proposed "Oral Health Connections" program for selected adult Apple Health members—individuals with diabetes and pregnant women. Under this program, individuals who met these criteria would be referred by trained primary care providers for additional dental services. This proposal would attempt to reduce medical costs by adding an infusion of more frequent oral health care by specially trained dentists who are paid at a higher rate.

As envisioned the Oral Health Connections demonstration program would begin in 2016 for 6,877 pregnant women and diabetics in the basic (non-expansion) Apple Health program in Whatcom and Thurston counties. The program's rollout would include development of program materials, training a group of primary care providers to assess and make referrals, and patient outreach. In addition, the program would require training a group of dentists to provide enhanced dental care. As noted, these dentists would be paid a higher rate than the general

Apple Health Dental program allows. This approach is patterned off of the success previously demonstrated under the ABCD program.

Planning for this new program could begin in mid-2016, with providers trained and clients engaged later in 2016. WDSF would cover case management, dentist training, health system engagement, evaluation, development of materials, training, and ProviderOne enhancements. Individual patient costs would be covered by HCA.

The proposed program would run through mid-2019; medical expenditures of participants and nonparticipants would be compared over the life of the program. Decisions about whether to continue or expand the program would be based on an assessment of its cost benefit and health outcomes.

If funding is authorized, plans would be further developed prior to implementation, including an assessment of costs for patient engagement support (by Community Health Workers or others), materials, and other expenses.

Potential Cost Savings

Given the available data and research findings, it is difficult to calculate the financial impact of the proposed approach.

In their report (see page 10), Milliman states that the following additional elements would be required:

- Assumptions about availability of Medicaid dental providers and access to dental services—if access to providers and other challenges facing the Medicaid population (e.g., transportation, language barriers, and other factors that make it hard for clients to keep appointments) are not addressed, potential benefits of the program will be limited.
- Assumptions about the number of members likely to sustain their engagement and participation over time.
- Defining a source of cost savings for participants and their magnitude, e.g. emergency department (ED) dental visits, decreased hospitalizations or improved infant outcomes.

As further analysis becomes available from other demonstrations or Washington's own efforts, it may be possible to demonstrate a causal relationship and present dependable savings assumptions for future consideration.

Conclusion

While cost savings have not been proposed at this time, providing this enhanced oral health program as a demonstration offers Washington State an opportunity to garner information on the potential link between patient participation in enhanced periodontal care/maintenance and reduced healthcare costs. Implementation of a demonstration using a randomized controlled trial within a selected geographic area would allow the state to gather the needed information to assess how effective this intervention might be in reducing costs for targeted groups within the Medicaid population.

Milliman

Appendix A

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February 23, 2016

Thuy Hua-Ly
Health Care Authority

Olympia, WA 98504-5510

Re: Review of Oral Health Proviso Draft Plan from the Washington Dental Service Foundation

Dear Thuy:

At your request, we were asked to provide a review of the Washington Dental Service Foundation (WDS) financial model related to a proposal to increase the fee schedule and the visit limit for Medicaid pregnant women and diabetics serviced by the Health Care Authority (HCA). In this letter we have done the following:

- Conducted a review of other published research related to this topic.
- Listed key assumptions needed to perform a financial impact analysis of this proposal.

Research Results: Impact of Oral Health on Medical Costs

Publicly available studies were reviewed related to (1) medical cost savings associated with dental coverage, and (2) connections and/or causal relationships between dental health and overall health specific to pregnancy and diabetes. Below are key findings, many of which are specifically related to the report cited by the WDS (Jeffcoat MK; Jeffcoat RL; Gladowski PA; Bramson JB; Blum JJ. Impact of periodontal therapy on general health: evidence from insurance data for five systemic conditions. Am J Prev Med. 2014.)

1. Emergency department (ED) utilization for dental related issues by Medicaid patients varies with Medicaid dental coverage; when dental coverage is eliminated, ED utilization for dental issues is found to increase. It is not clear whether this is casual or correlated to other factors. Medicaid dental coverage could provide medical cost savings opportunities via fewer dental ED visits due to more appropriate care for dental problems in a dental office, compared to the ED which largely provides palliative relief only without addressing the root cause of the dental problem and consistent dental care resulting in fewer longer term ED visits due to better population oral health.

2. There is an established link between diabetes and periodontitis in the medical literature reviewed; however, while the correlation is well documented, there is conflicting evidence on whether controlling or treating periodontitis has a causal effect on reducing the severity of diabetes.

3. There are several studies linking pregnancy outcomes to periodontal care. The savings presented in these studies are significant but based on my review, I am concerned about the credibility of some of this work given the small samples of treated members.

4. Most studies focus on commercial populations, likely due to the fact that a significant number of Medicaid recipients do not have coverage over a long period of time and/or do not have a dental benefit. Even in the commercial populations, motivating individuals to engage and complete treatment can be very difficult. Given other complicating factors with a Medicaid population, engagement is likely to be more difficult.

5. All the studies we are aware of are retrospective in nature. In other words, the studies accumulated data over a period of time and then looked at outcomes for those that completed the prescribed treatment and those that did not. This is important to consider for Washington for the following reasons:

    a. There is not a pre-implementation period and post-implementation period to evaluate the impact of the change, only the results of those who complied and those that did not. We do not know what the costs of the complying members were prior to implementation in order to evaluate the impact of dental visits.
    b. Since the studies evaluate a population who has complied over the course of a long period of time, we do not know the immediate impact of compliance. Is there savings in the first year or are savings realized after a long period of compliance? Given there is no implementation date we do not have the timeline of savings to assume if Washington adopts such a program.
    c. Studies tended to evaluate full participation, or the four periodontal visits. It is not clear the impact of partial participation.

Financial Impact Modeling

In order to model the financial impact of the WDS plan, the following data and assumptions would be required:

Participating providers and access to care

The availability of Medicaid dental providers is a key element to the program's cost and benefit. If access to dentists is readily available, then while program costs may be higher in the first few years due to initially high utilization, the potential benefits of the program are also higher as people are more likely to have continual dental care and improved oral health results. On the other hand, if provider access is limited, the cost of the program may not appear as high since covered members may not be able to utilize the program to its fullest extent. However, this would also limit the benefits of the program due to lesser oral health improvement and lesser impact of any connections to medical health.

Access to dental services depends not only on the number of Medicaid dental providers within geographic proximity, but also other challenges faced by the Medicaid population including lack of transportation, language or cultural issues, and inability to keep appointments. Simply increasing the fee schedule and adding eligible visits will not solve these broader issues In order to improve oral health and reap potential physical health benefits these difficult challenges must be overcome as well.

Key assumptions would include the level of access to care even at enhanced rates, in other words if providers are still not available then there would be no savings.

Underlying eligible members and participation rates

It would not be difficult to summarize those who would potentially meet the standard to be eligible diabetics and pregnant women, for this program and model their current costs.

Assuming that an eligible member has access to the proper dental care, we would need to estimate the level of participation of those members and what proportion of those that seek care will incur all four eligible visits versus partial participation. In addition to initial participation, we would need to understand what percentage of members would likely continue to get care over a period of time, as this would affect the magnitude of any potential medical savings. The duration of care can be affected by desire for care, access to care and eligibility for care. For example, a pregnant mother may no longer be eligible for care after delivery. Continuity of care over a longer period of time would be necessary. As noted above, there is difficulty in motivating member participation even among commercial programs.

Savings for participants

Given the range of reported results this assumption seems to be the most difficult to project. A study of ED visits for those eligible for this program can be done to size the magnitude of potential savings from that portion of costs. The broader potential savings due to decreased hospitalizations and better infant outcomes are much more difficult to address given the lack of consistent research on the topic. We would suggest a scenario approach to the financial model, where the number of periodontal treatments and associated costs are assumed. The average costs for the eligible population are presented and the financial impact at various levels of medical savings is calculated.

This would give HCA a better perspective on the required percentage of savings required for cost effectiveness without dictating the actual savings.

The WDS plan proposes that medical expenditures on eligible patients comparing those that receive periodontal treatment and those who do not receive periodontal treatment. While we concur that it would be valuable to track this data we would recommend that other measures of acuity and prior costs also be tracked to better determine the impact to those members.

Given the number of assumptions where there is little to no support for the assumptions we would suggest a pilot program to allow for the collection of data to assess participation and savings over time.

Limitations

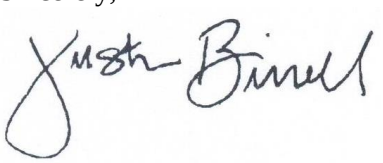
The information contained in this letter, has been prepared for the Health Care Authority. It is our understanding that the information contained in this letter may be utilized in a public document. To the extent that the information contained in this letter is provided to third parties, the letter should be distributed in its entirety.

Milliman makes no representations or warranties regarding the contents of this letter to third parties. Likewise, third parties are instructed that they are to place no reliance upon this letter prepared for the State of Washington by Milliman that would result in the creation of any duty or liability under any theory of law by Milliman or its employees to third parties. Other parties receiving this letter must rely upon their own experts in drawing conclusions the cost-effectiveness of the proposed dental changes.

The terms of Milliman's contract with the Washington Health Care Authority signed in April 2013 apply to this letter and its use.

Please contact me if you have any questions regarding this review.

Sincerely,



Justin C. Birrell, FSA, MAAA
Principal & Consulting Actuary

Washington Dental Service Foundation

Appendix B

Community Advocates for Oral Health

February 26, 2016

MaryAnne Lindeblad
Medicaid Director
Washington State Health Care Authority
PO Box 45502
Olympia, WA 98504-5502

Dear Ms. Lindeblad:

On behalf of the Washington Dental Service Foundation (WDS Foundation), thank you for the opportunity to comment on the Report to the Legislature: "Expanded Oral Health Care Program for Adults with Diabetes and Pregnant Women." WDS Foundation works to prevent oral disease and improve overall health. We do this through innovative programs and policies that produce sustainable changes in the health environment so that over the long-term oral disease is prevented.

We greatly appreciate the work that has gone into assessing the potential costs and savings associated with an enhanced Medicaid dental benefit for patient with diabetes and pregnant women, two populations in particular need of oral health care. WDS Foundation looks forward to continuing our strong partnership with the Health Care Authority to reduce barriers and increase access to care for lower-income Washingtonians.

WDS Foundation believes that the concerns Milliman raised about the limitations of the publicly-available studies and any hesitations about relying on the data from those studies will be addressed by the proposed pilot for an enhanced Medicaid dental benefit for patients with diabetes and pregnant women in Thurston and Whatcom Counties ("Oral Health Connections"). Our experience in partnering with the Health Care Authority and developing the Access to Baby and Child Dentistry (ABCD) program gives us confidence that the public-private partnership envisioned in this pilot proposal will result in increased dental access and improved health outcomes. The pilot would offer the following:

Dental and medical provider outreach, engagement and education:

- WDS Foundation agrees with Milliman's assessment that if more providers are not available, even with increased rates, then there would be no savings for the Medicaid program. While the enhanced reimbursement rate will help incentivize more private practice dentists to be Medicaid providers, additional education and outreach will be needed to ensure that this program investment results in a meaningful increase in access. WDS Foundation already partners with providers across the state for the ABCD program, continuing dental education, and other initiatives. WDS Foundation will engage providers and offer trainings for treating patients with diabetes and pregnant women. WDS Foundation will actively recruit new providers to the program.

- WDS Foundation is also actively engaging the medical provider community in the importance of oral health. The pilot would entail engaging and educating the full spectrum of medical providers that work with pregnant women and patients with diabetes.

Patient outreach, education and support:

- Patient motivation can be a challenge, which is why the wrap-around services planned and funded by WDS Foundation will be essential to the program's success. In additional to the enhanced reimbursement rate for dental providers, Oral Health Connections will utilize comprehensive support services, including dental provider engagement and training, outreach to medical providers and managed care organizations, patient outreach and education, and case management support. This program is modeled after the ABCD program, which was developed in Washington and has established our state as a national leader in terms of young children's access to dental care. While the ABCD program also includes enhanced rates for

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providers, it has been successful because of the education and support offered to parents and dental and medical providers.

- Additionally, lower-income residents and English language learners face numerous challenges to accessing culturally-competent care. Any program that aims to increase access for the Medicaid population or any underserved population must address these barriers in order to be successful. Again, the ABCD program provides a useful model for how to ensure there are the resources available to provide culturally-competent and language-accessible care for Medicaid enrollees eligible for Oral Health Connections. WDS Foundation partners with the HCA to reduce transportation, language and other barriers for eligible families and reduce appointment no-show rates. WDS Foundation is seeking to apply the ABCD model to be a partner with the HCA for this program as well.

An opportunity to collect and analyze the data needed to evaluate the program:

- The pilot would offer the opportunity to design program evaluation and data collection in a way that will best serve the Medicaid program and its beneficiaries. We would work with the HCA and other entities to collect and subsequently analyze the following data (this list is not exhaustive):
    - Patients' medical and dental costs and health status prior to the start of the pilot, during the pilot, and at its conclusion
    - Patients' ER visits and related costs before and during the pilot period
    - How soon cost savings are seen once dental treatment is started
    - A qualitative assessment of why eligible patients might not be taking advantage of the enhanced dental benefit

- The pilot can also be designed to compare the results of the pilot participants to a control group outside of the pilot counties.

Thank you for your consideration of these comments. We understand that increasing access to oral health care for the Medicaid population will require numerous strategies and partners. WDS Foundation looks forward to continuing to be a resource for and partner to the HCA, and hopes to launch the Oral Health Connections pilot. Please contact me with any questions.

Sincerely,

Diane Lowry Oakes
President & CEO