Oral Health During Pregnancy

Oral Health's Unanswered Questions



SEPTEMBER 2018

The Children's Dental Health Project has launched **Oral Health's Unanswered Questions** as a special series to take a fresh look at issues that the oral health community widely agrees are a priority but, for various reasons, has struggled to address. These issue briefs and the questions they pose are intended to start a dialogue about strategies for improving the health and stability of families.

Executive Summary

The oral health community broadly agrees that obtaining dental care during pregnancy is a priority. A strong body of evidence affirms that supporting pregnant women's oral health is important to both maternal and child health. When women have good oral health, it benefits their families' longterm success. However, we have collectively struggled to break down barriers to pregnant women's oral health needs.

The Children's Dental Health Project urges oral health stakeholders to take an honest look at what has stalled our success. In this brief, we outline some key challenges and starting points to improve pregnant women's and families' health and stability:

» Inadequate data is a foundational barrier, impeding progress on many fronts.

Insufficient data collection and reporting exists at both the state and federal levels. Consequently, we do not have a complete understanding of pregnant women's oral health status, their opportunities for coverage, and their access to care. Several factors hamper our collection of quality, comprehensive data.

We must develop reliable and consistent mechanisms for collecting and publishing data on pregnant women's oral health status, their access to dental care and coverage, and how many have coverage today.

» Pregnant women's oral health coverage is inconsistent from state to state.

Incomplete data aside, what we know about the landscape of Medicaid dental coverage during pregnancy is troubling. Whether coverage is available, its duration, benefits, and enrollment processes all vary by state. This patchwork system places women's and families' oral health and economic security at risk. We must develop a benchmark model of dental insurance for pregnant women, regardless of the source of coverage, and ensure it is designed to improve women's and infants' health. Incenting Medicaid managed care organizations to cover oral health for pregnant women and new mothers may be one incremental step forward.

» Too many pregnant women can't access the care they need.

Oral health care access for pregnant women is inconsistent. Attitudinal barriers among organized dentistry and lack of consumer education on the safety of care during pregnancy are among the obstacles that push care out of reach of pregnant women.

Providers, insurers, consumers, and medical and dental schools have different yet important roles to play in making oral health a routine part of pregnancy care. We must ensure they have the tools they need to do so. It's also vital to test new models of care delivery and coordination, to better meet pregnant women and families where they are.

» Oral health care isn't set up to meet pregnant women where they live.

For pregnant women and other adults, oral health care and education are largely confined to a dental office, which overlooks other opportunities to access such services. Yet, many community stakeholders could play a role in supporting oral health during pregnancy.

We must do more to meet pregnant women and families where they are by leveraging community touchpoints and strengthening relationships beyond the clinical setting.

For more information about oral health during pregnancy, please contact Debbie Vishnevsky, CDHP policy analyst, at dvishnevsky@cdhp.org.





For those outside the oral health community, it may seem odd that the *Children's* Dental Health Project would focus its attention on the oral health of pregnant women. However, those within our community recognize the impact of a pregnant mother's oral health on the oral health of her future child. Despite this well-documented connection, efforts to address the oral health of mothers and children have traditionally remained separate. Only in recent years have many in our community begun to recognize and try to close this gap. CDHP seeks to start an honest dialogue about where we must focus our attention to truly to make the oral health of pregnant women and mothers a priority.

Research has established that a woman's oral health status during pregnancy is a good predictor of her future child's risk for developing dental caries—the disease that causes tooth decay—as oral bacteria are primarily transferred from mother to child after birth.¹ Tooth decay remains the most common chronic condition in childhood.²

Pregnancy is an opportune time for a woman to improve her oral health prior to delivery. The safety of dental care throughout pregnancy was reinforced by a federally-facilitated National Consensus Statement (2012) and the American College of Obstetricians and Gynecologists (ACOG). In 2013, ACOG concluded that "ample evidence shows that oral health care during pregnancy is safe and should be recommended to improve the oral and general health of the woman."^{3,4}

Moreover, some evidence suggests that women with periodontal (gum) disease during pregnancy could be at greater risk for poor birth outcomes, such as pre-eclampsia, pre-term birth, and low birth-weight infants.⁵

In addition, a mother's oral health has an impact that extends beyond her health or that of her child. A family's economic stability is also at stake. For example, health economists found that women growing up with the benefits of community water fluoridation earned 4.5 percent higher wages than those without similar exposure.⁶ This is a significant finding given that nearly two-thirds of U.S. mothers are primary, sole, or co-breadwinners for their families.⁷

Pregnancy provides a unique and time-limited opportunity for women to assess and address critical issues that can benefit themselves, their newborns and families. It's time for oral health advocates to develop new and more focused strategies to seize this opportunity.

Call to Action

The current system does not prioritize women and their oral health. As stakeholders, each of us should explore the additional roles we can play to improve oral health during pregnancy and eliminate barriers to care.

Questions

WHAT IS THE ORAL HEALTH STATUS OF PREGNANT WOMEN IN THE U.S.?

Without adequate data, we cannot fully describe the problem we hope to solve nor measure for the outcomes we hope to achieve. Unfortunately, current data systems offer only a small glimpse of pregnant women's oral health status.

Since 1987, the Pregnancy Risk Assessment Monitoring System (PRAMS) has collected self-reported data on the health status and experience of women during pregnancy. Although this is one of the best data sources on pregnant women, PRAMS participation is voluntary. While 47 states participate, not all of them collect all of the data that comprise this surveillance system.⁸ (Nearly 53 million people live in the three non-participating states.) Among states that do participate in PRAMS, the frequency with which data is collected and reported is inconsistent. In fact, the most recent publicly available PRAMS data from the Centers for Disease Control and Prevention is for 2009 through 2011, for which oral health data is available from only 22 states.⁹ (Some individual states have posted more recent PRAMS data online.) These factors make it difficult to describe pregnant women's oral health status and assess their access to dental care. It further inhibits comparison across states.

The National Health and Nutrition Examination Survey (NHANES), a nationally representative survey that includes health and dental examinations, does collect data on dental disease among adults, including pregnant women. However, the NHANES data briefs published by the National Center for Health Statistics do not include analysis of oral health data specific to pregnant women. Although low-income and minority women are disproportionately affected by dental disease, independent analyses of NHANES data suggest that prevalence of tooth decay, untreated tooth decay, and periodontal disease among pregnant women are comparable to non-pregnant women of the same age groups with one exception—among young women (ages 15-24), pregnant women have higher rates of untreated disease.¹⁰

Unfortunately, even if pregnancy-specific NHANES data were reported at the federal level, it would provide only a national snapshot, and an infrequent one at that. For this reason, NHANES falls short of what state and local policymakers and advocates need to describe the state of oral health for their unique populations. This data gap makes it harder to identify and target areas of unmet need.

CDHP and its partners have advocated for a comprehensive, national approach to gathering more meaningful oral health data both at the state and local levels, as well as for specific populations.¹¹ We recognize doing so would require a significant investment by federal health agencies, including the Centers for Disease Control and Prevention, to align measurement priorities and encourage broader state participation.

States themselves can improve efforts to track pregnant women's oral health status and access to care by:

- » actively participating in public health surveillance efforts like PRAMS
- » incorporating measures of access and quality into coverage programs, and
- » implementing new data collection mechanisms aimed at this population

For example, West Virginia conducted a Basic Screening Survey in 2014 to gather data on the oral health of pregnant women.¹² In addition, the state implemented



a prenatal risk screening tool that incorporates questions about oral health and access to care.

2 DO WOMEN HAVE DENTAL COVERAGE DURING PREGNANCY?

We do not know how many pregnant women have adequate dental insurance or any dental coverage at all. But we do know that the dental coverage landscape for pregnant women and adults of child-bearing age is a confusing patchwork. No clear consensus exists as to what should be covered. As a result, coverage options and rules vary widely from state to state, making access to even basic dental care for many pregnant women much more difficult than it should be.

Although the portion of children with public or private dental coverage increased from 71 percent in 1996 to 90 percent in 2015, progress has been slower for adults and pregnant women.^{13,14} In general, private dental coverage does not differentiate between women who are pregnant and those who are not. However, in public coverage—namely Medic-aid—the story is more complicated. Only 18 states and the District of Columbia offer comprehensive dental benefits for Medicaid-enrolled adults that include preventive and restor-ative services.¹⁵

Additionally, because it is optional for states to provide Medicaid dental benefits for adults, historically these benefits have been among the first to be cut when states face budget shortfalls.¹⁶ Pregnant women are particularly vulnerable to cuts in adult Medicaid coverage because roughly two in three Medicaid-enrolled women are in their reproductive years. In addition, women comprise the majority of the program's enrolled adults.¹⁷ With the exception of states such as California and Virginia, most states do not distinguish pregnant women from other adults for the purposes of qualifying for Medicaid dental benefits. This absence of expanded dental coverage sharply contrasts with how medical coverage (public or private) treats women during pregnancy. Medical coverage generally offers a unique set of benefits that focus on caring for pregnant women to improve their children's birth outcomes.

Over the past several years, some states have improved Medicaid dental coverage during pregnancy. Yet it's difficult for women, policymakers, or even health journalists to know all of the states in which more extensive Medicaid benefits are offered, because states are not required to report this information.

In January 2018, CDHP co-released a report on the initial phase of the Perinatal and Infant Oral Health Quality Improvement (PIOHQI) project-a multi-year, federally funded initiative that included grantees from 16 states.¹⁸ PIOHQI seeks to increase access to dental care for pregnant women and infants, creating a learning collaborative and using guality improvement methodology. CDHP's engagement with PIOHQI grantees revealed that improving oral health care access was a challenge in states without Medicaid dental benefits for pregnant women. States with more extensive dental coverage for pregnant women tended to observe greater progress in improving access. For example, in 2015, Virginia significantly expanded dental benefits for Medicaidand CHIP-enrolled women during pregnancy. The state now covers the full range of dental services (including dentures) with the exception of orthodontics.¹⁹

However, even when state Medicaid programs offer more robust dental benefits for pregnant women, coverage is

Questions

time-limited—often to only 30 or 60 days postpartum. In addition, some state Medicaid programs require women who are already enrolled to apply for additional benefits once they are aware of their pregnancy.^{20, 21} As a result, pregnant women have a fairly narrow window during which they can receive expanded oral health coverage. These constraints present barriers to maternal and child health, given that a pregnant woman's oral health is a strong predictor of her future child's risk of dental caries.

Moreover, the time-limited nature of dental coverage overlooks the impact that parents and caregivers have on their children's oral health *after* birth, including the unintentional transmission of cavity-causing bacteria to an infant.

Even states that take solid steps to facilitate enrollment during pregnancy miss other opportunities. In Maryland, for example, the state Medicaid program's Administrative Services Organization proactively contacts enrolled pregnant women to alert them about their expanded dental benefits during pregnancy. Moreover, the Medicaid card that pregnant women receive displays the name of a participating dentist (i.e., dental home), chosen based on the dentist's proximity to a woman's address. Unfortunately, Maryland terminates women's enhanced dental coverage upon the birth of their newborn. It's a policy that has implications for both women's and infants' oral health.

It could be argued that the oral health community should focus on securing meaningful dental benefits for *all* adults. Yet political realities can obstruct this goal, and adult dental benefits are often one of the first items to be eliminated when state budgets are tight. An incremental approach focused on women during pregnancy could yield more gains in the near term. Medicaid managed care organizations (MCOs) have wide flexibility in addressing the needs of their patient populations. If MCOs are convinced of the value of targeting oral health interventions to pregnant women and new mothers, many of them could choose to incorporate such services into their existing adult or child benefits.

3 ARE WOMEN GETTING DENTAL CARE DURING PREGNANCY?

Similar to the challenges we face capturing pregnant women's oral health status, inadequate data also keep us from reaching a firm conclusion about how many pregnant women are getting the oral health care they need. Public health surveillance mechanisms collect information on pregnant women's access to dental care, but because that data is often inconsistent or insufficiently detailed, we only have a snapshot. Furthermore, because the federal government does not mandate that state Medicaid programs provide dental coverage for adults and pregnant women, utilization of care for these populations is not typically reported. We do know that access to care remains inconsistent for pregnant women, regardless of insurance status. When they do seek care, many are turned away until after pregnancy. In fact, a national survey revealed that 77 percent of obstetricians and gynecologists reported having patients who were declined dental services because they were pregnant.²² Moreover, many women might not seek dental care during pregnancy because they aren't aware of its safety and importance. A 2015 national poll showed that only 42 percent of women knew it is safe to receive routine dental services while pregnant.²³

From 2014 through 2017, as part of the PIOHQI project, CDHP worked with states seeking to overcome these and other hurdles. Over the course of those three years, many of the 16 state grantees reported persistent challenges connecting pregnant women with oral health services.

4 HOW CAN WE ADDRESS THE ORAL HEALTH NEEDS OF PREGNANT WOMEN OUTSIDE THE DENTAL OFFICE?

Although the logical first line of care is a dentist, given the barriers to care, it is important to leverage other touchpoints those outside of dental clinics and offices—to support pregnant women's oral health. Many stakeholders across our communities can connect women to the care they need, or provide important oral health interventions where pregnant women and their families live, work and play. In order to maximize these touchpoints outside the dental office, we need payment reform and other system-focused changes. And the oral health community must deepen relationships with these external partners.

The time-limited nature of dental coverage overlooks the impact that parents and caregivers have on their children's oral health after birth. To ensure pregnant women's oral health needs are being met, we must work to develop and implement actionable solutions with community stakeholders, including the following:

MEDICAL PROVIDERS

The oral health care system still remains largely separate from medical care. And yet prenatal care is an opportunity for providers to ask women about their oral health and discuss healthy behaviors such as diet and the benefits of fluoride exposure. Ob-Gyns and other prenatal providers have the opportunity to address oral health in their office and/or develop relationships with dentists to refer patients. Indeed, a survey in Washington State revealed that women responded favorably to physicians who referred them to dentists during pregnancy.²⁴

Besides being a point of referral, physicians can serve as trusted messengers on the importance of oral health care. In a 2015 survey, the Cigna Corporation found that women whose physicians had discussed perinatal oral health with them were far more likely to have a dental visit during pregnancy (77 percent) than those who had not been counseled (41 percent).²⁵

It is also worth exploring the role that primary care providers might play in reducing caries transmission from mother to child. Pediatricians are well-positioned to incorporate guidance about perinatal transmission that addresses a mother's oral health in their screening and to provide basic preventive oral health care to young children during pediatric "well child" visits. Those appointments may offer opportunities to address common oral health risk factors for mother and child before, during, and after pregnancy.

OTHER COMMUNITY TOUCHPOINTS

A 2015 survey commissioned by CDHP revealed that 43 percent of U.S. adults mistakenly felt they had only "some" or "no" control over whether they got a cavity.²⁶ Women need more support in understanding and taking the concrete steps they can to maintain good oral health.

Women and infants have numerous touchpoints during which oral health risk factors could be addressed. One example is clinics that participate in the federal Women, Infants, and Children (WIC) program. The women served by WIC offices are of childbearing age, putting WIC staff in an ideal position to raise awareness that oral health care is important during pregnancy.

Home-visiting programs that use community health workers (CHWs) offer another opportunity to effectively support the oral health of new parents and their children. Projects such as MySmileBuddy have demonstrated the positive impact

of CHWs. As culturally competent educators, CHWs are well positioned to engage families in underserved communities.^{27,28,29} The oral health community should support program designs that advance the role of CHWs in counseling women and caregivers about oral health during pregnancy, and encourage behaviors to reduce children's risk of tooth decay as they grow up.

There is no shortage of programs and initiatives that reach families by trusted community partners, and there are Medicaid policies and MCOs that could support these activities. Can we as a community reach consensus that CHWs have an important role in supporting and informing families? And can we design a system that is family-centered and has the ability to evolve with our knowledge, recognizing there will never be one perfect model that works for all communities?

WOMEN'S HEALTH ADVOCATES

In addition to medical providers and CHWs, our partners should include organizations engaged in public education and public policy supporting maternal health or women's health. Many such organizations are trusted sources of information to both individuals and policymakers on issues surrounding preconception and prenatal health care, maternal and birth outcomes, and healthy parenting.

Women's health advocates should be encouraged to raise awareness of the importance of oral health to women and their children. To support women's knowledge about dental care during pregnancy and postpartum bacterial transmission, they could incorporate information about oral health in their educational materials and direct interactions with women. Empowering women with information to make decisions for themselves and their families is the goal. This requires trust and partnership to meet women where they are with the information they need at that stage of parenting—a strategic approach that goes beyond simply providing information.

Given the access challenges that exist, these advocates also could serve as health navigators and help pregnant women find a dentist. Additionally, maternal and women's health advocates could help ensure that oral health is proactively included in policy agendas promoting the health and well-being of pregnant women and their families. Is our community closely collaborating with these stakeholders? Have we developed educational materials that are aimed at empowering women as decision-makers?

HURDLES TO GETTING CARE

Pregnant women have a lot of competing priorities. Even in states that offer Medicaid dental benefits to eligible women during this period, a variety of hurdles can stand in their way if they seek oral health care.



THE CONFUSING TERRAIN OF MEDICAID'S PREGNANCY-RELATED BENEFITS

While public coverage programs are intended to support families in times of need, the design and implementation can inadvertently create obstacles to care. Whether it concerns medical or dental benefits, figuring out the benefits someone is eligible for during pregnancy can be a challenge especially when those benefits are unclear, offered under a restrictive timeline, and with limited guidance on how to prioritize many competing needs. For these reasons, state Medicaid officials might not see the increased utilization and health outcomes they had anticipated.

At a minimum, federal Medicaid guidelines require states to provide pregnancy-related medical coverage to individuals at or below 133 percent of the Federal Poverty Line (FPL) for the duration of the pregnancy and 60 days post-partum.

While many states choose to extend coverage to expectant mothers above that minimum income level, many also limit such coverage to services solely "related" to pregnancy. These benefits may differ from more robust packages provided for other qualifying adults. For example, pregnancy-related medical coverage may include prenatal visits and vitamins, but it may not include counseling or behavioral health services, unless that care is directly related to the safety of the pregnancy.³⁰

Depending on how a state's Medicaid benefits for adults compare with benefits for pregnant women, a woman who

previously qualified for Medicaid (due to income and/or already having children) will usually be able to retain the benefit package that is more generous. As of November 2014, 44 states claimed that their pregnancy benefits were aligned with services afforded to all Medicaid beneficiaries, but this alignment may not translate to equivalent coverage.³¹

Additional factors complicating a pregnant person's access to care include the timing and limited window during which they are eligible for Medicaid dental benefits—that is, upon learning they are pregnant until birth, and sometimes (depending on the state) 30 to 60 days after birth. This contrasts with federal rules requiring Medicaid *medical* coverage to extend throughout a pregnancy and 60 days post-partum.

The realities of pregnancy already present women and families with a range of competing, time-sensitive priorities, from health-related issues such as prenatal visits and ultrasounds to preparing for a child's basic needs. Confusing information, anxiety about receiving care and access-to-care challenges also can complicate efforts to make use of Medicaid dental benefits during pregnancy.

Given these myriad responsibilities and our already difficult to navigate healthcare system, it is unsurprising that many women are unable to take advantage of their pregnancy-related, temporary and often limited dental coverage, even when they are eligible.

The Need for Real Change

As stakeholders within the oral health community, we should reflect on both our collective and individual efforts, exploring the additional roles each of us can play to improve women's oral health. Some voices in our community carry more weight.

- » Starting with organized dentistry, providers should lead the way in clearly articulating the importance and safety of oral health care for pregnant women. This message could be communicated by organized dentistry in various ways, including the dissemination of guidance to providers on dental care during pregnancy.
- Insurers must consider new ways to incentivize care and utilize non-dental touchpoints. Beyond offering expanded Medicaid dental benefits during pregnancy, state programs must make it easier for women to learn about and access these benefits (see the Addendum).
- » Federal health agencies should do a better job of developing consistent methods of data collection and coordinating outreach efforts to women.
- » Health advocates need to explore solutions beyond dental benefits alone to address the oral health of women and new mothers.

The current oral health care system does not prioritize women and their oral health. If dental providers, Medicaid programs, insurers, federal agencies, and policymakers agree that the oral health of pregnant women is, in fact, a priority, we must work together to:
Develop reliable and consistent mechanisms for collecting data on pregnant women's access to oral health care and their oral health status.
Collect and publish information on the dental coverage landscape for pregnant women and how many actually have coverage.
Achieve consensus on what oral health insurance benefits should look like for pregnant women and ensure that coverage is designed to improve health outcomes.

Institutionalize oral health care for pregnant women through clinical guidelines, provider and consumer education, payment incentives, and clinical quality measures.

Enhance dental education curricula to instill an understanding of the link between women's oral health status during pregnancy and the caries risk of their newborns; strengthen dental students' confidence in this area by providing them with opportunities to engage and treat pregnant women.

Test new models of care delivery and coordination that expand the reach of the oral health care system to meet pregnant women and mothers where they are.

Acknowledgements

4

5

6

CDHP would like to thank three individuals who reviewed a draft of this issue brief and offered thoughtful comments before it was finalized. These individuals are: Katy Battani, RDH, MS, Project Manager, Perinatal and Infant Oral Health Quality Improvement Program, Maryland Department of Health; Sarah Borgida, MEd, Director of Children's Programs and Tribal Partnerships, Arcora Foundation; Rocio B. Quiñonez, DMD, MS, MPH, Associate Dean for Educational Leadership and Innovation, University of North Carolina at Chapel Hill School of Dentistry.

ENDNOTES

¹ Chaffee, B.W., Gansky, S.A., Weintraub, J.A., Featherstone, J.D.B. & Ramos-Gomez, F.J. (2014, March). Maternal Oral Bacterial Levels Predict Early Childhood Caries Development. Journal of Dental Research, 93(3), 238–244. doi: 10.1177/0022034513517713

² Centers for Disease Control and Prevention. (2016, September 22). "Hygienerelated Diseases: Dental Caries (Tooth Decay)," Retrieved from https://www.cdc. gov/healthywater/hygiene/disease/dental_caries.html

³ Oral Health Care during Pregnancy Expert Workgroup. (2012). Oral Health Care during Pregnancy: A National Consensus Statement. Retrieved from https://www. mchoralhealth.org/PDFs/OralHealthPregnancyConsensus.pdf

⁴American College of Obstetricians and Gynecologists. (2013, August). Oral Health Care during Pregnancy and Through the Lifespan [Committee Opinion, No. 569, reaffirmed in 2017]. Retrieved from https://www.acog.org/Clinical-Guidance-and-Publications/Committee_Opinions/Committee_on_Health_Care_for_Underserved_ Women/Oral_Health_Care_During_Pregnancy_and-Through-the-Lifespan

⁵ Ide, M. & Papapanou, P.N. (2013). Epidemiology of association between maternal periodontal disease and adverse pregnancy outcomes – systematic review. Journal of Clinical Periodontology. Retrieved from https://onlinelibrary.wiley.com/doi/ pdf/10.1111/jcpe.12063

⁶ Glied, S., & Neidell, M. (2010). The Economic Value of Teeth. The Journal of Human Resources. 45(2), 468-496. doi: 10.3368/jhr.45.2.468

⁷ Glynn, S. J. (2016, December). Breadwinning mothers are increasingly the U.S. norm. Retrieved from https://cdn.americanprogress.org/content/ uploads/2016/12/19065819/Breadwinners-report.pdf

⁸U.S. Centers for Disease Control and Prevention. (2018, June 14). Participating PRAMS States, Territory and Tribe. Retrieved from https://www.cdc.gov/prams/ states.htm

⁹U.S. Center for Disease Control and Prevention. (2018, June 14). PRAMS Data Portal. Retrieved from https://www.cdc.gov/prams/prams-data/work-directly-PRAMS-data.html.

¹⁰Azofeifa, A., Yeung, L., Alverson, C.J., & Beltrán-Aguilar, E. (2016, May 6). Dental caries and periodontal disease among U.S. pregnant women and nonpregnant women of reproductive age, National Health and Nutrition Examination Survey, 1999-2004. Journal of Public Health Dentistry. Retrieved from: https://www.ncbi.nlm. nih.gov/pmc/articles/PMC5097890/

¹¹ Association of State and Territorial Dental Directors & Children's Dental Health Project. (2017, December). Making oral health count: Toward a comprehensive oral health measurement system. Retrieved from: https://s3.amazonaws.com/cdhp/ Making+Oral+Health+Count+-+Data+Brief+(2017).pdf

¹² National Maternal and Child Health Resource Center. (2017, May). Promoting oral health during pregnancy: An update on activities. Retrieved from: https://www.mchoralhealth.org/PDFs/oralhealthpregnancyupdate_5_2017.pdf

¹³ Yu, Z.J., Elyasi, M., & Amin, M. (2017). Associations among dental insurance, dental visits, and unmet needs of US children. Journal of the American Dental Association, 148(2), 92-99. doi: https://doi.org/10.1016/j.adaj.2016.11.013

¹⁴ Health Policy Institute. (2017). Dental Benefits Coverage in the U.S. Retrieved from https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/ HPIgraphic_1117_3.pdf?la=en; Health Policy Institute's 2017 analysis of data from the Medical Expenditure Panel Survey, https://meps.ahrq.gov/mepsweb/

¹⁵ Center for Health Care Strategies, Inc. (2018, January). Medicaid adult dental benefits: An overview. Retrieved from: https://www.chcs.org/resource/medicaid-adult-dental-benefits-overview

¹⁶ Goodnough, A. (2012, Aug. 28). "Sharp Cuts in Dental Coverage for Adults on Medicaid." New York Times. Retrieved from http://www.nytimes.com/2012/08/29/ health/policy/hard-to-grin-while-bearing-cuts-in-medicaid-dental-coverage.html ¹⁷ The Henry J. Kaiser Family Foundation. (2017, June 22). Medicaid's role for women. Retrieved from: https://www.kff.org/womens-health-policy/fact-sheet/ medicaids-role-for-women

¹⁸ Children's Dental Health Project. (2018, January). Perinatal Infant Oral Health Quality Improvement Project: Learning for action: Introducing quality improvement methodology. Retrieved from: https://s3.amazonaws.com/cdhp/piohqi/PIOHQI+-+Final+Report+1-15-18.pdf

¹⁹ Department of Medical Assistance Services. (n.d.). Dental coverage for pregnant women enrolled in Medicaid and FAMIS MOMS fact sheet. Retrieved from: http:// vaoralhealth.org/Portals/0/Documents/Member%20Fact%20Sheet.pdf

²⁰ South Carolina Department of Health and Human Services. (2018 April 12). Clarification of assumptive eligibility for pregnant women. [Medicaid bulletin]. Clarification of Assumptive Eligibility for Pregnant Women. Retrieved from: https:// www.scdhhs.gov/press-release/clarification-assumptive-eligibility-pregnantwomen (Note: States have considerable flexibility in this area of rule-making. For more information, see: Medicaid and CHIP Payment and Access Commission. (2017, July). Federal Requirements and State Options: Enrollment and Renewal Procedures. Retrieved from https://www.macpac.gov/wp-content/uploads/2017/07/ Federal-Requirements-and-State-Options_Enrollment-and-Renewal-Procedures.pdf

²¹ Medicaid and CHIP Payment Access Commission. (2017, July). Federal requirements and state options: Enrollment and Renewal Procedures. Retrieved from: https://www.macpac.gov/wp-content/uploads/2017/07/Federal-Requirementsand-State-Options_Enrollment-and-Renewal-Procedures.pdf

²² Morgan, M.A., Crall, J., Goldenberg, R. L. & Schulkin, J. (2009, Oct). Oral health during pregnancy. Journal of Maternal-Fetal & Neonatal Medicine, 22(9), 733-739. Doi: 10.3109/14767050902926954

²³ Wakefield Research. (2015, February). An online survey of 1,000 nationally representative U.S. adults, ages 18+. Retrieved from: https://s3.amazonaws.com/ cdhp/Wakefield+Survey+for+CDHP+%28For+Public%29.pdf

²⁴ Borgida, S. (2015, April 26). Prenatal Oral Health: Healthy Mothers, Healthy Babies. Presentation at the National Oral Health Conference. Retrieved from: https://s3.amazonaws.com/cdhp/piohqi/WDSF+Prenatal+-+NOHC+2015.pdf

²⁵ Cigna Corporation. (2015). Healthy Smiles for Mom and Baby: Insights into expecting and new mothers' oral health habits. Retrieved from: https://www.cigna. com/assets/docs/newsroom/cigna-study-healthy-smiles-for-mom-and-baby-2015.pdf

²⁶ Wakefield Research. (2015, December). An online survey of 1,011 nationally representative U.S. adults ages 18+. Retrieved from: https://s3.amazonaws.com/ cdhp/End+Cavities/CDHP-Wakefield+Survey+on+Oral+Health+(Dec+2015).pdf

²⁷ Chinn, C., Levine J., Matos S., Findley S. & Edelstein B.L. (2013, August). An Interprofessional Collaborative Approach in the Development of a Caries Risk Assessment Mobile Dental Application: My Smile Buddy. Journal of Health Care for the Poor and Underserved, 24(3), 1010-1020. doi: 10.1353/hpu.2013.0114

²⁸ Landers, S. & Levinson, M. (2016, March 9). Mounting Evidence of the Effectiveness and Versatility of Community Health Workers. American Journal of Public Health, 106(4), 591-592. doi: 10.2105/AJPH.2016.303099.

²⁹ Findley S. and Matos, S. (2015). Bridging the Gap: How Community Health Workers Promote the Health of Immigrants. New York City: Oxford Univ. Press.

³⁰ Gifford, K., Walls, J., Ranji, U., Salganicoff, A., & Gomez, I. (2017, April). Medicaid coverage of pregnancy and perinatal benefits: Results from a state survey. Henry J. Kaiser Family Foundation. Retrieved from: http://files.kff.org/attachment/Report-Medicaid-Coverage-of-Pregnancy-and-Perinatal-Benefits

³¹ Medicaid and CHIP Payment and Access Commission. (2016, June). Update on Pregnancy-Related Medicaid and Minimum Essential Coverage, 2-3. Retrieved from: https://www.macpac.gov/wp-content/uploads/2016/06/Update-on-Pregnancy-Related-Medicaid-1.pdf



1020 19th Street NW, Suite 400 Washington, DC 20036 202-833-8288

Follow us on Facebook or Twitter (@Teeth_Matter)