PERINATAL AND INFANT ORAL HEALTH QUALITY IMPROVEMENT PROJECT:
Monitoring the HUSKY Program's Capacity for Caring for Pregnant Women and Infants

May 2016

INTRODUCTION

Good oral health is important for women during pregnancy and throughout their lives.[1] Normal physical changes in pregnancy increase the risk of dental caries, periodontitis, pregnancy gingivitis, and other oral health conditions. Some studies have shown an increased risk for preterm birth associated with periodontal infections, although the evidence is mixed.[2] Mothers with good oral health are less likely to transmit cariogenic bacteria to their babies and toddlers. Dental and maternity care providers recommend a good diet, good oral hygiene practices, and dental visits during pregnancy, with professional teeth cleaning and treatment as needed.[3]

In recent years, leading health and health professional organizations have turned their attention to improving maternal oral health. In 2012, the Health Resources and Services Administration's Maternal and Child Health Bureau, in conjunction with the American College of Obstetricians and Gynecologists and the American Dental Association, released a national consensus statement in support of improving women's oral health for themselves and for their children. [4] The consensus statement stresses the importance and safety of providing oral health services to women during pregnancy. In 2013, the American College of Obstetricians and Gynecologists issued a bulletin to its members, stressing the importance of good oral health throughout women's lives, as well as the safety of oral health care during pregnancy.[5] In 2014, the Connecticut State Dental Association issued guidance to state dentists for providing oral health services to pregnant women.[6]

In the past decade, Connecticut's HUSKY Program has changed in ways that have had a positive impact on access to care and the delivery and financing of dental services. Eligibility for Medicaid, including dental services, expanded in 2007 for parents (from income at 150 percent of the federal poverty level--% FPL-- to 185% FPL) and in 2008 for pregnant women (from income at 185% FPL to 250% FPL). In 2008, the State of Connecticut made significant changes to the program under a settlement agreement in the case of *Carr v. Wilson-Coker.* [7] Conditions of the settlement included a significant increase in provider reimbursement for children's services (effective April 1, 2008) and conversion of risk-based managed dental care to an administered fee-for-service arrangement (effective September 1, 2008). Reimbursement for adult care also increased, as fees are pegged to child rates. These changes and others were designed to increase the number of providers willing to participate in the program.

In 2010, the HUSKY Program's Connecticut Dental Health Partnership (CTDHP) implemented two perinatal outreach pilot projects in Norwich, Connecticut. Working with five community agencies, CTDHP trained staff on the importance of oral health care during pregnancy and conducted outreach to pregnant women in their care.

In 2013, the Connecticut Department of Social Services and its dental administrative services organization were awarded a five-year grant from the Health Resources and Services Administration (HRSA) for a perinatal and infant oral health quality improvement project. The aims of the national project are to increase the percentages of pregnant women and infants who receive care (see text box). In Connecticut, this initiative aims to build on the success of the pilot outreach programs by taking the effort statewide.

Perinatal and Infant Oral Health Quality Improvement (PIOHQI)

Long-Term Outcomes

Pregnant women: By September 2019, increase by 15% over the state baseline the percentage of women who have received oral health care, defined as prophylaxis, during pregnancy, as measured by the Pregnancy Risk Assessment Monitoring System (or equivalent) survey data.

Infants: By September 2019, increase by 15% over the state baseline the percent of infants who have received preventive oral health care (including check-ups, dental cleanings, X-rays, fluoride varnish, sealants and/or anticipatory guidance), as measured by the National Survey of Child Health data on dental visits for 12-24 month olds.

Strategies

#1 Increase oral health messages delivered to pregnant women and infants.
#2 Improve state- or systems-level policies and practices.
#3 Improve access to and utilization of preventive oral health care.

Source: HRSA National Learning Network QI Collaborative, 2016

In recent years, about 35 percent to nearly 40 percent of babies born to Connecticut residents have been births to mothers with HUSKY Program coverage; the percentage is even higher in some towns selected for this project (Table 1 on next page). Dental Health Care Specialists from the Connecticut Dental Health Partnership (CT DHP) have worked with dental care providers, obstetrician-gynecologists, pediatricians and community-based health and social service organizations to spread the word about the importance of oral health care during pregnancy and the resources available for referral of pregnant clients. They have also distributed material for clients to help them understand how to protect their own oral health and that of their babies.

PURPOSE

The purpose of this study is to determine the impact of the PIOHQIP on access to care for pregnant women and infants in Connecticut's HUSKY Program.

METHODS

As part of ongoing efforts to monitor provider network adequacy, the CT DHP contacts all participating Medicaid provider offices annually to ask about their capacity and practices for serving HUSKY Program enrollees. The data are used by CT DHP to administer the HUSKY Program's dental benefit for over 760,000 enrollees.

In 2012 and again in 2015, responses to questions on these surveys produced point-in-time descriptions of providers' willingness and capacity for serving pregnant women and infants. Comparing the 2015 results with findings from the earlier survey is one way of determining the impact of PIOHQIP on expanding oral health care options for pregnant women and infants in Connecticut's low income families.

Table 1. Perinatal and Infant Oral Health Quality Improvement Project: Implementation Schedule

Connecticut Towns	Births to mothers with HUSKY coverage [a]	Percent of all births to town residents	PIOHQIP Year 1	PIOHQIP Year 2	PIOHQIP Year 3
New Haven	1,204	62.8%	✓	✓	✓
Waterbury	1,053	67.5%	✓	✓	✓
Norwich	345	64.4%	✓	✓	✓
New London	265	70.3%	✓	✓	✓
Hartford	1,568	80.0%		✓	✓
Stamford	472	27.5%		✓	✓
Norwalk	361	30.7%		✓	✓
Windham	199	64.6%		✓	✓
Bridgeport	1,571	70.0%			✓
Meriden	454	58.1%			✓
Middletown	192	36.8%			✓
Danbury	489	47.8%			✓

[a] Lee MA, Feder K, Learned A. Births to mothers with HUSKY Program Coverage (Medicaid and CHIP): 2011. New Haven CT: Connecticut Voices for Children, 2015. Available at: www.ctvoices.org. These linked data are the latest available for describing the reach of PIOHQIP.

Subjects

In order to participate as a dental care provider in the HUSKY Program, individual providers must be licensed and practitioners in good standing in the State of Connecticut. They must submit evidence of education and training, along with current licensure, to the Connecticut Department of Social Services, and must agree to CT DHP policies and standards of care. Since 2008, the dental care provider network has increased three-fold in terms of individual providers and practice sites, due mainly to increased provider reimbursement, intensified provider recruitment and program enhancements (outreach, care coordination, appointment scheduling assistance, processing prior authorizations) that went into effect when dental services were "carved-out" of the managed care program that year.

For the purpose of this report, the description of service capacity was limited to responses from primary dental care providers in general and pediatric practices (group and solo), federally-qualified health centers and other clinics. Responses from orthodontic, endodontic[8] practices and oral surgery practices were not included. The surveys were conducted at the practice level; however, more than one provider in an office or clinic site may have responded to the survey. Some of the individual practitioners worked in more than one office or clinic. To avoid duplication, the responses of one provider from each practice location (arbitrarily, the provider with last name first in alphabetical order) were tallied.

Survey Methods

All primary dental care practices with Medicaid providers enrolled in July 2012 (n=815) and in July 2015 (n=816) were contacted by telephone during office hours and asked to participate in the survey. They were informed that the purpose of the survey was to update information that is used for referrals and appointment scheduling assistance for HUSKY enrollees. Participation in the survey was voluntary but useful to the practice for ensuring referrals. In each group practice or clinic, one dentist was asked to respond on behalf of practitioners; however, it was evident from the data that more than one responded in some sites. Each practice location was contacted even if services were provided by a dentist or dentists who worked in multiple practice sites.

CTDHP Dental Health Care Specialists and/or network development staff followed-up multiple times by phone and in person with practices that did not participate initially. Follow-up of non-respondents was done by phone or during a visit to the office. Non-respondents were reluctant to participate or to take the time for completing the survey. After deleting the non-primary dental care practices and multiple responses from each practice site, the numbers of individual respondents counted for this report were 692 in 2012 (response rate = 84.9%) and 698 in 2015 (response rate = 85.5%).

Survey Instrument

The data collection instrument was based on a survey developed by administrators at the CT DHP's parent organization (Dental Benefit Management, Inc.) for monitoring provider network capacity. CT DHP has been generally satisfied that the information gathered is sufficient to populate its customer service call center database. Beginning in 2012, the survey was expanded to monitor provider network capacity for serving pregnant women and infants.

In 2012, the data collection instrument was a two page supplement to the general survey; in 2015, the survey was three pages, including the specific questions about pregnancy-related services from the supplement (attached). The surveys focused on the following areas of practice:

- **Identifying information**: TIN and NPI; name, address and other contact information; associates names and other office locations, if any;
- **Type**: group v. solo; provider specialties; plans accepted (HUSKY A, B, C and/or D)
- **Features**: office hours; availability of nitrous oxide and/or IV sedation, conscious sedation; accommodations for those with physical, developmental, mental, and/or communication disabilities; availability of mobile services; affiliation with hospital for treatment under general anesthesia if needed;
- **Patients served**: minimum and maximum age; capacity for serving non-English speaking clients; willingness to treat pregnant women in which trimester(s) and with restrictions, if any, related to maternal age, written referral requirement, and types of services (preventive, restorative, urgent or emergency, x-rays, anesthesia).

The responses were recorded on paper by trained interviewers. The data were then coded and entered into the CT DHP's provider database. Information in the database is used by Client Service Representatives, Dental Health Care Specialists, and other CT DHP staff for assisting clients, providers and community partners. The data are also used for generating reports on provider network adequacy.

Data

Responses to the survey were coded in a uniform fashion and compiled by practice site in an Excel spreadsheet. The format of the categorical data is such that basic univariate statistics can be calculated.

Analytic Approach

The number and percentages of responding practices that reported serving pregnant women and/or infants was determined for general and pediatric practice locations.

Based on responses for those practices that indicated the willingness to treat pregnant women and/or infants, simple frequency counts and rates were calculated for:

- Practices that are willing/report the capacity for treating pregnant women;
- Among practices that will see pregnant women, services available for pregnant women and limitations by type of restriction (maternal age, trimester, written referral required, service type, use of local anesthesia, x-rays prn, other);
- Practices that are willing and report the capacity for treating infants (age 1 or under).

The results of the 2015 provider survey were compared to results from 2012 (baseline) to determine whether access to care has increased since PIOHQIP began rolling out statewide (October 2013).

Limitations

Conclusions drawn from these analyses are subject to the following limitations:

- The survey instrument was designed for program administration not research; secondary analyses of the data may not fully capture provider participation and trends nor will the analyses capture information on why practice may have evolved over time.
- In group or clinic practices, the protocols or practice guidelines reported by one provider may not be characteristic of the entire office or clinic dental staff.
- Administrative staff who are not well-informed about treatment protocols in the office or clinic may discourage potential patients from scheduling appointments during pregnancy or infancy, even if the dental care provider reports that the services are available in that practice
- Office or clinic policies and procedures can change at any time.
- Increased willingness or capacity for serving pregnant women and/or infants may be due to factors other than the efforts of PIOHQIP, including the influence of professional guidelines and norms or professional education and training of relatively new practitioners.
- The survey instrument was not pilot tested so non-response due to the nature of questions or the time required to complete the survey cannot be characterized.
- In an unknown number of sites, office staff may have responded to the survey.

Nevertheless, the results of the most recent survey and comparison to the previous baseline survey offer a glimpse into the impact of PIOHQIP on provider practices that affect access to care.

RESULTS

In both years that the survey was conducted, about 85 percent of primary dental care practices responded to the survey (Table 2).

Table 2. Description of Provider Survey Respondents, 2012 and 2015

	Primary Care Dental Practices That Were Contacted [a]	Primary Care Dental Practices That Responded to the Survey [b]	Response Rate
2012	**815**	**692**	**84.9%**
2015	**816**	**698**	**85.5%**

[a] Primary care dental practices enrolled as Medicaid dental service providers as of July 2012 and July 2015 and contacted for this survey. Responses from practices reported to orthodontia, oral surgery or endodontics were not included in the study sample.
[b] Responses provided on behalf of office-based or clinic-based practices, including hospital- or school-based clinics, that were contacted for the initial telephone survey or follow-up. Responses from just one dental care provider per site were counted.
Source: Provider survey data compiled by the Connecticut Dental Health Partnership for administration of services provided to HUSKY Program enrollees. Connecticut Voices for Children conducted these analyses in its role as lead evaluator of Perinatal and Infant Oral Health Quality Improvement Project.

Overall, 83.8 percent of practices provide care for pregnant women, virtually the same as reported in 2012 (85.0%). It is evident, however, that in both years, access to care for adult pregnant women is far less than that for pregnant adolescents (Table 3). In 2015, 70.6 percent of practices report that they will see children age 1 or younger, again virtually unchanged from 2012 (69.7%).

Table 3. Access to Dental Care for Pregnant Women and Infants, 2012 and 2015

	Dental Practice Provides Care for:		
	Pregnant Women		
	Under age 21	Age 21 and over[a]	Infants[b]
2012	**81.5%**	**44.8%**	**69.7%**
2015	**80.4%**	**44.0%**	**70.6%**

[a] Some 60 respondents indicated that they see only patients under 21 but then reported in response to a later question that they see pregnant women 21 and over. We report here responses to the specific question about pregnant women.
[b] Respondent indicated minimum age 1 or under.
Source: Provider survey data compiled by the Connecticut Dental Health Partnership for administration of services provided to HUSKY Program enrollees. Connecticut Voices for Children conducted these analyses in its role as lead evaluator of Perinatal and Infant Oral Health Quality Improvement Project.

Among those locations that will see pregnant women, practice features, requirements and restrictions, and common office or clinic practices affect access to care (Table 4). When comparing response rates from the 2015 survey to the earlier one, it is clear that practices have not changed much since PIOHQIP

began. Many offices require referral letters from the prenatal care provider. Of note is the persistently low percentage of practices that will see adult pregnant women, compared with teens.

Table 4. Access to Dental Care for Pregnant Women, 2012 and 2015

	Provider Practices	
	2012	2015
Total respondents	692	698
Respondents who report that they care for pregnant women	588	585
	85.0%	83.8%
Practice features:		
Accepts new patients (any type)	91.3%	90.9%
Speaks languages other than English in the office or clinic	38.6%	37.8%
Requirements and restrictions:		
Sees pregnant women 21 and under	95.9%	95.9%
Sees pregnant women 21 and over	52.7%	52.5%
Requires referral letter from OB/GYN or midwife	57.8%	57.9%
Provides preventive services only	1.2%	1.2%
Provides both preventive services and restorative services	96.4%	94.7%
Provides urgent care for pregnant women	95.1%	95.2%
Provides emergency care for pregnant women	95.4%	95.6%
Treats in first trimester as needed	88.6%	89.2%
Treats in second trimester as needed	96.3%	96.4%
Treats in third trimester as needed	93.9%	94.2%
Uses local anesthesia as needed	91.2%	91.3%
Takes x-rays if medically necessary with lead apron	85.7%	86.3%
Any other restrictions [a]	19.4%	20.2%

[a] Other restrictions to caring from pregnant women that were reported include: Will treat only with doctor permission, will see only existing patients, will see on case-by-case basis, will not do x-rays or restricts the use of x-rays, will provide Novocain only for anesthesia.

Source: Provider survey data compiled by the Connecticut Dental Health Partnership for administration of services provided to HUSKY Program enrollees. Data analysis by Connecticut Voices for Children, acting as lead evaluator of Perinatal and Infant Oral Health Quality Improvement Project.

DISCUSSION

Connecticut's HUSKY Program began this initiative following transformation of dental service delivery for all HUSKY enrollees and dental care providers. Since 2008, utilization has increased in every age group and every racial/ethnic group.[9] Utilization rates for pregnant women and new mothers increased significantly by 2010, compared with rates in 2005 (prior to program changes and this initiative).[10] Utilization increased for one-year olds in every racial/ethnic group and every town.[11]

No doubt, the combined effect of increased reimbursement, program enhancements, and professional guidance had an impact on care for pregnant women and infants. The results of these surveys and other utilization trends suggest that the changes predated the PIOHQIP.

Of note is the vast difference in access to care for adult pregnant women, compared to pregnant adolescents. This difference may be due to a more robust child provider network, to provider

willingness to see children for higher reimbursement, or to long-standing emphasis on children's dental care, consistent with federal requirements under Medicaid's Early and Periodic Screening, Diagnostic, and Treatment Program (EPSDT).[12] This finding about access to care for adult pregnant women warrants further investigation.

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[1] http://www.acog.org/-/media/CommitteeOpinions/CommitteeonHealthCareforUnderservedWomen/co569.pdf. http://www.mchoralhealth.org/PDFs/OralHealthPregnancyConsensus.pdf

[2] Xiong X, Buekens P, Fraser WD, Beck J, Offenbacher S. Periodontal disease and adverse pregnancy outcomes: a systematic review. BJOG 2006; 113:135–143.

[3] http://www.ada.org/~/media/ADA/Publications/Files/for_the_dental_patient_may_2011.ashx

[4] Oral Health Care During Pregnancy Expert Workgroup. Oral health care during pregnancy: a national consensus statement. Washington, DC: National Maternal and Child Oral Health Resource Center, 2012.

[5] American College of Obstetricians and Gynecologists Committee of Health Care for Underserved Women. Oral health care during pregnancy and through the lifespan. Committee opinion number 569. Obstet Gynecol 2013; 12: 417-422.

[6] Connecticut State Dental Association. Considerations for the dental treatment of pregnant women. 2013. Available at: www.csda.com.

[7] *Carr v. Wilson-Coker*, No. 3; 00CV1050(D.Conn., Aug. 26, 2008).

[8] There were no endodontic practices included in the databases obtained from CT DHP for these analyses.

[9] Connecticut Voices for Children. Dental services for children and parents in the HUSKY Program in 2013: Utilization is improved over 2008 but unchanged from 2012. New Haven CT: Connecticut Voices, April 2015. Available at: www.ctvoices.org.

[10] Connecticut Voices for Children. Dental care for new mothers in HUSKY A: Baseline for Perinatal and Infant Oral Health Quality Improvement Project. October 2014. Prepared for CT DHP PIOHQIP. Available from: marty.milkovic@ctdhp.com.

[11] Connecticut Voices for Children. Dental care for young children in HUSKY A. June 2015. Prepared for CT DHP PIOHQIP. Available from: marty.milkovic@ctdhp.com.

[12] 42 U.S.C. §§ 1396d(r)(1)(B), d(r)(3)(B)

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CONNECTICUT DENTAL HEALTH PARTNERSHIP
the dental plan for HUSKY Health

PROVIDER SURVEY

Person providing information: _____

Date: _____

Federal Tax ID#:_____ **NPI#:**_____

Name of Provider or Practice:_____

Address:_____

Phone:_____ **Fax:**_____

Email:_____

Type of Practice: Group ☐ Solo ☐ Other ☐

Specialties in Office: General Practice ☐ Orthodontic ☐ Oral Surgery ☐ Endodontic ☐
Pediatric ☐ Clinic ☐ FQHC ☐ Other ☐ _____

Plans Accepted: HUSKY A ☐ HUSKY B ☐ HUSKY C ☐ HUSKY D ☐

Minimum Age Seen: _____ **Maximum Age Seen:** _____

Please list all Associates in practice:

_____

_____

_____

Do you have other offices serving CTDHP clients? (If so list addresses) _____

_____

_____

OFFICE HOURS

DAY	FROM	TO
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

QUESTIONAIRE

	YES	NO	MORE INFO
Are you still participating in the CT Medical Assistance Program?			
If so, are you accepting new patients at this time? If you are not accepting new patients now, when would you like to start receiving referrals?			
Are any languages spoken in the office other than English? If so please list.			
Is the office wheelchair accessible?			
Will your practice see clients with special health care needs?			
Does your practice provide Nitrous Oxide in the office?			
Does your practice provide IV Sedation in the office?			
Does your practice provide Conscious Sedation in the office?			
Does your practice provide assistance transferring into the dental chair?			
Does your practice help with coordination or movement difficulties?			
Will your practice provide treatment for a patient in a wheelchair who cannot be transferred to a dental chair?			
Will your practice see patients with developmental disabilities or those with mental impairment?			
Will your practice see patients with anxiety disorders or mental health issues?			
Will your office treat patients at hospital facilities under general anesthesia? If so, what hospital is the dentist affiliated with?			
Will your office see patients with speech or communication difficulties?			
Will your practice see patients with Autism?			
Will your practice see patients with ADD or ADHD?			
Will your practice see patients with Cystic Fibrosis?			
Will your practice see patients who are visually impaired?			
Will your practice see patients with epileptic or seizure disorders?			
Will your office see patients who are hearing impaired?			
Will your practice see patients with Cerebral Palsy?			
Does your office offer sleep apnea devices?			
Does your office operate or participate in any Mobile Dental program?			
Will your office treat pregnant patients? (Probe for any case.)			
Will your office treat any pregnant patients under			

the age of 21 years?			
Will your office treat any pregnant patients aged of 21 years or older?			
If the office doesn't treat Pregnant patients don't ask these questions!	**Yes**	**No**	
To treat does your office need a letter from the patient's OB/GYN or Midwife?			
Only need OB/GYN letter in certain circumstances	**Get**	**Details**	
Will your office contact the OB/GYN or Midwife before treatment?			
If the OB/GYN indicates that there are no restrictions in treating the pregnant patient:	**YES**	**No**	
Will your office provide Preventive services			
Will your office provide Restorative services			
Will your office provide Urgent care			
Will your office provide Emergency care			
Will your office treat in first trimester			
Will your office treat in second trimester			
Will your office treat in third trimester			
Will your office use local anesthesia			
Will your office take x-rays if medically necessary with lead apron			
Are there any other restrictions on your treating a pregnant patient? If YES please specify:			