SECTION I: PRACTICE OVERVIEW

Name of the Dental Public Health Activity:
Rhode Island Prenatal & Pediatric Dentistry Mini-Residency

Public Health Functions:
- Assessment – Use of Data
- Policy Development – Use of State Oral Health Plan
- Assurance – Population-based Interventions
- Assurance – Building State and Community Capacity for Interventions
- Assurance – Access to Care and Health System Interventions

Healthy People 2020 Objectives:
- OH-1 Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
- OH-2 Reduce the proportion of children and adolescents with untreated dental decay
- OH-3 Reduce the proportion of adults with untreated dental decay
- OH-7 Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year
- OH-8 Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year
- OH-14 Increase the proportion of adults who receive preventive interventions in dental offices
- MICH-10 Increase the proportion of pregnant women who receive early and adequate prenatal care

State: Rhode Island
Federal Region: Region 1
Key Words for Searches: Prenatal oral health, provider education

Abstract:
Background
Ongoing education is the key to success of any health care provider. Increased knowledge of special populations and clinical/cultural competency of the oral health workforce are vital to meet the complex and diverse needs of the RI’s racial/ethnic minority populations, underserved children, those with special health care needs, pregnant women, and the elderly. With no in-state dental school, the dentist shortage is expected to become more critical in the near-term given that a significant portion of the currently practicing dentist workforce is near retirement age. The dental hygiene and certified dental assistant training programs at the Community College of RI are the only accredited programs in the state. Such gaps in educational opportunities had led to concerns surrounding a potential shortage in supply of oral health professionals in RI.

Most importantly, these shortages impact the state’s most vulnerable populations – children from families with low-income, children with special health care needs, disabled adults, elders in nursing facilities, and those of minority race/ethnicity. In 2011, the RI Oral Health Program reported half of the children in RI do not see a dentist until age 5, despite the recommendation of professional organizations that children visit a dentist by age one. Prenatal women comprise another important but often underserved population group. As noted in Oral Health in America: A Report of the Surgeon General, access to dental services and appropriate oral health guidance during pregnancy is essential to improve maternal health, fetal development, infant health, and birth outcomes.

Analysis of 2009 PRAMS data demonstrated the less than optimal access to oral health services among pregnant women in RI. Approximately half of RI women reported they had a dental visit during their pregnancy. The proportion of pregnant women who visited a dentist or dental clinic was not uniform by age, marital status, educational attainment, household income level, or residential area. Women who were younger than 30 years of age, those who were not married, or...
women who lived in urban core cities were less likely to have a dental visit. Only 40.5% of women who had prenatal care coverage by Medicaid/RiTe Care and 42.1% of women who participated in WIC were seen by a dentist or other oral health professional during their pregnancy.

There are challenges and barriers that keep women from obtaining oral health care during their pregnancy, such as financial barriers, lack of oral health care information during pregnancy, lack of appropriate counseling on oral health care needs from prenatal care providers (obstetricians, family physicians, and other prenatal care providers), and misperceptions of dental care providers on treatment for pregnant women.

In particular, oral health professionals must address unnecessary treatment delay or deferral. Dentists often postpone treatment for pregnant women because they may not fully understand the physiological changes that occur during pregnancy and fetal development, or have misconceptions about the effect of dental treatments on pregnant women and their fetuses.

Project Description
With grant funding from the Health Resources and Services Administration and the Centers for Disease Control and Prevention, the Oral Health Program, RI Department of Health established the RI Oral Health Mini-Residency series to address the specific challenges presented by a lack of education opportunities for RI oral health professionals and its impact on the oral health status of vulnerable populations. Topic areas were determined from recommendations of several key commissions/coalitions/workgroups comprised of a diverse group of oral health stakeholders and action plans associated with key coalitions.

Each 2-day forum sought to strengthen the oral health workforce capacity in RI through enhanced evidence-based knowledge and skills for all members of the dental team (dentist, dental hygienist, dental assistant). The RI Oral Health Mini-Residency series also seeks to assure improved oral health outcomes for targeted underserved populations: children ages 0-6, individuals with special health care needs, elders in nursing homes, adolescents, and pregnant women. Each event included numerous nationally recognized oral health experts, who provided current, evidence-based information on a wide array of topics.

All training forums were held at a central location, and participating oral health professionals earned continuing education credits. Comprised of public, private and not-for-profit statewide partners, the Oral Health Professional Advisory Council served as the steering committee for the events. The Mini-Residencies have been met with strong support from the oral health professional community and are an important opportunity for learning and networking for all members of the dental team. Funding for the series came from a variety of sources, including federal grants, corporate sponsorships, and revenue from participant registrations.

The 2011 Prenatal and Pediatric Dentistry Mini-Residency goals included enhancing providers’ comfort level in treating pregnant patients, enhancing their skills to provide dental care to very young children, improving their knowledge of current preventive and treatment protocols for pediatric patients, and increasing their awareness of best practices for delivering high quality prenatal and pediatric oral health services. Dentists, dental hygienists, dental assistants, and dental students/residents learned about pregnancy and oral health care, treatment planning and advanced diagnostic procedures, behavior guidance, oral pathology, pediatric pharmacology, management of trauma, and identifying child abuse and dental neglect.

The session Oral Health Care for Pregnant Women was presented by Renee Samelson, MD, MPH, FACOG, Associate Professor of Obstetrics and Gynecology at Albany Medical College. Dr. Samelson was the co-editor Oral Health Care during Pregnancy and Early Childhood Clinical Practice Guidelines, the first document that described guidelines for prenatal care providers, oral health professionals and child health professionals. Her session described the multi-factorial model for premature delivery, discussed evidence for the association between periodontal disease & poor pregnancy outcomes, described modifications of dental practice for the pregnant woman, explored the use of dental x-rays during pregnancy, and discussed the FDA classification of medications used during pregnancy.

Conclusions
The five Mini-Residencies sponsored by the Rhode Island Oral Health Program have provided current, evidence-based practice guidelines and information to many RI professionals spanning the entire dental health team. The participating providers, including those in private practice, community-health centers and hospital programs, serve geographically, racially/ethnically and
socioeconomically diverse populations from across the state. The information provided during the Mini-Residencies addresses the gap in oral health professional education in RI and focuses on the most current best practice guidelines to enhance providers’ efforts to improve oral health care for the most vulnerable Rhode Islanders.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

Ongoing education is the key to success of any health care provider. Increased knowledge of special populations and clinical/cultural competency of the oral health workforce are vital to meet the complex and diverse needs of the RI’s racial/ethnic minority populations, underserved children, those with special health care needs, pregnant women, and the elderly. With no in-state dental school, the dentist shortage is expected to become more critical given that a significant portion of the currently practicing dentist workforce is near retirement age. The dental hygiene and certified dental assistant training programs at the Community College of RI are the only accredited programs in the state. Such gaps in educational opportunities had led to concerns surrounding a potential shortage in supply of oral health professionals in RI.

With grant funding from the Health Resources and Services Administration and the Centers for Disease Control and Prevention, the Oral Health Program, RI Department of Health established the RI Oral Health Mini-Residency series in 2007 to address the specific challenges presented by a lack of education opportunities for RI oral health professionals and its impact on the oral health status of vulnerable populations. Topic areas were determined from recommendations of several key commissions/coalitions/ workgroups comprised of a diverse group of oral health stakeholders and action plans associated with key coalitions, including, but not limited to: 1) 2006 and 2011 - 2016 RI Oral Health State Plans; 2) RI Oral Health Commission; 3) RI Early Childhood Oral Health Action Plan; 4) Special Report: The Dental Safety Net in RI; 5) Oral Health in Rhode Island Nursing Homes: The Crisis and Possible Solutions; and 6) Recommendations from the RI Oral Health Workforce Symposium.

Each 2-day forum sought to strengthen the oral health workforce capacity in RI through enhanced evidence-based knowledge and skills for all members of the dental team (dentist, dental hygienist, dental assistant). The RI Oral Health Mini-Residency series also seeks to assure improved oral health outcomes for targeted underserved populations: children ages 0-6, individuals with special health care needs, elders in nursing homes, adolescents, and pregnant women. The first RI Pediatric Dentistry Mini-Residency was convened in June 2007, followed by the Special Care Dentistry Mini-Residency in October 2008, the Geriatric Dentistry Mini-Residency in March 2009, the Adolescent Dentistry Mini-Residency in March 2010, and the Prenatal and Pediatric Dentistry Mini-Residency in June 2011. Each event included numerous nationally recognized oral health experts, who provided current, evidence-based information on a wide array of topics.

Justification of the Practice:

With no in-state dental school, the dentist shortage is expected to become more critical in the near-term given that a significant portion (58%) of the currently practicing dentist workforce is of retirement age (50-59 y.o. = 26%; >70 y.o. = 32%) and the state has a less than optimal supply of dental hygienists, dental assistants, dental laboratory technicians and/or the expert faculty to train students seeking entry to these professions. Most importantly, these shortages impact the state’s most vulnerable populations—children from families with low income, children with special health care needs, disabled adults, elders in nursing facilities, and those of minority race/ethnicity. In 2011, the RI Oral Health Program reported half of the children in Rhode Island do not see a dentist until age 5, despite the recommendation of professional organizations that children visit a dentist by age one. Prenatal women comprise another important but often underserved population group. As noted in Oral Health in America: A Report of the Surgeon General, access to dental services and
appropriate oral health guidance during pregnancy is essential to improve maternal health, fetal development, infant health, and birth outcomes. The RI Oral Health Program raised concerns of less than optimal oral health access among RI pregnant women and disparities by women’s socioeconomic status.

Inputs, Activities, Outputs and Outcomes of the Practice:

Funding
Funding for the series came from a variety of sources, including CDC and HRSA federal grants, corporate sponsorships, and revenue from participant registrations.

Staffing/Administration
Topic areas were determined from recommendations of several key commissions/coalitions/workgroups comprised of a diverse group of oral health stakeholders and action plans associated with these key coalitions including, but not limited to: 1) 2006 and 2011-2016 RI Oral Health State Plans; 2) RI Oral Health Commission; 3) RI Early Childhood Oral Health Action Plan; 4) Special Report: The Dental Safety Net in RI; 5) Oral Health in Rhode Island Nursing Homes: The Crisis and Possible Solutions; and 6) Recommendations from the RI Oral Health Workforce Symposium.

RI Oral Health Program staff coordinated the program logistics, including contact/communication with speakers, meeting arrangements with the venue, fiscal management with Departmental grants staff, ordering of supplies/materials, development of program evaluation/analysis, and issuance of continuing education credits/certificates.

Products
Participants at each of the five mini-residency programs were provided with a binder, which included all lecture materials, supplemental handouts/articles, state and local resources, and other relevant documents/publications. Considerable time was devoted to collecting materials, printing, and organizing/creating the filled binders. Several stakeholder volunteers assisted with collating and putting the binders together.

Budget Estimates and Formulas of the Practice:

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<tr>
<th>Estimated Expenses</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Stipends and Travel</td>
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</tr>
<tr>
<td>Binders (leather-like, embossed)</td>
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<tr>
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<tr>
<td>Audio Video</td>
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<tr>
<td>Postage: brochure</td>
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<tr>
<td>Food, service charge</td>
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</tr>
<tr>
<td><strong>TOTAL EXPENSES:</strong></td>
<td><strong>$33,737.58</strong></td>
</tr>
</tbody>
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Lessons Learned and/or Plans for Improvement:

- Input from stakeholders important: focus area, specific lecture/session topics, suggestions for expert faculty/speakers, venue, time of year, length of program and time of year
- Participant evaluation essential: overall conference, opinions on topics and speakers, suggestions for improvement and future educational needs/topics for other conferences

Available Information Resources:

Mini-residency agendas and registration brochures are available to be shared.
SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness
How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?

Session and overall conference evaluations were completed. Overall participants agreed that the overall conference increased their comfort level for delivering oral health services to pregnant women and young children. In total, 116 Rhode Island oral health professionals attended the session of “Oral Health Care During Pregnancy”. Attendees were asked to score the evaluation questions after the session, with the scales of 1 being “strongly disagree” to 4 being “strongly agree”. The level of agreement was very high among the attendees on the questions if the session was informative and useful (3.7 and 3.7 in averages, respectively). Most oral health professionals who attended reported they “anticipate practice changes because of the session” (average score was 3.4).

Misperceptions of oral health providers regarding appropriate treatment for pregnant women frequently cause unnecessary treatment delay or deferral. The 2011 Rhode Island Prenatal and Pediatric Dentistry Mini-Residency training conference provided oral health professionals the most current evidence-based practice guidelines and addressed benefits of providing oral health care during pregnancy. Increased knowledge of special populations and clinical competency of the oral health workforce are expected to positively impact oral health professional’s behavior and change in their practices. As proven in studies, physicians/dentists who commit to making a change in their practice after an educational intervention are more likely to make that change than those participants who do not commit to making a change.

Increased knowledge of special populations and expanded clinical competency/skills of the oral health workforce are expected improve dental care utilization and meet the oral health needs of the RI’s pregnant women. The 2011-2016 Rhode Island Oral Health Plan identifies goals and priority activities that support optimal dental care for all Rhode Island pregnant women. The RI Oral Health Program is monitoring progress toward meeting the 2011-2016 RI Oral Health Plan objectives utilizing PRAMS. Outcomes generated by the monitoring system will be reported, shared with stakeholders, and utilized to plan future efforts.

Efficiency
How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.

Participant registration fees covered food/beverage service costs. Registration fees were set at a very reasonable level; covering only the hotel food costs. Conference participants received up to 14 hours of continuing education credits as well as substantial meeting materials/resources. Other expenses, such as room and AV rental, speaker honoraria/travel, and meeting materials were supported by grant funding and were not offset by registrations or sponsor/vendor donations. Past mini-residency programs did have the benefit of vendor/corporate sponsorship, which lessened the reliance on grant support.

Staff time for conference planning and preparation has declined over time. The planning process becomes easier with each subsequent program, the same vendors have been utilized, and multiple volunteers donate time in advance of the meeting to collate materials.

Demonstrated Sustainability
How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?

Individual participants have been tracked over time and show that a significant proportion of oral health professionals have attended multiple programs. The local dental societies have supported the promotion of the events, and assisted in dissemination of information to their members.
Participant evaluations clearly demonstrate that these programs are a valuable educational resource and attendees are interested in future opportunities.

Unfortunately, the mini-residency programs have relied primarily on grant support for funding. Large expenses, such as speaker honoraria and meeting facility rental are supported by grant resources. Private corporations/vendors have contributed to the programs in the past and will need to be accessed for future programs.

Collaboration/Integration

*How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?*

Comprised of public, private and not-for-profit statewide partners, the Oral Health Professional Advisory Council served as the steering committee for the mini-residency events. The Council provides guidance to the Oral Health Program on programmatic and policy issues related to oral health access and effective oral health promotion and disease prevention strategies. OHPAC is comprised of a broad group of key oral health professionals to promote inter-organizational collaboration focused on reducing disease disparities and improving the oral health status of all Rhode Islanders. Members represent dental professional societies, oral health professions training programs, third party payers, and community-based oral health professionals practicing in schools, hospitals, and community health centers throughout Rhode Island. The Oral Health Program shared the 2009 PRAMS oral health report with OHPAC and collaborated to plan and convene the 2011 continuing education sessions for oral health professionals.

The Mini-Residencies have been met with strong support from the oral health professional community and are an important opportunity for learning and networking for all members of the dental team. The local dental societies have supported the promotion of the events, and assisted in dissemination of information to their members. Medical-dental integration is a core component of the programs. Medical and mental health topics/speakers have been featured all of the mini-residency conferences.

Objectives/Rationale

*How has the practice addressed HP 2010 objectives, met the National Call to Action to Promote Oral Health, and/or built basic infrastructure and capacity for state/territorial/community oral health programs?*

Misperceptions of oral health providers regarding appropriate treatment for pregnant women frequently cause unnecessary treatment delay or deferral. The 2011 RI Prenatal and Pediatric Dentistry Mini-Residency training conference provided oral health professionals the most current evidence-based practice guidelines and addressed benefits of providing oral health care during pregnancy. Increased knowledge of special populations and clinical competency of the oral health workforce are expected to positively impact oral health professional’s behavior and change in their practices. As proven in studies, physicians/dentists who commit to making a change in their practice after an educational intervention are more likely to make that change than those participants who do not commit to making a change.

The RI Oral Health Program reported concerns of less than optimal oral health access among RI pregnant women and disparities by women’s socioeconomic status based on the 2009 PRAMS findings. The 2011 RI Prenatal and Pediatric Dental Mini-Residency training conference was established to address the specific challenges presented by a lack of education opportunities for RI oral health professionals and improve oral health care for the most vulnerable Rhode Islanders, including pregnant women. Increased knowledge of special populations and expanded clinical competency/skills of the oral health workforce are expected improve dental care utilization and meet the oral health needs of the RI’s pregnant women.

Extent of Use Among States

*Describe the extent of the practice or aspects of the practice used in other states?*

Mini-residency agendas and registration brochures have been shared with other states. It is unknown if any specific efforts have resulted.