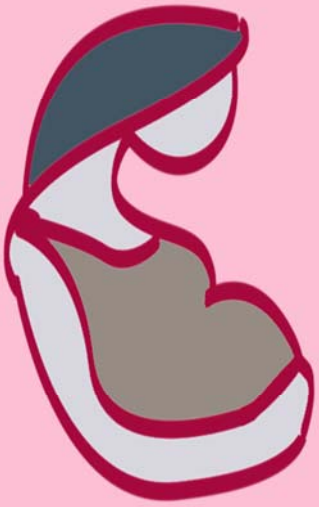
Teeth^2

Maternal and Infant Oral Health

Grace Health Model
for Pregnant Mothers

Muskegon Family Care
Dental Coach Model



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DETROIT MERCY DENTAL

Christian Garcia

Regional Coordinator
Western/Northern Michigan

John Girdwood, MSA, PhD

Statewide Project Coordinator
Corktown Campus

Monica Jensen

Regional Coordinator
Eastern/Central Michigan

Lindsay Sailor
Michigan Primary Care Association

Integrated Health Program Manager

Joshua Thomson, PhD
Assistant Professor, Division of Integrated Biomedical Sciences

Detroit Mercy Dental, Principal Investigator

Emily Norrix, MPH
Michigan Department of Health and Human Services

Perinatal Oral Health Consultant

TITLE

Strategically Planning an Inter-Professional Oral Health Care System

Subtitles

- Grace Health Model for Pregnant Mothers
- Muskegon Family Care Dental Coach Model

Primary Author

John Girdwood, MSA, PhD

Abstract

The purpose of the Michigan Initiative for Maternal and Infant Oral Health is to improve oral health of mothers and children in underserved areas. The grant-funded effort began as a 1-year project at 6 pilot sites. The initial aim was to examine the feasibility and impact of placing a registered dental hygienist within an OBGYN medical clinic. While the approach was an important first step toward reaching patients in the inaugural year, it was essential to strategically plan a more robust sustainable model while concurrently building the new program.

Quality Care

Hardworking well-educated healthcare clinicians who provide medical and dental services to families often experience difficulties in care delivery due to loosely organized inter-professional collaborations. Prioritizing the environment and processes at clinics can help ensure better quality care. Healthcare quality is generally measured by five characteristics: safe, timely, effective, efficient, equitable, and patient-centered (STEEEP).[1] While specific applications of these components vary, the Michigan Initiative for Maternal and Infant Oral Health addressed all five during implementation and strategic planning.

Implementation

The Grace Health Model for Pregnant Mothers began in November 2014 when dental hygienists started seeing patients in the OB/GYN department. This successful program established a template for five other Federally Qualified Health Center (FQHC) pilot sites to build from and mimic throughout Michigan.

Strategic Planning

Other pilot sites contributed input to (i) enhance and standardize current workflow; (ii) expand the scope of services rendered; and (iii) include pregnant mothers and their children up to age 3 years. The Muskegon Family Care Dental Coach Model supplemented the Grace Health Model and bridged the gap between the OBGYN and pediatric clinical teams. New processes help all family members establish a dental home.

Mission and Vision

The University of Detroit Mercy School of Dentistry, Michigan Department of Health and Human Services, and Michigan Primary Care Association will improve oral health outcomes for mothers and children through organization quality care.

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[1]Institute of Medicine, Committee on Quality of Health Care in America. A New Health System for the 21st Century. In: Crossing the Quality Chasm: A New Health System for the 21st Century. Washington D.C.: National Academies Press (US); 2001. https://www.ncbi.nlm.nih.gov/books/NBK222273/. Accessed November 9, 2017.

Terms and Abbreviations

CSS	Clinical Support Staff

Medical Abbreviations

$\overline{a}$	before
$\overline{c}$	with
$\overline{s}$	without
$\overline{q}$	every
$\overline{p}$	after

Perinatal Acronyms

This list graciously provided by Emily Norrix, MPH

AAPHD: American Association of Public Health Dentistry

ACOG: American Congress of Obstetricians and Gynecologists

ADA: American Dental Association

ASTDD: Association of State and Territorial Dental Directors

BSS: Basic Screening Survey

CHIP: Children Health Insurance Program

CMS: Centers for Medicare and Medicaid Services

ECC: Early Childhood Caries

EGRAMS: Online Grant Management System

EPSDT: Early and Periodic Screening, Diagnostic and Treatment

FQHC: Federally Qualified Health Center

RHC: Rural Health Center

MAFP: Michigan Academy of Family Physicians

MiAPP: Michigan Chapter of the American Academy of Pediatrics

MCH: Maternal and Child Health

MCMCH: Michigan Council for Maternal and Child Health

MDA: Michigan Dental Association

MDHA: Michigan Dental Hygiene Association

MDP: Michigan Dental Program (HIV positive clients)

MIECHV: Maternal, Infant and Early Childhood Home Visiting

MIHP: Maternal Infant Health Program (Home Visiting)

MOHC: Michigan Oral Health Coalition

MSMS: Michigan State Medical Society

PIOH: Perinatal and Infant Oral Health

SOHP: State Oral Health Plan

INTRODUCTION

Disclosure: The content in this section is adapted from the grant application submitted to the Michigan Department of Health and Human Services titled "At-Risk Mothers and Children Dental Program."

During pregnancy, physical and physiological changes occur that can adversely affect the mouth. Gingivitis is the most common oral condition of pregnancy, effecting about 3 in 4 pregnant women.[2] Left untreated, gingivitis may progress to periodontal disease which may destroy both soft and hard tissues. Other oral conditions commonly occurring during pregnancy include benign oral gingival lesions, tooth mobility, tooth erosion and dental caries (cavities). Pregnant women are at high risk for dental caries due to a variety of reasons including inadequate amounts of fluoride, high intake of sugary food or beverages, and a lack of oral health care.

To effectively improve oral health among pregnant women and children, it is important to understand and address two contributing factors: health literacy and oral health disparities by race, ethnicity and income. Often, those with low levels of health literacy are found among these same vulnerable populations. Several national organizations have undertaken efforts to promote oral health among pregnant women and children. They developed statements, guidelines, educational materials, and tools to improve oral health. These include: the American Congress of Obstetricians and Gynecologists (ACOG), the American Academy of Pediatric Dentistry (AAPD),[3] the American Academy of Pediatrics (AAP),[4] the American Academy of Periodontology, the American Academy of Physician Assistants (AAPA), the American College of Nurse-Midwives (ACNM), the Society of Teachers in Family Medicine (STFM), and the American Dental Association (ADA).

In 2008, an expert panel convened by the U.S. Maternal and Child Health Bureau (MCHB) developed strategies for improving perinatal oral health. One strategy was to "promote the use of guidelines addressing oral health during the perinatal period and to disseminate guidelines to Maternal and Child Health and Oral Health professionals." This led to the development of a national consensus statement in collaboration with ACOG and the ADA "Oral Health Care during Pregnancy: A National Consensus Statement," as well as a Committee Opinion from ACOG "Oral Health Care During Pregnancy and Through the Life Span." Several states including New York, California, South Carolina, and Washington developed statewide practice guidelines for perinatal oral health.

Health professionals often do not provide oral health care to pregnant women and pregnant women often do not seek or receive oral health care. Some pregnant women and health professionals do not understand that oral health care is an important component of a healthy pregnancy. Early childhood caries is a preventable infectious disease, and this project proposes to provide perinatal and prenatal preventative oral health care to high-risk populations. We will study the attitudes of high risk populations and their physician providers to educate them about the importance of an oral health program as a part of the comprehensive oral health plan.

[2]Patton LL. The ADA Practical Guide to Patients with Medical Conditions. John Wiley & Sons; 2015.
[3]Guideline on Perinatal and Infant Oral Health Care. Pediatric Dentistry. 2016;38(6):150-154.
[4]American Academy of Pediatrics, American College of Obstetricians and Gynecologists Committee on Obstetric Practice. Guidelines for Perinatal Care. American Academy of Pediatrics; 2017.

Goals

1. The establishment of six sites around the state of Michigan to evaluate oral health literacy in pregnant patients who reside in dental health profession shortage areas
2. Assess whether the patients have a dental home
3. Provide oral health education
4. Provide preventative services to those patients who do not have a dental home
5. Collect demographic data on dental disease rates and caries risk assessment of the patients
6. Provide post-natal oral health education to program participants for the duration of the program

Measurements

1. Improved health literacy
2. Improved knowledge of the OB-GYN Community in the partner clinics
3. Reduced incidence of new dental disease
4. Reduced incidence of dental disease in the post-natal period

History

The State of Michigan legislature amended its public health code in 2005 through a bill that became commonly known as PA161.[5] Among other language and requirements, Public Act 161 states that "a dental hygienist may perform dental hygiene services under the supervision of a dentist as part of a program for dentally underserved populations in this state conducted by a local, state, or federal grantee health agency for patients who are not assigned by a dentist." This means that a dental hygienist can provide oral health care to individuals in a variety of settings like nursing homes, schools, and medical clinics.

The Michigan Dental Hygienists' Association Guide to Preventative Dental Care included an overview of the Meadow Brook Model in 2007 which helped interested organizations and hygienists build new programs.[6] The guide outlined necessary equipment, budgeting tips, marketing plans, and partnerships.

One successful implementation of the PA161 hygiene program launched in July 2014 at Grace Health.[7] The Grace Health Model for Pregnant Mothers has been fully functioning since the clinic received funding from Blue Cross and Blue Shield of Michigan.[8] Registered Dental Hygienist Staci Hard and Dental Director Dr. Kevin Steely continue to operate the Grace Health Model.

At the same time the Grace Health OBGYN clinic was successfully meeting the oral health needs of pregnant women, Muskegon Family Care was piloting two projects: The Michigan Caries Prevention Program[9] (MCPP) and the Dental Coach Model. Dr. John Girdwood was the MCPP project director and worked closely with Dr. Ramona Wallace in Muskegon to provide four services to pediatric patients at well-child visits for 0-3-year-old children: (i) oral health screening; (ii) fluoride varnish; (iii) patient

[5]State of Michigan 93rd Legislature. Public Health Code (Excerpt). Vol 333.; 2005:2. http://legislature.mi.gov/doc.aspx?mcl-333-16625.
[6]Nothoff B. The Meadow Brook Model: The Michigan Dental Hygienists' Association Guide to Preventative Dental Care.; 2007.
[7]Craig D. 1st Patient to Complete Oral Health Program. Grace Health. June 2015. http://www.gracehealthmi.org/uncategorized/1st-patient-complete-oral-health-program/. Accessed November 16, 2017.
[8]Craig D. 1st Anniversary of Grace Health's Space for OB/GYN. Grace Health. July 2015. http://www.gracehealthmi.org/uncategorized/1st-anniversary-grace-healths-space-obgyn/. Accessed November 16, 2017.
[9]Michigan Caries Prevention Program. Michigan Caries Prevention Program. Michigan Caries Prevention Program. miteeth.org. Published 2015. Accessed June 8, 2015.

education; and (iv) referral to a dentist. The program resulted in more children receiving oral health care in the medical setting.

The Muskegon Family Care Dental Coach Model was developed to extend beyond the age limit of the MCPP and reached more children through patient contact with the family as a unit. A dental assistant "Dental Coach" was paged through an overhead communications system from the medical provider when the oral health screening suggested more dental care was needed. The Dental Coach would come down into the lobby or comfortable space in the medical clinic to simply talk with the family about the importance of seeing the dentist. The coach offered the option to schedule an appointment and would then follow-up with the family to unsure a dental visit was completed. Initial implementation research showed the Dental Coach intervention doubled the likelihood that a patient would complete a dental visit (from roughly 25% to 54%). The project was funded by Colgate and research was conducted through the University of Michigan School of Dentistry (Principal Investigator: Dr. Margherita Fontana). Muskegon Family Care continued to utilize the Dental Coach Model after funding expired.

The Michigan Department of Health and Human Services (MiDHHS) awarded $969,400 to the University of Detroit Mercy School of Dentistry to fund a project from late 2017 through September 2018. Details of the project are conveyed throughout this manuscript.

Partners

Detroit Mercy continued a partnership with MiDHHS through Emily Norrix, MPH, Perinatal Oral Health Consultant. Detroit Mercy formed a subcontract agreement with the Michigan Primary Care Association (MPCA); that organization is represented by Lindsay Sailor, Integrated Health Program Manager.

Objectives

Several of the initial objectives were completed prior to implementation:

1. Hire a Project Manager (Dr. John Girdwood)
2. Subcontract agreement formed between Detroit Mercy and MPCA
3. Recruit six pilot sites
    a. Muskegon Family Care
    b. Benton Harbor Women's Center – InterCare
    c. Great Lakes Bay – Bay City
    d. Upper Great Lakes Family Health Center
    e. Cedar Community Health Center Women's Health Center – Ingham County, Lansing
    f. Grace Health – Battle Creek
4. Hire two Regional Coordinators (Monica Jensen and Christian Garcia)
5. Hire dental hygienists at each site
6. Develop a project protocol for each site
7. Create work-spaces within sites
8. Develop a communications and recruitment plan for each site
9. Recruit and provide services to pregnant women in the pilot program
10. Educate pregnant women on perinatal and infant oral health
11. Develop tracking mechanism for project data collection
12. Collect participant related data
13. Develop and distribute client satisfaction survey or equivalent evaluation
14. Mechanism
15. Host monthly calls
16. Quarterly reports will be submitted to MDHHS

Effective

To measure the effectiveness of the interventions provided by a registered dental hygienist embedded in the OBGYN medical clinic, Joshua Thomson, PhD (Assistant Professor, Division of Integrated Biomedical Sciences at the University of Detroit Mercy School of Dentistry) will conduct an IRB-approved research project during the pilot period with site clinicians and patients who agree to participate.

*Disclosure: The content in this section is adapted from a draft of the IRB application submitted to the University of Detroit Mercy titled "**Implementation of Saliva-Check Mutans bacterial identification kit as educational aid for patients during pre-natal dental visits**."*

The objective of this project is to determine if utilizing a chairside bacterial identification test (Saliva-Check Mutans-GC America) aids in patient oral hygiene education during dental screenings and treatment during pregnancy. The objective of implementing use of this kit is to enhance patient understanding of oral hygiene and potential risk of maternal-child transfer of the bacterium most responsible for the initiation of dental caries, Streptococcus mutans. We hypothesize that increased education about these risks will reinforce the need for routine, proper oral hygiene practices.

Dental caries is one of the most common chronic infectious diseases worldwide and one of the most chronic conditions of childhood according to the Centers for Disease Control and Prevention. Caries is a multi-factorial disease signified by the breakdown of enamel leading to tooth decay. The disease develops over time and is based on the host environment, the presence of acidogenic and acidophilic bacteria, and dietary sugars. Caries initiation is highly correlated with the presence of the bacterium, Streptococcus mutans.[10] Generally, this bacterium begins to colonize hard surfaces in the oral cavity as teeth begin to erupt during childhood.[10,11] Colonization by S. mutans is related increased caries incidence during childhood.[12] S. mutans is most often transferred to children from their mother by saliva.[13,14,15]

Previous studies aimed at decreasing mother's S. mutans levels during the first three years of their child's life through prophylactic programs showed promising results in the reduction of S. mutans and caries in the child.[16] Another study indicated that patients with salivary levels of S. mutans >106 CFU/mL have a 20% greater chance of transmission to their 10-16 month old children than patients with salivary levels of 103 CFU/mL.[17] Therefore, we hope to increase patient knowledge of the risk of transmission and oral bacteria in an effort to improve oral hygiene habits.

The goal of this project is to educate high caries-risk pregnant patients about proper oral hygiene and the risk of transmission of S. mutans to their offspring. Volunteers in the project will be pregnant patients on

[10] Loesche WJ. Role of Streptococcus mutans in human dental decay. Microbiological reviews. 1986;50(4):353.
[11] Forssten SD, Björklund M, Ouwehand AC. Streptococcus mutans, caries and simulation models. Nutrients. 2010;2(3):290-8.
[12] Parisotto TM, Steiner-Oliveira C, Silva CMSE, Rodrigues LKA, Nobre-dos-Santos M. Early childhood caries and mutans streptococci: a systematic review. Oral health & preventive dentistry. 2010;8(1).
[13] Caufield P, Cutter G, Dasanayake A. Initial acquisition of mutans streptococci by infants: evidence for a discrete window of infectivity. Journal of dental research. 1993;72(1):37-45.
[14] Damle S, Yadav R, Garg S, Dhindsa A, Beniwal V, Loomba A, et al. Transmission of mutans streptococci in mother-child pairs. The Indian journal of medical research. 2016;144(2):264.
[15] Nowak AJ, Warren JJ. Infant oral health and oral habits. Pediatric Clinics of North America. 2000;47(5):1043-66.
[16] Köhler B, Andréen I, Jonsson B. The effect of caries-preventive measures in mothers on dental caries and the oral presence of the bacteria Streptococcus mutans and lactobacilli in their children. Archives of Oral Biology. 1984;29(11):879-83.
[17] Berkowitz R, Turner J, Green P. Maternal salivary levels of Streptococcus mutans and primary oral infection of infants. Archives of Oral Biology. 1981;26(2):147-9.

Medicaid. Economically disadvantaged populations are considered high-caries risk as there is high correlation with caries prevalence. Oral hygiene education and dental treatment will be provided by a dental hygienist placed in family healthcare clinics throughout Michigan. In addition to normal screenings and patient education, we propose to implement the use of a rapid, chairside test kit that can quickly monitor the level of salivary S. mutans. Saliva-Check Mutans (GC America), followed by explanation of the test and results, as they pertain to caries-risk and oral hygiene. Saliva-Check mutans is a rapid immunoassay kit that detects the presence of ≥5.0 x 105 CFU/mL of salivary S. mutans within 15 minutes. The test kit produces a positive result for patients that have ≥5.0 x 105 CFU/mL S. mutans in their saliva, while a negative result on the test means the patient has levels <5.0 x 105 CFU/mL (Figure 1).[18]

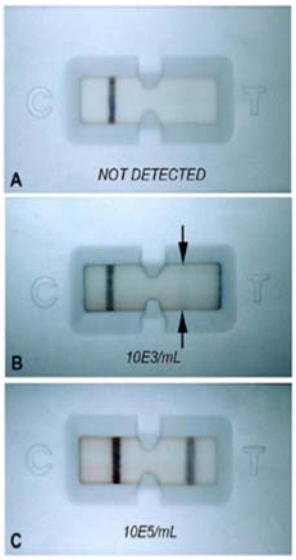


Figure 1. Saliva-Check Mutans test kit results.

A) Control band present in undetectable samples

B) Faint band in ~10^3CFU/mL

C) Strong band seen in ≥10^5CFU/mL

We hypothesize that the test will act as a visual aid to support patient education and promote understanding about the bacterial component of dental disease, as well as provide an opportunity to discuss transmission of these bacteria to their offspring and the subsequent health risk. We will assess patient education and oral hygiene practices using a self-reported survey approach.

At the first visit of the pregnant female to the hygienist at the family healthcare clinic, saliva will be collected by the healthcare provider and subjected to the Saliva-Check Mutans test. Patients will then be shown the test and discuss the results with the hygienist. Patients will receive a brief survey to establish their hygiene practices that day, establish their understanding of the role of bacteria in oral hygiene and dental disease, and establish patient perception of whether the test results will affect their future oral hygiene practices. On the patient's first visit back to the clinic post-partum, they will be administered a second Saliva-Check Mutans test to assess a levels of salivary S. mutans. Then, patients will receive a similar survey as the initial visit, however, this survey will gauge if the patients followed through with their proposed hygiene practices.

Dental hygienists will be placed in the following family care clinics throughout Michigan to provide dental services and education:

- Grace Health, Inc. - Battle Creek
- Intercare Community Health Network – Benton Harbor
- Ingham County, Cedar Community Women's Health Center – Lansing
- Upper Great Lakes Family Health Center – Hancock

Two more sites' participation is pending receipt of their letter of commitment as of 12/07/2017.

In this study, saliva will be collected and evaluated by the healthcare provider at the initial dental visit during pregnancy and the first visit post-delivery. Pre- and post-partum surveys will be conducted using Qualtrics software. Surveys will be guided by the hygienist and will contain the results of the Saliva-Check Mutans test and responses to questions. Additionally, the survey will contain a research code of the patient (no patient identifiers) for pairing with post-partum survey. Results from Qualtrics software surveys (with only research number) will be analyzed by Dr. Joshua Thomson and Dr. David Fischer at the University of Detroit Mercy School of Dentistry.

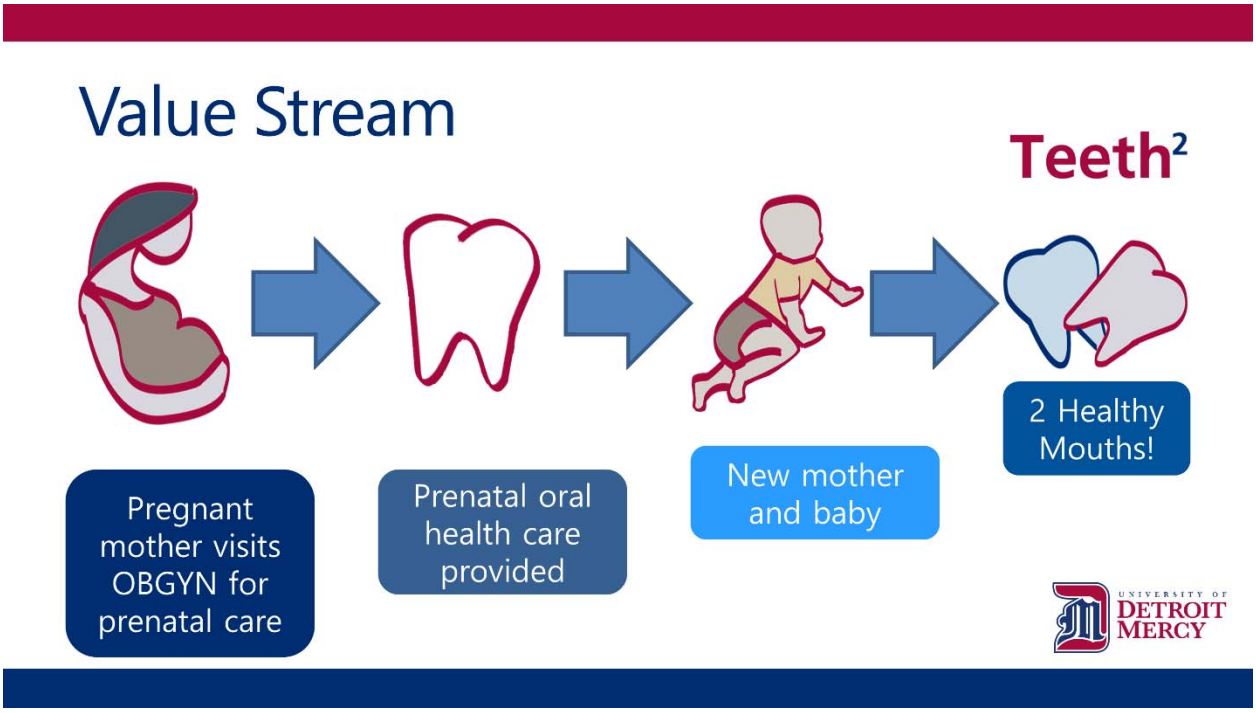
[18] Walsh LJ, Tsang AK. Chairside testing for cariogenic bacteria: current concepts and clinical strategies. International Dentistry South Africa. 2008;10(2):50-65.

Efficient

Inter-professional care (IPC) is transforming the fields of medical and dental health care. While IPC appears to be one logical way to increase efficiency, especially through colocation of services, IPC is not inherently efficient. It is important to study new IPC pilot projects to ensure improved efficiency does not diminish patient outcomes. Practical applications of IPC should deliver defined value to the patient, clinic, student, and dental school. Structural and cultural components contribute to outcomes for all involved.

Adding value is sometimes defined as a process that solves a problem.[19] Reducing bacteria that cause poor health outcomes during and after pregnancy is a value proposition measured by the effectiveness of the intervention. Reducing waste during workflow is a value proposition to increase the efficiency of delivering the intervention.

Lean thinking helps clinicians and project coordinators to focus on 8 key inefficiencies or "wastes" that follow the acronym DOWNTIME: Defects, Overproduction, Waiting, Non-Utilized Talent, Transportation, Inventory, Motion, Extra Processing.[20] The Maternal and Infant Oral Health project will utilize Lean tools to add value to the patient experience by reducing inefficiency (waste) during the visit.



The first value proposition is to care for two mouths at one time during the prenatal OBGYN visit. Many pregnant mothers, and medical providers for that matter, do not recognize the importance of oral health during pregnancy. Starting to care for the child's mouth while the mother is pregnant should improve oral health outcomes for the baby.

The second value proposition is to provide oral health care inter-professionally through a hygienist embedded within an OBGYN clinic. Many pregnant mothers do not seek oral health care during pregnancy. Providing care to mothers "where they already are" helps reach more patients in underserved communities.

[19]Cooper C. The Little Book of Lean. CreateSpace Independent Publishing Platform; 2012.
[20]8 Wastes. GoLeanSixSigma.com. https://goleansixsigma.com/8-wastes/. Accessed November 21, 2017.

Patient-Centered

Meeting the needs of the child is accomplished through caring for the mother's teeth. Meeting the needs of the pregnant mother has ultimately beneficial outcomes for the child's teeth. This means that a professional recommendation to the mother impacts the baby's health. The intervention of the hygienist is an "added" service for both mother and child during the OBGYN medical visit. It is important for the mother to understand the implications of the intervention quickly and efficiently so that the mother can make an informed decision of whether to receive prenatal oral health care.

When patients decline care, it is often due to the patient's values and beliefs (culture) rather than a disregard for their personal health.[21] Pregnant mothers usually want what is best for their baby, but mothers are bombarded and inundated with information during pregnancy. Prioritizing interventions and behavior changes can be challenging for the pregnant patient.

It is very easy to forget about oral health during pregnancy! Oral health is frequently overlooked even outside of pregnancy. Behaviors like brushing the teeth with fluoride toothpaste and visiting the dentist can be pushed to the bottom of a patient's list of healthcare priorities.

One of the most cited models of health-related behavior is the Health Belief Model.[22,23] "According to the health belief model, persons' perceptions of the particular threat depends on their beliefs about its seriousness and their vulnerability and/or susceptibility to it. For example, for some health-related behaviors, individuals may acknowledge the gravity of the associated health but may not see themselves as being vulnerable; in contrast, for other behaviors (such as dental health care), individuals may well acknowledge their susceptibility to health threat (such as cavities or gum disease) but may not regard it as sufficiently serious to take the appropriate preventive action."[24]

Patient-centered care is based on individual perceptions of the patient. Those perceptions are mediated through intervention with a professional during the visit. The result is the subsequent action performed by the patient to pursue and accomplish the intended goal. Helping the patient get what she wants is the ultimate empowerment. Patient-centered care is rooted in the ability to reach a desired outcome.

The first step is defining the desired outcome of the patient. Remember, this is the goal for the patient and not the provider. The perceived goals may differ at the first visit but can become aligned over time through the modifying factors like patient education. The final step is the patient's enacting the provider's recommendations. When the recommendations are geared toward the patient's intended outcomes, then the patient is more likely to engage in the suggested healthy behavior.

Patient-centered care is built on trust and communication; it can increase adherence to recommendations and inevitably improve patient health outcomes.[25]

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[21]Michaels C, McEwen MM, McArthur DB. Saying "No" to Professional Recommendations: Client Values, Beliefs, and Evidence-Based Practice. Journal of the American Academy of Nurse Practitioners. 2008;20(12):585-589. doi:10.1111/j.1745-7599.2008.00372.x.

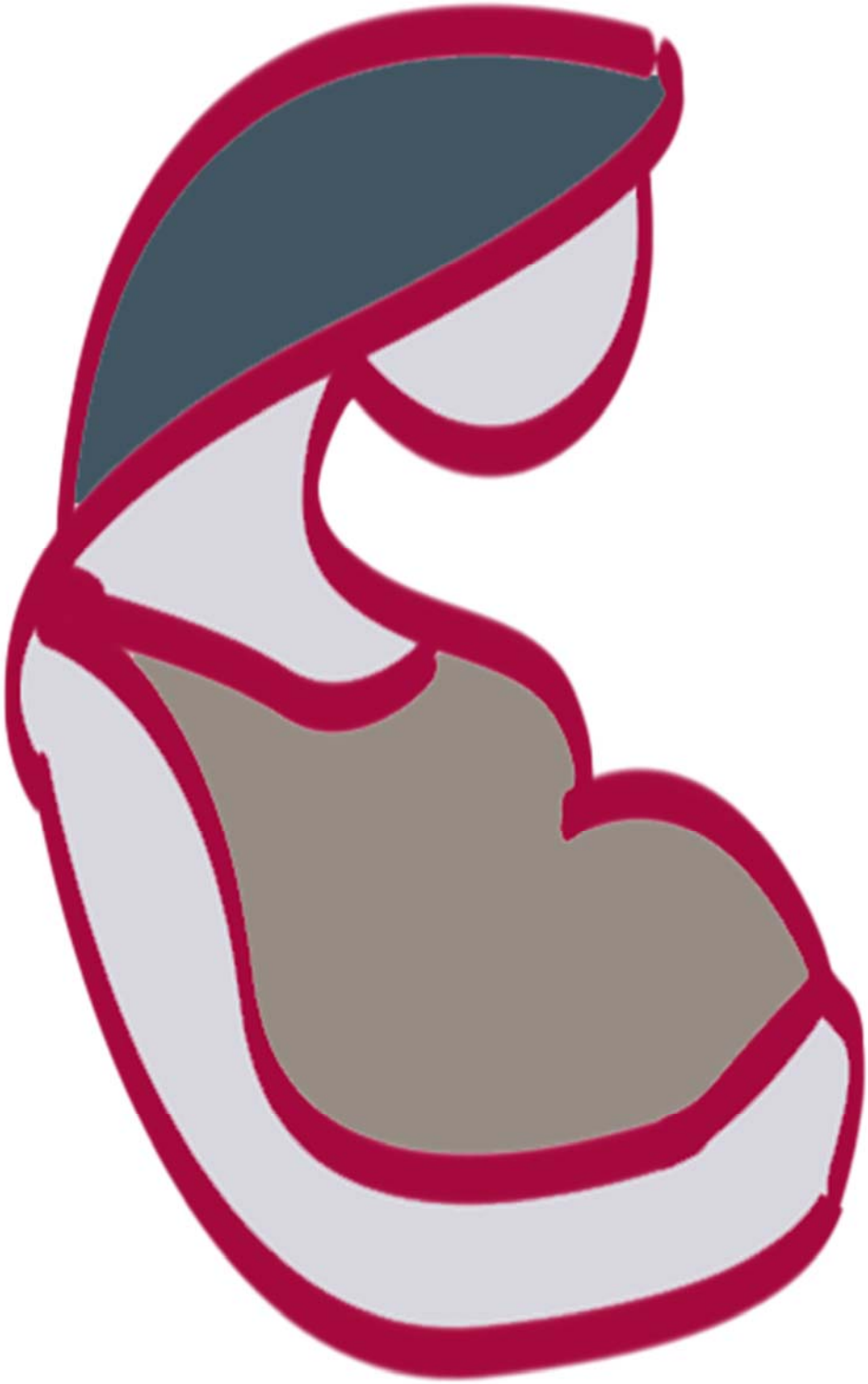
[22]Becker MH, Drachman RH, Kirscht JP. A New Approach to Explaining Sick-Role Behavior in Low-Income Populations. American Journal of Public Health. 1974;64(3):205-216.

[23]Janz NK, Becker MH. The Health Belief Model: A Decade Later.; 1984.

[24]Roeckelein JE, ed. Health Belief Model. In: Elsevier's Dictionary of Psychological Theories. Elsevier Science & Technology. Oxford, UK; 2006. http://research.udmercy.edu:2048/login?url=http://search.credoreference.com/content/entry/estpsyctheory/health_belief_model/0?institutionId=5467. Accessed November 22, 2017.

[25]Keirns CC, Goold SD. Patient-Centered Care and Preference-Sensitive Decision Making. JAMA. 2009;302(16):1805-1806. doi:10.1001/jama.2009.1550.

GRACE HEALTH MODEL



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Slide A

Grace Health Model

- Launched 7/14/2014
  - Blue Cross Blue Shield of Michigan initial funding
  - 1 of 5 pilot programs
- 1st Year ≈ 300 women served
- First patients to complete: Rosa Cecilia Lara-Rives and son Arturo

Photo: (left to right) Jessica Southerland, RDH; Rosa Cecilia Lara-Rives and Staci Hard, RDH

http://www.gracehealthmi.org/uncategorized/1st-patient-complete-oral-health-program/

UNIVERSITY OF DETROIT MERCY

Slide B

Getting Started

PREPARE THE PROJECT TEAM

- Hire the best hygienist!
  - Interacts with OBGYN staff
  - Advocates for patients
- Team requirements:
  - Motivated
  - Passionate
  - Flexible
- Operations must dedicate space for the hygienist

Complete the DCH-1293 Application

PUBLIC HEALTH DENTAL DISEASE PREVENTION PROGRAM APPLICATION
Michigan Department of Health and Human Services
P.A. 161: Public Dental Prevention Program
Request for Operation as Defined in MCL 333.16625 (2005 P.A. 161)

☐ New Program ☐ Renewal

Agency/Entity Name
Program Name
Mailing Address
Counties Served
Responsible Party of Agency (Required) | Contact Person (Required)
Contact Person Telephone Number | Contact Person Email Address

Fees and Billing (Indicate Types of Reimbursement Accepted)

☐ No Compensation ☐ Private Pay ☐ Insurance (private
☐ Medicaid ☐ Healthy Michigan Plan ☐ Other
☐ Tax-Exempt *Include Tax-Exempt ID#
☐ Entity Type 2 Agency NPI# (Required)

Agency/Entity/Non-Profit Type (Choose Area and Description)

☐ Public
- ☐ State
- ☐ County
- ☐ District
- ☐ City

☐ Non-Profit
- ☐ Community Clinic
- ☐ Federally Qualified Health Center
- ☐ Other (Non-Profit Agency)

☐ School
- ☐ School (Pre-K – 12)
- ☐ School-Based Health Center
- ☐ School of Dentistry or Dental Hygiene

☐ Nursing Home
☐ Other (describe)

Describe the Unassigned Population(s) to Receive Preventive Services (Check all that apply)

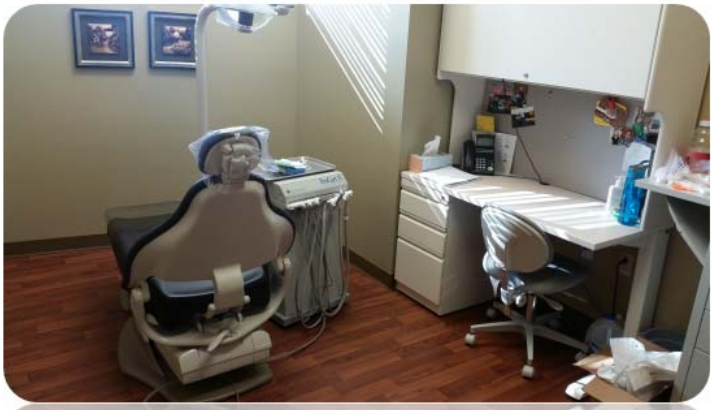
☐ Patients of a Public Health Agency
☐ Patients of a Federally Qualified Health Center
☐ Patients of a Community Dental Clinic
☐ Students in a School-Based/School-Linked program with at least 25% of students participating in a free and reduced lunch program
☐ Early Head Start, Head Start Students or Other Underserved Preschoolers
☐ Nursing Home Residents
☐ Assisted Living Residents
☐ Adult Foster Care Residents
☐ Native Americans
☐ Migrant Farm Workers
☐ Persons with Developmental Disabilities
☐ Juvenile Home Residents
☐ Inmates of Prison System
☐ Other (describe)

DCH-1293 (Rev. 9-14) Previous edition obsolete. 1

UNIVERSITY OF DETROIT MERCY

Slide A

Physical Plant and Armamentarium



It is essential to dedicate space for the hygienist, e.g. a conference room or an exam room preferably with a sink.

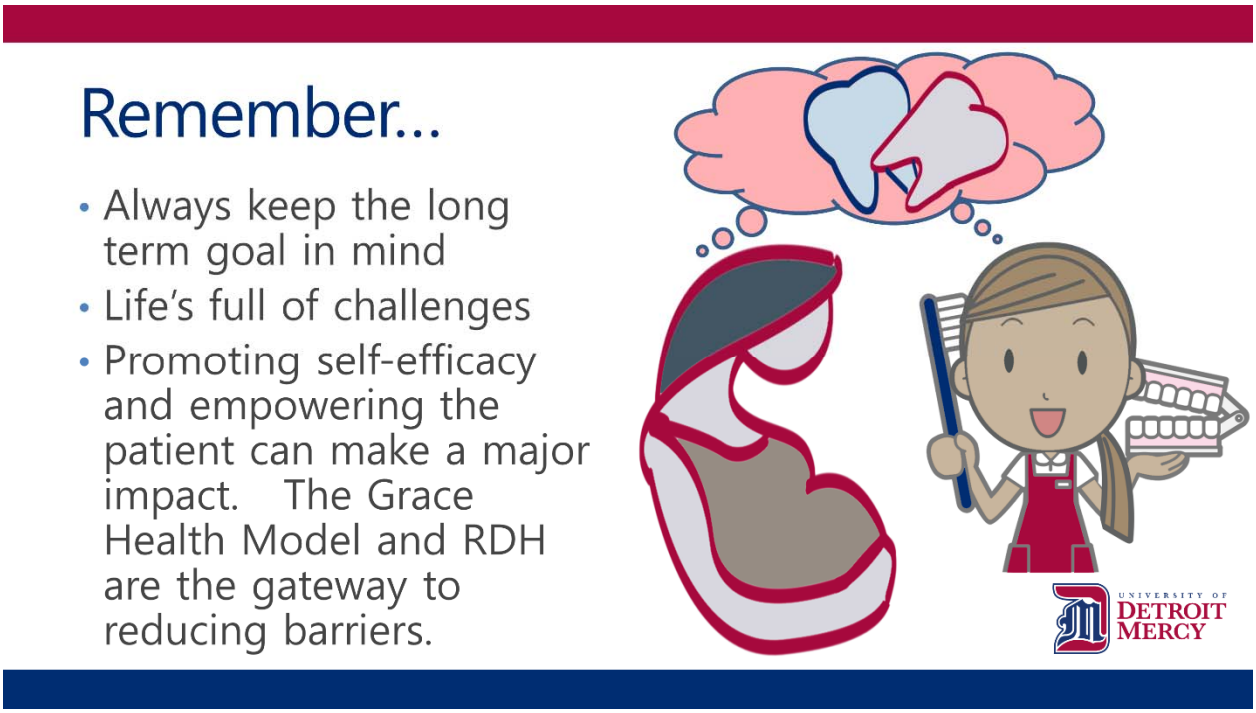
Slide B

Equipment Checklist

- Dental chair (preferably stationary, but portable would work)
- Portable dental unit
- Operator chair
- Floor examination lamp
- Operator headlamp
- Desk/table
- Closet/storage cart (for supplies)
- 8 exam cassettes containing:
- Disposable mirrors
- 8 exam cassettes containing:
  - Mirror
  - Explorer
  - Perio probe
  - Cotton forceps
  - Air/water (unit-specific) syringe tip
- 4 prophy cassettes above containing:
  - Preferred scaling instruments
- Appropriate PPE such as gloves, masks, and eye protection
- Appropriate barriers like head rest covers and light handle covers
- Disinfectant spray and wipes
- Appropriate disposables:
  - Suction tips
  - Gauze
  - Bibs
  - Prophy angles
  - Prophy paste
  - Floss
  - Cotton tip applicators
  - Disposable mirrors
- Sealant materials
  - Etch
  - Sealant material
  - Micro brushes
  - Curing light
- Fluoride varnish
- Patient education material

Conclusion

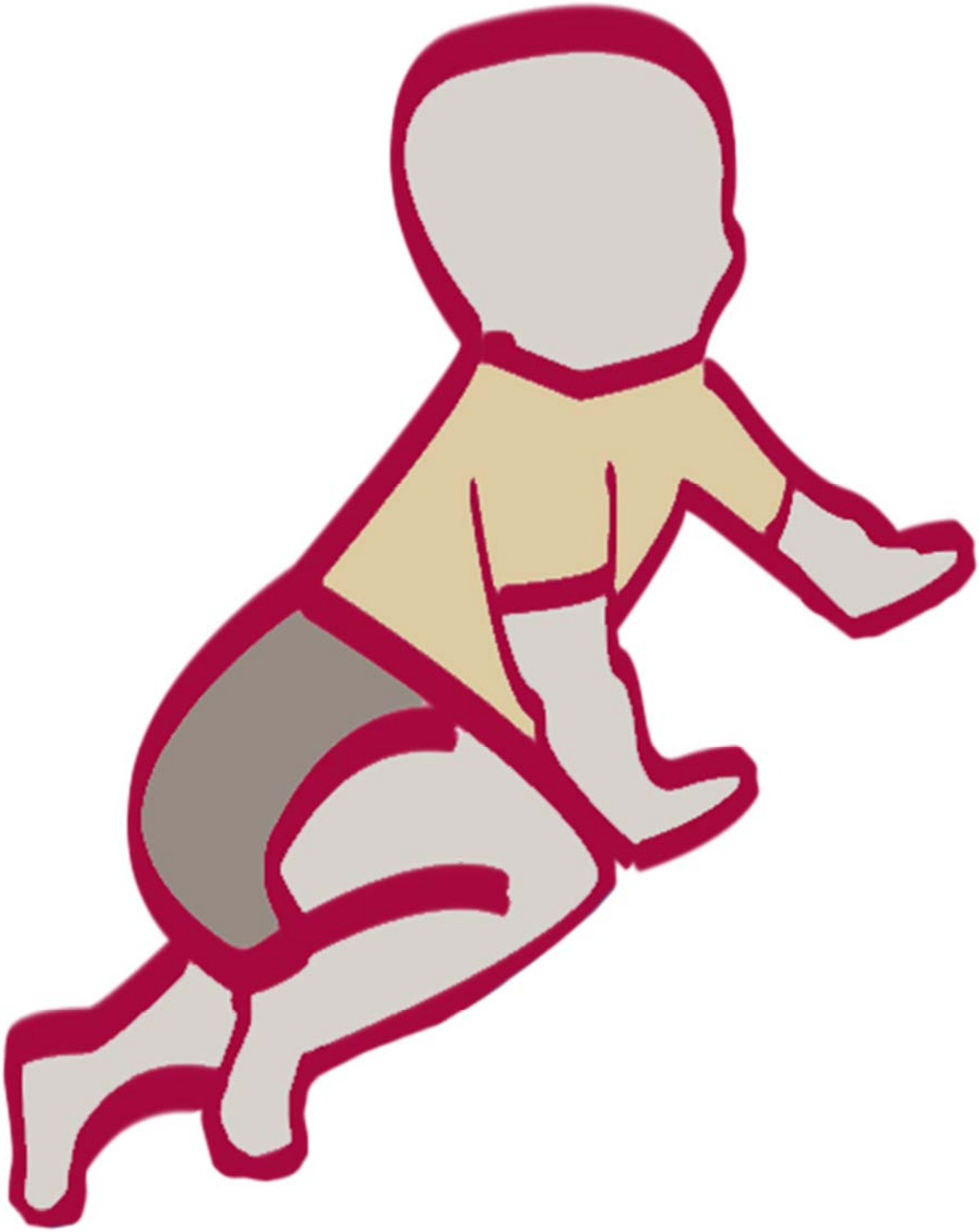
The focus of the Grace Health Model for Pregnant Mothers program is to accomplish the goal of improving oral health and quality-of-life for patients. Always keep that long term, broad goal in mind. Life is full of challenges and sometimes it is impossible to see patients exactly at 12, 26, and 36 weeks. That is fine. If contact and an attempt to connect mothers with dental care and education has been made, the effort can be viewed as a success. Promoting self-efficacy and empowering the patient can make a major impact.[26] The Grace Health Model and RDH are the gateway to reducing barriers. The RDH provides dental care for many patients who may not otherwise receive care. Through flexibility and willingness to help, the RDH helps patients obtain the tools that can change their lives!



There are several goals of the Grace Health Model, but all the objectives are patient-centered. Keep your patient's interests at the top of your mind always. The impact you make during the prenatal period will produce beneficial outcomes for generations.

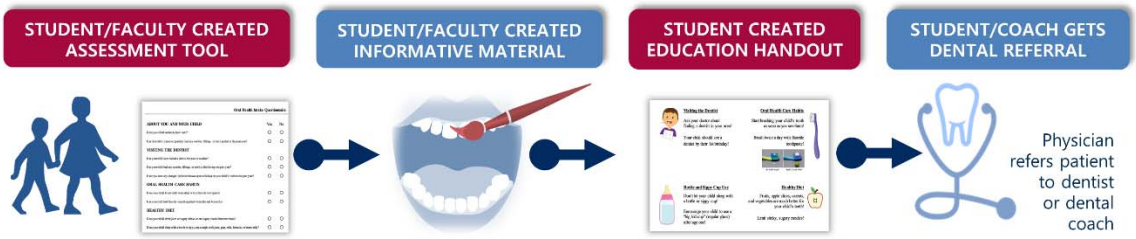
[26]Stewart JE, Wolfe GR, Maeder L, Hartz GW. Changes in Dental Knowledge and Self-Efficacy Scores Following Interventions to Change Oral Hygiene Behavior. Patient Education and Counseling. 1996;27(3):269-277. doi:10.1016/0738-3991(95)00843-8.

MUSKEGON FAMILY MODEL



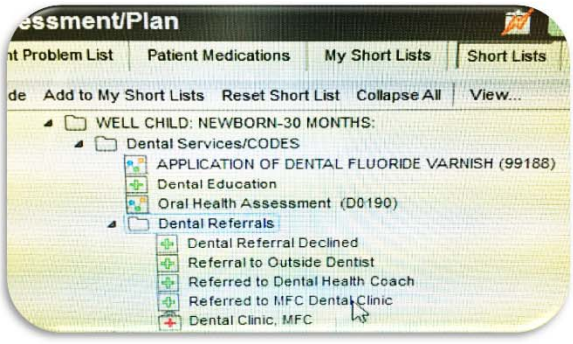
Slide A

Muskegon Care Model Process



Slide B

Armamentarium



- Lobby (waiting room)
- Pediatric medical clinic "as-is"
  - Fully stocked with fluoride varnish pre-packaged kits, toothpaste, and toothbrushes
- Overhead PA system
- Paper survey instrument with risk questionnaire
  - iPad for reporting survey results anonymously
- Electronic Medical Records (EPIC EMR)

Background

Muskegon Family Care is an FQHC with collocated medical and dental services. It is 1 of 12 health centers listed by the U. S. Department of Health and Human Services as serving patients within a 5-mile radius of Muskegon Heights, Michigan[27] and one of the few clinics to house medical, dental, behavioral health, pharmacy and other services all under one roof. There are OBGYN, pediatric, family medicine, and dental clinics within the building. Medical care is provided on the first floor and dental services occur on the second floor of the two-floor building.

MFC is a community-based dental education (CBDE) site which means there are 2 dental students (at a time) on site regularly for rotations. The students complete a 3-week rotation providing reimbursable oral health service through the dental clinic. Both dental schools in Michigan conduct at CBDE program. MFC also hosts medical students from Central Michigan University as part of the students' Comprehensive Community Clerkship. These qualities combine to make MFC one of the most unique inter-professional care and education clinics in Michigan.

In 2016, the site conducted a "Rapid Improvement Event" (RIE) overseen by Dr. John Girdwood, a project manager at a dental school. Personnel and leadership at the site were very supportive. Those individuals were Dr. Ramona Wallace (CMO), Jim Renney (IT), Dr. Marco Tatangelo (pediatrician), and the Dental Coach Champion David Frederick (Dental Assistant). Many others were very involved in the quality improvement project and attended weekly report luncheons.

Process workflow involved: (i) patient-facing risk questionnaire; (ii) fluoride varnish application; (iii) patient-centered education; and (iv) referral to a dental home. This project involved children ages 0-3 years so the Michigan Dental Registry (MiDR) was used to track some referrals. However, MiDR was never fully utilized due to its release date being midway through the project.

MFC was the first site to embrace MiDR and use the tool to record patient care in the medical clinic that is then visible when a patient undergoes a subsequent and separate dental visit. Initial focus groups with MFC staff showed that staff valued the concept of MiDR "shared care" plans as useful inter-professional communication tools regarding care provision (fluoride varnish and oral health screenings). However, there were opportunities to improve two key areas of patient care: (1) patient education especially about brushing teeth with fluoride toothpaste and (2) ensuring the patient visits the dentist. MiDR functionally places a referral from medical-to-dental clinics but there is currently no mechanism in place to ensure the patient completes the dental visit.

Resources

To conduct the activities in this RIE, the site used the following tools:

- Lobby (waiting room)
- Pediatric medical clinic "as-is"
  - Fully stocked with fluoride varnish pre-packaged kits, toothpaste, and toothbrushes
- Overhead public-address (PA) system
- Paper survey instrument with risk questionnaire
  - iPad for reporting survey results anonymously
- Electronic Medical Records (EPIC EMR)

[27]U. S. Department of Health and Human Services, & Health Resources and Services Administration. (n.d.). Find a Health Center. Retrieved May 25, 2017, from https://findahealthcenter.hrsa.gov/#

Slide A

Dental Coach Program

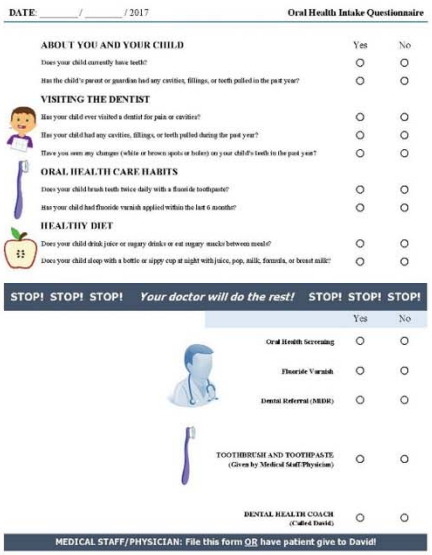
6-month QI project separated into thirds, about 2 months each:

- (i) adoption;
- (ii) implementation;
- (iii) sustainability

- Two procedures, oral health screenings and fluoride varnish application, are billable medical interventions and can be measured by pulling data from the electronic health record system at the clinic.
- An IT staff member provided data on a weekly basis.

UNIVERSITY OF DETROIT MERCY

Slide B



DATE: _____/_____/2017 **Oral Health Intake Questionnaire**

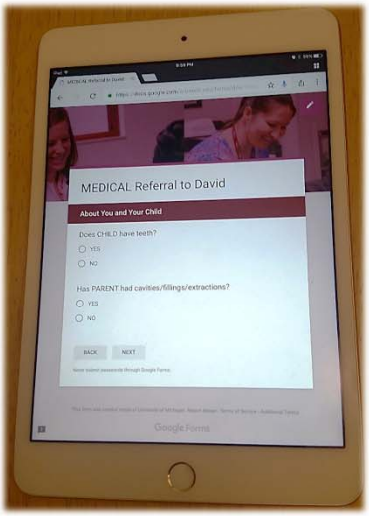
ABOUT YOU AND YOUR CHILD	Yes	No
Does your child currently have teeth?	○	○
Has the child's parent or guardian had any cavities, fillings, or teeth pulled in the past year?	○	○
VISITING THE DENTIST		
Has your child ever visited a dentist for pain or cavities?	○	○
Has your child had any cavities, fillings, or teeth pulled during the past year?	○	○
Have you seen any changes (white or brown spots or holes) on your child's teeth in the past year?	○	○
ORAL HEALTH CARE HABITS		
Does your child brush teeth twice daily with a fluoride toothpaste?	○	○
Has your child had fluoride varnish applied within the last 6 months?	○	○
HEALTHY DIET		
Does your child drink juice or sugary drinks or eat sugary snacks between meals?	○	○
Does your child sleep with a bottle or sippy cup at night with juice, pop, milk, formula, or breast milk?	○	○

STOP! STOP! STOP! *Your doctor will do the rest!* STOP! STOP! STOP!

	Yes	No
Oral Health Screening	○	○
Fluoride Varnish	○	○
Dental Referral (MiDH)	○	○
TOOTHBRUSH AND TOOTHPASTE (Given by Medical Staff/Physician)	○	○
DENTAL HEALTH COACH (Called: David)	○	○

MEDICAL STAFF/PHYSICIAN: File this form OR have patient give to David!

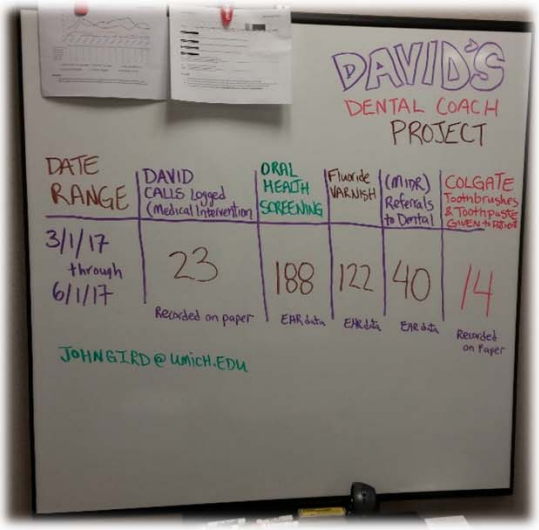
Project Instruments



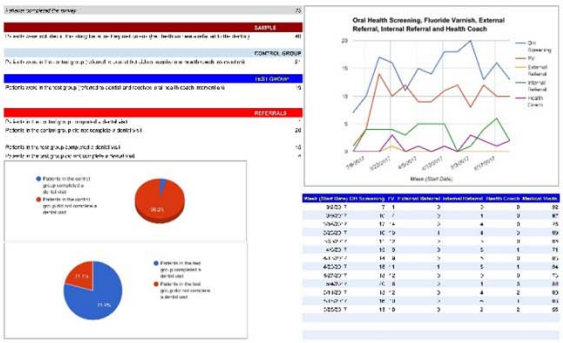
UNIVERSITY OF DETROIT MERCY

Dental Coach Program

This 6-month quality improvement effort was separated into three overlapping periods that lasted about 2 months each: (i) adoption; (ii) implementation; and (iii) sustainability. This was a participatory event where the clinicians actively suggested adjustments to work flow, provided feedback as the program developed, and collaborated inter-professionally. Clinicians were vaguely aware of existing tools, infrastructure, and processes at the outset of the project, so the adoption period was a time to build and clarify the current state. The implementation phase was used to refine the process and learn more about the strengths and weaknesses of the inter-professional care structure at the clinic. Once all participants understood the process completely, the QI team built a strategic plan to ensure the effort was sustainable after the project ended.



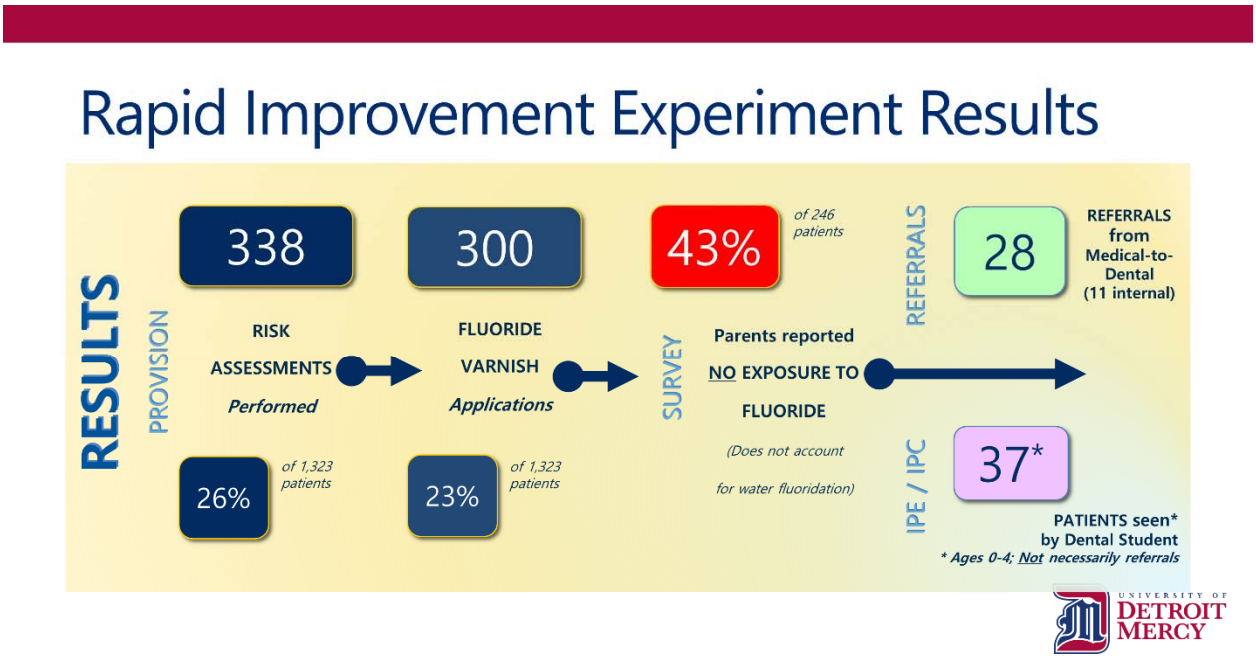
Reporting Tools



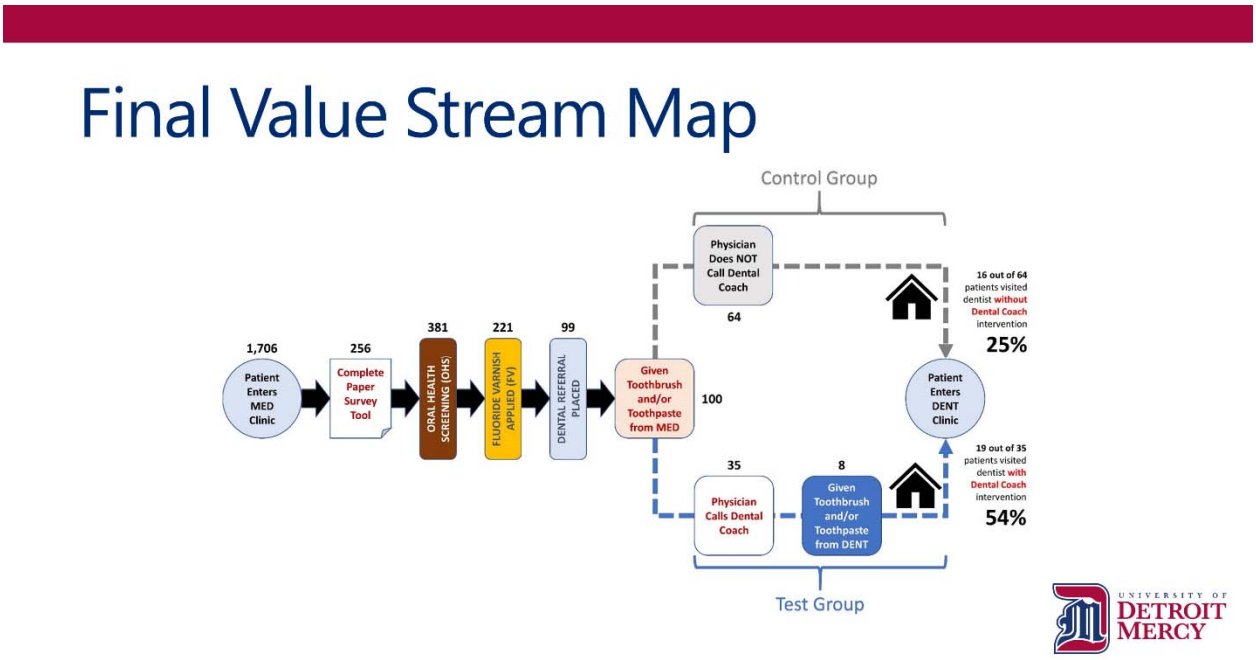
The first 2 months of the project involved establishing a reporting mechanism for oral health care provision in the medical clinic. Two procedures, oral health screenings and fluoride varnish application, are billable medical interventions and can be measured by pulling data from the electronic health record system at the clinic. An information technology (IT) staff member was designated to provide this data on a weekly basis. MFC also has a mechanism to record medical referrals (MiDR) to dental clinics, both internal and external. The second 2 months of the project involved establishing a reporting mechanism for (i) conveyance of oral health tools (toothbrush and toothpaste) in the medical clinic and (ii) "closing the loop" at the end of the patient experience in the dental clinic. Neither of those interventions are reimbursable (not billable in the medical clinic or the dental clinic) and are not measured through any code in the electronic health record system at the clinic. A paper survey instrument was created to collect data from the medical clinic and an iPad was given to the lead Dental Coach to record all the data electronically. The iPad transferred responses, recorded by the Dental Coach, to a Google spreadsheet. None of the data had any personal health information (PHI) and nothing linked individual patients to the data. The data was specifically gathered to help improve the quality of patient care delivery at the clinic.

The QI team met weekly during the second 2 months of this project and involved dental support staff (dental assistant and schedulers), all available physicians, medical assistants, administrative support staff, and the designated IT staff member. Lunch was provided to all work group attendees as they discussed the "shared care" plan system to process medical-to-dental referrals, commonly referred to as "calling the Dental Health Coach down" (to the medical clinic at the end of a medical visit). The lunch, provided through a grant from Colgate, was something that clinicians looked forward to each week and providing lunch helped maintain and increase participation and attendance.

Slide A



Slide B



Slide A

Slide B

NAME:_____ DATE: _____

HEALTHY DIET	Yes	No
Does your child drink juice or sugary drinks or eat sugary snacks between meals?	○	○
Does your child sleep with a bottle or sippy cup at night with juice, pop, milk, formula, or breast milk?	○	○

ABOUT YOU AND YOUR CHILD		
Has the child's parent or guardian had any cavities, fillings, or teeth pulled in the past year?	○	○
Does your child currently have teeth?	○	○

PLEASE CONTINUE ONLY IF YOUR CHILD HAS TEETH

VISITING THE DENTIST		
Has your child ever visited a dentist for pain or cavities?	○	○
Has your child had any cavities, fillings, or teeth pulled during the past year?	○	○
Have you seen any changes (white or brown spots or holes) on your child's teeth in the past year?	○	○

ORAL HEALTH CARE HABITS		
Does your child brush teeth twice daily with a fluoride toothpaste?	○	○
Has your child had fluoride varnish applied within the last 6 months?	○	○

STOP! STOP! STOP! ***Your doctor will do the rest!*** **STOP! STOP! STOP!**

	Yes	No
Oral Health Screening	○	○
Fluoride Varnish	○	○
Dental Referral (MiDR)	○	○
TOOTHBRUSH AND TOOTHPASTE (Given by Medical Staff/Physician)	○	○
DENTAL HEALTH COACH (Called PA161 Hygienist)	○	○

MEDICAL STAFF/PHYSICIAN: File this form <u>OR</u> have patient give to a PA161 Hygienist!

Got Teeth?

Show them to your doctor!

Did you know your doctor provides oral health care services?

Most children are eligible for:

FREE Oral Health Screening

FREE Fluoride Varnish

FREE Dental Visit

FREE **TOOTHBRUSH AND TOOTHPASTE**
(Given by Medical Staff/Physician)

FREE DENTAL HEALTH COACHING

Ask your doctor how to get all these free services at your next visit!

Muskegon Family Care partnered with the University of Michigan School of Dentistry (Principal Investigator: Dr. Margherita Fontana) to conduct a study about Dental Coaching. This handout is adapted from that project.

Funding for the original project was provided by: Colgate

Oversight for the original project was provided by: SCHOOL OF DENTISTRY UNIVERSITY OF MICHIGAN

Location for the original project was provided by: Muskegon Family Care

Got Teeth?

Show them to your doctor!

Did you know your OBGYN doctor provides oral health care services?

Most pregnant women are eligible for:

FREE Oral Health Screening

FREE Fluoride Varnish

FREE Dental Visit

FREE **TOOTHBRUSH AND TOOTHPASTE**

(Given by Medical Staff/Physician)

FREE DENTAL HEALTH COACHING

Ask your doctor how to get all these free services at your next visit!

Grace Health *partnered with the* ***University of Detroit Mercy School of Dentistry*** *(Project Director: Dr. John Girdwood) to conduct the Michigan Initiative for Maternal and Infant Oral Health. This handout is adapted from that project.*

Funding for the original project was provided by:

Michigan Department of Health and Human Services

Oversight for the original project was provided by:

Michigan Primary Care Association

Location for the original project was provided by:

grace HEALTH

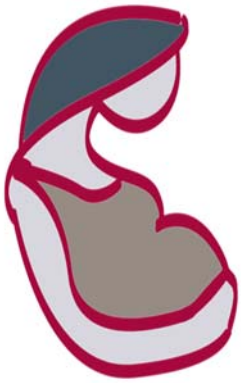
We are currently in the process of developing our materials and translating them into other languages to better serve our patients.

The materials were not completely ready by the time this was printed so please understand that these are not the finished products!

MATERNAL AND INFANT ORAL HEALTH INITIATIVE

THIS MATERIAL IS CURRENTLY BEING TRANSLATED. THIS IS ONLY A DRAFT – DO NOT USE

¿Tienes dientes?



¡Muéstrales a tu médico!

THIS MATERIAL IS CURRENTLY BEING TRANSLATED. THIS IS ONLY A DRAFT – DO NOT USE

¿Sabía que su médico de OBGYN brinda servicios de cuidado de la salud

La mayoría de las mujeres embarazadas son

GRATIS Examen de salud oral

GRATIS Barniz de flúor

GRATIS Visita dental

GRATIS **CEPILLO DE DIENTES Y PASTA DE DIENTES** (Dado por el personal / médico)

GRATIS COACHING DENTAL DE LA SALUD

¡Pregúntele a su médico cómo obtener todos estos servicios gratuitos en su próxima visita!

Grace Health *y la Facultad de Odontología de la* ***Univ. de Detroit Mercy*** *(Director del proyecto: Dr. John Girdwood) están coordinando la Iniciativa de Michigan para la Salud Oral Materna e Infantil. Este folleto es una adaptación de ese proyecto.*

La financiación para el proyecto original fue proporcionada por:

Michigan Department of Health and Human Services

La supervisión del proyecto original fue proporcionada por:

Michigan Primary Care Association

La ubicación del proyecto original fue proporcionada por:

grace HEALTH

MATERNAL AND INFANT ORAL HEALTH INITIATIVE

THIS MATERIAL IS CURRENTLY BEING TRANSLATED.
THIS IS ONLY A DRAFT – DO NOT USE

NOMBRE: _____ FECHA: _____

¿Cuál es tu fecha de nacimiento?	¿Eres parte de un ¿El programa "Centrar el embarazo"?	¿Cuál es la fecha de nacimiento esperada de su HIJO (fecha de
_____ / _____ / _____	○ SÍ ○ NO	_____ / _____ / _____

DURANTE UN DÍA NORMAL ...	SÍ	NO
¿Bebe jugo o bebidas azucaradas o come refrigerios azucarados entre comidas?	○	○
¿Te cepillas los dientes dos veces al día con una pasta dental con flúor?	○	○
¿Usas productos de tabaco?	○	○
ACERCA DE TI		
¿Es este tu primer embarazo?	○	○
¿Actualmente tiene algún dolor en la boca o los dientes?	○	○
VISITANDO AL DENTISTA		
¿Alguna vez ha visitado a un dentista por dolor o caries?	○	○
¿Ha tenido alguna caries, empastes o dientes extraídos durante el año pasado?	○	○
¿Has visto algún cambio (manchas o agujeros blancos o marrones) en tus dientes el año pasado?	○	○

DETENER! DETENER! ***Su higienista completará el formulario!*** **DETENER! DETENER!**

D0191 ASSESSMENT

CARIES RISK	High	Moderate	Low
	○	○	○
	Gingivitis Risk	Periodontal Disease	Infection Risk
	○	○	○
SINCE MOM'S LAST VISIT	New Extraction(s) #	New Fillings #	New Cavities #
TRIMESTER (Circle One)	1ST	2ND	3RD

If post-partum visit, write in baby's name and DOB

CHILD'S DOB:

CHILD'S NAME:

PREVENTION	FOOD	DRINK	BRUSH WITH FLUORIDE
Patient Education	○	○	○

INTERVENTION

	Before Pregnancy	Last Visit	Today
D1110 Prophylaxis	○	○	○
D1351 Sealant(s)	○	○	○
DENTAL HOME	○	○	○

FAMILY CARE	D1120 Child Prophylaxis	D1206 FV (Ages 0 to 3)	D1206 FV (Ages 3 to 16)
	#	#	#

MATERNAL AND INFANT ORAL HEALTH INITIATIVE

NAME:_____ DATE: _____

What is YOUR date of birth?	Are you part of a "Centering Pregnancy" program?	What is your CHILD'S expected birthdate (due date)?
_____ / _____ / _____	○ Yes ○ No	_____ / _____ / _____

DURING A NORMAL DAY…	Yes	No
Do you drink juice or sugary drinks or eat sugary snacks between meals?	○	○
Do you brush teeth twice daily with a fluoride toothpaste?	○	○
Do you use tobacco products?	○	○
ABOUT YOU		
Is this your 1st pregnancy?	○	○
Do you currently have any pain in your mouth or your teeth?	○	○
VISITING THE DENTIST		
Have you ever visited a dentist for pain or cavities?	○	○
Have you had any cavities, fillings, or teeth pulled during the past year?	○	○
Have you seen any changes (white or brown spots or holes) on your teeth in the past year?	○	○

STOP! STOP! STOP! ***Your hygienist will do the rest!*** **STOP! STOP! STOP!**

D0191 ASSESSMENT

CARIES RISK	High	Moderate	Low
	○	○	○
	Gingivitis Risk	Periodontal Disease	Infection Risk
	○	○	○
SINCE MOM'S LAST VISIT	New Extraction(s) #	New Fillings #	New Cavities #
TRIMESTER (Circle One)	1ST	2ND	3RD

If post-partum visit, write in baby's name and DOB

CHILD'S DOB:

CHILD'S NAME:

PREVENTION

	FOOD	DRINK	BRUSH WITH FLUORIDE
Patient Education	○	○	○

INTERVENTION

	Before Pregnancy	Last Visit	Today
D1110 Prophylaxis	○	○	○
D1351 Sealant(s)	○	○	○
DENTAL HOME	○	○	○

FAMILY CARE	D1120 Child Prophylaxis	D1206 FV (Ages 0 to 3)	D1206 FV (Ages 3 to 16)
	#	#	#