A **VIBRANT** APPROACH TO EARLY CHILDHOOD CARIES IN CHILDREN OF MIGRANT FARMWORKERS

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LEARNING OUTCOMES

- Identify barriers faced by migrant children in accessing oral health care
- Discuss innovative strategies that overcome barriers faced by migrant children in accessing preventive services, evaluation by pediatric dentists, and treatment for early childhood caries
- Demonstrate the use of videoconferencing and intraoral cameras as a means of dental telepresence for improving access to evaluation and treatment of oral health disorders in children
- Review the role of the patient centered medical/dental home and its team approach of integration of care managers, community health workers, medical and dental providers within the primary care setting
- Demonstrate a model replicable in other underserved populations
- Founded in 1989 to serve agricultural workers
- Primary care network of 8 Article 28 FQHCs
- ½ of patient encounters in 2010 provided to migrant community
- Dental program supported by federal and state funders
FARMWORKERS WE SERVE

- Population size: 10,000
- Barriers to care
- Children in agribusiness child development centers (ABCDs)
EARLY CHILDHOOD CARIES IN MIGRANT CHILDREN

- Early onset & increased severity due to cultural feeding practices

- Prevalence

Migrant > Underserved urban > US general population
PROXIMITY TO METROPOLITAN CENTERS

- 35 miles
- 50 miles
- 55 miles
- 60 miles
- 110 miles

Map showing distances from various cities to Rochester, NY.
A VIBRANT APPROACH TO EARLY CHILDHOOD CARIES
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Videoconferencing

Intraoral cameras and teledentistry

Bilingual / bicultural community health workers

Remote care using mobile dentistry

Access to pediatric dentists

New partnerships / NCFH

Telepresence for consultation, distance learning, and treatment planning
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BILINGUAL AND BICULTURAL STAFF
COMMUNITY HEALTH WORKERS

Outreach

Insurance Access

Transportation

Language/Cultural Interpretation

Pediatric Dentistry Access

Education

Relationships = Trust
CARE MANAGEMENT

- Network of community health workers
- Monthly case conference via videoconference
- Communication with ABCDs
DENTAL + MEDICAL HOME
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FINGER LAKES COMMUNITY HEALTH MOBILE DENTAL PROGRAM
Migrant Health Care
Project Mobile Dental Sites

Finger Lakes
Community Health
FQHCs

Eastman Institute
for Oral health
Utilization of the Mobile Dental Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Users</th>
<th>Encounters</th>
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<tbody>
<tr>
<td>2008</td>
<td>1141</td>
<td>1792</td>
</tr>
<tr>
<td>2009</td>
<td>1340</td>
<td>1994</td>
</tr>
<tr>
<td>2010</td>
<td>1870</td>
<td>3840</td>
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TRANSPORTING EQUIPMENT
EQUIPMENT FOR MOBILE DENTISTRY
EQUIPMENT FOR MOBILE DENTISTRY
SERVICES PROVIDED BY THE MOBILE DENTAL PROGRAM

- 1,845 Oral examinations
- 1,350 Dental prophylaxes
- 1,870 Oral hygiene instructions
- 571 Sealants
- 1,328 Topic fluoride applications
- 413 Restorative services
OUTCOMES OF MOBILE DENTISTRY

- Chart Review: 2003-2011
- 158 patients
- Sites: Lake Ontario ABCD, Red Creek ABCD, Migrant Summer Schools in Sodus, North Rose, and Red Creek
- 77% who had 2 consecutive years of preventive care remained decay free for remainder of preschool years
A VIBRANT APPROACH TO EARLY CHILDHOOD CARIEST

V - Videoconferencing
I - Intraoral cameras and teledentistry
B - Bilingual / bicultural community health workers
R - Remote care using mobile dentistry
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# Types of Teledentistry

<table>
<thead>
<tr>
<th></th>
<th>Store and Forward</th>
<th>Videoconference</th>
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</thead>
<tbody>
<tr>
<td><strong>Pro</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Scheduling</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Image quality</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Interactions with patient and family</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>On demand request for more information</td>
<td>*</td>
<td>*</td>
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<tr>
<td><strong>Con</strong></td>
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TELEDENTISTRY

Store and Forward
Digital Images

Sometec, Inc.
Intraoral Camera
TELEHEALTH PROGRAM DEVELOPMENT

FINGER LAKES COMMUNITY & MIGRANT HEALTH HIT INFRASTRUCTURE DEVELOPMENT

USDA - DLT

HRSA
Rural Network Development

FCC
Rural Healthcare Broadband Project

NYS DOH
Office of HIT
VIDEOCONFERENCING EQUIPMENT

Sometec, Inc.
Intraoral Camera

TANDBERG
Videoconferencing Units
USES FOR TELEDENTISTRY

- Screening
- Exams
- Urgent Care
- Specialty Care Consults
- Pre- and Post-Operative Care
- Follow Up
- Distance learning
COLLABORATORS IN THE TELEDENTISTRY PROGRAM

Finger Lakes Community Health

Eastman Institute for Oral Health

Agribusiness Child Development Centers
DEVELOPMENT OF THE TELEDENTISTRY PROGRAM

- Contracts
- Credentialing
- HIPAA/Consents/Authorization
- Referrals
- Scheduling/Appointment Management
- Pediatric Dental History & Exam
- Documentation
- Billing
- IT Network Engineering
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EASTMAN INSTITUTE FOR ORAL HEALTH

- Postgraduate training programs
- Accredited by the Commission on Dental Accreditation
- 3rd in NIDCR funding to Dental Institutions, FY 2010
- >100,000 patient visits annually with majority underserved
PEDIATRIC DENTISTRY

- Postgraduate training program
- Medical Center site: Eastman Dental Center
- 3 SMILEmobiles and 1 school based site
- Hospital service at Golisano Children’s Hospital at Strong
- ~85% New York State Medicaid or Child Health Plus
- Education, research, and community service
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REAL TIME TELEPRESENting
A RELAXED ATMOSPHERE
PEDiatric DENTISTRY CONSULTATION USING VIDEOCONFERENCING

- Compile medical history
- Assess child behavior and temperament
- Observe child’s response to surroundings and non-invasive oral procedures
- Assess parental style
- Discuss findings with family
- Plan future treatment with behavior guidance
- Arrange support from community health workers
BEHAVIOR GUIDANCE STRATEGIES

- Non-pharmacologic strategies
  Tell show do, positive reinforcement, modeling, imagery, desensitization, voice control, parental presence
- Nitrous oxide / oxygen inhalation
- Minimal oral sedation
- General anesthesia
  - Hospital
  - Surgery center
PROGRAM OUTCOMES, 4/2010-10/2011

66 Consults

- General Anesthesia: 35
- Nitrous Oxide: 25
- Local Anesthesia: 1
- Oral Sedation: 1
- Orthodontics: 2
- Lost to Follow-up: 1

Total: 66
OUTCOME DATA

- Mean days to teleconsult = 27
- Mean days to operating room = 126
- Mean days to first nitrous oxide appointment = 60
- No show for nitrous oxide appointments = 17%
- Mean miles saved due to teleconsult = 79
  - Total miles saved = 5,662
- Mean minutes saved due to teleconsult = 90
  - Total minutes saved = 5,890
PRODUCTIVE APPOINTMENTS

- Local Anesthesia Only: 2
- Oral Sedation: 1
- Nitrous Oxide: 3
- General Anesthesia: 1

Total Productive: 35
Total Failure: 6

92% Productive
LEVERAGING HIT

Distance Learning
LEVERAGING HIT

Electronic Health Records
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