Overview

- Background: Oral health in American Indian communities and local oral health needs
- Development and implementation of Head Start dental programs
- Development and implementation of school-based dental programs
- Discussion

Early Childhood Caries (ECC) in American Indian Communities

- ECC: The presence of one or more decayed, missing (due to decay), or filled tooth surfaces in any primary tooth in a preschool-aged child between birth and 71 months of age
- Nationally, prevalence and severity of ECC is higher among American Indian children than in the general population
- ECC places a high burden on insurance, IHS, Medicaid, tribal programs, and families
- Severe ECC: $2,000-$8,000 per child

Local factors influencing children’s oral health

- 47% of Menominee County children in poverty
- Limited access to fluoridated water in small outlying communities
- Limited access to preventive care
- Low utilization of existing preventive resources


Menominee Tribal Clinic

Keshena, WI

Populations served is about 8,500

We are 45 miles NW of Lambeau Field

Menominee County/Reservation Schools:

- Two Head Start centers
- One primary school grades 4K-5
- One middle school grades 6-8
- One high school grades 9-12
- One Tribal School (BIA) grades K-8


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Baseline Data – Decay Prevalence

Dental care in school breaks down social inequalities

“A new global survey conducted by the University of Copenhagen and the World Health Organization documents how dental care in the school environment is helping to assure a healthy life and social equity – even in developing countries. But there are still major challenges to overcome worldwide.”

Development of Head Start Oral Health Programs

- Began as Tribal Clinic performance improvement project
- Overall goal: reduce the prevalence of untreated decay among Head Start patients to 31%

Development of Head Start Programs: IHS Best Practices, Birth-5 years

- Assess children for decay when first teeth erupt or by 12 months and yearly thereafter
- Prevention through topical fluoride varnish and brushing with fluoride toothpaste
- Educate families about healthy dietary behaviors, the benefits of fluoride, and prevention measures
- Collaborate with providers to provide necessary treatment

Head Start Program Development

- 1990’s: 3 & 4 year olds- bused daily to clinic for prophylaxis, fluoride, x-rays, exams and operative treatment
- 2001: Stopped daily operative treatment and provided exam, x-rays, prophylaxis and fluoride at Tribal Clinic 2 times per year
- Increase hospital treatment
- 2002: Fall screening at Clinic with 3 fluoride varnish treatments at Head Start
- Started 0-5 Fluoride Program

WIC, Medical, Daycare, H.S. Centers
Head Start screenings completed

Number of children screened, by age

Untreated decay trends

Proportion of children ages 3-5 years with untreated decay

*Odds of untreated decay significantly lower than in 2001 (p<0.05)

Decay Experience Trends

Proportion of children ages 3-5 years with decay experience

*Odds of decay experience significantly lower than in 2001 (p<0.05), controlling for age.

Decay Severity Trends

Mean DMFT and teeth with untreated decay among children ages 3-5 years

Significant downward trend for DMFT (p=0.011) and teeth with untreated decay (p=0.004), controlling for age.

Decay severity trends

Proportion of children ages 3-5 years with >5 DMFT

Significant downward trend, controlling for age (p=0.031)

Community Outreach

- WIC
- Medical-Well Child Visits
- Daycare Center
- Early Head Start/Head Start
- County-Birth to 3 Program
- 3 Schools (K-8)
- Health Fairs
Patient Encounters, Ages 0-5 Years

School-based programs - Background

- **Problem**: Limited follow-up with children beyond Head Start programs
- **Broad goal**: Improve access to care and oral health outcomes for older children
- **Action steps**: Implement screening and sealant programs in local elementary school

School Program Development

- **2008**: Applied for Mobile Dental Clinic
- **2009**: Collaborated with school district/Bridges out of Poverty program for dental clinic in elementary school
- **Hired a Dental Hygienist**
  - Keshena Primary School-(4K-5) 415 students
  - 180 School Days
Services Provided

- Oral screening by hygienist
- Prophylaxis
- Fluoride varnish treatment
- Bitewing X-rays
- Sealants
- Oral hygiene instructions
- Exam by dentist

School Programs Expansion

- 2010-Tribal School (K-8) 200 Students
- 2011-Middle School (6-8) 150 Students
- 2014-First Impressions Pediatric Dentists

Advantages

- No canceled or broken appointments
- Children not missing a day of school for a cleaning
- Parents do not have to take off work
- Increased access to preventive care
Sealants Present among Elementary School Students

Proportion of students with untreated decay

Sealants Present, 3rd Grade Students

Untreated Decay, 3rd Grade Students

Successes of Head Start and School Programs

- Some decreases in untreated decay rates
- Decreasing decay severity among Head Start students
- Higher rates of dental sealants among elementary students
- Improved access to preventive dental care
Continued Challenges

- Unable to provide restorative care onsite
- Difficulty ensuring follow-up for restorative care
- Continued need for parent education

Lessons Learned

- Need to continuously assess and reevaluate efforts
- School & community partnership and support is crucial
- Achieving and maintaining improvement is difficult and requires long-term commitment

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