



Child & Adolescent Oral Health Intervention

Presenter Disclosures

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The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“No relationships to disclose”

Presentation Objectives

Building an Oral Health Program:

- 1) Conceptualizing the Problem
- 2) Collaboration as a Process
- 3) Evaluation Data

Henry Ford Health System is a Leading Provider of Pediatric Services

Henry Ford Health System (HFHS) has:

- 18 outpatient pediatric clinics throughout metro Detroit
- 10 school-based health centers
 - 9 in Detroit and one in Warren
- Two inpatient pediatric units at:
 - Henry Ford Macomb Hospital
 - Henry Ford West Bloomfield Hospital

Henry Ford Health System School-Based & Community Health Program

- 1991: HFHS opened its first school-based health center
- 1994: the program expanded with funding from the Kellogg Foundation, HUD, Kresge Foundation, Comerica, and others
- 2009: HFHS currently operates 10 school-based/school-linked health centers

National Oral Health Disparities

- Tooth decay is the most common chronic disease of children aged 5 to 17 years – 5 times more common than asthma (59% versus 11%) (U.S. Department of Health & Human Services)
- Due to poor access to care, low-income children often do not receive dental care at the levels recommended by the American Academy of Pediatric Dentistry
- The level of untreated dental caries among African American children aged 6 to 8 years (36%) and Hispanic children (43%) is greater than for white children (26%) (U.S. Department of Health & Human Services)
- Children lose approximately five million school hours each year due to dental illness and pain (U.S. Department of Health & Human Services, 2000)

Detroit Demographics

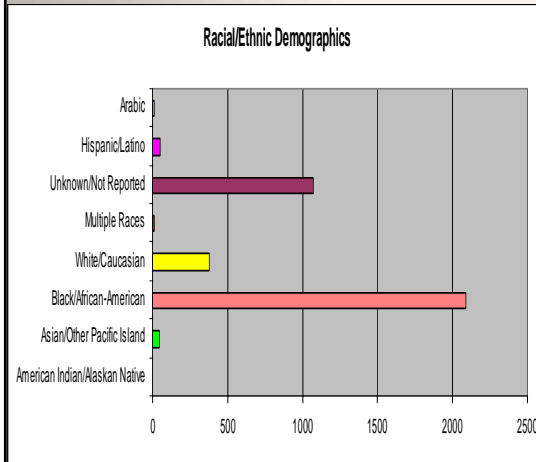
Detroit statistics based on the 2006 American Community Survey:

- 44% Detroit children are living in poverty; of those, 45% have a female head of household.
- Approximately 44% of grandparents are responsible for raising their grandchildren
- The number of children ages 10-14 years who live in Detroit is 77,006, or 9% of the total population
- 22% of residents do not own a vehicle. Detroit is the only major metropolitan area in the U.S. without a strong public transportation system.
- The city is 83% single race black, 10% white, 7% other
- Students receiving free or reduced lunch total 114,025 or 70% of the student population; the state of Michigan average is 27%

Access to Care for Children In Detroit

- School-based/community health centers (SBCHC), represent an opportunity to provide health care to underserved and vulnerable populations of children.
- In Detroit, many children neither see a physician/dentist at recommended intervals nor receive needed treatment for episodic/chronic health or dental problems.
- Difficulties confronting these mostly low-income children are made worse by the increased health problems associated with poverty, the urban environment and barriers children from poor families experience in securing care.
- Low-income children have up to three times the usual incidence of common illnesses, many of which are preventable if caught early. Such challenges are exacerbated in Detroit, the poorest American city, where 48% of children live in poverty (The Detroit Free Press, 2005) and nearly 60% of the population's income is below the 200% federal poverty level (Detroit Health Care Stabilization Workgroup, 2003).

School-Based Program Demographics



- Total visits in 2008: 8,008 students visited the clinic at least one time
- Male patients: 45%
- Female patients: 55%

Targeted Schools

- Seven Urban Detroit Schools serving students from Kindergarten to 8th grade:
 - Bethune Academy
 - Cerveny Middle School
 - Durfee Elementary School
 - Hutchins/McMichael School
 - Stewart Learning Academy
 - Thirkell Elementary School
 - White Elementary School



Oral Health Need by School

Percent of:	Bethune	Cleveland	Durfee	Hutchins	Sherrard	White	Thirkell	Ave.
Untreated decay	56.7	60.9	62.3	63.0	72.3	69.6	73.9	65.5
Urgent dental needs	15.0	7.8	13.2	9.3	15.6	12.0	8.9	11.7
Early dental needs	40.0	60.9	52.8	57.4	59.4	68.2	63.0	57.4
Treated or untreated decay	58.3	73.4	71.7	68.5	78.5	75.8	74.6	71.5
Sealants present	35.0	29.7	51.9	42.6	43.1	30.4	28.3	37.3

N=631 students; screened between 2006 and 2007

Establishing a Partnership



University of Detroit-Mercy
School of Dentistry

- Since 2005, HFHS SBCHP has had an existing school-based oral health program with Children's Hospital of Michigan Dept. of Pediatric Dentistry
- In 2007, HFHS SBCHP and University of Detroit Mercy School of Dentistry (UMD SD) began the development of a collaborative, school-based oral health program
- Decision was made to provide oral health services through a mobile oral health program
- This relationship serves both organizations well: HFHS does not deliver pediatric dental services and UDM SD has a history of seeking opportunities to deliver community based pediatric dental services.



Program Objectives

- Increase oral health prevention through the delivery of primary care and oral health education
- Reduce oral health disparities through the provision of a dental sealant program
- Establish a “dental home” for students and families
- Ensure restoration of active disease



Program Development: Dental Hygienists' Role

- School of Dentistry employed a team of three licensed BS Degree, PA 161 dental hygienists with faculty status; salaries funded by grants, (two 4 day and one 3 day adjunct contracts); bound by UDM faculty performance guidelines
- Collaboration is made up of UDM SD Department of Pediatric Dentistry, Clinic Administration Information Technology staff, Dental Hygiene faculty and Henry Ford Health System SBCHP staff
- Four day adjunct faculty teach ½ day per week in dental hygiene clinic, enter data in axiUm electronic health record ½ day per week
- Preventive care provided three days per week in designated schools within school based health care center; remotely supervised by UDM faculty



Program Development: Oral Health Coordinator Role

- Communicate and collaborate with school staff and HFHS clinic staff
 - Ensure clinic/school space for service delivery
 - Market program to school and parent community
 - Liaison from HFHS/UDM Oral Health Program to SBCHP staff, school staff, and parent community
 - Ensure smooth transition from school to school



Program Development: Follow up Care

- Program coordinated by an Oral Health Coordinator employed by HFHS
- Restorative care provided in UDM's School of Dentistry Pediatric Clinic and University Health Center
- Urgent, emergency dental needs are identified and addressed immediately



Program Development: Funding & Billing

- Procedures billed by School of Dentistry personnel utilizing axiUm
- Grant writing/reporting, funding efforts and development of internal communication systems completed by HFHS SBCHP team and UDM SD
- Medicaid Outreach is accomplished by HFHS staff

Program Implementation

- First day of patient care April 16, 2008
- Hygienists in schools 3 days a week
- Provide care at one site; when completed move to next site
 - ~ 3 months at each school
- Utilize 2 mobile operatories
- 3rd hygienist acts as “practice manager”
- Oral Health Education
 - Administer pre-test
 - View age appropriate oral health videos
 - Administer post-test following service delivery
 - Establish change in knowledge



Role of the Dental Hygienists

- Verify consent
- Verify/obtain insurance
- Provide preventive care
 - Oral Health education
 - Screening for dental needs
 - Prophylaxis
 - Sealants
 - Fluoride varnish
- Code child's degree of oral health severity
- Based upon child's need refer to UDM SD



Role of the Oral Health Coordinator

- Work with families/agencies regarding access, barriers and education relating to child's oral health needs
 - Parent contact to ensure continuity of care
 - Address barriers (i.e. transportation, navigation of health care system)
 - Raise awareness of the importance of oral health to parents
- Prepare reports, assist in grant writing as directed by HFHS SBCHP



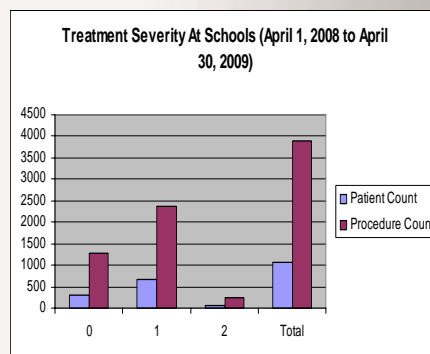
Follow Up Care

- Citrix: Web-based tool allows all staff (UDM, HFHS) to communicate effectively re: student follow-up
 - Hygienists enter screening and patient contact information
 - UDM SD schedulers update web-based as restorative care appointments are scheduled
 - Oral health coordinator updates information as parent contact is established
- Oral health coordinator contacts parents/guardians if restorative appointment has not been made following 2 weeks after referral
- Oral health coordinator attempts to contact parents/guardians 3x, if unsuccessful, send letter home



Current Data

- Over 275 sealants placed
- Hygienists have serviced over 1,055 children since April 2008
- Over 3,891 procedures performed
- More than 740 children were identified as needing restorative care



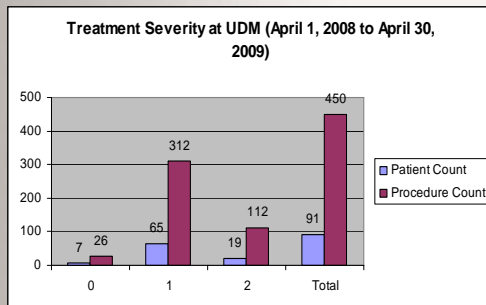
0=No cavities, regular check up

1=Cavities found, restorative care required

2=Fistula present, emergency care required



Current Data



0=No cavities, regular check up

1=Cavities found, restorative care required

2=Fistula present, emergency care required

- Over 350 restorative appointments were scheduled at UDM SD
 - 154 appointments were cancelled or no-show
 - Lack of transportation, time off from work are parental barriers
- Over 450 restorative procedures performed at UDM SD
- 13% of students requiring restorative care received services at UDM



Program Strengths

- Increased access to care for:
 - Preventive services provided for children
 - Sealants placed
- Increase in oral health education and literacy
 - Patient
 - Parent
 - Teacher
 - School-Based Health Care Medical Team
- Creation of a dental home
 - Increased restorative care for children



Benefits of Service Delivery in a SBHC Setting

- Working within an established health clinic:
 - Creates a holistic approach to addressing child's medical, dental and mental health needs
 - Parents trust the school clinic personnel
- Oral health care is delivered within a familiar, trusting environment
- Increased Medicaid Outreach and enrollment
- Increases parent and student value for oral health services when delivered within the SBHC



Program Challenges for HFHS SBCHP

- Parents' lack of dental knowledge and the importance of oral hygiene
 - Myths and beliefs about baby teeth
- Mobile population
- Transportation barriers
- Communication
 - Literacy and language barriers
- Provider fatigue
 - Hygienists see ~14 children per day
- Continued funding of the program
- Lack of space in the schools



Program Challenges for UDM SD

- Mobile vs. stationary units
- Equipment/supply security
- Reimbursement rate of services provided
- Timely reimbursements from Medicaid
- Dedicated internal personnel to build and sustain program infrastructure



Current Funding Sources

- Michigan Department of Community Health (MDCH), Division of Oral Health Services
- Blue Cross/Blue Shield Foundation of Michigan
- Henry Ford Health System (In-Kind)
- University of Detroit Mercy School of Dentistry (In-Kind)



Next Steps

- Reduce transportation barriers
 - Bring restorative services to the child while at school
 - Obtain a mobile van to provide onsite restorative care
- Create an established and trusting relationship with parent
 - In doing so, increase parent oral health knowledge and follow through



Next Steps

- Building relationships with a community clinic: Covenant Community Care (FQHC)
 - Develop pilot program for delivery of needed oral health services to high school students
 - Would enhance Medicaid outreach
 - Services would be reimbursed at a higher rate
 - Would increase the delivery of restorative care
 - May reduce transportation barriers because clinic is located in the community



Sustainability

- Continue grant writing to foundations
- Access federal oral health dollars to the State of Michigan
- Develop community partnerships with FQHC's



Delivery of Restorative Care

- Access funding for a mobile oral health van
- Reposition dental students into the school-based health center
- Seek additional funding for family transportation to restorative care appointments



Questions?



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