### Expanding oral health access: Innovative Nursing-Dental Service Learning in School Health Centers

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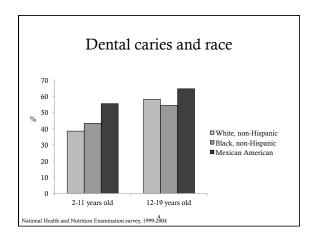
### Need for oral health care

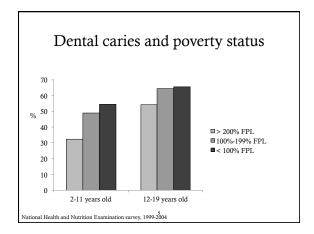
- Dental caries is the most common infectious disease in childhood
- ullet 42% of children from 2 to 11 y/o
- ullet 50% of children from 12 to 15 y/o
- Largest concentration of caries in children living in low income families



(CDC, 2011)

# Dental Caries Agent = Bacteria -Strop mutans -Lactobacilli Host = Teeth Substrate = Sugars C -Age -Fluoride exposure -Morphology -Nutrition -Carbohydrate type





# Oral health inequities

- 14 million low income children did not see a dentist in 2011
- $\bullet~42\%$  of uninsured children did not see a dentist within the past year
- Poor children have twice the rates of untreated dental caries as higher income children
- ♦ Rates of untreated caries in African American children 12 to 17 years of age increased in 2009-2010

 $\underline{http://www.childstats.gov/americaschildren/care4.asp\#hc4a}$ 

# National shortage of pediatric dentists

- $\bullet$  Prevalence of pediatric dentists nationally is 3.95/100,000 population
- ♦ Pediatric dentists treat a higher proportion of children on Medicaid/CHIP
- As more children are covered under the ACA, the demand for pediatric dentists will increase

http://www.aapd.org/assets/1/7/2012 Childrens Oral Health Legislative Issues.pdf

# Primary Care knowledge gap in Oral Health Care

- Primary care providers lack competence in performing oral health assessments
- Hesitant to incorporate oral health care into routine well child visits
- Frequent primary visits offer opportunity for oral health assessment and education to improve health outcomes



(Golvineaux et al., (2012), Talib (2011)

# Role of Nurse Practitioners & Oral Health

- NPs can increase access to oral health care services by implementing a standard of evidence-based practice including:
  - oral health assessment
  - preventive services
  - Timely referrals beginning in first year of life through adolescence
- NPs can enhance the dental workforce to improve oral health outcomes in children and adolescence

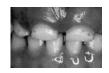
Hallas & Shelley (2009)

# Comprehensive caries prevention in primary care

- lacktriangledown Oral health risk assessment by 1 year of age
- ullet All children should establish dental home by age 1
- Most urgent for referral are those with:
  - Sleeping with a bottle/BF throughout night
  - Maternal caries and poor oral hygiene
  - ♦ Low income families
- Oral health education on modifying intake of sugary snacks, frequent snacking, oral hygiene
- ♦ APPLY FLUORIDE VARNISH

# Check for Early Signs of Decay: White Spots









### Check for Later Signs of Decay: Brown Spots









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### What is fluoride varnish?

- ♦ Fluoride in a resin/synthetic base in high concentration brushed on teeth to maintain prolonged contact with enamel-5% NaF (22,600 ppm F)
- Fluoride varnish has not been associated with fluorosis
- Can be applied by any clinic personnel after brief training



# Oral health & early adolescents

- Mixed dentition new adult teeth emerging – important to protect for lifelong health
- Important time to modify caries risk behaviors
- Early adolescent focus on appearance can add to motivation



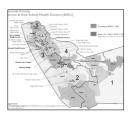
Edsource.org

# Caries Risk Factors in Adolescents

- Inadequate access to fluoride (especially topical fluoride)
- · Poor oral hygiene
- Frequent access to sugars and acids (soda and sour candy)
- · Previous caries experience
- · Reduced salivary flow

# UCSF Elev8: an academicpractice partnership

- ◆ Three year grant to UCSF Schools of Nursing & Dentistry to increase sustainability in 5 middle school SHCs in a medically underserved area of Oakland, CA
- On site medical, dental & behavioral health



Funded by Atlantic Philanthropies

# UCSF Elev8: an academic-practice partnership

- ♦ Faculty practice at SHCs
- Technical assistance, sharing best practices between clinics
- Innovative servicelearning projects for nursing & dental students



# Interprofessional training

- Dental faculty trained PNP & FNP students in oral health assessment, enhanced caries prevention & fluoride varnish
  - ♦ Varnish practice in skills lab
- NP faculty trained dental students in motivational interviewing
- Joint dental & NP student participation at screenings



Elev8 screenings 2012

# Interprofessional practice



- Partner with 2 FQHCs for mass billable screenings including oral health
  - Use dentist to screen (highest billing) w/ student observation
  - NP & dental students for history taking & fluoride varnish
  - If even 10% of children Medicaid eligible, screening is sustainable [NAHC/SBHA]

NP & dental student applying fluoride varnish at a SHC screening, Fall 2013

# Doing a dental screening:

- Ask patient for any existing pain or discomfort in their mouth
- Look inside the mouth for any active decay or restoration
- Rating based on level of decay & discomfort



http://ufasda.com

# Oral health screenings 2012-2013

- 14 NP students assisted with screenings at 5 HS through NAHC in 1 week
  - 1548 students screened
  - 1408 varnished
  - 16% identified with urgent oral health needs & referred
- Twice as many received fluoride varnish as in prior year without student help
- Over 150 NP & dental students have participated in Elev8 activities

  - activities

     50 dental students involved in screenings

     Many oral health screenings combined with Get Yourself Tested campaigns

     Variable rates of mass fluoride varnish

# Importance of SHC screenings

- ♦ Increase in access, continuity,
- Focus on prevention and oral hygiene
- Opportunity for oral health education and formation of early positive health habits including routine dental visits
- Decreased anxiety around experience of dental visits in SBHC

# Value for students of experience

- Confidence in oral health assessment, fluoride varnish by concentrated practice on older children
- Broader understanding of oral health
- Social determinants of health
- ullet Students eager for interprofessional experiences

### Lessons learned

- Challenges of truly doing interprofessional education
  - Schedules
  - Mixing pre-licensure dental students & post-licensure NP students
  - Parallel vs. truly integrated
  - Some students need more preparation than others to enter community settings
- Mass screenings are a Win-Win intervention for both clinic sustainability and concentrated student learning

# Questions?

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- References on request