

# The Role of Public Health Nurses to Improve the Dental Health of Low Income Urban Mothers and their Offspring



No child needs to die from an  
abscessed tooth  
(No more Deamonte Driver's in our  
nation)

# Philadelphia Nurse-Family Partnership Public Health Nursing Team

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# Missed Opportunity



To make a difference

To promote one of life's precious  
natural resources

To save lives

# 21<sup>st</sup> Century Missed Opportunity: Holistic Health Care

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- Physical Health
- Mental Health
- Dental Health

Strategies to limit access, care and comprehensive care?

Somebody else's business/responsibility...

August 29, 2005 *The New Yorker*  
“*The Moral-Hazard Myth*” article by Malcolm  
Gladwell

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- Uninsured in America Harvard researchers  
Susan Starr Sered & Rushika Fernandopulle  
Interview findings:
  - 1) Most chronic complaint - bad teeth
  - 2) Self care of rotten teeth
    - a) pliers
    - b) let break off and then pull out
    - c) cover mouth with hands when talking
  - 2) Universal health insurance
    - a) first priority “...get my teeth fixed.”

# Health Disparities and Access to Health

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- JAMA, March 14, 2007 – Vol. 297, NO. 10
  - Authors: Nicole Lurie & Tamara Dubowitz
    - “Racial and ethnic minorities – populations who are more likely to be poor, have lower educational levels or both – are fundamentally at greater risk of ill health than their nonminority, nonpoor, better educated peers.
    - Health care and social factors associated with such disparities relate directly to access to care and ...to better health

“Many children do not receive recommended well-child visits during the year, especially disadvantaged children”

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- February 2007: Number 381, Page 8
- Agency for Healthcare Research and Quality
  - Thomas Selden, PhD of AJRQ
    - On average, 56.3 % of children up to age 18 years had no well child visits in 12 month period
    - On average, 39.4% had no well child visit over 2 year period
    - Low levels of compliance
      - Uninsured children
      - Teenagers
      - Noncitizen children
      - Children in West and East South Central and Mountain regions



# Poor Oral Health is Linked to Deadly Pancreatic Cancer

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- January 27, 2007
- Wall Street Journal, Personal Journal, D1
  - Harvard study by Dominique Michaud and others
    - Found powerful link between poor gum health and pancreatic cancer
    - Study is the latest to show the health of one's mouth, teeth and gums have powerful impact on overall health.
    - Gum disease is linked with pregnancy problems, heart disease, stroke and diabetes.
    - 35% of adults have some form of gum disease

# *Business Week* Special Report: May 21, 2007

## “The Poverty Business” Authors: Brian Grow & Keith Epstein

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### □ Working poor

#### ■ Bad decisions

- Credit Cards
- Car Loans
- School Loans
- Mortgages

#### ■ Lack of sophistication: Did not do homework and pay through the nose

#### ■ Perpetual cycle of debt

### □ Consequences

#### ■ Personal bankruptcy....as well as health bankruptcy

- “..postponing nonessential expenditures such as fixing badly chipped front tooth”



# Business Week List: Companies selling high priced products to the poor

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- J. D. Byrider Systems
- Jackson Hewitt Tax Services
- BlueHippo Funding
- Compucredit

# Dental health begins before birth and lasts a lifetime

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# So what happens in between?

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# Disparate Access

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- Health Care Coverage
- Health Care Access
- Value
- Experience
- Education

# History of Deamonte Driver's Death on Sunday, February 25, 2007

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## □ Newspaper headlines

- For want of a dentist
- Killed by a cavity
- Boy's death fuels drives to fund dental aid to poor
- A boy's death: How could a toothache have such a tragic outcome?
- Abscess can be a fatal infection

# Twelve year old dies

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- Family lost Medicaid
- Living in shelter
- Younger brother 6 rotten teeth
- Deamonte's Toothache
  - Tooth abscess
  - Infection jaw to brain
  - 2 operations
  - 6 wks in hospital
  - \$ 250,000





# Deamonte Driver Dies

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# Questions?

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- ❑ Do you know what the dental health needs of your clients are?
- ❑ Do you want to know the dental health needs...?
- ❑ Do you have on site resources?
- ❑ Do you know community resources?
- ❑ And do you think your clients will use the resources?



# Philadelphia Nurse-Family Partnership 2006-2007 Dental Health Questionnaire and Teaching Tool

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- Built on the Nurse-Family Partnership goals of
  - Healthy Pregnancy
  - Healthy Baby
  - Healthy, Economic Self Sufficient Family
- More than 355 active NFP participants at any one time with concomitant number of offspring
  - Only 1 question in NFP data base on dental health
  - No longitudinal data about mothers-to-be and parenting mothers knowledge of and access to dental health and/or how to care for their babies teeth

# Highlights: Dental Health Questionnaire and Teaching Tool

N=123

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- Dentist in emergency
  - Last time saw dentist
  - Medical card accepted
  - Dental needs now
  - Frequency of brushing teeth
  - Frequency of flossing
  - Plan to care for baby's teeth
  - Concerns
- “My medical provider has talked with me about my dental health and how to take care of my baby's teeth when they come in.”

# Dental Health Tool

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- June 2006 and ongoing
- At will Nurse Home Visitor Administration
  - In home
  - Telephone Conference
- Participant Self Report
- September 2007
  - 355 participants
  - 123 completed tools

Response:35%

Still ongoing and can be used one or more times throughout the 30 months participant/baby in program

# Participant responses

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## □ Dentist in Emergency

- 33% could not identify dentist to see in an emergency

## □ Last Time Saw Dentist

- 33% had not seen dentist in two or more years
- 66% seen dentist within 12 months
- 1% never had dental visit or could not recall date

# Participant responses

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## □ Medical Card Accepted

- 30% said no or did not know

## □ Dental Health Needs Now

- 76% said they have dental health needs
  - Cleaning/Checkup
  - Cavity /Filling
  - Toothache
  - Wisdom Teeth
  - Chipped Teeth
  - Crown/Bridge
  - Extractions
  - Bleeding Gums
  - Braces
  - Everything

# Participant responses

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## □ Frequency of Brushing Teeth

- 92% one or more time a day
- 8%
  - When remember

## □ Frequency of flossing

- 90% do not floss or only do so if remember (n=111)
- 10% floss once or more times a day



# Participant responses

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## □ Plan to care for baby's teeth

- 100% said yes
  - But wanted to know when and how

## □ Concerns

- Care of own teeth
- Care of baby's teeth
- What to use
- How frequently

# Participant responses

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- Medical provider has talked to me about my dental health and how to take care of my baby's teeth when they come in.
  
- Best guess? \_\_\_\_\_

# Participants said....

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- 58% indicated that no health care provider in primary or prenatal setting had spoken with them about dental health
- 42% said someone had spoken with them about their teeth but not necessarily about care of their baby's teeth

# Philadelphia NFP Action Plan

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- Refine questionnaire and teaching tool
  - Include referrals and teaching in home strategies
  - Supplement teaching with tooth care resources
- Share existing dental health resources i.e. dental health clinics located in FQHCs
- Seek additional funds to focus more on dental health needs of low income women and children
- Share findings
- Advocate for enhanced dental health resources for low income groups

# Lessons Learned

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## □ Do not assume

- Primary care providers including prenatal providers emphasize dental health
- Families have toothbrushes
- Mothers floss and brush their teeth daily
- Mothers know how to access routine and emergency dental health resources for their families
- Mothers value teeth as a natural resource
- **Mothers do not care**

# Use Facts to Teach

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- ❑ Tooth decay is the most common childhood disease.
- ❑ See dentist early in pregnancy to have teeth checked. The biggest risk factor for the child is to active tooth decay in mother's teeth.
- ❑ Begin cleaning baby's teeth even before teeth appear, ideally about 3 to 4 months – use clean washcloth, gauze or infant/sleet toothbrush.
- ❑ More sugar baby gets the more likely mutans strep will grow on teeth.

# Use Facts to Teach

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- The first sign of a cavity is a white spot near gum line, catch cavity early and stop the infection before it spreads.
- Brush toddler's teeth daily.
- Help brush your child's teeth until age five.
- See the dentist when child is one – needs dental home too.

# Use Resources to Teach

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- “Spiffies” Baby Tooth Wipes with xylitol
- Xylitol is a naturally occurring substance found in fruits and vegetables. Scientific studies have found xylitol to be nutritionally safe and effective in prevention of cavities.
  - Five carbon shape



# Use Resources to Teach

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- Local
  - Philadelphia Citizens for Children and Youth Oral Health Resources for Children and Adolescents
  
- National: National Maternal and Oral Health Resource Center
  - <http://www.mchoralhealth.org>
  - Maternal Oral Health Resource Guide
  - Oral Health Resource Bulleting

# Replication

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- Add to Dental Health Questionnaire
  - Education
  - Supplies provided
  - Referral(s)
- Referral outcomes
- Incentives
- Participant Feedback
- Initiative by Public Health Nurses in NFP programs and other MCH projects



# Emily Dickinson Poem

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Hope is the thing with feathers

That perches in the soul,

And sings the tune without the words,

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And never stops at all.