Rethinking Oral Health Intervention:

Meeting Families Where They Are

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A little background…

- Associate Research Scientist
- PhD and MPhil in Behavioral Nutrition (2013)
- Registered Dietitian and NYS Certified Dietitian-Nutritionist (2010)
- MS in Nutrition Education (2009)
- Engaged in behavioral intervention research to reduce oral health disparities in children
Oral diseases remain a persistent problem...

**DENTAL CARIES**

Most prevalent chronic disease of U.S. children
- 21.4% of 2-5 year olds
- 50.5% of 6-11 year olds

**PERIODONTAL DISEASE**

Second most prevalent chronic oral disease
- 40-90% of the global population

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Caries disproportionately affects low-income and minority children

- Low-income children are more than 2x as likely to have an untreated dental cavity or pain.

- Children of recent immigrants have caries rates 3x higher and decay is often more severe.

- Hispanic and African American children have worse overall oral health and more severe decay, yet are half as likely to have a dental visit.

Oral Health Disparities and Inequity

• These disparities are not simply differences between populations. They represent *inequities* in health.

• Affect groups marginalized because of racial, ethnic, sociocultural characteristics, including:
  - socioeconomic status
  - race/ethnicity
  - sexual orientation
  - disability status
  - geographic location
  - gender

Health Equity as Social Justice in Health

Oral health is Essential for Overall Health

Poor oral health is associated with:

- Increased use of medical services
- Increased risk for chronic conditions, including heart disease and diabetes
- Lost work/school time and lost wages
- Reduced quality of life
- Limited employment opportunities
Drivers of Oral Health Inequities

• Limited access to dental care providers
  • Health Professional Shortage Areas (HPSAs)
• Lack of culturally and linguistically competent providers
• High cost of dental insurance and services
• Poor oral health literacy, limited knowledge of disease and prevention
• Limited access to transportation, childcare, paid time off
• Unhealthy food environments
  • Abundance of high-fat/sugar foods; limited fresh fruits/vegetables
• Competing demands – health, housing, social, legal challenges, etc.
• … and others
Traditional dental care plays an essential role in health promotion and maintenance

...but it isn’t the only, or even the best, approach for all
Determinants of Health

Source: “Lots to Lose: How America’s Health and Obesity Crisis Threatens our Economic Future,” Bipartisan Policy Center (June 2012); Derived from information from the Boston Foundation (June 2007)
Determinants of Health

- Biology & Genetics
- Education
- Physical Environment
- Culture
- Income & Employment
- Social Networks
- Health Services
- Individual Behaviors
- Income & Employment
- Health Services
- Social Networks
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Alternative, innovative intervention approaches are needed
Health begins long before we visit a doctor…
Rethinking Oral Health Intervention

Community-based Initiatives

- Community-based Organizations
- Community Health Workers
- Community Dental Health Coordinators
- Dental Health Aid Therapists

Health Equity

- Health Disparities
- Social Justice
- Reaching Underserved Communities and Vulnerable Populations

Care Delivery Models

- Brick & Mortar Clinics
- Mobile Units
- Teledentistry
- Mobile Technology

Clinical Workforce

- Dentists
- Physicians
- Allied Health Professionals

Reaching Underserved Communities and Vulnerable Populations

Health Equity

Community-based Initiatives

Care Delivery Models

Clinical Workforce
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to address Childhood Caries
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Typical Treatment for Early Childhood Tooth Decay

- Fillings
- Stainless Steel Crowns
- Surgical Extractions
Did you know?

Surgical treatment does *not* address the underlying disease process...

and results in a high failure rate

Photograph: Stuart Isett for The New York Times (March 6, 2012)
Current dental care alone is only a Band-Aid solution

Dentists, Payers, & Parents are all seeking a lower cost alternative with better health outcomes
Effectively Combating Caries

Need to address the two key mediators:

Daily Diet- & Fluoride-related Behaviors
Tooth decay can be stopped by fostering effective partnerships to increase understanding of the disease process and support action to reduce risk through daily diet and fluoride behaviors.
The CHW Connection

Community Health Workers (CHWs) extend the reach of healthcare providers.

- Are seen as peers, sharing cultural, linguistic, racial/ethnic backgrounds
- Meet people where they are, in home and community settings
- Provide health education
- Help families navigate complex health systems
- Provide an essential link to social services (housing, food, legal, insurance, etc.)
Rethinking Oral Health Intervention: Meeting Families Where They Are

- Better Health Outcomes
- Improved Patient Experience
- Lower Costs
Overarching Aim

To stop caries progression in affected children and reduce their risk of future decay
An iPad-based family-level intervention that:

- Seeks to eradicate early childhood caries
- Targets two primary disease mediators: Diet and Oral Hygiene
- Designed to be delivered by lay health workers in the community

https://vimeo.com/114512516

Password: smile
MySmileBuddy supports engagement between lay health workers and families through:

1. Parent Engagement, Education, and Training
2. ECC risk assessment (including dietary risk)
3. Individualized risk score analysis
4. Family-specific goal setting
5. Family-designed action planning
6. Wrap-around support
A few highlights from our experience…

- Innovation in mobile technology moves fast!
- Medicaid claims data for hospital-based dental care are often incomplete
- Clinical charting across sites is difficult to standardize
- Hiring, managing and retaining CHWs poses unique challenges
  - CBOs are unique in management and structure
  - Turnover is fairly common
- Difficult-to-reach target population
- Misconceptions about oral health and caries
  - Oral health vs. dental care
  - Sense of immediacy and concern often lower than other diseases
• Providers’ acceptance of disease management approaches
• Many families are interested and motivated!
  • High acceptance in clinics and Head Start centers
  • Over 1,200 children enrolled
• CHWs/CBOs are eager and ready for engagement!
  • Training was an eye opening experience
  • CHW feedback and input are invaluable!
  • Interest in scalability and ability to reach more families
• Project team collaboration, cooperation and communication
  • Effective problem solving
  • Creative solutions
“The mouth is the window to all the diseases of the body”

Oral Health in America: A Report of the Surgeon General

… but it’s not the only target for oral health intervention
Healthy People 2020 Definition

“…a particular type of health difference that is closely linked with economic, social, or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater social or economic obstacles to health based on their racial or ethnic group, religion, socioeconomic status, gender, age, or mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.”
Everyone gets the same thing vs. everyone gets the same opportunity

Equality doesn’t mean Equity