Dental Literature and Evidence on Social Determinants of Oral Health

National Oral Health Conference
May 2, 2012

Presenter
Anupama Rao Tate, DMD
Senior Policy Fellow
Children’s Dental Health Project
Why use a life course perspective?

• Life course Perspective
  – Time
  – Variation in determinants over time
  – Long term influences
  – Accumulation of protective factors
• Relationships between time and health
  – Fetal period- later life
Why discuss determinants of health?

• Dental services alone cannot assure oral health of children and adults

• Change in socioeconomic status is complex, but has the “greatest potential impact” to improve health

Frieden Framework

![Diagram of the health impact pyramid.](image-url)
Socioeconomics and Illness: Long Recognized

Example:

*Health and Ways of Living: The Alameda County Study*

*Authors: Berkman and Breslow (1979)*
Attempts to DEFINE “determinants” of health

• Ansari (2003)
  -Four major groups
• Rose (2005)
  -Causes of causes
• Wilkerson and Marmot (1998)
  -10 messages
• Bravemen and Gruskin (2003)
  -Key social determinants
  -Access to common needs
Literature on determinants of oral health prior to Year 2006

  - Psychosocial models predicting caries
  - Impact of inequality on dental caries
Literature on determinants of oral health prior to Year 2006

  - Higher DMFT

  - Followed a birth cohort

  - Life course approach
A current conceptual model: 2006

Fisher-Owens, Pediatrics 2007
A current conceptual model: 2006

Fisher-Owens, Pediatrics 2007
A current conceptual model: 2006

Fisher-Owens, Pediatrics 2007
Review of Literature

Fisher-Owens, Pediatrics 2007
Assessing the Fisher-Owens Model

• Bramlett MD, Soobader, M-J, Fisher-Owens SA. Community Dent Oral Epidemiol 2010
  – Study 22 domains across 4 levels
  – Results
  – Conclusions
Additional work:

- Brennan DS, Spencer AJ. Life events and oral-health-related quality of life among young adults. Qual Life Res. 2009. (South Australia)
  - Positive life events and OHRQoL

  - Studied protective/negative social factors and oral health
U.S. Leading Health Indicator (LHI) for “Social Determinants”

* Students who graduate with a regular diploma 4 years after starting 9th grade (AH-5.1)

Socioeconomic factors and Early Childhood Caries (ECC)

- Parental education below High School level
- No family dental care
- Rural
- Without insurance

http://www.aap.org/oralhealth/pact
Recognizing public health efforts that already incorporate determinants

- Efforts to date on State Oral Health Plan HP2020 goal setting?
- What integration/collaboration exists in current activities?
- What current interventions address determinants (e.g., motivational interviewing)
- Other?
NEXT STEPS:

• Develop, implement, and test family-based dental-medical
• Focus on prenatal and early childhood mental, physical and social health as a foundation for families to reduce risk of oral disease
• Expand scope of study of social determinants to include stress (e.g. occupational), discrimination, role of other chronic diseases, and other bio- or psycho-social factors.
• Incorporate determinants in other modeling efforts (e.g., Systems Dynamics)
• Develop curriculum