



Dental Literature and Evidence on Social Determinants of Oral Health

National Oral Health Conference
May 2, 2012

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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, “A Framework for Public Health Action: The Health Impact Pyramid “ Amer. J. Pub. Health (2010)



Frieden Framework



FIGURE 1—The health impact pyramid.



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
- Baker, et al (2005)
 - Access to common needs



Literature on determinants of oral health prior to Year 2006

- Reisine S, et al. A bio-psychosocial model to predict caries in preschool children. *Pediatr Dent* 1994
 - Psychosocial models predicting caries
- Pattussi MP, et al. Social Deprivation, income inequality, social cohesion and dental caries in Brazilian school children. *Social Science and Medicine*; 2001
 - Impact of inequality on dental caries

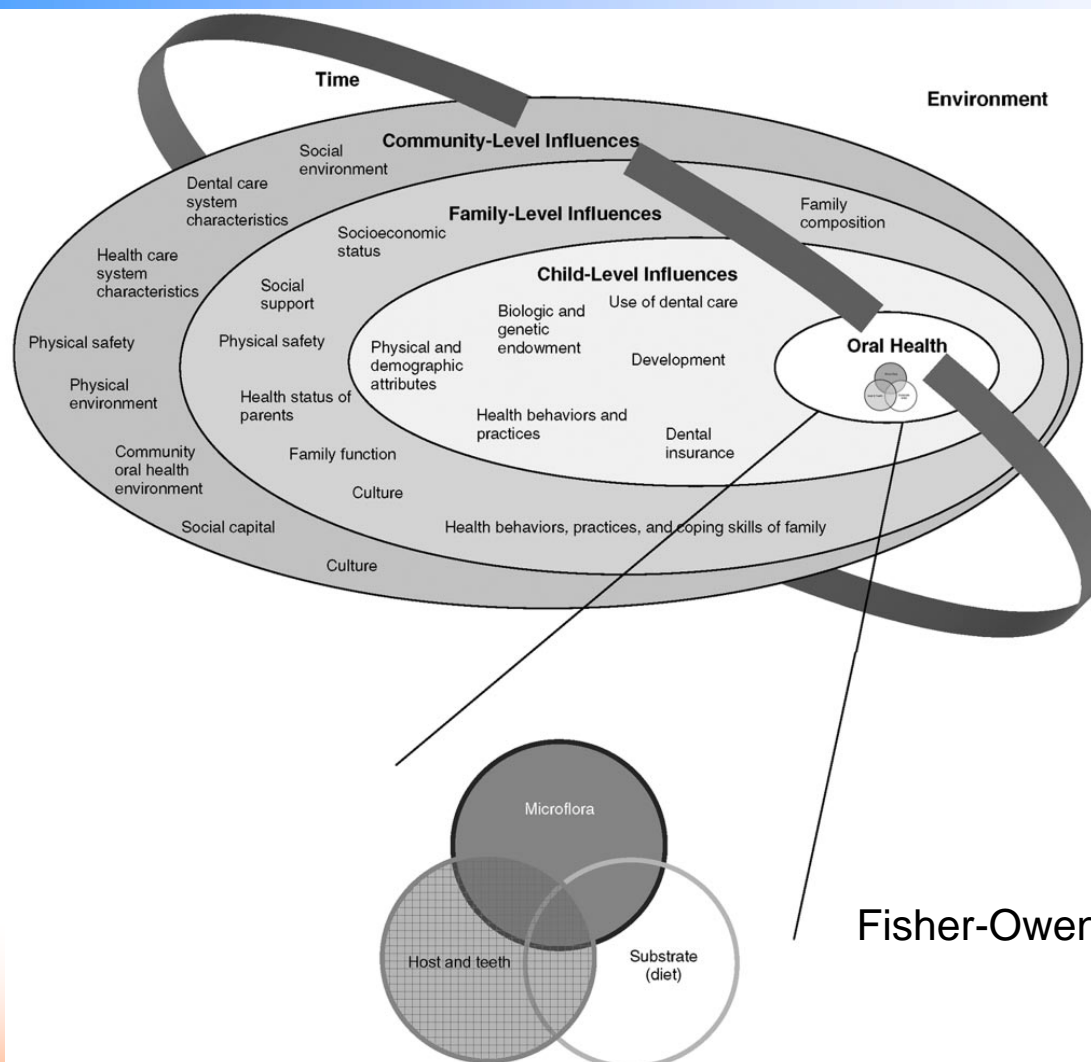


Literature on determinants of oral health prior to Year 2006

- Klemme B, et al. Relationship between caries prevalence and fissure sealants among 12 year old German children at three educational strata. *Soz. Pravenentivemed* 2004
 - Higher DMFT
- Nicolau B, et al. A life course approach to Assessing Causes of Dental caries experiences: The relationship between biological, Behavioral, Socio-economic and psychological conditions and caries in adolescents. *Caries Res* 2003
 - Followed a birth cohort
- Thomson WM, et al. Socioeconomic inequalities in oral health in childhood and adulthood in a birth cohort. *Community Dent Oral Epidemiol* 2004
 - Life course approach



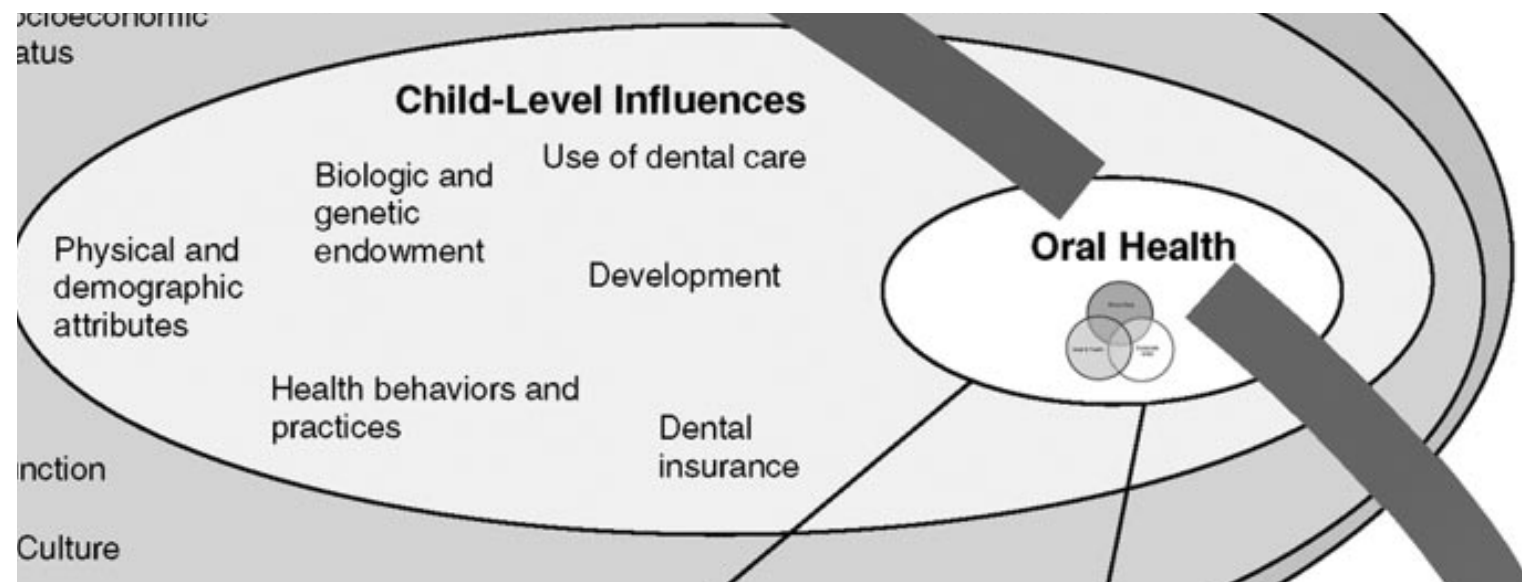
A current conceptual model: 2006



Fisher-Owens, Pediatrics 2007



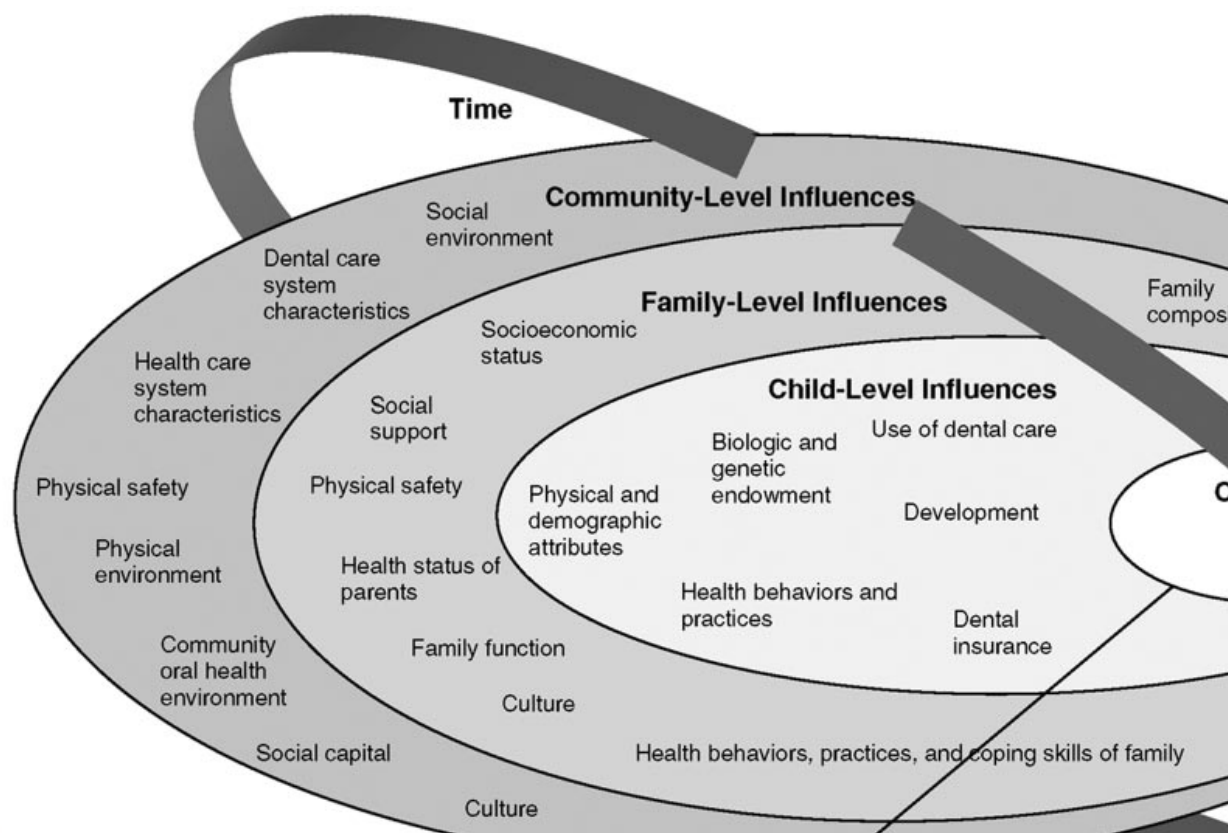
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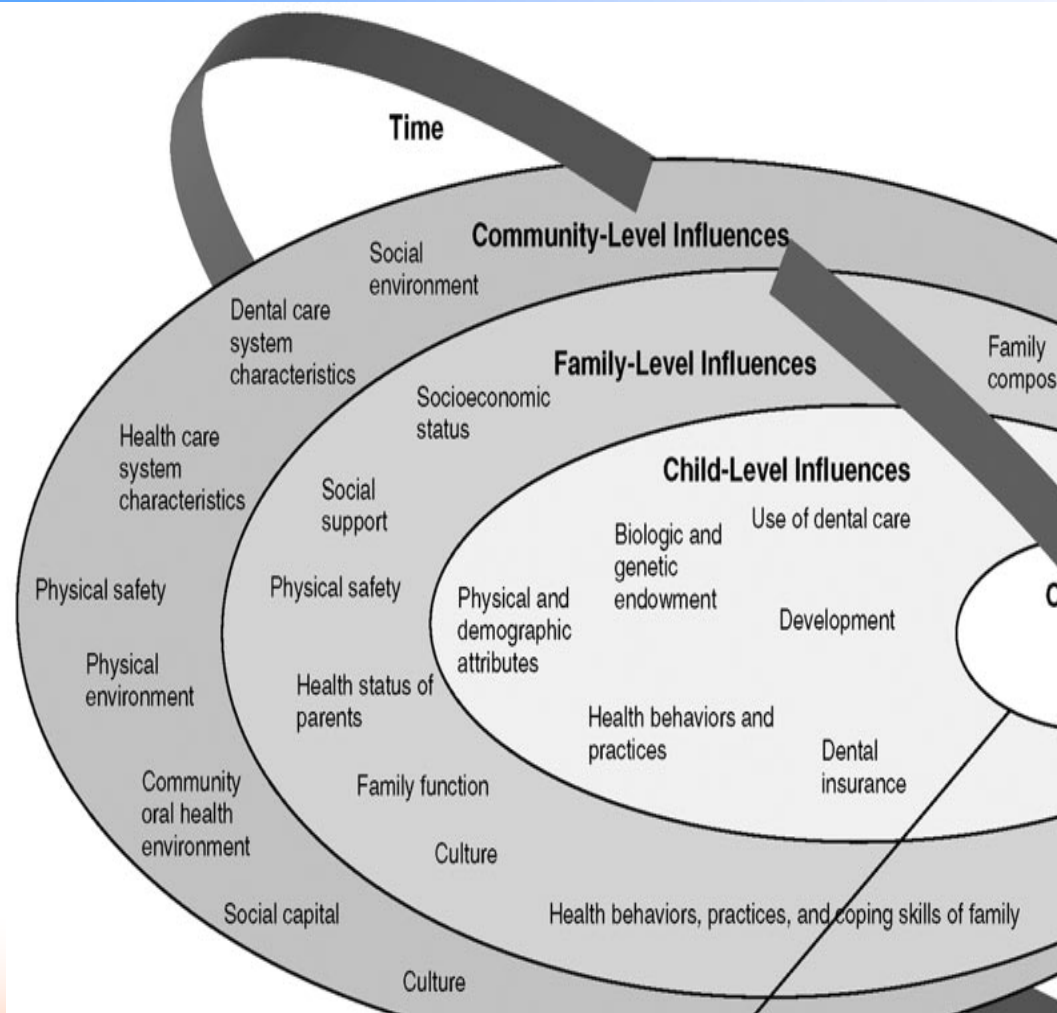
A current conceptual model: 2006



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
- Finlayson TL, et al. Oral Health Disparities and Psychosocial Correlates of Self-Rated Oral Health in the National Survey of American Life. Am J Public Health. 2010
-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)

See:

<http://healthypeople.gov/2020/LHI/socialDeterminants.aspx>



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