

A Conceptual Model of Oral Health Literacy

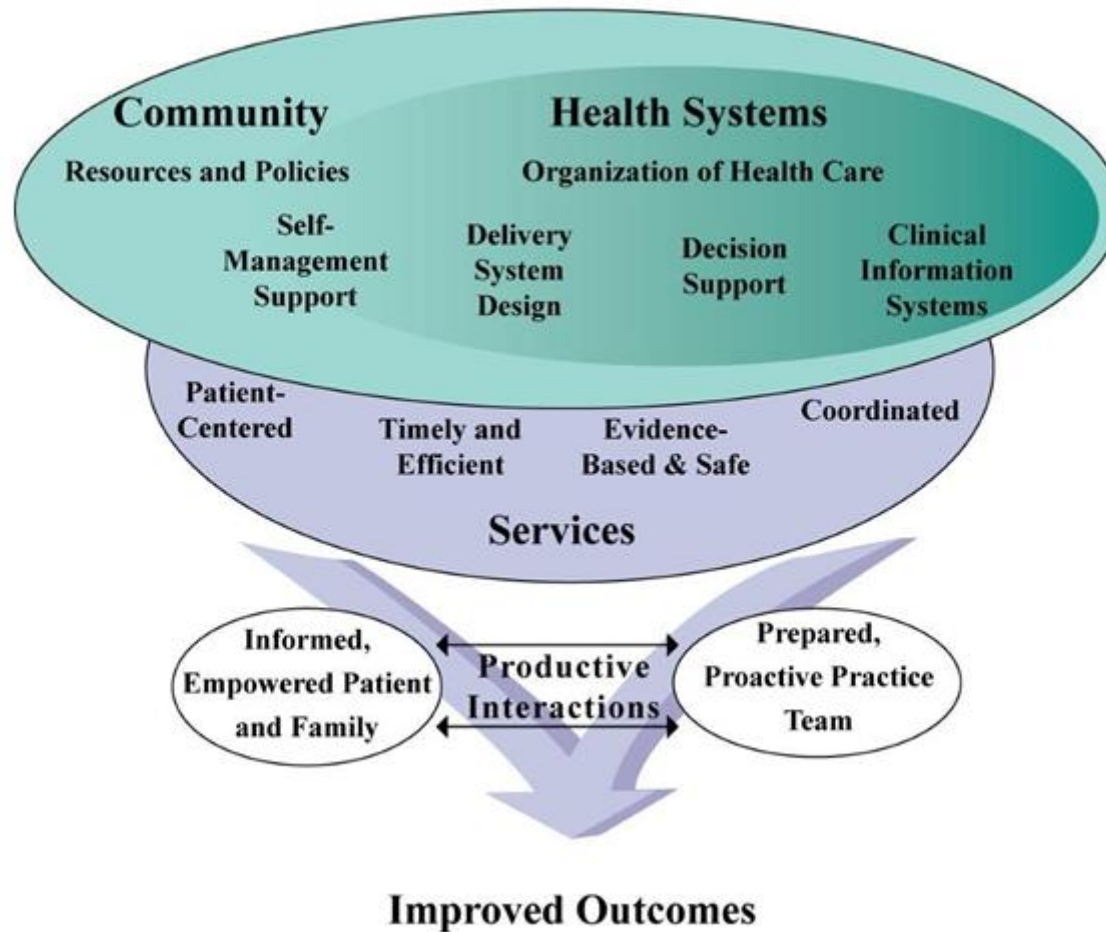
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6th Annual Health Literacy Research Conference

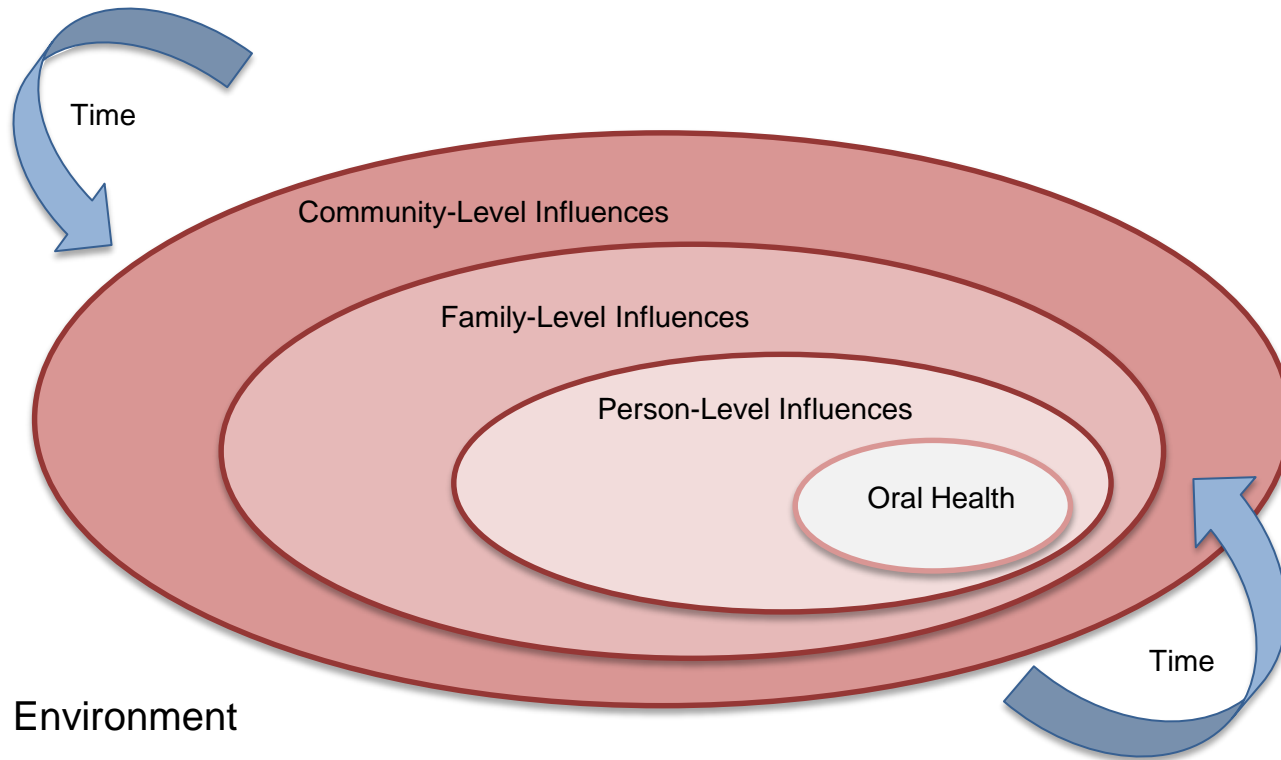
Bethesda, MD – November 4, 2014

The Care Model



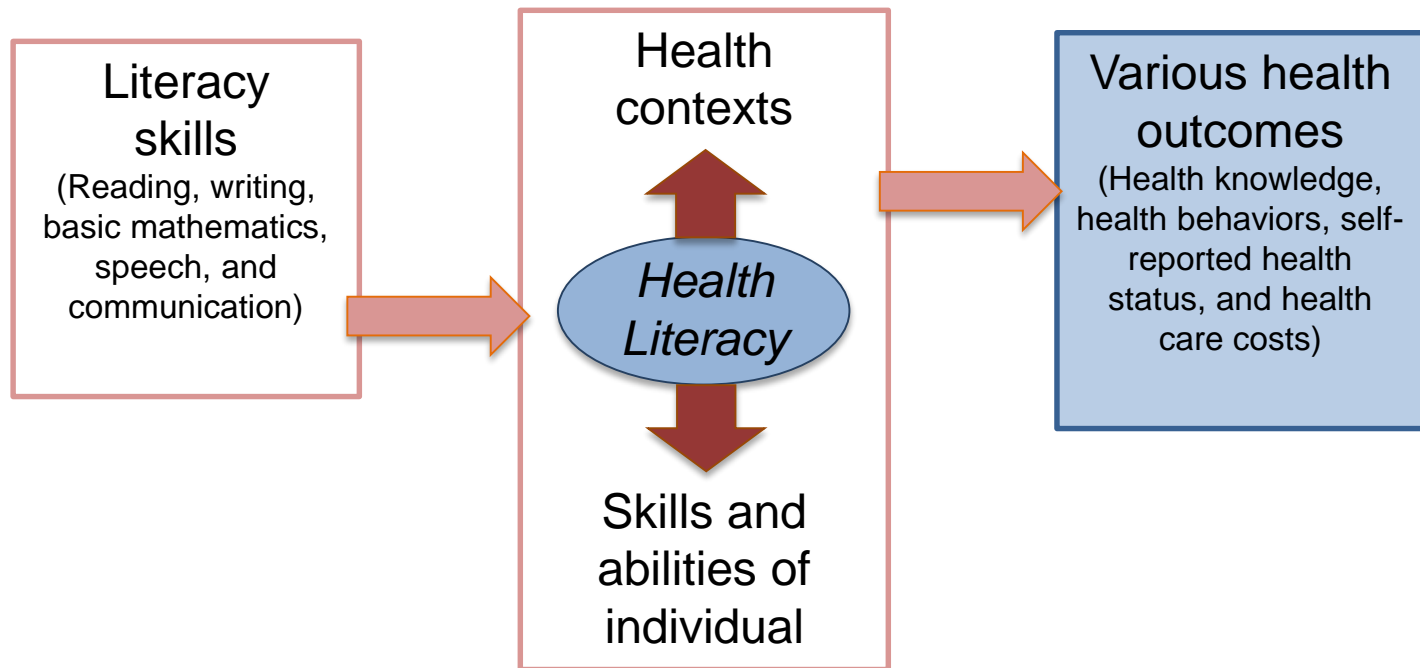
Source: MacColl Center for Health Care Innovation, Group Health Research Institute, 2002.

Model of various influences on oral health



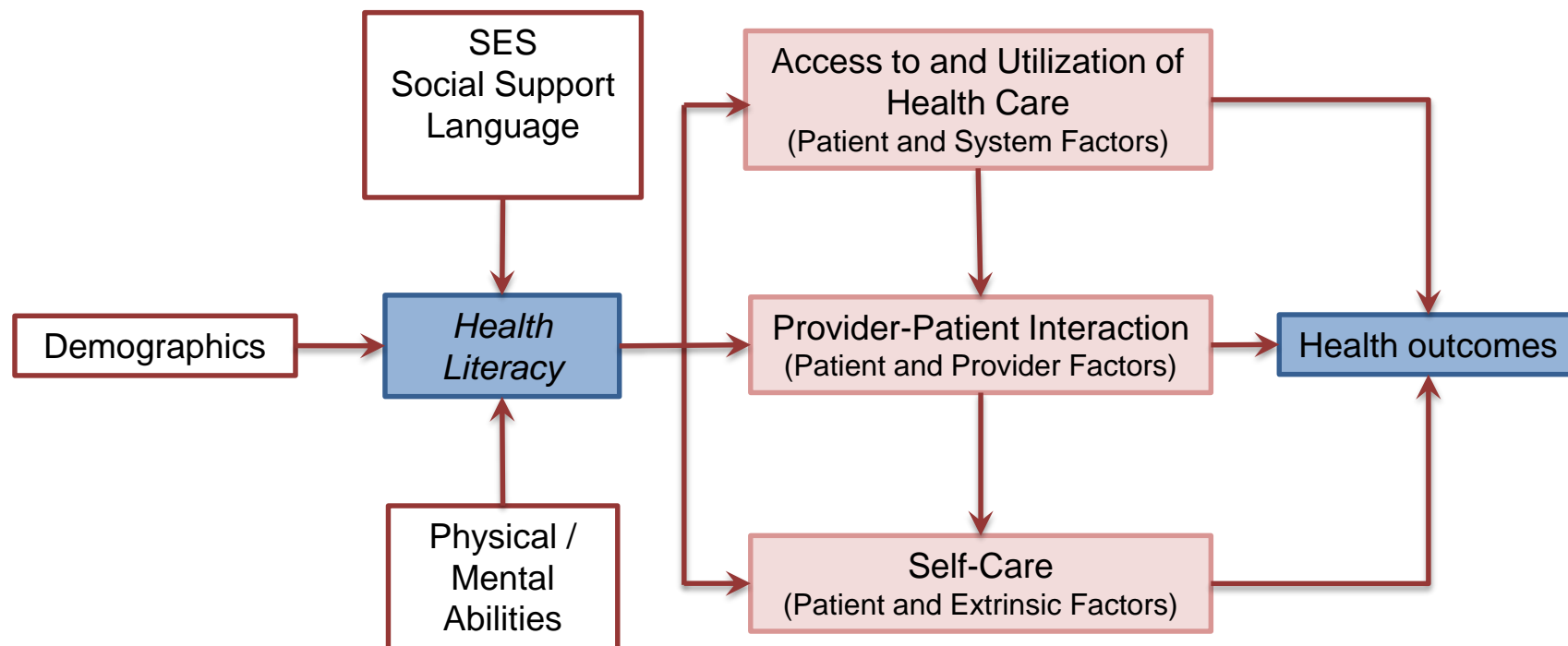
Source: Adapted from Fisher-Owens SA, Gansky SA, Platt LJ, *et al.* Influences on children's oral health: a conceptual model. *Pediatr* 2007;120(3):e510-e520.

Early health literacy framework



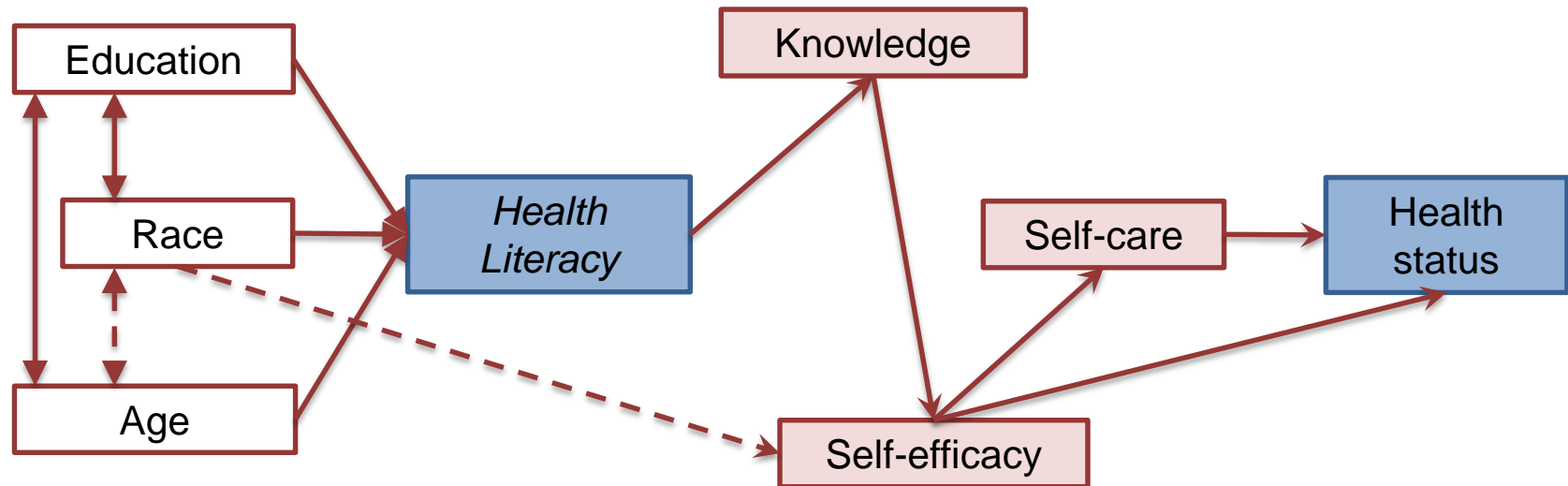
Source: Adapted from Nielsen-Bohlman L, Panzer AM, Kindig DA, eds. What is health literacy? *In: Health literacy: a prescription to end confusion*. Washington, DC: National Academies Press, 2004; 31-58.

Conceptual model of health literacy I



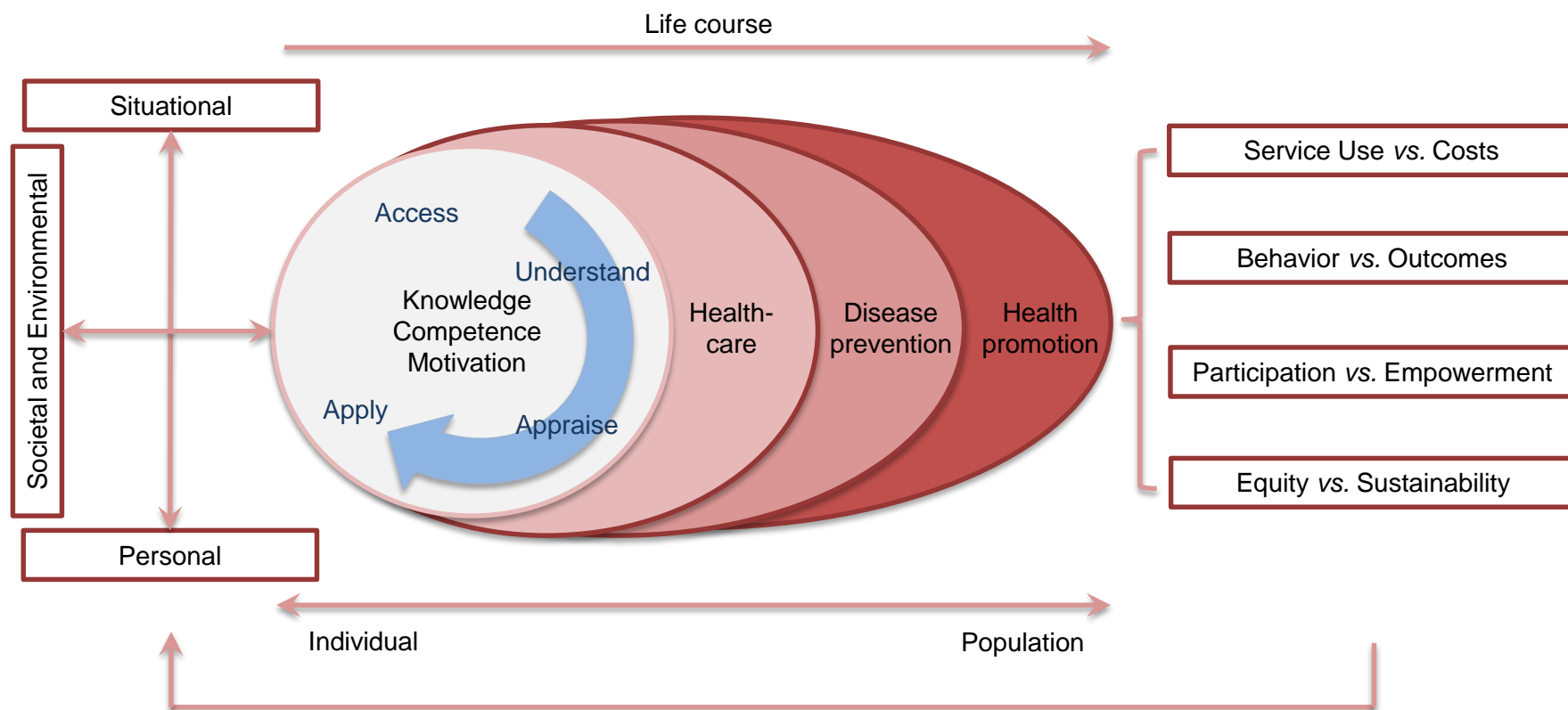
Source: Adapted from Paasche-Orlow MK, Wolf MS. The causal pathways linking health literacy to health outcomes. Am J Health Behav 2007;31(Suppl 1):S19-S26.

Empirical evidence for mediators between health literacy and health outcomes




Source: Adapted from Osborn CY, Paasche-Orlow MK, Bailey SC, Wolf MS. The mechanisms linking health literacy to behavior and health status. *Am J Health Behav* 2011;35(1):118-28.

Conceptual model of health literacy II



Source: Adapted from Sorenson K, Van den Broucke S, Fullam J, *et al.* Health literacy and public health: a systematic review and integration of definitions and models. BMC Public Health 2012;12(80):1-13.

Health literacy research in dentistry

- Research in “oral health literacy” is relatively new
 - Early work used conceptual models and assessment instruments from (general) health literacy field as building blocks
 - Ongoing studies are exploring the links between health literacy and various oral health outcomes
 - Most work has been descriptive, to date
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Oral health literacy instruments

- Specific to dentistry
 - TOFHLiD (Gong, *et al.* 2007) from TOFHLA
 - REALD (Richman, *et al.*, 2007; Lee, *et al.*, 2007) and TS-REALD (Stucky, *et al.*, 2011) from REALM
 - SAHLS&E (Lee, *et al.*, 2010) from SAHLSA
 - CMOHK (Macek, *et al.*, 2010)
- Combining dentistry and medicine
 - REALM-D (Atchison, *et al.*, 2010)

Unique aspects of oral health care system

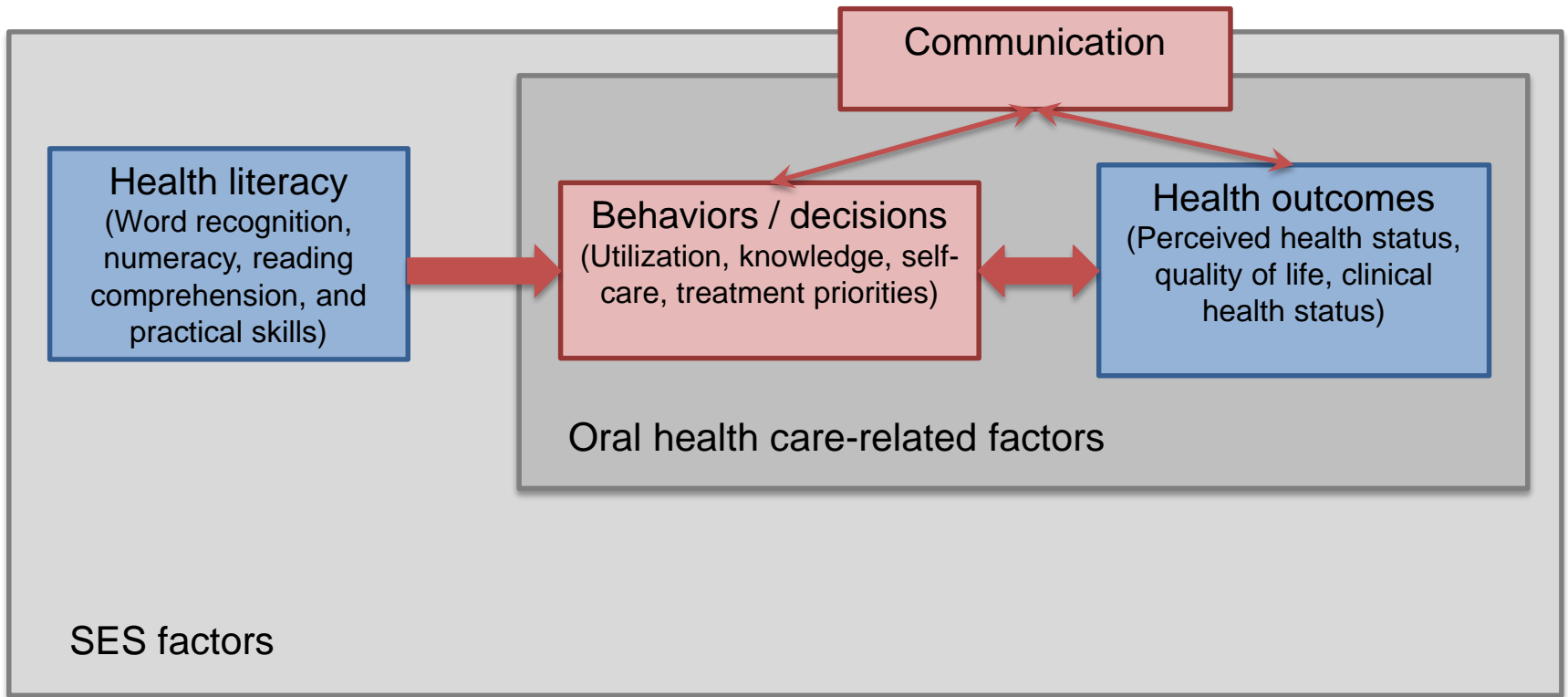
- Utilization patterns unlike those of medical care
 - Young children and seniors less likely to visit dentist
 - Edentulous adults may not feel need for dental care
- Dental safety-net options are limited
 - Medicaid/SCHIP dental benefits exist but are limited
 - Medicare dental benefits are rare
- Palliative care may be all that some patients receive
- Unreasonable treatment options may be faced (*e.g.*, expensive restorative care vs. extraction)

Oral health care environment

- Behavior-related disparities exist
- Knowledge is low in the general population
 - Relationship between risky behaviors and oral health
 - Relationship between oral health and general health
- Segments of population may not have access to health education from dental health providers
- Non-dental providers receive little oral health training
- Community water fluoridation, sealants, and fluoride products provide effective primary prevention

Conceptual model of oral health literacy

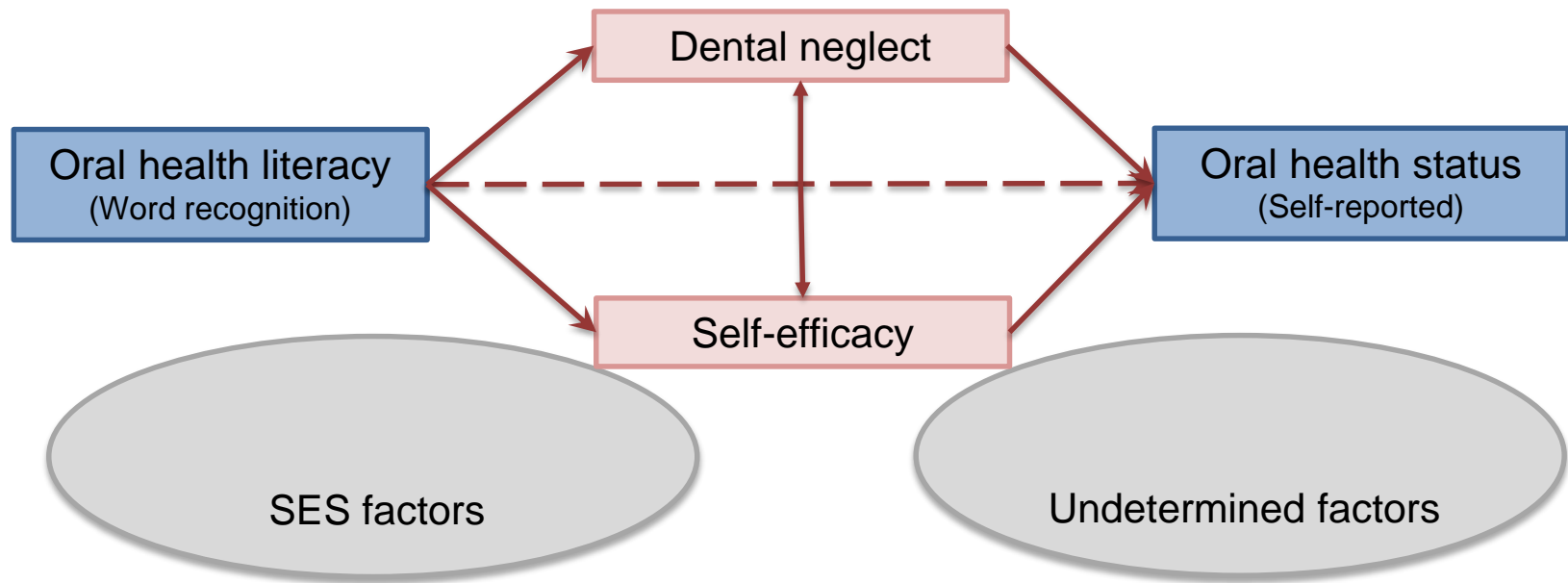
Multi-Site Oral Health Literacy Research Study



Source: Conceptual basis for Multi-Site Assessment of Health Literacy and Oral Health. NIDCR grant number R01 DE 020858, Macek and Atchison, Co-PIs.

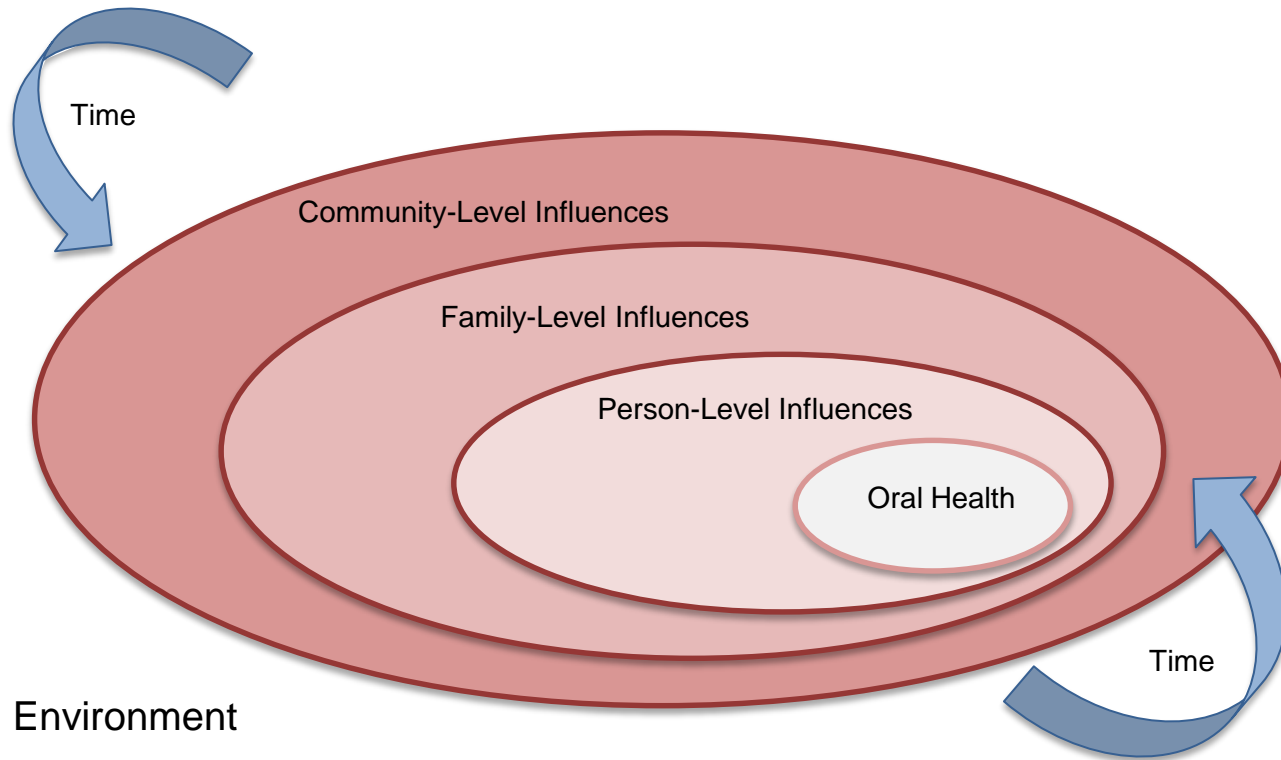
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Carolina Oral Health Literacy Study




Source: Adapted from Lee JY, Divaris K, Baker AD, *et al.* The relationship of oral health literacy and self-efficacy with oral health status and dental neglect. *Am J Public Health* 2012;102(5):923-9.

Model of influences on oral health



Source: Adapted from Fisher-Owens SA, Gansky SA, Platt LJ, *et al.* Influences on children's oral health: a conceptual model. *Pediatr* 2007;120(3):e510-e520.

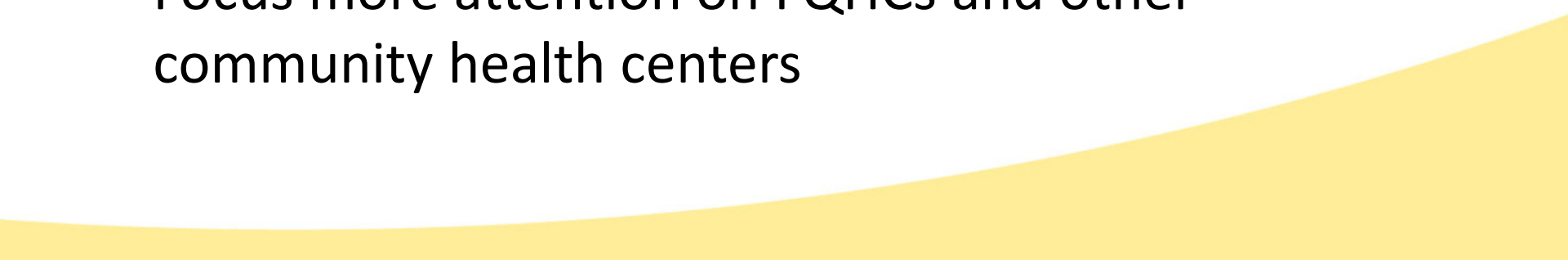
Concluding remarks

- Poor access to oral health care remains one of the strongest determinants of health status and biggest obstacle to oral health literacy initiatives
 - Accessible treatment centers must be optimized for ease of use/navigation, cultural sensitivity, empathy, and effective communication
 - Community involvement can help to drive priorities and messaging
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Concluding remarks (cont'd)

- New research is encouraged
 - Building on innovations in general health literacy field
 - Recognizing factors unique to the oral health care delivery system (*e.g.*, utilization patterns, role of self care)
 - Placing less emphasis on skills of individuals and more emphasis on the characteristics of systems
- Given that those suspected of having limited health literacy are also likely to face access problems, other health professionals have an important role

Potential intervention points

- Expand professional school curricula
 - Support interdisciplinary training
 - Enact continuing education requirements
 - Take advantage of innovative workforce models and oral health care delivery systems
 - Reduce complexities of the oral health care system
 - Focus more attention on FQHCs and other community health centers
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