

# The Health Literacy Environment in Community-Based Dental Clinics: Barriers or Facilitators to Health Outcomes

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November 4, 2014



SCHOOL OF  
PUBLIC HEALTH

*Herschel S. Horowitz Center for Health Literacy*



# Colleagues

- Dental Directors & Managers of the 26 clinics
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- Sarah D. Radice
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- Maryam Qayumi & Chad Dammling (now 2<sup>nd</sup> year dental students)



Health Literacy is inextricably linked to  
improving oral health... especially among  
low income groups



# Take Away Message

- Efforts to improve quality, reduce costs and reduce oral health disparities cannot succeed without simultaneous improvements in the health literacy of the public, health care providers and policy makers.



# Why is Oral Health Literacy Important?

- All too often



# Oral Health is not considered an integral part of health




# Yet.....

- Oral diseases are a neglected epidemic



# A Low Level of Oral Health Literacy is Associated with:

- Low level of knowledge about oral health
- Fewer dental visits
- Increased severity of dental caries
- Higher rates of failed appointments
- Lower oral-health-related quality of life


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  - White S, Chen J, Atchinson R. Relationship of preventive health practices and health literacy: a national study. *Am J Health Behav.* 2008;32(3):227-242.
  - Miller D, Lee JY, DeWalt DA, Vann WF Jr. Impact of caregiver literacy on children's oral health outcomes. *Pediatrics.* 2010;126(1):107-14.
  - Holtzman JS, Atchison KA, Gironde MW, Radbod R, Gornbein J. The association between oral health literacy and failed appointments in adults attending a university-based general dental clinic. *Comm Dent Oral Epidemiol.* 2013;1-8. doi: 10.1111/cdoe.12089
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# Health Literacy Scans of Community-Based Dental Clinics

Based on work by:

- Rudd and Anderson: *The Health Literacy Environment of Hospitals and Health Centers*
- The Agency for Health Care Research and Quality: *Health Literacy Universal Precautions Toolkit.*

- Rudd RE, Andersen J. *The health literacy environment of hospitals and health centers. Partners for action: Making your healthcare facility literacy-friendly.* Boston, MA: Harvard School of Public Health; 2006.
  - AHRQ Publication No. 10-0046-E. Rockville, MD. 2010
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# Overall Purpose

- To determine the 'user friendliness' of the clinics.
  - Accessibility, signage, facility navigation, educational materials and patient forms
- Conducted a feasibility study using health literacy environmental scans (HLES) in Maryland in 2012.
  - 26/32 community-based dental clinics participated.
  - Participation was completely voluntary on the part of the dental directors.



# Methods

- Developed instruments for data collection
- Interviewed directors
- Assessed technology including use of EHR
- Assessed print materials
  - educational materials and forms used
- Conducted patient interviews
- Conducted mail survey of dentists and dental hygienists regarding their use of communication techniques.

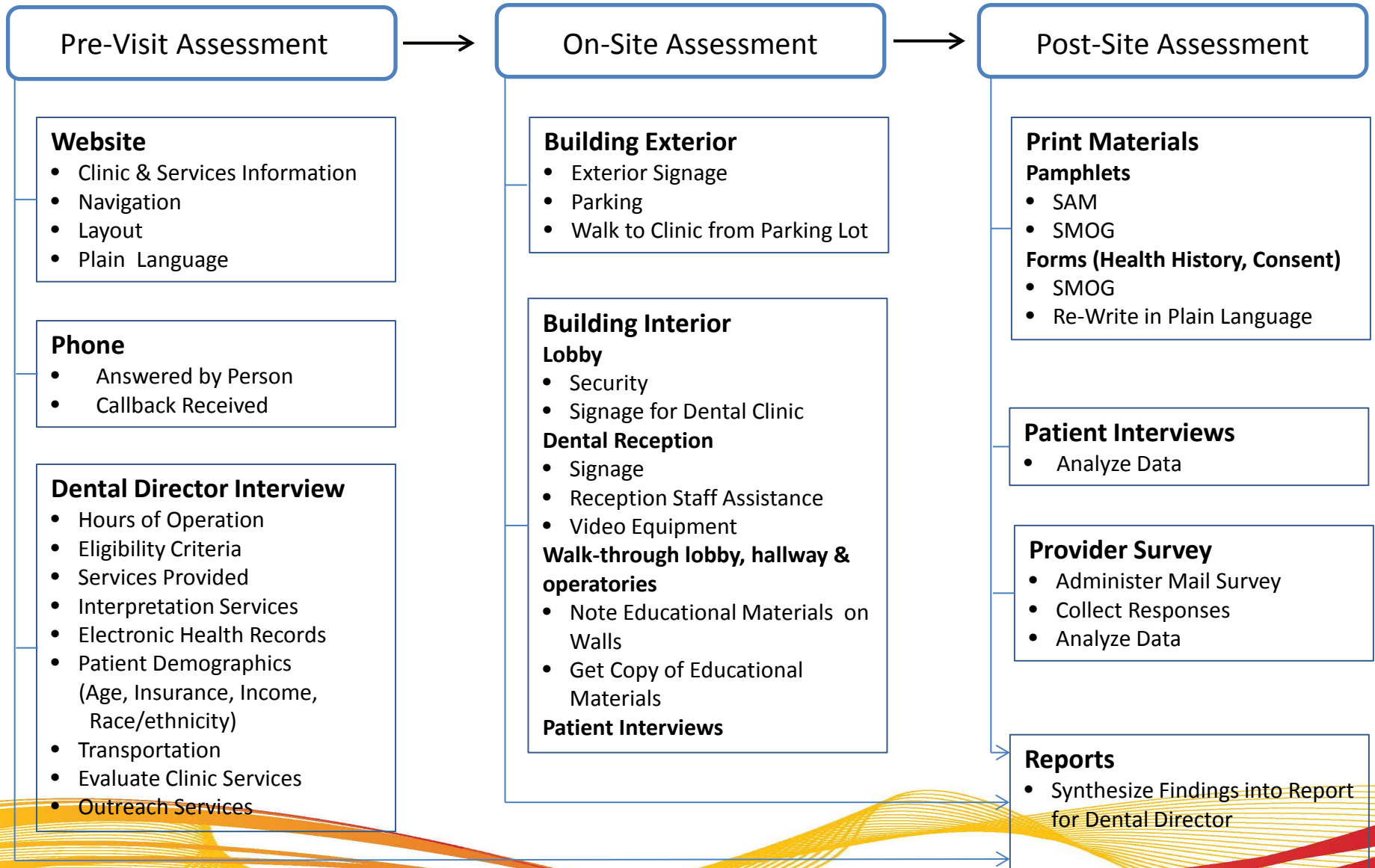


# This HLES is part of a

- Statewide model of our oral health literacy assessment that focusses on prevention and early detection of dental caries [tooth decay].



# Oral Health Literacy Environmental Scan



# Oral Health Literacy Environmental Scan

## Pre-Visit Assessment

### Website

- Clinic & Services Info
- Navigation
- Layout
- Plain Language

### Phone

- Answered by Person
- Callback Received

### Dental Director Interview

- Hours of Operation
- Eligibility Criteria
- Services Provided
- Interpretation Services
- Electronic Health Records
- Patient Demographics  
(Age, Insurance, Income,  
Race/ethnicity)
- Transportation to Clinic
- Evaluate Clinic Services
- Outreach Services



# Oral Health Literacy Environmental Scan

## On-site Assessment

### Building Exterior

- Exterior Signage
- Parking
- Walk to Clinic from Parking Lot

### Building Interior

#### Lobby

- Security
- Signage for Dental Clinic

#### Dental Reception

- Signage
- Reception Staff Assistance
- Video Equipment

#### Walk-through lobby, hallway & operatories

- Note Educational Materials on Walls
- Get Copy of Educational Materials

#### Patient Interviews





# Oral Health Literacy Environmental Scan

## Post-Site Assessment

### Print Materials

#### Pamphlets

- SAM
- SMOG

#### Forms (Health History, Consent)

- SMOG
- Re-Write in Plain Language

### Provider Survey

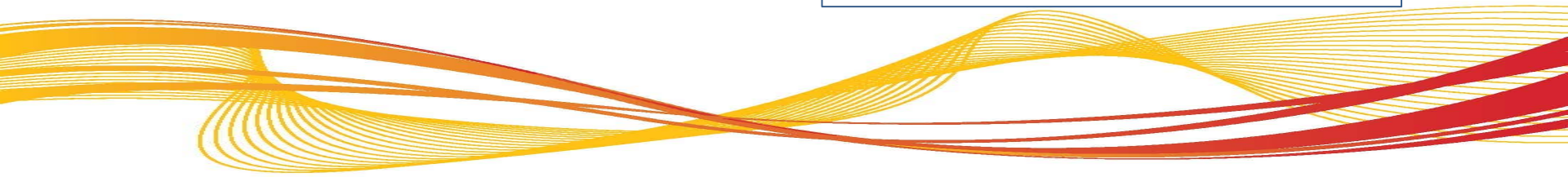
- Administer Mail Survey
- Collect Responses
- Analyze Data

### Patient Interviews

- Analyze Data

### Reports

- Synthesize Findings into Reports for Dental Directors





# Results

- Considerable variation among clinic facilities, operations & educational materials
- Less variation in types of insurance, no show rates & methods of communicating with patients
- DDS's more likely than DH to have taken a communications skills course



# Results

- Technology assessment included website, phone system and use of EHR and educational DVDs/video.
- 18 of the 26 clinics use EHR.
  - But only 3 systems are integrated with medical records.
  - Only 6 sites included oral health education on their website



# Results

- Printed forms [consent, health history, post-op instructions] were assessed using SMOG readability formula to determine readability.
- Collectively, the forms were rated between 9<sup>th</sup> and 16<sup>th</sup> grade reading level.
- Forms tended to use complex dental and legal terminology instead of common words.



# Limitations



- We did not record communications between provider/patients or office staff/patients.
- Community-based clinics only;
- Convenience sample.



# Conclusions

- This study confirmed the feasibility of conducting a HLES in community-based dental clinics.
- Could be used in private practices/clinics and dental/dental hygiene schools.
- Provides guidance for extending the Rudd and AHRQ guidelines into the dental environment.





# Thank you!

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