



University of California
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Assessing Neighborhood Environment & Oral Health Resources in Oakland, California

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National Institute of Dental and Craniofacial Research (NIDCR) R21-DE024261
(Burke, PI) & Minority Training Program in Cancer Control Research (MTPCCR).

Disclosures

- **I have no actual or potential conflict of interest in relation to this program/presentation**

Introduction and Objective

- Neighborhood environment plays an important role in many health conditions: obesity, asthma, safety/violence, and cancer
- There is a paucity of research on the role environment plays in oral health
- Mexican immigrant children under the age of 5 have the highest rates of ECC than other US populations, except Native American children
- **OBJECTIVE:** Systematically survey environmental characteristics role with oral health resources in an urban, low-income setting

(Fisher-Owens et al., 2007; Gustafson et al., 2012; Leung et al., 2011; Powell, Slater, Mirtcheva, Bao, & Chaloupka, 2007, Surgeon General USD of H and HS, NIDCR 2000; Nurko et al. 1998; Phipps et al. 2012).

METHODS

Sample Selection

Surveyed dental clinics in Oakland (by phone)

Selected 10 clinics

Established $\frac{1}{4}$ mile radius around each clinic

Numbered all blocks in the $\frac{1}{4}$ mile boundary

Randomly selected $\frac{1}{3}$ of blocks around each clinic (STATA). Each of these blocks was then surveyed

Survey Categories

Land-use

- Residential
- Non-residential

Commercial Destinations

- Convenience food stores
- Supermarkets
- Small grocery stores

Public/Community Destinations

- Daycare
- Health clinics

Transportation/Walkability

- Bus stops
- Sidewalks

Physical Disorder

- Bottles
- Graffiti

Oral Health Resources in Commercial Destinations

- Toothpaste
- Floss

Nutrition: items available in Commercial Destinations

- Fresh fruits & vegetables

REDCap Mobile App

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Neighborhood Observation

Editing existing Record ID 154

Record ID: 154

Start Time: H:M
* must provide value

Auditor Name:
* must provide value

City:
* must provide value

Street Name/Dental Office Code:
* must provide value

Cross Streets:

Audit Information collected by:
* must provide value

General Environment Around Office

1. Are both residential and non-residential land uses visible in this block? Yes No [reset](#)

2. What types of residential buildings or features are present in this block?

a. Single-family home? Yes No [reset](#)

b. Two-, three-, four-, five-, or six-family home ("walk-ups")? Yes No [reset](#)

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Oral Health Resource Availability

10. For each supermarket, convenience store, grocery or pharmacy noted in e, f, and k above, note the existence and cost of oral health resources.

Store Name:

Check if available

1. Fluoridated toothpaste
 2. Non-fluoridated toothpaste
 3. Fluoridated mouth rinse (i.e. ACT)
 4. Floss
 5. Toothbrush adult
 6. Toothbrush child

Cost of items (provide range if multiple options):

1. Fluoridated toothpaste:

2. Non-fluoridated toothpaste:

3. Fluoridated mouth rinse (i.e. ACT):

4. Floss:

5. Toothbrush adult:

6. Toothbrush child:

Store Name:

1. Fluoridated toothpaste
 2. Non-fluoridated

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Nutrition

Assign record to a Data Access Group?
 -- select a group --

Editing existing Record ID 13

Record ID: 13

Store name:
* must provide value

Type of store:

Dental clinic in observation:
* must provide value

Block #:

Does this location sell oral health care products? Yes No [reset](#)

Do they sell fresh fruit? Yes No [reset](#)

Do they sell fresh vegetables? Yes No [reset](#)

Do they sell sugary drinks (i.e., soda, sports drinks)? Yes No [reset](#)

Do they sell milk? Yes No [reset](#)

Do they sell water by the gallon? Yes No

RESULTS

Oral Health Resources



Results: Oral Health

Resources	% of blocks	Price Mean (SD)	Price Range
Fluoride Toothpaste	70%	\$3.68 (2.19)	\$0.99 - \$18.29
Floss	25%	\$3.16 (1.78)	\$1.57 - \$8.57
Adult Toothbrush	60%	\$4.77 (5.91)	\$1 - \$35.99
Child Toothbrush	15%	\$4.39 (2.08)	\$2.89 - \$7.99

Types of stores: gas station stores, small grocery stores (corner stores), supermarkets, and pharmacies



Nutrition: WIC Store



Results: Nutrition (16 stores)

Produce items	# of stores	# of diff. types	Looked fresh?
Fruit	7	7 had 1-5 1 had 5+	3
Vegetables	5	5 had 1-5 1 had 5+	1

Beverage items	# of stores	Price Mean (+/- SD)	Price range
Sugary Drinks (2L of soda)	14	\$2.37 +/- SD 0.84	\$1.00 - \$4.74
Milk (Gallon)	9	\$4.00 +/- SD 0.78	\$2.99 - \$4.99
Water (Gallon)	10	\$1.95 +/- SD 0.83	\$1 - \$2.50

Types of stores: gas station stores, small grocery stores (corner stores), supermarkets, & WIC stores

CONCLUSIONS

Summary

- Accessibility: Limited access to oral health products or fruits & vegetables
 - About half of the stores carried fresh produce while majority carried sugary drinks
- Pricing: inconsistent and not displayed
 - Sugary drinks were more prevalent and cheaper than milk or water
 - Healthier products are more expensive
- Selection: Limited selection of oral health products. What was available appeared to be dusty in some stores as if **not frequently** purchased items

Discussion

▪ Limitations:

- Subset of blocks were chosen
- We do not know how people feel about these neighborhoods or if they are satisfied with their access to oral health and healthy nutrition products
- No comparison with other types of neighborhoods

Next steps

- Linking with block level census data to better characterize the neighborhoods served by each clinic
- Analyze observational data with neighborhood questions from qualitative interviews

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