Health Equity Issues Related to Childhood Obesity

Session I: Overview of the Science
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To answer the question:
What are the health-equity issues that relate to disparities in childhood (under age 12) obesity?

Purpose of this Review

Definition of Equity:
Attainment of the highest level of health for all people

Therefore, attaining equity requires:
Eliminating health disparities by improving the health of disadvantaged groups.

Graphic Concept: Froehle C.
Graphic Source: King County, WA http://kingcounty.gov/elected/executive/constantine/priorities/building-equity.aspx
Prevalence of Obesity in Children by Age and Race,
NHANES 2011-2012


Social Determinants of Obesity Inequalities

Adapted from Friel S, Chopra M, Satcher D. Unequal weight oriented policy responses to the global obesity epidemic. BMJ 2007;335:1241-1243
Scoping Study or Review

* Addresses broader topics than a systematic review
* Includes different types of study designs
  * Studies would not be comparable
* Does not include analysis of quality of the studies
* Identifies gaps in the literature


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Scoping Review Process

**Stage 1:** Discussing and refining the research question

**Stage 2:** Literature search
  * Preliminary searches to define comprehensiveness of the study
  * Inclusion/exclusion: US, <12 yr olds, English, published 2005+
    Preference given to systematic reviews
  * Key words: Obesity or overweight, children with words for each factor
  * Used RefWorks and searched Medline, PubMed, and Web of Science

**Stage 3:** Review and selection of references

**Stage 4:** Chart to extract information. Added snow ball search and excluded redundant references

**Stage 5:** Summary and qualitative thematic analysis (content analysis)
Results: Food Environment

**Food Advertisement**
- Affects food preferences and selection
- Discordance between health recommendations and marketing

**Price**
- Healthy food is more expensive

**Access to Healthy Food**
- No association between food desert and obesity

**Food Insecurity**
- No association with obesity (role of SNAP)

**School Food**
- Breakfast=low BMI
- Food served=obesity
- Competitive food=obesity

**Trade Agreements**
- Strong influence on diet, obesity in the other countries

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**What is a Food Desert?**
- No grocery stores
- No farmers market
- Surrounded by fast food, junk food, or food high in sugars and fats
Results: Natural and Built Environment

**Food accessibility**
- Vehicle ownership, public transit, walkability, neighborhood safety

**Physical activity**
- Access to recreational facilities, walkability, safe neighborhoods = more physical youth
- Limited options for outdoor activities = Higher screen time
  - Ethnic minorities higher screen time (50% more than whites) = obesity

Results: Social Environment

**Poverty**
- Poor = obesity
  - “parents try to stretch their dollar”

**Social Cohesion**
- Similar background = low obesity

**Social Norms**
- Ideal weight $\rightarrow$ stigma

**Time to Prepare Meals**
- Insufficient time for working mothers to cook = higher obesity

**Living Conditions**
- Having cooking supplies
**Discussion**

- Strong association among macrosocial context and environments with childhood obesity.
- The increase in obesity over the past 25 years cannot be explained by genetic or biological changes given the short period of time.
  
  "an obesogenic environment that promotes inactivity and overeating"

- This strong social aspect of obesity must be considered when seeking for solutions to address the problem.


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**Discussion**

- The only food environment elements that were not consistently associated with obesity were food insecurity and food deserts.
- Safety is paramount to the built/natural environment.
- Critical to have transportation to buy groceries in other places and to access recreation sites.
- Methodological limitations: definitions, statistical techniques, study design, confounding variables.
Factors that could affect food insecurity such as social support and living conditions

Housing conditions such as functional kitchen, water supply, sharing kitchen area and cooking utensils

Parents’ time available for cooking, grocery shopping, and exercise

Healthy food requires more resources: price, processing, preservation

Physical activity in public schools

Gaps in the Literature

Oral Health Professionals

Support policy that will reduce health disparities

Community

Community gardens or farmers markets

Snacks and food available at healthcare facilities

Work with local business to replace unhealthy rewards

Walking routes to schools

Repurpose of space for physical activity, walkability

Schools

Health curriculum

School food

School gardens

Oral Health Practices and Clinics

Obtain and discuss BMI with families

Start a conversation about healthy food and exercise

Decreasing the Effect of Disparities
Decreasing the Effect of Disparities

**Parents**
- Participate in policy making work
- Improve family members financial skills to reduce food insecurity
- Encourage healthy habits with healthy rewards
- Participation in school activities
- Limit children’s screen time – but need alternatives
- Limit weight related stigma: emphasize what the body can do rather than how it looks

Addressing Obesity Equity Issues

**Objective:** To eliminate disparities

**Regulations - Policies**
- Hurdles
  - Lack of support
  - Financial limitations
  - Legal
- Chances
  - Stakeholders participation
  - Political buy-in / political will


Graphic Concept: Froehle C. medium.com/@CRAIG/the-evolution-of-an-accidental-meme ddc4f399e5e#.judgmo98z
Conclusions

* Most food environment elements were associated with obesity, except food insecurity and food deserts
* Unfavorable built/natural and social environments are associated with obesity
* Oral health professionals have a role in community, schools, and their practices to reduce effect of disparities
* Reducing macro-contextual disparities is required to address childhood obesity equity issues
* Most equity issues could be addressed with policies

Questions?