

Interweaving health promotion into environments and settings: *Practice and evidence-based examples for the health promotion practitioner*

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Healthier Texas Summit
November 7, 2017

Today's Session

- Place, settings & health
- Environmental Asset Assessment
- Health Promotion
Interweaving into Context
- Built Environment & Pop up Parks (Dr. Deborah Salvo)

The Association Between Income and Life Expectancy in the United States, 2001-2014

(Chetty et al., *JAMA* 2016)

Key Findings

- 2001-2014: Inequality in life expectancy increased (~2-3 years)
- Higher income = more years of life
(gap: 14.6 years (men) y 10.1 years (women)
=the top 1% vs. bottom 1% of income earners)
- Life expectancy varied by geogr. area:
 - Healthy living-related differences (smoking, physical activity, obesity)
 - **Geographic characteristics:** education, immigrants, and higher housing values.
 - It didn't have to do with: access to health services, income inequality...



Where you live (area characteristics) and individual behaviors = how long you live...

Can school income and racial/ethnic composition explain the racial/ethnic disparity in adolescent PA participation?

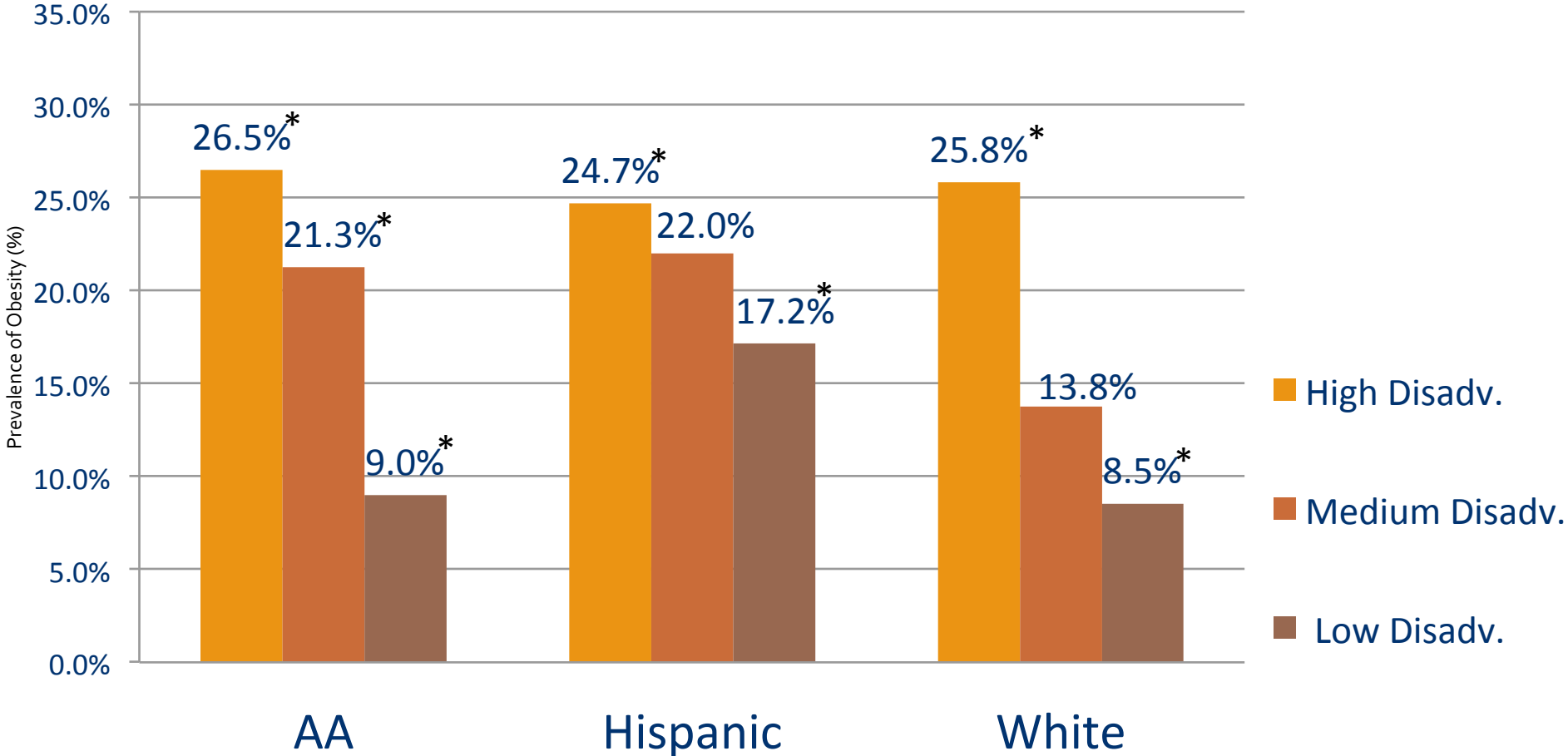
Richmond et al, *Pediatrics* 2006

Lower levels of PA in Hispanic adolescents compared to White adolescents (Carvajal et al., '02; Gordon-Larsen et al. '02; Andersen et al. 1998, CDC, '06, '08, Stovitz et al. 2008).

- Cross-sectional analysis of 17,007 teens in the *Nat'l Longitudinal Study of Adolescent Health*.
 - Hispanic and AA girls < PA than White youth.
 - Hispanics & AA youth attended poorer schools.
- Within same schools:
 - White girls = same PA as Hispanic and AA girls.
 - White boys had < PA as Hispanic and AA boys.
- *PA is attributed to the school a student attends.*



Obesity in 8th grade students by School Economic Disadvantage (n=2682), *Central Texas '09* Springer, Li et al, *IJBNPA* 2015



*p<.05

Moving to Opportunity Study (US Dept. of HUD, 1994-2011)

Living in a less economically and socially distressed neighborhood = improvement in well-being

Randomized Controlled Trial:

Volunteer families in five U.S. cities:

- *Treatment*: Participants received voucher restricted to low-poverty census tracts
- *Comparison*: Participants received standard, geogr. unrestricted voucher.
- *Control*: Participants received continued project-based assistance.

Sustained improvements

(10-15yrs:base)

- Housing quality & neighborhood environment (satisfaction/safety)
- Lower extreme obesity/diabetes
- Lower psych. distress & depress. (Ludwig et al., '11 *NEJM*)

No impact on:

- Employment/earnings

Youth

- Female youth: Improved mental health, school engagement
- Male Youth: Higher pot/risk beh.
- No educational differences (math/reading)

Chetty et al. (2015) (MTO): *Children who moved <13 years old=*

- ✓ Improved earnings
- ✓ Increased College Attendance
- ✓ <Single parenthood
- ✓ Poor outcomes for children who moved ≥13 years

Ecological models for understanding health and health behavior

Definitions

- **Ecology:** the interrelationship between organisms and their environment.
- **Environment:** space external to individuals

“The environment is everything that isn’t me.”
–Albert Einstein

- **Ecological perspective:** emphasizes the interaction between people and their physical and socio-cultural surroundings.

“You are a product of your environment.”
–W. Clement Stone, author/businessman



Community Health Needs Assessment

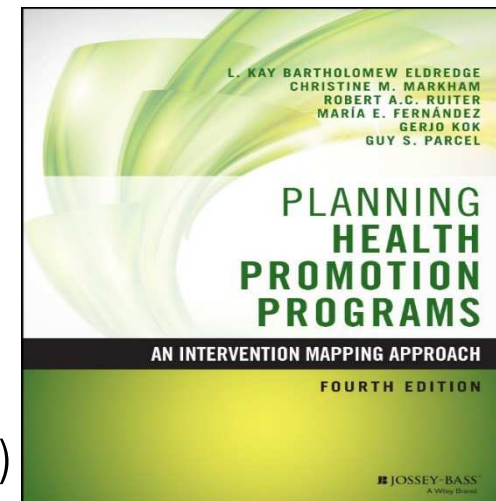
WHO Health Promotion Glossary

“A systematic procedure for determining the nature and extent of health needs in a population, the causes and contributing factors to those needs, and *the human, organizational and community resources which are available to respond to these.*” (Wright et al., 2001; Smith et al., 2006).

- ✓ Affordable Care Act: Federally funded hospitals must conduct a community health needs assessment every three years (Barnett 2012)
- ✓ Health Department accreditation (*Public Health Accred. Board*)

Community Health Asset Assessment

- Central to community health assessment (e.g. CHA/CHIP, MAPP - NACCHO)
- Health promotion planning frameworks:
Balancing the needs assessment w/ assessment of comm. Capacity & assets (Bartholomew et al. '16)



Think & Share

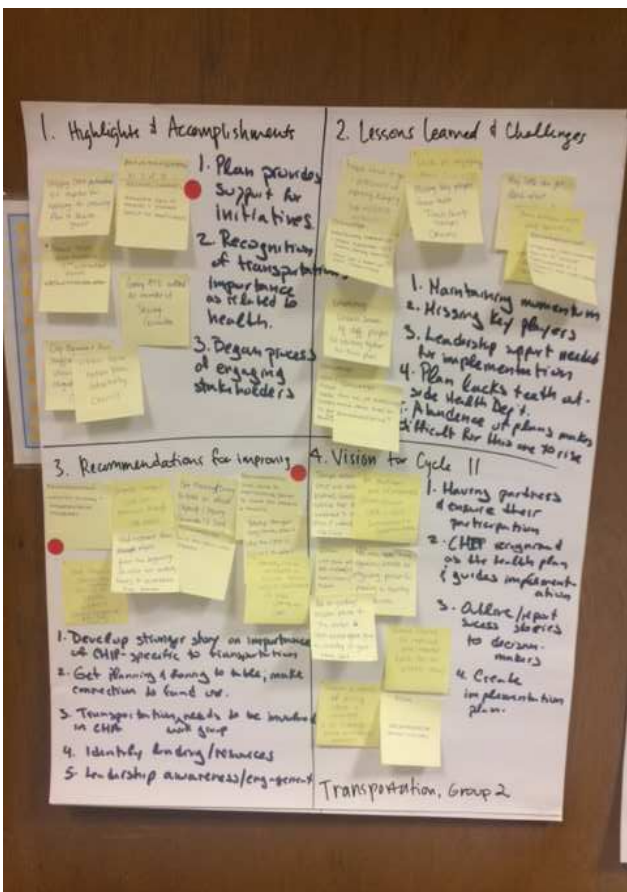
1.) Why balance a community health needs assessment with an assessment of community assets?

2.) What are types of community assets that may be helpful for community health promotion?

Evaluation of the Austin/Travis County CHA-CHIP

(2011-16) (Springer, Evans & Lovelace, 2016: City of Austin HHS)

Methods *Leader Interviews, Focus Groups, Health Indicator Review...&: Participatory Evaluation Workshops*



Areas for Improvement

- 1) Enhance communication:
Purpose, identity, how to get involved
- 2) Enhance data collection:
 - ✓ Make CHA forums/focus groups convenient for participants & in Spanish
 - ✓ Ask for solutions, not just problems & increase community in planning
- 3) Regional approach...
- 4) Moving from CHA to CHIP=difficult...!

La Ventana: Small Group Inquiry Method

Assessing Environmental Assets for Health Promotion Program Planning: *A practical framework for health promotion practitioners*

Springer & Evans (*Health Promotion Perspectives*, 2016)

Aims

- 1.) To explore a basic *environmental asset* assessment framework guided by *ecological theories of health behavior* and principles from the field of implementation science
- 2.) To illustrate the application of an *environmental asset* approach within health promotion planning using examples from the scientific literature and the health promotion practice field.

Applying Theory to Health Asset Assessment

“There is nothing so useful as a good theory”.
-Kurt Lewin, 1935



Environmental Asset Assessment

Conceptual Foundation & Key Terms (Springer & Evans)

- **Socio-Ecological Theory:** Environments/settings influence behavior
 - ✓ “You are a product of your environment”. –Clement Stone
 - ✓ Health and health-related behaviors are shaped by where we live, study, work, pray and play (CDC, 2017).
- **Implementation Science & Systems Science:** a.) understanding context for health intervention b.) coupling intervention w/ context (Hawe et al., 2009, 2016)
- **Asset:** “A useful and desirable thing or quality”.
- **Environmental Asset:**
“Any aspect of the multiple environments that surround individuals (e.g., policy, social, information and physical) that can be harnessed toward promoting the health of individuals and populations.” (*Building from CDC Definition of “Community Asset”)

Ecological models of health behavior

Environments



Policy Environment



Social Environment



Information Environment



Built Environment

***Interactions of Influence...!*

Environmental Asset Mapping Framework

(Springer & Evans, 2016)



Settings

What are the settings that can be harnessed to reach the priority population?

Example: Promotion of child physical activity among children living in X community.

Key settings for children in X community include:

1. School
2. Out-of-school (OST) programs
3. Church
4. Neighborhood
5. Community recreational organizations



Policy Environment

Example: Child Out-of-School Program

- Frontline staff code of conduct
- OST program family agreements
- OST district level policy
- Schedule that includes 30 minutes of recess

Social/Cultural/Org. Environ.

Example: Child Out-of-School Program

- In-service staff trainings
- Student talent show
- Student mentoring groups
- OST program partners

Information Environment

Example: Child Out-of-School Program

- Parent bulletin board
- Parent flyer/newsletter
- School website
- OST program webpage

Physical Environment

Example: Child Out-of-School Program

- Cafeteria
- Gym
- School garden
- Playgrounds & field
- Tables/wall space



Participatory inquiry

Health by Design: Interweaving health promotion into environments and settings

Springer, Evans, Ortuño, Salvo, Varela (*Frontiers in Public Health*, 2017)

Health promotion interweaving into context:

Designing health promotion interventions (strategies, practices, programs & policies) to fit within, complement, and build from existing settings and environments.

- “Coupling” & “Embedding” (Hawe et al. ‘09; May et al.’16)
- ✓ Embraces an indigenous health intervention development perspective: Interventions build from site-specific knowledge, practices and values (Miller & Shinn, 2005)
- ✓ Moves from a conceptualization of context as a backdrop to intervention, to one that recognizes context as integral to the intervention design

Aim

To examine theoretical and practice-based *interweaving concepts* in relation to:

- *the policy environment*
- *the information environment*
- *the social/organizational environment*
- *the physical environment*

Interweaving health promotion into context: *Selected theory & practice-based concepts*

Environment	Concept	Definition	Theory/ Practice Perspective
Policy	<i>Health in All Policies</i>	Incorporating health considerations into decision making across sectors	Community/ Municipal Planning (NACCHO)
Information	<i>Environmental Print</i>	Enhancing everyday contexts for health communication <i>(The print of everyday life = symbols, signs, numbers, colors found in schools, comm., etc.)</i>	Child Literacy (Neuman, 2014)
	<i>Behavioral Journalism</i>	Incorporating authentic role model stories of behavior change into mass/local media	Health Communication (McAlister et al. 2000)
	<i>Cues to Action</i>	Providing positive reinforcement for health behavior/action via visual cues (e.g., messages, symbols) and strat. placement of stimulus.	Health Belief Model (Janz & Becker, 1984)

Environment	Concept	Definition	Theory/ Practice Perspective
Social/Cultural/ Organizational	<i>Appropriable Organization</i>	Harnessing social organization created for one purpose to provide a valuable resource for health purposes	Social Capital Theory (Coleman, 1994)
	<i>Mobilizing social networks & social support</i>	Encouraging social networks to provide social support.	Theories of social networks/social support (Valente, '15)
	<i>Structural Redesign</i>	Changing organizational elements (e.g., mission, job descr.) for health promotion	Org. Development Theory (Cummings & Worley, 2014)
	<i>Common Agenda</i>	Creating a shared vision for change that includes a common understanding of the problem and joint approach to solving the problem through agreed upon actions	Collective Impact (Flood et al., 2015)

Environment	Concept	Definition	Theory/ Practice Perspective
Physical Environment	<i>Facilitation</i>	Creating an environment that makes the action easier or reduces barriers to action.	Social Cognitive Theory (Bandura, 1986)
	<i>Shared Use</i>	Establishing a formal or informal agreement between two or more separate entities, such as a school and a city or county, for shared use of public property or facilities.	Community & Municipal Planning (ChangeLab Solutions, 2017)

Interweaving health promotion
into environments and settings:
*Evidence and practice-based
examples*



Interweaving health promotion into the...

Policy Environment (*“Health In all Policies”*)

School Schedules

CATCH Middle School Project (Springer et al., 2012) created an “open gym” policy during school, resulting in increased opportunities for PA.



Campus Improvement Plans

Texas Action for Healthy Kids: Successfully inserted increased policies and practices for physical activity and healthy eating in CIPs in 10 central TX middle schools. (Springer et al., 2012)



Michelle Smith & friends,
Texas Action for Healthy Kids

Interweaving health promotion into the...

Information Environment

Electric Bills and Physical Activity: Brazil

(“Environmental Print”)

- *Agita Paulo Program*: No funds required; reached 7 million Sao Paulo residents (Matsudo et al., 2002).



PA & Healthy Eating: TX/Mexico Border

(“Behavioral Journalism”)

- *Tu Salud ¡Sí Cuenta!* Role model stories inserted into drive-time and morning radio, TV spots, newspapers
- Increased FV & PA (Reininger et al., 2015)



Soap Operas and HIV Prevention & TX

(“Behavioral Journalism Entertainment”)

- *Telenovela: The Bold and the Beautiful* = Insertion of an HIV/AIDS storyline resulted in increased calls to an information hotline (Kennedy et al., 2004).



Interweaving health promotion into the...

Information Environment (*“Environmental Print”*)

Marijuana Use Prevention in Middle School Students

- Slater et al. (2006): Marijuana prevention messages: book covers, tray liners, rulers, lanyards, T-shirts & network of nonprofit organizations to spread messaging
- Intervention students: <use at 2 year follow-up vs. schools with classroom curriculum (n>4,000 middle school students; 16 comms.)



Physical activity & “Bitacora”

- ¡Activate Ya! study: (Harrell & Springer, in process): Insertion of physical activity goal setting and into student agendas



Interweaving health promotion into...

Social/Cultural/Organizational Environment

(“appropriable org.”, “structural redesign”, “mobilizing social support”)

Contraceptive use & drug shops in Uganda

- Drug shops (informal pharmacies) in rural and peri-urban areas of Uganda were activated to provide safe contraceptive injections (Akola et al., 14)



Cafeteria workers & fruit and vegetable consumption in children in Minnesota

- 5-A-Day Cafeteria Power Plus : Verbal encouragement from cafeteria workers resulted in increased consumption of F/V (Perry et al., 2004).



Cultural organizations as vehicles for health in CA

- Healthy diet and PA promoted via Filipino-American social organizations in San Diego by forming health committees = increases in PA and selected dietary outcomes. (Dirige et al., 2013).



Culture Club...

Interweaving health promotion into the...

Physical (Built) Environment

Reorganizing the cafeteria serving line

(“Facilitation”)

- Review of the literature= selection and consumption of healthier foods (Frerichs et al. 2015)

WIC Clinics y Fruit/Veg Stands in Austin, TX.

(“Facilitation”, “Shared Use”)

- Resulted in more consumption of FV in residents living within 0.5 miles of the stand (Evans et al., 2012).

Schoolyards and Physical Activity, New Orleans

(“Shared Use”)

- Schoolyards were activated afterschool school w/adult supervision. The intervention also resulted in increased child PA in the neighborhood (Farley et al., 2007).



Interweaving health promotion into the...

Physical (Built) Environment (*“Shared use”*)

St. Louis to Deliver Healthcare at the Train Station

Kelsey Thomas, Sept 14, 2016 *Next City*



“North St. Louis County commuters will soon be able to get a checkup before boarding the train. A \$940,000 grant from U.S. DOT will fund health screenings such as blood pressure and cholesterol tests at a MetroLink station, according to the [*St. Louis Post-Dispatch*](#).”

Dr. Deborah Salvo

The built environment & “pop up parks”

Summary

Community Health Needs Assessment:

- Essential step in planning health interventions

Environ. Asset Assessment & Health Promotion Interweaving:

- Potential for enhancing health needs assessments as well as: *planning, effectiveness, and sustainability of health interventions*
 - Identification of settings and environments (*policy, information, social/org., built environments*) that can be 'harnessed' for health promo.
 - Interweaving of strategies within existing environments, settings & 'environmental assets'

Looking forward...

What are other key environments that shape health?

- Arts Environment?
- Economic Environment?

What are other concepts and methods that can help to harness environments for health promotion?

- Interaction of influences of environments
- Extensiveness across settings
- Time: not a linear process?
- Agency for action...!

Ignacio Martin-Baro
(1942-1989) (UCA, El Salvador)



Escrituras para una Psicológica de Liberación.

[Writings for a Liberation Psychology]

“We need to develop a progressive psychology [*public health!*] that helps people find the road to their personal and collective historical fulfillment. In our case more than anyone else’s, the principle holds...the concern of the social scientist should be not so much to explain the world, as to change it.”

Acknowledgments

Co-Authors

- Sandra Evans, PhD, Jackie Ortuño,
UTHealth School of Public Health
- Maria Teresa Arevalo, MS, Javeriana
Universidad, Cali, Colombia

Conceptual Foundation & Inspiration

- *Intervention Mapping*
- Drs. Kay Bartholomew & Chris Markham

Thank you & Questions

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Four Square Discussion

1) Health Topic (*select...*)

- Sudden Infant Death Syndrome prevention
- Childhood obesity prevention
- Adolescent e-cigarette use prevention
- Other?

2) Setting(s)

What setting(s) could be harnessed to reach priority population & incorporated for intervention?

3) Approach & Methods

How would you go about conducting an asset assessment? (Who would do the assessment? What methods would you use?)

4) Assets

What are examples of environmental assets that could be 'harnessed' for your intervention?

- ✓ Information environmental assets
- ✓ Social/organizational assets
- ✓ Policy assets
- ✓ Built environmental assets

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Settings

What are the settings that can be harnessed to reach population?



Home



Church



Neighborhood



School

Afterschool Program