Engaging the Community to Address Health Inequalities: An Approach to D&I Research

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Children living in poverty are how many times more likely to have poor health, compared with children living in high-income households?

A. 3 times  
B. 4 times  
C. 5 times  
D. 7 times

D. 7 Times

Children are most vulnerable. Not only are they susceptible to sub-standard housing, poor food, bad schools, unsafe streets and chronic stress, but the impacts of childhood poverty are cumulative, leading to a pile-up of risk that influences adult health and can even affect the next generation.
On average, how many more supermarkets are there in predominantly white neighborhoods compared to predominantly Black and Latino neighborhoods?

A. About the same
B. 2 times as many
C. 4 times as many
D. 6 times as many

C. 4 times
Predominantly Black and Latino neighborhoods have more fast-food franchises and liquor stores, yet often lack stores that offer fresh, affordable fruits and vegetables.
**Definitions:**

- **Obesity:** Body Mass Index (BMI) of 30 or higher.

- **Body Mass Index (BMI):** A measure of an adult’s weight in relation to his or her height, specifically the adult’s weight in kilograms divided by the square of his or her height in meters.

(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1985

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1990
(*BMI ≥30, or ~30 lbs. overweight for 5’ 4” person)
Obesity Trends Among U.S. Adults

BRFSS, 2000

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2010
(*BMI ≥30, or ~30 lbs. overweight for 5’ 4” person)
Prevalence* of Self-Reported Obesity Among U.S. Adults
BRFSS, 2012

*Prevalence reflects BRFSS methodological changes in 2011, and these estimates should not be compared to those before 2011.
Source of the data:

• The data shown in these maps were collected through CDC’s Behavioral Risk Factor Surveillance System (BRFSS). Each year, state health departments use standard procedures to collect data through a series of telephone interviews with U.S. adults. Height and weight data are self-reported.

• Prevalence estimates generated for the maps may vary slightly from those generated for the states by BRFSS (http://aps.nccd.cdc.gov/brfss) as slightly different analytic methods are used.
Obesity Prevalence by Education Level 1991-2001

Source: CDC, BRFSS, 1991-2001
U.S. cigarette smoking prevalence by education level 1980-2010
Why should class and poverty matter?

- Health is not about biology
- Biology and environment interact to influence health
- There is a differential disease burden among different social groups
- The factors leading to these differential outcomes are often termed “social determinants” and include
  - Geographies
  - Race/ethnicity
  - Living Conditions
  - Socioeconomic status
    - Income
    - Education
    - Occupation
  - Gender
  - Sexuality
  - Immigration status
  - Stressful life events over the lifecourse
Simplified social epidemiology

Poverty → Heart Disease
A more complex model with mediators accounting for social context

- Inadequate access to "healthy" foods
- "poor" diet (sugar sweetened snacks; few fruits and vegetables)
- Obesity
- Residence in a "food desert"
- Poverty
- Heart Disease
Challenges in Addressing Inequalities Through D&I

• We have a large number of successful interventions. If so what is the problem?
• Why aren’t we able to tap into these interventions to address inequalities? What are the challenges?
• What should we focus on? That is, what are the levers that we should push to bring about population level changes?
• The complex challenge of health disparities requires that we address the issue at multiple levels. We have to get a better understanding of the context in which the interventions are taken up or not taken up.
Take Home Lessons

- Social context matters and requires a decidedly different approach to prevention than individual level-focused approaches.
- The effects of most secular trends, and benefits from planned social change programs, work to the advantage of the well-off and may exacerbate inequalities.
- We might want to target resources to those with most need.
- Deliberately designed programs to address the poor may help them take advantage of the programs.
- May be cost-effective over the long run.
• Individual level interventions
  – Change knowledge attitudes and behaviors
  – Work with providers to change some form of practice such as checklists
  – Provide material such as brochures
  – Use community health workers, patient navigators and case workers
  – Use mass media campaigns
Challenges with the conventional approaches

- No accounting of social contextual conditions
- Sustainability of intervention effects is not guaranteed
- Environmental and policy changes are not addressed.
A different approach to social change

• Focus on social context
  – Communication Inequalities and the underserved
• Capitalize on new innovations: e.g. the Internet
• Build community capacity
• Invest in “capital”
  – Social capital
  – Human Capital
  – Fiscal capital
Typology of Community Research

- Community Research
- Community-Based Research
- Community-Based Participatory Research
Community-Based Participatory Research

- Build on strengths and resources within the community.
- Integrate knowledge and action for mutual benefit of all partners.
- Promote a co-learning and empowering process
- Involve a cyclical, iterative process.
- Address health from both positive and ecological perspectives.
- Disseminate findings and knowledge gained to all partners.
- Facilitate collaborative, equitable involvement of all partners in all phases of the research.

Israel et al., 1989; Minkler & Hancock, 2008
• How does one operationalize these principles in building a program of research?
• What are the challenges?
Social ecological model: Multi-level drivers

- Government and policy (e.g. laws, regulations)
- Community and social (e.g. physical and cultural environment)
- Organizational (e.g. work or school environments)
- Interpersonal (e.g. social networks)
- Individual (e.g. attitudes, knowledge, skills)

Lessons From the Field: Three Exemplar CBPR Interventions

• MassCONECT
  – Build community capacity to address disparities though inter-sectoral mobilization in three Massachusetts Communities

• Planet MassCONECT
  – Community-based organization’s capacity building to promote adoption of evidence-based interventions

• Project IMPACT
  – Transform public agenda about health disparities by influencing Media agenda

• iLEARNT
  – India Learning Network on Tobacco Control
CBPR Sites and Key Community Partners

- Lawrence
- Boston
- Worcester

Common Pathways

- Mayor's Health Task Force
- Racial and Ethnic Approaches to Community Health
- Boston Reach Coalition
- Alliance
MassCONECT Overview

primary goals

• To develop and increase the capacity of the Boston, Lawrence and Worcester communities by supporting community-based education, research, and training to reduce cancer health disparities.
• How is successful dissemination accomplished in community settings?
• What are the barriers faced by community groups in adopting successful evidence-based interventions?
• Even more germane, what are the barriers to adoption of interventions for underserved groups?
What is Involved in Community Engagement?

• Structuring Participation
  – Structuring collaboration
  – Facilitating communication
  – Community Input

• Investment in the Community
  – Resource Sharing
  – Human Capital
  – Social Capital

• Knowledge Production and Knowledge Exchange
• Study funded by the National Cancer Institute
  Guided by Community-based participatory research approach
  – Partnership among, HSPH, DFCI, Mayor’s Health Task Force (MHTF), Lawrence, Common Pathways, Worcester, and Alliance for Community Health, Boston
  – Tests a model for supporting capacity-building in communities around evidence-based programs

• Participants received
  – Training (iCHPP)
  – Planning / implementation grant opportunities
  – Toolkit and technical assistance
  – Opportunities to connect with like-minded peers

• What we asked
  – Engagement (in class and in the network)
  – Participation in research efforts, including surveys
The Current Way of Work: Working in Parallel to Build Healthy Communities

- Researchers
  - Research & Publications

- Community-Based Practitioners
  - Community Outreach
A New Way of Work: Leveraging Expertise as Change Agents

Researchers

iCHPP Alumni / Change Agents

Community-Based Practitioners

Health and Science Impact
A stepped approach

Step 1: Review Data
Step 2: Find Partners
Step 3: Explore Approaches
Step 4a: Choose a Program
Step 4b: Customize and Localize

Developed by the PLANET MassCONECT Team.
Funded by NCI (Grant # 5 R01 CA132651). 2012
• We have so far trained 252 community health educators in five cities in Massachusetts

• In addition, we have provided, planning grants to practice lessons from the workshops

• Evaluation

  • A census of CBOs doing health outreach in three cities in Year 1
  • A survey of workshop participants at three points in time
    • Immediate Post-test, 6-month and 12-month intervals
  • Questionnaire includes satisfaction, knowledge about EBIs, confidence in using EBIs, behaviors
  • Assessment of proposals made for planning grants to see if they incorporate approach proposed in the workshop
• How the MassCONECT network has developed structurally from its inception in 2005 until the present
• The relationship between key network characteristics and specific MassCONECT outcomes
• The extent to which MassCONECT has fulfilled its purpose of developing an organizational network in Boston, Lawrence, and Worcester
A CBPR Approach to SNA

• SNA Subcommittee formed by staff, faculty, and representatives from each of the 4 Coalitions
  – discuss the goals and objectives of the SNA
  – develop the survey instrument

• A pilot survey conducted with community members
  – Pilot data incorporated into the final survey instrument

• MassCONECT members interviewed during data collection

• 39 interviews carried out between December 2008 and February 2009.

• Respondents included anyone who received MassCONECT funding or participated in or planned MassCONECT events, meetings, or projects.
  – Community Coalitions
  – Community Agencies
  – Research Teams and Individuals
  – Policymakers and Individual Public Health Leaders
  – 72% overall response rate.
How Connected was the MassCONECT network?

**Expanded Network: Baseline**

- 10.27% network density

**Expanded Network: 4-Year**

- 20.07% network density
What is the perspective of the community on research about and application to address health inequalities?

Why is D&I important from a community perspective?

Vilma Lora, Director of Women’s Services and Coordinator of Mayor’s Health Task Force, Lawrence, MA