



National Institutes of Health

Introductory Remarks

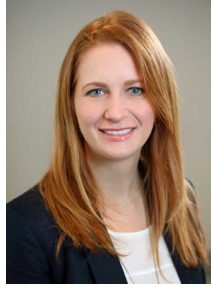
National Advisory Council for Nursing Research
September 15, 2020

Shannon Zenk, PhD, MPH, RN, FAAN
Director, NINR

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Thank you!




Tara Schwetz, PhD
Associate Deputy Director, NIH

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Overview

- About my scientific career
- Health landscape and NINR science
- Dialogue




National Institutes of Nursing Research

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My Background

- Education
 - BSN Nursing
 - MS Public Health Nursing
 - MPH Community Health Sciences
 - PhD Health Behavior & Health Education
- Pre-Doctoral: Psychosocial Factors in Mental Health/Illness (NIMH)
- Post-Doctoral: Cancer Control & Population Sciences (NCI)
- Nursing faculty member



National Institutes of Nursing Research

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My Program of Research

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My Program of Research

Social Inequities in Community Environment

Neighborhood Racial Composition, Neighborhood Poverty, and the Spatial Accessibility of Supermarkets in Metropolitan Detroit

Shannon N. Zenk, PhD, Amy J. Schulz, PhD, Barbara A. Young, MPH, Elizabeth A. Cohen, PhD, Heather Bell, PhD, and Robert J. Anderson, PhD

US secondary schools and food outlets

Shannon N. Zenk^{a,*}, Lisa M. Powell^b

Availability of Commonly Consumed and Culturally Specific Fruits and Vegetables in African-American and Latino Neighborhoods

Shannon N. Zenk, PhD, MPH, Barbara A. Young, PhD, Elizabeth A. Cohen, PhD, Heather Bell, PhD, Robert J. Anderson, PhD, and Lisa M. Powell, PhD

Relative and Absolute Availability of Healthier Food and Beverage Alternatives Across Communities in the United States

Shannon N. Zenk, PhD, MPH, Barbara A. Young, PhD, Elizabeth A. Cohen, PhD, Heather Bell, PhD, Robert J. Anderson, PhD, and Lisa M. Powell, PhD

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My Program of Research

Community Environment, Behaviors, and Health

Neighborhood Retail Food Environment and Fruit and Vegetable Intake in a Multiethnic Urban Population

Shannon N. Zenk, PhD, MPH, Barbara A. Young, PhD, Elizabeth A. Cohen, PhD, Heather Bell, PhD, Robert J. Anderson, PhD, and Lisa M. Powell, PhD

Model 3: Food Store Availability			
	Estimate	SE	p
Large grocery store	0.691	0.210	0.002
Specialty store	-0.030	0.230	0.896
Convenience store	-0.110	0.238	0.643
No. of liquor stores	-0.041	0.046	0.376
Small grocery store	-0.289	0.193	0.136
Distance to nearest supermarket (miles)	0.056	0.120	0.638

Longitudinal Associations Between Observed and Perceived Neighborhood Food Availability and Body Mass Index in a Multiethnic Urban Sample

Shannon N. Zenk, PhD¹, Graciela Mentz, PhD², Amy J. Schulz, PhD¹, Vicki Johnson-Lawrence, PhD³, and Causandra R. Gaines, BSW⁴

Table 2. Longitudinal, Multivariable Associations Between Neighborhood Food Availability and BMI Change*

	Model 1		Model 2		Model 3	
	Est. (SE)	95% CI	Est. (SE)	95% CI	Est. (SE)	95% CI
Independent variable						
Large grocery store availability	0.54 (0.42)	[-0.48, 1.31]	0.391			
Small grocery store availability	1.23 (0.99)	[-0.66, 3.11]	0.467			
Convenience store availability	-0.43 (0.55)	[-1.53, 0.45]	0.450			
Liquor store availability number	-0.07 (0.10)	[-0.27, 0.19]	0.502			
Stores with 10+ fresh fruit or vegetable varieties number ^b			0.33 (0.21)	[-0.08, 0.79]	0.113	
Perceived fruit and vegetable access					-0.69 (0.36)	[-1.36, -0.02]

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My Program of Research

Community Environment and Exposure Measurement

GPS Tracking

Activity space environment and dietary and physical activity behaviors: a pilot study

Shannon N. Zenk¹, Amy J. Schulz², Barbara A. Young³, Angela Okonko-Thomas⁴, Jeffrey Wilcox⁵, and Robert J. Anderson⁶ (1: University of Michigan, 2: University of Michigan, 3: University of Michigan, 4: University of Michigan, 5: University of Michigan, 6: University of Michigan)

Convergent validity of an activity-space survey for use in health research

Shannon N. Zenk¹, Amber N. Smith², Kelly S. Jones³, Stephen A. Matthews⁴

How many days of global positioning system (GPS) monitoring do you need to measure activity space environments in health research?

Shannon N. Zenk¹, Barbara A. Young², Amber N. Smith³, Kelly S. Jones⁴

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My Program of Research

Community Environment x Behavioral Interventions

Does Effectiveness of Weight Management Programs Depend on the Food Environment?

Elizabeth Turlou¹, Coady Wing, Howard S. Gordon, Stephen A. Matthews, Kelly K. Jones, Lisa M. Powell, and Shannon N. Zenk

At 6 months post-intervention:

- Men with most nearby **convenience stores** and **fast food restaurants** lost less weight (0.1 and 0.15 BMI units)
- No difference among women

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My Program of Research

Community Environment x Person Interactions

For whom? e.g.,

- Income
- Executive function
- Self-efficacy
- Intentions
- Social support and norms

Under what (time-varying) conditions? e.g.,

- Stress (daily hassles)
- Mood (positive or negative)
- Time pressure
- Food cravings

Ecological momentary assessment of environmental and personal factors and snack food intake in African American women^{*}
 Shannon N. Zenk^{1*}, Irina Horoi², Ashley McDonald³, Colleen Corte⁴, Barth Riley⁵, Angela M. Odoms-Young⁶

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Key Experiences as Foundation

- Extensive collaborative research experience
- Mentoring of future scientists
- Excellence in science review

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NINR's Legacy: A Crucial Building Block for the Future

November 20, 1965
Public Law 89-158, the Health Research Extension Act of 1965, creates the National Center for Nursing Research (NINR) at NIH.

June 15, 1987
The National Center for Nursing Research (NINR) is established at NIH. Nursing is the only profession to have a dedicated center at NIH.

Summer 2000
NINR holds the first Summer Directors Institute (SDI), a two-month, full-time summer research training program targeted at faculty graduate students and postdoctoral fellows.

2010
The research of Drs. Rita Colwell, Anwar Faiz, and colleagues shows that using reusable plastic earbuds to filter pond and river water successfully reduced the incidence of cholera by nearly half in a study conducted in Bangladesh.

2014
NINR celebrates its 50th anniversary at NIH.

2015
NINR commemorates its 50th anniversary at NIH and plays an integral role in the NIH Research Initiative, which was launched by the NIH Director to address opportunities and gaps in research that accelerate the progress of science.

2017
The NIH Director designates NINR as the lead institute for coordinated collaborative research at NIH across other Institute divisions on research that

2018
NINR launches the "Precision Health: Smart Technologies, Smart People" Symposium. The symposium features keynote panels and a poster session aimed at engaging graduate nursing students, faculty, and researchers in the clinical, behavioral, and social sciences. The symposium also includes a roundtable discussion on health care, education and research, and a panel on health care and education.

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The Health and Health Care Landscape

- Pressing health challenges and persistent health inequities
- Broader recognition of racial and social injustices and their health effects
- Public demand for change
- **Urgently needed nursing practice and policy solutions**

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The Health and Health Care Landscape: COVID-19

Age-adjusted COVID-19-associated hospitalization rates by race and ethnicity
COVID-19 associated hospitalization rates are highest among people who are non-Hispanic American Indian/Alaska Native, non-Hispanic Black, and Hispanic/Latino.

RACE AND ETHNICITY	Rate per 100,000 population
Non-Hispanic American Indian/Alaska Native	311
Non-Hispanic Black	295
Hispanic/Latino	294
White	62
Other	62

Coronavirus layoffs disproportionately hurt black and Latino workers: 'it's almost like doomsday is coming'

What It's Like To Not Have Running Water During A Pandemic

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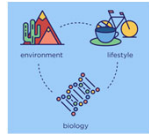
The Hallmark of Nursing

NIH
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Taking Nursing Science to New Levels

- Push Scientific Discoveries in Multilevel Integration, from the Molecular to the Macro
- Prioritize Research Translation



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Taking Nursing Science to New Levels

- **Sample questions for joint consideration:**
 - What are key scientific areas in multilevel integration?
 - How can we eliminate health inequities?
 - What factors at multiple levels are most important?
 - What are the scientific gaps in nursing practice and policy translation?
 - What training will prepare scientists to push upstream-downstream integration?



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Dialogue

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