Presentation at the 40th Anniversary Conference of
The Institute for Policy Research
Northwestern University
P. Lindsay Chase-Lansdale and Thomas W. McDade
April 16-17, 2009
C2S Mission

- **Bring together** social, life, and biomedical sciences to understand the origins, consequences and policy solutions for contemporary health inequalities in the U.S.

- **Investigate** how social, race/ethnic, and economic disparities “get under the skin” and affect human development, physical and psychological well-being, and learning
The Society-Behavior-Biology Nexus as Depicted in Multidimensional Space

Mortality Rate by SES

Source: Adler et al., 1994
Morbidity Rate by SES

Source: Adler et al., 1994
Mission of the Institute for Policy Research (IPR)

- **Stimulate and support** excellent multidisciplinary social science research on significant public policy issues

- **Disseminate** the findings widely—to scholars, policymakers, educators, service providers, and the public at large
C2S Faculty

C2S Director:

P. Lindsay Chase-Lansdale
Program in Human Development & Social Policy (HDSP)
School of Education and & Social Policy (SESP)

C2S Summer Biomarker Institute Directors:

Thomas McDade, Associate Director of C2S,
Department of Anthropology

Emma K. Adam, Program in HDSP, SESP

Christopher Kuzawa, Department of Anthropology
Emma K. Adam, Program in HDSP, SESP
Katherine Kaufer Christoffel, Feinberg School of Medicine
Fay Lomax Cook, Program in HDSP, & Department of Political Science
Thomas Cook, Department of Sociology
Eli Finkel, Department of Psychology
Jeremy Freese, Department of Sociology
Craig Garfield, Feinberg School of Medicine
Philip Greenland, Feinberg School of Medicine
Jane Holl, Feinberg School of Medicine
Christopher Kuzawa, Department of Anthropology
Dan A. Lewis, Program in HDSP
Jelani Mandara, Program in HDSP
Leslie McCall, Professor of Sociology
C2S Faculty

Alberto Palloni, Professor of Sociology
Mary Patillo, Professor of Sociology, & African-American Studies
Lincoln Quillian, Professor of Sociology
Eva Redei, Department of Psychiatry & Behavioral Sciences
Jennifer Richeson, Department of Psychology
Dorothy Roberts, School of Law
Madeline Shalowitz, ENH
Bruce Spencer, Department of Statistics
Linda Teplin, Department of Psychiatry & Behavioral Sciences
Celeste Watkins-Hayes, Department of Sociology, & African-American Studies
Sandra Waxman, Department of Psychology
Teresa Woodruff, Department of Neurobiology & Physiology
C2S Research Programs: The challenge of the gradient

UK

US

Banks et al. (2006), JAMA
C2S Research Programs: The challenge of the gradient

Poor health $\rightarrow$ Education

$5,274$

US

$2,164$

UK
Social disparities, stress & health

Class, status

- Health selection
- Resources (material/social)
- Access to health care
- Health behaviors
- Psychosocial stress
Social disparities, stress & health

National Longitudinal Study of Adolescent Health (Add Health)

N~17,000
24-32 years

Mental health
Self-reported health
Biomarker panel:
Ht/Wt; BMI
SBP, DBP
TC & HDL
CRP
EBV antibodies

Health and well-being
Stress outcomes: physiological, subjective
Families, Interpersonal Relationships & Health

Current HPA-Axis Functioning (As Indexed by Cortisol Activity)

- Wakeup Level
- Bedtime Level
- Average Level
- Diurnal Slope
- Amplitude of Reactivity to Stressors
- Amplitude of Response to Awakening
- Efficiency of Negative Feedback and Stress Recovery
- Variability within and across Days

Historical Influences
- Prenatal and Early Postnatal Organizational Influences

Childhood History of Stress, Support, and Trauma

Physical, Mental Health, and Lifestyle History

Temperament/Personality, Gender, and Genetic Variations

Moderating Factors

Recent/Immediate Emotional and Cognitive State

Current Functioning of Related Physiological and Neurological Systems

Current Psychopathology

Current Physical Health and Lifestyle Factors

Recent/Immediate Environmental Stresses and Supports

Adam et al. (2007)
Interracial encounters may be stressful... and cognitively costly.

Richeson & Shelton (2003), *Psychological Science*
A developmental, intergenerational approach to health disparities

G1

social inequality

G2

health

G3

social inequality
Looking to the future: Goals of C2S

- Expand and strengthen existing research programs
- Catalyze new transdisciplinary collaborative projects related to social disparities and health
- Mentor and develop young scientists
Toward a new human ecology

Demographic factors
- Age
- Gender
- Socioeconomic status
- Race/ethnicity

Psychosocial factors
- Social relationships
- Stressor exposure (e.g., life events, discrimination)
- Cognitive/affective traits

Community factors
- Geographic setting, location
- Social capital
- Infrastructure

Health care
- Access
- Knowledge/trust

Cultural factors
- Shared beliefs, values, models of behavior

Biological mechanisms
- Sympathetic adrenal medullary system
- Hypothalamic pituitary adrenal axis
- Cardiovascular system
- Metabolic processes
- Immune system

Behavioral mechanisms
- Diet, physical activity
- Smoking, alcohol/drug abuse
- Sleep patterns
- Risk taking
- Use of health services

Health outcomes
- Mortality
- Morbidity (physical and mental)
- Functional loss

Toward a new human ecology

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Toward policy and practice

- Methods development and application
- A transdisciplinary approach to policy-relevant research
  - MTO: *What is the effect of neighborhood change on mental and physical health?*
  - Work, Family, Health Network: *Do pro-family work environments improve health?*