It's About Time: Health Disparities Among US Women Through an Age, Period, and Cohort Lens, 1978–2018

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Summary

- This study uses a temporal framework to recontextualize women's health disparities.
- We analyze the biosocial accumulation of disadvantage (*age effects*), institutional and policy changes (*period* effects), and sociocultural transmission of health patterns (*cohort effects*).
- The findings collectively suggest that health disparities are situationally, historically, and culturally grounded in time.

Background

- Three key frameworks of diminished health returns explain how socioeconomic status impacts health differently by race/ethnicity:

  (1) **Biosocial**: Individual experiences that become biologically embedded over the life course
  (2) **Institutional**: Policies, healthcare systems, and structural barriers that affect health
  (3) **Sociocultural**: Cultural norms and generational patterns that influence health behaviors and outcomes

- We contribute a fourth dimension—**time**—to make sense of the links between race/ethnicity, socioeconomic status, and health disparities.
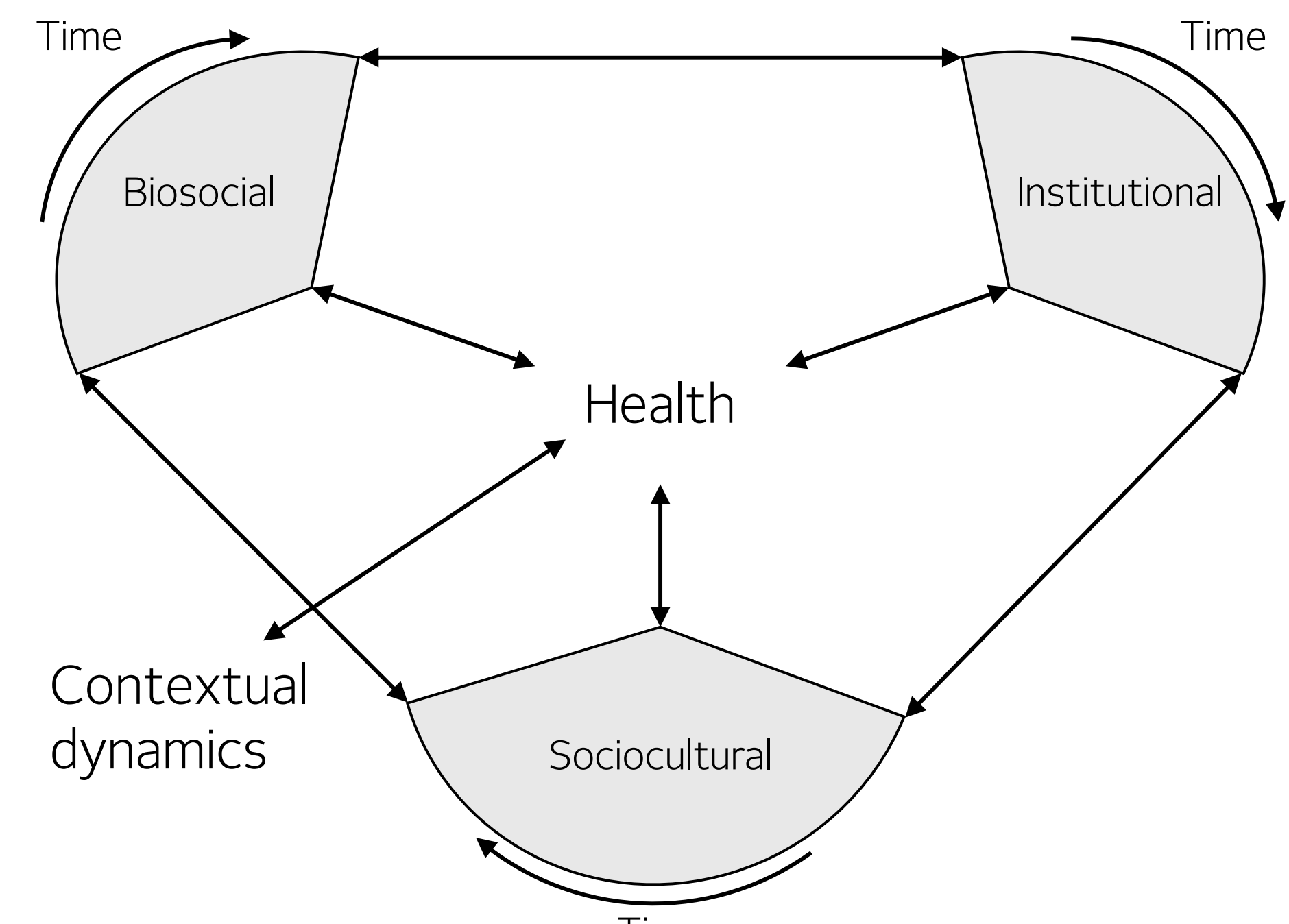
Source: Adapted from Lehman, David & Gruber (2017).

An APC Perspective on the Health Returns of Socioeconomic Status

Note: Separate models are run for age, period, and cohort, each with random effects. This figure shows differences in estimated coefficients between higher and lower socioeconomic categories by race/ethnicity, adjusting for other socioeconomic indicators, time dimensions, marital status, number of children, region, and sample weights.

Methods

Hierarchical age–period–cohort (APC) model (Bell & Jones, 2015; Yang & Land, 2006) to examine temporal patterns in how income, education, and employment impact health.

Data

- National Health Interview Survey (NHIS), 1978–2018 (N = 1,416,652)

Outcome

- Self-rated health (1 = poor to 5 = excellent)

Key predictors

Race/ethnicity	Socioeconomic status
1. White	1. Income-to-poverty ratio
2. Black/African American	2. Education
3. Hispanic	3. Employment
4. Asian/Pacific Islander	
5. American Indian/Alaska Native	

Time dimensions

Age group	Period	Cohort
1. Younger (18–30)	1. Carter (1978–1980)	1. Greatest Generation (1901–1927)
2. Middle-aged (31–59)	2. Reagan (1981–1988)	2. Silent Generation (1928–1945)
3. Older (60+)	3. Bush Sr. (1989–1992)	3. Baby Boomers (1946–1964)
	4. Clinton (1993–2000)	4. Generation X (1965–1980)
	5. Bush Jr. (2001–2008)	5. Millennials (1981–1996)
	6. Obama (2009–2016)	
	7. Trump (2017–2018)	

Controls

- Marital status (never married, married, separated/divorced, or widowed)
- Number of children in the household (0, 1, 2, or 3+)
- Geographical region (Northeast, Midwest, South, or West)

Conclusions

- A temporal framework helps examine microlevel processes alongside macrolevel structural and cultural factors.
- Different time dimensions may be more relevant in specific contexts, such as the weathering experienced by minoritized groups.
- Time is fluid and multidimensional; individuals navigate multiple time dimensions shaped by their social contexts.
- The time element helps clarify the impacts of multiple intersecting individual, institutional, and cultural contexts on health inequities.