Overview of Data Availability for Studying Work and Health Disparities and Unmet Needs

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Conceptual Model: Lipscomb, et al. (2006)

Work We Do Physical
Chemical
Psychosocial
Biological
Mechanical

Illness or Injury Health Economic Quality of Life



Microlevel Surveys

- Health status
- Access to care
- Health behaviors
- Conditions/Symptoms

Health Work

- Demographics
- Health insurance (NHIS, CPS, ACS)
- Paid sick days (NHIS, MEPS)
- Care giving (ATUS, BRFSS)
- Self-rated health (CPS)
- ADLs (ACS)
- Disability (CPS v. ACS)

• Working?

- Type of Work
- Work Time
- Earnings/Income
- Job Benefits



Longitudinal v. Cross-sectional (1/2)

Mostly Cross-Sectional

- Current Population Survey* (monthly, supplements)
- American Community Survey (annual)
- National Health Interview Survey (annual)
- Behavioral Risk Factor Surveillance Survey (annual, supplements)
- * May be possible to link across CPS years or link NHIS back to CPS interview fairly underused.



Longitudinal v. Cross-sectional (2/2)

When Available, Relatively Short Panels

- Medical Expenditure Panel Survey (1996-2018, overlapping 2year panels)
- Survey of Income and Program Participation (1996-2014, non-overlapping 4-year panels)

Longer panels

- Health & Retirement Study (Ages 50+, Michigan)
- National Longitudinal Surveys of Youth (several cohorts, BLS)
- Panel Study of Income Dynamics (Michigan)



Counting the Uninsured, 2019

Figure 1. Trend in National Number of Uninsured, 2000 to 2018: All Ages

ACS and NHIS point-in-time estimates of the uninsured; CPS and MEPS estimates of the full-year uninsured



* Dashed line "---" indicates a break in series.

Sources: CPS estimates from U.S. Census Bureau, 2019, "Health Insurance Coverage in the United States: 2018"; ACS estimates for civilian noninstitutionalized population from U.S. Census Bureau, 2019, "Health Insurance Coverage in the United States: 2018;" NHIS estimates from Cohen, Terlizzi, & Martinez, 2019, "Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2018"; MEPS estimates from https://meps.ahrq.gov/mepstrends/hc_ins/.

Source: Au-Yeung, C., & Hest, R. (2019). "Comparing Federal Government Surveys That Count the Uninsured: 2019." Annual Robert Wood Johnson Foundation Brief. Minneapolis, MN: State Health Access Data Assistance Center.



Sample sizes and geographical identification

- Both BRFSS and ACS can be used to look at subnational data to at least the state level for many purposes, but difficult to analyze smaller minority populations
- Longitudinal data not representative below national level
- Research data centers offer some access to protected geographical identifiers
- Possibility of collaborations to access administrative data



Supplementing information on working conditions using occupational characteristics



Example – O*Net

- Almost 1,000 occupations (Standard Occupational Classification)
 - 275+ descriptors
 - Data from Job incumbents, Occupational experts, and Occupational analysts



31-1014.00 - Nursing Assistants

Provide basic patient care under direction of nursing staff. Perform duties such as feed, bathe, dress, groom, or move patients, or change linens. May transfer or transport patients. Includes nursing care attendants, nursing aides, and nursing attendants.

Sample of reported job titles: Certified Medication Aide (CMA), Certified Nurse Aide (CNA), Certified Nurses Aide (CNA), Certified Nursing Assistant (CNA), Licensed Nursing Assistant (LNA), Nurses' Aide, Nursing Aide, Nursing Assistant, Patient Care Assistant (PCA), State Tested Nursing Assistant (STNA)

View report: Summary Details

Tasks | Technology Skills | Tools Used | Knowledge | Skills | Abilities | Work Activities | Detailed Work Activities | Work Context | Job Zone | Education | Credentials | Interests | Work Styles | Work Values | Wages & Employment | Job Openings | Additional Information

Tasks

- 5 of 33 displayed
- Turn or reposition bedridden patients.
- Answer patient call signals, signal lights, bells, or intercom systems to determine patients' needs.

Custom

- Feed patients or assist patients to eat or drink.
- O Measure and record food and liquid intake or urinary and fecal output, reporting changes to medical or nursing staff.
- Provide physical support to assist patients to perform daily living activities, such as getting out of bed, bathing, dressing, using the toilet, standing, walking, or exercising.

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Technology Skills

- 5 of 8 displayed Show 50 tools used
- Accounting software Billing software
- Electronic mail software Microsoft Outlook 44
- Medical software Epic Systems 🚸 ; Medical procedure coding software; MEDITECH software 🚸 ; PointClickCare
- Office suite software Microsoft Office 😽
- Spreadsheet software Microsoft Excel 44

O*Net Example: Nursing Assistant

(continues)





Administrative Data Linkages

Examples

- National Death Index
- Health and Retirement Survey linkages to SSA, CMS



MICHIGAN RETIREMENT AND DISABILITY RESEARCH CENTER UNIVERSITY OF MICHIGAN

Promoting research on retirement, disability, and Social Security policy

Trends in Health and Mortality Inequalities in the United States

Péter Hudomiet, Michael D. Hurd, and Susann Rohwedder*

Throughout the past century, life expectancy in the United States and other developed nations has increased due to innovations in medical science and technology. More recently, however, the longevity gap between richer and poorer individuals, i.e.,mortality inequality, has widened. Understanding whether this gap will continue to grow is important for policymakers. For example, because mortality is (negatively) correlated with income and wealth, increases in mortality inequality may result in increases in aggregate Social Security payouts, because individuals with greater annual benefits tend to live longer.

Changes in health behavior are one possible explanation for life expectancy changes. While previous research has documented trends in mortality inequality by using mortality data and some education and income measures of socioeconomic status (SES), it often has not looked at health status directly. Moreover, because of the lack of health data, most econometric models on mortality relied on extrapolations from past trends to forecast mortality for future cohorts. Such extrapolations may be problematic, because they do

not account for changes in health trends that may cause changes in mortality trends.

To gain new insights on widening mortality inequality, we documented trends by SES in various health measures of the Health and Retirement Study (HRS). The HRS is a nationally representative panel survey conducted every two years since 1992 of U.S. individuals at least 51 years old. The HRS has a variety of health and SES measures. We assessed data for persons 54 to 60 years old across cohorts born 1934 to 1959.

For SES, we used HRS measures on predicted Social Security (SS) wealth (defined as expected lifetime Social Security benefits) and educational attainment. For our health measures, we used, among others, self-reported health, body mass index, diabetes, reported pain, limitations with activities of daily living (ADL limitations), active smokers, and subjective survival probabilities measured by respondent answers to the question, "What is the percent chance that you will live to be 75 or more?"

Subjective survival probabilities and self-reported health

* Péter Hudomiet is an associate economist at the RAND Corporation. Michael Hurd is principal senior researcher and director of the RAND Center for the Study of Aging. Susann Rohwedder is a senior economist at RAND, associate director of the RAND Center for the Study of Aging, and an affiliate faculty member of the Pardee RAND Graduate School. This research brief is based based on working paper <u>WP 2019-401</u>, UM19-04.



Simulation



Example: Paid Family and Medical Leave

- 2012 FMLA Employees survey for behavioral models
- Predicts leave taking using 2013-2017 ACS
- Loops for 6 reasons (own health, maternity, new child, child care, spouse care and parental care)
- Divides the value of leave time at the worker's wage level into employerprovided wages, program benefits, and uncompensated time
- Workers expected to take highest benefits offered by program or employer



Summary

Always room for better data

- Content covering multiple domains work and health
- Large samples for special populations, small areas
- Longer panels

Offered suggestions for making what we have go further

- Increase awareness and support for domain-specific tools, such as O*Net
- Streamline research access to non-public data, including administrative records
- Expanded use of simulation models (RD: Simulation Modeling and Systems Science to Address Health Disparities)

