Research Opportunities in Add Health Linked to the AOS Intergenerational Panel

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Research Opportunities in Add Health Linked to the AOS Intergenerational Panel

• Add Health design and data
• Add Health Research questions
• Value of AOS infrastructure linkages to research in Add Health
• Longer-term policy impacts
• Data access and other barriers
National Longitudinal Study of Adolescent to Adult Health

• Nationally representative cohort of adolescents in grades 7-12 in 1994-95 who are being followed through adulthood.

• Scientific objective: study the causes and consequences of health and developmental trajectories from adolescence into adulthood.

• Integrative design to understand social, environmental, behavioral, biological, and genetic linkages in health across the life course.

• Role of social context on health and development.

• Multi-survey, multi-wave inter-disciplinary design.
Longitudinal Design

Wave I
1994-1995 (79%)
Students 90,118
School Admin 144
Adolescents in grades 7-12
20,745
Parent 17,670

Wave II
1996 (88.6%)
School Admin 128
Adolescents in grades 8-12
14,738
Young Adults Aged 18-26
15,197

Wave III
2001-02 (77.4%)
Partners 1,507
IIV Study ~ 100
Adults Aged 24-32
15,701

Wave IV
2008 (80.3%)
IIV Study ~ 100
Adults Aged 32-42
Target: 19,700

Wave V
2016-19
IIV Study ~ 100
Adults Aged 32-42
Parent 5,000

In-School Administration
In-Home Administration
Unique features of the Add Health design with the AOS Panel in mind

• Direct measurement of the social contexts of adolescent life: family, school, peer networks, neighborhood and community;
• Unprecedented racial and ethnic diversity;
• 3,000 genetically informed sibling pairs;
• Intergenerational data in Add Health:
  • Parent interview in 1995 and currently conducting a follow-up interview of parents;
  • Plan underway to collect birth records on children.
• Biological data collection at every wave since adolescence.
### Research Questions in Add Health: Life Course Perspective on Health and Development

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Add Health is a multidisciplinary, omnibus study with multidisciplinary, multilevel data

Effects of social contexts on adolescent behavior and health trajectories as adolescents transition to early adulthood

How adolescent and other early life experiences are related to health and well-being in adulthood
Add Health Research Questions

• First 10 years of Add Health focused on the effects of social contexts on adolescent behavior and health trajectories as adolescents transitioned into adulthood.
  • Family structure among peers, school, community on nonmarital fertility
  • The role of peer networks in adolescent behavior
    ▪ Friends of friends most impt for sexual behavior
    ▪ Parenting behaviors of friends’ parents influence adolescent health risk behavior.
The Social Structure of “Countryside” School District

Research questions as the Add Health cohort aged into adulthood

• Life course perspective to understand how adolescent and other early life experiences are related to health and well-being in adulthood.
  • Social stratification processes create health disparities in adulthood (mechanisms and timing effects);
  • Health as a factor in social stratification.

• We are currently occupied with understanding how early life experiences and environmental exposures “get under the skin” to affect health in adulthood.
  • Research on the impact of early life conditions on adult health;
  • Adolescence as a sensitive period
  • Have the data to test fetal origins vs pathway and other models
Data

• Longitudinal survey data on social, economic and psychosocial status; pro-social, attainment, and health and risk behavior;
• Longitudinal geographic data on social and built environment; crime rates; state policies;
• Biological data for objective measures of health and genetic data on candidate genes, specific SNPs, whole-genome, and transcriptome.
• Administrative data:
  • School records and characteristics
  • Military records from DOD;
  • Information on deaths from NDI;
  • Currently obtaining birth records on respondents and their children in subset of states;
  • Requested consent to link to SSA records at Wave III.
Limitations of Add Health Data

• Periodicity of interview waves is every 5-6 years;
• Add Health is a health study, so less information on nontraditional education and training, economic status, labor market behavior and work;
• Lack information on early life conditions of Add Health respondents at birth and during childhood.
• While we have complete relationship, cohabiting, marriage and childbearing histories, we do not have complete family and household information.
• Attrition is always a problem, see little bias in estimates yet, but higher among immigrants.
Ways AOS Intergenerational Panel would enhance Add Health Research

1. Confirm intergenerational linkages of parents and children to Add Health respondents (1990 Census—parents; children from subsequent censuses)
   • Information for all parents (residential and biological), missing parent interviews
   • Parental information on education, occupation, income at earlier stage in childhood for Add Health respondents

2. Administrative linkages to SSA and IRS provide annual earnings, income, unemployment data on parents historically and on parents and Add Health respondents during years of Add Health.
   • Enable research on the effects of early life SES, beginning at pregnancy, for the health of Add Health respondents in adulthood.
Ways AOS Intergenerational Panel would enhance Add Health Research

3. IRS linkages provide residential information on an annual basis:
   • Assemble geographic information on parents and fill in geographic information between interview waves for complete residential history of Add Health sample.
   • Model residential selection processes among parents and respondents when they leave home;
   • Examine more fully the dynamics and cumulative effects of environmental exposures;
   • Enrich Add Health analyses of rGE, GxE, and gene expression.
   • Weathering effects on birth outcomes of white and black mothers in Add Health.
Unique aspects of Add Health design to exploit with AOS Panel

1. Administrative linkages to parents and 90,000 students in-school sample of Add Health (school rosters)
   • Characterize the SES context of the school and study multilevel social mobility

2. Administrative linkages to Add Health peer networks
   • Ability to track peer networks over time to study their influence across the life course according to spatial proximity and potentially in work networks from firm information from IRS records (see next slide).

3. Exploit the genetic sibling pairs
   • Education, earnings, income, and residential data on siblings for social mobility analysis that can control for shared environmental and genetic variance.

3. Couples Sample
   • Ability to study parental background and the SES of partners in married, cohabiting, and dating couples (18-26 ages) on longevity of partnerships, subsequent health and well-being, and pregnancy and child outcomes of partnership if it lasts.
The Social Structure of “Countryside” School District

Longer-term impacts of policy in Add Health with AOS Panel

• Long-term secondary school effects on health and social mobility:
  • Administrative data on school policies;
  • Health consequences of school/neighborhood social mobility

• Natural and quasi experiments tied to residential location that affect health and birth outcomes and potentially explain health disparities (e.g., natural disasters, state laws, recession, implementation and provisions of the ACA, proximity to race-related events)

• Test life course models of SES conditions and other environmental exposures for health outcomes in adulthood, including sensitive period, accumulation, and pathway models.
Access and Barriers

• Consent issues
• Data management skills for big data
• Analytic resources and competence in data science
• Add Health data linked to administrative data would only be accessible in RDC (or virtual secure enclave) for restricted use
  • Impossible to minimize deductive disclosure risk with a reduced dataset
  • Simulated data is a possibility
• What is the quality of administrative data sources and does it vary by source?
• Parental health (and child health) records would be of most value to Add Health.