

Bibliography

Laurie J. Bauman, Ellen J. Silver, Ruth E.K. Stein. 2006. "Cumulative Social Disadvantage and Child Health." *Pediatrics* 117(4): 1321-1328.

Abstract

CONTEXT. Disparities in child health are a major public health concern. However, it is unclear whether these are predominantly the result of low income, race, or other social risk factors that may contribute to their health disadvantage. Although others have examined the effects of the accumulation of risk factors, this methodology has not been applied to child health.

OBJECTIVE. We tested 4 social risk factors (poverty, minority race/ethnicity, low parental education, and not living with both biological parents) to assess whether they have cumulative effects on child health and examined whether access to health care reduced health disparities.

DESIGN. We analyzed data on 57553 children <18 years from the 1994 and 1995 National Health Interview Survey Disability Supplement. Of the 4 risk factors, 3 (poverty, low parental education, and single-parent household) were consistently associated with child health. These were summed, generating the Social Disadvantage Index (range: 0–3).

RESULTS. A total of 43.6% of children had no social disadvantages, 30.8% had 1, 15.6% had 2, and 10.0% had all 3. Compared with those with no social disadvantages, the odds ratios (ORs) of being in "good, fair, or poor health" (versus "excellent or very good") were 1.95 for 1 risk, 3.22 for 2 risks, and 4.06 for 3 risks. ORs of having a chronic condition increased from 1.25 (1 risk) to 1.60 (2 risks) to 2.11 (3 risks). ORs for activity limitation were 1.51 (1 risk) to 2.14 (2 risks) and 2.88 (3 risks). Controlling for health insurance did not affect these findings.

CONCLUSIONS. The accumulation of social disadvantage among children was strongly associated with poorer child health and having insurance did not reduce the observed health disparities.

Blackwell, DL. "Family Structure and Children's Health in the United States: Findings from the National Health Interview Survey, 2001-2007." *National Center for Health Statistics, Vital and Health Statistics, Series 10*. 246: 1-176.

Objectives

This report presents statistics from the 2001–2007 National Health Interview Survey (NHIS) on selected measures of physical health and limitations, access to or utilization of health care, and behavior or emotional well-being for children under age 18 by family structure, sex, age, race, Hispanic origin, parent's education, family income, poverty status, home tenure status, health insurance coverage, place of residence, and region.

Source of Data

NHIS is a multistage probability sample survey conducted annually by interviewers of the U.S. Census Bureau for the Centers for Disease Control and Prevention's National Center for Health Statistics, and is representative of the civilian noninstitutionalized population of the United States. Information about one randomly selected child per family is collected in a face-to-face interview with an adult proxy respondent familiar with the child's health.

Bloom, B., R.A. Cohen, and G. Freeman. 2010. "Summary Health Statistics for US Children: National Health Interview Survey, 2009." *Vital and Health Statistics, Series 10, Data from the National Health Interview Survey*, 247: 1-82.

Bloom, B., R.A. Cohen, and G. Freeman. 2012. "Summary Health Statistics for US Children: National Health Interview Survey, 2011." *Vital and Health Statistics, Series 10, Data from the National Health Survey*, 254: 1-88.

Blumberg, S.J., M.D. Bramlett, M.D. Kogan, L.A. Schieve, J.R. Jones, M.C. Lu. 2013. "Changes in Prevalence of Parent-Reported Autism Spectrum Disorder in School-Aged U.S. Children: 2007 to 2011-2012." *National Health Statistics Reports*, 65(20): 1-7.

Boyle, C.A., S. Boulet, L.A. Schieve, R.A. Cohen, S.J. Blumberg, M. Yeargin-Allsopp...and M.D. Kogan. 2011. "Trends in the Prevalence of Developmental Disabilities in US Children, 1997-2008." *Pediatrics*, 127(6): 1034-1042.

Case, Anne, Darren Lubotsky, and Christina Paxson. 2002. "Economic Status and Health in Childhood: The Origins of the Gradient." *American Economic Review*, 92(5): 1308-34

The well-known positive association between health and income in adulthood has antecedents in childhood. Not only is children's health positively related to household income, but the relationship between household income and children's health becomes more pronounced as children age. Part of the relationship can be explained by the arrival and impact of chronic conditions. Children from lower-income households with chronic conditions have worse health than do those from higher-income households. The adverse health effects of lower income accumulate over children's lives. Part of the intergenerational transmission of socioeconomic status may work through the impact of parents' income on children's health.

Case, Anne, and Christina Paxson. "Mothers and others: who invests in children's health?." *Journal of health economics* 20.3 (2001): 301-328.

We estimate the impact of family structure on investments made in children's health, using data from the 1988 National Health Interview Survey Child Health Supplement. Controlling for household size, income and characteristics, we find that children living with step-mothers are significantly less likely to have routine doctor and dentist visits, or to have a place for usual medical care, or for sick care. Who invests in children's health? It appears these investments are made, largely, by a child's mother, and that step-mothers are not substitutes for birth-mothers in this domain.

Case, Anne, and Christina Paxson (2002). Parental behavior and child health. *Health Affairs*, 21, 164-178

In this paper we document the ways in which parental behavior and socioeconomic status affect children's health. We examine parental behavior in both the prenatal period and childhood. We present evidence on the correlation of this behavior with income and parents' socioeconomic status, and on the ways in which parents' actions affect children's health. We conclude that while health insurance coverage and advances in medical treatment may be important determinants of children's health, they cannot be the only pillars: Protecting children's health also calls for a broader set of policies that target parents' health-related behavior.

Edith Chen, Andrew D. Martin, and Karen A. Matthews. 2006. "Understanding Health Disparities: The Role of Race and Socioeconomic Status in Children's Health." *American Journal of Public Health* 96:4, 702-708.

Objectives. We sought to determine whether childhood health disparities are best understood as effects of race, socioeconomic status (SES), or synergistic effects of the two.

Methods. Data from the National Health Interview Survey 1994 of US children aged 0 to 18 years (n=33911) were used. SES was measured as parental education. Child health measures included overall health, limitations, and chronic and acute childhood conditions.

Results. For overall health, activity and school limitations, and chronic circulatory conditions, the likelihood of poor outcomes increased as parental education decreased. These relationships were stronger among White and Black children, and weaker or nonexistent among Hispanic and Asian children. However, Hispanic and Asian children exhibited an opposite relationship for acute respiratory illness, whereby children with more educated parents had higher rates of illness.

Conclusions. The traditional finding of fewer years of parent education being associated with poorer health in offspring is most prominent among White and Black children and least evident among Hispanic and Asian children. These findings suggest that lifestyle characteristics (e.g., cultural norms for health behaviors) of low-SES Hispanic and Asian children may buffer them from health problems. Future interventions that seek to bolster these characteristics among other low-SES children may be important for reducing childhood health disparities.

Read More: <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2004.048124>

Dawson, Deborah A. "Family Structure and Children's Health and Well-being: Data from the 1988 National Health Interview Survey on Child Health". *Journal of Marriage and Family* 53.3 (1991): 573–584.

Laz, T.H., M. Rahman, A.B. Berenson. 2012. "An Update on Human Papillomavirus Vaccine Uptake among 11-17 Year Old Girls in the United States: National Health Interview Survey, 2010." *Vaccine*, 30(24): 3534-3540.

Montgomery, Laura E., John L. Kiely, and Gregory Pappas. "The effects of poverty, race, and family structure on US children's health: data from the NHIS, 1978 through 1980 and 1989 through 1991." *American Journal of Public Health* 86, no. 10 (1996): 1401-1405.

Abstract

OBJECTIVES: This study investigated the independent and relative effects of family structure, race, and poverty on the health of US children and youth under 20 years of age at two time periods, 1978 through 1980 and 1989 through 1991. **METHODS:** Data were from the National Health Interview Surveys. Multivariate logit regression methods were used to analyze the effects of family structure, poverty, and race on children's health. **RESULTS:** Children in families headed by single mothers, Black children, and those living below 150% of the poverty index were much more likely to be in poor or fair health than children in two-parent families, White children, or those in more affluent families. Poverty had the strongest effect on child health in both time periods. **CONCLUSIONS:** The association between children's health and living below 150% of the poverty index is not explained by race or family structure. The disparity in child health by family income has serious consequences for both the child and society.

Read More: <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.86.10.1401>

Denney, Justin T. "Family and household formations and suicide in the United States." *Journal of Marriage and Family* 72, no. 1 (2010): 202-213.

Abstract

Family support systems have been theoretically linked to suicide risk. But no research to date has investigated the effects of detailed living arrangements on individual risk of suicide. Using data on 825,462 adults from the National Health Interview Survey Linked Mortality File reveals that living in families with stronger sources of social support and integration decreases risk of suicide. These effects persist despite controls for important individual level characteristics. Risk of suicide decreases for persons in married as well as unmarried families when children are present and risk increases for persons living with unrelated adults. These results reveal the structural importance of family formation on the social integrative forces that contribute to an individual's risk of suicide.

G Flores, H Bauchner, AR Feinstein, and US Nguyen. 1999. "The Impact of Ethnicity, Family Income, and Parental Education on Children's Health and Use of Health Services." *American Journal of Public Health*. 89(7): 1066-1071.

OBJECTIVES: This study characterized ethnic disparities for children in demographics, health status, and use of services; explored whether ethnic subgroups (Puerto Rican, Cuban, and Mexican) have additional distinctive differences; and determined whether disparities are explained by differences in family income and parental education.

METHODS: Bivariate and multivariate analyses of data on 99,268 children from the 1989-91 National Health Interview Surveys were conducted. **RESULTS:** Native American, Black, and Hispanic children are poorest (35%, 41% below poverty level vs 10% of Whites), least healthy (66%-74% in excellent or very good health vs 85% of Whites), and have the least well educated parents. Compared with Whites, non-White children average fewer doctor visits and are more likely to have excessive intervals between visits. Hispanic subgroup differences in demographics, health, and use of services equal or surpass differences among major ethnic groups. In multivariate analyses, almost all ethnic group disparities persisted after adjustment for family income, parental education, and other relevant covariates.

CONCLUSIONS: Major ethnic groups and subgroups of children differ strikingly in demographics, health, and use of services; subgroup differences are easily overlooked; and most disparities persist even after adjustment for family income and parental education.

Katherine Heck and Jennifer Parker (2002). Family Structure, Socioeconomic Status, and Access to Health Care for Children. *Health Services Research*, 37: 171-184.
doi: 10.1111/1475-6773.99190

Objective. To test the hypothesis that among children of lower socioeconomic status (SES), children of single mothers would have relatively worse access to care than children in two-parent families, but there would be no access difference by family structure among children in higher SES families.

Data Sources. The National Health Interview Surveys of 1993-95, including 63,054 children.

Study Design. Logistic regression was used to examine the relationship between the child's family structure (single-mother or two-parent family) and three measures of health care access and utilization:

having no physician visits in the past year, having no usual source of health care, and having unmet health care needs. To examine how these relationships varied at different levels of SES, the models were stratified on maternal education level as the SES variable. The stratified models adjusted for maternal employment, child's health status, race and ethnicity, and child's age. Models were fit to examine the additional effects of health insurance coverage on the relationships between family structure, access to care, and SES.

Principal Findings. Children of single mothers, compared with children living with two parents, were as likely to have had no physician visit in the past year; were slightly more likely to have no usual source of health care; and were more likely to have an unmet health care need. These relationships differed by mother's education. As expected, children of single mothers had similar access to care as children in two-parent families at high levels of maternal education, for the access measures of no physician visits in the past year and no usual source of care. However, at low levels of maternal education, children of single mothers appeared to have better access to care than children in two-parent families. Once health insurance was added to adjusted models, there was no significant socioeconomic variation in the relationships between family structure and physician visits or usual source of care, and there were no significant disparities by family structure at the highest levels of maternal education. There were no family structure differences in unmet needs at low maternal education, whereas children of single mothers had more unmet needs at high levels of maternal education, even after adjustment for insurance coverage.

Henning-Smith, Carrie. "Quality of Life and Psychological Distress Among Older Adults The Role of Living Arrangements." *Journal of Applied Gerontology* (2014): 0733464814530805.

Abstract

This study asks (a) What are the relationships between types of living arrangements and psychological well-being for older adults? and (b) How do these relationships differ by gender? Data come from the 2010 wave of the National Health Interview Survey and include non-institutionalized adults aged 65 and older ($N = 4,862$). Dependent variables include self-rated quality of life and psychological distress. The study finds that older adults living alone or with others fare worse than those living with a spouse only. Yet, the outcomes of different types of living arrangements for older adults vary by gender. Women living with others are at greater risk of worse quality of life and serious psychological distress than men. Programs and policies must be responsive to the diverse needs of this population, rather than attempting a "one-size-fits-all" approach to housing and community-based services designed to promote older adults' psychological well-being and independence.

Rogers, Richard G. "The effects of family composition, health, and social support linkages on mortality." *Journal of Health and Social Behavior* (1996): 326-338.

This study reveals how family arrangements influence mortality. I use the National Health Interview Survey, Supplement on Aging, and discrete-time hazard rate models to show that some family arrangements result from strong social bonds, but others are a result of financial needs or health problems. In some instances, it is not family arrangements that influence the risk of mortality but vice versa: The family rearranges itself to deal with ill health and disability among its members. The family strives to promote health, prevent disease, and encourage economic security. However, family members who endure economic or health hardships face increased risk of death.

Santelli JS, Lowry R, Brener ND, Robin L. The association of sexual behaviors with socioeconomic status, family structure, and race/ethnicity among US adolescents. *American Journal of Public Health*. 2000;90(10):1582-1588.

OBJECTIVES: This study assessed the relation of socioeconomic status (SES), family structure, and race/ethnicity to adolescent sexual behaviors that are key determinants of pregnancy and sexually transmitted diseases (STDs).

METHODS: The 1992 Youth Risk Behavior Survey/Supplement to the National Health Interview Survey provided family data from household adults and behavioral data from adolescents.

RESULTS: Among male and female adolescents, greater parental education, living in a 2-parent family, and White race were independently associated with never having had sexual intercourse. Parental education did not show a linear association with other behaviors. Household income was not linearly related to any sexual behavior. Adjustment for SES and family structure had a limited effect on the association between race/ethnicity and sexual behaviors.

CONCLUSIONS: Differences in adolescent sexual behavior by race and SES were not large enough to fully explain differences in rates of pregnancy and STD infection. This suggests that other factors, including access to health services and community prevalence of STDs, may be important mediating variables between SES and STD transmission and pregnancy among adolescents.

Schieve, L.A., V. Gonzalez, S. Boulet, S.N. Visser, C.E. Rice, K.V.N. Braun, C.A. Boyle. 2012. "Concurrent Medical Conditions and Health Care Use and Needs among Children with Learning and Behavioral Developmental Disabilities, National Health Interview Survey, 2006-2010." *Research in Developmental Disabilities*, 33(2): 467-476.

State Health Access Data Assistance Center. 2012. "Defining 'Family' for Studies of Health Insurance Coverage." *SHADAC Brief 27*: 1-6.

Abstract

The 2010 Patient Protection and Affordable Care Act (ACA), which represents the most significant change to the health care system since the introduction of Medicaid and Medicare, has brought a host of new analysts and researchers into the realm of health services research. While this offers many benefits to the design, implementation, and evaluation of health reform initiatives at the state and national level, it will also no doubt lead to conflicting estimates and assessments, both across data sources and for work based on the same data source. It is our experience that many of those conflicts will reflect differences in definitions and assumptions, in some cases explicit and in some cases implicit, as when researchers rely on existing measures of family composition or family income in national surveys. In this brief we describe an important decision that should be considered in analyses of health insurance coverage using survey data: Defining the “family unit” for examining insurance coverage, often called the health insurance unit. We propose a general definition of the health insurance unit and provide Stata and SAS code to facilitate implementing that definition.

Thompson, Owen. "Genetic mechanisms in the intergenerational transmission of health." *Journal of health economics* 35 (2014): 132-146.

This paper uses a sample of adoptees to study the genetic mechanisms underlying intergenerational associations in chronic health conditions. I begin by estimating baseline intergenerational models with a sample of approximately 125,000 parent–child pairs, and find that children with a parent who has a specific chronic health condition are at least 100% more

likely to have the same condition themselves. To assess the role of genetic mechanisms in generating these strong correlations, I estimate models using a sample of approximately 2400 adoptees, and find that genetic transmission accounts for only 20–30% of the baseline associations. As falsification tests, I repeat this exercise using health measures with externally established levels of genetic determination (height and chicken pox), and the results suggest that comparisons of biological and adopted children are a valid method of isolating genetic effects in this sample. Finally, to corroborate these adoptee-based estimates, I examine health correlations among monozygotic twins, which provide an upper bound estimate of genetic influences, and find a similarly modest role for genetic transmission. I conclude that intergenerational health transmission is an important hindrance to overall socioeconomic mobility, but that the majority of transmission occurs through environmental factors or gene–environment interactions, leaving scope for interventions to effectively mitigate health persistence.

Visser, S.N., M.L. Danielson, R.H. Bitsko, J.R. Holbrook, M.D. Kogan, R.M. Ghandour, ..., and S.J. Blumberg. 2014. "Trends in the Parent-Report of Health Care Provider-Diagnosed and Medicated Attention-Deficit/Hyperactivity Disorder: United States, 2003-2011." *Journal of the American Academy of Child & Adolescent Psychiatry*, 53(1): 34-46.

Weaver K, Rowland J, Alfano C, McNeel, T. Parental cancer and the family: A population-based estimate of the number of US cancer survivors residing with their minor children. *Cancer*. 2010;116(18):4395-4401. doi:10.1002/cncr.25368.

Background - Cancer diagnosis and treatment of a parent has considerable impact on the lives of their minor children, family caregivers, and patients themselves. Understanding the number and characteristics of the population of cancer survivors with children under 18 years of age would help to better target services for these survivors and their children, and stimulate and inform research on these understudied families.

Methods - This study identified adults with a history of cancer (n= 13,385) who participated in the United States National Health Interview Survey (NHIS) between 2000 and 2007. We examined the prevalence and characteristics of survivors residing with their minor children, both in the total sample and among survivors diagnosed within the last two years.

Results - 18.3% (95%CI 16.3–20.5) of recently diagnosed survivors and 14.0% (95%CI 13.3–14.8) of all survivors reported living with a minor child. Most of these survivors were female (78.9%), married (69.8%), and under the age of 50 (85.8%). Of the 3,193 identified children of survivors, 30.5% were under age 6 at the time of their parent's cancer diagnosis; 33.4% were born after the diagnosis. Using population-based weights, we estimate that 1.58 million US cancer survivors reside with their minor children, representing 2.85 million children. Further, an estimated 562,000 US minor children are living with a parent in the early phases of cancer treatment and recovery.

Conclusions - There is a large population of families for whom cancer may pose special challenges and for whom needs assessment and referral to resources are essential.

Weitzman M, Gortmaker S, Sobol A. Racial, Social, and Environmental Risks for Childhood Asthma. *Am J Dis Child*. 1990;144(11):1189-1194. doi:10.1001/archpedi.1990.02150350021016.

Unlike a number of childhood problems, it is not clear that there are racial or socioeconomic disparities in the prevalence of childhood asthma. We analyzed data from the Child Health Supplement to the 1981 National Health Interview Survey, a population-based survey with information concerning 15 416 children, to address the following questions: are there racial or socioeconomic differences in rates of childhood asthma; if yes, what is the contribution of social and environmental characteristics to the observed differences? In this sample, black children were more likely to have asthma than were white children (4.4% vs 2.5%). Racial disparities in prevalence emerged early and at all childhood ages were due to higher black rates of onset between the ages of 1 and 3 years. Poverty status, maternal cigarette smoking, large family size, smaller size of home, low birth weight, and maternal age younger than 20 years at the child's birth were all associated with increased rates of childhood asthma. When available social and environmental characteristics were controlled for using multivariate analyses, the increased risk for asthma among black and poor children was reduced to statistical insignificance. We conclude that black and poor children in the United States do have higher rates of asthma, that social and environmental factors exert substantial influences on rates of asthma, and that much of the racial and economic disparity in prevalence can be accounted for by a variety of social and environmental characteristics.