



UNIVERSITY OF WISCONSIN

Population Health Institute

Translating Research into Policy and Practice

Brief Report

Key Articles on Population Health Published in 2007

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With funding from the Robert Wood Johnson Foundaton Health & Society Scholars Program at UW-Madison, a new website on understanding and improving population health is under development. As part of this development, we have been been monitoring new papers in the field of population health. This Brief Report provides a compilation of key population health articles that were published from January through December of 2007.

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Introduction:

As we develop content for a new website, *Understanding and Improving the Health of Populations*, we are summarizing information about health outcomes, the health determinants that lead to these outcomes, and the policies and interventions that can influence and modify these determinants of health. We are also conducting regular review of numerous academic journals relevant to the field of population health.

This Brief Report provides a compilation of key population health articles that were published from January through December of 2007. This list is not intended to be inclusive of all articles on population health but is representative of current research on health outcomes, the multiple determinants of health, and the relationship between determinants and outcomes.

Articles are listed by lead author under the following categories:

HEALTH OUTCOMES

HEALTH DETERMINANTS

BEHAVIORS

Obesity, Nutrition, & Physical Activity

Smoking and Tobacco Use

Violence and abuse

GENETICS

HEALTH CARE

PHYSICAL & BUILT ENVIRONMENT

SOCIAL DETERMINANTS

Childhood influences

Education and literacy

Poverty, income, and income inequalities

Race, culture, and discrimination

POPULATION HEALTH THEORY & METHODS

Commonly used acronyms:

BMI: Body Mass Index; a measure of weight for height

CHD: Coronary Heart Disease

SES: Socioeconomic status

NHANES: National Health and Nutrition Examination Survey

NHIS: National Health Interview Survey

MEPS: Medical Expenditure Panel Survey

Articles (listed by category and author)

HEALTH OUTCOMES

Chandola T, Ferrie J, Sacker A, Marmot M. Social inequalities in self reported health in early old age: follow-up of prospective cohort study. *BMJ* 2007;334(7601):990-996.

This paper considers differences in trajectories of self-reported health when aging by occupational grade among a cohort of British civil servants. Physical health declined more rapidly with age among those of lower occupational grade than those in higher occupational grades, leading to the conclusion that “Social inequalities in self reported health increase in early old age.” (abstract)

Harper S, Lynch J, Burriss S, Davey Smith G. Trends in the Black-White Life Expectancy Gap in the United States, 1983-2003. *JAMA* 2007;297(11):1224-1232.

The Black-White gap in life expectancy is investigated, and factors contributing to the observed trends are examined. These results indicate the Black-White gap in life expectancy has been narrowing recently. These findings contrast the widening observed in the 1980s and attributed largely to reductions in deaths due to homicide, HIV/AIDS, unintentional injuries, and heart disease among women.

Keppel KG. Ten Largest Racial and Ethnic Health Disparities in the United States based on Healthy People 2010 Objectives. *Am. J. Epidemiol.* 2007;166(1):97-103.

Using a framework established for measuring health disparities developed for Healthy People 2010, the 10 largest health disparities for each of five racial and ethnic groups in the United States are presented and discussed here.

Schempf AH, Branum AM, Lukacs SL, Schoendorf KC. The Contribution of Preterm Birth to the Black-White Infant Mortality Gap, 1990 and 2000. *Am J Public Health* 2007;97(7):1255-1260.

Examination of whether the decline in infant mortality rate over the last decade mirrored the observed decline in racial disparity (Black-White) in pre-term birth. Results indicate that the reduction in the disparity in preterm

births was met with reductions in White infant mortality, resulting in no significant change in the observed Black-White infant mortality rate ratio between 1990-2000.

Singh GK, Kogan MD. Widening Socioeconomic Disparities in US Childhood Mortality, 1969-2000. *Am J Public Health* 2007;97(9):1658-1665.

Changes in overall and cause specific child mortality between 1969-2000 were explored based on area socioeconomic inequalities by linking census-based information about area deprivation to US county-level mortality data. Results indicate that the socioeconomic gradient in overall child mortality has increased over this time period despite overall decreases in child mortality. Potential implications and explanations for the observed widening socioeconomic disparity in child mortality are reviewed.

Wilson K, Elliott SJ, Eyles JD, Keller-Olaman SJ. Factors Affecting Change Over Time in Self-reported Health. *Canadian Journal of Public Health* 2007;98(2).

Changes in self-reported health status over time are considered using 2 rounds of health survey data in Ontario. Results indicate that approximately 1/3 of participants had a change in self-reported health status over the 2 year study period, and that these changes were related to individual characteristics (such as smoking) not contextual or collective characteristics. These results suggest that health status may not be constant over time, and that individual-level factors may be important determinants of self-reported health status change.

BEHAVIORS

Niederdeppe J, Levy AG. Fatalistic Beliefs about Cancer Prevention and Three Prevention Behaviors. *Cancer Epidemiol Biomarkers Prev* 2007;16(5):998-1003.

The association between fatalistic beliefs about cancer and health behaviors (exercise, smoking, fruit and vegetable consumption) was examined. Results indicate that a large proportion of people sampled held fatalistic views about cancer. Having fatalistic beliefs were negatively associated with partaking in healthy behaviors, which may ultimately put those with fatalistic beliefs at an increased risk of cancer.

Obesity, Nutrition, & Physical Activity

Cawley J. The Cost-effectiveness of Programs to Prevent or Reduce Obesity: The State of the Literature and a Future Research Agenda. *Arch Pediatr Adolesc Med* 2007;161(6):611-614.

The obesity “epidemic” is discussed as are several programs aimed at preventing or reducing the scope and impact of obesity.

Delva J, Johnston LD, O'Malley PM. The Epidemiology of Overweight and Related Lifestyle Behaviors: Racial/Ethnic and Socioeconomic Status Differences Among American Youth. *American Journal of Preventive Medicine* 2007;33(4, Supplement 1):S178-S186.

Differences in the prevalence of overweight and obesity by race/ethnicity and SES were considered among a population of 8th-10th grade students. Results indicate that minority and low-income males were more likely to have a BMI above the 85th percentile, and that having a BMI above this threshold was more strongly associated with several poor health behaviors than was the association between poor health behaviors and other family/parental variables.

Friel S, Chopra M, Satcher D. Unequal weight: equity oriented policy responses to the global obesity epidemic. *BMJ* 2007;335(7632):1241-1243.

The global impact of obesity is discussed with particular attention to trends in the distribution of obesity within more and less affluent societies.

Singh G, Kogan M, van Dyck P. A Multilevel Analysis of State and Regional Disparities in Childhood and Adolescent Obesity in the United States. *Journal of Community Health* 2007.

This study considers the contribution of geographic location, area deprivation, and individual socioeconomic and behavioral characteristics in predicting child obesity. Results indicate the prevalence of childhood obesity varies substantially by geographic area. Individual characteristics account for up to 55% of state and 25% of regional disparities in obesity prevalence whereas area deprivation accounts for approximately 18% of variance. This leaves a substantial impact of geography on obesity. The potential policy implications of these findings are discussed.

Sorensen G, Stoddard AM, Dubowitz T, Barbeau EM, Bigby J, Emmons KM, et al. **The Influence of Social Context on Changes in Fruit and Vegetable Consumption: Results of the Healthy Directions Studies.** *Am J Public Health* 2007;97(7):1216-1227.

Fruit and vegetable consumption data from an intervention to increase healthy behaviors were analyzed in this study. Working-class, multiethnic populations were targeted for this intervention through either small businesses or health centers. Social networks, social norms, food sufficiency, and number of people residing in a household were found to be associated with greater changes in fruit and vegetable intake following the intervention.

Smoking and Tobacco Use

Flegal KM. **The Effects of Changes in Smoking Prevalence on Obesity Prevalence in the United States.** *Am J Public Health* 2007;97(8):1510-1514.

Using NHANES data, the impact of smoking cessation measures on obesity prevalence was examined. Results indicate that even large changes in smoking prevalence did not have a significant impact on obesity prevalence over the study period of 1999-2002.

Ibrahim JK, Glantz SA. **The Rise and Fall of Tobacco Control Media Campaigns, 1967-2006.** *Am J Public Health* 2007;97(8):1383-1396.

The use of tobacco cessation media campaigns is reviewed, with a focus on specific examples from particular states. Strategies to reduce smoking prevalence are discussed.

Lillard DR, Plassmann V, Kenkel D, Mathios A. **Who kicks the habit and how they do it: Socioeconomic differences across methods of quitting smoking in the USA.** *Social Science & Medicine* 2007;64(12):2504-2519.

Socioeconomic characteristics of smokers who attempt to quit and those who successfully quit are described. Results indicate that socioeconomic differences in methods of cessation exist, and may partially explain disparities in quitting success. Strategies to improve cessation efforts are suggested.

Stayner L, Bena J, Sasco AJ, Smith R, Steenland K, Kreuzer M, et al. **Lung Cancer Risk and Workplace**

Exposure to Environmental Tobacco Smoke. *Am J Public Health* 2007;97(3):545-551.

This meta-analysis estimates the impact of work-place environmental tobacco smoke exposure and lung cancer. Results indicate a 24% increase in lung cancer risk among workers exposed to environmental tobacco smoke as well as a strong relationship between duration of exposure to environmental tobacco smoke and lung cancer. These findings are argued to be strong evidence for banning tobacco use in the workplace.

Violence and Abuse

Alvarez J, Pavao J, Baumrind N, Kimerling R. **The Relationship Between Child Abuse and Adult Obesity Among California Women.** *American Journal of Preventive Medicine* 2007;33(1):28-33.

The relationship between child abuse and adult obesity is considered in a group of women residing in California. Controlling for the impact of several factors related to obesity (age, race/ethnicity, education, food insecurity, inadequate fruit and vegetable consumption, physical inactivity, and perceived stress), women who reported exposure to child abuse were significantly more likely to be obese as adults compared with women who did not report experiencing child abuse. Results suggest that abused children may be an important target population for obesity-related interventions.

GENETICS

Carlsson S, Andersson T, Lichtenstein P, Michaelsson K, Ahlbom A. **Physical Activity and Mortality: Is the Association Explained by Genetic Selection?** *Am. J. Epidemiol.* 2007;166(3):255-259.

This study examined whether the relationship between physical activity and health is in fact due to genetic selection among a population of Swiss twins. Results suggest that improvements in mortality resulting from physical activity are not based solely on genetic selection.

David R, James Collins J. **Disparities in Infant Mortality: What's Genetics Got to Do With It?** *Am J Public Health* 2007;97(7):1191-1197.

This paper calls into question a current line of epidemiological and basic science research aiming to detect a so-called "preterm birth gene," particularly as this research relates to racial disparities in health.

HEALTH CARE

Foote SB, Town RJ. Implementing Evidence-Based Medicine Through Medicare Coverage Decisions. *Health Aff* 2007;26(6):1634-1642.

Barriers to the implementation of evidence-based medicine and technologies within the Medicare system are discussed, and policies to address these problems are proposed.

Godlee F. Editorial: Milestones on the long road to knowledge. *BMJ* 2007;334(suppl_1):s2-3.

15 medical milestones are reviewed.

Hadley J. Insurance Coverage, Medical Care Use, and Short-term Health Changes Following an Unintentional Injury or the Onset of a Chronic Condition. *JAMA* 2007;297(10):1073-1084.

Using Medical Expenditure Panel Surveys (MEPS) the consequences of uninsurance on medical care use and short-term health outcomes following an unintentional injury or diagnosis of a chronic condition is considered.

Higashi T, Wenger NS, Adams JL, Fung C, Roland M, McGlynn EA, et al. Relationship between Number of Medical Conditions and Quality of Care. *N Engl J Med* 2007;356(24):2496-2504.

This paper examined the relationship between quality of medical care and number of health conditions a patient has. Results indicate that the quality of care received increases with the number of chronic medical conditions patients experience.

Holahan J. State Variation In Medicaid Spending: Hard To Justify. *Health Aff* 2007;26(6):w667-669.

This study describes and discusses differences in state-level spending for health care of those on Medicaid.

Jha AK, Orav EJ, Li Z, Epstein AM. The Inverse Relationship Between Mortality Rates And Performance In The Hospital Quality Alliance Measures. *Health Aff* 2007;26(4):1104-1110.

The relationship between the Hospital Quality Alliance (HQA) program and all-cause mortality is examined. Findings of an inverse relationship between HQA measures and risk-adjusted mortality support the HQA as a measure of rating hospital quality.

Koopmans GT, Lamers LM. Gender and health care utilization: The role of mental distress and help-seeking propensity. *Social Science & Medicine* 2007;64(6):1216-1230.

Gender differences in health care utilization are explored in a population from the Netherlands. In this population, women reported more somatic and mental distress than men, which is believed to somewhat explain the gender differences in health care utilization.

Macinko J, Starfield B, Shi L. Quantifying the Health Benefits of Primary Care Physician Supply in the United States. *International Journal of Health Services* 2007;V37(1):111-126.

The question, "Would increasing the number of primary care physicians improve health outcomes in the United States?" is addressed using a meta-analysis of 17 studies from 1985-2005. Results indicate that primary care physician supply is associated with many improved health outcomes, including reductions in mortality.

Mangione-Smith R, DeCristofaro AH, Setodji CM, Keeseey J, Klein DJ, Adams JL, et al. The Quality of Ambulatory Care Delivered to Children in the United States. *N Engl J Med* 2007;357(15):1515-1523.

Quality of pediatric ambulatory care is evaluated in a population sample. Results indicate that quality of care varies by age of child and the type of condition for which care is recommended.

McWilliams JM, Meara E, Zaslavsky AM, Ayanian JZ. Use of Health Services by Previously Uninsured Medicare Beneficiaries. *N Engl J Med* 2007;357(2):143-153.

The potential health benefits of acquiring Medicare coverage among previously uninsured adults, who typically have worse health than insured adults, were explored. Compared with adults who had previously been insured, those receiving Medicare report significantly improved health based on a summary measure of general health.

McWilliams JM, Meara E, Zaslavsky AM, Ayanian JZ. Health of Previously Uninsured Adults After Acquiring Medicare Coverage. *JAMA* 2007;298(24):2886-2894.

This study investigated whether previously uninsured adults enrolling in Medicare would have greater health care service usage due to preexisting unmet healthcare needs. Results indicate that previously uninsured adults with several chronic medical conditions (diagnosed before age 65) report a significantly greater increase in doctor visits, hospitalizations, and overall medical expenditures than adults who were insured before enrolling in Medicare. This increase was not observed in previously-uninsured Medicare enrollees who did not have chronic medical conditions.

Perry CD, Kenney GM. Preventive Care for Children in Low-Income Families: How Well Do Medicaid and State Children's Health Insurance Programs Do? *Pediatrics* 2007;120(6):e1393-1401.

This secondary analysis of Medical Expenditure Panel Survey (MEPS) data explored whether there was any difference in receipt of preventive care for children by socioeconomic status (a measure of child's health insurance status was used as a proxy for SES). Results indicated that children who were uninsured for all or some of the previous year frequently did not have a preventive visit in the past year; however nearly 50% of children who were insured (privately or publicly) also did not have a preventive care visit over the same 1-year period. Many children, regardless of health care insurance status, did not receive preventive care visits as recommended.

Salkeld G, Henry D, Hill S, Lang D, Freemantle N, D'Assuncao J. What Drives Health-Care Spending Priorities? An International Survey of Health-Care Professionals. *PLoS Medicine* 2007;4(2):256-259.

This paper discusses the difficulties in identifying appropriate health-care resource allocation, and whether health professionals or consumers (or both) should be involved in that decision.

Shortell SM, Rundall TG, Hsu J. Editorial: Improving Patient Care by Linking Evidence-Based Medicine and Evidence-Based Management. *JAMA* 2007;298(6):673-676.

This commentary discusses improvements in patient care that would result from physicians always adhering to the most current scientific knowledge.

Thorpe KE, Howard DH, Galaktionova K. Differences In Disease Prevalence As A Source Of The U.S.-European Health Care Spending Gap. *Health Aff* 2007;26(6):w678-686.

To better understand the differences in health care spending between the US and Europe, data on disease prevalence and treatment rates for 10 of the most costly conditions were compared between the US and Europe. Results indicate that both disease prevalence and rates of medical treatment are higher in the US than the 10 European countries considered. Emphasis is placed on the importance of reducing the prevalence of chronic illness in the US.

PHYSICAL AND BUILT ENVIRONMENT

Berke EM, Koepsell TD, Moudon AV, Hoskins RE, Larson EB. Association of the Built Environment With Physical Activity and Obesity in Older Persons. *Am J Public Health* 2007;97(3):486-492.

The relationship between neighborhood walkability and bikability, and older adults activity and BMI was considered. Results indicate that neighborhoods with higher walkability or bikability scores were associated with increased frequency of walking for activity in older adults. A statistically significant association between walkability/bikability and BMI was not observed, although a trend in lower BMI associated with residence in neighborhoods with higher walkability scores was observed.

Bernard P, Charafeddine R, Frohlich KL, Daniel M, Kestens Y, Potvin L. Health inequalities and place: A theoretical conception of neighbourhood. *Social Science & Medicine* 2007;65(9):1839-1852.

Place is often considered an important health determinant, but there is little understanding of how place itself is defined or characterized. This paper proposes a theoretical framework of 'neighborhoods' as indicative of availability and accessibility of certain resources, and that this access shapes health and social functioning across the life course.

Brown AF, Ang A, Pebley AR. The Relationship Between Neighborhood Characteristics and Self-Rated Health for Adults With Chronic Conditions. *American Journal of Public Health* 2007;97(5).

This paper examines the effect of having a chronic condition on the association of neighborhood effects and health. Results indicate people with chronic conditions residing in disadvantaged neighborhoods are more likely to report poor self-rated health than people with chronic conditions residing in more advantaged areas. These results suggest residing in deprived areas may be associated with less access to services and/or tools for managing a chronic health condition.

Cummins S, Curtis S, Diez-Roux AV, Macintyre S. Understanding and representing 'place' in health research: A relational approach. *Social Science & Medicine* 2007;65(9):1825-1838.

This theoretical paper discusses the issue of place as an important determinant of health. It is argued that previous definitions of 'place' have perhaps been inadequate as they do not adequately address the "reinforcing and reciprocal relationship between people and place." (abstract)

Galea S, Ahern J, Tracy M, Vlahov D. Neighborhood Income and Income Distribution and the Use of Cigarettes, Alcohol, and Marijuana. *American Journal of Preventive Medicine* 2007;32(6, Supplement 1):S195-S202.

The relationship between contextual variables (neighborhood income and income distribution) and substance use was examined using survey data from 59 New York neighborhoods combined with US Census data. Results indicate both neighborhood income and income distribution are important determinants of alcohol and marijuana use, although not of cigarette use.

Gebel K, Bauman AE, Petticrew M. The Physical Environment and Physical Activity: A Critical Appraisal of Review Articles. *American Journal of Preventive Medicine* 2007;32(5):361-369.e3.

This summary of review papers on the topic of the impact of the physical environment on physical activity notes several methodological and content flaws in previous reviews.

Harrison RA, Gemmell I, Heller RF. The population effect of crime and neighbourhood on physical activity: an analysis of 15 461 adults. *J Epidemiol Community Health* 2007;61(1):34-39.

Neighborhood influences on physical activity are considered in this study from England. Results indicate that the feeling safe in one's neighborhood has a large impact on population levels of physical activity.

Kawachi I, Subramanian SV. Neighbourhood influences on health. *J Epidemiol Community Health* 2007;61(1):3-4.

This review considers potential flaws with previous studies of the influence of neighborhood factors on health. In particular, the potential problems of residential selection and endogeneity are discussed.

Mackenbach JP. Global environmental change and human health: a public health research agenda. *J Epidemiol Community Health* 2007;61(2):92-94.

This paper discusses the differences between global and local environmental change, and human health impacts of both.

Ogilvie D, Foster CE, Rothnie H, Cavill N, Hamilton V, Fitzsimons CF, et al. Interventions to promote walking: systematic review. *BMJ* 2007;334(7605):1204-.

Many published and unpublished reports of interventions to promote walking at the individual and community level were reviewed. Results indicate that interventions tailored to individual needs and that target the most sedentary people can be effective at either the individual or population level.

Pearce J, Blakely T, Witten K, Bartie P. Neighborhood Deprivation and Access to Fast-Food Retailing: A National Study. *American Journal of Preventive Medicine* 2007;32(5):375-382.

The potential relationship between geographic proximity to fast food, measures of neighborhood deprivation, and school SES ranking was explored in this New Zealand study. Results indicate there is a strong relationship between access to fast food and level of neighborhood deprivation which may contribute somewhat to the understanding of the impact of environmental and neighborhood causes on obesity.

Rao M, Prasad S, Adshead F, Tissera H. The built environment and health. *The Lancet* 2007;370(9593):1111-1113.

This article discusses recent recognition of the important contributions of the sanitary revolution and improvements in the built and physical environment on health.

Schootman M, Andresen EM, Wolinsky FD, Malmstrom TK, Miller JP, Miller DK. Neighbourhood environment and the incidence of depressive symptoms among middle-aged African Americans. *J Epidemiol Community Health* 2007;61(6):527-532.

The impact of neighborhood on the incidence of clinically relevant levels of depressive symptoms was explored in this study of African American adults. Results indicate that there was no association between location of residence and incidence of depressive symptoms when individual-level characteristics were accounted for.

SOCIAL DETERMINANTS

Connolly S, O'Reilly D, Rosato M. Increasing inequalities in health: Is it an artefact caused by the selective movement of people? *Social Science & Medicine* 2007;64(10):2008-2015.

This study considers whether selective migration is related to observed trends in the socioeconomic gradient in mortality in England and Wales during the 1990s. Results indicate that selective migration contributed importantly to mortality inequalities between areas, particularly for those under age 75.

Folland S. Does "community social capital" contribute to population health? *Social Science & Medicine* 2007;64(11):2342-2354.

Several tests of Robert Putnam's social capital index are conducted to provide evidence for and/or against this index as a valuable measure of social capital.

Kiula O, Mieszkowski P. The effects of income, education and age on health. *Health Economics* 2007;16(8):781-798.

The effects of SES on self-reported health are explored in data from 1987-94. Results indicate that the

relationship between mortality and income or education (proxies for SES) diminishes with population age.

Manzoli L, Villari P, M Pirone G, Boccia A. Marital status and mortality in the elderly: A systematic review and meta-analysis. *Social Science & Medicine* 2007;64(1):77-94.

A meta-analysis of over 250,000 elderly people was conducted to estimate the strength of the impact of marriage on mortality. The relative risk of mortality was lower for married people (RR=0.88, 95% CI: 0.85, 0.91), and did not vary by gender or by whether the study took place in the United States or Europe.

Marmot M. Achieving health equity: from root causes to fair outcomes. *The Lancet* 2007;370(9593):1153-1163.

This article reviews the mission of The WHO Commission on Social Determinants of Health, and the position of health as a human aspiration and human right. The importance of strengthening health equity on a national and global scale is discussed.

Popham F, Mitchell R. Self-rated life expectancy and lifetime socio-economic position: cross-sectional analysis of the British household panel survey. *Int. J. Epidemiol.* 2007;36(1):58-65.

This study sought to determine whether ratings of one's own life expectancy are associated with lifetime socioeconomic status or position. People of lower SES were more likely to be pessimistic about their life expectancy across a number of SES measures, and those in sustained socioeconomic disadvantage were the most likely to be pessimistic.

Sacker A, Wiggins RD, Bartley M, McDonough P. Self-Rated Health Trajectories in the United States and the United Kingdom: A Comparative Study. *Am J Public Health* 2007;97(5):812-818.

Associations between trajectories in health and SES were explored in the US and UK over the period from 1990-2002. Results indicate that labor market participation was more strongly associated with good health in the UK than in the US, and that different policies in the US and UK may impact health and employment for residents.

Siddiqi A, Hertzman C. Towards an epidemiological understanding of the effects of long-term institutional changes on population health: A case study of Canada versus the USA. *Social Science & Medicine* 2007;64(3):589-603.

This paper examines the impact of social determinants on health over the long-term, examining the role of slower-moving social change on health outcomes in both Canada and the United States. Results of this comparison indicate that greater economic well-being and health care spending is not associated with better health outcomes. Income redistribution and public service provision are more powerful determinants of health than economic success, and the gradual improvement of public service provision has long-lasting benefits on health. Differences between these results in the United States and Canada are also discussed.

Surtees PG, Wainwright NWJ. The shackles of misfortune: Social adversity assessment and representation in a chronic-disease epidemiological setting. *Social Science & Medicine* 2007;64(1):95-111.

The impact of social adversity on pre-disease processes and health outcomes was investigated in this study of over 20,000 people in the UK. Results indicate that experiencing any of a variety of types of social adversity (including difficulties experienced in childhood and adulthood) were associated with worse physical functional health. It is argued that these findings are sound support for inclusion of a measure of social adversity in future epidemiologic research.

Tunstall H, Mitchell R, Gibbs J, Platt S, Dorling D. Is economic adversity always a killer? Disadvantaged areas with relatively low mortality rates. *J Epidemiol Community Health* 2007;61(4):337-343.

This study sought to determine which British residents residing in socioeconomically disadvantaged areas have lower age-specific mortality. Results indicate that certain communities are more “resilient” than others, and that areas with similarly adverse social conditions (and economic histories) do not necessarily have similarly high mortality rates.

Childhood Influences

Baker JL, Olsen LW, Sorensen TIA. Childhood Body-Mass Index and the Risk of Coronary Heart Disease in Adulthood. *N Engl J Med* 2007;357(23):2329-2337.

The relationship between childhood BMI and adult CHD was explored in a Danish population. Results indicate that higher BMI as a child is associated with an increased risk of cardiovascular events (CHD in particular) as an adult. This relationship was observed in both genders (although was stronger in males), and the strength of the association increased with child age.

Batty GD, Deary IJ, Macintyre S. Childhood IQ in relation to risk factors for premature mortality in middle-aged persons: the Aberdeen Children of the 1950s study. *J Epidemiol Community Health* 2007;61(3):241-247.

Several physiological and behavioral risk factors linking high childhood Intelligence Quotient (IQ) with lower mortality were explored in a cohort of children who were followed for 40 years. Adults with higher childhood IQ scores were less likely to have ever smoked, be heavy alcohol consumers, or be overweight. However, this relationship appears to be importantly influenced by childhood and adult socioeconomic status (when SES is considered the observed relationship is no longer statistically significant).

Bibbins-Domingo K, Coxson P, Pletcher MJ, Lightwood J, Goldman L. Adolescent Overweight and Future Adult Coronary Heart Disease. *N Engl J Med* 2007;357(23):2371-2379.

The relationship between being overweight as a child and adult coronary heart disease was explored via simulation (see also Baker et al. NEJM, above). These predictions suggest that current increases in overweight adolescents will lead to further increases in CHD as this population ages, as will substantial increases in CHD-related morbidity and mortality.

Chen E, Martin AD, Matthews KA. Trajectories of Socioeconomic Status Across Children's Lifetime Predict Health. *Pediatrics* 2007;120(2):e297-303.

Socioeconomic status is consistently observed as a predictor of health, but the mechanisms of this effect aren't well understood. Findings suggest SES early in a child's life is predictive of health status at age 10-11 and

14-15 via a mechanism linked to the cumulative effects of SES (rather than social mobility or variability throughout the child's life).

Dowd JB. Early childhood origins of the income/health gradient: The role of maternal health behaviors. *Social Science & Medicine* 2007;65(6):1202-1213.

Maternal health status and health behaviors during infancy and early childhood are examined as potential mechanisms linking family income and child health at age 3. Results indicate that many behaviors are associated with both family income and maternal health, but these behaviors cannot completely explain the observed relationship between income and child health.

Furumoto-Dawson A, Gehlert S, Sohmer D, Olopade O, Sacks T. Early-Life Conditions And Mechanisms Of Population Health Vulnerabilities. *Health Aff* 2007;26(5):1238-1248.

Mechanisms of influence of social status in youth on adult health are considered. The links between neighborhood exposure and biological mechanisms are examined; chronic psychological stress on gene expression is highlighted in particular.

Kaufman L, Karpati A. Understanding the sociocultural roots of childhood obesity: Food practices among Latino families of Bushwick, Brooklyn. *Social Science & Medicine* 2007;64(11):2177-2188.

This paper describes an ethnographic study of low-income Latino families living in Bushwick, Brooklyn, and their behaviors and beliefs to better understand the sociocultural roots of childhood obesity in this community.

Melchior M, Moffitt TE, Milne BJ, Poulton R, Caspi A. Why Do Children from Socioeconomically Disadvantaged Families Suffer from Poor Health When They Reach Adulthood? A Life-Course Study. *Am. J. Epidemiol.* 2007;166(8):966-974.

Risk factors contributing to poor health among adults who experienced socioeconomic disadvantage during childhood were explored in this study from New Zealand. Low childhood SES was found to be associated with an increased risk of substance dependence and poor physical health in adulthood, however none of the several

individual risk factors studied can completely account for this observed relationship.

Moody-Ayers S, Lindquist K, Sen S, Covinsky KE. Childhood Social and Economic Well-Being and Health in Older Age. *Am. J. Epidemiol.* 2007;166(9):1059-1067.

The impact of childhood SES (as measured herein by parental education) on adult self-rated health was examined. Results indicate that the impact of parental education on self-rated health declines with age, and may vary by race/ethnicity.

Osler M, Nybo Andersen A-M, Laursen B, Lawlor DA. Cognitive function in childhood and early adulthood and injuries later in life: the Metropolit 1953 male birth cohort. *Int. J. Epidemiol.* 2007;36(1):212-219.

Adolescent cognitive function (measured at ages 12 and 18) is explored as a potential modifiable risk factor for adult injury. Results of this prospective cohort study in Denmark indicate an inverse relationship between adolescent cognitive function (at both age 12 and 18) and adult injury of any type, however these results were attenuated when educational attainment was considered.

Reynolds AJ, Temple JA, Ou S-R, Robertson DL, Mersky JP, Topitzes JW, et al. Effects of a School-Based, Early Childhood Intervention on Adult Health and Well-being: A 19-Year Follow-up of Low-Income Families. *Arch Pediatr Adolesc Med* 2007;161(8):730-739.

This paper reviews the health outcomes of children participating in an intervention for preschool children in urban Chicago 24 years after participation. Results indicate that participation in a school-based intervention in early childhood is associated with several positive outcomes, including attending a 4-year college, having health insurance, non-participation in criminal activity, and having full-time employment.

Siddiqi A, Kawachi I, Berkman L, Subramanian S, Hertzman C. Variation of Socioeconomic Gradients in Children's Developmental Health Across Advanced Capitalist Societies: Analysis of 22 OECD Nations. *International Journal of Health Services* 2007;37(1):63-87.

Data from several nations were considered to examine

whether country-level social policies can explain observed differences in the magnitude of the socioeconomic gradient in health across countries. Results indicate support for what is termed the “flattening up” hypothesis wherein countries with higher average socioeconomic status (measured herein by reading literacy among 15-year-olds) also have less socioeconomic inequality (i.e. flatter gradients). Possible explanations for the variation in gradients observed are discussed.

Turrell G, Lynch JW, Leite C, Raghunathan T, Kaplan GA. (new) Socioeconomic disadvantage in childhood and across the life course and all-cause mortality and physical function in adulthood: evidence from the Alameda County Study. *J Epidemiol Community Health* 2007;61(8):723-730.

The impact of childhood and life course socioeconomic exposures on all-cause mortality and functional limitation were evaluated using data from the Alameda County Study. Results indicate that those with lower SES during childhood and those experiencing a greater number of episodes of disadvantage over their life course were more likely to die or report functional limitation. These results support theories suggesting an important influence of SES and accumulated disadvantage on mortality and morbidity.

Education and literacy

Baker DW, Wolf MS, Feinglass J, Thompson JA, Gazmararian JA, Huang J. Health Literacy and Mortality Among Elderly Persons. *Arch Intern Med* 2007;167(14):1503-1509.

Health literacy as an independent predictor of mortality was explored through a prospective cohort study of an elderly population. Health literacy (as measured by reading fluency) was found to have an independent effect on mortality: participants with inadequate health literacy had a significantly higher risk of early death compared with participants with adequate health literacy. Results also indicate that years of education are not a good substitute measure for reading ability among elderly populations (no relationship was observed between years of school and all-cause mortality, as it was with reading fluency and all-cause mortality).

Muennig P, Woolf SH. Health and Economic Benefits of Reducing the Number of Students per Classroom in US Primary Schools. *American Journal of Public Health* 2007;Vol 97(No. 11).

This study investigated whether reducing kindergarten through grade 3 class size had any impact on economic and health outcomes. Results indicate that class-size reductions would result in a net gain of approximately 1.7 quality-adjusted-life-years (QALYs) for each person graduating from a small-class-size high school. The authors argue reducing class size may be more cost-effective way to improve health than many public health interventions.

Woolf SH, Johnson RE, Phillips RL, Jr., Philipsen M. Giving Everyone the Health of the Educated: An Examination of Whether Social Change Would Save More Lives Than Medical Advances. *Am J Public Health* 2007;97(4):679-683.

Using US vital statistics data from 1996-2002, indirect standardization was used to estimate the excess deaths due to social determinants (such as inadequate education) and medical advances. Results indicate that correcting education-associated mortality rates would have saved far greater number of lives than would medical advances. The authors conclude that to improve population-level mortality, public health spending should focus more on social determinants than expensive medical advances.

Poverty, income and income inequalities

Black ME, Jeffery HE. Editorial: Child wellbeing and inequalities in rich countries. *BMJ* 2007;335(7629):1054-1055.

This editorial discusses a UNICEF report on the health and wellbeing of children in wealthy countries based upon results from 40 indicators across 6 dimensions. The US and UK did not fare particularly well in this report; the US and UK response to this publication are discussed.

Dorling D, Mitchell R, Pearce J. The global impact of income inequality on health by age: an observational study. *BMJ* 2007;335(7625):873-.

The impact of maternal income and income inequality are considered for their potential impact on global variation in mortality. Results indicate that income inequality has an important impact on mortality globally.

Pickett KE, Wilkinson RG. Child wellbeing and income inequality in rich societies: ecological cross sectional study. *BMJ* 2007;335(7629):1080-.

Associations between child well-being and income, income inequality, and children living in relative poverty were explored using data from UNICEF's index of child wellbeing for wealthy countries. Results indicate that overall child wellbeing was negatively correlated with income inequality and percent of children living in relative poverty, but not with average income.

Starfield B, Birn A-E. Income redistribution is not enough: income inequality, social welfare programs, and achieving equity in health. *J Epidemiol Community Health* 2007;61(12):1038-1041.

This paper discusses potential shortcomings of an income redistribution policy in addressing the impact of income inequality on health, and proposes the utility of "universal social programs" (abstract) as important to addressing observed inequities in health.

van Hooijdonk C, Droomers M, van Loon JAM, van der Lucht F, Kunst AE. Exceptions to the rule: Healthy deprived areas and unhealthy wealthy areas. *Social Science & Medicine* 2007;64(6):1326-1342.

People who reside in areas of socioeconomic disadvantage tend have worse health than those who live in areas of higher socioeconomic position, however inhabitants of some areas of socioeconomic disadvantage in fact have quite good health. This study examined areas of low socioeconomic level to determine area characteristics associated with better health (measured here by mortality and hospitalization rates) among inhabitants (where health of inhabitants was better or worse than expected based on socioeconomic position alone) in the Netherlands. Results indicate that urbanization, residential segregation by age, ethnicity, and marital status are important contributors to differences in mortality and hospitalization regardless of socioeconomic position.

Wilkinson RG, Pickett KE. The problems of relative deprivation: Why some societies do better than others. *Social Science & Medicine* 2007;65(9):1965-1978.

This paper discusses the role of social processes in influencing health and other social outcomes. Income inequality is used as an indicator of the socioeconomic stratification in society, and numerous outcomes

potentially related to income inequality are discussed. Social stratification is described as an important determinant of these various health and social outcomes.

Race, culture, and discrimination

Castro FG. Editorial: Is Acculturation Really Detrimental to Health? *Am J Public Health* 2007;97(7):1162.

This editorial discusses the issue of acculturation as a determinant of health.

Taylor TR, Williams CD, Makambi KH, Mouton C, Harrell JP, Cozier Y, et al. Racial Discrimination and Breast Cancer Incidence in US Black Women: The Black Women's Health Study. *Am. J. Epidemiol.* 2007;166(1):46-54.

Data from the Black Women's Health Study were analyzed to explore the relationship between perceived discrimination (measured as both 'everyday' discrimination and discrimination related to 'major experiences') and breast cancer incidence. Results indicate a weak positive association between breast cancer incidence and both measures of discrimination overall. These results indicate that perceived discrimination may be associated with breast cancer incidence.

POPULATION HEALTH THEORY & METHODS

Brownson RC, Ballew P, Brown KL, Elliott MB, Haire-Joshu D, Heath GW, et al. The Effect of Disseminating Evidence-Based Interventions That Promote Physical Activity to Health Departments. *Am J Public Health* 2007;97(10):1900-1907.

Effects of disseminating guidelines to promote physical activity in the US health departments was explored. Methods for effectively disseminating public health data regarding health benefits of physical activity are discussed.

Goldsmith MR, Bankhead CR, Austoker J. Synthesising quantitative and qualitative research in evidence-based patient information. *J Epidemiol Community Health* 2007;61(3):262-270.

Methodological discussion about the importance and challenges of combining quantitative and qualitative methods into a research review.

Hayes M, Ross IE, Gasher M, Gutstein D, Dunn JR, Hackett RA. Telling stories: News media, health literacy and public policy in Canada. *Social Science & Medicine* 2007;64(9):1842-1852.

Newspaper coverage of health issues in 10 Canadian newspapers was compared with nine health issues believed to be important influences on population health. Overall, newspaper coverage of particular health topics do not match up with the relative importance of these factors on population health.

Lezine DA, Reed GA. Political Will: A Bridge Between Public Health Knowledge and Action. *Am J Public Health* 2007;97(11):2010-2013.

This paper introduces a new public health policy model focusing on the use of political will in developing and implementing public health policy.

McAlister FA, van Diepen S, Padwal RS, Johnson JA, Majumdar SR. How Evidence-Based Are the Recommendations in Evidence-Based Guidelines? *PLoS Medicine* 2007;4(8):e250.

The quality of evidence behind therapeutic recommendations was explored in this cross-sectional study of recommendations on cardiovascular risk management by three pan-national guideline panels (US, Canada, Europe). Results indicate that evidence from randomized control trials is often internally valid, but may not be valid for the population-level guidelines.

Murray CJL, Lopez AD, Barofsky JT, Bryson-Cahn C, Lozano R. Estimating Population Cause-Specific Mortality Fractions from in-Hospital Mortality: Validation of a New Method. *PLoS Medicine* 2007;4(11):e326.

A method for estimating cause-specific mortality fractions in low and middle-income populations is proposed. This method was designed to address the relative lack of cause-of-death data available in many developing countries, and as an improvement on hospital mortality data alone.

Navarro V. WHAT IS A NATIONAL HEALTH POLICY? *International Journal of Health Services* 2007;37(1):1-14.

This article draws the distinction between health care policy and health policy, and discusses several health

policies that could target the multiple non-medical-care determinants of health.

Sherman G, Campione-Piccardo J. Distinguishing surveillance from research. *Critical Public Health* 2007;17(4):279 - 287.

The distinction between research and surveillance is discussed along with the policy and practice implications of failing to distinguish between the two.

Taylor HA, Johnson S. Ethics of Population-Based Research. *The Journal of Law, Medicine & Ethics* 2007;35(2):295-299.

The distinction between public health practice, human subjects clinical research, and population-based research are discussed along with the ethical implications of each.