The Family, Community and Health in the Context of Economic Change Project: A Literature Review 3

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Introduction

This bibliography includes empirical and theoretical studies related to “Family and Community Determinants of Health”, an area of research under the *Family, Community, and Health in the Context of Economic Change* Project. The materials are organized into the following 5 sub-topics:

1. Health Status, Health Care Utilization, and Health-related Behavior of Immigrants
2. Socioeconomic Status and Health
3. Maternal Education and Reproductive Health, Child Health Status, and Health Service Utilization
4. The Changing Demographics of Aging Population and Current Health Status
5. Miscellaneous/General Topics in Health

A. Health Status, Health Care Utilization, and Health-related Behavior of Immigrants

1. Ali, Jennifer. 2002. Mental Health of Canada’s Immigrants. Supplement to Health Reports 13: 101-11.

“Objectives: This paper compares immigrants with the Canadian-born population in terms of depression and alcohol dependence. It explores whether the "healthy immigrant effect" observed for physical health holds for mental health. Several sources of diversity among immigrants are also considered”.

“Data Source: The data are from the 2000/01Canadian Community Health Survey, which collected information on health status and health care utilization from over 131,000 respondents aged 12 or older in all provinces and territories”.

“Analytical techniques: Age- and sex-adjusted prevalence rates of depression and alcohol in immigrants and the Canadian-born population were compared. Variation by length of residence in Canada and country of birth was examined. Multivariate logistic regression models were run separately for depression and alcohol dependence, with adjustment for age, sex, marital status, income, and education. The model was elaborated to consider language barriers, employment status, and sense of belonging”.

“Main results: Immigrants had lower rates of both depression and alcohol dependence than the Canadian-born population. This "healthy immigrant effect" was strongest among recent immigrants and among immigrants from Africa and Asia. These two trends are related, since recent immigrants have tended to come from Africa and Asia, whereas the majority of long-term immigrants came from Europe. Long term immigrants have similar rates of depression as the Canadian-born. The lower rates observed for immigrants were not due to demographic or socio-economic differences (age, sex, marital status, income, and education) between immigrants and the Canadian-born population. After adjustment for all of these factors, recent immigrants still had the lowest risk for both depression and alcohol dependence. Furthermore, language barriers, immigrants' higher unemployment rates, and their lower sense of belonging to the local community did not diminish the gap between immigrants and the Canadian-born population”. (Author’s Abstract)

2. Perez, C.E. 2002. Health Status and Health Behavior Among Immigrants. Supplement to Health Reports 13: 89-100.

“Objectives: This article compares the health of immigrants at different times since immigration with that of the Canadian-born population, in terms of chronic conditions in general, heart disease, diabetes, high blood pressure, and cancer. Health behavior outcomes were also explored, as was their role in explaining observed health outcomes”.

“Data source: The data are from Statistics Canada's cross-sectional 2000/01 Canadian Community Health Survey. The sample comprised 131,535 household respondents aged 12 or older, representing almost 26 million Canadians”.

“Analytical techniques: The prevalence of health outcomes and behaviors was estimated for Canadian-born respondents and immigrants, defined by their time since immigration. Logistic regression was used to estimate odds of reporting health outcomes, both unadjusted and adjusted for socio-demographic variables and health behaviors. Odds for reporting health behaviors were also estimated”.

“Main results: Both male and female immigrants had lower odds of reporting chronic conditions in general, but odds increased with time spent in Canada. Only recently-arrived men had healthier heart disease outcomes than non-immigrant men. The same was true for women and cancer. In all other cases, there appeared to be no health advantage for immigrants, nor a gradient of worsening health with time since immigration. Patterns in health behaviors accounted for very few differences between immigrant and non-immigrant health”. (Author’s Abstract).

3. Chen, Jiajian, Russell Wilkins and Edward Ng. 1996. Health Expectancy by Immigrant Status, 1986 and 1991. Health Reports (Winter) 8 (3): 29-38.

Objectives: This paper compares health expectancy of immigrants with the Canadian-born population. The immigrants status was classified into three broad groups defined by the place of birth: Canadian-born, European immigrants, and non-European immigrants.

Data Sources and Main Results: Data for 1985-1987 and 1990-92 were acquired from the Canadian Vital Statistics Data Base. Data from the 1986 and 1991 Population Censuses, including both residents of households and organizations, were used in the estimates of mortality rates. Data for the disability and dependency are drawn from the 1986-87 and 1991 Health and Activity Limitation Surveys (HALS). Life expectancy by place of birth was derived from abridged life tables and was calculated through Chiang's technique. The life table values were calculated from cross-sectional age-specific mortality rates of the Canadian population by place of birth in 1985-87 and 1990-92. To estimate health expectancy by place of birth, the total population was disaggregated by sex, age group, and place of birth. The life expectancy of disability and dependency-adjusted life were calculated too. These health-adjusted life expectancies are summing-up gauge of healthiness, which connect mortality and various aspects of morbidity into a single value. Immigrants, especially those from non-European countries had a longer life expectancy and more years of life free of disability and dependency than did the Canadian-born population. These indicators show that immigrants, notable those from non-European countries, were healthier than the Canadian-born population

4. Reijneveld, SA. 1998. Reported Health, Lifestyles, and Use of Health Care of First Generation Immigrants in The Netherlands: Do Socioeconomic Factors Explain Their Adverse Position? Journal of Epidemiology and Community Health, 52 (5): 298-304

"Objectives: Differences in health, lifestyles, and use of health care between groups of varying ethnic origin can have important implications for preventive and curative health care. This paper studies whether socioeconomic factors explain ethnic differences in these outcomes".

"Design: Data on health status, lifestyles, and use of health care were obtained from interviews with 3296 people aged 16-64 years (response: 60.6%), among whom were 848 first generation immigrants. Ethnic differences in these outcomes were examined with and without adjustment for socioeconomic factors, using logistic regression".

"Setting: General population of Amsterdam, the Netherlands".

"Main Outcome Measures: Health status (self rated health, General Health Questionnaire, functional limitations), lifestyles (smoking, alcohol), and use of health care (general practice, pharmaceuticals, hospitalizations)".

"Main Results: Immigrants from Turkey, Morocco and (former) Dutch colonies report a poorer health and a higher use of health care, especially primary health care among the elderly. An adverse socioeconomic position partially explains the poor health of these immigrants. In turn, their poor health explains most of their higher use of health care".

"Conclusions: Cultural factors and poor living conditions seem to contribute to the poor health of immigrants, besides an adverse socioeconomic position. The pressure on various health services will increase in future because of the relatively high increase in immigrants' needs at older ages and their presently low mean age". (Author's Abstract)

5. Singh, L. P., B. Kaur. 1998. Impact of Migration, Environment and Socioeconomic Conditions on Blood Pressure of Sikhs. Journal of Biosocial Science, 30 (2): 155-164.

The objectives of this article are: First, examine whether the level of blood pressure increases or decreases with migration. Second, observe the impact of migration on both males and females. Third, check the level of blood pressure with respect to caste affiliation among Sikhs living in Punjab.

The data used in this study come from the cross-sectional sample of 449 Sikh adults living in the Indian state of Punjab (133 males, 123 females) and their peers in the United Kingdom (144 males, 49 females). All the respondents of the study were born and grew up in Punjab. The migrants later left for the United Kingdom as adults.

Results show that among the adult males in India the variation in the values of systolic blood pressure (SBP) and diastolic blood pressure (DBP) within the three case groups of adult male Sikhs is very small and the inter-caste differences are not statistically significant. In addition the regression analysis used to detect the relationship between age and blood pressure demonstrates that in the Ramgarhia sedentes, both SBP and DBP increased significantly with age and this increase was more for SBP than DBP; in the other two castes, no relationship was observed. No significant correlation was found between age and DBP in any of the caste groups for females in Indian Punjab. Regression analysis was done for adult migrants (males and females) in UK and no significant effect was observed in any of the caste groups. In conclusion, the present study of adult migrants presents no evidence of a relationship between anthropometrics and blood pressure. One may therefore conclude that the caste differences in blood pressure are not determined by variation in body build.

6. Kushel, Margot B., Eric Vittinghoff, Jennifer S. Haas. 2001. Factors Associated With the Health Care Utilization of Homeless Persons. The Journal of Medical Association. 285(2): 200-206.

“Context: Homeless persons face numerous barriers to receiving health care and have high rates of illness and disability. Factors associated with health care utilization by homeless persons have not been explored from a national perspective”.

“Objective**:** To describe factors associated with use of and perceived barriers to receipt of health care among homeless persons”.

“Design and Setting: Secondary data analysis of the National Survey of Homeless Assistance Providers and Clients”.

“Subjects**:** A total of 2974 currently homeless persons interviewed through homeless assistance programs throughout the United States in October and November 1996”.

“Main Outcome Measures**:** Self-reported use of ambulatory care services, emergency departments, and inpatient hospital services; inability to receive necessary care; and inability to comply with prescription medication in the prior year”.

“Results**:** Overall, 62.8% of subjects had 1 or more ambulatory care visits during the preceding year, 32.2% visited an emergency department, and 23.3% had been hospitalized. However, 24.6% reported having been unable to receive necessary medical care. Of the 1201 respondents who reported having been prescribed medication, 32.1% reported being unable to comply. After adjustment for age, sex, race/ethnicity, medical illness, mental health problems, substance abuse, and other covariates, having health insurance was associated with greater use of ambulatory care (odds ratio [OR], 2.54; 95% confidence interval [CI], 1.19-5.42), inpatient hospitalization (OR, 2.60; 95% CI, 1.16-5.81), and lower reporting of barriers to needed care (OR, 0.37; 95% CI, 0.15-0.90) and prescription medication compliance (OR, 0.35; 95% CI, 0.14-0.85). Insurance was not associated with emergency department visits (OR, 0.90; 95% CI, 0.47-1.75)".

"Conclusions**:** In this nationally representative survey, homeless persons reported high levels of barriers to needed care and used acute hospital-based care at high rates. Insurance was associated with a greater use of ambulatory care and fewer reported barriers. Provision of insurance may improve the substantial morbidity experienced by homeless persons and decrease their reliance on acute hospital-based care". (Author's Abstract)

7. Vega, William A., Bohdan Kolody, Sergio Aguilar-Gaxiola, and Ralph Catalano. 1999. Gaps in Service Utilization by Mexican Americans with Mental Health Problems. American Journal of Psychiatry. 156(6): 928-934

"Objective**:** The purpose of this study was to ascertain the degree of underutilization of services for mental health problems among urban and rural Mexican American adults".

"Method**:** A probability sample (N=3,012) was used to represent the Mexican American population of Fresno County, California, and face-to-face interviews were conducted with the use of the Composite International Diagnostic Interview. Bivariate and multivariate analyses were used to analyze the data on diagnosis and service utilization".
"Results: Among the respondents with DSM-III-R-defined disorders, only about one-fourth had used a single service or a combination of services in the past 12 months, and Mexican immigrants had a utilization rate which was only two-fifths of that of Mexican Americans born in the United States. Overall use of mental health care providers by persons with diagnosed mental disorders was 8.8%, use of providers in the general medical sector was 18.4%, use of other professionals was 12.7%, and use of informal providers was only 3.1%. According to logistic regression analyses, factors associated with utilization of mental health services included female sex, higher educational attainment, unemployment, and comorbidity".

"Conclusions: Immigrants are unlikely to use mental health services, even when they have a recent disorder, but may use general practitioners, which raises questions about the appropriateness, accessibility, and cost-effectiveness of mental health care for this population. Several competing hypotheses about the reasons for low utilization of services need to be examined in future research". (Author's Abstract)

8. Baron-Epel, Orna and G. Kaplan. 2001. Self-Reported Health Status of Immigrants from the Former Soviet Union in Israel. Israel Medical Association Journal, 3:940-946.

"Background: A mass influx of immigrants from the former Soviet Union to western countries and Israel followed the demise of the Soviet Bloc at the beginning of the 1990s.

It was expected that these immigrants would have a higher morbidity and mortality rate similar to that in the former USSR”.

“Objectives: To measure and compare self-reported diseases, subjective health and health services utilization of a representative sample of veteran Israeli Jews and immigrants from the former USSR”.

“Methods: A cross-sectional survey of Israeli adults was performed by telephone interviews. The survey included 793 Israeli Jews, of whom 124 were immigrants from the former USSR who arrived in Israel after 1989 (response rate 52%)”.

“Results: The immigrants reported a higher rate of diseases and sub-optimal health after adjustment for other variables. However, no excess in health services utilization was reported. A time trend of reporting sub-optimal subjective health was observed: the longer the immigrants spent in Israel the more their reporting patterns resembled those of immigrants who arrived in Israel before 1970. Those who arrived after 1994 more frequently reported having a chronic disease”.

“Conclusions: Acculturation seems to have been the main effect on the immigrants' health, together with a healthy migrant effect at the beginning of the 1990s. The immigrants' health was worse in the later years of the immigration wave, partially reflecting the poor state of health in the former Soviet Union compared to Israel”. (Authors Abstract)

B. Socioeconomic Status and Health

1. Tremblay S., Ross A. Nancy and Berthelot, Jean-Marie. 2002. Regional Socio-economic Context and Health. Supplement to Health Reports 13: 33-44.

“Objectives: To determine the influence of health region socio-economic context on the self-rated health of Canadians.”

“Data Sources: Individual data are from the first cycle of the 2000/01 Canadian Community Health Survey. Health region-level social, demographic, and economic characteristics were derived from the 1996 Census (Short and long forms), the Canadian Vital Statistics Database, and the Demography and Geography Divisions of Statistics Canada”.

“Analytical techniques: Multilevel logistic regression was used to model fair or poor health”.

“Main results: At the individual level, the perception of fair or poor health was strongly associated with age, sex, socio-economic position (as measured by education and household income), smoking, obesity, and infrequent exercise. Overall, a handful of individual factors accounted for much of the variation between health regions in reporting of fair or poor health. There was an additional influence of socio-economic context on individual reporting of fair or poor health at the health region scale, but it was modest”.

“Conclusion: This Canadian study has not demonstrated as strong an influence of the social environment on individual health status as have studies in the United States and the

United Kingdom. Federal and provincial government programs such as universal health care, unemployment insurance and old age security is one possible hypothesis that may explain the main results of the study". (Author's Abstract)

2. Power, Chris, Orly Manor, Sharon Matthews. 1999. The Duration and Timing of Exposure: Effects of Socio-economic Environment on Adult Health. American Journal of Public Health. Washington. 89 (7): 1059-1065.

"Objectives: This study investigated timing and duration effects of socioeconomic status (SES) on self-rated health at 33 years of age and established whether health risks are modified by changing SES and whether cumulative SES operates through education".

"Methods: Data were from the 1958 British birth cohort. Occupational class at birth and at 16, 23, and 33 years of age was used to generate a lifetime SES score".

"Results: At 33 years of age, 12% of men and women reported poor health. SES at birth and at 16, 23, and 33 years of age was significantly associated with poor health: all ages except 16 years in men made an additional contribution to the prediction of poor health. No large differences in effect sizes emerged, suggesting that timing was not a major factor. Odds of poor health increased by 15% (men) and 18% (women) with a 1-unit increase in the lifetime SES score. Strong effects of lifetime SES persisted after adjustment for education level".

"Conclusions: SES from birth to 33 years of age had a cumulative effect on poor health in early adulthood. This highlights the importance of duration of exposure to socioeconomic conditions for adult health". (Author's Abstract)

3. Eachus, J., P. Chan, N. Pearson, C Propper and G Davey Smith. 1999. An Additional Dimension to Health Inequalities: Disease Severity and Socioeconomic Position. Journal of Epidemiology and Community Health, 53 (10): 603-611.

"Objectives: To investigate the association between the severity of hip pain and disability, and a number of measures of socioeconomic position, using a range of individual and ecological socioeconomic indicators".

"Design: Interviewer administered and self completed questionnaires on symptoms of pain and disability, general health and socioeconomic indicators, completed by people reporting hip pain in a cross sectional, postal, screening questionnaire".

"Setting: 40 general practices from inner city, suburban and rural areas of south west England".

"Participants: 954 study participants who had reported hip pain in a postal questionnaire survey of 26,046 people aged 35 and over, selected using an age/sex stratified random probability sample".

"Data: Individual indicators of socioeconomic position: Social class based on occupation, maximum educational attainment, car ownership, gross household income, manual or non-manual occupation and living alone. Area level measures of socioeconomic position: Townsend scores for material deprivation at enumeration district level; urban or rural location based on the postcode of residence. Severity of hip disease, measured by the pain, disability and independence components of the New Zealand score for major joint replacement. Self reported co-morbidity validated using general practice case notes and summary measures of general health”.

“Main Results: Increasing disease severity was strongly associated with increasing age and a variety of measures of general health, including co-morbidity. The data provide considerable evidence for the systematic association of increased severity of hip disease with decreasing socioeconomic position. Measures of socioeconomic position that were systematically associated with increasing disease severity, standardised for age and sex, included educational attainment (relative index of inequality 1.95 (95% confidence intervals 1.29 to 2.62) and income (relative index of inequality 4.03 (95% confidence intervals 3.43 to 4.64). Those with access to a car (mean disease severity 15.5) had statistically significant lower severity of hip disease than those without (mean 17.5, $p < 0.01$). Similar results were found for access to higher or further education and living with others. For a given level of income, people with greater co-morbidity had more severe hip pain and disability. The gradient in disease severity between rich and poor was steepest among those with the most co-morbidity”.

“Conclusions: People with lower socioeconomic position experience a greater severity of hip disease. The poorest sector of the population seems to be in double jeopardy: they not only experience a greater burden of chronic morbidity but also a greater severity of hip disease. This study has implications for health care provision, if the National Health Service is to live up to its principle of equal treatment for equal medical need”. (Author’s Abstract)

4. Ross NA, MC Wolfson, JR Dunn, J-M Berthelot, G Kaplan, J Lynch. 2000. Relation between Income Inequality and Mortality in Canada and in the United States: Cross Sectional Assessment using Census Data and Vital Statistics. British Medical Journal 320: 898-902.

“To compare the relation between mortality and income inequality in Canada with that in the United States, the degree of income inequality, defined as the percentage of total household income received by the less well off 50% of households, was calculated and these measures were examined in relation to all cause mortality, grouped by and adjusted for age. The 10 Canadian provinces, the 50 US states, and 53 Canadian and 282 US metropolitan areas. Canadian provinces and metropolitan areas generally had both lower income inequality and lower mortality than US states and metropolitan areas. In age grouped regression models that combined Canadian and US metropolitan areas, income inequality was a significant explanatory variable for all age groupings except for elderly people. The effect was largest for working age populations, in which a hypothetical 1% increase in the share of income to the poorer half of households would reduce mortality by 21 deaths per 100 000. Within Canada, however, income inequality was not significantly associated with mortality. Canada seems to counter the increasingly noted association at the societal level between income inequality and mortality. The lack of a significant association between income inequality and mortality in Canada may indicate that the effects of income inequality on health are not automatic and may be blunted by the different ways in which social and economic resources are distributed in Canada and in the United States". (Author's Abstract)

5. Wolfson, MC, G Kaplan, J Lynch, NA Ross, J Backlund. 1999. The Relationship between Income Inequality and Mortality is not a Statistical Artefact – An Empirical Assessment. British Medical Journal, 319: 953-957.

"To assess the extent to which observed associations at population level between income inequality and mortality are statistical artefacts. Indirect "what if" simulation by using observed risks of mortality at individual level as a function of income to construct hypothetical state level mortality specific for age and sex as if the statistical artefact argument were 100% correct. Data from the 1990 census for the 50 US states plus Washington, DC, were used for population distributions by age, sex, state, and income range; data disaggregated by age, sex, and state from the Centers for Disease Control and Prevention were used for mortality; and regressions from the national longitudinal mortality study were used for the individual level relation between income and risk of mortality. Hypothetical mortality, while correlated with inequality (as implied by the logic of the statistical artefact argument), showed a weaker association with states' levels of income inequality than the observed mortality. The observed associations in the United States at the state level between income inequality and mortality cannot be entirely or substantially explained as statistical artefacts of an underlying individual level relation between income and mortality. There remains an important association between income inequality and mortality at state level over and above anything that could be accounted for by any statistical artefact. This result reinforces the need to consider a broad range of factors, including the social milieu, as fundamental determinants of health". (Authors' abstract)

6. Mayer, Francine, Nancy Ross, Jean-Marie Berthelot and Russell Wilkins. 2002. Disability-free Life Expectancy by Health Region. Health Reports 13(4): 49-60.

"Objectives: This article presents a profile of variations in disability-free life expectancy (DFLE) by health region."

"Data Sources: Mortality data for 1995 through 1997 are from the Canadian Vital Statistics Database. Estimates of disability (major activity limitations) and socio-demographic characteristics are based on data from the 1996 Census. Supplementary information was provided by the Demography and Geography divisions at Statistics Canada".

"Analytical Techniques: DFLE was calculated using a modified version of Sullivan's method. Linear regression using 4 factors representing socio-demographic profiles was used to explain the variation of DFLE by health region. These 4 synthetic variables were determined using principal component analysis"

"Main Results: The health districts of Ontario and the western provinces by and large in 1996, had life expectancy and disability-free life expectancy (DFLE) higher than the similar national values. Life expectancy has an inclination to be lower – often significantly so – in distant countryside and northern districts compared with main municipal centers. Moreover, the majority health regions in the Atlantic zone had life expectancies and DFLEs lower than the matching national standards. In the majority of health areas in Quebec, life expectancy was lower than the Canadian assessment. However, because apparent most important activity restriction rates are a large amount lower in that region than in the rest of the country, DFLE is generally high in Quebec, compared with Canada as a whole." (Author's Abstract)

7. Wilkins, R., J. Berthelot, and E. Ng. 2002. Trends in Mortality by Neighbourhood Income in Urban Canada from 1971 to 1996. Supplement to Health Reports 13: 45-72.

"Objective: This article describes changes in income-related differences in mortality in Canada from 1971 to 1996, including trends by specific causes of death".

"Data source: Death registration and population data for residents of census metropolitan areas (CMAs) were obtained from the Canadian Mortality Data Base and population censuses for 1971, 1986, 1996. The death data were then coded to census tract (CT), and institutional residents were identified (for exclusion)".

"Analytical techniques: Within each CMA, the non-institutional population and deaths were grouped into neighbourhood income quintiles on the basis of the CT percentage of population below Canada's low-income cut-offs. Life expectancy at birth, probability of survival to age 75, potential years of life lost (PYLL), and income-related excess PYLL before age 75 were calculated, as were are-specific mortality rates and age-standardized mortality rates (ASMRs) for major causes of death".

"Main results: from 1971 to 1996, differences in life expectancy between the richest and poorest income quintiles of urban Canada diminished by well over 1 year for each sex (from 6.3 to 5.0 years for males, and from 2.8 to 1.6 years for females). Inter-quintile differences in infant mortality declined by 7 per thousand (76%). The rate of income-related excess potential years of life lost (PYLL) before age 75 diminished by 35%. By 1996 the major causes of death contributing to excess PYLL were circulatory diseases, injuries, neoplasms, and infectious diseases. For most causes of death (notably ischemic heart disease, most injuries, cirrhosis of the liver, perinatal conditions), socio-economic disparities in mortality diminished markedly over time. However, some causes of death (such as lung cancer, prostate cancer and suicide for males, and breast cancer for females) showed little change, while a few (lung cancer for females, and infectious diseases, mental disorders and diabetes for both sexes) showed clearly widening disparities".

"Conclusions: Because of the multiple pathways through which such differences are believed to arise, continued progress in reducing socio-economic disparities in mortality in Canada may require both broad-based intersectoral policies and highly targeted interventions, as well as better data on the nature of the existing disparities with respect to socio-economic characteristics other than neighbourhood income". (Authors' Abstract)

8. Singh, Gopal K., Barry A. Miller, Benjamin F. Hankey, Eric J. Feuer, Linda W. Pickle. 2002. Changing Area Socioeconomic Patterns in U.S. Cancer Mortality, 1950–1998: Part I—All Cancers Among Men. Journal of the National Cancer Institute, 94 (12): 904-915.

“Background: Area socioeconomic deprivation indices are widely used to monitor health disparities in Europe. However, such indices have not been used in cancer surveillance in the United States. We developed an area socioeconomic index to examine area socioeconomic patterns in all-cancer mortality among U.S. men between 1950 and 1998”.

“Methods: Principal components analysis on 11 census variables was used to develop an area socioeconomic index that was then used to stratify all U.S. counties into one of five socioeconomic categories. The index was linked to 1950–1998 county mortality data to generate annual mortality rates for each area socioeconomic group. Join point regression analysis was used to model mortality trends, and Poisson regression analysis was used to estimate socioeconomic gradients in mortality over time”.

“Results: Area socioeconomic patterns in U.S. male cancer mortality changed dramatically between 1950 and 1998. Throughout the 1950s and 1960s, there was a positive socioeconomic gradient, with higher cancer mortality rates in high area socioeconomic groups than in low area socioeconomic groups. For example, in 1950–1952, cancer mortality was 49% (95% confidence interval [CI] = 41% to 59%) greater in the highest area socioeconomic group than in the lowest. The positive gradient narrowed in the 1970s, and by the late 1980s, socioeconomic differences in cancer mortality began to reverse and widen. In 1997–1998, cancer mortality was 19% (95% CI = 11% to 28%) higher in the lowest area socioeconomic group than in the highest. Gradients were steeper for men aged 25–64 years than for men aged 65 years or older”.

“Conclusions: Socioeconomic patterns in male cancer mortality have reversed over time in the United States. Area socioeconomic indices could serve as a powerful surveillance tool for monitoring health disparities in cancer outcomes”. (Authors’ Abstract)

9. Singh G.K., B.A. Miller, B.F. Hankey. 2002. Changing Area Socioeconomic Patterns in U.S. Cancer Mortality, 1950–1998: Part II—Lung and Colorectal Cancers. Journal of the National Cancer Institute, 94 (12): 916-925.

“Background: Lung cancer and colorectal cancer are leading causes of U.S. cancer mortality. Because mortality rates for many cancers vary by socioeconomic characteristics, we used area socioeconomic indices to examine patterns in U.S. lung and colorectal cancer mortality between 1950 and 1998”.

“Methods: A factor-based area socioeconomic index was linked to 1950–1998 county mortality data to generate annual lung and colorectal cancer mortality rates for each area socioeconomic group. Joinpoint regression analysis was used to model and identify statistically significant changes in the mortality trends”.

“Results: Area socioeconomic patterns in U.S. lung cancer mortality changed dramatically between 1950 and 1998. Men aged 25–64 years and those aged 65 years or older in higher socioeconomic areas generally had higher lung cancer mortality than did those in lower socioeconomic areas during 1950–1964 and 1950–1980, respectively. Area socioeconomic differences in lung cancer mortality began to reverse and widen by the early 1970s for younger men and by the mid-1980s for older men. In 1998, lung cancer mortality was 56% (95% confidence interval [CI] = 49% to 64%) higher for younger men and 38% higher (95% CI = 34% to 43%) for older men in the lowest area socioeconomic group than for the same age groups in the highest area socioeconomic group. Lung cancer mortality among older women in all socioeconomic groups increased sevenfold to eightfold between 1950 and 1998, with higher mortality in higher area socioeconomic groups. The positive socioeconomic gradient in colorectal cancer mortality diminished substantially over time. Although colorectal cancer mortality among women in all area socioeconomic groups showed a consistent downward trend, colorectal cancer mortality among men in low area socioeconomic groups, but not in high area socioeconomic groups, showed an upward trend".

"Conclusions: Socioeconomic gradients in male lung cancer mortality reversed between 1950 and 1998, and those in colorectal cancer mortality narrowed over that time. Area measures may be useful for monitoring socioeconomic disparities in cancer mortality and for identifying areas for potential cancer control interventions". (Authors' Abstract)

10. Martens PJ, Frohlich N, Carriere K, Derksen S, Brownell M. 2002. Embedding Child Health within a Framework of Regional Health: Population Health Status and Sociodemographic Indicators. Canadian Journal of Public Health, 93(Suppl. 2):S15-S20.

"Objectives: The description of regional variation in children's health requires regional population-based context. But what is the best way to measure the health of a region's population"?

"Methods: The use of two indicators is described - one a health status measure and the other a measure of socioeconomic wellbeing. It is well known that the population's premature mortality rate (PMR), the age/sex-adjusted rate of death before age 75 years, is highly related to overall health status of an area's residents. Socioeconomic characteristics of an area's residents are also indicative (and likely causative) of health status differences".

"Results: The Socioeconomic Factor Index (SEFI) was developed at the Manitoba Centre for Health Policy, using a Principal Components Analysis of census data. PMR and SEFI are highly correlated (Spearman's correlation coefficient r=0.85, p<0.0001). PMR can be used as a surrogate measure for both the health status and socioeconomic well-being of regional populations in Manitoba".

"Conclusion: PMR can be used as a surrogate measure for both the health status and socioeconomic well-being of regional populations in Manitoba. (Author's Abstract)"

C. Maternal Education and Reproductive Health, Child Health Status, and Health Service Utilization

1. Gubhaju, Bhakta B. 2002. Adolescent Reproductive Health in Asia. Asia-Pacific Population Journal, 17 (4): 97-119.

This article explores the demographic dimensions of the sexual and reproductive health of adolescents in Asia. It examines adolescent sexuality, the factors that influence their sexual behavior, the consequences of adolescent childbearing and their contraceptive use. In this article "adolescents" refers to the age group 15-19.

Data used in this study were from different sources; e.g., various demographic and health surveys, and data from the United Nations. There are two separate trends in age at marriage in Asia that have implications for the sexual and reproductive health of adolescents. The first relates to the trend towards an increase in the age at marriage in many countries in the region. The second relates to the high prevalence of marriage during adolescence in some countries, resulting in higher rates of childbearing.

The national level surveys tend to suggest that premarital sex is less common in Asia, but more focused in-depth studies on adolescent sexual and reproductive health undertaken in some Asian countries have shown that it is clearly on the increase. Survey outcomes on the sexual behavior of adolescents in Asia imply that a visible percentage of adolescents are sexually experienced. Health risks are more associated with adolescent pregnancies and childbearing because adolescents are physiologically and socially more immature than older women. In conclusion, the undesirable health consequence of adolescent fertility is high rate of maternal and infant mortality.

2. Bu, Baizhuang, Marjo-Riitta Jarvvelin, Paula Rantakallio. 1998. Maternal Smoking in Pregnancy and Sex Differences in Perinatal Death between Boys and Girls. Social Biology, 45 (3-4): 273-277.

The objective of the study is to investigate the association between maternal smoking during pregnancy and sex differences in perinatal mortality. The analysis involved 11,469 and 9,404 newborns derived from two population-based birth cohorts in Northern Finland, for 1966 and 1985-86, respectively, comprising 96 percent and 99 percent of all births in the provinces of Oulu and Lapland. The gestational age used in the analysis was calculated as the interval between the first day of the last menstrual period and the day of delivery. Information on mothers was acquired from questionnaires completed by mother's antenatal visits to clinics. Perinatal mortality rate, rate ratio (RR), and corresponding 95 percent confidence interval (CI) for males over females were calculated by each category of the determinants under investigation.

Logistic regression models were done to estimate the sex differences in mortality by maternal smoking status after modification for the effects of the determinants together in the same model. Results of this study show that both cohorts had an excess of male over female perinatal deaths, with the rate ratio being 1.15 and 1.60. The logistic regression models were done separately for those children whose mothers smoked and those children whose mothers did not smoke during pregnancy. The rate ratio (RR) was 2.2 for the former cohort and 4.8 for the latter cohort among those children whose mothers smoked, and 1.2 and 1.1 among the children whose mothers did not smoke during pregnancy. In conclusion, nicotine causes a reduction in utero placental blood flow and leads to hypoxia of the fetus. Due to nicotine, the white cell and neutrophil counts in cord blood are considerably decreased in male newborns of smoking mothers in contrast with those of non smoking mothers and female newborns of smokers.

3. Higgins, J., Wharf, Gaul C, Gibbons S, Van Gyn G . 2003. Factors Influencing Physical Activity Levels among Canadian Youth. Canadian Journal of Public Health, 94(1): 45-51.

“Objectives: To describe the predisposing, enabling and reinforcing factors influencing the levels of physical activity among Canadian youth (ages 12-24)”.

“Methods: Analyses of the 1996-97 National Population Health Survey (NPHS) were conducted using data collected from female (n=6195) and male (n=5925) Canadians aged 12-24 years. The data were analyzed using correlational, ANOVA and regression procedures with post hoc analyses (Bonferroni) employed where applicable”.

“Results: Compared to males, Canadian female youth were found to be less physically active, more concerned about being overweight, more depressed, and to consult mental health professionals more frequently. On the other hand, females were more likely to report greater social support than males and to be more socially involved. Those adolescents who smoke tend to be less physically active and, along with those who consume alcohol, have poorer health”.

“Discussion: The significant predisposing, enabling and reinforcing factors influencing youths' physical activity levels more profoundly affect females. The results are discussed in terms of strategies for enabling physical activity available in the literature. In addition to individual determinants influencing physical activity, a move toward understanding policy and environmental factors is recommended for further research”. (Authors’ Abstract)

4. Kozyrskyj A. 2002. Prescription Medications in Manitoba Children: Are There Regional Differences? Canadian Journal of Public Health, 93(Suppl. 2): S63-S69.

“Background: Population-based studies of pharmaceutical use in children provide information on disease prevalence, physician practice and adherence to treatment. We undertook an evaluation of regional differences in prescription drug use by Manitoba children”.

“Methods: Using Manitoba's population-based prescription data for 1998/99, the prevalence of children receiving prescriptions for antibiotics, analgesics, iron supplements, and four classes of psychotropic drugs was reported for Regional Health Authorities and Winnipeg Community Areas, ranked by a measure of population healthiness, the premature mortality rate (PMR). Prevalence rates were also reported by census-based neighbourhood income areas”.

“Results: 60% of children received at least one prescription in 1998/99. Antibiotics, antiasthmatics, analgesics, antidepressants, and psychostimulants were the most commonly dispensed drugs. Prescription use of antibiotics, iron supplements, analgesics, antidepressants, antipsychotics and anxiolytics was highest in low income, urban neighbourhoods. Few associations between a region's PMR and prescription utilization were observed, but children living in regions with the least healthy populations were more likely to use antibiotics, non-steroidal anti-inflammatory drugs and anxiolytics. Psychostimulant use was unrelated to neighbourhood income, but highest rates were documented in some of the healthiest Winnipeg neighbourhoods”.

“Conclusion: We documented regional variation in prescription use which may be related to differences in health, physician practice or child use”. (Author’s Abstract)

5. Martens PJ, T Mayer, S Derksen. 2002. Factors Affecting Adolescent Reproductive Health in Manitoba. Canadian Journal of Public Health, 93 (Suppl. 2):S39-S43.

“Objectives: To report teen pregnancy and sexually transmitted infections (STI) rates among Manitoba adolescents, and associated factors including rates of sexual intercourse and contraceptive use”.

“Methods: Teen pregnancy rates in females aged 15 to 19 for the fiscal years 1994/95 through 1998/99 were derived from the Population Health Research Data Repository and reported by geographical areas and income quintiles. Premature mortality rate (PMR) and the Socioeconomic Factor Index (SEFI) measured the overall health and socioeconomic well-being of regional populations. Data on sexual activity and contraceptive use were derived from the 1996 National Population Health Survey for males and females ages 15 through 19 years”.

“Results: The teen pregnancy rate for Manitoba was 63.2/1000, varying by geography and inversely correlated with income, PMR, and SEFI. 39% (95% CI 33-45) of teens reported sexual intercourse, with higher rates in urban areas (46%, 95 % CI 35-57) and the North (48%, 95% CI 36-60) compared to South Rural (30%, 95% CI 25-34), and in low-income families (68%, 95% CI 53-83) compared with middle/high (33%, 95% CI 26-40). For sexually active females, 42% (95% CI 28-57) used the birth control pill, with higher rates in low-income families (70%, 95% CI 50-90) compared to middle/high income (31%, 95% CI 14-48). Condom use (at last sexual intercourse) was reported by 82% (95% CI 72-92) of adolescents, with trends (though not statistically significant) to lower use in low-income families and the North”.

“Conclusion: Reliance on the pill for contraception, combined with low rates of condom use, are public health concerns for adolescents where STI and unintended pregnancy rates are high”. (Authors’ Abstract)

6. Pena, R., S. Wall and LA Persson. 2000. The Effect of Poverty, Social Inequity, and Maternal Education on Infant Mortality in Nicaragua, 1988-1993. American Journal of Public Health, Vol. 90 (1): 164-69

“Objectives: This study assessed the effect of poverty and social inequity on infant mortality risks in Nicaragua from 1988 to 1993 and the preventive role of maternal education”.

“Methods: A cohort analysis of infant survival, based on reproductive histories of a representative sample of 10,867 women aged 15 to 49 years in Leon, Nicaragua, was conducted. A total of 7073 infants were studied; 342 deaths occurred during 6394 infant-years of follow-up. Outcome measures were infant mortality rate (IMR) and relative mortality risks for different groups”.

“Results: IMR was 50 per 1000 live births. Poverty, expressed as unsatisfied basic needs (UBN) of the household, increased the risk of infant death (adjusted relative risk [RR] = 1.49; 95% confidence interval [CI] = 1.15, 1.92). Social inequity, expressed as the contrast between the household UBN and the predominant UBN of the neighborhood, further increased the risk (adjusted RR = 1.74; 95% CI = 1.12, 2.71). A protective effect of the mother's educational level was seen only in poor households”.

“Conclusions: Apart from absolute level of poverty, social inequity may be an independent risk factor for infant mortality in a low-income country. In poor households, female education may contribute to preventing infant mortality”. (Authors’ Abstract)

7. Yu, S. M., Z. J. Huang, and G. K. Singh. 2004. Health Status and Health Services Utilization among US Chinese, Asian Indian, Filipino, and Other Asian/Pacific Islander Children. Pediatrics, 113(1): 101-107.

“Objective. This study examines the health status and health services access and utilization characteristics of US Chinese, Asian Indian, Filipino, other Asian/Pacific Islander (API), and non-Hispanic white children by using nationally representative data.

“Methods. We analyzed the aggregated data file from the National Health Interview Survey from 1997 to 2000 including 334 Chinese, 287 Asian Indian, 292 Filipino, 696 "other API," and 29 016 non-Hispanic white children <18 years old. Bivariate and multivariate analyses were conducted to examine the relationship between Asian ethnicities and dependent variables including components of health status, health services access, and utilization”.

“Results. Logistic regression reveals that all Asian American children were less likely to miss school because of illness or injury or have learning disabilities compared with non-Hispanic whites. Other APIs were less likely to be taking prescription medication for at least 3 months, and Asian Indian children were half as likely to have chronic conditions. Chinese, Filipino, and other API children were more likely to be without contact with a health professional within the past 12 months. Citizenship/nativity status, maternal education attainment, and poverty status were all significant independent risk factors for health care access and utilization”.

“Conclusions. Asian ethnicities and being foreign-born are generally associated with more favorable health status measures such as school absence, learning disability, use of prescription medications, and chronic conditions. However, these attributes are negatively associated with health care access and utilization, suggesting the need for outreach to Asian immigrant populations to educate them on accessing the US health care system". (Authors' Abstract)

8. Bremberg, S. 2003. Does an Increase of Low Income Families Affect Child Health Inequalities? A Swedish Case Study. Journal of Epidemiology and Community Health, 57: 584-588

"Study objective: Reduction of health inequalities is a primary public health target in many countries. A change of proportion of low income families might affect child health inequalities. Yet, the importance of family incomes in high income welfare states is not well established. The aim of this study was to investigate the effect of increased percentage of low income families on child health inequalities during an economic recession in Sweden, 1991–1996".

"Design: Health inequalities for six health indicators were assessed during the period 1991–1996 and during adjacent periods. Relative inequality indices were estimated according to Pamuk and Mackenback. Appraisal of a child's socioeconomic situation was based on social data for the child's residency area".

"Setting: The total population of children and adolescents 0–<19 years old living in Stockholm County, Sweden, was studied. Each one year cohort comprised 20 470–25 420 people".

"Main outcome measures: Mortality; rate of low birth weight; days of hospital care for infections, asthma/allergic disorders, and unintentional injuries; and rate of abortions".

"Main results: Mortality decreased annually by 6.9%. The average relative inequality index for mortality before the recession was 1.40 and was lower during the recession, 1.14. The remaining five health indicators, and the relative inequality index for these indicators, did not differ significantly between the recession years (1991–1996) and adjacent periods".

"Conclusions: Relative health inequalities did not change, or decreased, during the recession years. The findings indicate that the connection was weak between child health inequalities and family incomes, within the frame of time and the range of income changes that occurred during the study period". (Author's Abstract)

D. The Changing Demographics of Aging Population and Current Health Status

1. Colenda, Christopher C., Deborah B. Wagenaar, Maureen Mickus, Steven C. Marcus, Terri Tanielian, and Harold Alan Pincus. 2003. Comparing Clinical Practice with Guideline Recommendations for the Treatment of Depression in Geriatric Patients: Findings from the APA Practice Research Network. American Journal of Geriatric Psychiatry. 11(4): 448-457.

"Objective: The authors describe treatments provided for depressed geriatric patients (age 65+) treated by psychiatrists in the American Psychiatric Association's (APA) Practice

Research Network (PRN) and compare treatments with recommended guidelines for treating late-life depression".

"Methods: Detailed demographics, diagnoses, service utilization, and treatment information were collected on relevant patients treated by psychiatrists participating in the APA's PRN during 1997, sample-weighted to produce nationally representative estimates. Treatment data were qualitatively compared with existing depression treatment guidelines from the APA and the Expert Consensus Guideline Series on pharmacotherapy of depressive disorders in older patients".

"Results: Of patients treated by psychiatrists in the PRN (N=152), just over 41% had a diagnosable depressive disorder, and, of those with depression, nearly 84% had major depression. Over 90% received a psychotropic medication, and over 75% received an antidepressant. Treatment intensity, as measured by visit frequency and duration of treatment, were more intense than typically found in primary care. Most patients received a combination of medication management and psychotherapy. Selective serotonin reuptake inhibitors were the most frequently prescribed antidepressant, although they were less frequently prescribed than in primary care and other national surveys. Just over 11% received a tertiary amine antidepressant, and nearly 43% received benzodiazepines, this frequency being inconsistent with existing guidelines".

"Conclusion: Depressed geriatric patients treated by psychiatrists in APA's PRN receive active treatments largely consistent with existing guidelines, which generally resulted in favorable patient outcomes". (Authors' Abstract)

2. Kenedy, Byron S., Stanislav V. Kasl and Viola Vaccarino. 2001. Repeated Hospitalizations and Self-rated Health among the Elderly: A Multivariate Failure Time Analysis. American Journal of Epidemiology. Vol. 153 (3): 232-241.

"The purpose of this study was to determine to what extent a single measure, self-rated health (SRH), independently predicts long-term hospitalizations due to all causes and to cardiovascular diseases by using both the standard Cox proportional hazards model and a more robust events model. The study cohort consisted of 2,812 elderly subjects residing in New Haven, Connecticut, who were followed from 1982 to 1996 as part of the Established Populations for Epidemiologic Study of the Elderly. After adjustment for baseline risk factors, using the Cox model, a favorable SRH was associated with a significantly lowered risk for a first hospitalization for all causes (risk ratio (RR) = 0.850, 95% confidence interval (CI): 0.774, 0.934) and congestive heart failure (RR = 0.599, 95% CI: 0.426, 0.841) but not for myocardial infarction (RR = 0.882, 95% CI: 0.565, 1.379). With the adjusted robust events model, a positive SRH was associated with a decreased risk in both a first (RR = 0.813, 95% CI: 0.744, 0.889) and a second (RR = 0.870, 95% CI: 0.782, 0.968) hospitalization for any cause. These results indicate that a single measurement of SRH predicts long-term patterns of hospitalization, especially for heart failure, among older adults". (Authors' Abstract)

3. Melzer, David, Brenda McWilliams, Carol Brayne, Tony Johnson, John Bond**.** 2000. Socioeconomic Status and the Expectation of Disability in Old Age: Estimates for England**.** The Journal of Epidemiology and Community Health, 54(4):286-292

“Objectives: The longer life expectancy in old age of more privileged socioeconomic groups is well established, but less clear is whether the net effect of additional years of life is a lengthened, stable or reduced duration of disability. Estimates of healthy and disabled life expectancy (using definitions including dependency in activities of daily living and cognitive impairment) were made, contrasting occupational classes I and II (professional and managerial) with the rest”.

“Design: Disability prevalence was estimated from the Medical Research Council Cognitive Function and Ageing study. Sullivan's method was used to calculate health expectancy”.

“Subjects: 10 377 people aged 65 years or over in Cambridgeshire, Newcastle, Nottingham and Oxford. Subjects were classified as disabled if they had evidence of dementia (using the Automated Geriatric Examination Computer Assisted Taxonomy) or scored 11 or more on the modified Townsend Disability scale, at baseline screen”.

“Results: The prevalence of disability overall and need for "constant care" was lower in both men and women in social classes I and II compared with the rest. Men aged 65 to 69 in classes I and II can expect nearly 14 years of life free of disability compared with 11.5 years for those in classes III to V: for women the equivalent expectations are 15.5 and 13.8 years. Men aged 65 to 69 in classes I and II can also expect a shorter duration of disability: 1 year compared with 1.6 years for classes III to V. In women expectation of disability is higher overall, but shows little difference by occupational class”.

“Conclusions: Relatively privileged socioeconomic groups in England, especially men, can expect fewer years of disability despite longer overall life expectancy. These findings lend weight to optimistic scenarios for the future numbers of older people with disability”. (Authors’ Abstract)

4. Feil, Denise, Tonya Marmon, and Jürgen Unützer. 2003. Cognitive Impairment, Chronic Medical Illness, and Risk of Mortality in an Elderly Cohort. American Journal of Geriatric Psychiatry, 11(5): 551 - 560.

“Objective: The mortality risk for older persons with chronic medical illness and cognitive impairment is relatively unknown. The authors assessed 6-year mortality risks for cognitive impairment and six chronic diseases in 7,482 subjects from the East Boston, Massachusetts, and rural Iowa cohorts of the Established Populations for Epidemiologic Studies in the Elderly (EPESE)”.

“Methods: Cognitive impairment was identified with a modified form of Pfeiffer's Short Portable Mental Status Questionnaire. Chronic medical illnesses included diabetes, stroke, myocardial infarction, hypertension, hip fracture, and cancer. The authors examined the association of cognitive impairment and each of the six chronic illnesses with mortality by means of Cox proportional-hazards regression models, and determined the interaction of cognitive impairment and chronic medical illness on mortality".

"Results: Participants who were cognitively impaired at baseline were found to have a 68% increased relative risk of mortality. The relative risks of mortality from diabetes, heart attack, stroke, and hip fracture were similar to the risk from cognitive impairment. Interactions between cognitive impairment and each chronic medical illness on mortality were not statistically significant".

"Conclusion: Survival curves demonstrate that the effects of cognitive impairment and chronic medical illness on mortality are mostly additive, resulting in very poor survival for those with both medical illness and cognitive impairment. Further research should examine the healthcare behaviors and needs of older adults with cognitive impairment". (Author's Abstract)

5. Ganguli, M., H. H. Dodge, and B. H. Mulsant. 2002. Rates and Predictors of Mortality in an Aging, Rural, Community Based Cohort: The Role of Depression. Archive of General Psychiatry. 59(11): 1046 - 1052.

"Context: Depression, functional disability, cognitive impairment, and self-rated health all predict mortality in the elderly population. There is no consensus on their relative contributions when examined together".

"Objectives: To measure rates and identify predictors of mortality in an aging community-based cohort".

"Design: Ten-year prospective epidemiological study. Predictor variables examined in Cox proportional hazards models were self-rated health, ability to perform instrumental activities of daily living (IADLs), depressive symptoms, and cognitive functioning, controlling for age, sex, education, and number of prescription drugs".

"Setting: A largely blue-collar rural community in southwestern Pennsylvania. Participants: A population-based cohort of 1064 adults, 67 years or older at the beginning of follow-up".

"Main Outcome Measures: Mortality at 3, 5, and 10 years (133, 218, and 482 deaths, respectively).

"Results: Mortality rates were similar to those of the 1990 US population. Older age, male sex, IADL disability, and number of prescription drugs measured at baseline were significant predictors of mortality at all 3 follow-up end points. Depression at baseline predicted earlier (3- and 5-year) mortality but not later (10-year) mortality. The interaction between self-rated health and depression independently and strongly predicted mortality at all end points. Cognitive functioning predicted mortality only when IADL disability was excluded from the model".

"Conclusions: Age, sex, depression, and functional disability are strong and consistent independent predictors of mortality in older adults in the community, in addition to objective medical burden (prescription drugs). Depression alone predicts mortality in the shorter rather than longer term, but in combination with poor self-rating of health, it strongly predicts mortality at all end points". (Authors' Abstract).

6. Tate, R. B., L. Lah, and T. E. Cuddy. 2003. Definition of Successful Aging by Elderly Canadian Males: The Manitoba Follow-Up Study. The Gerontologist. 43(5): 735 - 744.

"Purpose: Although the concept of successful aging is used widely in the field of gerontology, there is no agreed-on standard or common underlying definition for measuring success in aging. Our recent survey of an elderly male population asked respondents to define "successful aging." This paper describes the themes that evolved from those definitions, explores interrelationships between the themes, and examines the association between characteristics of respondents and the themes provided in their definition".

"Design and Methods: The Manitoba Follow-up Study has followed a cohort of 3,983 World War II Royal Canadian Air Force male aircrew recruits since July 1, 1948. At a mean age of 78 years in 1996, the survivors were surveyed and asked, "What is *your* definition of successful aging?" and "Would *you* say you have *aged successfully*?" A content analysis identified themes emerging from their definitions".

"Results: The most frequent of the 20 component themes from the definitions of successful aging as provided by 30% of the 1,771 respondents related to "health and disease"; "physical," "mental," and "social activity" were more likely to be found in a definition including "interest," "having goals," "family," or "diet," and they were less likely to be mentioned with themes of "independence" or "health." Many of the themes reflect an individual's attitudes toward life and the aging process. Current life satisfaction, self-rated health, and limitation in activities of daily living were significantly associated with an increased likelihood of reporting specific themes in definitions".

"Implications: As health care professionals adapt to the changing demographic composition of society, it should be of interest to understand what successful aging might mean to the elderly males to whom they are attending". (Author's Abstract)

7. Seeman, T., E. Seeman and E. Crimmins. 2001. Social Environment Effects on Health and Aging: Integrating Epidemiologic and Demographic Approaches and Perspectives. Annals of the New York Academy of Sciences. 954:88-117.

"This paper provides an overview of epidemiological and demographic research linking social characteristics of both individuals and communities to differences in both morbidity and mortality risks. Evidence is presented linking three broad aspects of the social environment to health—the network of personal social relationships within which most of us live our lives, individual socioeconomic status (SES), and community-level social characteristics. Large and consistent bodies of literature from both epidemiology and demography provide clear evidence for the generally health-promoting effects of personal social relationships and SES. The bulk of the evidence relates to mortality although both fields have begun to examine other health outcomes, including aspects of physical and cognitive functioning as well as disease outcomes. A smaller but growing body of community-level data, reflecting both the socioeconomic/resource characteristics of these broader communities and, more specifically, social features of these environments, also point to health impacts from these more macro level social environment characteristics. Much remains to be elucidated, however, concerning the actual mechanisms through which something as complex and multifaceted as SES "gets under the skin." This necessarily includes consideration of external characteristics of the environments (both physical and sociocultural) where people live and work, and individual characteristics, as well as possible interactions between these in producing the observed SES gradients in health and mortality. These questions concerning links between social environment conditions and health may be a particularly fruitful area of future collaboration, drawing on the shared interest of demographers and epidemiologists in understanding how different social conditions promote variation in distributions of better versus worse health outcomes within a population". (Authors' Abstract)

E. Miscellaneous/General Topics in Health

1. Perez, C.E. 2002. Fruit and Vegetable Consumption. Health Reports 13(3): 23-32.

"Objective: This article focuses on associations between the frequency of fruit and vegetable consumption and other health-related behaviors or conditions, including physical activity, smoking, obesity and alcohol-dependence".

"Data Sources: The data are from the first half of cycle 1.1 of the Canadian Community Health Survey, collected from September 2000 through February 2001".

"Analytical Techniques: Weighted means provide information on average frequency of fruit and vegetable consumption in relation to selected health behaviors and conditions, health status and socio-demographic characteristics. Multivariate linear regression is used to model the associations between eating fruit and vegetables and health behaviors, while controlling for other influences".

"Main Results: Women consume fruit and vegetables more often than do men. When other influences are taken into account, the frequency of eating fruits and vegetables is positively related in both sexes to being physically active, not smoking and not being overweight, and in women, to not being alcohol-dependent". (Author's Abstract)

2. Shields, M. and S. Temblay. 2002. The Health of Canada's Communities. Supplement to Health Reports 13: 9-32.

"Objectives: This article examines the health of Canadians at the community level. Canada's 139 health regions are grouped into 10 "peer groups" with similar socio-demographic profiles. Health outcomes and risk factors are compared between and within peer groups".

"Data source: Life expectancy and disability-free life expectancy estimates are based on data from the 1996 Census of Canada and the Canadian Vital Statistics Database. Risk factor estimates are based on data from the 2000/01 Canadian Community Health Survey (CCHS)".

"Analytical techniques: Chiang's method for abridged life tables is used to calculate life expectancy. Disability-free life expectancy was calculated according to the Sullivan method. Estimates of self-perceived health and risk factors are derived from the CCHS data. Regression analysis is used to study associations between health outcomes and risk factors".

"Main results: Socio-demographic factors and risk factors such as smoking and obesity play a critical role in accounting for differences between communities in health outcomes such as life expectancy and disability-free life expectancy". (Authors' Abstract)

3. Tjepkema, Michael. 2002. The Health of the Off-reserve Aboriginal Population. Supplement to Health Reports 13: 73-88.

"Objectives: To compare the off-reserve Aboriginal population with the rest of the Canadian population in terms of health status, health behaviours, and health care utilization".

"Data source: Statistics Canada's 2000/01 Canadian Community Health Survey".

"Analytical techniques: Age-standardized cross-tabulations were used to compare health status, heath behaviours, and health care utilization between the off-reserve Aboriginal and non-Aboriginal populations. Multiple logistic regression was used to determine if, after adjustment for socio-demographic and health behaviour factors, the Aboriginal population had greater odds of reporting selected health outcomes".

"Main results: The off-reserve Aboriginal population reported poorer health than the non-Aboriginal population. These inequalities in health persisted after socio-economic and health behaviour factors were taken into account. Contact with a general practitioner at least once in the previous year was similar between off-reserve Aboriginal and non-Aboriginal people living in the provinces. In the territories, Aboriginal people living off reserve had fewer contacts with doctors than did non-Aboriginal persons". (Author's Abstract)

4. Tremblay S., S. Dahinten and Dafna Kohen. 2003. Factors Related to Adolescents' Self-perceived Health. Supplement to Health Reports 14: 7-16.

"Objectives: This article examines self-perceived health among Canadian adolescents age 12 to 17, and factors associated with ratings of very good/excellent health".

"Data Source: The data are from cycle 1.1 of the 2000/01 Canadian Community Health Survey (CCHS), conducted by Statistics Canada. The sample consisted of 12,715 adolescents aged 12 to 17".

"Analytical techniques: Cross-tabulations were used to estimate the prevalence of various characteristics and health behaviours for the 12 to 14 and 15 to 17 age groups. Multiple logistic regression was used to model associations between very good/excellent self-reported health and selected characteristics".

“Main results: In 2000/01, nearly 30% of 12 to 17 year olds rated their health as poor, fair or good. At ages 15 to 17, girls were less likely than boys to report very good/excellent health and were more likely to have a chronic condition and to have experienced depression in the past year. When other factors were taken into account, the odds of reporting very good/excellent health were significantly lower for teens who were daily smokers, episodic heavy drinkers, physically inactive during leisure time, infrequent consumers of fruit and vegetables, or obese, compared with teens who did not have these characteristics”. (Author’s Abstract)

5. Perez, Claudio E. 2003. Children Who Become Active. Supplement to Health Reports 14: 17-28.

“Objectives: This article examines factors associated with children aged 4 to 11 becoming and remaining active, and how this differed according to their weight”.

“Data Sources: The data are from the National Longitudinal Survey of Children and Youth: cycle 1(1994/95) for the cross-sectional analysis, and cycles 1, 2 and 3 (1994/95 to 1998/99) for the longitudinal analysis”.

“Analytical techniques: Estimates of physical activity levels in 1994/95 among acceptable-weight and overweight/obese children are available by age, sex and selected activities (TV viewing, playing computer/video games, and hours of physical education at school). Logistic regression models were constructed for children who were inactive in 1994-95, focusing on the selected activities as predictors of adopting and maintaining an active lifestyle”.

“Main Results: Factors associated with children adopting and maintaining an active lifestyle differed, depending on their weight. For overweight/obese children, but not for acceptable-weight children, a relatively high number of physical education hours was predictive of becoming physically active, while frequent TV viewing lowered the odds”. (Author’s Abstract)

6. Perez, Claudio and Marie P. Beaudet. 1999. The Health of Lone Mothers: Health Reports 11 (2): 21-32.

“Objectives: This article focuses on differences in the health status and health care utilization patterns of mothers in two parent families, women who recently became lone parents and women who had been lone parents for a longer period. Changes in the health of these women and their health care use over time are also explored”.

“Data Source: The findings are based on the longitudinal component of the first two cycles (1994/95 and 1996/97) of the National Population Health Survey (NPHS). The sample analyzed consisted of 1,805 women in the 10 provinces who had at least one child younger than 18 at home”.

“Analytical techniques: Measures of self-reported health status and health care use for the three types of mothers were compared, using unadjusted and adjusted means. Multiple regression models were used to determine if lone motherhood was significantly associated with measures of health status and health care utilization after accounting for selected factors".

"Main results: Lone mothers generally had poorer health status than mothers in two-parent families, as measured by self-reported health, happiness, and distress scores. Between the first two cycles of the NPHS, the health status of longer-term lone mothers did not improve significantly. No differences were found on measures of health care utilization". (Author's Abstract)

7. Nolte, Ellen, Vladimir Shkolnikov, Martin McKee. 2000. Changing Mortality Patterns in East and West Germany and Poland. I: Long Term Trends (1960-1997). Journal of Epidemiology and Community Health, 54(12): 890-898.

"Objectives: To examine the long term evolution of mortality in the former German Democratic Republic (GDR) in the period from 1960 and its specific position in health terms compared with the Federal Republic (FRG) in the west and Poland in the east".

"Methods: Decomposition of life expectancy by age and cause of death. Differences in life expectancy at birth between the former GDR and the old FRG were decomposed by age using data on all cause mortality for the period 1960 to 1997. Changes in life expectancy over time by cause of death were examined using data for 1974 and 1989 for both parts of Germany and for 1974 and 1988 for Poland".

"Results: Male life expectancy in the two parts of Germany diverged twice, in the mid-1960s, favoring the GDR, and in the mid-1970s, giving increasing advantage to the FRG, while female life expectancy remained similar until the mid-1970s and began to diverge thereafter. The initial advantage of the GDR was mainly attributable to an improving mortality rate among children compared with that in the west in both sexes. During the 1980s, mortality among men over 15 and women over 40 steadily worsened relative to their western counterparts, although men were doing considerably better than those in Poland who actually experienced deterioration. In the FRG, falling death rates among adults of all ages have contributed substantially to the improvement in life expectancy between 1974 and 1989, largely attributable to falling deaths from cardiovascular disease and from injuries at younger adult ages. In Poland, death rates among male adults have risen at all ages over 35, mostly attributable to worsening death rates from cardiovascular disease and neoplasms while women experienced stagnation. The GDR showed a small worsening among men under 60, counterbalanced by improvements among those over 60, and some improvement in women, attributable to falling deaths from cardiovascular disease among the middle aged and elderly".

"Conclusions: This study provides further evidence for the complexity of the east-west mortality differential emerging in the 1960s in Europe, highlighting the intermediate position in health terms the former GDR occupied during much of the communist period. Further research is required to assess the underlying causes for the specific position of the former GDR between east and west". (Author's Abstract)

8. Singh, Gopal K, Mohammad Siahpush. 2002. Increasing Inequalities in All-cause and Cardiovascular Mortality among US Adults Aged 25–64 Years by Area Socioeconomic Status, 1969–1998. International Journal of Epidemiology*,* Vol. 94 (31):600-613.

"Background: This study examined the extent to which areal socio-economic gradients in all-cause and cardiovascular disease (CVD) mortality among US men and women aged 25–64 years increased between 1969 and 1998".

"Methods: Using factor analysis 17 census tract variables were used to develop an areal index of socio-economic status that was used to stratify all US counties into five socio-economic categories. By linking the index to county-level mortality data from 1969 to 1998, we calculated annual age-adjusted mortality rates for each area socio-economic group. Poisson regression models were fitted to estimate areal socio-economic gradients in mortality over time".

"Results: Areal socio-economic gradients in all-cause and cardiovascular mortality have increased substantially over the past three decades. Compared to men in the highest area socio-economic group, rates of all-cause and CVD mortality among men in the lowest area socio-economic group were 42% and 30% greater in 1969–1970 and 73% and 79% greater in 1997–1998, respectively. The gradients in mortality among women were steeper for CVD than for all causes. Compared to women in the highest area socio-economic group, rates of all-cause and CVD mortality among women in the lowest area socio-economic group were 29% and 49% greater in 1969–1970 and 53% and 94% greater in 1997–1998, respectively".

"Conclusions: Although US all-cause and cardiovascular mortality declined for all area socio-economic groups during 1969–1998, the gradient increased because of significantly larger mortality declines in the higher socio-economic groups. Increasing areal inequalities in mortality shown here may be related to increasing temporal differences in the material and social living conditions between areas". (Authors' Abstract)