Trends in Self-Rated Health by Union Status and Education, 2000-2018

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Union Status and Self-Rated Health

A large body of research has established a strong link between social relationships and health. Married people seem to enjoy certain health-enhancing psychosocial and economic benefits that are not readily available to their unmarried counterparts. As such, compared to unmarried adults, married persons are healthier and live longer on average.¹,² The health-promoting effect of marriage may be due to access to economic resources and social support by virtue of being married or a product of spousal control over individuals’ health behavior—social causation.³,⁴ Alternatively, the health advantage among married persons can be attributed to the higher propensity to marry and to stay married among individuals with certain characteristics (e.g. better health and greater access to resources) that promote marriage and health—social selection.⁵,⁶ The stress of union dissolution may also leave previously-married individuals in poorer health, relative to stably-married adults.⁷,⁸ This is known as the stress perspective. Longitudinal research suggests limited health-promoting effect of marriage that is largely explained by selection effect and union instability.⁹,¹⁰ Nonetheless, married persons have better self-rated health than cohabiting, previously-married, and never-married adults.⁷,¹¹,¹²,¹³

Growing diversity in American families and continuing socioeconomic changes warrant further research on trends in union status and health. Marriage rate for American adults declined from a peak of 72% in 1960 to only 50% in 2016.¹⁴ Divorce has been declining at younger ages¹⁵,¹⁶ but recent analyses show increasing divorce rates among persons aged 45 and above.¹⁵ As an increasing share of marriages end in divorce, the share of previously-married adults increases over time, from 32% of ever-married adults in 1980 to 43% in 2013 and from 26% of all adults in 1980 to 30% in 2013.¹⁷ Remarriage rates are declining, especially among divorced
older adults who are increasingly choosing to cohabit instead of remarrying. Age at first marriage and the share of never-married adults are at historic high levels. As never-married status becomes more normative, never-married individuals may be increasingly less selective of characteristics that predispose them to poorer health. Also, never-married adults may have greater access to social resources through potentially bigger and more supportive networks of family and friends. Research suggests that the health of previously married adults is primarily linked to the stress of union dissolution, but there is little evidence of an increase in strains of marital dissolution over time.

Cohabitation is gaining momentum among both never-married and previously-married adults but the increase is more pronounced among never marrieds. There is a growing research on the health of cohabiters but analyses of trends in self-rated health of cohabiting adults are sparse. Both cohabitation and marriage promote health and being in a partnership (marriage or cohabitation), relative to being single, predicts better self-rated health. Yet, cohabiting adults have significantly worse self-assessed health than their married counterparts. Recent findings suggest that the poorer health of cohabiters could be attributed to the poorer socioeconomic conditions of cohabiting adults and the longer duration of marital relationships, relative to cohabitation. Analyses of shifts in cohabitation reveal not only an increase in education among cohabiting adults but also lengthening of cohabiting unions. Increasing duration of cohabiting union, coupled with growing rates of childbearing among cohabiting couples, suggest that cohabitation is becoming more institutionalized in the U.S. Thus, the health of cohabiting and married adults may be converging. In view of these changes, I reexamined trends in self-rated health by union status over the past two decades.
Education and Self-Rated Health

The educational differentials in health is widely documented. Highly educated persons tend to have better health, live longer, and have fewer health conditions.\textsuperscript{28,29,30,31} Also, college graduates have better self-rated health than persons with no college degree.\textsuperscript{12,31,32} Educational differentials in health are mostly attributable to the selection effect as well as causal effect of education on health and health behaviors. The selection hypothesis posits that both education and health outcomes may be linked to certain individual-level and background characteristics. For instance, healthier children with greater access to parental and/or other resources may obtain more years of schooling and therefore have better health in adulthood.\textsuperscript{28,29} Even so, there are more evidences in support of a causal relationship between education and health than in support of the selection hypothesis.\textsuperscript{29}

Causal explanations for the education gradient in health point to the effects of education on occupation and income (the economic model), social-psychological resources like social networks and sense of control, health behaviors or lifestyle, access to health coverage, cognitive ability, and knowledge or skills related to health.\textsuperscript{29,31} Higher education affords individuals access to better health through health-care coverage, diet, exercise, better use of health information and technologies, and health behaviors that may or may not be connected to their (more educated) networks and peers.\textsuperscript{29,33}

Some findings suggest heightening health-promoting effect of education on health over time. For instance, disparity in life expectancy at age 25 between college-educated and non-college-educated adults was less than three years in 1980; by 2000, college-educated persons lived seven years longer than those who did not attend college.\textsuperscript{29} Similarly, Miech et al.,\textsuperscript{30} documented increasing mortality rates at the lowest level of education (less than 12 years) but a
declining mortality rate among those with 16 or more years of schooling, with both trends culminating in widening educational disparity in mortality rates between 1989 and 2007. However, previous analyses of trends in educational differentials in self-rated health between 1982 and early 2000s showed stable or slightly narrowing disparities in health across levels of education due to health improvement among young adults with no high school diploma.34,35

Recent socioeconomic changes necessitate further analyses of trends in self-rated health by education. The new “college for all” norm in America demonstrates a growing expectation for young people to achieve a college degree.36 Along this line, the proportion of American adults aged 25-29 with a bachelor’s degree or higher more than doubled from 16% in 1970 to 36% in 2017.37,38 Increasing educational attainment coincides with falling employment and wages among men and less-educated Americans thereby widening the social class divide in various aspects of life.21,39 Also, wage increase among college graduates has either stalled or slowed down since about year 2000, suggesting stability in self-rated health of college-educated adults. Conversely, moderately-educated adults may have been more negatively affected (than both college graduates and those with no high school diploma) by the new hourglass economy due to increasingly limited opportunities at the middle of the labor market.39 Unsurprisingly, family changes have been more pronounced among American adults with high school diploma or some college education,40 even as family behaviors of both groups converge over time.41 In light of changing economic conditions, growing importance of higher education, and changing educational composition in the U.S., I examined trends in self-rated health by education from 2000 to the present.

I documented persistent educational disparities in self-rated health over time. The odds of fair or poor self-assessed health decreases with increasing educational attainment. Yet, perhaps
reflecting recent changes in economic opportunities at different levels of education, changes in self-rated health over the past two decades were concentrated among American adults with modest education. Contrary to the worsening health found among high school graduates and those with some college education, my analyses showed little change in the probability of fair or poor self-rated health at the lowest (no high school diploma) and at the highest (college graduate) levels of education.

**Union Status, Education, and Self-Rated Health**

In the past several decades, America has witnessed economic and sociocultural shifts toward growing economic inequality,\(^3^9\) growing emphasis on higher education,\(^3^6\) and increasing importance of education in family life.\(^1^4,^2^5,^2^6,^4^2,^4^3\) According to the diverging destinies perspective,\(^4^4\) most of the family changes of the past few decades have affected people of varying socioeconomic strata differently thereby precipitating a growing social class divide in American family outcomes. The diverging destinies hypothesis posits that the forces driving the trends of the second demographic transition (e.g. declining marriage) precipitate different family experiences across social class, with possible health implications.

In line with the diverging destinies perspective, scholars have widely documented growing educational divergence in family outcomes including marriage,\(^1^4,^4^3\) divorce,\(^4^2\) cohabitation,\(^2^5,^2^6\) and childbearing.\(^4^0\) In the past, college education lowered women’s chances of marriage but by 2000, college-educated women were more likely to marry than their lower-educated counterparts.\(^4^3\) Educational disparity in marital status has grown since 2000,\(^1^4\) partly due to more marked delay in marriage at lower levels of education.\(^2^0\) The share of college graduates who are married had remained steady for over three decades.\(^4^1\) Similarly, the decline in divorce over the past few decades occurred mostly among women with 4-year college degree or
higher education. As the economic and social standards of marriage have increased over time, the resources required to meet the new expectations of marriage (e.g. stable employment, befitting wedding, and a house) have been unattainable by many disadvantaged Americans.

The growing educational divergence in marriage rates among cohabiters results from the declining rates of transitioning to marriage from cohabiting union among cohabiting couples with no college degree. Between 1980 and 2013, nonmarital childbearing increased more rapidly among high school graduates and women with some college education, than among college-educated women. College-educated women are less likely to give birth outside of marriage than their lower-educated counterparts and when they do so, majority of those births occur within cohabiting unions. As education continues to shape the different aspects of family life, it is important to examine the health implications of the growing educational divergence in family outcomes. I examined disparities in trends in self-rated health by union status and education among American adults aged 30-69. Considering the prominent role of cohabitation in family changes in recent decades, I documented trends in self-rated health of married, cohabiting, previously-married, and never-married adults.

I found little change in self-rated health among married and cohabiting respondents but an overall health decline among single (previously married and never married) adults. Nonetheless, the overall stability in the health of cohabiters obscures important educational differentials—improving health at the lowest level of education and worsening health among college graduates and those with some college education. Similarly, there was stability in the self-rated health of married respondents with no high school diploma and college graduates but those with modest education (high school degree and some college) showed patterns suggesting a health decline over time. The analyses showed that the declining health of previously-married
adults, dating back to the 1970s,\textsuperscript{12} applies mostly to those with no college degree. More so, changes in the union status gap in self-rated health among college graduates, relative to those with lower education, was minimal. The health of never-married adults at all levels of education, however, worsened over time.

The above patterns culminate in increasing divergence in self-rated health by union status and by education, driven mostly by declining health in the middle educational strata (high school graduate and some college), and among single adults, particularly the never marrieds. The findings align with the postulations of the diverging destinies perspective\textsuperscript{44} but reinforces the potential health impacts of the new hourglass economy.\textsuperscript{39} My analyses add to the body of literature on growing educational divergence in family outcomes. The finding of declining health of single (previously married and never married) adults is particularly concerning given the record-high share of never-married adults and an increasing share of previously-married adults in the population.\textsuperscript{17,21}

Notes on Trends in Self-Rated Health of Older Adults

Previous studies showed an overall pattern of health improvement among older adults in the 1980s and the 1990s,\textsuperscript{34,48,49} but it was uncertain if the declining shares of elderly persons reporting fair or poor health would continue beyond the 1990s.\textsuperscript{50} Also, certain health-related trends reported in the past two decades suggest changes in health among the elderly population. Increasing life expectancy,\textsuperscript{51} changing educational composition of the elderly population,\textsuperscript{48,52} and recent shifts in health, health behaviors, and late-life disability among the elderly,\textsuperscript{50,53,54} all necessitate analyses of recent trends in self-rated health of older Americans.

U.S. life expectancy continues to rise, from 73.7 in 1980 to 76.8 in 2000, and 78.6 in 2017. Trends in life expectancy at age 65 suggests greater gains in health among older adults in
the 2000s than in the prior two decades. Life expectancy at age 65 increased by 1.2 years from 16.4 in 1980 to 17.6 in 2000; the increase from 2000 to 2017 was 1.8 years.\textsuperscript{51} In addition, though less rapid than in the past decades, education continues to rise among recent generations of older adults,\textsuperscript{50,52} suggesting improving health of the elderly population past year 2000.

Further, there have been some changes in health behaviors among older adults. Between 1997 and 2010, the share of the elderly population that currently smoke declined while the share that never smoked increased.\textsuperscript{55} The lagging health effect of smoking also means that past decline in smoking from the 1980s to early 2000s may translate into health improvements in the later part of the twenty-first century.\textsuperscript{50} There are concerns that increasing obesity and diabetes may limit future improvements in health of older adults.\textsuperscript{52,55,56} However, even though levels remain high, rates of obesity may have slowed or even leveled off in the past decade\textsuperscript{53,55} particularly among women.\textsuperscript{50} More so, declining share of obese older adults report fair or poor health.\textsuperscript{56}

Based on disability trends among older adults, it is unclear if and how reports of general health status might have changed over the past two decades. Declines in late-life disability in the 1980s and the 1990s may have stalled. Prevalence of disability among adults aged 70 and older stabilized in the first decade of the twenty-first century.\textsuperscript{54} While confirming the above pattern of stability in old-age disability, Freedman et al.\textsuperscript{57} showed some age differences in recent trends in late-life activity limitations—continued decline from 2000 to 2008 among adults aged 85 and older, stable pattern for ages 65-84, and modest increases in the 55-64 age group. Martin and Schoeni\textsuperscript{55} found declines in limitations in activities of daily living (ADL) and instrumental activities of daily living (IADL) among adults aged 65 and older between 1997 and 2010 but the decline was concentrated among respondents 80 years and older and it seems to have plateaued half-way through the 14-year study period; the 2004-2010 trends were flat. A recent study\textsuperscript{52}
documented increasing trend in disability among older adults between 2000 and 2014 but the increase was partly explained by changes in rates of diabetes, hypertension and weight problems. It is important to note that disability trends are highly sensitive to variations in study design.\textsuperscript{55}

The general health of elderly Americans improved in the 1980s and the 1990s.\textsuperscript{34,48} However, trends in general health in the 1980s and 1990s appeared to be different for preretirement adults (roughly defined as adults under the age of 60), compared to their older counterparts. Disparities in health trends, between older adults and pre-retirement population who would later become older adults in the following decades, call for further analyses of recent trends in self-rated health of the elderly population. Below I highlight some of my findings on disparities in trends in self-rated health of U.S. adults ages 50-69 and 70 and above by education, gender, race/ethnicity, and union status.

My analyses showed continued health improvement among older adults aged 70 and above, but no change in self-rated health of adults ages 50-69 in recent decades. Had the education of adults aged 50-69 not increased over time, their health would have worsened significantly. Controlling for education, the odds of fair or poor self-rated health increased significantly over time among adults ages 50-69. Similar to the trends among younger adults, educational and racial/ethnic differentials in self-rated health persisted into the second decade of the twenty-first century. For both groups of older adults included in my analyses (50-69 and 70+), and across the study period (2000-2018), the probability of fair or poor health declined with increasing education. Also, in both 2000 and 2018 and among men and women, non-Hispanic white adults reported significantly better health than non-Hispanic black and Hispanic adults.
The declining health in the younger age group (based on the multivariate results) and improving health among the older population cut across the different educational groups. However, high school graduates ages 50-69 reported greater increase in the odds of fair or poor self-rated health over time than other educational groups. In the older age group (70+), the decline in the odds of fair or poor self-rated health was more pronounced among college graduates than at lower levels of education. This educational divergence in self-rated health in later life dates back to the 1980s.\textsuperscript{34,35,48}

Across race/ethnicity, the health of adults in the 50-69 age bracket worsened over time. However, the increased probability of fair or poor health in this age group was significantly more pronounced among non-Hispanic white women than among non-Hispanic black women. Among older women (70+), the health improvement of the past two decades was limited to non-Hispanic whites and non-Hispanic blacks. Hispanic women aged 70 and above experienced increased probability of fair or poor self-assessed health.

Disparities by union status in the self-rated health trends among older adults aged 50-69 mirror those of younger persons—stable reports of health among partnered adults (married and cohabiting) and worsening health among previously-marrieds and never-marrieds. Contrary to the pattern of worsening health at younger ages, the health of married, cohabiting, and previously-married adults aged 70 and above improved over the past two decades. Irrespective of age, the health of never-married adults worsened over time.

It is unclear whether or not the trends in self-rated health documented in this paper reflect actual changes in health or changing perceptions of health or health conditions. Positive ratings of health are common among older adults with impaired health.\textsuperscript{58} Elderly persons often compare their health to that of their peers (real or imagined), usually those with poorer health.\textsuperscript{58}
Nonetheless, the declining odds of fair or poor health in later life is encouraging, given the strong link between self-rated health and various health outcomes, including mortality.\textsuperscript{59,60,61,62}
References


