

HEALTH INEQUALITY

The Stanford Center on Poverty and Inequality

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KEY FINDINGS

- Although there is improvement in some key health indicators, there is also moderate deterioration in others. For example, 9.8 percent of Americans reported that they were in poor or fair health in 2012, an increase of 0.6 percentage point since 1997.
- Economic, racial, and ethnic disparities in health outcomes are often substantial and are sometimes increasing. The proportion of blacks and Hispanics, for example, who could not afford necessary care rose at a faster rate during the Great Recession than did the corresponding (and far lower) proportion of whites.
- Since 2000, the proportion of Americans who have any health insurance coverage has declined (to 84.6 percent in 2012), although there has been a slight reversal in this general pattern of decline since 2010. The proportion of children who are insured has increased during this same period and is now at the very highest level since 2000.

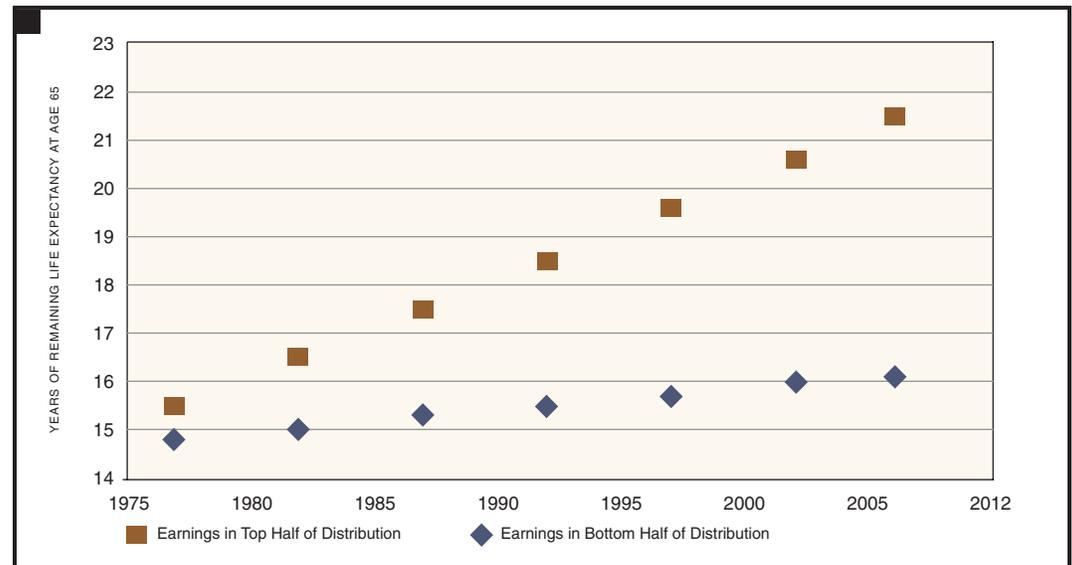
There are many reasons why poverty matters, but it is especially troubling that it affects such fundamental outcomes as health and access to health care. If poverty did not bring about all manner of health risks, we would likely be *somewhat* less troubled by it. But of course poverty and other forms of social and economic disadvantage do often translate into deficits in health and health care. The purpose of this brief is to examine long-term trends in American health and to lay out the current state of evidence on the extent to which health and health care are unequally distributed. We also note how the recent economic downturn affected these trends and disparities.

The key backdrop to this assessment is the tripling of U.S. health expenditures since the

1960s. In 2012, per capita expenditures on health were \$8,915, more than double those from 1995, though growth has slowed in the past 4 years.¹ Some of this rise is attributable to population aging. Costs associated with Medicare, a program established in 1965 to subsidize health care for those aged 65 and older, have grown as the elderly population constitutes an ever-larger portion of the U.S. population. Still, overall U.S. health expenditures have increased faster than the growth of the elderly population and faster than health expenditures in other OECD countries.²

It is possible that such rising costs have led to a more unequal distribution of health and health care. At the same time, health inequalities may also be affected by the

FIGURE 1. Additional Years of Life Expectancy at Age 65 for Men Covered by Social Security, by Year and Lifetime Earnings Group.



Source: SSA Working papers.⁴

economy (e.g., recessions), changes in how insurance is provided, and any number of other factors. In this brief, our objective is not to attempt to tease out the causes of any possible changes in health inequalities, but rather to provide a descriptive summary of the current evidence on trends in (a) health, (b) foregone health care and insurance coverage, and (c) health risk factors.

To preview our results, we find first that some health indicators, such as life expectancy, show an overall improvement. But not all indicators are improving. For example, an increasing number of Americans report delaying or foregoing health care, particularly during the recent economic recession. Second, economic and racial disparities in health indicators are often substantial, and when changes in these disparities are observed, they usually take the form of an increase in absolute size. Third, a large proportion of Americans still remain uninsured in 2012 (i.e., 15 percent), although the proportion of children who are uninsured declined by nearly 2 percentage points between the late 1990s and 2012.

Trends in Health

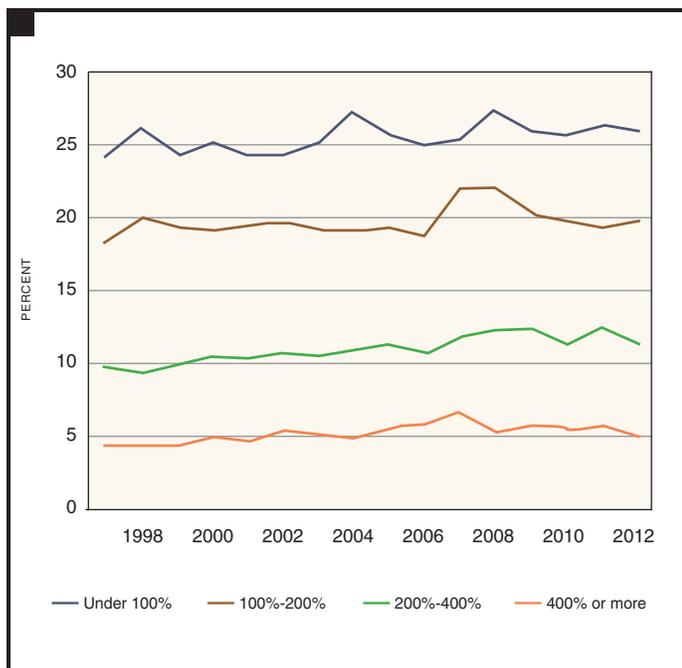
We lead off our brief by presenting trends in life expectancy, physical health status, and mental health status. To the extent

possible given available data, we focus on the degree to which such outcomes are unequally distributed.

LIFE EXPECTANCY

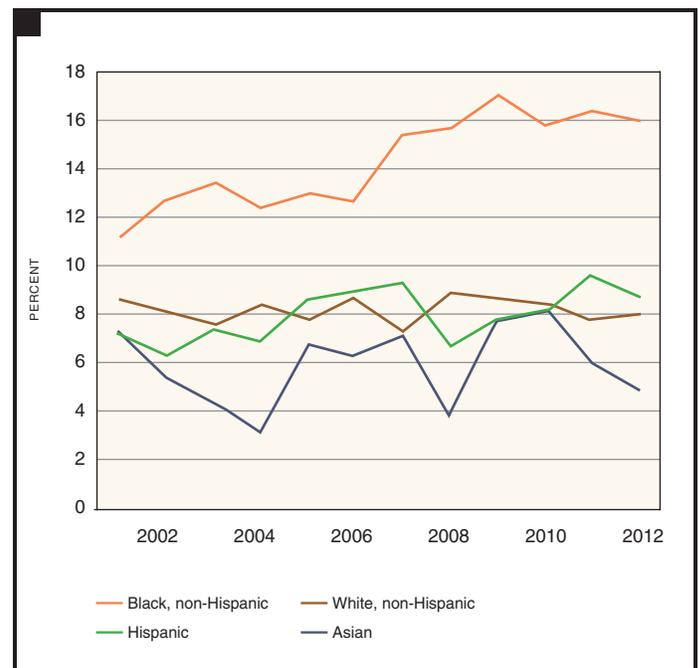
Life expectancy, one of the most basic measures of population health, has increased substantially since 1960. For U.S. males, life expectancy at birth rose by almost ten years since 1960, to 76 years as of 2011. Females started from a higher baseline, but still experienced an eight-year increase in life expectancy since 1960. Females born in 2011 could expect to live to age 81 on average.³ This overall improvement in life expectancy masks a troubling trend toward growing income inequality in life expectancy. The amount of inequality was once quite limited: Among men born in 1912 (who reached age 65 in 1977), those with above-median earnings during their careers could expect to live an additional 15.5 years, whereas those with below-median earnings could expect to live an additional 15.0 years (see Figure 1). The penalty to being poorer was thus but a half-year in life expectancy. A far more substantial disparity opened over the next thirty years. By 2006, the average life expectancy of 65 year-old men was 5.5 years longer for above-median earners than below-median earners. It follows that approximately 6/7ths of the overall improvement in men's life expectancy (at age 65) dur-

FIGURE 2. Percentage of People Reporting Poor or Fair Health, by Poverty Level Status, 1997-2012.



Source: National Health Interview Study (<https://www.ihis.us/ihis/>).

FIGURE 3. Percentage of Children who Currently Have Asthma by Race and Hispanic Origin, 2001-2012.



Source: National Health Interview Study (<https://www.ihis.us/ihis/>).

ing this 30 year period accrued to those with above-median earnings.

HEALTH STATUS

Although life expectancy is a key indicator of health, other measures of health status speak more directly to the quality of life. We first present omnibus trends in self-reported health status and then shift to a measure of asthma as one of the key health indicators for children.

Using data from the National Health Interview Study, we find that 9.8 percent of Americans reported that they were in poor or fair health in 2012, an increase of 0.6 percentage points since 1997 (not shown). As shown in Figure 2, there are wide and significant income disparities in health status in 2012, with those in poverty (i.e., those whose income is less than 100% of that year’s poverty threshold) over five times more likely to report poor or fair health than those with incomes at least four times the poverty threshold (i.e., $26.2/4.8= 5.4$). Although the disparities are wide, there is no strong evidence here of growing disparities by income since 1997.

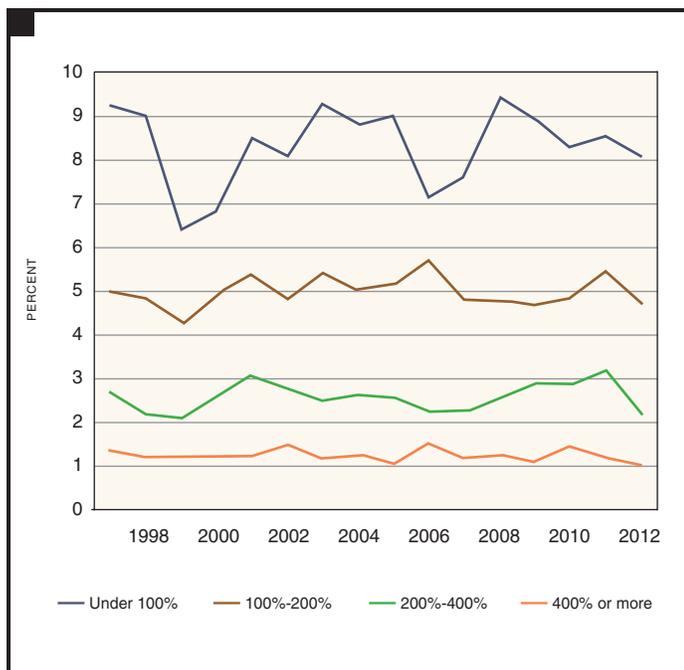
A key health indicator for children is the asthma rate. It is a dangerous condition; it is costly in terms of lost work for caregivers; and it can lead to prolonged school disruptions

for children. In this case, racial disparities in asthma are especially troubling, and we therefore present those in Figure 3 (again drawing on the National Health Interview Study). As shown here, there was a sharp uptick in 2006-2009—in the Great Recession period—in the proportion of African American children with asthma. Fortunately, that increase has now leveled out in the recovery period, albeit without fully returning to pre-recession levels. In contrast, rates among Hispanic and White non-Hispanic children have remained relatively steady. Although rates among Asian children showed large increases in 2004-2005 and 2008-2009, those high levels subsequently declined back to near the original rates. The key change over the period shown in Figure 3 is thus a substantial rise in asthma rates for African American children; indeed they are now twice as likely as White children to have asthma.

MENTAL HEALTH STATUS

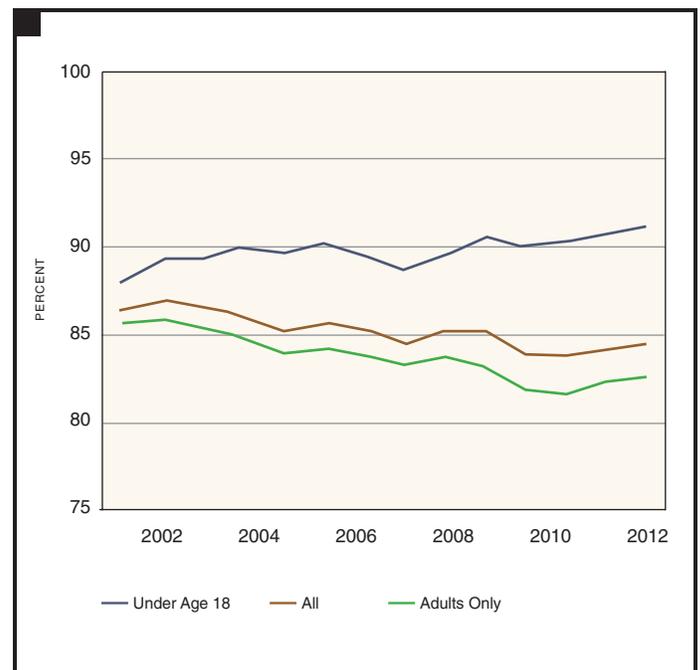
Many observers have been carefully following the mental health of Americans in the Great Recession era, as research has showed that suicide, unlike most other health indicators, was affected by earlier recessions and the Great Depression.⁵ In the National Health Interview Study, serious psychological distress is indexed by how often in the past 30 days individuals felt hopeless, nervous, restless, sad, worthless, or that “everything was an effort.” In 2011, psychological distress

FIGURE 4. Percentage of Adults Age 18 and Over who Experienced Serious Psychological Distress During the Past 30 Days by Poverty Level, 1997-2012.



Source: National Health Interview Study (<https://www.ihis.us/ihis/>).

FIGURE 5. Percentage of Adults, Children, and all People with Health Insurance Coverage in The United States, 1999-2012.



Source: US Census Bureau (<http://www.census.gov/hhes/www/hlthins/index.html>).

reached the highest levels in over a decade, with 3.4% of adults reporting serious psychological distress in the past 30 days. This level of distress then declined significantly in 2012 and is back on par with pre-recession levels.

There are also significant income disparities in the rates of experiencing serious psychological distress (see Figure 4). During the period examined here, those living below the poverty level experienced approximately six to eight times the rate of psychological distress as those living at 400% or more of the poverty level. Adults living with incomes below the poverty line also experienced a much greater spike in psychological distress during the Great Recession, but the distress level for this income category tends to fluctuate more across time in general. Those with incomes between one and two times the poverty level experienced, on average, four times the levels of psychological distress as those in the highest income category. While the causal order between mental health and income is complex, these findings are significant and consistent with previous findings of correlations between lowered household incomes and the prevalence of mood disorders.⁶

Trends in Health Care Access

Over the last two decades, both insurance premiums and out-of-pocket health costs have risen,⁷ and it is therefore

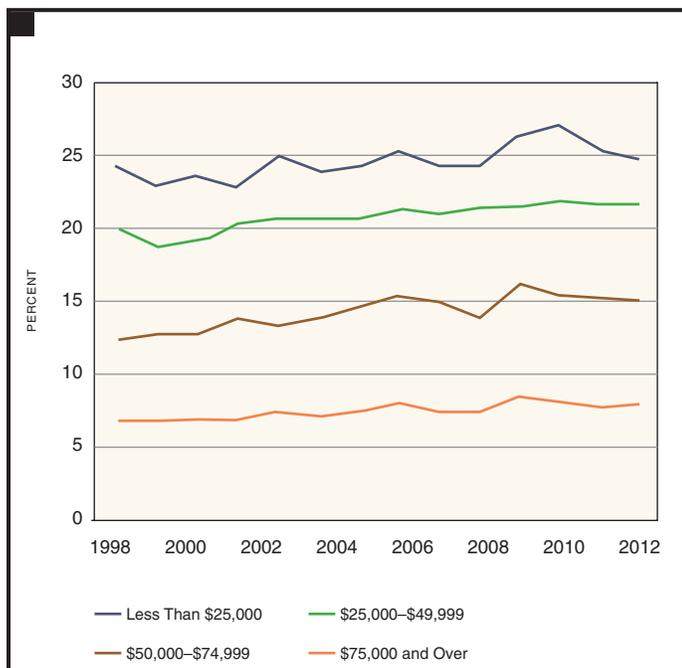
important to track trends in insurance coverage and foregone health care. We provide key indicators of both outcomes here.

INSURANCE COVERAGE

Despite continued growth in health expenditures, the proportion of Americans who have any health insurance coverage has declined since 1999, although there have been slight countervailing increases in this proportion since 2010 (see Figure 5). The latest available data, pertaining to 2012, indicate that slightly less than 85% of all Americans are insured. However, the proportion of children who are insured has increased by over 3 percentage points between the late 1990s and 2012, in part due to increased coverage by the taxpayer-funded Children's Health Insurance Program (CHIP) established in 1997. We are likely to see a rise in coverage for all Americans with the implementation of the Affordable Care Act's (ACA) individual mandate.

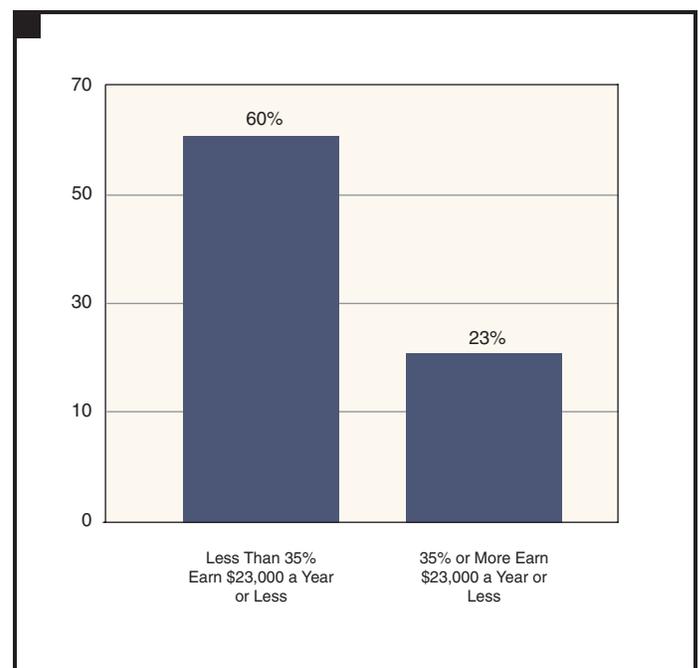
These rates of health insurance coverage differ by household income (Figure 6). In 2012, nearly one quarter of those living in households with incomes of less than \$25,000 were uninsured. The uninsured rate for those earning \$75,000 and over in 2012 was only about one-third as high (i.e., 7.9%). Among those in the second-highest income category—households earning \$50,000–\$74,999 per year—15.0% were uninsured in

FIGURE 6. Uninsured Rates by Real Household Income (in 2012 dollars), 1999-2012.



Source: US Census Bureau.⁸

FIGURE 7. Percentage of Firms Offering Health Benefits, by Firm Wage Characteristics, 2013.



Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits.⁹

2012. We may see some changes in these disparities with the implementation of the Affordable Care Act’s subsidy for health insurance beginning in 2014.

The tight coupling of health insurance coverage to employment in the United States has played a major role in exacerbating this inequality in health coverage. As shown in Figure 7, only 23 percent of firms with many low-wage workers offer health benefits, whereas 60 percent of firms with few low-wage workers offer health benefits.

FOREGONE CARE

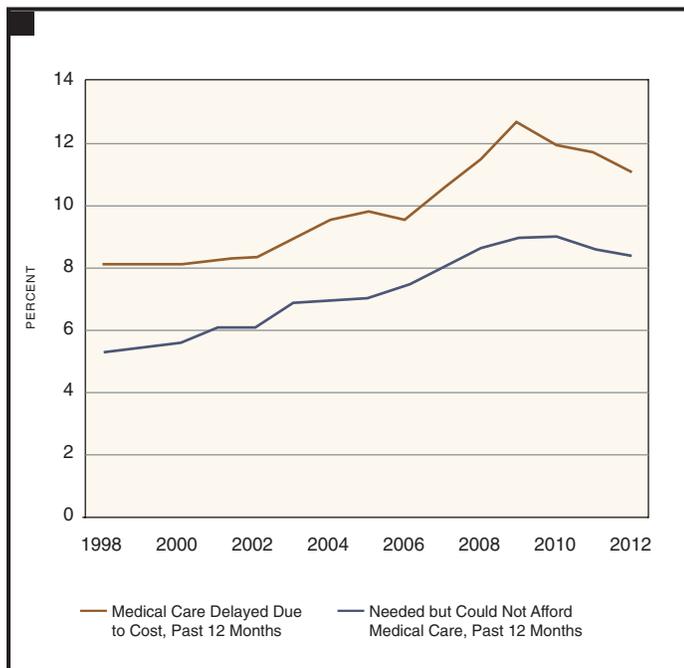
Lacking health insurance coverage—or having inadequate insurance—can make needed health care unaffordable. While care may be foregone for a variety of reasons, Figure 8 illustrates the increase over the last decade and a half in the proportion of U.S. adults who reported either that they delayed medical care due to cost (upper line) or that they needed but could not afford medical care and had to forego it (lower line). The Great Recession saw a large spike in delayed care and a smaller increase in foregone needed care. Though

levels of delayed or foregone care have decreased with the economic recovery, they are still higher than pre-recession levels. As the cost of health care continues to increase, these trends suggest that the secular rise in needed but unaffordable care could resume. The changes brought about by the ACA could, on the other hand, buffer against such a trend for at least some kinds of health care.

This increase in foregone care has played out differently across subpopulations. Figure 9 again shows the proportion of adults who needed but could not afford medical care, but now separately by major racial and ethnic categories. The proportion of Blacks and Hispanics who could not afford needed care rose by over one third and one quarter, respectively, during the Great Recession, while the corresponding proportion rose by less than one sixth for White Americans. The proportion of Asian adults who report foregoing care due to cost has oscillated but remained around 4% for the last decade.

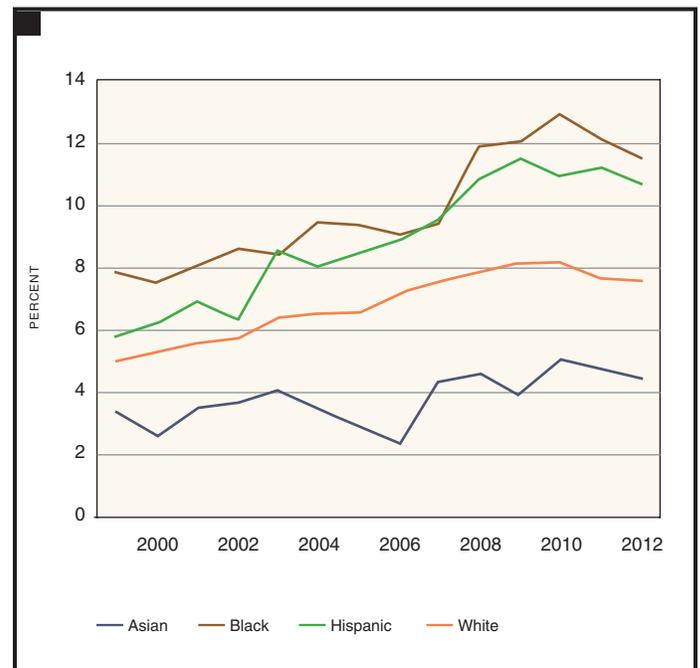
These trends imply an increase in the absolute size of the racial and ethnic disparities in foregone care. As Figure 9

FIGURE 8. Percentage of Adults in the United States who Delayed or Could not Afford Medical Care Due to Cost, 1998-2012.



Source: National Health Interview Study (<https://www.ihsis.us/ihsis/>).

FIGURE 9. Percentage of Adults in the United States who Could not Afford Medical Care Due to Cost by Major Racial/Ethnic Category, 1999-2012.



Source: National Health Interview Study (<https://www.ihsis.us/ihsis/>).

shows, the four groups were bunched more closely in 1999 than in 2012, with the only exception to this overall trend being a possible narrowing of the Black-Hispanic gap.

There has also been an increase in the absolute magnitude of the income gap in care foregone due to cost (Figure 10). The gap between the lowest and highest income groups was 12.7 percentage points in 1997, but it grew to 14.1 percentage points in 2012. Likewise, the gap between the second-poorest and the highest income groups grew from 8.9 percentage points in 1997 to 13.2 percentage points in 2012. For the time series pertaining to delayed care (Figure 11), the absolute gap between the lowest and highest income groups likewise increased, albeit again only slightly.

We next ask whether there are particular types of medical care that are increasingly likely to be foregone as medical care costs rise or economic conditions worsen. As Figure 12 shows, there was an especially dramatic increase in foregone dental care, prescription eyeglasses, and prescription medications during the Great Recession. The recovery has,

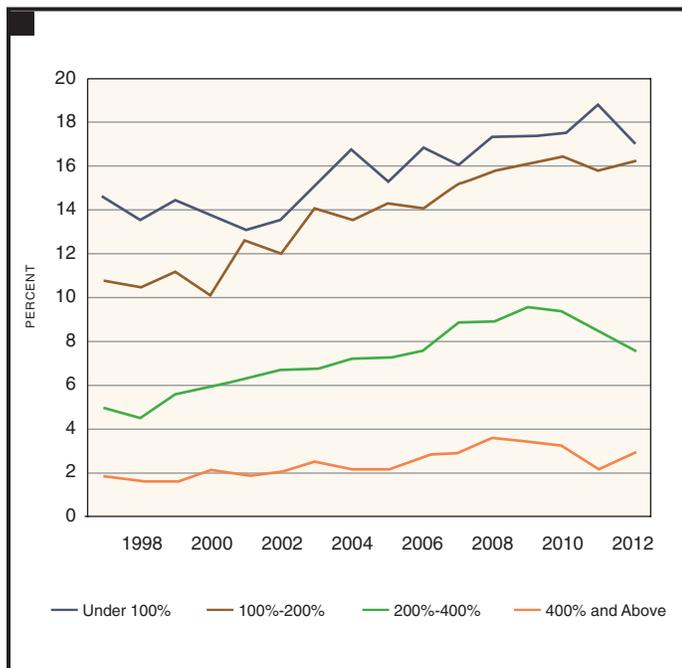
however, reversed the trend lines: the proportions of adults foregoing mental health care and prescription medications have now dipped below pre-recession values, while the proportions foregoing dental care and eyeglass purchases have declined but remain nearly a percentage point higher than they were before the recession.

When income disparities in foregone care are examined, the evidence suggests in most cases a widening gap between those living below the poverty level and those with incomes of 400% or more of the poverty line. The mental health trends shown in Figure 13 are an example of such rising income disparities in care foregone for cost.

Trends in Health Risk Factors

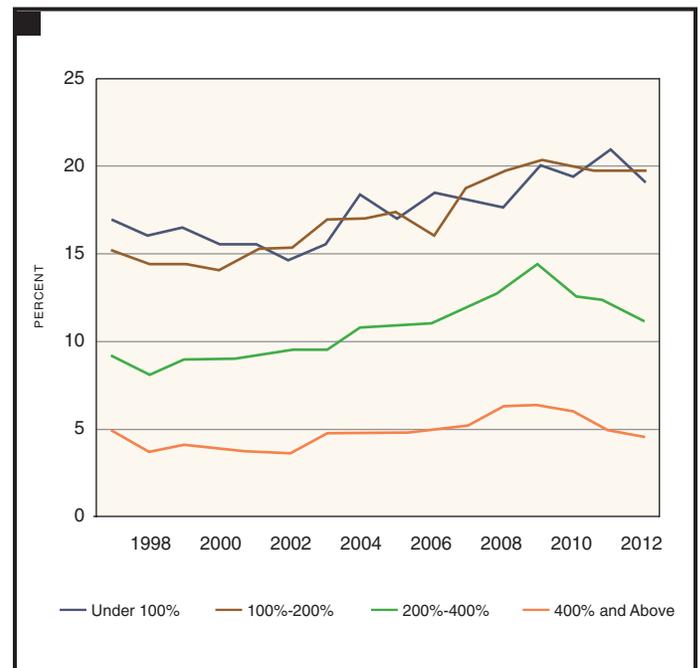
We conclude by considering two health risk factors, heavy alcohol use and smoking, that have long been viewed as especially important. Although the relevant time series are quite noisy, these trends are nonetheless important enough to monitor.

FIGURE 10. Percentage of Adults in the United States who *did not* Receive Medical Care (Foregone Care) Due to Cost by Poverty Level Category, 1997-2012.



Source: National Health Interview Study (<https://www.ihis.us/ihis/>).

FIGURE 11. Percentage of Adults in the United States who Delayed Medical Care Due to Cost by Poverty Level Category, 1997-2012.



Source: National Health Interview Study (<https://www.ihis.us/ihis/>).

In Figure 14, we examine rates of heavy alcohol use, again with a breakdown by income group. The disparities assume the expected direction, with heavy drinking especially high within the poverty group. Over the last 15 years, there has been a downturn in heavy drinking among the well-off group (from 3.8 percent in 1997 to 2.9 percent in 2012), but there has not been any similar long-term trend among the poor group.

The times series for cigarette smoking is less noisy and displays a clearer decline for all groups (Figure 15). As with drinking, the income disparities are substantial, with a slightly larger decline within the well-off group than within the poor group.

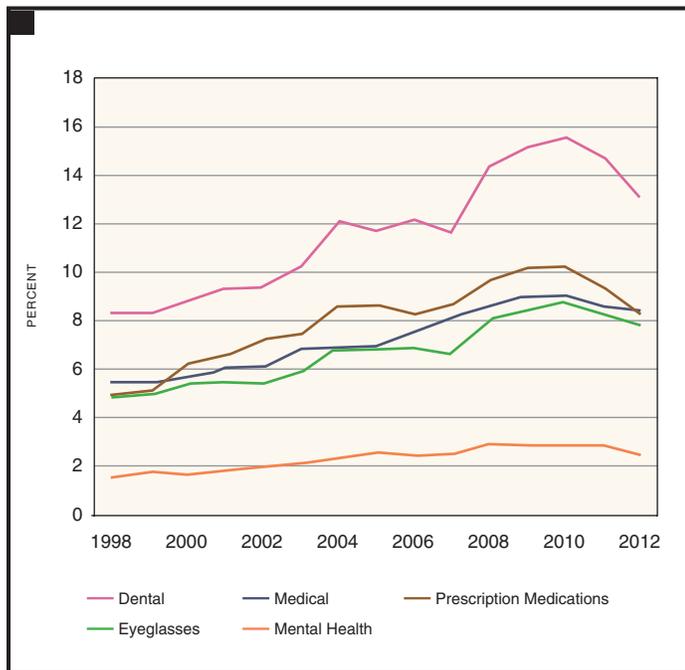
The Prognosis

The health outlook in the United States is mixed. While some indicators of well-being are showing continued secular improvement, such as life expectancy, others are more worrisome, such as the rise in foregone and delayed medical care over the past decade and a half. Although aggregate health

spending continues to increase, health insurance coverage among adults overall has slowly fallen over the past decade and a half (but coverage for children has increased). Moreover, average trends also disguise important social disparities, indeed most indicators show substantially worse standing for those in poverty, and some of these income gaps have grown in recent decades.

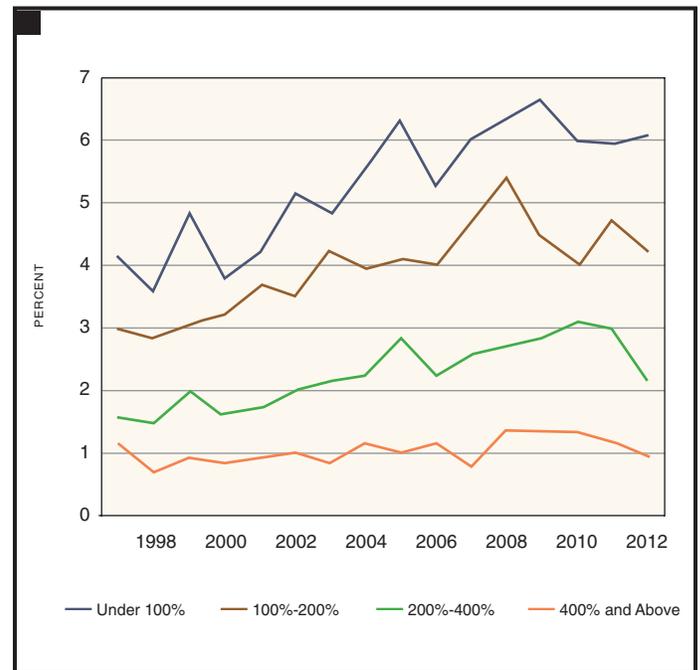
In the trends we explored, we found that Americans weathered the Great Recession fairly well, with no decline in life expectancy or overall self-rated health. We observed continued secular trends toward better health behaviors even over the period of the Great Recession. For the most part, U.S. adults have not turned to damaging health behaviors to cope with the stresses of the recent downturn, and levels of psychological distress have returned to prerecession levels after a spike. The recession was, however, associated with *some* troubling trends, such as a growing racial gap in asthma between African American and non-Hispanic white children. Moreover, recessionary spikes have failed to entirely resolve

FIGURE 12. Percentage of Adults in the United States who Needed but Could not Afford Different Types of Medical Care, 1998-2012



Source: National Health Interview Study (<https://www.ihs.us/ihis/>).

FIGURE 13. Percentage of Adults in the United States who Needed but Could not Afford Mental Health Care by Poverty Level Category, 1997-2012.



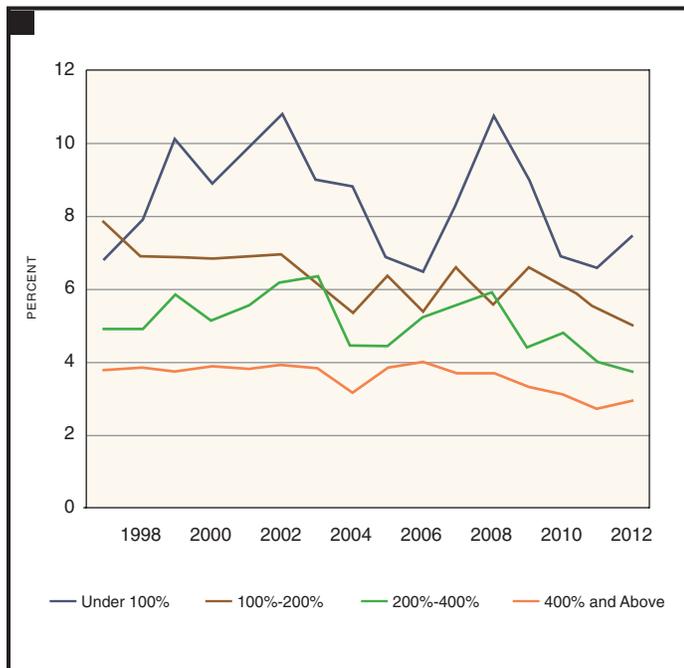
Source: National Health Interview Study (<https://www.ihs.us/ihis/>).

for some types of foregone health care, and income-based disparities in foregone health care appear to have grown over the past decade and a half.

The longer-term prognosis for health and health disparities is deeply tied to policy. The implementation of the individual mandate component of the Affordable Care Act in January 2014 introduces substantial changes to the health care access landscape. This raises important questions about what will happen with respect to coverage levels for people of different age groups, racial or ethnic groups, genders, and socioeconomic positions. It is unclear whether and how this increased access to health care will be reflected in levels of population health, given the tenuous link between access to medical care and actual health outcomes.¹¹ Some health outcomes and disparities may be influenced by medical care but may also need to be addressed through public health or other initiatives.

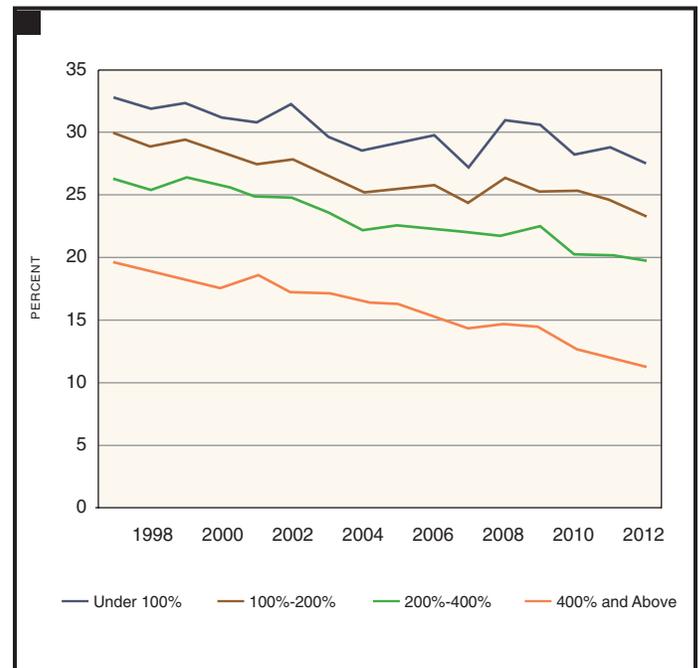
While it may not eliminate longstanding disparities, recent evidence does suggest that providing continuous health insurance coverage is a good place to start in supporting health care access. A gap in health insurance coverage increases the likelihood of foregoing care for individuals of all poverty levels. Among those with a gap in insurance coverage, individuals with family incomes below twice the poverty level are three times as likely to forego care, and those with family incomes above twice the poverty level are four times as likely to forego care, compared with individuals with continuous coverage. Although these findings suggest that the Affordable Care Act may have important effects, it is important to remember that health is also responsive to a variety of social and environmental factors, including employment, income, housing security, and the quality of neighborhoods, schools, and workplaces. ■

FIGURE 14. Heavy Alcohol Use in the Past Month Among Adults by Poverty Level Category, 1997-2012. (Note: Heavy alcohol use is defined as drinking five or more drinks on the same occasion on each of more than 60 days in the past year.)



Source: National Health Interview Study (<https://www.ihs.us/ihis/>).

FIGURE 15. Cigarette Smoking in the Past Month Among Adults by Poverty Level Category, 1997-2012.¹⁰



Source: National Health Interview Study (<https://www.ihs.us/ihis/>).

NOTES

1. See Martin et al., 2014.
2. See OECD, 2013.
3. See OECD, 2013.
4. See Waldron, 2007.
5. See Tapia Granados & Diez Roux, 2009.
6. See Sareen, Afifi, McMillan, & Asmundson, 2011.
7. See Claxton et al., 2013, and OECD, 2013.
8. Estimates of uninsured rates “reflect the results of follow-up verification questions, which were asked of people who responded “no” to all questions about specific types of health insurance coverage in order to verify whether they were actually uninsured.” See DeNavas-Walt, Proctor, & Smith, 2013: 28.
9. See Claxton et al., 2013: 40.
10. From 1997–2003, the figure represents adults age 18+ who have ever smoked 100 cigarettes and who currently smoke every day, currently smoke some days, or whose current smoking status is unknown but who smoked at least one day or an unknown amount of days in the past 30 days. From 2004–2012, the figure represents the same except excludes those whose smoking status is unknown. (Source: IHIS codebook for variable “CIGSDAY,” is available: https://www.ihis.us/ihis-action/variables/CIGSDAY#universe_section).
11. See Newhouse, 1993.

ADDITIONAL RESOURCES

- Burgard, S. A. (2012). Is the Recession Making Us Sick? *Pathways*, 19–23.
- Burgard, S. A., Ailshire, J. A., & Kalousova, L. (2013). The Great Recession and Health: People, Populations, and Disparities. *The ANNALS of the American Academy of Political and Social Science*, 650(1), 194–213. doi:10.1177/0002716213500212
- Burgard, S. A., & Hawkins, J. M. (2013). Race/Ethnicity, Educational Attainment, and Foregone Health Care in the United States in the 2007–2009 Recession. *American Journal of Public Health*, 1–7. doi:10.2105/AJPH.2013.301512
- Burgard, S. A., & King, M. M. (2014). Foregone Health Care & Psychological Wellbeing in the Wake of the Great Recession. *Pathways*, forthcoming.
- Centers for Disease Control and Prevention (2010). Vital signs: health insurance coverage and health care utilization—United States, 2006–2009 and January–March 2010. *MMWR. Morbidity and mortality weekly report*, 59(44), 1448–54. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21063276>
- Claxton, G., Rae, M., Panchal, N., Damico, A., Kenward, K., & Whitmore, H. (2013). *Employer Health Benefits 2013 Annual Survey*. Retrieved from <http://kff.org/private-insurance/report/2013-employer-health-benefits/>.
- Denavas-Walt, C., Proctor, B. D., & Smith, J. C. (2013). *Income, Poverty, and Health Insurance Coverage in the United States: 2012 Current Population Reports*. Retrieved from <http://www.census.gov/prod/2013pubs/p60-245.pdf>
- Gallo, W. T., Teng, H. M., Falba, T. a, Kasl, S. V, Krumholz, H. M., & Bradley, E. H. (2006). The impact of late career job loss on myocardial infarction and stroke: a 10 year follow up using the health and retirement survey. *Occupational and environmental medicine*, 63(10), 683–7. doi:10.1136/oem.2006.026823
- Martin, A. B., Hartman, M., Whittle, L., & Catlin, A. (2014). National Health Spending in 2012: Rate Of Health Spending Growth Remained Low For The Fourth Consecutive Year. *Health Affairs*, 33(1), 67–77. doi:10.1377/hlthaff.2013.1254
- Newhouse, J. P. (1993). *Free for All? Lessons from the RAND Health Insurance Experiment*. Cambridge, MA: Harvard University Press.
- OECD. (2013). OECD Health Data. Retrieved from <http://www.compareyourcountry.org/health/health-spending-gdp?cr=usa&lg=en>
- Sareen, J., Afifi, T. O., McMillan, K. A., & Asmundson, G. J. G. (2011). Relationship Between Household Income and Mental Disorders: Findings From a Population-Based Longitudinal Study. *Arch Gen Psychiatry*, 68(4), 419–427.
- Strully, K. W. (2009). Job loss and health in the U.S. labor market. *Demography*, 46(2), 221–46. doi:10.1353/dem.0.0050
- Sullivan, D., & von Wachter, T. (2009). Job Displacement and Mortality: An Analysis Using Administrative Data*. *The Quarterly Journal of Economics*, (August), 1265–1306.
- Tapia Granados, J. A., & Diez Roux, A. V. (2009). Life and death during the Great Depression. *Journal of Health Economics*, 106(41), 17290–5. doi:10.1073/pnas.0904491106
- Waldron, H. (2007). Trends in Mortality Differentials and Life Expectancy for Male Social Security – Covered Workers, by Average Relative Earnings. *ORES Working Paper Series*, (108). Retrieved from <http://www.ssa.gov/policy/docs/workingpapers/wp108.html>.