The plans individuals make for retirement strongly influence their well-being and financial security in old age. End-of-life planning (writing living wills, selecting a durable power of attorney for health care, and holding informal discussions with family members) can protect older adults from unwanted medical treatments should they become incapacitated and unable to express their preferences.

This newsletter highlights work by National Institute on Aging (NIA)-supported researchers and others that examines the impact of planning for retirement and end-of-life care on the well-being of older people and their families. Many of the findings are based on analysis of data collected through the NIA-supported Health and Retirement Study (HRS) that surveys every two years a representative sample of Americans ages 51 and older.

### Planning and Saving for Retirement

Retirement planning and savings decisions have grown more complex in recent years. Employers have increasingly shifted from defined benefit pension plans with payouts based on pay level and years of service to retirement savings plans that require individuals to make complex long-term investment decisions. After examining the major U.S. tax and government programs affecting incentives to work and save, Lawrence Kotlikoff and David Rapson (2007) conclude that not only are the incentives to save low, but understanding the incentives to work, save, or contribute to retirement accounts is nearly impossible without “highly advanced computer technology and software.”

Estimates of the share of older Americans adequately prepared for retirement vary based on the age group examined and the assumptions used to determine sufficient levels of financial resources (Venti, Poterba, and Wise, forthcoming). One analysis of the economic resources of 66-to-69-year-old HRS participants finds that more than one in five married people (20 percent) and more than one-half of single people (55 percent) are unprepared (Hurd and Rohwedder 2011). This analysis measures whether retirees can maintain their consumption levels in retirement, using a formula that takes into account life expectancy, taxes, and potential out-of-pocket medical costs. The researchers find that larger shares of certain subgroups are inadequately prepared, including more than two-thirds of women without a high school diploma. Other estimates find that large shares of baby boomers and people in younger age groups are unprepared and may be forced to dramatically scale back their living standards in retirement (VanDerhei and Copeland 2010).

Researchers find a widespread lack of planning and financial understanding. Nearly one-third of workers older than 50 have not thought at all about retirement, according to additional HRS findings (Lusardi and Mitchell 2007a). Lack of planning is concentrated among groups that are at high risk for financial insecurity in retirement, including those with low education levels, members of minority groups such as African Americans and Hispanics, and women. Fewer than one in five respondents was able to develop a plan and stick to it.

Many older individuals, particularly women and minorities, do not understand their Social Security and private pension benefits, which are a crucial starting point for planning; these benefits represent one-half of retirement wealth for a typical family and an even larger share for low-income families (Gustman and Steinmeier 2004). Annamaria Lusardi and Olivia S. Mitchell (2008) found an “alarmingly low”
level of financial literacy among participants in the HRS, as measured by three short questions (see box below). Only half of respondents queried could correctly answer two simple questions about interest rates and inflation; only one-third could also correctly answer a third question about the relative risk of investing in a single company stock versus a stock mutual fund. Three-quarters of HRS respondents older than 55 could not correctly answer basic questions about stock and bond prices, risk diversification, portfolio choice, and investment fees (Lusardi, Mitchell, and Curto 2010). Those with low education levels, members of minority groups such as African Americans and Hispanics, and women tend to demonstrate lower levels of financial understanding.

Financial literacy appears linked to planning and also higher savings levels. Individuals who demonstrate financial literacy by correctly answering basic questions are more likely to plan and to succeed in their planning; planners also accumulate more wealth as they near retirement (Lusardi and Mitchell 2011a; see Table 1). After accounting for demographic characteristics that affect wealth such as education, race, and gender, researchers find that financial literacy affects retirement planning and boosts wealth (Lusardi and Mitchell 2007b, 2011a; van Rooij, Lusardi, and Alessie 2011; Kimball and Shumway 2010). Individuals who demonstrate financial understanding also are more likely to invest in stocks, benefiting from the equity premium. But other more complex dynamics may be involved, limiting the impact of efforts to increase financial literacy on the wealth of households entering retirement (Gustman, Steinmeier, and Tabatabai 2010).

Attitudes and beliefs play a role in planning and saving for retirement (Kimball and Shumway 2009). Respondents who feel the future is out of their control and display fatalistic attitudes are less likely to plan and save. Some people also lack the propensity to plan, they found. People who report that they “wonder where their money goes” or find thinking about money to be stressful tend to report not thinking about retirement planning very much.

Imagination also contributes to planning for the future. Setting concrete and specific retirement goals is “an important psychological mechanism that motivates individuals to plan for the future,” more so than financial information (Stawski, Hershey, and Jacobs-Lawson 2007). People who are able to identify with their future selves tend to save more for the long term (Bryan and Hershfield 2011; Hershfield et al. 2011). By contrast, people who think of their future selves as someone else, rather than similar to their present selves, find that saving feels “like giving money away rather than like investing in oneself.” The researchers found that people who interact with vivid, age-progressed images of themselves through virtual reality tools are more likely to make “future-oriented choices,” including planning for retirement.

Basic Financial Literacy Test

1. **Compound Interest:** Suppose you had $100 in a savings account and the interest rate was 2 percent per year. After 5 years, how much do you think you would have in the account if you left your money to grow: more than $102, exactly $102, less than $102?

2. **Inflation:** Imagine that the interest rate on your savings account was 1 percent per year and inflation was 2 percent per year. After one year, would you be able to buy more than, exactly the same as, or less than today with the money in the account?

3. **Stock Risk:** Do you think that the following statement is true or false? “Buying a single company stock usually provides a safer return than a stock mutual fund.”


### Table 1

<table>
<thead>
<tr>
<th>Range in net worth*</th>
<th>Non-planners</th>
<th>Simple planners</th>
<th>Serious planners</th>
<th>Successful planners</th>
</tr>
</thead>
<tbody>
<tr>
<td>$30,400 – 334,500</td>
<td>$107,750 – 641,000</td>
<td>$171,000 – 715,000</td>
<td>$197,500 – 781,500</td>
<td></td>
</tr>
</tbody>
</table>

*25th to 75th percentile

**Note:** This table reports the distribution of total net worth (including housing wealth) across different planning types based on 2004 Health and Retirement Survey, Planning Module. Simple planners are those who tried to calculate how much they need to save for retirement; serious planners are those who were able to develop a saving plan; successful planners are those who were able to stick to their saving plan.

Improving Retirement Planning and Financial Security

Workers who successfully plan for retirement tend to seek out formal planning methods such as retirement calculators, retirement seminars, and financial experts, instead of relying on advice from relatives or co-workers (Lusardi and Mitchell 2011a). Research supports a variety of approaches to improving individuals’ level of information about financial concepts and motivation to plan, which may in turn contribute to their ability to plan and save for retirement:

- **Workplace Education.** Both participation in and contributions to retirement savings plans are significantly higher when employers offer informational seminars (Bayer, Bernheim, and Scholz 2009). Workplace seminars appeared to have the most impact on the savings decisions of lower-wage workers and those who save the least. More frequent seminars affect savings behavior more; written materials such as newsletters or plan summaries have little impact regardless of how frequently they were distributed. To be effective, seminars should not rely on a “one-size-fits-all” approach but take into account different preferences, economic circumstances, and levels of financial understanding (Lusardi 2009). But the full impact of retirement seminars offered by employers is difficult to measure because workers who attend seminars may be more interested in planning than other workers, and employers may offer seminars because they have a larger-than-average share of workers who do little or no saving.

- **Workplace Processes.** Automatic enrollment in employer-provided pension plans leads to increases in pension participation. A study found that a planning form distributed to new hires during employee orientation tripled pension plan contributions. The form broke the enrollment process into seven steps and provided information such as the minimum and maximum allowable employee contribution to the pension plan (Lusardi, Keller, and Keller 2009). Another workplace approach, which gave employees information on the average pension savings levels of co-workers, led to increased savings among non-union employees but decreased contributions among union employees, who may not think employers act in their best interest (Beshears et al. 2011).

- **Psychological Factors.** Financial education programs that include concrete goal-setting exercises are more likely to motivate individuals to plan (Stawski, Hershey, and Jacobs-Lawson 2007). Hershfield and colleagues (2011) suggest that virtual reality tools be incorporated in retirement planning and saving programs because consumers are more likely to follow through “on self-control tasks when they are fun and engaging.”

Planning and Decisionmaking for End-of-Life Care

Medical advances have enabled many older people to survive once-fatal illnesses and injuries, but at times suffering is prolonged. Research shows that the medical care elderly receive at the end of life is often different from what they would choose, and most elderly say they would prefer to die at home rather than in hospitals and nursing homes as most now do (HHS 2008).

The Patient Self-Determination Act, passed by Congress in 1990, requires Medicare-certified hospitals and nursing homes to give patients a chance to complete advance directives and to have a voice in their care. These advance directives include writing living wills, which are legal documents that guide medical decisions should the patient be unable to communicate with health care providers; and choosing a durable power of attorney for health care or a health care proxy to make medical decisions should the patient become incapacitated.

A recent proposal to have Medicare reimburse health care providers for discussing advance directives with patients led to an elevated level of planning and decisionmaking for end-of-life care.
to controversy over the potential withholding of life-saving care. Yet the overwhelming majority of older adults who died with advance directives received the care they preferred, according to the first large-scale study of advance directives based on HRS data (Silveira, Kim, and Langa 2010). More than one in four elderly Americans are incapacitated at the end of their lives and unable to make their own medical care decisions, according to the study that examined the deaths of 3,700 HRS participants between 2000 and 2006. Those with a living will or durable power of attorney for health care (two-thirds of the total) were less likely to die in a hospital or to receive aggressive care, results that were consistent with their wishes.

The end of life may include both physical suffering as well as financial costs that can have a negative impact on family members and society (HHS 2008). Out-of-pocket medical expenses in the last year of life average about $11,000 per older person, with 10 percent of older people spending more than $29,000 in that year (Marshall, McGarry, and Skinner 2010). These high out-of-pocket costs can leave a surviving spouse in considerable financial hardship. More than one-quarter of Medicare expenditures are spent on patients in the last year of life, a share that is expected to increase as the elderly share of the U.S. population increases. A recent study found end-of-life Medicare spending is lower among patients with advance directives that limit treatment, particularly in areas of the country with high Medicare expenditures (Nicholas et al. 2011).

**Experience, beliefs, and family dynamics**

Personal experiences and beliefs influence individuals’ attitudes toward and use of advance directives. Deborah Carr and Dmitry Khodyakov (2007) found that more than one-half of 64- and 65-year-olds in a Wisconsin-based sample (the Wisconsin Longitudinal Study) had completed living wills or appointed a health care proxy, and had engaged in informal conversations with family members and caregivers to convey their treatment preferences. Individuals who had completed these three types of planning were more likely than nonplanners to have been hospitalized in the previous year or to have experienced the painful death of a loved one. Respondents were less likely to have done any type of planning if they reported “avoiding thinking about death” or believed physicians rather than patients should control health care decisions.

A sizeable share of individuals who had been named health care proxies by their spouses report their spouse’s preferences for end-of-life care incorrectly, projecting their own preferences onto their spouses (Moorman, Hauser, and Carr 2009). The researchers suggest that “healthy people are unable to accurately predict what their future ill selves would want, and they carry over or ‘project’ these inaccurate appraisals onto others.” Another study finds parents’ advance directives did not uniformly prevent conflict or problems among their adult children regarding their parents’ health care (Khodyakov and Carr 2009). Sibling relations were helped when the deceased parent selected someone other than a spouse or child to hold durable power of attorney for health care.

**Racial and ethnic differences**

Blacks and Hispanics are significantly less likely to complete advance directives than whites, even when socioeconomic differences are taken into account (Carr 2011; see Table 2). Compared to whites, blacks are more likely to distrust the health care system and hospice, to request aggressive care at the end of life, and to express discomfort discussing death (Carr 2011; Johnson, Kuchibhatla, and Tulsly 2008). Compared to whites, Hispanics are less likely to believe that illness is a burden on their families and more likely to prefer family-centered decisionmaking (including informal discussions) rather than formal legal plans. Blacks and Hispanics’ limited use of advance directives has been linked in part to the religious belief that God alone determines the timing and nature of death. Carr explains that “legal documents specifying one’s medical treatment preferences may be deemed irrelevant, undesirable, or as intruding on God’s plan.”

**Improving End-of-Life Planning**

In a comprehensive report to Congress on end-of-life care planning commissioned by the U.S. Department of Health and Human Services, the RAND Corporation documents

**Table 2**

<table>
<thead>
<tr>
<th>Has a living will</th>
<th>White%</th>
<th>Black%</th>
<th>Hispanic%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Held informal discussions</td>
<td>85</td>
<td>59</td>
<td>32</td>
</tr>
<tr>
<td>Has a living will</td>
<td>67</td>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td>Named a durable power of attorney for health care</td>
<td>59</td>
<td>25</td>
<td>4</td>
</tr>
</tbody>
</table>

**Note:** Based on 293 chronically ill older adults seeking care at two large medical centers in urban New Jersey.

numerous shortcomings in efforts to promote end-of-life planning in the United States (HHS 2008). The HHS report points to growing recognition that planning end-of-life care is more effective when it is seen as an ongoing process of decisionmaking among patient, family members, and health care providers, rather than the creation of a legal document.

Research, including the HSS report, identifies a number of ways to improve the effectiveness of advance care planning:

**Educational approaches**

Verbal information provided over multiple sessions is most effective in promoting end-of-life planning, according to an analysis of 55 studies that evaluated different ways of promoting planning (Bravo, Dubois, and Wagneur 2008). Simple, single-component consumer education efforts—such as a one-time educational event or a brochure—generally do not lead to the completion of advance directives (HHS 2008). Timing is important; educational interventions that targeted seriously ill patients were most successful. Carr and Khodyakov (2007) suggest that individuals who have recently lost a loved one may be more motivated to make their own end-of-life care plans, and suggest that “recalling these distressing experiences may help doctors and patients to develop strategies so that similar experiences do not befall the patient.”

The HHS report (2008) identified a number of effective approaches to promoting planning, including:

- **Respecting Choices.** This multi-component program aimed at both health care providers and patients includes print materials, videos, and trained “advance directive educators,” along with changes in medical recordkeeping. First implemented in La Crosse, Wis., the approach was integrated into the routine procedures of the area’s health system. The materials were developed locally and pilot-tested on the target audiences. Two years after the program was launched, the share of patients in the health system with advance directives rose to 85 percent from a baseline of 15 percent; patients’ treatment matched the preferences they stated in their advanced directives in 98 percent of all deaths (Hammes and Rooney 1998).

- **Physician Order for Life-Sustaining Treatment (POLST).** This Oregon program is designed to give health care providers the tools to identify their patients’ care preferences, translate them into a set of medical orders addressing likely interventions related to each patient’s condition, and ensure that these preferences are honored throughout the health care system. Research finds the program substantially increases the share of patients who receive care consistent with their preferences (Cantor 2000).

Johnson and colleagues (2008) urge educators to be mindful that one-size-fits-all approaches to end-of-life care planning may exclude large numbers of patients in an increasingly “ethnically diverse and aging society,” and point out that the challenge is to “design, test, and implement programs which accommodate a range of individual and cultural beliefs, values, and preferences.”

**Public information campaigns**

The HHS report identifies several campaigns that targeted entire communities with messages about end-of-life planning, and recommends that social marketing—using commercial advertising approaches to promote social change—continue to be explored. Carr and Khodyakov (2007) note that the experience of having informal discussions about end-of-life care preferences with family members is strongly linked to an individual’s later completing formal advance directives, and suggest that public service announcements could be used to encourage those “difficult but necessary conversations.”

**References**


Michael D. Cantor, “Improving Advance Care Planning: Lessons From POLST. Physician Orders for Life-Sustaining


The NIA Demography Centers

The National Institute on Aging supports 14 research centers on the demography and economics of aging, based at the University of California at Berkeley, University of Chicago, Duke University, Harvard University, Johns Hopkins University, University of Michigan, National Bureau of Economic Research, University of Pennsylvania, Princeton University, RAND Corporation, Stanford University, Syracuse University, University of Southern California/University of California at Los Angeles, and University of Wisconsin-Madison.

This newsletter was produced by the Population Reference Bureau with funding from the University of Michigan Center on the Demography of Aging. This center coordinates dissemination of findings from the 14 NIA demography centers listed above. This issue was written by Paola Scommegna, senior writer/editor at the Population Reference Bureau.

For More Information


Resources on financial literacy and planning


NIH resources on advance directives


