



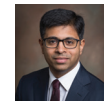
# Planning for Unexpected Health Care Costs in Retirement

While the majority of retirees won't experience a shock, everyone needs to plan for it.

September 2020

## KEY INSIGHTS

- Even though the fear of a health care shock is pervasive, very few retirees experience a catastrophic one.
- The likelihood of experiencing health care shocks increases with age, particularly after age 80.
- Very few retirees saw a permanent increase in health care costs after having a large health care expense.
- Because health care expenses tend to increase with age, we offer guidelines for how much a retiree might need for annual out-of-pocket expenses at different ages.



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One of the unpleasant certainties of life is that everyone's health will decline in old age. Unfortunately, no one knows how that will unfold.

Someone might live a long and healthy life and have a slow and natural decline in health. Others might get diagnosed with a sudden terminal illness or have one or more chronic conditions, like diabetes or dementia, requiring prolonged care. In addition to these possibilities, there are the risks of injuries from accidents and falls.

But no matter what path a retiree's health takes, one thing is fairly certain—everyone will experience some level of health care costs during retirement. It's easier to plan for some of these costs, such as health insurance premiums and recurring prescriptions.

But while the routine costs of health care can be burdensome, retirees are more concerned about an unexpected large medical bill.

A number of recent studies (Banerjee, 2018<sup>1</sup>; Poterba, Venti, and Wise, 2013<sup>2</sup>) have shown that retirees are not spending down their assets as one

<sup>1</sup> Sudipto Banerjee, "Asset Decumulation or Asset Preservation? What Guides Retirement Spending?" EBRI Issue Brief, no. 447 (Employee Benefit Research Institute, April 3, 2018).

<sup>2</sup> Poterba, James, Steven Venti and David A. Wise, "The Drawdown of Personal Retirement Assets: Husbanding or Squandering?", January 2013, <https://economics.mit.edu/files/6318>.

“In order to help retirees create a successful retirement income strategy we need to better understand the likelihood and the magnitude of uncertain health care costs.”

— Sudipto Banerjee, Ph.D.  
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might expect. Retirees may be hesitant to spend their hard-earned money out of fear or in preparation for these health care expenses.

In order to help retirees create a successful retirement income strategy that balances the need for current spending and future health care expenses, we need to better understand the likelihood and the magnitude of these uncertain health care costs.

This paper will explore the probability that a retiree will experience a health care-related financial shock and the chances of the higher expense becoming a new normal, resulting in higher future expense. We will also look at how gender, age, and income play a role, if any.

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### What Is a Health Care Shock?

There is no settled definition of what amount constitutes a health care expense “shock”. While dollar increases provide an accurate measure of the intensity of change, they don’t always capture the full extent of how a shock can affect someone’s finances.

For example, consider an annual increase from \$500 to \$1,500 and another from \$5,000 to \$6,000. Even though both are equal in dollar terms, the first represents a 200% increase, while the latter is a 20% increase. A higher percentage increase could present a very difficult situation for low-income retirees living on tight budgets—even if the dollar increase is not particularly high.

While “shock” is all relative to one’s financial wherewithal, for our purposes, we focused on out-of-pocket health care cost increases of \$2,000 or more during a two-year period.

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### What’s Included in These Health Care Costs?

Sudden large increases in health care costs are usually associated with out-of-pocket costs. These include out-of-pocket costs associated with:

- Hospital stays
- Nursing home stays
- Doctor visits
- Dental services
- Outpatient surgery
- Prescription drugs
- Home health care
- Usage of special facilities (e.g., adult day care, physical therapy, social worker, transportation for elderly, etc.)
- A catchall “other” category

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### Incidence of Health Care Cost Shocks

While the fear of experiencing a health care financial shock is pervasive, only a very small share of retirees actually experience such catastrophic shocks.

Figure 1 shows the percentage of Americans ages 60 to 99 who experienced a health care shock. Over two years:

- 10.8% experienced an increase between \$2,000 and \$5,000,
- 8.4% experienced an increase between \$5,000 and \$25,000, and
- Only 2% experienced an increase of \$25,000 or more.

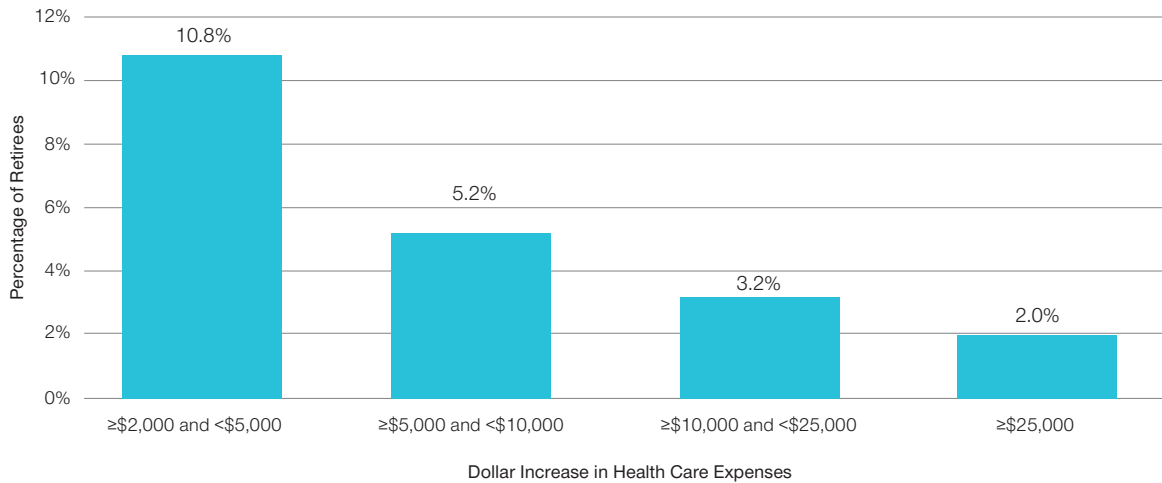
A larger proportion of retirees experience health care shocks when measured in terms of percentage increase in health care costs, rather than in absolute dollars.

For example, Figure 2 shows that close to one in five (18.9%) Americans between ages 60 and 99 had experienced a 200% or more increase in out-of-pocket costs during a two-year

period. An additional 8.3% experienced increases between 100% and 200%. That means more than one-quarter of retirees had their out-of-pocket costs at least double within the past two years.

**(Fig. 1) Incidence of Health Care Shocks (Dollar Increase)**

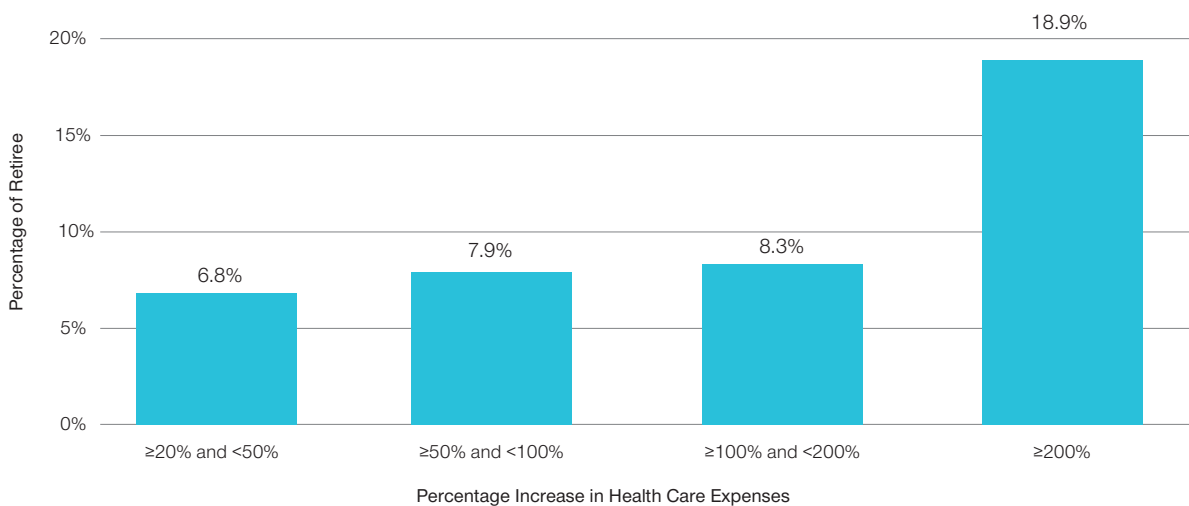
Increase in out-of-pocket medical expenses over a two-year period for individuals ages 60-99



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

**(Fig. 2) Incidence of Health Care Shocks (Percentage Increase)**

Percentage increase in out-of-pocket medical expenses over a two-year period for individuals ages 60-99



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

### Incidence of Health Care Cost Shocks by Gender

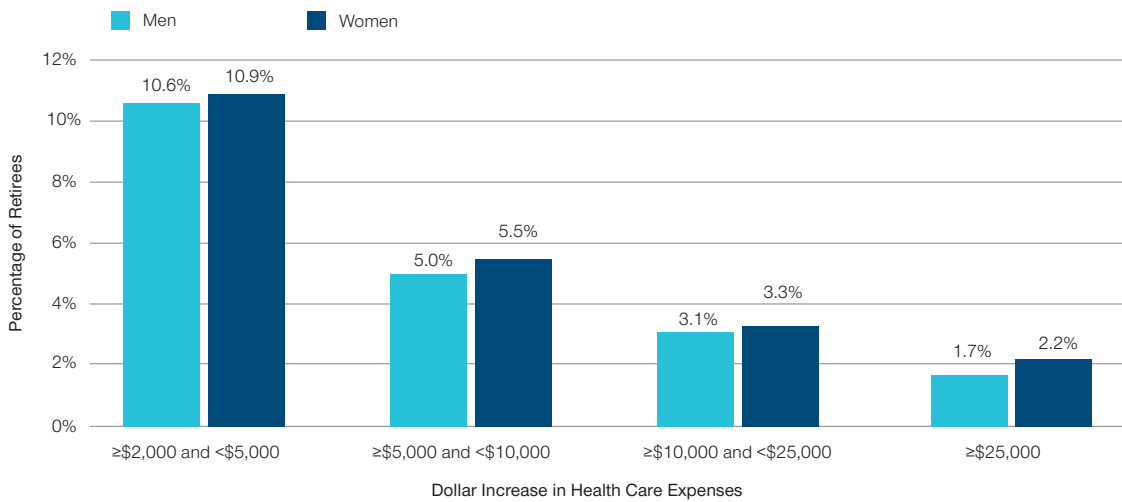
Statistically, one gender doesn't seem to be more predisposed to experiencing a health care shock as we see in Figures 3 and 4. Women are slightly more likely than men to experience cost increases; however, the differences are small. Over a two-year period, 1.7% of men between

ages 60 and 99 experienced increases in out-of-pocket health care costs of \$25,000 or more compared with 2.2% of women.

On a percentage basis (Figure 4), men were only slightly more likely than women to experience increases of 200% or more (19.1% for men compared with 18.8% for women).

**(Fig. 3) Incidence of Health Care Shocks (Dollar Increase) by Gender**

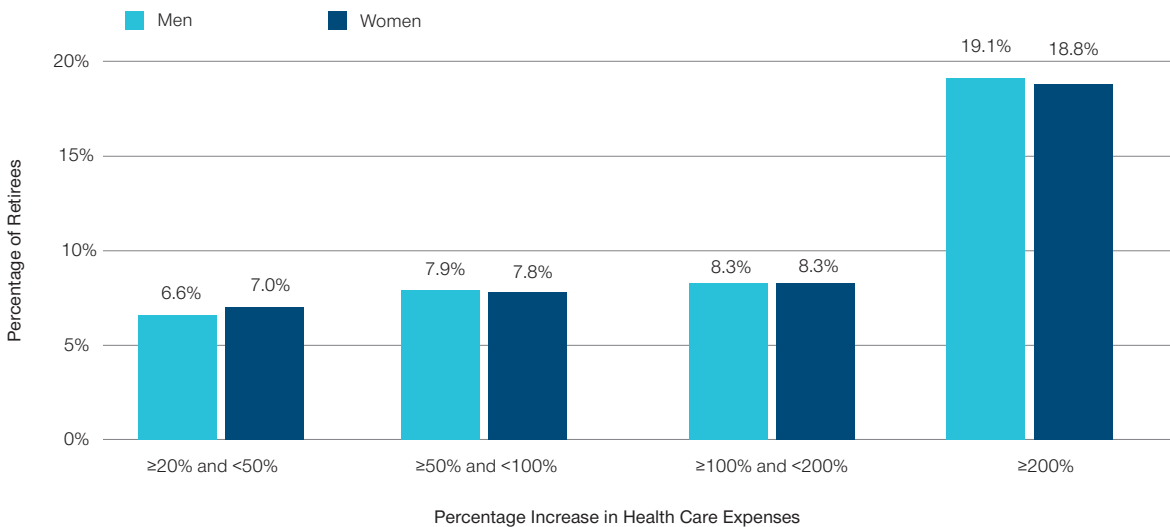
Increase in out-of-pocket medical expenses over a two-year period for individuals ages 60-99



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

**(Fig. 4) Incidence of Health Care Shocks (Percentage Increase) by Gender**

Percentage increase in out-of-pocket medical expenses over a two-year period for individuals ages 60-99



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

## Incidence of Health Care Cost Shocks by Age

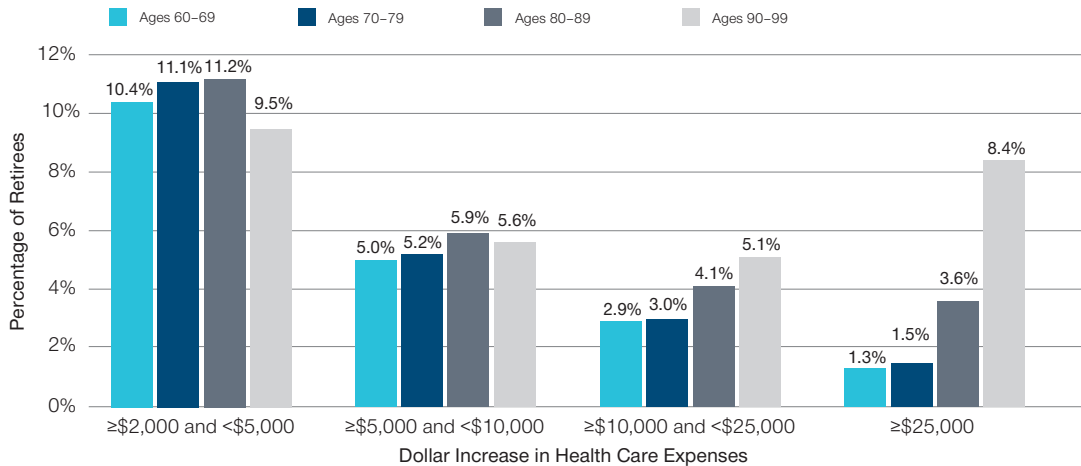
Looking deeper, we show how the incidence of health care shocks varies across age cohorts. The really high health care cost increases (e.g., \$25,000+) many people worry about don't usually affect younger retirees. They are more prevalent among those who reach their 80s and 90s and, even then, it's a very small percentage of people. For example, Figure 5 shows only 1.3% of those ages 60-69 and 1.5% of those ages 70-79 experienced a health care shock of \$25,000 or more. In contrast, a similar

shock was experienced by 3.6% of those ages 80-89. The incidence drastically jumped to 8.4% for those ages 90-99. Overall, even for those between ages 90 and 99, less than one-third experienced an increase of more than \$2,000. Stated otherwise, two-thirds of this age group did not experience any significant increases in health care expenses.

In terms of percentage increases, Figure 6 shows that those between ages 60 and 69 have an 18.1% chance of an increase of 200% or more. For those between ages 90 and 99, there is only a one in four chance that there will be a 200% increase.

**(Fig. 5) Incidence of Health Care Shocks (Dollar Increase) by Age Group**

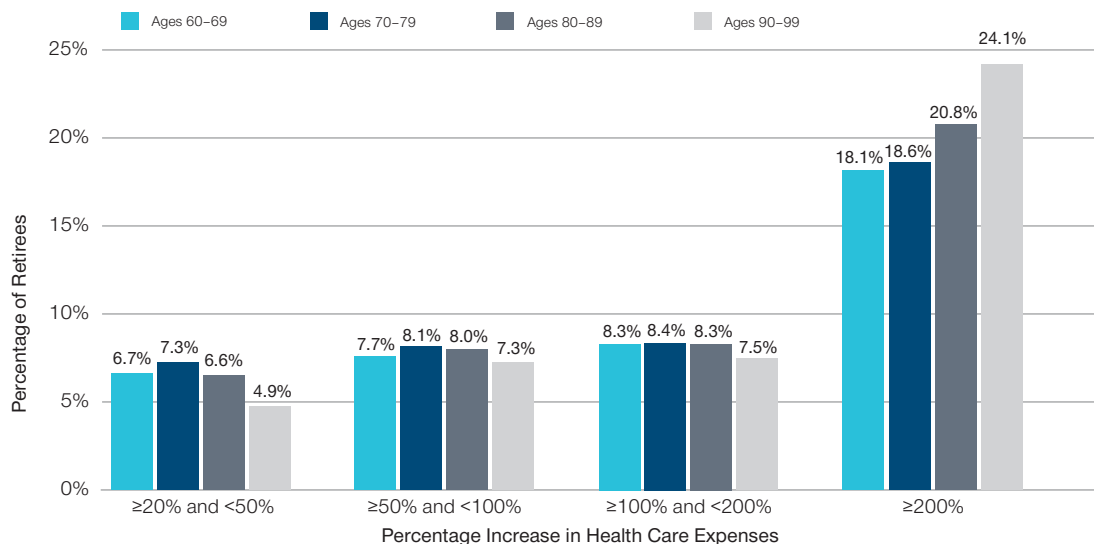
Increase in out-of-pocket medical expenses over a two-year period



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992-2014.

**(Fig. 6) Incidence of Health Care Shocks (Percentage Increase) by Age Group**

Percentage increase in out-of-pocket medical expenses over a two-year period



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992-2014.

## Incidence of Health Care Cost Shocks by Income

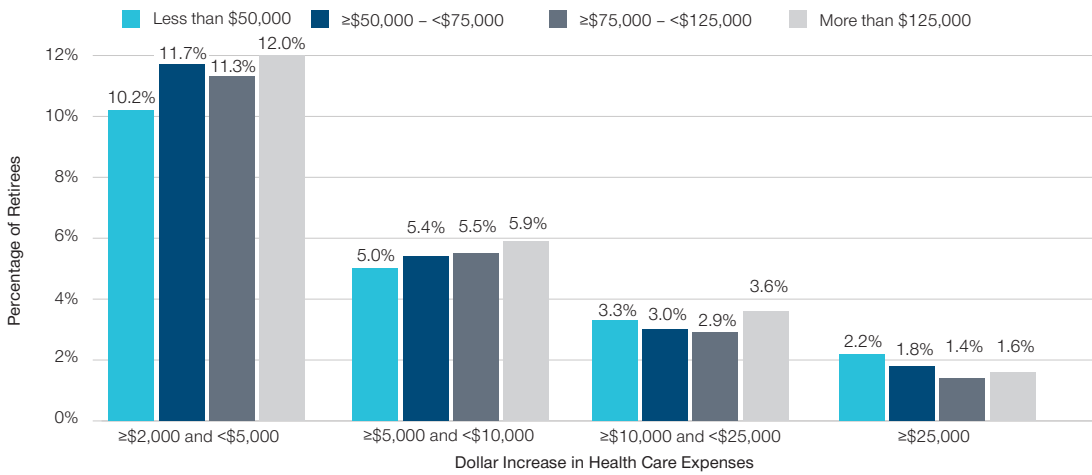
Figure 7 shows how out-of-pocket cost increases varied by income. Based on gross household income in retirement, we divided our sample into four income groups: less than \$50,000, between \$50,000 and \$75,000, between \$75,000 and \$125,000, and more than \$125,000. For increases less than \$10,000, we see a slight positive correlation with income, suggesting that retirees with more income

may electively consume slightly more health care, but the differences are small.

Looking at the percentage increases in out-of-pocket costs (Figure 8), it's clear that income is not significantly correlated with the likelihood of having experienced a health care shock. Retirees with higher income might spend more on health care because they have the ability to do so, but they are not any more or less likely to experience sudden increases in health care expenses than people with lower incomes.

### (Fig. 7) Incidence of Health Care Shocks (Dollar Increase) by Income Range

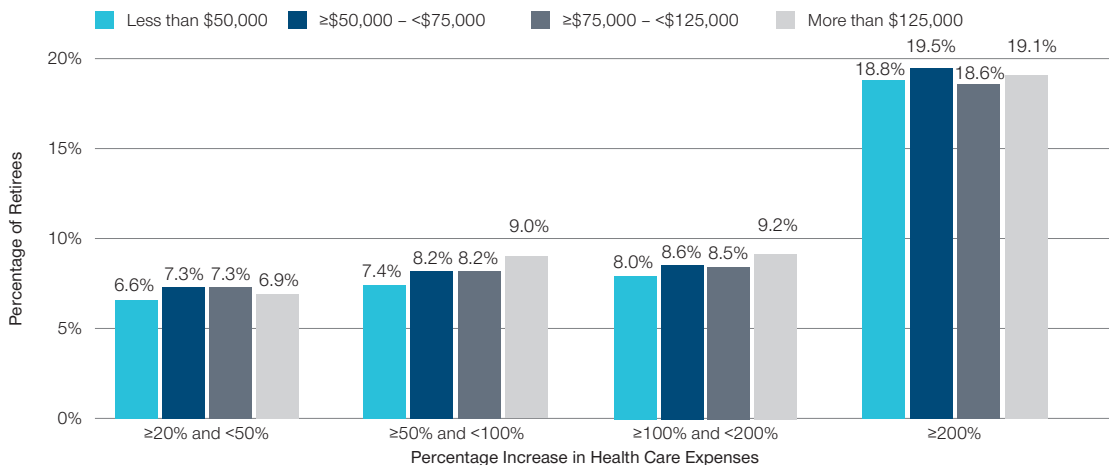
Increase in out-of-pocket medical expenses over a two-year period for individuals ages 60–99



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

### (Fig. 8) Incidence of Health Care Shocks (Percentage Increase) by Income Range

Percentage increase in out-of-pocket medical expenses over a two-year period for individuals ages 60–99



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

## Persistence of Higher Health Care Expenses

A sudden large increase in health care costs can be both stressful in the short term as well as devastating for a retiree’s long-term finances, especially if the increase becomes permanent. So it is very important to understand how often a health care “shock”—a term that suggests a temporary episode—ends up becoming a new financial reality.

Figure 9 examines the persistence of shocks, showing after two and four years of experiencing a shock what percentage of individuals were still spending at that level or more.<sup>3</sup> We might consider these changes to be permanent after two years without substantial relief, and even more so after four years.

Among those who experience a \$2,000 to \$5,000 health care shock, roughly

three out of 10 can expect it to be a permanent increase.

Further, long-term persistence of these shocks varies with age—but not by much. Among older individuals, a greater proportion of temporary health care shocks lasted longer (e.g., more than two years but less than four).

While the age effect on true permanence appears to be limited, consider that mortality rates are higher among older cohorts. Individuals who died within two or four years following the health care shock would not be tracked and limit our ability to track permanence of these shocks over time.

Nearly one in three shocks between \$2,000 and \$5,000 end up as a permanent cost increase. Increases above \$5,000 are less likely to become permanent.

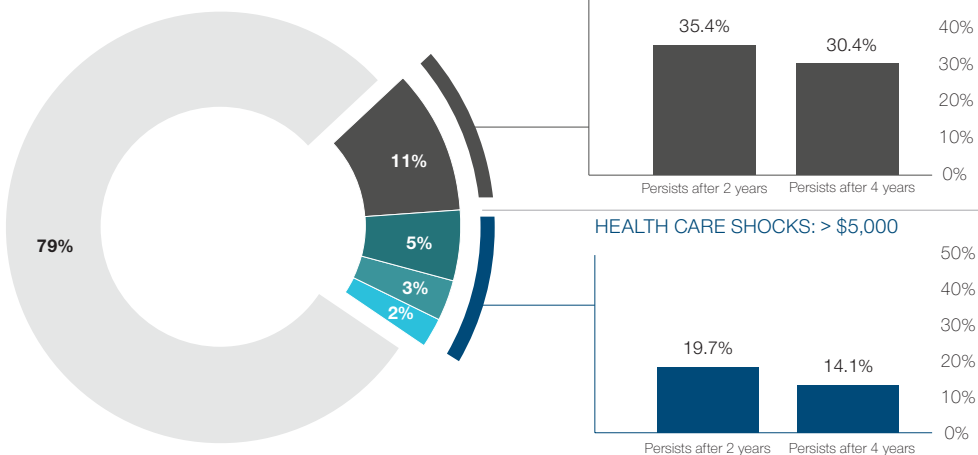
### (Fig. 9) Persistence of Health Care Shocks

Likelihood that cost increases become permanent

#### SHOWN WITH PERSISTENCE ISOLATED BY EXPENSE INCREASE RANGE

■ \$2,000 or less ■ \$2,000–\$5,000 ■ \$5,000–\$10,000 ■ \$10,000–\$25,000 ■ \$25,000+

INCIDENCE OVER 2 YEARS



Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

<sup>3</sup> For shocks between \$2,000 and \$5,000, the persistence numbers measure the percentage of individuals whose spending either went up (after 2 or 4 years) or did not go down more than \$500. In case of shocks above \$5,000, the numbers show the percentage of individuals whose spending either went up (after 2 or 4 years) or did not go down more than \$500.

## How to Prepare for Future Health Care Expenses

What does this mean for current or future retirees? Positively, only a relatively small percentage are likely to experience large health care cost shocks. Among those who will experience such a shock, only a minority of that small group are expected to see a permanent increase in health care costs.

These risks are limited. While almost one in 10 individuals ages 90-99 experienced a health care shock of \$25,000 or more, only 24% of men and 34% of women currently age 65 are predicted to live long enough<sup>4</sup> to have to face down those odds. Planning for individual circumstances requires a different perspective. Based on their own health status and family history, individual retirees must try to answer several tough questions:

- Will I live into my 90s?
- Can I financially sustain a health care shock of a modest size?
- Will I have enough money if the increase becomes permanent?

To help better plan for these expenses, Figure 10 provides the age-based distribution of out-of-pocket health care expenses (not including health insurance premiums) based on Health and Retirement Study<sup>5</sup> data. Rather than a simple age-based average, we provide a detailed picture of the distribution of these costs because health care costs are rightly skewed (i.e., a small share of people incur very large costs) and simple averages tend to overstate these costs.

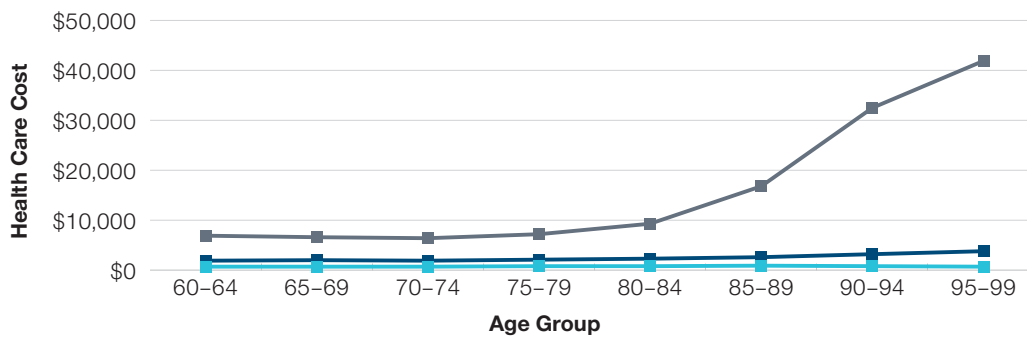
We provide three different points in the distribution of out-of-pocket health care expenses:

- **Average Cost (50th percentile)**—half of retirees spent more than this amount
- **High Cost (75th percentile)**—25% of retirees or (one in four) spent more than this amount
- **Catastrophic Cost (95th percentile)**—5% of retirees (one in 20) spent more than this amount

We interpret median as the average cost, while the 75th percentile may

**(Fig. 10) Distribution of Individual Annual Out-of-Pocket Health Care Costs**

Excludes insurance premiums



— Average Cost (50th percentile)	\$700	\$700	\$700	\$800	\$800	\$900	\$800	\$700	Self-insured
— High Cost (75th percentile)	\$1,900	\$2,000	\$1,900	\$2,100	\$2,300	\$2,600	\$3,200	\$3,800	Medigap
— Catastrophic Cost (95th percentile)	\$6,900	\$6,600	\$6,400	\$7,200	\$9,300	\$16,800	\$32,500	\$41,900	Long-term care insurance

Source: T. Rowe Price calculations from the Health and Retirement Study (HRS), 1992–2014.

<sup>4</sup>T. Rowe Price calculations from Social Security Administration Life Tables. <https://www.ssa.gov/oact/HistEst/PerLifeTables/2019/PerLifeTables2019.html>

<sup>5</sup>Health and Retirement Study, public use dataset. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI.



be considered as the high cost scenario and the 95th percentile as the catastrophic cost scenario. The top-heavy nature of the distribution of these costs is immediately clear. When we compare the two ends of the age distribution—60–64 and 95–99—we see that the median remains unchanged at \$700, the 75th percentile doubles from \$1,900 to \$3,800, while the 95th percentile increases almost seven times, from \$6,900 to \$41,900.

These numbers can be used as guidelines for how much a retiree might need for annual out-of-pocket expenses at different ages. Someone in excellent health might budget for the median, while someone with a chronic medical condition might use the 75th percentile as their guideline. Those in poor health might use the 95th percentile. At the end of the day, it comes down to a personal decision of how much is enough to stave off a sizable, unplanned expense.

Ultimately, these costs vary from individual to individual based on their health condition, the type of insurance they have, and the extent of care they need. As Figure 10 suggests, one might think about self-funding the average costs, using Medigap policies to safeguard against high costs and purchasing long-term care insurance to protect themselves from catastrophic cost scenarios. While these numbers can provide broad planning guidelines, we suggest retirees consult with their financial and health care providers to better understand future health care expenses.

The data show a low probability that a retiree will face a large health care expense and an even lower probability that the increase will be permanent. Further, the ability to manage such expenses is largely dependent upon one's wealth.

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## Action Items for Pre-Retirees and Retirees

Lastly, planning for the unexpected shouldn't be left to chance. There are a few proactive steps retirees can take to prepare for out-of-pocket health care expenses.

Pre-retirees should:

1. Include realistic health care expense estimates in a retirement budget before terminating employment.
2. Thoroughly research ways to pay for potential long-term care expenses, including insurance and relying on a portion of your assets. Remember that long-term care expenses such as nursing home stays and in-home custodial care are generally not covered by Medicare. Keep in mind that long-term care policies can be expensive, and premiums usually increase as people get older.
3. Choose between enrolling in Medicare Part C (Medicare Advantage) or traditional Medicare. Consider adding a supplemental drug plan (Part D) and Medigap policy with traditional Medicare. Options like these beyond traditional Medicare can increase premium costs, but may reduce potential out-of-pocket expenses.
4. Be aware of deadlines to sign up for different types of Medicare plans. Missing these deadlines may result in permanent increases to monthly premiums.

Retirees should:

1. Annually review existing health insurance coverage to ensure that it is appropriate, given the need and individual situation.
2. Consider earmarking assets that can be used to cover an unexpected health care expense. Revisit that amount annually.
3. Understand what insurance will and will not cover when it comes to long-term care.
4. Think about end-of-life health care. The decision to receive care at home or in a nursing facility can have very different cost implications. Also, skilled nursing home facilities are not always covered by Medicare, and nursing homes that provide custodial care are usually not covered by Medicare.

#### **ABOUT OUR STUDY**

We used data from the Health and Retirement Study (HRS), which is a nationally representative survey of Americans ages 50 and older. HRS has interviewed its respondents every year starting in 1992. We looked at people who were between 60 and 99 years old from 1992 to 2014. All costs are adjusted for medical inflation and expressed in 2014 dollars.<sup>6</sup> Since the survey is conducted every two years; respondents report their out-of-pocket health care costs for the preceding two years. As a result, the increases reported are for two-year periods.

<sup>6</sup>Medical inflation adjustment done using Consumer Price Index for All Urban Consumers (1982-1984=100), Medical Care, Table: CPIMEDSL, Federal Reserve Bank of St. Louis.

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