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A New Way to Calculate Retirement Healthcare Costs

By Sudipto Banerjee, PhD



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Healthcare costs are top of mind for every retiree or anyone who is nearing retirement.

According to T. Rowe Price's Retirement Savings and Spending study, the top three spending concerns of retirees are, in order of importance: paying for long-term care services, health insurance premiums, and out-of-pocket healthcare expenses.¹

The projected healthcare costs in retirement provided by some of the leading experts sound alarming. In its most recent projection, completed in 2019, the Employee Benefit Research Institute (EBRI) estimates that to have a 90-percent chance of covering all their health insurance premiums and out-of-pocket costs, a 65-year-old couple will need \$301,000.² And according to the most recent estimates from the Center for Retirement Research at Boston College, completed in 2010, a typical 65-year-old couple can expect to spend \$197,000 over their remaining lifetimes with a 5-percent chance that the number exceeds \$311,000.³ These numbers don't include long-term care costs, which could be catastrophic in some cases.

Although these numbers offer a good idea of how expensive retirement health care could be over several decades, they are not very helpful for individual financial planning. Here's why:

- Lump-sum estimates of healthcare costs covering the entire duration of retirement are not useful for budgeting and planning purposes because healthcare expenses are not incurred

KEY INSIGHTS

- Viewing retirement healthcare costs as an annual expense, instead of as a lump sum, makes it easier for retirees to plan for and pay for them.
- Health insurance premiums usually are fixed and can be budgeted for and funded from monthly income. On the other hand, out-of-pocket expenses can vary from month to

month and could be paid from savings or a fund earmarked for those purposes.

- Retirement healthcare costs can vary widely, depending on the type of insurance a retiree chooses, and no type of coverage is typical. It is useful to provide these estimates of annual expense based on the type of insurance coverage.

as lump sums. Individuals must make their healthcare decisions based on their financial resources at any given point in time.

- There are embedded health insurance coverage assumptions in most of these calculations. Health insurance coverage varies significantly for retired Americans, even under the broad umbrella of Medicare. It is not clear if any type of health insurance coverage can be called typical.
- Combining premiums and out-of-pocket costs tends to distort the perception of the risk surrounding healthcare costs in retirement and complicates the associated financial planning. Premiums are relatively stable at the individual level, but out-of-pocket costs are more uncertain and, as a result, account for most of the variation in healthcare costs. Premiums also constitute the bulk of the healthcare expenses for a majority of retirees. As a result, for most retirees, large chunks of annual healthcare costs are predictable and can be

easily planned for, a fact masked by the combined lifetime healthcare cost estimates.

By separating premiums and out-of-pocket costs, retirees will be able to plan better for healthcare expenses. Premiums, similar to other monthly expenses, such as a cable or utility bill, often are paid from monthly income. On the other hand, out-of-pocket expenses are much more likely to be funded from savings.

As a result, we believe that the framing of healthcare costs in retirement should be based on at least the following three factors:

- Annual costs
- Type of health insurance coverage
- Separation of premiums and out-of-pocket expenses

From an individual perspective, the more personalized the estimates are, the better. A host of other factors such

as income, age, health status, marital status, state of residence, etc., can be added to this framework. But because it is not always possible to reliably estimate retiree healthcare costs using all these factors, we think our three-factor approach is a reasonable basic framework to use to estimate healthcare costs in retirement. Also, presenting a detailed picture of the distribution of these costs—rather than single summary measures such as averages—addresses some of the personalization needs. For example, someone in excellent health might expect to be in the bottom quartile of out-of-pocket expenses, but someone with one or more serious chronic conditions might find themselves in the top decile of out-of-pocket expenses.

For the purposes of this research, we chose not to include the cost of long-term care (LTC). Although a majority of individuals do not incur out-of-pocket LTC expenses during their retirement years, it could be catastrophic for a small fraction of retirees.⁴ The uncertainty of incurring any out-of-pocket LTC expenses combined with the highly skewed distribution of LTC expenses makes it very difficult to plan for them. But there are two ways people can prepare for LTC expenses.

Buying LTC insurance could be a solution. A number of factors could influence the decision to purchase LTC insurance, including premiums (which could be very high), the level of assets an individual wants to protect, bankruptcy concerns about insurers, and the lack of caregivers. The other way is to self-insure using personal savings and then depend on Medicaid if assets are exhausted.

This article discusses why it is important to use annual costs, type of health insurance coverage, and separation of premiums and out-of-pocket expenses for a basic framing of retiree healthcare costs. Then, using this framework, we present healthcare cost estimates based on data

from the Health and Retirement Study (HRS)⁵ and 2021 Medicare premiums. We also provide some guidelines on how individuals can plan to meet these expenses.

WHY USE ANNUAL HEALTHCARE COSTS?

Cumulative healthcare cost estimates are useful in conveying the overall risk of healthcare costs in retirement, but there are certain disadvantages to using these estimates.

It's hard to build a financial plan

around a lump sum. It's hard because healthcare expenses are not incurred as a lump sum, and it is not clear how such information can be used to plan for retirement healthcare costs. Let's take an example of a hypothetical 65-year-old couple who need \$300,000 to fund their healthcare costs in retirement. How should they go about it? Should they set aside \$300,000 from their retirement savings at age 65 to meet their future healthcare costs? If so, how should they allocate the sum between savings and investments? And what if they have only \$280,000 in retirement savings? Does that mean they have no chance of affording their projected healthcare expenses? And if they should not set aside the \$300,000 as a lump sum, how much do they need at age 65, 75, or 85? These types of questions immediately point out the problems one might face when using these lump-sum estimates to plan for healthcare costs in retirement.

The burden seems greater when the lump-sum approach is applied to healthcare costs but not income and assets. If we're going to treat healthcare costs as a lump sum, let's apply that framework to the entire financial situation of a household and include assets and income. Again, let's take the example of our hypothetical 65-year-old couple. Assume that they have \$400,000 in retirement savings and their combined monthly Social Security benefit is \$2,000. Surely, the \$300,000 needed for healthcare costs seems daunting for this

couple. But instead of saying they receive \$2,000 per month from Social Security, let's say that, with a 2-percent annual cost-of-living adjustment, the couple will receive approximately \$583,000 in Social Security benefits in the next 20 years.⁶ So, now, with almost \$1 million in assets between retirement savings and lifetime Social Security benefit payments, the \$300,000 projected for healthcare expenses seems less alarming.

Keep in mind that assets usually appreciate over time. So, let's assume the \$400,000 in retirement savings produces an annual 4-percent nominal return that the couple uses to pay for health care and other expenses while keeping the principal intact. Now, they have another \$320,000, not adjusted for inflation, worth of income generated from their retirement savings over 20 years in retirement. Between retirement savings (\$400,000), income generated from retirement savings (\$320,000), and lifetime Social Security payments (\$583,000), our couple has approximately \$1.3 million. This makes the \$300,000 healthcare costs estimate less intimidating. So, when all the numbers are presented as lump sums, the perception of risk changes.

This example clearly shows that the perception of risk changes based on how these costs are framed. Instead of converting everything into a cumulative lump-sum amount covering decades, it is better—and more prescriptive—to provide annual or point-in-time estimates because that is how most people assess these numbers.

A CLOSER LOOK AT HEALTH INSURANCE COVERAGE

Although most Americans age 65 or older are covered by Medicare, the type of coverage is not uniform. Medicare has several components, and retirees have various options for how they want to receive their Medicare benefits (see figure 1). Each option comes with different cost implications.

Medicare consists of four parts:

Part A. Part A covers room and board in the hospital. Part A has no premium for most people who have worked for at least 10 years in the United States and paid Social Security and Medicare payroll taxes (FICA taxes), but there are copayments and deductibles. However, a lot of the actual care received in a hospital falls under Medicare Part B.

Part B. Part B covers outpatient services, e.g., doctor visits, lab tests, imaging services, surgeries, etc., that are deemed medically necessary. Part B has a monthly premium that can be deducted from Social Security payments. Part B also has copayments and deductibles.

Part C (Medicare Advantage). Part C, also known as Medicare Advantage (MA), is the most confusing part of Medicare because it does not cover any specific medical benefits like Parts A, B, or D, which all have associated deductibles and copayments and sometimes no cap on out-of-pocket expenses. All these can result in significant out-of-pocket expenses. Part C offers a way to reduce those expenses through private health insurance plans. Under MA, individuals receive benefits of Parts A, B, and D and often additional services from a single private insurer. Usually, individuals must pay a monthly premium in addition to Part B premiums and are subject to network restrictions and other plan rules. MA plans can be either health maintenance organization (HMO)

or preferred provider organization (PPO) plans. It is important to note that once enrolled in Part C, care is delivered through a private insurer instead of Medicare.

Part D. Part D is aimed at lowering costs of prescription drugs. Under Part D, individuals must sign up for drug plans offered by private insurance carriers. Part D is optional, but paying a monthly premium usually results in lower copayments for medicines than not having any drug plan.

SUPPLEMENTAL INSURANCE

Supplemental insurance is another way of lowering the out-of-pocket costs of traditional Medicare. The most common type of supplemental insurance is Medigap. These plans charge monthly premiums and protect from the out-of-pocket costs associated with traditional Medicare. Medigap policies are offered by private insurers. They are highly standardized under Medicare guidelines and are accepted in any facility that accepts Medicare. Other forms of supplemental insurance could include employer-sponsored insurance or Medicaid.

When it comes to the type of Medicare coverage, often it's not clear what it means to be a typical retiree. According to the Kaiser Family Foundation (KFF), of all traditional Medicare beneficiaries in 2016, 30 percent had supplemental coverage through employer-sponsored insurance, 29 percent had supplemental

Medigap coverage, and 19 percent had no supplemental coverage at all.⁷ In addition to that, in 2018, one in three of all Medicare beneficiaries were enrolled in a Medicare Advantage plan.⁸ The cost differences across these different types of coverage could be significant.

According to our estimates, in 2021, the median annual premium for retirees covered by a Medicare Advantage HMO plan with prescription drug coverage will be around \$1,900 per person. An individual with traditional Medicare (A and B) with a prescription drug plan (Part D) will pay \$2,400. Lastly, an individual covered by traditional Medicare with a Medigap policy and a standalone prescription drug plan will pay around \$5,100 annually.

In order to better understand the burden of retirement healthcare costs, it's crucial to discuss them within a framework that specifies the costs under each type of coverage.

WHY SEPARATE HEALTH INSURANCE PREMIUMS AND OUT-OF-POCKET EXPENSES?

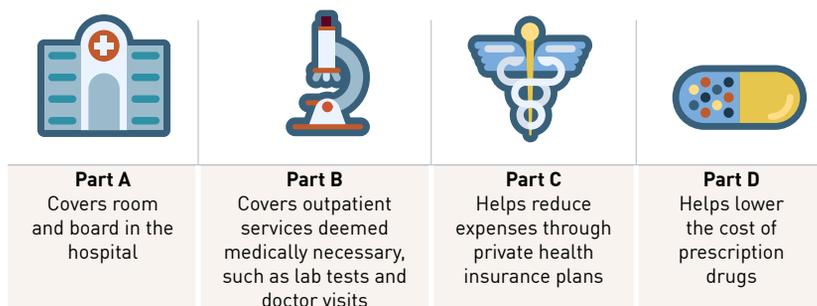
The advantages of separating premiums from out-of-pocket expenses include the following:

A better understanding about the risk associated with healthcare expenses.

The risk or uncertainty of healthcare costs is primarily associated with out-of-pocket expenses because they vary more widely than fixed premiums. For example, according to our estimates for those age 65 and older with traditional Medicare (Part A and B) and a prescription drug plan (Part D), the 25th percentile and 90th percentile for annual premiums are \$2,200 and \$3,000, respectively. In comparison, the 25th and 90th percentiles for out-of-pocket expenses for the same group are \$300 and \$4,900. Also, year-to-year variation in insurance premiums for individuals is often predictable. From figure 2 we can see that health insurance premiums constitute between 75 percent and

Figure 1 **COMPARING MEDICARE COMPONENTS**

Retirees have options for how they want to receive their Medicare benefits



82 percent of retirees' healthcare expenses regardless of the type of coverage. This means that for a majority of retirees, a large part of their healthcare expenses is predictable and does not change much on a year-to-year basis. This helps make planning for such expenses easier.

The need for separate funding mechanisms for premiums and out-of-pocket expenses. If premiums are a fixed month-to-month expense item, they are no different than rent or a cable bill. Like those other items, premiums also should be funded from the regular stream of monthly income. Doing this helps retirees form a more accurate monthly budget, which in turn helps to create a better income plan. EBRI has shown that a portion of out-of-pocket expenses associated with routine care, e.g., doctor visits or prescription drugs, also remains remarkably stable throughout retirement.⁹ So, if a retiree can track routine out-of-pocket expenses, those also could be included in a monthly budget.

On the other hand, nonroutine out-of-pocket healthcare expenses, e.g., surgery, hospitalization, or other infrequent health events, are likely to be funded from a pool of liquid assets, i.e., savings. A realistic estimate of such expenses could help retirees to plan how much in liquid assets they should hold at any point in time to meet healthcare costs. Simply put, premiums should be paid from income, but out-of-pocket expenses are likely to be paid from savings. So separate estimates are more helpful to make proper budgeting plans.

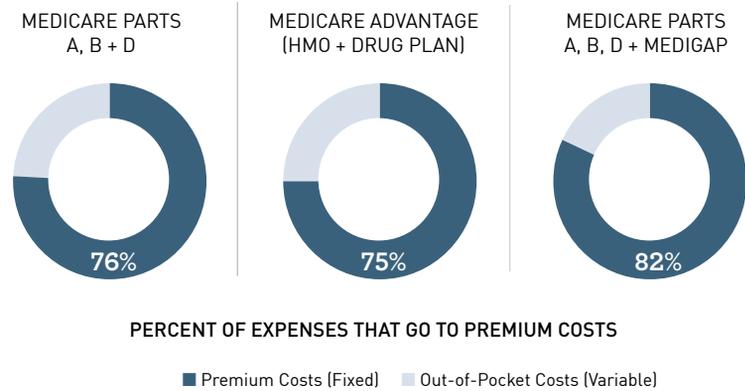
HEALTHCARE COST ESTIMATES

We use the announced 2021 Medicare premiums and data from the Health and Retirement Study to calculate the healthcare cost estimates for the 65 and older population. The HRS data are used to calculate the out-of-pocket expenses for each type of health insurance coverage and the income surcharges for premiums. We examined three different sets of

Figure 2

A LOOK AT THE SHARE OF PREMIUMS IN TOTAL ANNUAL HEALTHCARE COSTS

Median Percentage Share of Individual Health Insurance Premiums (Ages 65 and above)



Source: T. Rowe Price estimates based on 2021 Medicare premiums and data from the HRS.

healthcare cost estimates corresponding to three different health insurance coverage types:

- Traditional Medicare (Parts A and B) and a prescription drug plan (Part D)
- Medicare Advantage HMO plan with prescription drug coverage (MA-PD plan)
- Traditional Medicare (Parts A and B), a prescription drug plan (Part D), and Medigap

We present estimates separately for premiums, out-of-pocket expenses, and total healthcare costs as well. We also present a detailed description of the distribution of these costs by presenting the 25th percentile, 50th percentile (median), 75th percentile, and the 90th percentile. We do not present the mean or average costs because averages are not a good summary measure for highly skewed distributions (such as the distribution of out-of-pocket expenses and total expenses).

TRADITIONAL MEDICARE (PARTS A AND B) AND A PRESCRIPTION DRUG PLAN (PART D)

Figure 3 shows the estimated healthcare costs of retirees with coverage through traditional Medicare (Parts A and B) and prescription drug coverage (Part D). Median total annual expenses for this type of coverage are \$3,500, with the

bulk of it paid as premiums. So, half of retirees with this type of coverage will spend less than \$3,500 and the other half will spend more. As discussed earlier, out-of-pocket expenses have a much wider variation (25th percentile is \$300 and 90th percentile is \$4,900) than premiums (25th percentile is \$2,200 and 90th percentile is \$3,000). This underscores the importance of separating the two, as discussed in detail above.

MEDICARE ADVANTAGE HMO PLAN WITH PRESCRIPTION DRUG COVERAGE (MA-PD PLAN)

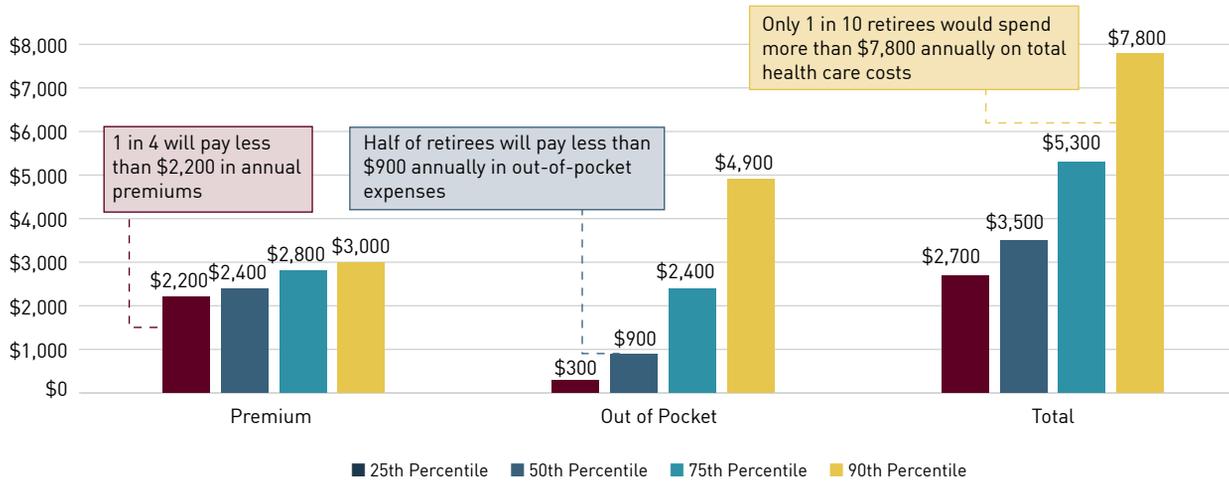
According to the Kaiser Family Foundation (KFF), enrollment in Medicare Advantage plans has doubled in the past decade from 9.7 million in 2008 to 20.4 million in 2018.¹⁰ Among Medicare Advantage plans, MA-PD plans are by far the most popular because of low premiums. According to the same KFF study, in 2018, 51 percent of MA-PD plans had no premium (in addition to Part B premiums) and the average monthly premium was only \$34. Although HMOs offer lower premiums, they also come with network restrictions and often require prior authorization for services.

Figure 4 shows the costs associated with Medicare Advantage HMO plans with prescription drug coverage (MA-PD plans). A quick comparison of MA-PD

Figure 3

ESTIMATED ANNUAL HEALTHCARE EXPENSES—SCENARIO 1

For Those Covered by Traditional Medicare (Parts A and B) and a Prescription Drug Plan (Part D)

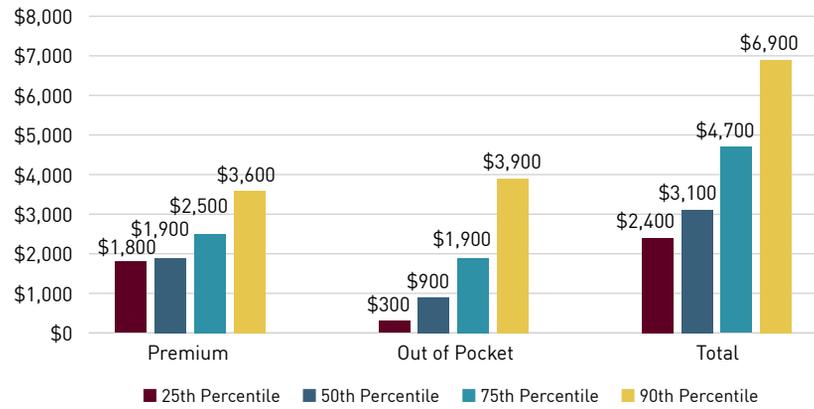


Source: T. Rowe Price estimates based on 2021 Medicare premiums and data from the HRS. All costs are rounded to the nearest hundred.

Figure 4

ESTIMATED ANNUAL HEALTHCARE EXPENSES—SCENARIO 2

For Those Covered by a Medicare Advantage HMO Plan That Includes Prescription Drug Coverage (MA-PD plans)



Source: T. Rowe Price estimates based on 2021 Medicare premiums and data from the HRS. All costs are rounded to the nearest hundred.

HMO plan premiums with traditional Medicare with prescription drug coverage discussed in figure 3 shows that the premiums for MA-PD plans are significantly lower. This might explain the rising popularity of MA-PD HMO plans. Out-of-pocket expenses are similar for the bottom halves (50th percentile and below) of these two types of plans, but higher in the top half (above 50th percentile) for traditional Medicare plans with prescription drug coverage. In general, comparing figures 3 and 4,

we can say that the costs are lower for MA-PD HMO plans compared with traditional Medicare with Part D coverage.

TRADITIONAL MEDICARE (PARTS A AND B), PRESCRIPTION DRUG PLAN (PART D), AND MEDIGAP

Finally, figure 5 illustrates the healthcare costs for retirees with traditional Medicare (Parts A and B), a prescription drug plan, and supplemental health insurance through Medigap.

Supplemental insurance can take various forms. KFF estimates that out of all traditional Medicare beneficiaries in 2016, 30 percent had supplemental employer-sponsored insurance, 29 percent had Medigap insurance, and 22 percent had coverage through Medicaid. For this discussion, we focus on Medigap because those with employer-sponsored insurance are unlikely to look for other types of coverage, and those under Medicaid might not have any other option. We don't consider any specific type of Medigap policy, such as Plan F or Plan N. Premiums in figure 5 represent the distribution of premiums of all Medigap policies that can be purchased directly from an insurance company, insurance exchange, or group plans provided by AARP.

Across the three different types of coverage scenarios considered, traditional Medicare with Part D and Medigap has the highest costs. This is primarily because of the Medigap premiums. Between figure 3 and figure 5, the only additional component is Medigap, and we can see that median annual premiums increase from \$2,400 to \$5,100. But the similar distribution of out-of-pocket expenses, as shown in figures 3 and 5,

is counterintuitive because the main purpose of Medigap coverage is to minimize the burden of out-of-pocket expenses under traditional Medicare. There are a couple of plausible explanations for the similar out-of-pocket expenses under traditional Medicare and traditional Medicare with Medigap.

First, individuals with greater health-care needs are more likely to choose Medigap. They are most likely to spend much more under traditional Medicare. Second, those who get Medigap policies also might consume more health-care services, i.e., more preventive services, because they want to use the benefits of Medigap protection.

HOW TO PLAN FOR HEALTHCARE EXPENSES

Depending on which type of health insurance coverage an individual selects, healthcare expenses could be very different in both total healthcare expenses and the mix of premiums and out-of-pocket expenses. This framework could be very useful to help individuals plan for their healthcare expenses based on the type of coverage they have.

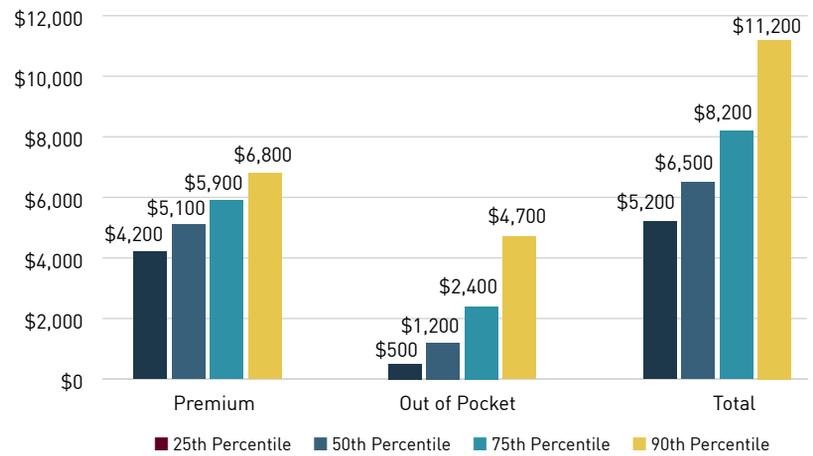
Because health insurance premiums are known in advance and can be easily included in the budget or income plan, retirees might be better served by planning to pay them from their monthly income, which might include Social Security benefits, pension payments, other annuity payments, systematic withdrawals from retirement accounts, etc., and use a dedicated pool of assets such as a savings account earmarked for out-of-pocket expenses.

How much savings should someone have available at any point in time to meet the out-of-pocket costs? A safe strategy could be to hold the amount indicated by the 90th percentiles. For example, if someone with an MA-PD plan keeps \$3,900 for annual out-of-pocket expenses, chances are that in nine out of 10 situations, they will be able to cover those expenses. Depending

Figure 5

ESTIMATED ANNUAL HEALTHCARE EXPENSES—SCENARIO 3

For Those Covered by Traditional Medicare (Parts A and B), a Prescription Drug Plan (Part D), and Medigap*



* Medigap policies bought either directly from an insurance company, an insurance exchange, or group plans provided by AARP are considered for these calculations. Individuals with supplemental coverage through any employer plan are not part of these calculations.

Source: T. Rowe Price estimates based on 2021 Medicare premiums and data from the HRS. All costs are rounded to the nearest hundred.

on the individual’s healthcare needs and risk tolerance, the savings amount can be increased or decreased.

More importantly, the advantage of this approach is that one does not have to hold enormously large sums in savings accounts in advance of retirement, and as a result, forgo investment or interest earnings. After allocating for the annual out-of-pocket healthcare expense needs, retirees can keep the rest of their assets invested and benefit from potential returns to meet their other needs, including long-term care.

The most tax-advantaged way to save for retirement healthcare costs is through a health savings account (HSA).¹¹ HSAs are triple tax-advantaged, i.e., income is not taxed when contributed to an HSA, investments grow tax-deferred, and withdrawals are tax-free if the funds are used for qualified medical expenses. Individuals can pay Medicare premiums (but not Medigap premiums) and qualified out-of-pocket expenses with tax-free withdrawals from an HSA. If individuals are currently saving for retirement and have access to an HSA, they might

consider using it for long-term investment purposes. If individuals are already retired and have some money in an HSA, consider keeping a portion of the HSA in cash to pay for near-term qualified healthcare expenses. ●

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ENDNOTES

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