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LONG-TERM CARE COSTS AND THE NATIONAL RETIREMENT RISK INDEX

By Alicia H. Munnell, Anthony Webb, Francesca Golub-Sass, and Dan Muldoon*

Introduction

Even if households work to age 65 and annuitize all their financial assets, including the receipts from reverse mortgages on their homes, the National Retirement Risk Index (NRRI) has shown that 44 percent will be 'at risk.' 'At risk' means they will be unable to maintain their standard of living in retirement. When health care costs were included explicitly, the percentage of households 'at risk' increased to 61 percent. Our previous analysis of health care costs, however, did not consider possible expenses for long-term care towards the end of life. This *brief* explores how the need for long-term care could affect the NRRI.

This *brief* is structured as follows. The first section recaps the original NRRI and the NRRI with health care costs explicitly included. The second section describes the nature of long-term care, the likelihood of a household member needing such care, and the financing alternatives available. The third section explores how the challenge posed by long-term care is different for households of different types and wealth levels. The fourth section models the impact of long-term care on the NRRI. The final section concludes.

A Recap of the NRRI

Even before the current financial crisis, a changing retirement landscape has been making it more difficult to attain income security in old age.[1] The need for retirement income is increasing due to rising life expectancy and escalating health care costs. At the same time, retirement income relative to pre-retirement earnings is declining. At any given retirement age, Social Security benefits will replace a smaller fraction of pre-retirement earnings as the Full Retirement Age rises from 65 to 67. And the balances in 401(k) plans were modest even before they were decimated by the financial crisis.

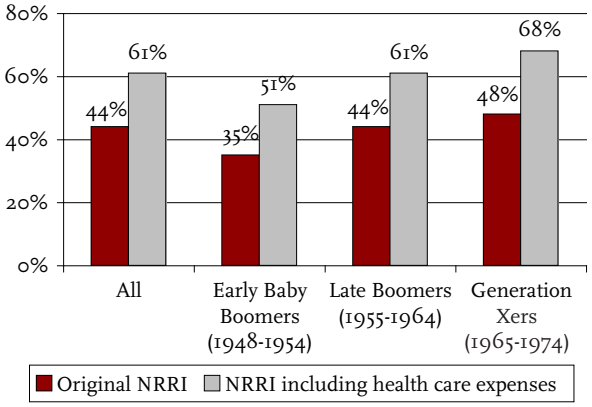
To quantify the effects of the deteriorating retirement landscape, the NRRI measures the percent of working-age households who are 'at risk' of being financially unprepared for retirement. The Index calculates for each household in the 2004 *Survey of Consumer Finances* a replacement rate – projected retirement income as a percent of pre-retirement earnings – and compares that rate with a target rate derived from a life-cycle consumption smoothing model. Those who fail to come within 10 percent of the target are defined as 'at risk,' and the Index reports the percent of households 'at risk.'

* Alicia H. Munnell is the Director of the Center for Retirement Research at Boston College (CRR) and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management. Anthony Webb is a research economist at the CRR. Francesca Golub-Sass and Dan Muldoon are research associates at the CRR. The Center gratefully acknowledges Nationwide Mutual Insurance Company for its exclusive financial support of the National Retirement Risk Index (NRRI). This *brief* provides updated NRRI results; prior Index-related publications are available at http://crr.bc.edu. The authors would like to thank Gary Burtless, Robert Clark, and Tim Poland for helpful comments.

The original NRRI was later modified to explicitly include health care consumption. In the original formulation, the implicit assumption is that spending on health care is a substitute for other forms of consumption. This assumption implies that retired households can rearrange their basket of consumption – consuming more health care and less of other goods – and still maintain their standard of living.[2] An alternative – and probably more realistic – way to treat retiree health care expenses is as a "tax" that people have to pay in retirement.[3] Viewing health care from this perspective, the household's goal becomes maintaining its non-health care consumption in retirement.

The results for both the original NRRI and the NRRI explicitly including health care are shown in Figure 1. When health care consumption is considered interchangeable with other consumption, 44 percent of households will be 'at risk.' Once health care is introduced explicitly into the calculations, the Index rises to 61 percent. That is, 61 percent will be unable to maintain their pre-retirement non-health care consumption. An analysis by age group indicates that the situation worsens over time (see Figure 1).

Figure 1. NRRI, Original and Explicitly Including Health Care Costs, 2006



Source: Munnell et al (2008).

The dramatic increase in the percentage of households 'at risk' reflects an expectation that health care costs will continue to soar in the future. These projections, which are grounded in the analysis of the Medicare actuaries, are in line with other recent studies of retiree out-of-pocket health costs.[4] On the one hand, it is hard to blame people for not ramping up their savings in response to a systemic problem like health care cost inflation. But, on the other hand, soaring health care inflation will cause serious problems for future retirees if they don't save enough.

More broadly, the NRRI results are conservative estimates in several ways. First, they assume people retire at age 65. In fact, most people retire earlier, which means they receive actuarially reduced Social Security benefits, their 401(k) plan has less time to grow, and they have to support themselves over a greater number of years. Second, households are only required to come within 10 percent of the target – not actually hit it. Third, the estimates assume that households annuitize all their financial wealth, including the proceeds from a reverse mortgage on their home. In fact, few households annuitize their wealth or take out reverse mortgages. Finally, neither version of the NRRI includes any provision for long-term care expenses. How the inclusion of long-term care might affect the NRRI is explored below.

The Nature of Long-Term Care

Long-term care is an important expenditure risk for the elderly. People tend to lose some of their ability to function as they get older, and these losses can become severe late in life. To compensate, older people need assistance with basic activities of daily living (such as bathing, eating, dressing, and using the toilet) and with tasks necessary for independent living (such as shopping, cooking and housework).

Older people with the most serious disabilities require nursing home care. Experts estimate that – at some point – about one third of today's 65-year-olds will need to enter a nursing home for at least three months (see Table 1). And some will need nursing home care for a prolonged period of time. Perhaps

Table 1. Probability of Nursing Home Use for Individuals Turning 65 in 2010

Length of stay	Probability
Three months or longer	33 %
One year or longer	24
Five years or longer	9

Source: Congressional Budget Office (2004) based on data from Spillman and Lubitz (2002).

more importantly from the standpoint of financing such care, it is difficult to predict who will need it and who will not – it could happen to anyone. In addition to nursing home care, many more people will need some type of home care services, either delivered by professionals or by family or friends.[5]

Paid long-term care is very expensive. In 2008, the annual cost of a nursing home was about $70,000 for a semi-private room and $77,000 for a private room. Alternatively, employing a home health aide for four hours a day five days a week would cost nearly $20,000 per year.[6] According to the Centers for Medicare and Medicaid Services, total expenditures on long term-care for the elderly in 2004 amounted to $114 billion (see Table 2).

Table 2. Long-Term Care Expenditures for the Elderly, by Source of Payment, 2004

Payment source	Nursing home care	Home health care	Total
Medicaid	37.6 %	12.3 %	32.4 %
Medicare	17.6	62.6	26.9
Other public	2.7	3.1	2.7
Private insurance	7.9	7.6	7.8
Out of pocket	30.6	12.5	26.8
Other private	3.6	1.9	3.2
Total (percent)	100.0	100.0	100.0
Total (billions)	$90.7	$23.7	$114.4

Source: Centers for Medicare and Medicaid Services (2007).

Medicaid pays for a large percentage of total costs because the program pays virtually the entire amount for nursing home and home health services for those who qualify. To qualify, however, individuals must meet very strict income and asset tests, which vary by state. Some states use the federal guidelines to qualify for Supplemental Security Income, which in 2008 amounted to $637 in countable monthly income and $2,000 in countable assets for a single person.[7] Other states provide services for individuals up to 300 percent of the SSI threshold. Those with assets too high to initially qualify for Medicaid can enter a nursing home, spend down their assets and then be eligible for benefits.[8]

A sizeable portion of long-term care costs falls on individuals. Recipients and their families pay out-of-pocket about 30 percent of the cost of nursing homes and more than 10 percent of the cost of home care.[9] This percentage is much higher than that for health care costs generally, where a much larger share is covered by public and private health insurance.[10]

Private long-term care insurance is a relatively recent phenomenon, which has grown slowly but steadily over the last 20 years. Initially, policies covered only nursing home care, but today three fourths of policies cover home care as well.[11] Researchers have explored reasons for the slow growth of private long-term care insurance, because – in theory – an aging population could be expected to provide a strong boost to sales. On the supply side are the limitations in the product and the cost. For example, the typical policy purchased covers only one third of the expected present discounted value of long-term care expenditures, since many policies have a daily cap of $100 in nominal terms. Also, the loads are high – amounting to about 18 percent of premiums on the typical policy purchased at age 65 and held until death.[12] Another constraint on the supply side may be difficulty in pricing the risk of the policies, which could potentially make the product unprofitable for insurers.[13] But perhaps the key factor is on the demand side – namely, the existence of Medicaid. Simulations suggest that even if comprehensive private policies were available at actuarially fair prices, about two thirds of the wealth distribution would not buy them because of Medicaid.[14]

The lack of private resources to cover long-term care costs is a serious concern – especially for married couples. For those with adequate resources, nursing home care means an additional expenditure of up to $77,000 per year. Less than 15 percent of the elderly population can withstand such a drain.[15] Medicaid then becomes the backstop, but at the risk of impoverishing the spouse remaining in the community.[16]

Reliance on Medicaid also limits the type of nursing home that the recipient receives. Studies suggest that along a variety of dimensions, the quality of nursing home care for those with the resources to pay – at least for a year or two – is far superior to the institutions available to those who enter on Medicaid.[17]

The question regarding the NRRI is how does a one-in-three chance of having to enter a nursing home for possibly several years, the availability of Medicaid, and the complicated situation facing couples, affect households' retirement security.

Long-Term Care and Retirement Security

Looming long-term care costs have different implications for single and married households and for those in different parts of the wealth distribution. In all cases, however, the options include relying on Medicaid; buying long-term care insurance; or planning to sell

Table 3. Private Long-Term Care Insurance Coverage Rates among the Elderly in the HRS, 2000 and 2006

Category	2000	2006
All	10.6%	13.9%
Marital status		
Married	12.1	16.1
Single	8.4	10.7
Wealth tercile		
Bottom	4.0	5.0
Middle	8.2	11.3
Top	16.7	21.5

Source: Authors' calculations based on the University of Michigan, *Health and Retirement Study* (HRS), 2002 and 2006.

the house when long-term care is required. In the case of long-term care insurance, the premiums vary with age at time of purchase and the comprehensiveness of the product. But, for discussion purposes, a comprehensive product that assumes five percent per year inflation cost about $3,500 at age 65 in 2008.[18] Delay is expensive. The premiums more than double to almost $7,300 at age 75.[19] These are individual policies; the cost for a couple could be twice as much. Not surprisingly, as shown in Table 3, the percentage of households with such policies is modest.

Household Type

The choices facing a couple are clearly different than those of a single individual. One obvious approach for single individuals is to rely on their home equity to pay for long-term care or at least enough of long-term care to gain entry to a non-Medicaid nursing home. In the case of a couple, however, the possibility exists that each member may need nursing home care. But this potential challenge should not be overstated; husbands on average are four years older than their wives and men's life expectancy at 65 is two years less than women's, so the husband will most likely die first.[20] Possibly because wives who outlive their husbands do not have a spouse to provide care at home, women are more likely to require nursing home care than men. Indeed, almost 75 percent of older nursing home residents are women.[21]

Household Wealth

The wealth levels of older households vary considerably, as shown in Table 4. Households at different levels tend to face different options and challenges with respect to financing long-term care. The following discussion divides households into three groups by wealth.

Table 4. Median Non-Housing Wealth For Older Households by Tercile, 2004

Age	Tercile		
	1	2	3
60+	$5,300	$76,900	$556,660
60-74	$6,820	$89,100	$634,000
75+	$3,800	$56,500	$388,500

Source: Authors' calculations based on U.S. Board of Governors of the Federal Reserve System, *Survey of Consumer Finances,* 2004.

The Lower Third. The options for households in the lowest third of the wealth distribution are the most straightforward. The non-housing assets for this group range from zero to about $22,000, and this group relies almost entirely on Social Security benefits for support. For both single individuals and married couples, long-term care insurance is likely to be unaffordable; indeed, only 5 percent of households in the bottom third purchased coverage in 2006. Therefore, Medicaid is probably the best option.

For couples, Medicaid spousal protection rules ensure that if one spouse requires long-term care, the house and a substantial proportion of the household's financial assets will pass to the surviving spouse.[22] If the institutionalized spouse prefers non-Medicaid care, and the house is sufficiently valuable, one option is to use the proceeds of a reverse mortgage to gain access to such care, before falling back on Medicaid. If the household has not already taken a reverse mortgage, the surviving spouse could sell the house to obtain access to private care for herself.

Given the very low incomes of this group, using a reverse mortgage to finance general post-retirement consumption or purchase home health care, and then relying on Medicaid long-term care might be a better, if unpalatable, alternative.

The Top Third. The financial wealth of the top third of the wealth distribution ranges from $200,000 upwards. These households will want higher quality care; they will want to protect the community spouse; and they may be concerned about leaving a bequest. Medicaid is not a realistic option. They will be required to pay all or a substantial proportion of their nursing home costs out of their own pocket.

The very wealthy can self-insure by relying on their substantial assets. These households will purchase long-term care insurance only if they wish to reduce uncertainty as to the amount of their eventual bequest. But few are so fortunate. Thus, most households in this group face two options: 1) buy long-term care insurance to offset some of the costs; or 2) self-insure by conserving housing equity until the end of life (for those with fewer financial resources).

Each strategy has advantages and disadvantages. Insurance will dramatically reduce, but not eliminate, the uncertainty around long-term care expenses. These policies often specify a maximum number of years of care, exposing the household to what may be a small risk of exceeding that period. Unanticipated increases in the cost of long-term care may result in policy benefits that are insufficient to cover the full cost of care. And sometimes the household may be unable to continue coverage if the insurer exercises the right contained in many policies to increase premiums.

Paying for long-term care has no "one-size-fits-all" solution.

Relying on the sale of the house to cover long-term care expenditures, which seems like an ideal hedge since the household's demand for housing drops to zero when the last member enters a nursing home, is also a less than perfect solution. If one spouse is institutionalized while the other is alive, the sale of the house will require the community spouse to move to rented accommodation. If one spouse wishes to continue to live in the house, the most the house can yield is the amount obtainable on a reverse mortgage. Even if the house is unencumbered and available for sale, in some parts of the country the proceeds may be insufficient to cover an extended stay in care.

The Middle Third. The middle third of households have non-housing assets that range from $22,000 to about $200,000. Many in this group might benefit from long-term care insurance. Insurance could ensure them access to a non-Medicaid nursing home, prevent them from having to run down their financial resources plus their home equity, and protect their assets for their children. The hurdle for many of these households, however, may be the price. The median income of this middle group is $32,000, so paying $3,500 per person per year may seem insurmountable. And, as mentioned above, most in the middle group will be discouraged from buying even a perfectly designed long-term care policy because of the presence of Medicaid.

None of the costs of long-term care are included in the NRRI results presented above. The following section attempts to quantify how the potential for long-term care expenditures affects households' ability to maintain their pre-retirement non-health-related spending.

The NRRI and Long-Term Care Expenses

The approach for incorporating long-term care into the NRRI varies by wealth group. For households in the bottom third, the assumption is that the prospect for long-term care expenditures does not alter their behavior. These households plan to rely on Medicaid. As a result, they continue to take out a reverse mortgage on their home, annuitize that withdrawal, and use the proceeds to support their general consumption during retirement. Thus, the NRRI for the bottom third of households is unaffected by the prospect of long-term care.

For the remaining two thirds of the wealth distribution, the analysis considers the impact of two alternative strategies: 1) purchasing long-term care insurance, and 2) refraining from taking a reverse mortgage so that housing equity is potentially available to fund long-term care. According to the life-cycle model of savings behavior, a household that anticipates using part of its post-retirement income to purchase long-term care insurance or earmarking housing equity for long-term care will plan for lower consumption both before and after retirement than otherwise similar households. In the NRRI framework, this option means changing the target replacement rates for the top two thirds to take account of each of the above strategies and then calculating the percent of households 'at risk' of failing to meet the revised targets.

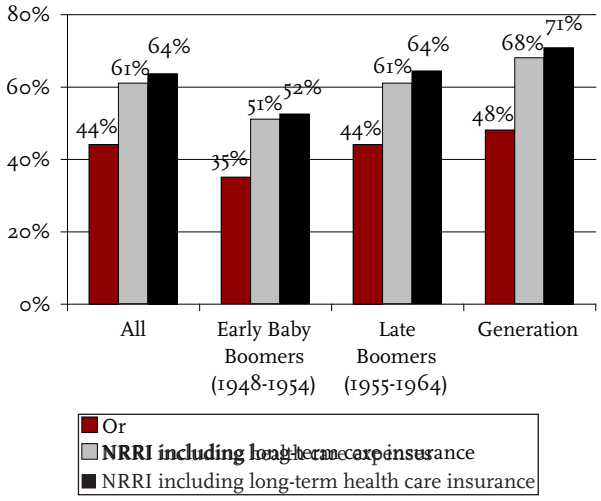
Purchasing Long-Term Care Insurance

In order to calculate the effect of purchasing long-term care insurance on the NRRI, it is necessary to calculate new target replacement rates that enable households to smooth their consumption (excluding out-of-pocket spending for health care and long-term care insurance) over their lifetime. This calculation first requires removing out-of-pocket health care spending both before and after retirement and the cost of long-term care insurance after retirement.[23] We have assumed annual premiums for long-term care insurance of $3,500 for a comprehensive policy and calculated the value of an annuity needed to cover all premiums payable in retirement.[24] We then subtract this annuity amount from lifetime resources, and recalculate target replacement rates. These targets are lower than in the base-case NRRI because two major expenditure items have been excluded. The next step is to add to these targets the amount necessary to cover retiree health care expenses and long-term care expenses in retirement. The income required to cover the costs of health care and long-term care insurance is then added to the numerator of the target replacement rates to derive the new targets.

An example might help. In the original NRRI, the target replacement rate for a two-earner couple in the middle third of the income distribution was 76 percent. When that same couple smoothes its non-health care consumption, the target replacement rate initially drops to 70 percent.[25] When the couple smoothes its consumption excluding health care and the cost of long-term care insurance, the target drops to 68 percent. Adding the income required to cover incremental retiree health care expenses and to cover long-term care insurance then raises the combined target to 98 percent.[26] (See the Appendix for further details.)

To determine the percent 'at risk' involves comparing projected replacement rates for each household with the relevant target replacement rate including health care and long-term care insurance. As in the original NRRI analysis, those households that do not come within 10 percent of their target replacement rate are classified as 'at risk.' The results of this comparison are shown in Figure 2. Overall, explicitly including health care raises the percent of households 'at risk' – that is, not capable of maintaining their pre-

Figure 2. NRRI, Original, Explicitly Including Health Care Costs, and Explicitly Including Long-Term Care Insurance, 2006



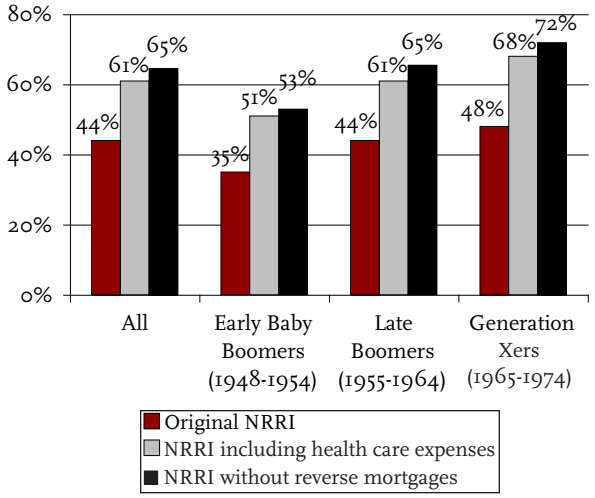
Source: Authors' calculations.

retirement standard of non-health care consumption – from 44 percent to 61 percent. Including the cost of long-term care insurance raises the number to 64 percent. Because the costs of long-term care insurance and other health costs are rising and the income system is contracting, a much larger percent of later cohorts will be 'at risk' than earlier ones.

Preserving Home Equity for Long-Term Care

The alternative strategy is to preserve home equity to cover the costs of long-term care. Within the context of the NRRI, this exercise requires two adjustments. First, the targets need to be changed to reflect the fact that the household will have fewer lifetime resources – because of not accessing home equity through a reverse mortgage – to devote to non-health consumption. Second, the annuitized proceeds from the reverse mortgage need to be deleted from retirement income. The results of this two-stage process are that 65 percent of households are 'at risk,' as shown in Figure 3 on the next page.

Figure 3. NRRI, Original, Explicitly Including Health Care Costs, and Using Home Equity to Pay for Long-Term Care, 2006



Source: Authors' calculations.

Conclusion

The potential need to cover large long-term care expenses in retirement poses a significant challenge for households. The chance of needing nursing home care is only one-third, but the cost of such care is very high. The situation varies based on a household's wealth level. For those in the bottom third of the wealth distribution, the most reasonable strategy is to rely on Medicaid. Those in the top third may be able to self-insure, but more likely they will need to either purchase long-term care insurance or rely on tapping their housing equity to pay for long-term care. Those in the middle third might benefit from long-term care insurance, but may find the price tag too steep, suggesting that they will plan to fall back on Medicaid if their assets are exhausted.

As with the earlier NRRI analysis of general retiree health care costs, explicitly incorporating long-term care costs into the NRRI raises the bar for retirement security by increasing the target replacement rates. The result is a progressive increase in the percentage of households 'at risk' from 44 percent in the original NRRI base case to 61 percent with the explicit recognition of general health costs to about 65 percent with long-term care costs. As with past NRRI analyses, these latest findings raise major concerns about the retirement security of baby boomers and succeeding generations.

APPENDIX

Incorporating Long-Term Care Insurance into the NRRI

In the NRRI, target replacement rates are the replacement rates which households need in retirement to maintain the same standard of living they enjoyed in their working years. This appendix explains how the target replacement rates change under two scenarios: 1) when households purchase long-term care insurance; and 2) when, instead, households preserve their home equity to cover potential long-term care costs.

Previous NRRI Targets

The original NRRI targets are based on a simplified life-cycle model in which households smooth their wage-indexed consumption across their lifetime. This means that households' real consumption rises during their working life in line with general increases in living standards measured by wage growth. This makes the targets consistent with the observed replacement rates from the *Survey of Consumer Finances* – which use a wage-indexed measure in the denominator. The original NRRI included earnings from employment, returns on investments, taxes, the purchase of a home with the aid of a mortgage, Social Security and defined benefit pension income. Households were assumed to save and borrow throughout their lives and the model used the current structure of federal, state and Social Security taxes.

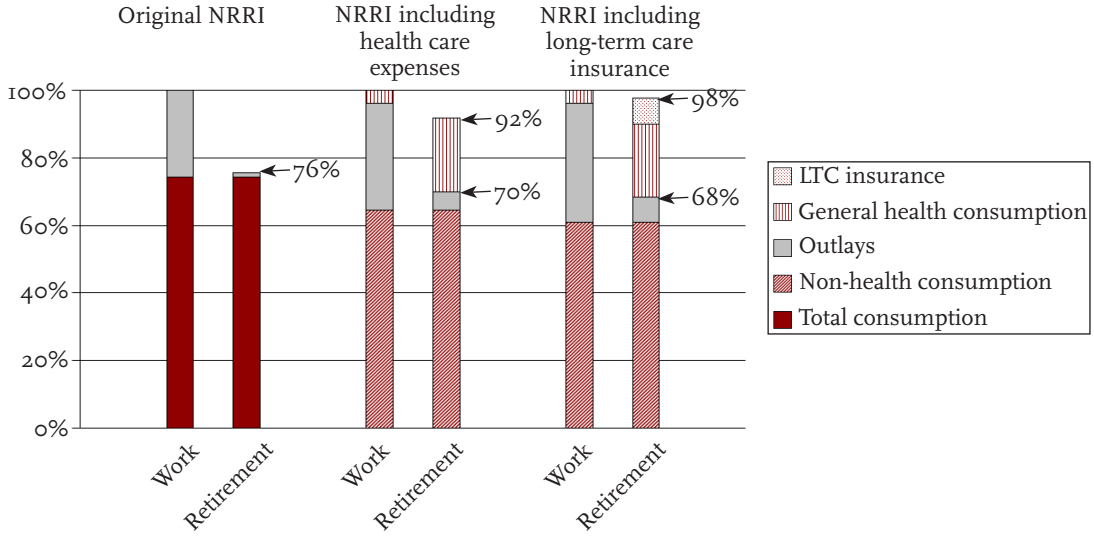
In 2008, an update to the NRRI explicitly incorporated health care expenditures. This exercise requires calculating new target replacement rates that allow households to smooth their non-out-of-pocket health care consumption over their lifetime. For this procedure, it is necessary to account for out-of-pocket health care spending both before and after retirement.

Figure A1 shows how both health care and long-term care expenditures affect the target replacement rates. The first two panels show, for a two-earner household in the middle of the income distribution, the original NRRI target replacement rate and that which incorporates out-of-pocket health expenditures (excluding long-term care insurance). The original replacement rate is 76 percent. After factoring in expected out-of-pocket health care expenditures, the non-health care component of the target falls to 70 percent as the household is expected to lower its non-health care consumption throughout its entire life. However the addition of the amount necessary to cover health care expenditures in retirement increases the target replacement rate to 92 percent.

Incorporating Long-Term Care Insurance

Procedurally, calculating the effect of long-term care insurance on the NRRI is identical to calculating the effect of out-of-pocket health care spending. It is necessary to calculate new targets that allow households to smooth their non-health care consumption throughout their lifetime, taking into account expecta-

Figure A1. Effect of Long-Term Care Insurance on Target Replacement Rate for Medium-Income Two-Earner Couples Born 1960-1962



Note: In accordance with the baseline assumption used in the NRRI, the couples in this example retire at age 65, between the years 2025-2027. In addition, the couples in this example have a defined benefit pension plan.
Source: Authors' calculations.

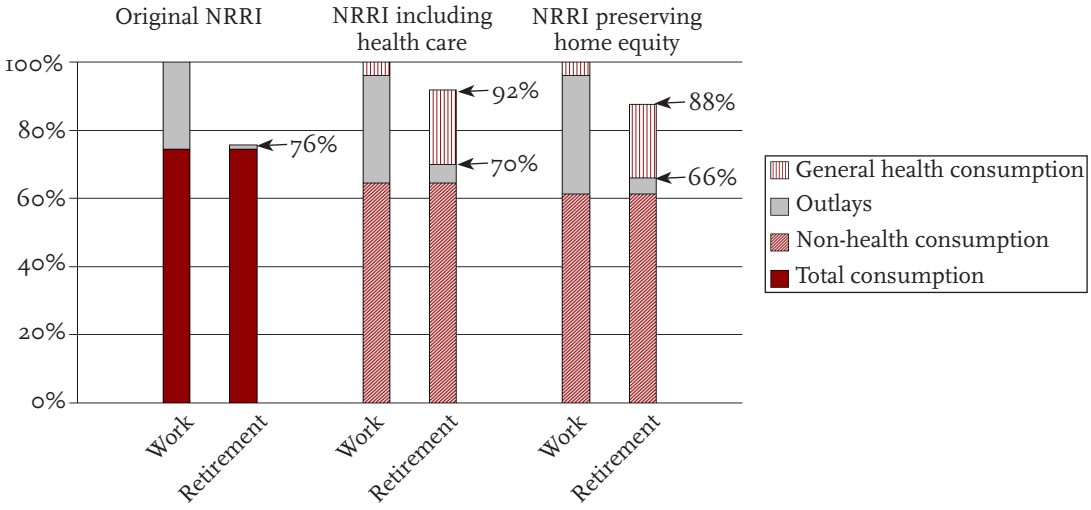
tions of out-of-pocket health care expenditures and long-term care insurance. The result can be shown in two steps which are depicted in the right panel of Figure A1. First, the addition of long-term care insurance to health expenditures in retirement leads to a further reduction in non-health care consumption (moving the non-health care component of the target from 70 to 68 percent). Second, after adding the expected cost of long-term care insurance and out-of-pocket health care spending in retirement, the target replacement rate jumps to 98 percent, which is higher than both the original NRRI (76 percent) and the basic health NRRI (92 percent).

Preserving Home Equity for Long-Term Care

Calculating the effect on the NRRI of preserving home equity for long-term care is similar to the previous exercises of incorporating out-of-pocket health care spending and long-term care insurance. Since households must preserve home equity, they no longer take out a reverse mortgage, which will lower their consumption both before and after retirement. Therefore, it is necessary to calculate new targets that allow households to smooth their consumption throughout their lifetime accounting for no reverse mortgage and for out-of-pocket health care expenditures. The result of this exercise can be shown in two steps, which are depicted in the right panel of Figure A2.

First, removing the proceeds from a reverse mortgage leads a household to reduce its non-health consumption (moving the non-health care component of the target from 70 to 66 percent). Second, after accounting for this loss of retirement income, in addition to out-of-pocket health care spending in retirement, the target replacement rate rises to 88 percent. This new target, while higher than the original NRRI target of 76 percent, is lower than the basic health target of 92 percent and the long-term care target of 98 percent. Despite having such different target rates, the percent of households 'at risk' in this scenario and in the long-term care insurance scenario are quite similar. The reason is that in the current scenario in which home equity is preserved, the proceeds from a reverse mortgage are not available. So while the target is lower, there is less money available to the household to meet that target.

Figure A2. Effect of Preserving Home Equity on Target Replacement Rate for Medium-Income Two-Earner Couples Born 1960-1962



Note: In accordance with the baseline assumption used in the NRRI, the couples in this example retire at age 65, between the years 2025-2027. In addition, the couples in this example have a defined benefit pension plan.
Source: Authors' calculations.

Endnotes

1 For more detail on the changing retirement landscape, see Center for Retirement Research at Boston College (2006).

2 The original NRRI assumes that households purchase a single consumption good that includes both health and non-health care elements and that the marginal utility of consumption does not vary with age. The approach taken by this *brief* assumes that households smooth non-health care consumption instead of total consumption. For a more detailed analysis of this technique see endnote 4 in Munnell et al. (2008).

3 This *brief* treats out-of-pocket medical expenses as exogenous — medical expenses are required each year at the average level — similar to Kotlikoff (1988); Hubbard, Skinner, and Zeldes (1995); and Palumbo (1999). In fact, an important portion of the out-of-pocket expenses at retirement is derived from Medicare premiums, which can be considered exogenous to a particular household. A breakdown of the out-of-pocket medical expenses highlights the importance of exogenous Medicare premiums: medical expenses of a household that spends only half of the copayments and other expenses are about 70 percent of those of a household that spends the average copayments and other expenses.

4 Fidelity Investments (2007); and Fronstin, Salisbury, and VanDerhei (2008).

5 For example, in 2005, about 1.3 million older Americans received paid care in their community. Another 5 to 6 million seniors in the community received unpaid care from family or friends (Johnson and Uccello 2005).

6 Metlife Mature Market Institute (2008).

7 Centers for Medicare and Medicaid Services (2008).

8 Medicare is an important provider of skilled home health services for the elderly, but covers only temporary stays in nursing homes that follow hospitalizations.

9 This discussion ignores the substantial amount of informal care donated by family and friends.

10 Brown and Finkelstein (2007).

11 Brown and Finkelstein (2007).

12 Brown and Finkelstein (2007).

13 McQueen (2008).

14 Brown and Finkelstein (2008).

15 Authors' calculations based on U.S. Board of Governors of the Federal Reserve System (2004).

16 Under Medicaid, the community spouse can retain only half of the couple's non-housing assets at the time the spouse enters a nursing home, up to a federally specified maximum ($104,400 in 2008, adjusted annually for inflation) or the state standard, whichever is greater (Centers for Medicare and Medicaid Services 2008). In terms of income, the community spouse can keep only one-half of the couple's income. In many instances, very little of the income will be in the wife's name. Thus, if the husband enters the nursing home, the wife will be left with little income.

17 Weissert and Scanlon (1985) find that receiving Medicaid support significantly increases the probability of having an unfavorable discharge status (such as death or another nursing home). Also see Norton (2000) for a comprehensive survey of quality of care models.

18 Long Term Care Partners (2008). The premiums used in the analysis are based on the Federal Long Term Care Insurance Program, which is designed for Federal employees. These premiums are representative of what can be found in the private market. On the one hand, however, the federal program provides slightly better value; on the other, they do not provide a spousal discount as do private companies. Also, insurance companies have limited rights to change the annual premiums (Brown and Finkelstein 2007).

19 Long Term Care Partners (2008). Even a five-percent rider does not provide full protection, because long-term care costs may increase even more rapidly.

20 U.S. Social Security Administration (2008).

21 National Center for Health Statistics (2008).

22 The institutionalized spouse can also transfer some of his income back to the community spouse so long as the community spouse's income is below the Minimum Monthly Maintenance Needs Allowance, which in January 2008 varied between $1,711 and $2,610 depending on the state (Centers for Medicare and Medicaid Services 2008).

23 In order to explicitly add medical spending to the NRRI — which is based on replacement rates — this calculation assumes level health care expenditure during retirement. In reality, out-of-pocket health care costs are likely to rise with age after retirement, and with proximity to death. The effect on the present value of medical costs is ambiguous. If most costs are incurred at advanced ages, it reduces their present value. But the household may wish to set aside additional funds to take advantage of the improvements in medical technology that may have occurred by the time major medical care is required.

24 See endnote 18.

25 As in the original NRRI, the amount of income to maintain level consumption includes money to cover taxes.

26 Because health care costs are rising so rapidly, targets that consider health care explicitly vary by cohort. The above number refers to a couple born between 1960 and 1962.

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The Center for Retirement Research at Boston College was established in 1998 through a grant from the Social Security Administration. The Center's mission is to produce first-class research and forge a strong link between the academic community and decision makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

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Contact Information

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-0191
E-mail: crr@bc.edu
Website: http://www.bc.edu/crr

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