Medicare Gaps and Widow Poverty

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Abstract

Several categories of medical expenditures are not covered by Medicare, including prescription drugs, most nursing home stays, and extended hospital visits. Out-of-pocket costs for these items can be substantial, and what's more, they are likely to be concentrated at the end of life. At the same time, it is well documented that poverty is 3-4 times more common among widows than among similarly aged married women. This study examines the potential link between these two phenomena, asking the question: to what extent do out-of-pocket health care costs of a dying spouse affect the financial position of the survivor? We find that out-of-pocket medical spending increases substantially just prior to death, and that these expenditures are large relative to income for a large share of elderly couples. Simulations investigate the extent to which expansions in insurance coverage to include nursing home care or prescription drug coverage could improve the financial well-being of the surviving spouse.

Authors' Acknowledgements

I. INTRODUCTION

There have been tremendous improvements in the economic status of the elderly during the last 50 years. Today, the old-age poverty rate is less than one-third of what it was in the middle of the 20th Century. Yet despite these declines, poverty rates among selected groups remain high. Of particular note are the disproportionately high rates of poverty for widows. For the last 30 or more years, the poverty rate for elderly widows has persistently been three to four times higher than that for elderly married women. While policy makers have repeatedly expressed concern about these high rates, successful policy prescriptions have yet to be adopted. To date the focus of policy makers has been on effecting changes in sources of income, particularly through changes in pension and Social Security regulations. Here we provide an alternative explanation that may operate in concert with changes in income: the potential for couples to spend substantial portions of their resources on the health care of a sick or dying spouse, leaving the surviving spouse in a precarious financial situation.

The potential for large out-of-pocket medical expenditures was reduced greatly by the establishment of the Medicare program in 1965. Today, nearly all elderly have medical coverage through Medicare. Unfortunately, Medicare has sizable gaps; most notably it fails to cover extended hospital stays, prescription drugs, or most long-term care. Although many individuals have health insurance to supplement Medicare, a sizable portion of the population is left vulnerable to catastrophic expenditures, expenditures which frequently occur in the months just prior to death. These costs may be sufficiently great so as to affect the poverty status of the surviving spouse. Although this hypothesis has never been examined directly, it is of substantial current interest, particularly as policy makers consider modernizing the Medicare.

In this paper we examine the distribution of medical out-of-pocket (MOOP) expenditures, the extent to which supplemental insurance coverage (medigap) reduces MOOP spending, and the magnitude of MOOP spending relative to income. We then focus on the effects of these expenditures on the financial well-being of the surviving spouse and simulate the impact of changes in Medicare coverage to look at the potential for improving the financial outcome for widows. We find that MOOP expenditures per dying individual are substantial, averaging $5,752 over the last year of life. These expenditures are approximately 40 to 50 percent greater than the expenditures made during the same period by similarly aged people who did not die during our window of observation. For lower income elderly, MOOP expenditures are very large relative to income and thus have the potential to have a substantial negative effect on the finances of the surviving spouse. Simulations imply that a significant amount of the decline in the financial well-being of the surviving spouse can be attributed to the out-of-pocket medical costs accruing during the decedent's last illness. We therefore argue that such expenses, and the underlying gaps in Medicare, should play a prominent role in policy discussions.

Our study proceeds as follows. Section II provides background information on alternative explanations for the high poverty rate of widows and describes the coverage provided by the Medicare program. Section III discusses the Asset and Health Dynamics Among the Oldest Old (AHEAD) cohort of the Health and Retirement Study, the data set we use for our analysis. The empirical analyses of MOOP expenditures and other factors affecting the finances of the surviving spouse are contained in sections IV and V. The final section summarizes the findings.

II. BACKGROUND

Several explanations for disproportionately high poverty among widows have been advanced in the literature, the most widely cited of which points to the potential impact of

differential mortality. Because life expectancy is positively correlated with income, husbands in poor families will die at younger ages than husbands in rich families. At a given age then, women who are widowed had been in poorer families than those who remain married and thus have higher poverty rates (Holden, Burkhauser, and Myers, 1986; Weir, Willis, and Sevak, 2000).

A second explanation focuses on the obvious: a fall in income following the death of a spouse. By law, Social Security benefits are reduced (typically by one-third) when one spouse dies while the poverty line falls by just over 20 percent.[1] This discrepancy likely leads to those with joint incomes near poverty line while married, to realize income below the poverty line in widowhood. Poverty stemming from this systematic change could be rectified by changing the Social Security benefit formula (Burkhauser and Smeeding, 1994). Similarly, private pensions often provide income only for the life of the covered worker and a widow could thus lose a potentially important component of income. Even pensions with provisions for a survivor typically have a reduction in payments when one spouse dies.[2] Finally, if the deceased spouse had been employed, the earnings stream from this source will obviously end. Although we know of no study that has examined the changes in the various components of *income* associated with widowhood, Hurd (1990) examines changes in the components of *wealth* including changes in Social Security and pension wealth. His estimates suggest that 40-50 percent of the fall in wealth associated with the death of a spouse is due to reductions in Social Security, 15 percent to changes in pension income, and 10-15 percent to changes in bequeathable wealth, including housing wealth. This latter dimension of the decline in

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[1] Each spouse in a married couple has the option of collecting Social Security based on their own lifetime earnings history or receiving benefits equal to one-half of those of their partner. After the death of the first spouse, the survivor will either continue to receive benefits based on their own earnings record or can choose to collect the amount due the deceased spouse. Few women of the cohort that we study have a sufficient earnings history to collect Social Security based on their own employment. The couple's benefit is therefore likely to be equal to 150 percent of the primary insurance amount of the husband and to fall to 100 percent of this amount at the death of either spouse. Thus this important source of income typically falls by one-third while the needs standard, as defined by the poverty line, falls by just 20 percent.

[2] Policy makers have long recognized the potential deleterious effects of single life pensions. Both ERISA and REACT represent legislative attempts to encourage the use joint and survivor pensions over single life pensions. We know of no study that has investigated the success of these policies.

wealth is obviously not programmatic but could be due to bequests to non-spousal heirs, funeral and burial costs, or as we propose here, medical expenses incurred by the deceased.

Previous studies have shown that *Medicare* expenditures are highly concentrated near death (Garber, MaCurdy, and McClellan, 1998). Medicare spending on people in their last year of life accounts for 27 percent of all Medicare spending, and half of all Medicare expenditures in the last year of life occur within the last 60 days. Those near death have Medicare spending that is roughly six times larger than people who are not in their last year of life (Lubitz and Riley, 1993; Hoover et al., 2002).

While Medicare covers nearly all elderly, providing insurance against many costly procedures and services, it does not cover all potential medical costs. The most relevant cost-sharing components for the majority of elderly are a $100 deductible for outpatient (Part B) care and a 20 percent coinsurance rate on subsequent outpatient expenditures.[3] Because Part B covers doctor visits, nearly all elderly incurred some out-of-pocket expenditure on their way to meeting the deductible.[4]

Of perhaps greater importance than the $100 deductible or even the 20 percent copayment is the failure of Medicare to cover many potentially catastrophic expenses. These extremely large expenditures can come through several avenues. First, Medicare does not cover all hospital expenditures. Individuals are responsible for a $840 deductible (in 2003) per hospital admission. After that, Medicare pays the entire cost of the hospital stay for stays up to 60 days. From days 61-90 individuals pay a $210 per day copayment, and from 91-150 a $420 copayment. Beyond day 150, Medicare pays nothing towards medical bills. Although few individuals ever face such

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[3] The Medicare program consists of two parts, parts A and B. Part A of Medicare covers hospital expenses and is available without charge to those who have paid into the system during their working lives or who have spouses who are covered. Part B, broadly speaking, covers doctor visits. Enrollees pay a premium to purchase Part B coverage. The premium is set to equal just one-quarter of the actuarial value of the coverage. Approximately 95 percent of those with Part A coverage also have part B coverage (Social Security Administration, 2003).
[4] In wave 1 of AHEAD, 90 percent of respondents had at least one visit to a doctor's office (Hurd and McGarry, 1997).

extended stays, this lack of catastrophic insurance can leave seriously ill individuals with substantial medical bills. Two "self-paid" months of inpatient care could approach $50,000.

Second, and currently of great concern in policy circles, Medicare lacks a prescription drug benefit. At a time when drugs are being prescribed with increasing frequency, this omission can be costly. Data from the 1996 Medicare Current Beneficiary Survey show that 45 percent of total prescription drug expenditures were paid for out-of-pocket while only 4 percent were covered by Medicare (Liu, et al., 2000). Furthermore, average out-of-pocket spending on prescription drugs among Medicare population is estimated to be $1,000 (in 2003). Treatment with some drugs can run into the tens of thousands of dollars per year, with 4 percent of Medicare beneficiaries spending $4,000 or more out of pocket on prescription drugs in 2003 (Kaiser, 2003).

Finally, and perhaps most importantly, Medicare typically does not cover the majority of long-term care needs. Nursing homes and home health care costs can be large, with nursing homes averaging over $60,000 per year in 2002 (MetLife, 2002), most of which is paid for through out-of-pocket spending or Medicaid.[5] Because of these gaps in Medicare coverage, there is a genuine risk that a severely ill Medicare beneficiary could incur substantial MOOP expenditures, perhaps of a magnitude sufficient to eliminate the savings of a couple and jeopardize the financial well-being of the surviving spouse.

Fortunately, not all elderly are left exposed to these potentially catastrophic expenditures. For the poor elderly additional assistance is available through the Medicaid program.[6] Medicaid provides coverage for most of the gaps in Medicare benefits including coverage of long-term care. Those who are not eligible for Medicaid may purchase private insurance (medigap) to fill in these holes or may receive additional insurance through a former employer as part of a retiree benefits

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[5] In 1996, 41 percent of nursing home expenses were paid for by Medicaid and 32 percent with out-of-pocket funds (Liu, et al, 2000).

package. While medigap plans vary in the specific coverage they provide, all plans provide coverage for hospital copayments for days 61-150, some subsequent coverage, and the coinsurance for doctor visits.[7] Three of the ten standardized medigap plans cover prescription drugs, but only up to a specified yearly maximum. None of these medigap policies cover long-term care needs. Long-term care coverage is available through special long-term care insurance policies, but only ten percent or so of the elderly have long term care insurance (Finkelstein and McGarry, 2003). Thus, although numerous forms of additional insurance exist, many elderly still face the possibility of substantial uncovered health expenditures.

Recent estimates suggest that MOOP spending in the last year of life is very high, averaging $6,144 (scaled to 2003 dollars) for those near to death compared to $1,935 who survive at least one year (Hoover, et al., 2002). Furthermore, these out-of-pocket expenditures account for approximately 18 percent of all medical costs in the last year of life (Hogan, et al., 2001), suggesting that there is a large uninsured component.

The 1995 National Academy of Sciences report assessing the current poverty definition argued that MOOP expenditures should be subtracted from income when measuring poverty (Citro and Michael, 1995). Given that MOOP expenditures are particularly high among the elderly, this change would have substantial effects on estimated poverty rates for older populations. One study has concluded that subtracting MOOP expenditures from income would lead to elderly poverty rates that are nearly twice as high as the current approach used by the Census Bureau (Johnson and Smeeding, 2000). Thus, even if the income of a surviving spouse remains above the poverty line, her true standard of living, based on income available after medical bills are paid, may be much

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[6] Individuals are eligible to enroll in Medicaid if they have sufficiently low income and assets. The exact levels can vary by state. In states with medically needy programs, individuals can become eligible for Medicaid if their MOOP expenditures are sufficiently large even if their financial resources exceed the limits set by the state.
[7] Medigap plans are strictly regulated. Insurers are limited to offering plans from a set of 10 standardized plans that include specified levels of coverage.

lower. Following a definition similar to that recommended by the NAS Panel, we explore this issue further.

III. DATA

The data requirements for this study are extensive. Analysis of the role of MOOP expenditures on the financial well-being of the surviving spouse requires information on expenditures of the deceased spouse prior to his death and information on the income and wealth of both the couple and the surviving spouse. One therefore needs a panel data set with a sufficient number of elderly decedents and detailed information on income, wealth, and health care expenditures. The Health and Retirement Study (HRS) satisfies these requirements. HRS a panel survey that follows several cohorts of elderly and near elderly over time with interviews conducted approximately biennially. Because we focus on the role of Medicare, which is available to very few people under 65, we limit our sample to the original AHEAD cohort, and spouses or partners age 65 or older.[8] Analyses were conducted for a combined sample of men and women who lost a spouse because the sample size for widows or widowers alone was insufficient for a disaggregated examination. Respondents in the AHEAD sample were born in 1923 or earlier (or married to someone in that cohort) and were therefore nearly all eligible for Medicare at the initial interview in 1993.[9] When appropriately weighted, the sample is representative of the non-institutionalized population in this 70 year old or older age group in 1993.

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[8] Medicare also covers some of the disabled. In 2001 approximately 86 percent of those covered by Medicare were age 65 or over (Social Security Administration, 2003).
[9] In addition for being too young to qualify for Medicare at the start of the survey, respondents in the original HRS cohort (birth years 1931-1941) were not asked adequate questions on MOOP expenditures until 1996, thus limiting the widow of time for which we could capture spending.

The AHEAD cohort was re-interviewed in 1995, 1998, and 2000, and will be interviewed biennially thereafter; we use data from these first four waves.[10] Importantly for this paper, when a respondent dies, an "exit" interview is conducted to obtain information about the respondent's life since the most recent interview (including medical expenses) until the date of death. The person who completes this proxy interview is typically a spouse, provided the spouse is still alive. If the surviving spouse is unavailable the proxy respondent is a knowledgeable family member or friend. Presently exit interviews are available for 1995, 1998 and 2000. By using all available waves and exit interviews we are able to examine the pattern of spending for deaths occurring between 1993 and 1995, 1995 and 1998, 1998 and 2000.

AHEAD contains comprehensive information on income, wealth, and health status of respondents. Of particular importance is the measurement of MOOP expenditures. The wording of these questions varies slightly across waves, becoming more detailed over time. In 1993, respondents are asked to report MOOP spending in two categories: nursing home expenses and all other health care costs.[11] In 1995, 1998 and 2000 the spending categories are disaggregated into hospital and nursing home expenditures, doctor/outpatient bills, prescription drug expenses, and other medically related services such as adult day care and rehabilitation services. Exit interviews also ask about hospice care. To these expenditures we add any private health insurance premiums and Medicare Part B premiums.[12] It should be emphasized that these are not *total medical*

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[10] An early release of data is available for 2002. This wave contains more detailed categories of MOOP expenditures than previous interviews and our investigation suggests that this change in questions severely hampers any attempted comparison.

[11] In the first wave of the survey expenditures for married couples are measured jointly and the survey does not identify which spouse incurred the costs. To estimate a per person expenditure we simply assign half of the couple's total MOOP expenditures to each spouse. When focusing on married couples in which one spouse died between wave 1 and wave 2, we will underestimate the MOOP expenditures of the decedent if his health care costs comprised a greater than 50 percent share of the total. Data for other years do not suffer from this limitation.

[12] For the poor elderly eligible for Medicaid, Medicare Part B premiums are paid for by Medicaid. We thus do not add in the cost of Medicare Part B for those reporting eligibility for Medicaid.

expenditures, which would include amounts paid by Medicare and other payers, but rather the burden placed on the elderly individual and his spouse.

The data on MOOP expenditures reported in AHEAD appear to be of high quality. Specifically, reports of MOOP in wave 2 of the HRS, which used a very similar set of questions as AHEAD, correspond closely with reports in the National Medical Expenditures Survey (NMES), which is the gold standard for estimates of MOOP expenditures (Hill and Mathiowetz, 2000). For example, the proportion reporting some positive amount of MOOP spending was 33.0 percent in NMES and 32.5 percent in HRS, and the proportion with $1-$1,000 in MOOP spending was 52.4 percent in NMES and 58.8 percent in HRS.

The length of time covered by the AHEAD expenditure questions varies somewhat across waves. In 1993 respondents were asked about expenses in the previous year. In subsequent surveys they were questioned about the total incurred since the previous interview. The 1995 interview thus covered two years of expenses, 1998 three years, and 2000 two years. For comparability we scale expenditures at each interview to correspond to a single year.[13] For exit interviews the adjustment is less straightforward. In these cases the time covered by the survey will vary by the date of death. We use two alternative methods, which we detail below, to deal with this difference.

Because AHEAD targets an older cohort, mortality is high. The left columns of table 1 show the number of deaths between adjacent waves for people who were and were not married in 1993. We require that an individual be observed in at least two interviews to be included in the sample. Over the seven-year sample period there are a total of 2,512 people who died, 1,138 of whom were married. Our analyses will compare the MOOP expenditures of these 1,138 married decedents with the expenditures of their surviving spouses. We will, on occasion, draw comparisons to the

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[13] We converted the reported amounts to annual values because it makes comparisons to annual income and poverty thresholds more straightforward. That is, if z is the number of months since the last interview, we multiple the amount of MOOP spending reported in the exit interview by ($12/z$).

expenditures of single individuals and couples in which neither spouse died. The number of observations in these latter two categories (rightmost columns in table 1) is substantially larger, consisting of 2,000 to 3,000 per year.

IV. OUT-OF-POCKET MEDICAL EXPENDITURES IN THE LAST YEARS OF LIFE

Our focus is on expenditures just before death. Because AHEAD decedents die at various points during the 1993-2000 interval, we organize the data around the time of death rather than the survey year. We label as wave k the interview immediately following the death, either the exit interview for the decedent or the standard biennial survey for the survivor. We refer to the interview preceding this exit/biennial interview as period $k-1$, and the interview following the wave k interview (available for survivors only) as time $k+1$. Interviews taking place two periods before and two periods after are denoted as $k-2$ and $k+2$. Thus for a respondent who dies between 1995 and 1998, the 1998 exit interview will provide the time k information, the 1995 interview provides the time $k-1$ data, and 1993 refers to time $k-2$. His spouse will have time k information reported in the ordinary1998 interview, $k-1$ at 1995, $k-2$ at 1993, and $k+1$ in 2000. Because the year of death differs across the sample (and because of attrition), not all respondents will have been observed in each of the periods from $k-2$ to $k+2$; that is, the panel is not balanced. An individual whose spouse dies between 1998 and 2000, for instance, will not contribute observations for the periods $k+1$ and $k+2$ but will contribute to the $k-2$ and $k-1$ data. The number of observations thus varies across time periods, although we require that all sample members be observed at least at time $k-1$ and time k. Moreover, because there are typically two calendar years between each wave, wave $k \pm n$ is roughly $n*2$ years from the last year of life. For example, expenditures in wave $k-2$ correspond to roughly 4 years prior to the last year of life, or 5 years from death.

As noted earlier, comparing MOOP expenditures for decedents with those of the survivors involves an additional adjustment to the data. Because decedents could have died at any point between the two waves, the time period over which their medical expenses were incurred can vary from as little as one day to as much as three years. In the empirical work that follows we use two alternative methods to construct a comparison. In the first, we simply compare the actual exit interview report with the one-year amount for the survivor. Most surveys are administered two years apart. If the mortality hazard is flat across this interval then the expected value of the time span covered by the exit interview is one year (the midpoint of the two year survey interval), roughly equal to the average of the one-year reports for their surviving spouses. In fact, the average time for which the respondent survived is 14.7 months so this measure is not too far off, on average. Our second measure scales the expenditures of the survivor to match the length of time for which her deceased spouse survived: if the decedent lived for 18 months during the period, we multiply the survivor's expenditures by 18/12 or 1.5.[14]

Panel A of table 2 shows the comparison of average MOOP expenditures for survivors and decedents by years before and after death. The values in the row labeled *k* are for our first method of comparison wherein the MOOP expenditures are annualized expenditures for the survivor and actual reports for the decedent. In the row labeled *k**, survivor expenditures are scaled to match the time span relevant for the deceased spouse as described above. For surviving spouses there is a gradual increase over time as one might expect if health deteriorates with age, but the amounts across years are fairly comparable. In period *k-2* the average annual MOOP expenditures is $2,315. By *k+1* it has risen to $3,147.

In contrast to the relatively slow but steady increase in the MOOP expenditures for survivors, the expenditures for decedents show a striking increase as the end of life nears, more than

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[14] The alternative is to scale the decedent's expenditures to one year. We do not choose this option because we want a

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doubling from time *k-2* to time *k*. Annual expenditures at time *k-2* are $2,504 for decedents, but by time *k-1* have risen to $3,276, already 40 percent higher than those for the survivors. This increase is followed by an even larger jump to $5,752 in the months just before death, an amount 70 percent higher than the similarly scaled value of $3,397 for their surviving spouses. This estimate is very similar to the estimate of MOOP in the last year of life of $5,955 (expressed in 2000 dollars) reported by Hoover et al. (2002) using the 1992-96 Medicare Current Beneficiary Survey and Medicare claims data.[15]

For comparison, in panel B we report the patterns of MOOP expenditures for couples in which neither spouse died during our sample period, and for singles (those who have remained single, widowed, or divorced throughout the survey) who likewise survive. Because there is no date of death to establish a "time *k*," we report expenditures simply by survey year. Again the means increase slightly over time likely due primarily to the aging of the sample. Married couples have average MOOP expenditures of $1,767 in 1993 and singles $1,476. These figures are $3,469 and $3,151 by 2002. (The relatively low spending in 1993 is likely due to the less detailed set of questions used in that year, as described earlier.) Thus, the expenditures of the surviving spouse in the decedent couples do not look substantially different from those of the intact couples.

Also included in the table are values for median expenditures. The substantially lower value of medians relative to means points to a positively skewed distribution. The medians show a much smaller difference in expenditures for the decedents relative to the survivors indicating that the majority of families are protected against catastrophic expenses, or alternatively did not make substantial use of uncovered services.

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measure of the actual out-of-pocket costs borne by the couple/survivor when we later assess economic well-being.
[15] Our finding of elevated MOOP spending near widowhood in the AHEAD is also consistent with recent estimates by Zick, Fan, and Chang (2003) using the Medical Expenditure Panel Survey, which examines new widows 40 and older over of a 2-year period.

Table 3a looks at the specific type of expenditure for decedents in each period. As the end of life nears, the pattern of spending changes substantially. In period *k-2* the largest expenditure components are insurance premiums and prescription drugs. By period *k*, nursing home/hospital care has far surpassed both prescription drug costs and insurance premiums. In fact, expenditures for these items are twice as large as average insurance premiums.[16]

The skewness of total MOOP expenditures is reflected in the skewness of expenditures for nursing home and hospital care; even in period *k*, the median decedent has zero nursing home/hospital expenditures, while the 95th percentile had nearly $15,000 in expenditures. With respect to prescription drug expenses, the 95th percentile had out-of-pocket expenses of $4,945. These results suggest that if MOOP expenditures of a deceased spouse are an important contributor to the poor financial status of his survivor, more complete coverage of nursing home, hospital care, and prescription drugs could help alleviate the problem.

For comparison, table 3b reports the distribution of expenses for the surviving spouses. (Appendix tables A and B show the corresponding amounts for surviving couples and singles.) There is a modest increase in nursing home, hospital, and physician services due to the aging of the sample. Insurance premiums are continually the largest component of MOOP spending. If this supplemental insurance is sold at an actuarially fair rate, then one would expect the benefits to approximately equal the premium costs on average.[17] Thus the large fraction of MOOP expenditures attributable to premiums is further evidence of the importance of the gaps in the Medicare program. Unsurprisingly, prescription drugs also remain a large expense suggesting that

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[16] Unfortunately AHEAD obtains only the combined amount spent on hospitals and nursing homes. Among Medicare beneficiaries 65 and older in 1999, out-of-pocket spending for long-term care ($28,928 million) was roughly six times the amount of out-of-pocket spending for combined inpatient and outpatient hospital services ($4,876 million) (Liu, Sharma, 2003). This leads us to believe that the vast majority of MOOP in this category is due to long-term care.
[17] Observed premiums will actually be lower than the actuarially fair value because some policies are subsidized by former or current employers so the premium reported by the respondent represents some fraction of the policy's cost.

while coverage of nursing homes and longer hospital stays would help those near death, the benefits of prescription drug coverage are likely to be more broad-based.[18]

Regression Analyses

To formalize the patterns depicted in the descriptive tables, we estimate a series of regressions that allow for a more systematic quantification of the changes in MOOP expenditures as the date of death approaches. The regression analyses also allow inclusion of control variables and investigation of the extent to which various factors may reduce spending. We focus specifically on the role of insurance. Elderly with insurance in addition to Medicare, either medigap insurance or long-term care insurance, have purchased this insurance in the belief that it will "protect" them from catastrophic expense. Similarly, individuals who are covered by Medicaid are likely to be sheltered from the adverse effect of medical expenditures.

The approach we use is similar to the one used in the program evaluation literature. The sample consists of all couples that were married in 1993; both the samples listed in column 1 (couples in which one spouse died) and column 3 (couples in which neither spouse died) of table 1. The unit of analysis is the couple-wave; if a couple is observed for all 4 waves, they contribute 4 observations. The standard error estimates allow for correlation within couples across waves (i.e., Huber-White sandwich estimates).

$$MOOP_{it} = \alpha + \sum_{k=-3}^{+2} \beta_k D_{it}^k + \beta_{Year} Year_t + \varepsilon_{it} \quad (1)$$

The baseline model is depicted in equation (1). The dependent variable is total MOOP spending for couple (not individual) i in wave t. The key covariates are dummy variables indicating

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[18] The analyses in tables 2 and 3 used all of the available data from each wave, which leads to an unbalanced panel. To examine the sensitivity to the unbalanced nature of the panel, all analyses were also conducted on the balanced panel of those who died between 1995 and 1998. For this sample, there is data on *k-1, k , k +1*, and *k+2*. All of the key patterns described above in the unbalanced panel also hold true for the balanced panel.

the "distance from death." D_{it}^k denotes the value of this dummy variable for a couple i at time t in

which the spouse dies in k waves. Thus, D_{it}^{-2} equals one if the current wave of observation is 2

waves before the wave of death, with death occurring in wave $k=0$. Data are available for at most

two waves after $k=0$ (for a respondent who dies between the first two waves) and at most three

waves prior to $k=0$ (for, a respondent who dies between the last two waves). The baseline model

also includes race/ethnicity (non-Hispanic white, non-Hispanic black, non-Hispanic others, and

Hispanics) and year dummies to account for systematic increases in MOOP over time.[19]

The first set of estimates of in table 4 are the regression analog of the estimates in table 2 for

couples that experienced a death, with the inclusion of year effects and the measure of MOOP being

that for the couple as a whole. Thus α is the year-adjusted average MOOP spending among couples

in which neither spouse died.

This specification is then augmented with controls for three types of insurance coverage:

Medicaid, medigap, and long-term care.[20] Medicare coverage alone is the omitted category.[21] All

three insurance indicators are measured as of the initial survey year, 1993. We examine the extent to

which the pattern of MOOP spending in the years before and after death differs for those with and

without insurance coverage by interacting the insurance indicator variables with D_{it}^k.

The baseline model implies that average MOOP spending among couples in which neither

spouse died is $6,740 (model 1 in table 4).[22] The β_k parameters demonstrate, at different points

prior to and following death, the difference in MOOP spending between couples in which one

spouse died and those that did not. Three *waves* prior to death – which is roughly seven *years* prior

to death – the surviving and decedent couples did not have significantly different MOOP spending;

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[19] Health care costs rose by 37 percent from 1992 to 2000 based on the CPI-medical care.
[20] Health insurance provided through a past or current employer is included in the medigap category.
[21] The 146 individuals who do not report *any* health insurance coverage are included in this group.

the coefficient estimate is small ($135) and insignificantly different from zero. Differences begin to arise two waves prior to death with a statistically significant difference of $692. MOOP increases further as death nears: the gap is $972 in the wave just prior to death, or nearly 15 percent (972/6740) higher than the amount spent by couples not experiencing a death. In the year of death, expenditures increase substantially, with a gap of $2,822, or 42 percent. Not surprisingly, a couple's MOOP spending declines substantially after death because there is only one person in the "couple." In fact, the estimate of -$3,270 for $\beta_{k=2}$ is almost exactly half of the spending by intact couples ($6,740), suggesting that the surviving widow's MOOP spending returns to the level it was prior to death.

Model (2) allows the estimates of β_k to vary by insurance type as measured at baseline in 1993. The direct effects of the insurance variables are also included, and we find that among all elderly couples, those with Medicaid coverage spend $1,580 less on MOOP. Those with medigap insurance actually have higher MOOP spending. Some of this higher spending is due to the fact that medigap premiums are part of MOOP spending, and these premiums are substantial, averaging roughly $1,300 per year (Table 3a).

Certainly the initial decision to purchase medigap insurance is likely to be a function of expected medical expenses. And moral hazard will play a roll in increasing service use once the policy is purchased. Here we seek only to assess the extent to which supplemental insurance is protective in the time leading up to death, when MOOP spending is particularly high. One would expect couples with some type of supplemental insurance to have higher MOOP than those without such insurance when both are healthy simply because the cost of the health insurance premium itself increases MOOP. But once couples begin to experience negative health events and increase their demand for health care, the "protective" effect of insurance becomes relevant and is most likely to

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[22] Recall that this figure is the total for both spouses whereas earlier values pertained to one respondent.

lead to lower MOOP for the insured couples. This hypothesis is indeed supported by our empirical results: We find no evidence that having long-term care insurance or medigap significantly lowers MOOP spending in the years prior to death, but spending in the year just prior to death is substantially lower among those with Medicaid coverage. Specifically, the interaction of Medicaid with D_{it}^0 ($4,228) fully offsets the direct effect of D_{it}^0 ($3,008). These estimates are robust to the exclusion of the interactions of medigap and long-term care indicators with D_{it}^k (not shown in tables). Medicaid clearly plays an important role in buffering the widow from the effects of large medical costs associated with a dying spouse.

V. MOOP EXPENDITURES AND WIDOW POVERTY

The estimates we have presented thus far document the dramatic increase in MOOP expenditures near death and therefore the potential for these expenditures to affect the financial well-being of the surviving widow. They do not, however, directly demonstrate how large an effect might be on the well-being of the surviving spouse in general, and on poverty rates in particular. Are these large MOOP expenditures accruing to those in the lower tail of the income distribution who may indeed suffer greatly? Or are the largest expenditures primarily being borne by those of substantial means, who may be choosing to purchase more costly care (e.g. private hospital rooms, more expensive nursing homes, elective surgery). In table 5 we begin to explore this question by examining the distribution of MOOP expenditures relative to income. Table 5 parallels table 2, but instead of total MOOP expenditures, the cells report the mean and median ratio of expenditures to income.[23] When both spouses are alive, income is defined as the joint income of the couple in the calendar year preceding the interview, and MOOP expenditures is the sum of the expenditures for

each spouse. For the time *k* income, we compare total MOOP expenditures of the couple to the income of just the surviving spouse. This provides a measure of the relative size of the health care burden as actually felt by the survivor given her new financial circumstances.[24]

As is shown in the table, the average ratio of expenditures to income rises sharply near death. Prior to death the mean ratio is 0.18 to 0.23 and the median ratio is 0.11 to 0.13. Thus, on average, these married couples spent approximately one-fifth of their incomes on health care. In period *k* one spouse has died, and expenditures increase while income decreases. The mean ratio of expenditures to income thus rises sharply to 0.51. The median also rises to 0.23.

Regardless of the overall level of income of the surviving spouse, MOOP expenditures equal to 20 percent or so of income are likely to affect. Unsurprisingly, once the spouse (and his expenditures) is gone, the ratio of MOOP expenditures to income returns to its initial level. The lower portion of the table reports the relevant statistics for those respondents who were married or single throughout the survey period. Expenditures as a fraction of income rises somewhat over time as the couples age, but the peak of 0.24 is substantially less than the peak of 0.50 reached for decedents.

Policy Simulations

Table 6 reports the poverty rates by year for our sample of couples in which one spouse dies. In the periods prior to death, the poverty rate using the standard Census Bureau definition is just 4

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[23] Goldman and Smith (2001) argue for using the ratio of the means (medians) rather than the mean (median) of the ratio so as to minimize the bias potentially introduced by measurement error in income. Their study uses the MCBS in which the income measure is substantially inferior to those in the HRS.

[24] Recall that MOOP expenditures for the survivor are measured on an annual basis, as is income. We will later calculate poverty rates for this sample based on yearly income. When doing so we use the poverty threshold for a single person. Because the deceased's needs are excluded from this measure, we also exclude his income. In some cases the decedent was alive for a portion of the year prior to the wave *k* interview of the survivor. We experimented with including any income reported to have accrued to the decedent but found this amount to have been reported as zero in nearly all cases. Including the few non-zero values did not substantively change our results (mean income increases from $31,411 to $31,583 and there is no change in the fraction poor).

percent, similar to published statistics (Dalaker and Proctor, 2000). In period k this fraction jumps dramatically to 12 percent and remains high in the two years following the death of a spouse.[25,26] These estimates highlight the fact that the majority of elderly people who are poor in widowhood were not poor while their spouses were alive, i.e. the sample of survivors experiencing poverty rates on the order of 12 percent are the same individuals who faced poverty rates of just 4 percent before their spouse died. Note that despite the difficulty in measuring income and poverty at time k, estimates of poverty in that year are quiet similar to those in the subsequent years.

To assess the importance of MOOP expenditures further up in the income distribution, we also examine the change in the fraction of couples with incomes below twice the relevant poverty line. This figure rises from 23 percent at time $k-2$ to 42 percent at time k and remains at this level for the rest of the sample period.

By this official definition of poverty, surviving spouses are indeed less well-off than intact couples. However, because this measure takes no account of medical or other expenditures in determining needs, it may convey a biased estimate of economic well-being. Following a recommendation of the National Academy of Sciences panel (Citro and Michael, 1995), we ask how our assessment of well-being would change if MOOP expenditures were subtracted from income. This definition of poverty implicitly assumes that all costs are paid for out of current income and fewer resources are thus available for consumption of other goods. With this change in the definition, the poverty rate in the periods prior to death ($k-2$ and $k-1$) rises from 4 percent to approximately 15 percent. This measure also shows a sharp spike in the year before death, reaching 35 percent. However, unlike the standard census poverty rate, this MOOP-adjusted rate actually

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[25] The sharp jump to 18 percent poor at time $k+2$ is due to a change in the sample composition. That is, balanced panel analysis conducted separately by year of death shows similar rises in poverty between time $k-1$ and k (i.e., a roughly tripling of the poverty rate), but then relatively stable estimates of poverty between time k, $k+1$, and $k+2$.
[26] These estimates are slightly lower than published statistics for widows due in large part to the inclusion of males (widowers) in the sample, yet they provide a vivid demonstration of the substantial disparity between the poverty rates of married couples and those who have lost a spouse.

falls substantially following the death of a spouse, from 35 percent to 22 percent. This fall reflects the abrupt decline in MOOP expenditures once the ill spouse dies.

To isolate more directly the potential effects of medical spending of the dying spouse, we simulate a MOOP-adjusted poverty rate but assuming that all of the MOOP expenditures of the dying spouse– but not those of the survivor – are covered by other sources (perhaps a "widow's insurance" that compensates surviving spouses for this burden.) That is, in calculating the MOOP-adjusted poverty rate we subtract from income only the MOOP spending of the surviving spouse. MOOP-adjusted poverty rates are much lower under this scenario: in the year of death, the MOOP-adjust rate is "just" 26 percent instead of 35 percent. Moreover, as one would expect, there is no recovery of the poverty rate in the period following death of the spouse.

Table 3 showed that prescription drug costs and hospital/nursing home expenditures were particularly large for decedents in the period prior to their deaths. Policy makers have recently passed legislation providing some prescription drug coverage through Medicare and are working to make long-term care insurance more affordable. (E.g. special tax treatment for premiums for some long-term care policies has already been established.). We thus simulate the effect of changes in Medicare coverage along these lines. First, we analyze the effect of prescription coverage by assuming that no elderly person faces any out-of-pocket cost for prescription drugs. This is a more generous expansion of coverage than has ever been seriously considered, but nonetheless conveys the potential impact of expansion in coverage on poverty. Second, we look at a Medicare expansion that would provide complete coverage for nursing home and hospital stays. This would be the equivalent of a generous long-term care policy and generous medigap plan. To implement these simulations we subtract MOOP expenditures from income as above, but exclude from MOOP expenditures, in turn, the cost of prescription drugs (row 4, Table 6) and then nursing home/hospital

stays (row 5 in Table 6).[27,28] With complete coverage of prescription drugs, poverty rates in the

years prior to death fall by 21-33 percent, from 14-15 percent (in row 2) to 10-11 percent (in row 4).

In the year of death and the subsequent two waves, the change is less dramatic, but still substantial,

falling by 10-18 percent. The change in the fraction of the sample with adjusted incomes below 200

percent of the poverty line also falls, but by substantially less, suggesting that the effect of covering

prescription drugs is largest in the lower tail.

Nursing home and long hospital stays are typically concentrated in the year just prior to

death. Therefore, it is not surprising that offering coverage for these services would only affect

poverty rates very near death. In periods *k-2* and *k-1*, the poverty rates are reduced by a single

percentage point, while in the year of death the effect is identical to that of prescription drug

coverage: the simulated poverty rate falls from 35 percent to 29 percent. This may be somewhat

surprising given the very high cost of long-term care. Thus, despite the much higher cost of nursing

home care relative to prescription drugs, coverage of prescription drugs affects many more

individuals and thus has an equally large effect on aggregate poverty measures.[29]

VI. SUMMARY AND DISCUSSION

The Medicare program has been a tremendous success and is extremely popular (Blendon,

Brodie, and Benson, 1997). However, it does not provide full coverage for all types of care, most

notably very long hospital stays, prescription drugs, or most long-term care needs. These gaps leave

many elderly vulnerable to potentially large out-of-pocket expenditures. Elderly may purchase

supplemental insurance to cover these expenses, but the premiums for these insurance plans are

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[27] In 1993, disaggregated expenditures are not available so we assume prescription drugs and nursing home/hospital out-of-pocket expenses are the same portion of total MOOP expenditures that they are in 1995.
[28] Note that this is a partial effect; we ignore the likely decrease in the purchase of private insurance coverage and hence premiums that would accompany an expansion of the Medicare program. This reduction would be expected to lower the MOOP-adjusted poverty rate even further.
[29] Among those who died between 1998 and 2000, 29 percent were residing in nursing homes at the time of their death.

often quite costly and coverage may still be incomplete.[30] Furthermore, MOOP expenditures are likely to be largest near death, when negative health shocks are most common. Our study complements previous analyses by focusing on spending near death and shows that out-of-pocket spending averages roughly $6,000 in the last year of life, an amount approximately 40-50 percent higher than at other points in old age. We also find that elderly with Medicaid are fully buffered from these elevated costs and experience no higher MOOP spending in the months and years just prior to death than in other years in old age. This result indicates that public programs do indeed have the potential to shelter individuals from dramatic spikes in health care expenditures near death.

To gauge more accurately the economic burden of these expenses, we compare MOOP spending to annual income. We find that MOOP spending near death, and even well before death, is quite high relative to income. Five to seven years prior to the death of a spouse, the average couple has MOOP spending equal to approximately 15 percent of their annual income. Three years prior to death this share rises to about 25 percent, and in the year of death MOOP spending is equal to half of total income, on average. If these expenditures are supported by drawing down assets, this can have a long-lasting impact on the financial well-being of the surviving spouse.

Previous studies have found that accounting for MOOP spending in poverty estimates, as recommended by the National Academy of Sciences' panel, leads to much higher poverty rates among the elderly (Johnson and Smeeding, 2000). We look at the potential effects of MOOP spending on poverty rates, specifically in the years just prior to death, and the likely lingering economic effects for surviving spouses. Because of the unusually high levels of out-of-pocket spending to assist a dying spouse, MOOP-adjusted poverty rates surge with the death of a spouse.

We show further that expanding public coverage to include prescription drugs and nursing home/long-term hospital stays would significantly lower out-of-pocket medical spending. Complete

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[30] Separate insurance policies are needed to cover long-term care needs and even those medigap policies that cover

coverage of prescription drugs expenditures would lower MOOP-adjusted poverty by 21-33 percent for elderly many years away from death, and by 10-18 percent among those in their last year of life. Alternatively, if nursing home and extended hospital stays were covered, we estimate that poverty rates would not be affected among those not near death, but the rates would be 17 percent lower for those in the last year of life. These estimates provide some guidance as to the potential effects of proposals to alter current programs.

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prescription drugs have limit on annual claims.

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Appendix Table A. MOOP Expenditures by Type for Married Couples (in 2000 dollars)

	Mean	Median	75th Percentile	95th Percentile
1995				
Physician	378	141	401	1156
Nursing home/hospital	85	0	0	169
Prescription Drugs	750	136	678	2834
Special Services	4	0	0	0
Insurance Premiums	1604	625	2034	4204
Total	2778	1876	3249	7497
1998				
Physician	315	131	359	1121
Nursing home/hospital	89	0	0	197
Prescription Drugs	769	254	634	2586
Special Services	20	0	0	0
Insurance Premiums	1519	1011	2114	3915
Total	2704	2049	3395	6589
2000				
Physician	342	125	352	1250
Nursing home/hospital	334	0	0	250
Prescription Drugs	1032	360	1092	3600
Special Services	19	0	0	0
Insurance Premiums	1752	906	2206	4302
Total	3469	2142	3856	8146

Appendix Table B. MOOP Expenditures by Type for Married Couples (in 2000 dollars)

	Mean	Median	75th Percentile	95th Percentile
1995				
Physician	278	85	282	1156
Nursing home/hospital	215	0	0	565
Prescription Drugs	803	149	678	2834
Special Services	45	0	0	6
Insurance Premiums	1161	625	1722	3337
Total	2488	1669	3025	6444
1998				
Physician	249	73	244	1051
Nursing home/hospital	544	0	0	874
Prescription Drugs	720	190	634	2586
Special Services	69	0	0	19
Insurance Premiums	1223	555	1798	3319
Total	2783	1658	3079	7613
2000				
Physician	259	50	250	1088
Nursing home/hospital	982	0	0	3000
Prescription Drugs	820	240	960	3072
Special Services	57	0	0	22
Insurance Premiums	1231	546	1746	3588
Total	3151	1796	3424	8759

Table 1. Number of Observations by Year

Year	Couples with a death	Singles who die	Married individuals without a spouse dying and remaining married	Singles who did not die and remained single
1993-1995	380	386	3884	2969
1995-1998	405	480	3044	2498
1998-2000	353	508	2391	2358
Total Deaths	1138	1374		

Table 2. Per Person Annual Expenditures (in 2000 dollars)

Panel A:	Surviving Spouses			Decedent		
	Mean	Median	N†	Mean	Median	N†
k-2	2315	1492	397	2504	1609	348
k-1	2299	1740	622	3276	1959	547
k	2839	1823	648	5752	2217	547
k*	3397	1703	648			
k+1	3147	1930	395			
k+2	3474	2264	184			

Panel B:	Remained Married			Remained Single		
	Mean	Median	N	Mean	Median	N
1993	1767	1311	1850	1476	1082	2923
1995	2778	1876	1722	2488	1669	2662
1998	2704	2049	1692	2783	1658	2642
2000	3469	2142	1719	3151	1796	2329

The MOOP expenditures at time *k* are the surviving spouse's annual expenditures and the total expenditures accrued by the decedent since the previous interview. For the decedent, the length of the period over which expenditures are reported can vary from one month to three years. To allow for direct comparability with expenditures by the decedent, the *k** row reports the survivor's expenditures at time *k* scaled to equal the length of time for which the deceased spouse was live.
† The number of observations differs for surviving spouses and decedents because of missing observations on expenditures.

Table 3a. MOOP Expenditures by Type for Decedents (in 2000 dollars)

	Mean	Median	75th Percentile	95th Percentile
Period k -2				
Physician	330	169	401	1156
Nursing home/hospital	338	0	0	889
Prescription Drugs	1404	434	1356	4068
Special Services	36	0	0	16
Insurance Premiums	1554	625	2008	4275
Total	2504	1609	3086	7150
Period k-1				
Physician	397	85	332	1162
Nursing home/hospital	800	0	0	944
Prescription Drugs	1101	380	1268	4068
Special Services	60	0	0	41
Insurance Premiums	1303	625	2021	3803
Total	3276	1959	3717	9429
Period k				
Physician	399	0	150	2093
Nursing home/hospital	2497	0	600	14,813
Prescription Drugs	1000	96	800	4945
Special Services	196	0	0	600
Insurance Premiums	1282	683	1555	4972
Hospice	28	0	0	0
Other Services	185	0	0	650
Total	5752	2217	5602	23,128

Table 3b. MOOP Expenditures by Type for Non-Decedents (in 2000 dollars)

	Mean	Median	75th Percentile	95th Percentile
Period k -2				
Physician	402	169	401	1356
Nursing home/hospital	49	0	0	71
Prescription Drugs	1172	136	678	4068
Special Services	9	0	0	0
Insurance Premiums	1401	625	1868	4557
Total	2315	1492	2856	6196
Period k -1				
Physician	248	89	282	1051
Nursing home/hospital	110	0	0	634
Prescription Drugs	594	203	637	2586
Special Services	21	0	0	16
Insurance Premiums	1366	631	1981	3947
Total	2299	1740	3008	6348
Period k				
Physician	349	113	367	1504
Nursing home/hospital	401	0	0	809
Prescription Drugs	792	240	760	3000
Special Services	24	0	0	0
Insurance Premiums	1272	733	1823	4015
Total	2839	1823	3269	7427
Period k +1				
Physician	371	88	292	1463
Nurising home/hospital	333	0	0	792
Prescription Drugs	815	240	925	3000
Special Services	23	0	0	10
Insurance premiums	1559	842	1862	3954
Total	3147	1930	3405	9107
Period k +2				
Physician	306	100	250	1500
Nuring home/hospital	476	0	0	450
Prescription Drugs	1110	480	1344	3600
Special Services	31	0	0	100
Insurance Premiums	1554	846	1926	3746
Total	3474	2264	3716	9614

Table 4. Effects of Supplemental Insurance Coverage on MOOP Spending for Couples

During the Period Near Dealth of One Spouse

	Model (1) Baseline		Model (2) Interactions	
	Coefficient	Std Error	Coefficient	Std Error
Constant	6740.2**	350.6	5978.8**	376.4
Waves from death (D_{it}^k)				
-3	135.1	300.2	260.4	789.0
-2	691.8*	310.2	96.4	401.6
-1	971.5**	326.0	786.4	639.3
0 (wave of death)	2822.0**	587.9	3008.4**	1066.8
+1	-2955.2**	368.4	-2050.5**	722.0
+2	-3269.8**	557.0	-2347.1*	1431.1
Year				
1993	-3352.7**	365.2	-3068.3**	359.7
1995	-1022.8**	383.0	-733.1*	374.0
1998	-916.1**	349.6	-695.8*	351.4
2000 (reference)				
Supplemental insurance:				
Medicare only[t] (reference)				
Has Medicaid			-1580.0*	731.4
Has medigap			1219.5**	292.4
Has long-term care			-105.7	364.4
*Medicaid*waves from death*				
-3			949.4	940.0
-2			-1060.4	955.3
-1			971.6	1518.1
0 (wave of death)			-4227.6**	1350.6
+1			1600.7	2501.0
+2			-1093.0	1497.2
*Medigap*waves from death*			-463.1	798.4
-3			632.5	596.6
-2			-100.6	718.5
-1			92.5	1156.2
0 (wave of death)			-950.9	725.8
+1			-1348.2	1334.8
+2				
*Long-term care*waves from death*				
-3			511.2	681.6
-2			1004.8	851.5
-1			1837.1	1208.6
0 (wave of death)			-168.8	1875.5
+1			-219.5	812.9
+2			2993.5	2022.6
R^2	0.046		0.065	
Number of observations	6270		5973	

Both models include controls for race/ethnicity; model (2) also interacts race/ethnicity with D_{it}^k.

[t]Also includes 146 observations who report no health insurance coverage. * (**) indicates significance at the 0.10 (0.01) level.

Table 5. MOOP Expenditures and Income (in 2000 dollars)

| *Panel A:* | Couples in which one spouse dies | | | |
| | MOOP expenditures/Income | | | |
	Mean	Median	Mean Income	Percent Poor
k-2	0.18	0.11	37,499	4
k-1	0.23	0.13	38,340	4
k	0.51	0.23	31,411	12
k+1	0.18	0.09	27,730	11
k+2	0.18	0.10	30,690	18

| *Panel B:* | Couples that remained married | | | |
| | MOOP expenditures/Income | | | |
	Mean	Median	Mean Income	Percent Poor
1993	0.14	0.09	40,188	4
1995	0.17	0.10	49,744	2
1998	0.18	0.12	51,351	2
2000	0.24	0.13	48,442	3

For surviving spouses, the time *k* MOOP expenditures are annual expenditures while those of the decedent pertain to the entire portion of the interval for which he was alive.

Table 6. Poverty Rates Using Alternative Assumptions
Couples in Which One Spouse Dies

	Wave Before/After Death				
	k-2	*k-1*	*k* (Death)	*k+1*	*k+2*
Standard Census Definition of Poverty: (1)					
Percent poor	4	4	12	11	18
Percent < 200% of poverty	23	25	42	42	44
MOOP Adjusted Definition of Poverty: (2)					
Percent poor	14	15	35	22	29
Percent < 200% of poverty	36	37	61	51	55
Same as (2), but Exclude MOOP of Dying Spouse: (3)					
Percent poor	10	9	26	22	29
Percent < 200% of poverty	30	33	54	51	55
Same as (2), but Assume Full Coverage for Prescription Drugs: (4)					
Percent poor	11	10	30	18	26
Percent < 200% of poverty	33	34	58	49	53
Same as (2): but Assume Full Coverage for Nursing Home/Hospital Stays: (5)					
Percent poor	13	14	29	21	26
Percent < 200% of poverty	35	35	58	50	53