

Age, income, health, and willingness to pay for health insurance in late-life

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Abstract

Uninsured older adults utilize fewer health services and are at higher risk of disability and death than insured individuals. This study sought to determine the personal and demographic characteristics associated with being uninsured. Participants (aged 55–71) were asked to indicate how much they were willing to pay for Medicare B, Medigap, Long-Term Care, and private insurance. Results indicated that individuals who were poor, unhealthy, or older were willing to pay less for health insurance than more affluent, healthy, and younger participants. These findings have implications for understanding how older adults and their financial planners may consider health insurance options. © 2010 Academy of Financial Services. All rights reserved.

JEL classification code: G22

Keywords: Willingness to pay; Health insurance; Older adults

1. Introduction

It is well known that being prepared for late-life healthcare costs is important for many reasons. Older adults are more likely than younger adults to suffer from costly chronic illnesses and the likelihood of spending some time in a long-term care facility increases with

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age (Alzheimer's Association, 2006; Federal Interagency Forum on Aging Related Statistics, 2004; Whitbourne, 2002). Having health insurance is associated with positive health behaviors. For instance, people with private insurance coverage or Medicare are more likely to visit the doctor or have stays in the hospital than those with Medicaid or the uninsured (Fitzpatrick, Powe, Cooper, Ives, and Robbins, 2004; Hurd and McGarry, 1997; Kassab, Luloff, Kelsey, and Smith, 1996). Furthermore, older adults with health insurance are more likely to take preventative measures and engage in healthy behaviors (Bazargan, Baker, and Bazargan 1998; Kassab et al., 1996; Klein, Turvey, and Wallace, 2004; McWilliams, Zaslavsky, Meara, and Ayanian, 2003; Parente, Salkever, and DaVanzo, 2005). The absence of health insurance or inadequate insurance is associated with deteriorating health, delays in seeking care because of costs, increased risk of disability, reduced care, and higher mortality (Landerman, Fillenbaum, Maddox, Gold, and Guralnik, 1998; McWilliams, Zaslavsky, Meara, & Ayanian, 2004; Mold, Fryer, and Thomas, 2004; Porell and Miltiades, 2001).

Research shows several reasons why people do not purchase health insurance. It is possible that some older adults may not perceive health insurance as important or necessary (Cohen, Kumar, and Wallack, 1993). For example, recent research suggests that 43% of the uninsured population are "voluntarily uninsured" meaning that they have enough disposable income to purchase health insurance, yet chose not to do so (O'Neil and O'Neil, 2009). These individuals may feel that policies (coverage) are inadequate, lack knowledge on the subject, or be skeptical of the system (Cohen et al., 1993; Mold et al., 2004). It may be perceptions of what the costs of the insurance should be, and not the actual costs, that influence older adults' decisions regarding health insurance.

The present study focuses on willingness to pay for three types of insurance: Medicare B, Medicare Supplementary insurance and LTC insurance. Medicare B and Medicare Supplementary insurance have more standardized costs, while the premiums for LTC insurance and for private insurance vary widely by insurance company. The premium for Medicare B in 2009 was \$96.40 per month, (at the time of data collection the cost was \$78.20). In 2010, however, Medicare B premiums will rise at least 15% for individuals earning over \$85,000 per year and couples earning over \$170,000 per year. Premiums and coverage associated with Medicare Supplementary insurance vary depending on which plan is selected and the state in which the person lives and can range from \$56-\$184 per month for the cheapest and \$222-\$366 for the most expensive plans (Medicare: The Official U. S. Government Site for People with Medicare, 2005). The premiums of LTC insurance are a function of the buyer's age, health, amount of benefits desired, type of coverage, and inflation-related adjustments. In 2002, the national average for a policy that offered \$150 in benefits per day of long-term care with a \$90 deductible for four years was \$47 per month for a 50-year-old, \$111.42 per month for a 65-year-old, and \$444.17 per month for a 79-year-old (America's Health Insurance Plans: Guide to Long-Term Care Insurance, 2003–2004). The question that remains is how much money do older adults feel is reasonable to pay for these types of insurance.

Willingness to pay can be seen as an example of what insurance 'should' cost and demonstrates how much an older adult values health insurance. "Willingness to pay" has been used in the past to define the value that people place on mental health services (Mulvaney-Day, 2005), assisted reproductive techniques (Ryan, 1996), antenatal carrier

screenings (Donaldson, Shackley, Abdalla, and Miedzybrodzka, 1995), and mammographies (Wagner, Hu, Dueñas, and Pasick, 2000). Thus, willingness to pay can be viewed as an estimate of what people consider to be a maximum cost for services. Willingness to pay can also suggest both the quality and quantity of a person's insurance coverage. How much a person is willing to pay for a health insurance will determine what and how much insurance they will purchase. It is likely that this amount varies with income, age, and health status as these factors have been shown to be related to (a) whether people buy insurance and (b) what kind of insurance they purchase.

With respect to income, studies show that there is a clear link between insurance coverage and economic status. Specifically, lower-income individuals are less likely than high-income individuals to be insured (Bernard, Banthin, and Encinosa, 2009). For older adults, this is true for all types of insurance, including Medicare A and B, private insurance (Ammons, 1997; Hurd and McGarry, 1997; Kassab et al., 1996; Mold et al., 2004; National Center for Health Statistics, 2009; Wilcox-Gök and Rubin, 1994), LTC insurance (Cohen et al., 1993), and Medicare Supplementary insurance (Ettner, 1997; National Center for Health Statistics, 2009). Research also indicates that of those older adults who qualify for Medicaid, 73% were not enrolled in the program (Ungaro and Federman, 2009). Older adults who are more financially secure are more likely to purchase Medicare Supplementary insurance from multiple sources, have multiple Medicare Supplementary insurance plans, and more comprehensive policies; therefore, they are often overinsured (Ettner, 1997; Short and Vistnes, 1992). Not surprisingly, higher-income persons are willing to pay more for health insurance than are lower-income persons (Asgary, Willis, Taghvaei, and Rafeian, 2004; Dong, Kouyate, Cairns, and Sauerborn, 2004).

As mentioned above, health insurance coverage is related to age. Specifically, the young-old (aged 65–74) are more likely to have private insurance (Wilcox-Gök and Rubin, 1994), private supplemental insurance (Ettner, 1997; Short and Vistnes, 1992), and more comprehensive LTC insurance coverage (Cohen et al., 1993) than the old-old (aged 75–84) or the oldest-old (aged 85 and above). The age differences in LTC insurance coverage may be explained by the fact that premiums increase with advancing age (America's Health Insurance Plans: Guide to Long-Term Care Insurance, 2003–2004), and with advancing age, financial resources decrease. However, this does not account for all of the difference in LTC insurance coverage between the age groups. It is unclear whether older adults place more value on, and are therefore willing to pay more for, various insurances. (Asgary et al., 2004; Dong et al., 2004).

Individuals in poor health are at increased risk of being uninsured. This is true whether that insurance is private or provided by Medicare Supplementary insurance and regardless of how health is measured (Ettner, 1997; Hurd and McGarry, 1997; Wilcox-Gök and Rubin, 1994). This may be because companies are reluctant to insure costly beneficiaries, such as the very old and the ill, or perhaps older adults in poor health lack the money to buy policies after paying more pressing medical bills. In general, there is a lack of research that examines the relationship between health and willingness to pay.

In summary, much is known about what types of insurance older adults have. However, little is known about how much they are willing to pay for insurance. The present study seeks to help clarify the relationship between willingness to pay, age, income, and health. Based

upon the literature, the researchers hypothesize that participants with higher income, better health, and younger age would be willing to pay more for each of the insurance types. In addition, this study examines how these three variables interacted to influence willingness to pay. The remaining sections of this paper are organized as follows: Section 2 includes the methods and description of the data collection, Section 3 provides the results, and Section 4 contains the discussion and conclusions.

2. Method

2.1. Participants

Participants include 116 men (47%) and 131 women (53%) between the ages of 55 and 71 years old ($M = 63.17$, $SD = 4.6$). The mean income and educational level of the sample is \$55.5K ($SD = \$30.5K$) and 15.48 years ($SD = 2.99$), respectively. Participants were recruited using voter registration lists from the second largest county in Kentucky. Potential participants were randomly selected and telephoned to see if they would be interested in participating in a study on health insurance and age. If they agreed, they were mailed a copy of the questionnaire, an informed consent form, and a stamped return envelope. Of the individuals that were contacted and agreed to participate in the study, 53.46% returned the completed survey.

2.2. Questionnaire

The questionnaire contains items to measure how much participants would be willing to pay for late-life health insurance, individuals' health status, and demographic indicators. These items were part of a larger seven-page survey. The items used in this study are described in detail below.

2.2.1. Willingness to pay for insurance. Participants are asked how much they would be willing to pay for (a) Medicare B, (b) Medicare Supplementary insurance, (c) LTC insurance, and (d) private insurance. For each question participants are shown a line with \$0 labeled on one end and \$500 on the other. The center of the line is labeled \$250. Participants are asked to indicate how much they were willing to pay per month for each of the health insurances by placing an "X" on the appropriate place on the line. Two researchers independently evaluate the responses to determine what the dollar amount is. In the few instances where there was a minor disagreement, the response was examined by a third person. An overall average willingness to pay is also calculated, by computing a mean across each of the four insurances.

2.2.2. Demographic items. The final pages of the survey contain questions about demographic characteristics. Participants are asked to report their age, income, marital status, and educational level, as well as other information used for classification purposes. In addition to these items, participants are asked to rate their current health status relative to their peers

on a five-point scale (1 = poor, 5 = excellent). For analyses, a median split is conducted on age, income, and subjective health to create two groups for each variable: younger adults (55–63), older adults (64–71); low income (\$9,500–\$55,000), high income (\$55,001–115,000); poorer health (Poor–Good), excellent health (Very Good–Excellent).

3. Results

Before examining the effects of age, income and health, the means describing how much older adults were willing to pay for each insurance type is examined. The average willingness to pay across the four types of insurance is \$109.54 (SD = \$79.34) per month. With respect to Medicare B, Medicare Supplementary insurance, LTC insurance and private insurance, participants are willing to pay \$90.20 (SD = \$73.61), \$88.23 (SD = \$78.83), \$102.32 (SD = \$94.04), and \$146.71 (SD = \$120.62), respectively. A one-way repeated-measure ANOVA revealed that the amount older adults are willing to pay differed across the four types of insurance. Post hoc pair-wise comparisons reveal that participants are willing to pay more for private insurance than for Medicare B, LTC insurance, or Medicare Supplementary insurance. Participants are also willing to pay more for LTC insurance than for Medicare Supplementary insurance, while there are no differences in willingness to pay levels between Medicare B and Medicare Supplementary insurance.

3.1. Influence of age, health, and income on willingness to pay

A total of five 2 (age) \times 2 (health) \times 2 (income) ANOVAs are conducted to examine how the above factors independently and jointly influence how much participants were willing to pay for each of the types of health insurance. The dependent measures include participants' responses to each of the four types of insurance (private insurance, Medicare B, LTC insurance, and Medicare Supplementary insurance). Additionally, the average amount participants are willing to pay across all four insurances is also examined.

The 2 (age) \times 2 (health) \times 2 (income) ANOVA for the average amount participants are willing to pay across the four insurances reveals two significant two-way interactions, one between age and health ($F(1, 191) = 7.00, p = .01$) and the other between income and health ($F(1, 191) = 4.51, p = .04$). Decomposition of the interaction between age and health reveals that health is not related to willingness to pay for older participants (see Table 1 for means). However, for younger participants, those in better health are willing to pay more than those in poorer health. Decomposition of the income by health interaction indicates that health is not related to willingness to pay for low-income participants (see Table 2 for means). However, among high-income participants, those in better health are willing to pay more than those in poorer health. There is also a significant main effect of income ($F(1, 191) = 19.93, p = .02$) that shows individuals with higher incomes are willing to pay more than those with lower incomes (see Table 3 for means).

Findings from the analyses of each of the four types of insurance are similar. There is a significant interaction between age and health for participants' willingness to pay for private insurance ($F(1, 149) = 5.73, p = .02$), Medicare B ($F(1, 161) = 10.13, p = .01$), and

Table 1 Average amount willing to pay as a function of age and health (SD shown in parentheses)

Item	Health	
	Poor	Excellent
Mean pay		
Young-old	\$96.19 (\$55.79)*	\$128.14 (\$88.04)*
Old-old	\$109.01 (\$74.16)	\$94.55 (\$85.37)
Private insurance		
Young-old	\$142.93 (\$90.57)*	\$184.12 (\$140.27)*
Old-old	\$134.21 (\$108.03)	\$113.08 (\$117.22)
Medicare B		
Young-old	\$68.84 (\$49.14)**	\$117.29 (\$96.21)**
Old-old	\$87.75 (\$66.30)	\$71.55 (\$44.76)
Medigap		
Young-old	\$65.62 (\$51.13)*	\$104.83 (\$79.20)*
Old-old	\$100.28 (\$100.19)	\$72.15 (\$68.16)
LTC insurance		
Young-old	\$97.98 (\$82.54)	\$117.78 (\$98.59)
Old-old	\$99.61 (\$103.09)	\$85.77 (\$86.84)

* $p < .05$; ** $p < .01$.

Medicare Supplementary insurance ($F(1, 147) = 6.36, p = .01$). Decomposition of each of the interactions demonstrates that health is not a significant influence on how much the older participants are willing to pay (see Table 1 for means). However, for the younger participants, those in better health are consistently willing to pay more than those in poorer health. There is also a significant interaction between income and health for participants' willingness to pay for private insurance ($F(1, 149) = 4.20, p = .04$). Decomposition of this interaction demonstrates that health is not a significant influence on how much low-income participants

Table 2 Average amount willing to pay as a function of income and health (SD shown in parentheses)

Item	Health	
	Poor	Excellent
Mean pay		
Low-income	\$91.61 (\$63.85)	\$75.41 (\$47.89)
High-income	\$118.15 (\$68.41)*	\$142.43 (\$99.47)*
Private insurance		
Low-income	\$121.30 (\$100.54)	\$97.69 (\$100.74)
High-income	\$160.00 (\$96.44)*	\$195.81 (\$142.72)*
Medicare B		
Low-income	\$71.11 (\$54.42)	\$65.37 (\$36.22)
High-income	\$89.47 (\$64.98)	\$123.55 (\$97.28)
Medigap		
Low-income	\$68.50 (\$61.40)	\$75.05 (\$60.25)
High-income	\$101.25 (\$98.67)	\$102.75 (\$84.59)
LTC insurance		
Low-income	\$97.03 (\$100.30)	\$78.16 (\$67.24)
High-income	\$100.94 (\$86.37)	\$123.67 (\$106.80)

* $p < .05$; ** $p < .01$.

Table 3 Effect of income on amount willing to pay per month for each insurance (SDs are shown in parentheses)

Item	Income	
	Low	High
Mean pay*	\$83.76 (\$56.97)	\$133.09 (\$89.25)
Private insurance**	\$109.65 (\$100.68)	\$182.38 (\$127.88)
Medicare B**	\$68.28 (\$46.14)	\$110.38 (\$87.44)
Medigap*	\$72.17 (\$60.53)	\$102.15 (\$89.86)
LTC insurance	\$87.60 (\$85.36)	\$115.07 (\$99.69)

* $p < .05$; ** $p < .01$

are willing to pay, while high-income participants in better health are willing to pay more than those in poorer health (see Table 2 for means).

Four significant main effects of income emerge: private insurance ($F(1, 149) = 16.32$, $p = .01$), Medicare B ($F(1, 161) = 12.73$, $p = .01$), LTC insurance ($F(1, 160) = 3.94$, $p = .05$) and Medicare Supplementary insurance ($F(1, 147) = 4.89$, $p = .03$). In all four analyses, participants with higher incomes are willing to pay more than those with lower incomes (see Table 3 for means). Finally, a significant main effect of age on how much individuals were willing to pay for private insurance ($F(1, 149) = 5.91$, $p = .02$) shows that younger participants ($M = \$168.36$, $SD = \$124.63$) are willing to pay more than older participants ($M = \$123.64$, $SD = \$112.47$).

3.2. Influence of insurance coverage on willingness to pay

Several *t*-tests are conducted to determine what effect having an insurance policy might have on willingness to pay for that insurance. These analyses reveal only one significant effect, that people who did not have Medicare B were willing to pay more ($M = 100.68$, $SD = 83.29$) than people who did have it ($M = 71.24$, $SD = 45.77$). Those that had LTC insurance, Medicare Supplementary insurance, and private insurance do not differ in the amount they are willing to pay for the insurance from those who do not have the insurance.

4. Discussion, summary and conclusions

4.1. Discussion

The results confirm that age, health, and income affect willingness to pay for insurance, although the effects vary by insurance type. Analyses uncovered interactions between age and health and between income and health, as well as main effects for age and income. Willingness to pay for each type of insurance also differs, indicating that older adults place different values on each of the insurances.

The older adults in the sample are willing to pay the most for private insurance, followed by LTC insurance, with no difference between Medicare B and Medicare Supplementary

insurance. Participants who have Medicare B are willing to pay more for it than those who do not, but the same is not true for the other insurances. Not surprisingly, participants are willing to pay a monthly average of \$90.20 for Medicare B, which is similar to the actual cost of \$88.50 per month at the time of data collection. However, as the cost of Medicare B rises, it will be interesting to see if individuals' willingness to pay also increases. Regarding LTC insurance, a middle-aged adult would likely be able to purchase LTC insurance with the average of \$102.32 that the sample is willing to pay per month. That same amount would not be enough for an older adult (such as those in this study) to purchase the same insurance. Participants are, on average, willing to pay \$88.23 for Medicare Supplementary insurance, which would purchase many of the cheapest plans which have few benefits, but would not buy any of the more expensive plans. Thus, the values that older adults in this study are willing to pay for health insurance would not necessarily be enough for them to afford thorough, effective coverage.

Being older and having poor health are associated with a lower likelihood of having health insurance (Ettner, 1997; Hurd and McGarry, 1997; Short and Vistnes, 1992). It is surprising to note that in this investigation, it is the younger participants in good health that are willing to pay the most for health insurance. Logically, it would seem that younger individuals in poor health would be willing to pay more to avoid high out-of-pocket expenses. However, the present findings suggest that it is the younger older adults in good health that place the most value on health insurance. It is possible that they are willing to pay more to be able to take advantage of health screenings (mammography, prostate cancer, blood sugar, etc.) and to use the insurance to see that they remain in good health. This is in part consistent with research which suggests that having health insurance leads to an increase in preventative health behaviors (Bazargan et al., 1998; McWilliams et al., 2003; Parente et al., 2005). It is unclear as to why similar effects would not have emerged for the older group of participants. Future studies are needed to further examine these effects.

Having high income is associated with increased likelihood of having a greater willingness to pay for health insurance (Ammons, 1997; Ettner, 1997; Hurd and McGarry, 1997; Short and Vistnes, 1992). The fact that in this study health interacts with income, suggests that both of these factors are critical in determining how much people may value health insurance. The current results may indicate that people who have good health will take steps to preserve that health, if they can afford it. Therefore, it would be expected that those with both high income and good health would be willing to pay more. For the low-income individuals, the lack of an effect of health on their willingness to pay may reflect an inability to pay for insurance. Thus, it may not be that they do not value health insurance but rather that they do not have the funds to pay for it or are unable to obtain it. It is surprising, however, to note that those high-income individuals in poor health are willing to pay less than those in good health. As mentioned above, it may be that those in good health are concerned with having insurance to help ensure that they are able to remain in good health.

The present study has several limitations. First, willingness to pay only provides an estimate of how much participants would pay for each of the insurances. It is not clear that this would be the maximum amount participants would actually pay for the insurances. However, willingness to pay does have its advantages as a measure. It is a measure that is independent of actual money possessed or spent and it measures a person's perception of

something's value. It also indicates the priority level that older adults on limited incomes give health insurance. A second limitation is that the sample consisted mostly of white, well-educated, women with relatively high incomes, which limits the generalizability of the study. However, it is a random sample, and thus has more strength than a simple convenience sample. Finally, the study did not include estimates of how much participants were willing to pay for Medicare D and additional insurance to cover the gap in Medicare D.

5. Summary and conclusions

These present findings have implications for (a) educational programs (b) marketing, and (c) public policy. The poor, the ill, and the very old can be targeted for education about health insurance. Many older adults may not understand that sacrificing health insurance for more immediate costs may lead to increases in health costs in the future. Such older adults can be taught that purchasing insurance now may actually lead to less money spent in the future. The implications with respect to marketing are that specialists can use the information gained from this study to target those who are most in need of the insurances. With respect to public policy, armed with the knowledge that older adults are only willing to pay so much, public policy-makers may debate the merits of supplemental government programs that can cover the costs of insurance above what older adults are willing to pay. Setting up government programs now so that older adults will be able, with help, to purchase quality insurance, may save the government money later.

In summary, willingness to pay for insurance acts as an estimation of the maximum value a person puts on that insurance. This study demonstrates that various factors are associated with differences in willingness to pay for health insurance in old age. Namely, being younger, in better health, and having a higher income are associated with willingness to pay more for health insurance.

References

- Alzheimer's Association. (2006). *Causes* (available at <http://search.alz.org/AboutAD/causes.asp#risk>).
- America's Health Insurance Plans. (2003–2004). *Guide to long-term care insurance* (available at <http://www.ahip.org/content/default.aspx?bc=41329450>).
- Ammons, L. (1997). *Demographic profile of health-care coverage in America in 1993*. *Journal of the National Medication Association*, 89, 737–744.
- Asgary, A., Willis, K., Taghvaei, A. A., & Rafeian, M. (2004). Estimating rural households' willingness to pay for health insurance. *European Journal of Health Economics*, 5, 209–215.
- Bazargan, M., Baker, R. S., & Bazargan, S. (1998). Correlates of recency of eye examination among elderly African-Americans. *Ophthalmic Epidemiology*, 5, 91–100.
- Bernard, B. M., Banthin, J. S., & Encinose, W. E. (2009). Wealth, income, and the affordability of health insurance. *Health Affairs*, 28, 887–896.
- Cohen, M. A., Kumar, N., & Wallack, S. S. (1993). New perspectives on the affordability of long-term care insurance and potential market size. *The Gerontologist*, 33, 105–113.
- Donaldson, C., Shackley, P., Abdalla, M., & Miedzybrodzka, Z. (1995). Willingness to pay for antenatal carrier screening for cystic fibrosis. *Health Economics*, 4, 439–452.
- Dong, H., Kouyate, B., Cairns, J., & Sauerborn, R. (2004). Differential willingness of household heads to pay

- community-based health insurance premia for themselves and other household members. *Health Policy and Planning*, 19, 120–126.
- Ettner, S. L. (1997). Adverse selection and the purchase of Medigap insurance by the elderly. *Journal of Health Economics*, 16, 543–562.
- Federal Interagency Forum on Aging Related Statistics. (2004). *Older Americans 2004: Key indicators of well-being* (available at <http://www.agingstats.gov/chartbook2004/default.htm>).
- Fitzpatrick, A. L., Powe, N. R., Cooper, L. S., Ives, D. G., & Robbins, J. A. (2004). Barriers to health care access among the elderly and who perceives them. *American Journal of Public Health*, 94, 1788–1794.
- Hurd, M. D., & McGarry, K. (1997). Medical insurance and the use of health care services by the elderly. *Journal of Health Economics*, 16, 129–154.
- Kassab, C., Luloff, A. E., Kelsey, T. W., & Smith, S. M. (1996). The influence of insurance status and income on health care use among the nonmetropolitan elderly. *The Journal of Rural Health*, 12, 89–99.
- Klein, D., Turvey, C., & Wallace, R. (2004). Elders who delay medication because of cost: Health insurance, demographic, health, and financial correlates. *The Gerontologist*, 44, 779–787.
- Landerman, L. R., Fillenbaum, G. G., Pieper, C. F., Maddox, G. L., Gold, D. T., & Guralnik, J. M. (1998). Private health insurance coverage and disability among older Americans. *Journal of Gerontology: Social Sciences*, 53B, S258–S266.
- McWilliams, J. M., Zaslavsky, A. M., Meara, E., & Ayanian, J. Z. (2003). Impact of Medicare coverage on basic clinical services for previously uninsured adults. *Journal of the American Medical Association*, 290, 757–764.
- McWilliams, J. M., Zaslavsky, A. M., Meara, E., & Ayanian, J. Z. (2004). Health insurance coverage and mortality among the near-elderly. *Health Affairs*, 23, 223–233.
- Medicare: The Official U. S. Government Site for People with Medicare. (2005). Available at <http://www.medicare.gov>.
- Mold, J. W., Fryer, G. E., & Thomas, C. H. (2004). Who are the uninsured elderly in the United States? *Journal of the American Geriatrics Society*, 52, 601–606.
- Mulvaney-Day, N. E. (2005). Using willingness to pay to measure family members' preferences in mental health. *The Journal of Mental Health Policy and Economics*, 8, 71–81.
- National Center for Health Statistics. (2009). *Health, United States, 2008*.
- O'Neil, J. E., & O'Neil, D. M. (2009). Who are the Uninsured? An analysis of America's uninsured population, their characteristics, and their health. *Employment Policies Institute*, 1–41.
- Parente, S., Salkever, D., & DaVanzo, J. (2005). The role of consumer knowledge on the demand for preventive health care among the elderly. *Health Economics*, 14, 25–38.
- Porell, F. W., & Miltiades, H. B. (2001). Access to care and functional status change among aged Medicare beneficiaries. *Journal of Gerontology: Social Sciences*, 56B, S69–S83.
- Ryan, M. (1996). Using willingness to pay to assess the benefits of assisted reproductive techniques. *Health Economics*, 5, 543–558.
- Short, P. F., Vistnes, J. P. (1992). Multiple sources of Medigap insurance. *Inquiry*, 29, 33–43.
- Ungaro, R., & Federman, A. D. (2009). Restrictiveness of eligibility determination and Medicaid enrollment by low income seniors. *Journal of Aging and Social Policy*, 21, 338–351.
- Wagner, T. H., Hu, T.-W., Dueñas, G. V., & Pasick, R. J. (2000). Willingness to pay for mammography: Item development and testing among five ethnic groups. *Health Policy*, 53, 105–121.
- Whitbourne, S. K. (2002). *The Aging Individual: Physical and Psychological Perspectives* (2nd ed.). New York: Springer Publishing Company.
- Wilcox-Gök, V., & Rubin, J. (1994). Health insurance coverage among the elderly. *Social Science & Medicine*, 38, 1521–1529.