High-Age Implications of Postretirement Risks

Anna M. Rappaport, F.S.A.
Monica Dragut

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1. Introduction and Context

This monograph is largely focused on living to advanced ages, finding data to measure high age mortality and techniques that can be used for this purpose. This paper focuses on a different direction: the risks of retirement and special issues for those at more advanced ages.

The U.S. retirement system is undergoing a transformation. There are large increases in the number of people covered by defined-contribution plans and corresponding decreases in the number covered by defined-benefit plans. People have been retiring earlier and living longer. While the trend to early retirement has turned around a little since 1985, the length of the retirement period continues to increase. This transformation means that an increasing number of Americans are more responsible for their own increasingly expensive security in retirement. Issues of personal responsibility are particularly hard-hitting as retirees reach advanced ages. Those over age 80 are more likely than younger retirees to have used up all assets other than Social Security and require long-term care or become dependent on others.

The traditional focus on retirement planning has been on the accumulation of assets for retirement rather than on the distribution phase. Where there has been focus on the distribution phase, usually little was directed toward the special issues related to more advanced ages. Therefore retirement risk has not been well-addressed. This paper will identify important areas of postretirement risk, with emphasis on advanced ages and on the perspective of the individual. It will include public perceptions about postretirement risk and information about the link of some plan features to postretirement risk.

In this paper, we will:

- Provide context related to developments in retirement security systems.
- Describe primary postretirement risks, grouped by major sections – health and long-term care, family-related, financial and other.
- Provide information on individual perspectives on risk and retirement security.
- Present key findings from public attitude studies to show public views about postretirement risk and to provide examples of what people know and understand.
- Demonstrate gaps in current systems and make recommendations.
- Illustrate the serious consequences of inadequate knowledge in this era of increased individual responsibility.

This paper uses data from a variety of sources, including several studies of public perceptions as shown in Appendix 1.

2. Background

Retirement security is based on the fundamental idea that individuals will work for a number of years, build retirement assets and/or entitlement to benefits and then retire and use the assets in their retirement years. Traditionally, retirement planning has focused heavily on the accumulation of assets rather than the use of assets. For some people, retirement is a single well-defined event, but for many it is a process extending over a period of time. The SOA has published an inventory of postretirement risks that identifies key management strategies. Risks can either be viewed one at a time, qualitatively or quantitatively, or they can be considered collectively, focusing on how they interact for individuals or groups of people.

There has been a major shift from defined-benefit to defined-contribution plans, thus to individuals being responsible for managing their retirement assets. Financial security in old age increasingly depends on individual action, but Americans are saving less. According to the Bureau of Economic Analysis (2003 NIPA Data), personal savings are at the lowest rate since the Great Depression. The personal savings rate was around 7 percent of annual income in 1990 and dropped to 1.4 percent by 2003.

The pension benefit coverage of the respondents to the SOA and the Academy Retirement Plan Preferences Survey documents that future retirees will differ from today's retirees. The respondents were workers and retirees who are covered by retirement plans of some type. Eighty-eight percent of the retirees have benefits from a defined benefit plan compared to 49 percent of the workers. Only 9 percent of the retirees responded that they received benefits from a defined-contribution plan, compared to 56 percent of the workers who indicated that they have such coverage.

3. Overview of the Risks

The SOA Committee on Postretirement Needs and Risks has identified postretirement risks and analyzed their variability. Some of these risks can be transferred through the use of financial products while others can not. Some of the risks were those traditionally identified, but others went beyond the traditional risks. It became clear in this process that not all of the risks can be managed easily. Interacting with each of the individual risks is the risk of inadequate information for decision making. The following are some of the risks that were identified with comments about how they change in later years.

Risks Related to Longevity, Outliving Assets and Changes in Family Structure:

Longevity—outliving your retirement resources: Nobody knows how long their assets will last, especially since unexpected events might diminish those funds. Because Social Security provides lifetime income, the goal is to have assets above and beyond Social Security disbursements. The impact of this risk grows with increasing age and is highest at advanced ages.

Living off investment income only and preserving principal is one way to partially manage this risk. To totally manage it, one would need to live off investment income less the increase in value because of inflation. Annuitization is a method of risk transfer. However, if assets are annuitized without inflation protection, the purchasing power of the income declines over time. Therefore, if annuities are not indexed for inflation, they offer only partial risk protection. Experts do not agree on the desirability of annuitization, partly because of the trade-off between a lifetime guarantee and loss of control combined with the loss of availability of funds for other needs.

Death of a spouse: The surviving spouse may need 75 percent of the couple's joint income to maintain the same standard of living. Poverty rates among the population of widows over age 65 are much higher than among married couples over age 65 (15 percent compared to 4 percent). The financial risk of a spouse's death can be reduced through use of survivor annuities or life insurance. The risks of inadequate resources during widowhood grow with increasing age.

Change in marital status: Marital status can affect benefit entitlement in both Social Security and private benefits. Retirement assets can be modified or transferred at marriage, divorce and remarriage.

Unforeseen needs of family members: Many retirees find themselves financially helping other family members including parents, children and grandchildren. This occurs more often early in retirement rather than at the very high ages. Retirement planning needs to take this contingency into account. Older children or grandchildren may need money for higher education, and a few might need special help to deal with physical or mental handicaps. Adult children might look for help if they become unemployed or financially distressed.

Risks Related to Health Care, Long-Term Care and Housing Needs:

Unexpected health care needs and costs: This is a major concern and an especially difficult issue for retirees not yet Medicare-eligible. When a retiree does not have employer-sponsored coverage, it is difficult and costly to get any coverage. Medicare has not covered prescription drugs and long-term care to any significant degree, but Medicare will begin to cover a portion of drugs in 2006 and later. This is a major topic for this paper, and a special section is devoted to it.

Loss of ability to live independently: This is a major financial and life risk. There are varying degrees of loss of ability to live independently. Long-term-care insurance (LTCI) offers a means to partial risk transfer for severe loss. Continuing-care retirement communities also offer partial risk transfer. This risk increases significantly with increasing age. There is a special section of this paper on this topic.

Lack of available facilities or caregivers: This risk is related to financing long-term care and the inability of retirees to live independently. At present, there is a shortage of skilled personnel for long-term-care facilities. Although there currently are adequate facilities for those with enough financial resources, availability is often a problem for those without money.

Change in housing needs: Housing is often an important asset in retirement. Without the resident moving, a house can be converted to income through the use of a reverse annuity mortgage. Currently, reverse mortgages are used infrequently.

Housing is often integrated with care. People who develop limitations in what they can do can move into specialized housing. These accommodations are generally more expensive than housing without the added services. The integration of housing and care is a particularly important issue for higher-age retirees. This paper contains a separate discussion of housing options and how they might be used at higher ages.

Financial and Economic Risks:

Inflation: This risk is a major concern for retirees. As life spans increase, this risk grows more severe. If inflation during early retirement causes retirees to use up more of their resources than anticipated, the result will be a "double hit" later in retirement. Inflation compounds, so that inflation in one year produces higher living costs in all future years. The purchasing power of $1,000 in 10, 20 and 30 years assuming inflation of 3 percent, 5 percent and 10 percent is as follows:

Value of $1000			
Inflation Rate	**3%**	**5%**	**10%**
10 years	$ 744	$ 614	$ 386
20 years	$ 554	$ 377	$ 149
30 years	$ 412	$ 231	$ 57

Except for inflation-indexed bonds, most investment vehicles are not directly indexed for inflation. Different strategies, however, provide various levels of inflation-matching. Although Social Security benefits are inflation-indexed, most pensions and private annuities are not. The risks related to inflation grow with increasing age. A particularly difficult issue for retirees is that health-care costs and premiums for health coverage have been increasing more rapidly than inflation. Social Security increases do not reflect the impact of this added cost for many retirees. Inflation also interacts with other risks.

Interest-rate risk: For retirees with assets in fixed investments, declines in interest rates mean less investment income. Annuities also become more expensive as interest rates drop. Retirees wishing to purchase annuities can moderate interest risk by dividing their purchases into several transactions and spacing them out over time. Interest-rate risk can be particularly troublesome for retirees with modest assets. These retirees are likely to have their assets in fixed-income investments. Younger retirees who find they have experienced a decline in income because of a drop in interest rates are likely to have more options than very old retirees. These options often include returning to work, at least part-time or part-year.

Stock market risk: Traditionally, it is expected that those with a longer time horizon will want to take more risk. There are different risks between a single stock and a diversified portfolio. Retirement assets may also be invested in company stock, which carries an additional risk since it is not diversified. Traditional thinking is that higher-age retirees should not invest in stocks unless they have a secure income to cover basic needs, or investments with a secure return to cover such needs.

The investment experience of the 1990s fed undue optimism about stock market returns. The bad experience in the past five years caused hardship to many retirees and those planning to retire. In 2002, AARP studied the impact of stock market declines on 50 to 70 year olds and found that 77 percent of those with money invested in stocks had lost money. Of this group, 27 percent indicated they had postponed retirement, returned to work or were looking for work; 43 percent responded they expected to be less comfortable in retirement; 59 percent replied they were budgeting more carefully; and 67 percent had adjusted their lifestyles as a result of losses.[*]

Knowledge about investment risk and returns: The Insight into Participant Investment Knowledge and Behavior Study series provides some insight into

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[*] *Source: AARP Study: Impact of Stock Market Decline on 50-70 Year Old Investors, 2002*

knowledge of investments. The participants in this survey all participate in 401(k) or similar plans with investment choice, but many of them show significant gaps in investment knowledge.

Participants are confused about the relative risk of company stock compared to a diversified portfolio. The 2002 Insight report states "Surprising enough, Enron has not affected participants' perception of risk of a single-company's stock. The risk ranking for employer stock (as an investment) remained below diversified domestic stock funds and diversified global and international stock funds, and by margins consistent with previous surveys."

In this study, 42 percent of participants indicated they have little or no investment knowledge, up from 38 percent in 1997. Only 20 percent responded that they are relatively knowledgeable, down from 24 percent in 1997. When asked about what type of securities are found in a money market fund, in 2002, 49 percent answered short-term investments, 47 percent responded bonds, and 40 percent said stocks. (Participants were asked to include all that applied, so multiple responses were possible.) Only 8 percent knew that money market funds include only short-term securities.

Business and Employment Risk:

Business risk: Benefits from a defined-benefit plan in excess of federally guaranteed amounts could be lost because of business failure. Federal insurance of defined-benefit plans does not cover all benefit features in insured plans, and no insurance is provided for public-sector employee plans or church plans. There are no special issues at very high ages related to this risk.

Defined-contribution plan benefits depend on the value of underlying investments. Because there are special risks when assets are invested in company stock, these assets should be diversified prior to the retiree's reaching very high ages. Annuities can also be a business risk if the insurance company fails and amounts are above those guaranteed by state guarantee funds.

Employment risk: Personal retirement expectations may include continued income from a bridge job, but it might be difficult or impossible to find the desired employment. This is becoming increasingly important because many people want and/or need to continue working in retirement. Health status can also deteriorate, making employment impossible. This risk does not generally apply to the very high ages since retirees will likely stop working before then. It can, however, affect security.

Individuals planning to retire gradually with some continued income from work during their 60s may find that assets are depleted too early if such work was not available.

Public Policy Risk:

Change in public policy: Policy risks refer to the possibility of a tax increase, a change in the taxation of social benefit, a reduction of Social Security benefits and changes in Medicare or Medicaid benefits. It will require some adjustments such as raising taxes, lowering benefits or a combination to sustain the range of social benefits to the boomers.

How Different Types of Retirement Plans Treat Different Risks:

The various types of retirement plans distribute risk differently between different stakeholders. It is assumed here that risk is distributed among government programs, the employee and the plan sponsor. The focus is not on shifting risk to the community at large. This happens if the individual is impoverished and effectively becomes a ward of the state. The chart below shows the distribution of risk.

Treatment of Risks Under Different Types of Retirement Plans

Type of Risk	Social Security Current System	Traditional DB Final Average Pay Formula	Traditional DB Career Average Pay Formula	Hybrid DB Cash Balance	Defined-Contribution Plan
Investment Risk	Plan, but largely n/a	Plan Sponsor	Plan Sponsor	Plan Sponsor	Participant
Preretirement Inflation Risk	System	Plan Sponsor, to the extent that pay changes track inflation	Participant (but Plan Sponsor may absorb part through updates)	Participant (but Plan Sponsor may absorb part through method of crediting interest)	Participant
Postretirement Inflation Risk	System	Usually participant, except in public-sector plans	Usually participant, except in public-sector plans	Usually participant (because most benefits are paid as a lump sum)	Participant
Postretirement Mortality Risk	System – for individual and spouse	Sponsor if benefit paid out as life income Participant if benefit paid as lump sum	Sponsor if benefit paid out as life income Participant if benefit paid as lump sum	Usually participant (because most benefits are paid as lump sum)	Participant

It should be noted that where the individual bears inflation and mortality risk postretirement, the greatest problems are likely to be at the very high ages. The impact of an adverse outcome will more likely be felt at older rather than younger ages.

4. Discussion and Analysis of Selected Risks

The risks viewed as most important: The SOA 2003 Risks and Process of Retirement Survey described in the Appendix provides insight into how the public views different types of risks. Retirees are primarily concerned about keeping up with inflation. The following table lists other items of primary concern to respondents.

Retirees			
Risk	**Top Priority: % Indicating Most Concerned (2003)**	**% Very Concerned or Somewhat Concerned**	
		2003	**2001**
Inflation	17%	57%	55%
Health care	12%	46%	43%
Depleting savings and having only Social Security	11%	41%	n/a
Not having enough to pay for long-term care	9%	47%	48%

Other risks were also surveyed, including the risks of not being able to maintain a reasonable living standard, not being able to stay in their own home, not being able to rely on family members, and, the lowest concern, not having money to leave to heirs. Note that 26 percent of retiree respondents did not identify a top priority.

For preretirees, the top priorities were more concentrated. The top five issues included the four that were highest for retirees but prioritized in a different order. The primary issues are noted in the table below.

Preretirees			
Risk	**Top Priority: % Indicating Most Concerned (2003)**	**% Very Concerned or Somewhat Concerned**	
		2003	**2001**
Health care	24%	79%	58%
Not being able to maintain reasonable living standard	15%	71%	55%
Inflation	14%	78%	63%
Depleting savings and having only Social Security	12%	65%	n/a
Not having enough to pay for long-term care	10%	65%	52%/57%

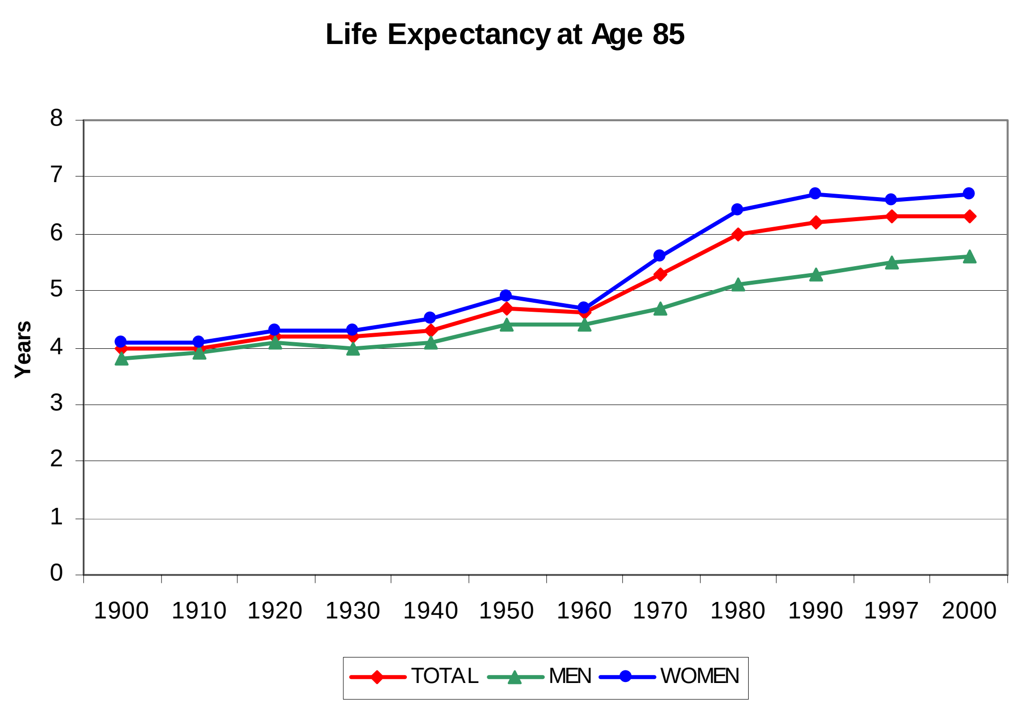
The preretirees are more focused on risk than the retirees. While there was not much change from 2001 to 2003 in the reported concerns of retirees, there were big increases in the reported concerns of preretirees. It should be noted that this was a period when health-care costs were increasing rapidly, employers were dropping retiree health coverage, and there were poor returns in equity markets. The authors were not surprised by the increased focus on risk by pre-retirees and would have expected an even greater increase.

This section covered only those risks viewed as most important by the public. The discussion that follows is based on the authors' view of the importance of risks to the advanced age subset of the population grouped within longevity, family structure, health care and employment.

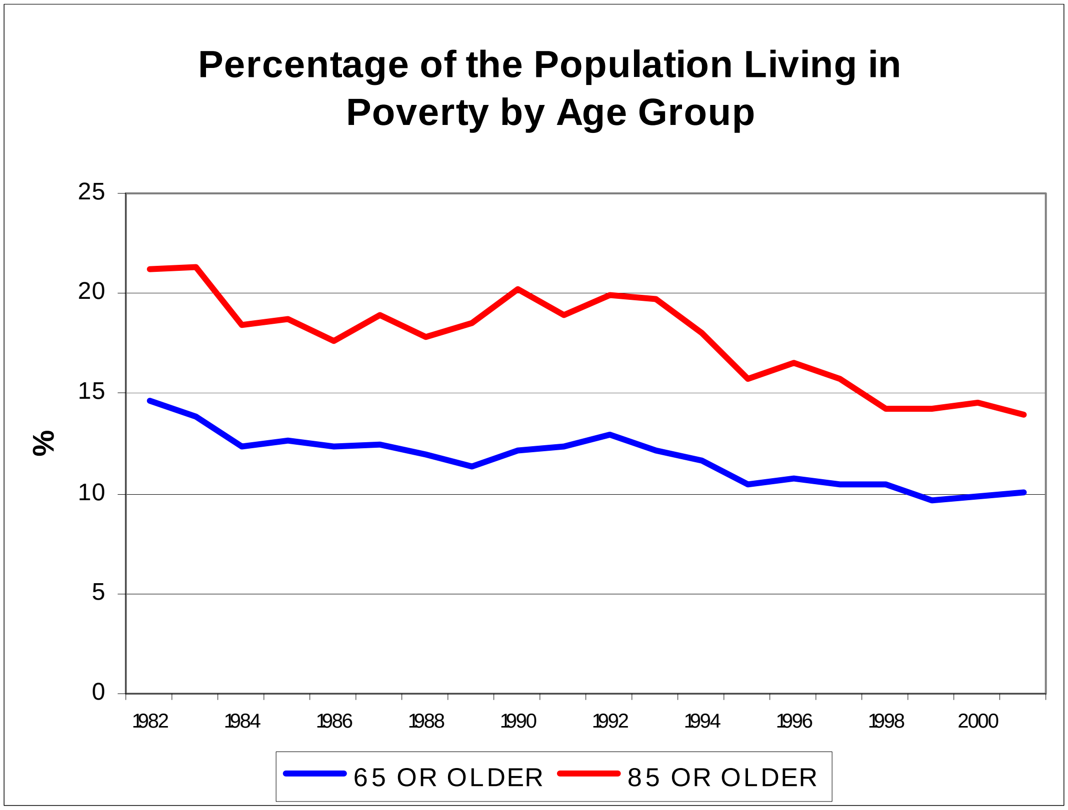
Risks Related to Longevity, Outliving Assets and Changes in Family Structure:

The importance of these topics is growing. As indicated above, more people are living to very old ages. Because poverty rates increase with age, as more people live longer, more people are living in poverty.

More people are living to very old ages: According to the *Federal Interagency Forum on Aging-Related Statistics Older Americans 2000: Key Indicators of Well-Being*, life expectancy at high ages (over age 85) has increased more than 50 percent during the 20th century.



This is important in focusing on how well the oldest population is doing. The percentage of the population in poverty increases with increasing age, providing evidence that the impact of the risks is often greatest at the highest ages.



The chart above shows poverty rates at ages 65 and older and 85 and older from 1982 to the present. Poverty rates have dropped over time but not consistently. They are consistently much higher at the ages over 85. Hypotheses to explain this trend include the following:

- There are more widows in the over age 85 group, and the arrangements of the family did not provide well for widowhood.
- Assets have been depleted at earlier ages.
- More people in the over-age-85 group needed significant care that depleted assets, impacting the financial security of the individuals and their spouses.
- Pension benefits did not keep up with inflation.

Research is needed to understand what is happening to this group and why so many more of them are poor at the higher ages.

Understanding of longevity probability and risk: The following table shows the probability of a couple, both of whom are currently age 65, living to 80, 90 and 100. It shows the probability of both living to these ages, of the husband living to these ages, of the wife living to these ages and of either one living to these ages.

Couple Both Age 65				
Probability of Survival to Various Ages				
	Survival of Husband	Survival of Wife	Both Survive	Either Survive
80	0.57	0.75	0.43	0.89
90	0.17	0.37	0.06	0.48
100	0.01	0.05	0.00	0.06

**Based on GA83M/F Mortality Table*

One of the findings of studies of public knowledge and perceptions is that there is not a clear understanding of mortality risk. Some people will live to a very high age while others die early. The typical financial planning process focuses on average life expectancy, and there is not a good understanding of average life expectancy. Average life expectancy is usually an approximation of median age at death. Half the population will outlive the median age at death.

The *2003 Risks and Process of Retirement Survey* shows a spread of expectations with regard to the average life expectancy at age 65:

Expectation of Average Life Expectancy at Age 65				
	Male Preretirees	**Female Preretirees**	**Male Retirees**	**Female Retirees**
Less than 75	9%	12%	15%	5%
75 to 79	20%	16%	23%	13%
80	25%	18%	25%	22%
81-84	6%	4%	7%	7%
85	22%	17%	14%	27%
86 and older	14%	26%	7%	18%
Don't know/refused	3%	6%	11%	19%

Preretirees expected people to live longer, and both groups expected females to live longer than males. Depending on the mortality study used, women can be expected to live about four to six years longer than men.

Retirees were also asked how long they expected their retirement to last. Those who retired before age 62 were more likely to expect their retirement to last at least 30 years (24 percent vs. 10 percent). People with poorer health and lower incomes (less than $25,000) were more likely to answer that they did not know. The expectations expressed are consistent with the probabilities of living to various ages. They support the lower probabilities of men living to higher ages. Fifty-one percent of male retirees and 68 percent of male preretirees indicated an expected life span of 80 or more at age 65, and the mortality table shows that 57 percent will live to age 80. For females, the expectations of retirees are that 63 percent will live to age 80. The expectations of preretirees are that 66 percent will live to 80 or more, compared to 75 percent. The longer life spans expected by preretirees might be seen as reflecting an expectation of future mortality improvement, and they also may reflect the fact that pre-retirees have not experienced as much chronic illness as retirees.

The life span and its variability make it important to think about income at advanced ages. Many people are not aware of the potential to use an annuity to secure a guaranteed lifetime income, and many financial advisors feel it is more advisable for people to manage their own money. The *Retirement Plan Preferences Survey* focused on preferred distribution options and showed that people have a strong preference for plans providing lifetime income. This was puzzling to actuaries working with retirement plans because practitioners observe that lump sums are chosen most often in defined-benefit plans that offer a choice. The *Retirement Plan Preference Survey* indicated that workers prefer the following payout options:

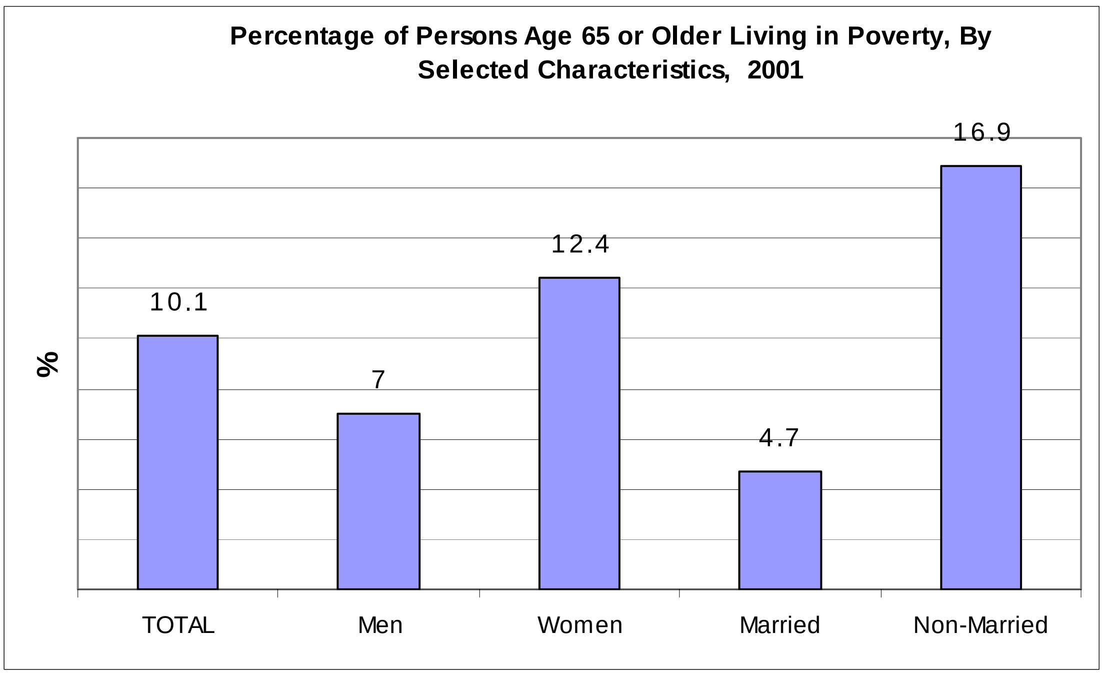
Payout Options	**Worker Preference**
A series of regular payments for the rest of your life and continued payments to your spouse for the rest of her life, if spouse outlives you	51%
A combination of regular payments and a lump-sum withdrawal	18%
A series of regular payments guaranteed for the rest of your life regardless of how long you live, with no further payments after death to a spouse or other heir	15%
Withdraw the entire amount as a lump sum	12%
Don't know/no answer	4%

The groups that would prefer a lump sum versus a stream of payments included younger respondents and those with household incomes over $50,000. The authors point out that if a lump sum is used up too quickly, the impact will be felt at the highest ages.

Our analysis of longevity risk shows how important it is to address a key issue: little understanding of the likelihood of outliving assets. The data on what is perceived as most important by individuals reinforce that it is not among the top risk issues for either retirees or preretirees. The data on life spans show that in nearly half of all couples age 65, at least one will survive to age 90 and that 37 percent of women age 65 will survive to age 90. The typical financial planning practice for using assets to an expected time of death also reinforces this lack of concern.

Risks Related to Family Structure and Status

How retirement risk is allocated in the family: Assets are accumulated during working years and spent during retirement years. Where the family stays together during the entire period, there is no problem of allocation by the individual. This is important when focusing on the highest ages since in most couples, the man will be the first to die. The widow is then left with the need to care for herself. Postretirement risks fall heavily on widows and often there is not adequate planning. Poverty rates by family status and age clearly document this fact.



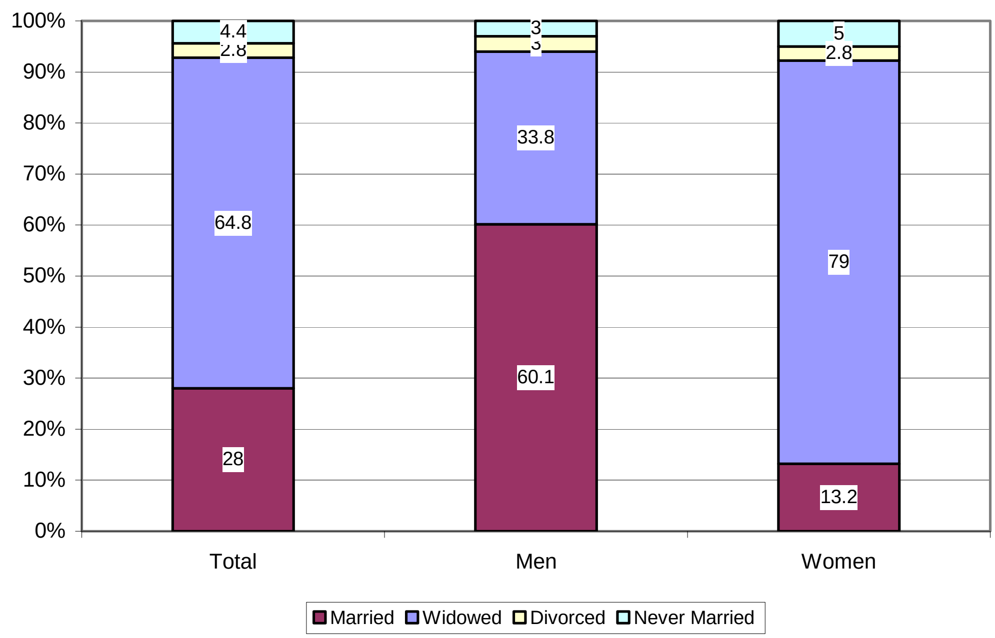
Source: Current Population Survey, Annual Social and Economic Supplement, 2002.

Among the population 65 and older, nonmarried women face the biggest problems. About 12.4 percent of women live near the poverty line. Some of the reasons why so many women are poor include the fact that the retirement system is earnings-based, and women tend to have lower earnings and fewer years of employment. Some of the risks related to family status and structure applicable to the most advanced ages are widowhood and change in marital status.

Widowhood: There are distributional issues in the postretirement period. Depending on the method of allocating assets over time and the distribution strategy used, there may not be continued income to the survivor after the first person in a couple dies. Economic status declines at time of widowhood. As shown below, the majority of women over age 85 are widowed. This percentage increases with increasing age.

According to the *Federal Interagency Forum on Aging-Related Statistics Older Americans 2000: Key Indicators of Well-Being*, only 28 percent of the population 85 and older is married, while almost 65 percent are widowed. The percentage of widowed is much higher for women (79 percent) than for men (34 percent). This is due to both women's life spans and the fact that men often marry younger wives.

Marital Status of the Population 85 and Older



According to the U.S. Census Bureau, in 2002 there were 7.1 million widowed Americans over the age of 75; 18 percent were men while 82 percent were women. The financial burden is harder for widowed women given that they live longer and are more likely to outlive their assets. It is generally believed that women are less informed about financial management. For most couples that are retired today, the husband was the larger earner during their working years, and women tend to rely on their husband benefits' in retirement.

Often widowhood is accompanied by a decrease in living standard. The surviving spouse needs about 75 percent of the couple's income to maintain his or her standard of living. The typical benefit received upon death of a spouse is 50 percent of the regular pension as a result of the 50 percent qualified joint survivor annuity (QJSA) requirement. Social Security provides continued benefits to survivors based on their personal work and family status. Some women have experience in managing their finances and are full partners in that endeavor or even are the family financial manager. Others have little experience, and along with the emotional distress at time of widowhood, they are suddenly confronted with the need to manage their own finances. An even worse situation is the case of the death of a disabled person's caretaker spouse.

Social Security provides benefits to the surviving spouse. Depending on the family work history, the benefits to the surviving spouse can be anywhere from half to two-thirds of the combined benefits for the couple. They are half in a dual-earner family with equal earnings and two-thirds in a single-earner family over the entire work history. Added protection to help support widows can be provided through survivor benefits in pensions, life insurance, annuities, LTCI and personal savings.

As indicated above, widowhood is a greater risk for women than men. The likelihood of widowhood increases with increasing age. Older women tend to be less informed about risks and also tend to rely on their husband's retirement benefits. Unless the couple planned for widowhood, the widow may find herself with a big reduction in retirement income and/or resources.

According to the University of Michigan Retirement Research Center, when a spouse dies before age 61, the main loss in household income is due to the loss of the deceased's labor earnings. When a spouse dies between ages 62 and 69, reduction in private pension benefits affect a widow the most. By age 85 a large proportion of women (43 percent) are kept out of poverty by Social Security. At any given time, the women who had been widowed the longest had the highest poverty rates. ("The Economic Consequences of Widowhood" David R. Weir, Robert J. Willis and Purvi Sevak; "How Exits from Labor Force or Death Impact Household Incomes: A Four Country Comparison of Public and Private Income Support" by Richard V. Burkhauser, Phil Giles, Dean R. Lillard and Johannes Schwarze)

Change in Marital Status: Divorce is also an issue that affects retirement security, and it can occur before or after retirement as 4.6 percent of males 75 and older are divorced and 5.2 percent of women in the same age category are divorced.[*] Divorce can create major financial problems for either party and in some cases for both parties.

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[*] *Source: Statistical Abstract of the United States, 2003, Table No.63*

The allocation of assets in the event of family break-up is a matter of law and family decision. Under domestic relations laws in most states, pension assets are assets to be considered during divorce, but often this does not happen. One member of a couple may also have much greater capability to build retirement assets after divorce than the other. Social Security includes provisions that work well for some people and not others. Both marriage and divorce can affect benefit entitlement under public and private plans. ERISA allows for a split of benefits in divorce in private pension plans. Older couples that marry, especially those with children, may want a prenuptial agreement to define each party's rights to property as they wish, not as a court would decide.

The data presented here reinforce the importance of planning on both an individual and a family basis. The risks related to family interact with longevity risk, as retirement income for a couple is often not paid to the widow.

Risks Related to Health Care, Long Term Care and Housing:

Health-care costs: Unexpected health-care needs can be a major financial problem at any age, but serious health problems are more likely at older ages. Lower-income retirees with chronic or severe illness may spend 35 percent or more of their resources on health care. Prescription drugs and long-term-care benefits are a major issue, especially for the chronically ill. People who lose functional status often lose it gradually.

Medicare is a partial solution to financing the health care needs of the very old. However, Medicare doesn't cover prescription drugs at present and covers long-term care to a very limited extent. Beginning in 2006, Medicare will cover a substantial share of prescription drug costs. Medicare is the primary source of coverage for post-65 retirees. Supplemental coverage is available from employer plans and individual "Medigap" policies, but these policies often exclude or severely limit prescription drug coverage. HMOs with Medicare risk contracts can provide total health coverage, but this coverage also varies with regard to prescription drug coverage and generally does not include long-term-care coverage. A new generation of Medicare HMOs and related plans, Medicare Advantage plans, will be available beginning in 2006. It is too early to tell how many will be available and what role they will play in offering coverage. The last generation, Medicare + Choice plans, covered fewer people over time. This happened because plans left markets in large part because of the level of federal support provided. Others raised their prices or lost physicians, and beneficiaries elected to leave them. Future resources for health-care coverage for retirees are hard to predict because a high level of uncertainty exists about the future of Medicare and employer plans.

Today, millions of retirees are covered by employer-sponsored retiree health benefits, but current trends show that fewer workers will be able to enjoy this financial protection when they retire. The U.S. health-care system is based heavily on employer coverage. Individuals, particularly those in poorer health who need to purchase health insurance on their own, often face few coverage options and extremely high prices. The Employee Benefit Research Institute (EBRI) provides a perspective on future coverage. EBRI says:

"Very few retirees are expected to be eligible for retiree health benefits in the future. Retiree health coverage generally is offered only by large employers, as very few small employers ever offered the benefit and more than half of private-sector workers are in firms with fewer than 500 employees. In 2000, only 11 percent of all U.S. private establishments offered retiree health benefits to Medicare-eligible retirees and only 12 percent to 'early' retirees under age 65." [*]

Employees working in firms with this coverage usually need to satisfy eligibility requirements by working to retirement age and for a minimum number of years. The situation with regard to postretirement coverage changes with age and grows more severe over time and at the older ages because many employers have imposed caps on the total that they will provide to help pay for the cost of retiree health. The retiree contributions, i.e., their share of the benefit cost, will go up at a more rapid rate once the caps are reached. Others are simply gradually increasing the share of the cost to be borne by retirees and changing plans to increase deductibles and co-payments. Therefore as retirees get older, the cost of total medical care is likely to increase, and their share is likely to increase as well.

As retirees are forced to reduce their reliance on employer-sponsored plans, financial planning for retirement that goes beyond simply replacing preretirement income will become even more necessary.

The following chart illustrates the types of health care benefits provided to 32.7 million noninstitutionalized elderly Medicare beneficiaries in 2000.

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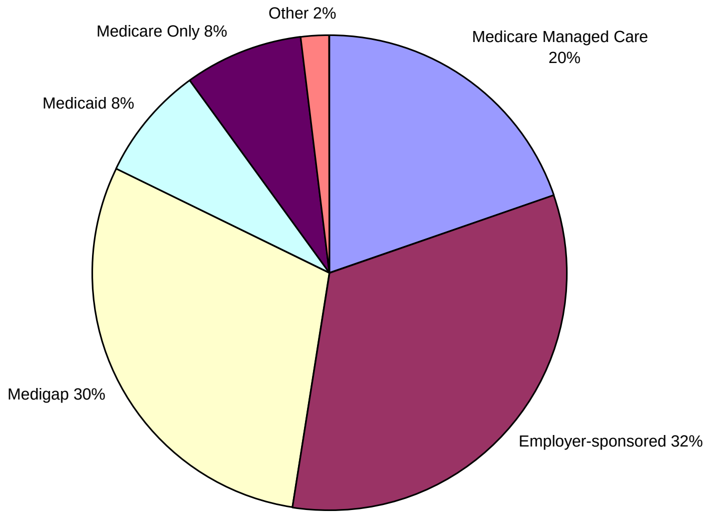
[*] *Source: EBRI Issue Brief No. 254, Executive Summary, February 2003.*



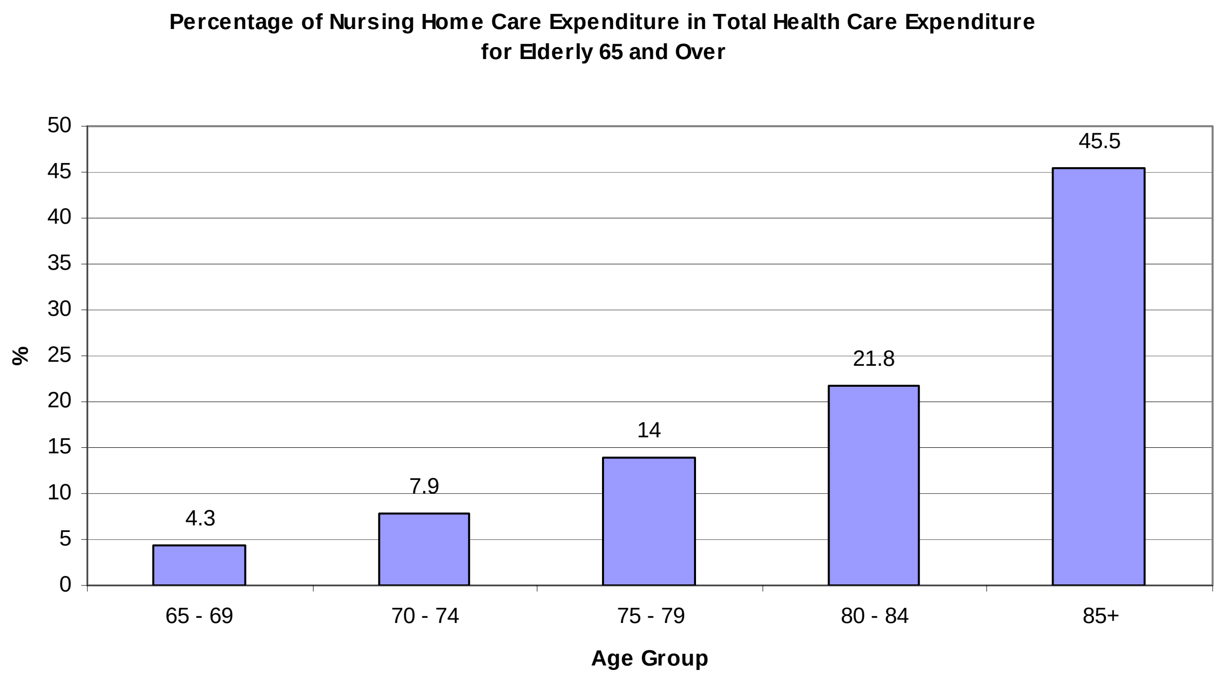
Source: The State of Retiree Health Benefits: Historical Trends and Future Uncertainties, Patricia Neuman ScD, The Henry J Kaiser Family Foundation (MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file 2000)

Given that 68 percent of retirees don't have employer-sponsored health benefits and the numbers of such plans are declining, there will be significant gaps in coverage. The magnitude of uncovered expenses for those with chronic illness and severe acute illness make this a key issue at advanced ages.

Loss of functional status: Many people ultimately lose some functional status. In extreme cases, people need help bathing, dressing, eating, etc. In more moderate situations, people may need help making appointments, going to the doctor, securing/finding transportation, doing housework, going shopping, etc. Needs for assistance are measured through the use of instrumental activities of daily living (IADLs) and activities of daily living (ADLs). LTCI covers more extreme situations and generally requires that help is needed for two out of five ADLs or three out of six ADLs. There are no formal insurance or public programs to provide support to people who need more moderate help. For people who need moderate help and are married, the spouse is often able to provide that assistance. For individuals who are alone and without a family member who can help, it may be necessary to move to an assisted-living facility, which will offer a partial solution. Other papers included in the "Living to 100 Symposium" offer a framework for looking at different degrees of disability and explore the implications of loss of mobility when an individual is no longer able to drive. These issues become more important with increasing age. They are likely to affect women more than men because they live longer and are more likely to live alone.

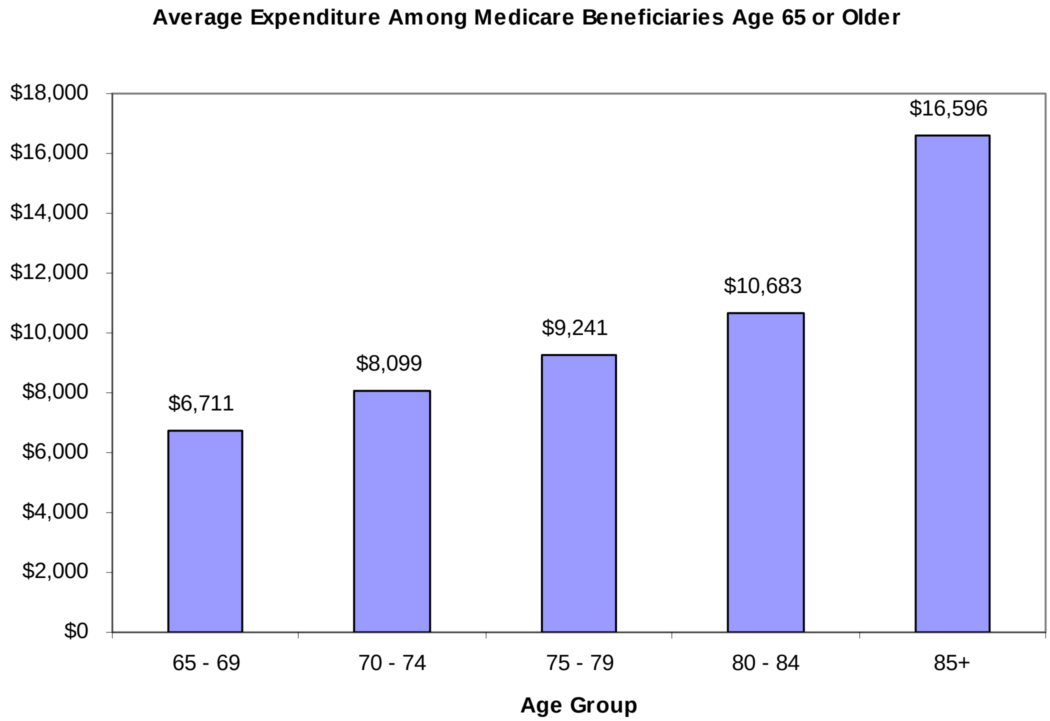
Long-term Care: While Medicare pays for most hospital care for covered Americans over age 65 and for a lot of physician care, it offers more limited coverage for long-term care. It is not clear how aware the public is of coverage differences and how well they make the distinction between acute and long-term care. Long-term care is different from acute care in that needs increase sharply with increasing age. Without appropriate financing, the cost of care can easily deplete most retirement savings. At the point that there are no more assets available, many individuals can qualify for Medicaid. Private insurance is a method of financing care for the severely disabled, and it enables the elderly to retain their assets.

The following chart shows how the use of long-term care increases with age:



Source: Federal Interagency Forum on Aging Related Statistics

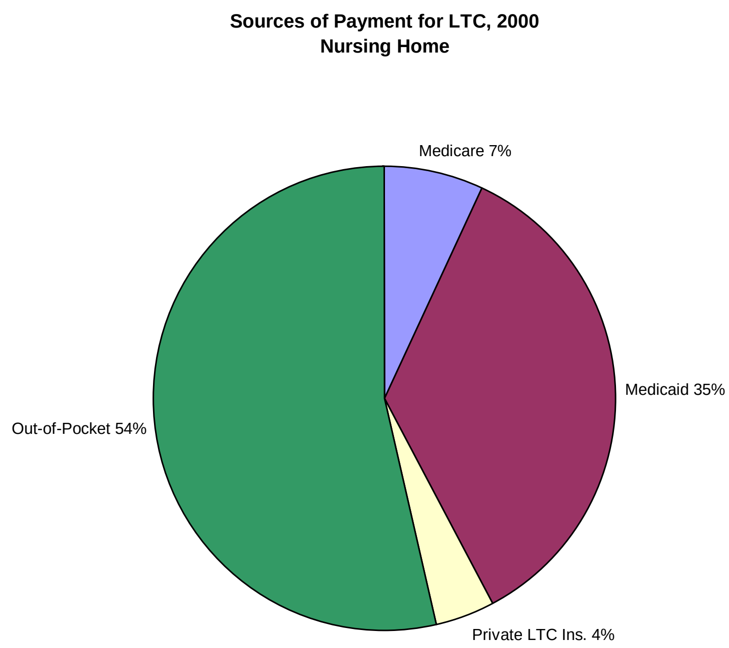
Not only do the chances of needing care go up with age, but also those who get care in a nursing home spend more at the higher ages. The table below shows the 1999 average annual expenditure among Medicare beneficiaries for health care by age groups.

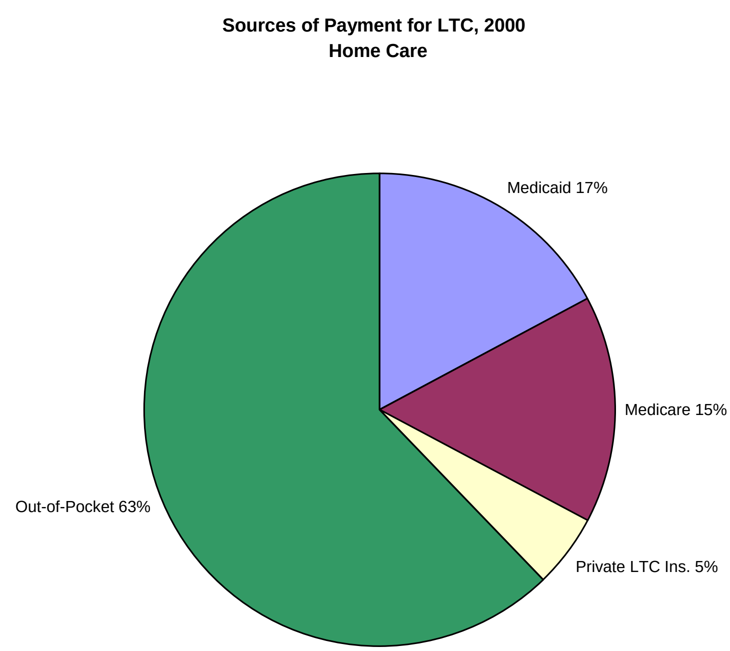


Source: Federal Interagency Forum on Aging Related Statistics

There are two types of concerns with regard to long-term care: paying for it and having access to the appropriate facilities and caregivers. In the long run, there are likely to be shortages of caregivers. Facilities or caregivers might not be available for acute or chronic care, even for individuals who can afford to pay for these services. The problem is likely to be more severe for those whose care is financed by Medicaid, the state system that supplements Medicare and pays for a great deal of long-term care.

In the absence of insurance, most long-term care is paid for by Medicaid or out-of-pocket by patients and their families. According to the Centers for Medicare & Medicaid Services (CMS) Office of the Actuary, National Health Statistics Group, the sources of payment for the $100 billion in long-term-care spending in 2000 are as presented in the following charts:





Source: CMS, Office of the Actuary, National Health Statistics Group. The CMS Chart Series

Spouses, children, other family and friends are a major source of long-term care. However, when someone becomes severely disabled, family members may be unable to provide the level of care needed. Some individuals have no family members, or their family lives far away. When family and friends are not available or able to provide the necessary care, the person needing assistance will be institutionalized.

Long-term care is a real risk to retirees' financial security, but often people deny that they will need care. Only one in eight Americans over age 45 believes it is very likely that he or she will spend time in a nursing home at some point after the age of 65 (SOA 2001 Retirement Risk Study), although they say that a much higher proportion of the overall population will need care.

Another area of misinformation is the ownership of LTCI. People overreport LTCI ownership. In the Life Insurance Marketing and Research Association's (LIMRA's) *Retirement Risks – How They Are Viewed and Managed* report, 17 percent of preretirees and one quarter of retirees claimed they owned LTCI. Experts believe LTCI ownership to be in the single, not double, digits. While LTCI is expensive, it is not as costly as people believe it to be.[*]

Housing: Housing can also be an important asset in retirement. For the average income retiree aged 65 to 74, home equity is three times as large as other financial assets. For the high-income retiree aged 65 to 74, home equity is 43 percent of assets above Social Security and pensions, and other financial assets are 57 percent. (Source: Presentation by Betty Meredith at Profit Sharing Council of America annual meeting, September, 2004). For people who are living in their own homes and who own them free and clear, the value of the house may offer some options for retirement financing. The options include taking a reverse mortgage and staying in the house, selling the home and renting accommodations, downsizing or moving to specialized housing.

People often prefer to stay in their own homes, in which they lived for a long time, but this may not be possible for a variety of reasons. Sometimes they are no longer affordable, and downsizing becomes a necessity. In other cases, there may be barriers to getting around, such as steps, or requirements for yard care and snow removal that pose a challenge. Sometimes, personal care needed by individuals is simply not available at their residence.

Housing is closely related to options for care. There is a variety of special types of housing for older Americans. Some offer care as part of a package with housing. This can be particularly important for people needing moderate support. Assisted-living and nursing homes include care together with housing. Independent living arrangements for seniors offer some supportive services but generally not care. They typically offer

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[*] *Source: Retirement Risks – How They Are Viewed and Managed, LIMRA International, 2002*

transportation and some meals. Continuing-care retirement communities are integrated, multistep communities where an individual starts by living independently but can obtain various forms of assistance within the community, as the need arises. There is a financial and insurance aspect of these arrangements.

Risks Related to Employment:

Work and the definition of retirement: Many people do not leave employment all at once, but rather retire gradually. This has been studied extensively with significant focus on the move to bridge jobs. Work is increasingly becoming a part of retirement, particularly in the early years. It is unusual, however, for a person to be employed after age 80, and it is unlikely that this will change.

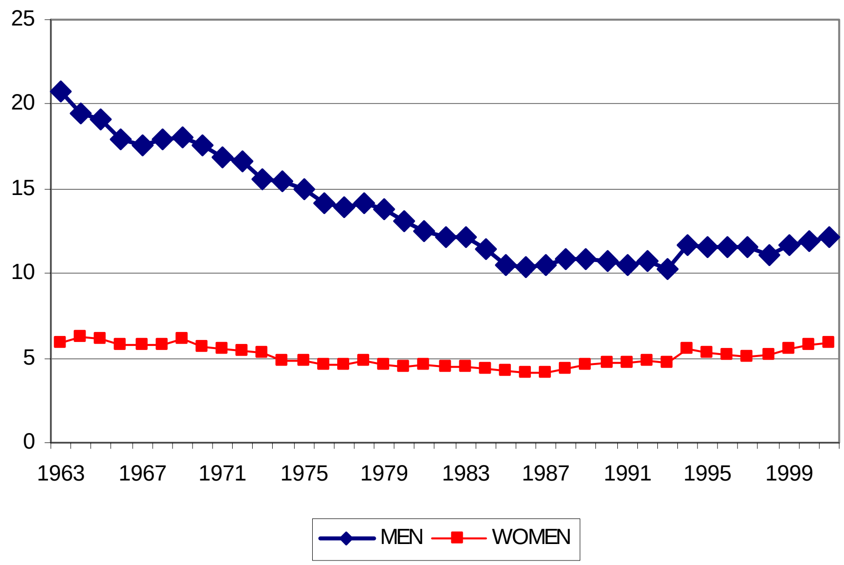
In the *2003 Retirement Risk and Process of Retirement Survey*, respondents were asked about the process of retirement from their primary occupation. They also were asked about their current employment status. Responses indicated that some people who consider themselves retired are still gainfully employed.

The prevalence of work and dependence on earned income during a transition period that often extends beyond "retirement" is important to understanding retirement security and risk. This is also important for the future as more people say that they expect to continue working in retirement.

A new study, "Staying Ahead of the Curve 2003: The AARP Working in Retirement Study," states that 70 percent of workers who have not retired plan to work into retirement or never retire. Almost half indicate that they envision working into their 70s and beyond.

The following chart shows labor force participation rates at ages 70 and over from 1963 to 2001:

Labor Force Participation Rates for Population 70 and Older



Source: Current Population Survey.

Employment prospects for individual retirees vary greatly because of the demand for specific and changing skill sets and differences by individual in interest and capability.

5. Conclusions

The retirement world of the future is challenging because of the decline in defined-benefit plans, low savings rates in the U.S., increased longevity and the failure of many people to effectively plan for retirement. Those who plan well for the early years of retirement may not have accounted for the possibility that they will live past their average life expectancy.

Data show that costs do increase with rising age and that poverty increases, as well. Research on what the public knows about retirement and retirement planning shows big gaps in knowledge and many misperceptions. Any system that relies too much on people providing for themselves is likely to have segments of the population who have not been able to save enough for retirement. Particularly difficult issues arise at the very high ages.

As we think about these gaps, we need to remember that there are different segments of the population with regard to retirement security:

- People who in old age are relying primarily on Social Security and have no meaningful financial assets. This group will not be impacted by these perceptions since they are not planning for themselves. How well they do at very old ages is a function of the government programs and their health.

- People who have substantial assets and for whom financial and retirement planning is heavily focused on minimizing estate taxes and maximizing the inheritance for their heirs. This group should be fine economically at very high ages.

- People in the middle. For this group, traditional planning for retirement is very important. This is the group most likely to see a decline in economic status as they age.

The impact of gaps is most important to the 50 percent to 60 percent of the population who are in the middle. Strategies for managing postretirement risk are primarily for the people in the middle. For the bottom group, retirement security could be enhanced with some financial assets, either by saving or through longer-term employment in jobs that offer some types of pensions. However, without such assets, these strategies don't work.

Some gaps and issues with regard to perceptions that we found are:

- There is relatively little understanding of longevity risk. Outliving assets is not an issue recognized as very important by many retirees.

- Survey respondents indicate that they prefer lifetime income, but when given a choice, plan participants in qualified plans tend to choose lump sums. Taking payments in lump sums creates particular challenges for security at very high ages.

- Pre-retirees misunderstand what their primary sources of income will be in retirement. They underestimate the importance of Social Security and overestimate the level of retirement resources provided by personal savings.

- People tend to underestimate their own need for long-term care, believing that others will be more likely to require these services.

- More people think buying risk-management products is a good idea than actually buy such products.

- While many individuals are now heavily responsible for managing their own retirement assets and planning, many have basic misunderstandings about the financial market and investment products. Their understanding of how to invest may also decline with increasing age if they have any dementia.

- Many people retire earlier than they plan to, some for reasons of health, some because of job loss and some for other reasons.

There are several different directions that can be taken to enhance the retirement futures of Americans. They include:

- Plan designs that recognize people need help in saving for retirement. Within the context of defined-contribution plans, features such as automatic enrollment, good default investment options and provisions to direct pay increases automatically to plans offer potential routes to more retirement savings. These default options address the need to build assets for retirement, but not the management of funds after retirement.

- Increased education with research supporting it to make sure program designs are effective. It is important to extend learning to include management of the distribution phase.

- Maintaining a good level of employer contributions to retirement programs whether they are defined benefit or defined contribution.

- Being sure that Social Security provides a good base layer of benefit. The studies discussed here reinforce the importance of Social Security and the need to moderate reliance on individual efforts.

An analysis of the research indicates that there are significant gaps and perceptions that demonstrate the risks to high-age Americans. They help us understand why poverty rates increase with age. The potential impact of the increase in personal responsibility for retirement will be greatest at the very high ages.

Appendix
Studies of Public Perceptions about Retirement Related Risk

Study	Methodology	Sponsors and Partners	Sample
Retirement Plan Preference Survey (2003)	Two-stage mail panel First survey stage used to determine those members of the Synovate mail panel that qualified based on participation in a pension or retirement plan. 10,356 of 15,000 panel members responded to the first stage, and a stratified random sample was selected.	Sponsors: Society of Actuaries American Academy of Actuaries Research Firm: Mathew Greenwald & Associates	Second-stage surveys were sent to 1,088 workers and 1,889 retirees. The response rate for the second stage was 75% for workers and 33% for retirees. After discarding incomplete responses, a total of 790 worker responses and 600 for retirees were analyzed.
2003 Risks and Process of Retirement Survey (2003)	Telephone Interviews Households were selected from a nationwide targeted list sample.	Society of Actuaries Mathew Greenwald & Associates EBRI	Americans aged 45 to 80 split between retirees and preretirees – total of 604 interviews.
Retirement Confidence Survey (2003)	Telephone interviews Series starting in 1993	EBRI ASEC Mathew Greenwald & Associates	1,000 individuals were interviewed: 782 workers aged 25 and older, and 218 retirees
Insight into Participant Investment Knowledge and Behavior (2002)	Eight in a series starting in 1991	John Hancock Research Firm: Mathew Greenwald & Associates	801 respondents between the ages of 25 and 65 Respondents were people who contributed to 401(k) plan and had a choice of funds to invest