Mortality Assumptions: Are Planners Getting It Right?

by Cheryl Krueger, CFP®, FSA
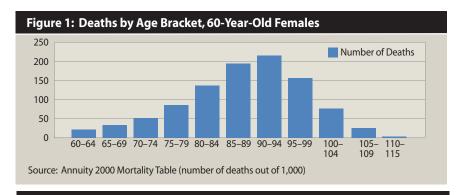
In its annual retirement income planning study,[1] FPA asked financial planners what age they typically plan to for their male and female clients. The average ages weren't too surprising: 91.7 for male clients and 94.0 for female clients. Are planners getting it right?

It's important for financial planners to know where their mortality assumption comes from, whether it is appropriate for each client, and what the risks are for getting the planning age incorrect. This article provides background for planners who assume that planning to life expectancy is sufficient for retirement planning purposes.

First, a clarification on terminology. I use the term "planning age" to identify the age at death assumed in the financial projections for the client. I distinguish "planning age" from the technical term "life expectancy." Life expectancy is the average expected remaining life span of an individual stated as a number of years; for example, the life expectancy for a group of individuals now age 65 may be 20 years.

Life expectancy is simply a point estimate based on probabilities; people actually die at lower and higher ages. Figure 1 shows how many of a group of 1,000 60-year-old females are expected to die within each five-year grouping.

Although the life expectancy age for this group is 87.4, more than 20 percent are expected to die between the ages of 90 and 94, and more than 26 percent are expected to die at age 95 or later. As you can see, life expectancy provides guidance for selecting a planning age, but it is unlikely to be an *appropriate* planning age.

Figure 1: Deaths by Age Bracket, 60-Year-Old Females

Source: Annuity 2000 Mortality Table (number of deaths out of 1,000)

Table 1: Life Expectancy Ages

Current Age	Males		Females	
	Social Security	Annuity 2000	Social Security	Annuity 2000
60	80.3	84.6	83.2	87.4
65	81.5	85.4	84.2	88.0
70	83.1	86.6	85.4	88.8
75	85.1	88.2	87.0	89.9
80	87.4	90.2	88.9	91.3

Finding the Right Mortality Table

Evaluating planners' assumptions begins with discussing the "right" mortality table to use to determine planning ages. There are many mortality tables with many different uses. The best known are the U.S. general population mortality tables published by the Social Security Administration.

A simple-to-use life expectancy calculator is found on the Social Security website (www.ssa.gov). Enter your birthday and gender, and you'll find your projected life expectancy age. Easy! But when it comes to financial planning, it's important to remember that these tables reflect the total U.S. population, meaning all levels of income and health are included in the data. Your clients likely have mortality profiles more similar to pension recipients or annuitants, who are typically healthier than

the general population. And remember, this is a life expectancy, meaning that approximately half of the general population will live longer than the calculated age.

One mortality table most commonly used as a basis for healthier, more affluent (middle- to upper-class) populations who have not been underwritten is the Annuity 2000 table. Table 1 shows life expectancy ages from the Annuity 2000 table compared with the Social Security table.

Both tables are gender specific, and both include all levels of health and tobacco use. However, the annuity table represents a group of people who look more like the employed population, and who have selected themselves as having a higher likely life expectancy through their choice of an annuity. Because of this difference, tables such as Annuity 2000 appear to be more appropriate bases of planning ages

than the broadly based Social Security table. Because clients tend to underestimate their own life expectancies, planners should be prepared to discuss with clients higher expected life spans.
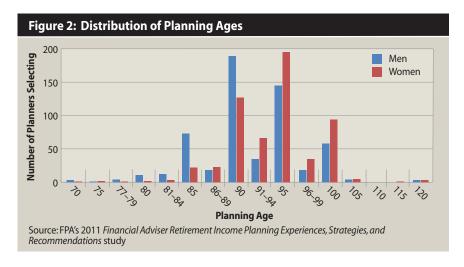
We know that many factors significantly affect mortality, including tobacco use, gender, certain health issues, family history, and socioeconomic status. Separating clients into groups based on gender and tobacco use can give planners a sense for overall mortality. Knowing more details about the client's health may justify adjusting the planning age up or down. For simplicity, we'll assume we are working with a more typical financial planning client group—middle to upper class, non-tobacco users, with no known health issues.

Projecting Life Span

The next issue to address is how far to project life spans, knowing that clients are equally likely to live beyond the life expectancy age as to die prior to that age. As a planner, you may assume a longer potential life span, thereby planning for a higher chance that the client won't outlive his or her assets, or a shorter potential life span to ensure that any risk of premature death is covered via insurance or other risk management techniques.

In a "base" retirement scenario, the planning age is typically longer than the life expectancy, as reflected in the average assumed planning ages in FPA's study. How much longer should it be? Life expectancy age increases as current age increases. You can see in Table 1 that a female age 60 is expected to live to age 87.4. That same female, after she turns 80, is expected to live to 91.3. But by the time the client reaches age 80, she's probably beyond her most effective option for extending her assets—saving more by deferring retirement—so a longer planning horizon is suggested. Although there is no right answer, planning to the 30th or 20th percentile might be considered a reasonable assumption.

FPA's study shows a considerable differ-

Figure 2: Distribution of Planning Ages

Source: FPA's 2011 *Financial Adviser Retirement Income Planning Experiences, Strategies, and Recommendations* study

ence in opinion in the choice of planning ages. Figure 2 shows the number of survey respondents selecting various planning ages for their clients.

At age 65, the 30th percentile planning age from the Annuity 2000 table is 90 for males and 93 for females; the 20th percentile ages are 93 for males and 95 for females. The most common assumptions chosen in the FPA study are consistent with these ranges. Without more understanding of the planner's rationale, it is difficult to support selection of a planning age less than life expectancy plus a margin as a standard planning assumption.

Where retirees' income relies heavily on invested assets (401(k) plans, deferred annuities, IRAs, and investment accounts), outliving assets is a significant risk. Where retirement income is paid based on the survival of the income beneficiary (Social Security, defined-benefit pensions, and income annuities), inflation and the reduced income of the survivor after the first death may be the more pronounced risks to consider.

Using a planning age longer than life expectancy will tend to favor annuitization products, whereas a planning age shorter than life expectancy may suggest life insurance to offer protection for survivors.

Implications of the Planning Age

Are planners getting it right? The average ages reported in the FPA study indicate

that, overall, yes. Planners understand that an age greater than life expectancy provides additional certainty and security for retirement planning for their clients. Planners know that women live longer than men and reflect that difference in their choice of assumptions.

However, it is important to consider the implication of the planning age. The choice of a single planning age is similar to choosing a single investment return. It represents a single, unlikely future outcome. As you disclose the uncertainty surrounding all assumptions in your plan, it is important to discuss with clients how the planning age is selected and how variations from the planning age will affect their ultimate financial outcome.

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Cheryl Krueger, CFP®, FSA, is a financial planner in Schaumburg, Illinois. She is participating in a joint NAPFA/Society of Actuaries project to promote the use of actuarial data in financial planning. She thanks fellow participants of that group, Anna Rappaport, Joe Tomlinson, Steve Siegel, and Rick Miller, for their assistance in developing this article.

Endnote

1. FPA's 2011 *Financial Adviser Retirement Income Planning Experiences, Strategies, and Recommendations* study.