

PERSPECTIVES

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Asset Allocation

Expecting more from life expectancy tables

By Stan Clark, Investment Advisor, and Michael Chu, Investment Advisor

We've written previously in *Perspectives* about life expectancy and inflation. We discussed how people are reluctant to plan too far ahead, despite rising life expectancies and the need to watch out for inflation over these longer periods. The key, as you may recall, is to have a financial plan with an appropriate asset mix, in order to plan properly for life expectancy and inflation.

Life expectancy can be complicated. But keep in mind, they are just averages. For example, we often hear that more Canadians are reaching 90 or even 100 years of age. But just as some of us turn out taller or shorter, most will live either longer than or less than the average.

How is life expectancy calculated? There are different methods. Let's describe a simple method using an example. We'll start with 60-year-old males. Over the year, we see how many survive, giving us the survival rate for one year. We repeat, doing the same for 61-year-olds, then 62 and so on. Now we have the one-year survival rate for each age.

We then proceed to combine the survival rates and calculate how many 60-year-olds will survive two years, then three years and so on. We keep going until the survival rate drops to 50%. This means that half the 60-year-olds have passed away. The age at which half the group has died is how the average life expectancy is determined. In this case the average is 89 years¹. Some 60-year-olds will die earlier than 89 and some will die after, but *half will have passed at 89* – which is why it's the average.

But who wants to be average? We've always been taught to be better than average. Today, if a 60 year old is healthier, they would likely live beyond the 89 average expected age. How do we factor this into our financial plan?

In the method we described above, the expected age is determined when half (50%) the group dies. But that also means half the group has survived and will live further. What if you think you could be in the top 25% rather than the top half? That would mean a survival rate of 25% of the original group. For a 60-year-old male, surviving until only 25% remain (or be in the top 25% of his group), the average age is 94 (5 more years).

What about overachievers who are super-healthy, not to mention extra lucky? Maybe they will want to plan to be in the top 10%, instead of the top 25% or average 50%. At this level, the average age is 97 years (eight more years than the average person).

You can see how the table is expanding. We have a list of expected ages for an average person (top 50%); then someone healthier than average (top 25%); then someone way healthier than average (top 10%). More importantly, you see how the expected age can change significantly, adding up to eight years in our example – and that has a big impact on your financial plan.

Of course, we don't know exactly which group you will belong to. But

Life Expectancy for 60-year-old

	Male	Female	Male/Female
Top 50% (average)	89	91	94
Top 25% (healthy)	94	96	98
Top 10% (over achiever)	97	100	101

to be conservative (and optimistic!), and in line with how pension plans do it, we use the 25% survival rate in our financial plans. This gives us an extra margin of safety in our projections.

To keep things simple, so far we've just been talking about 60-year-old males. As you can see in the table, females live a bit longer – usually by two to three years. The male/female column refers to couples. You'll notice that their life expectancy is even longer. This doesn't mean that couples live longer; it's because you have to plan for both instead of just one. Since there are two people involved, it's likely that at least one could live longer than average. So females, and more so for couples, have to plan for longer lives.

Another interesting fact: When you factor in expected improvements in healthcare, current age doesn't have that much of an impact on life expectancy. Everyone between ages 20 and 85 has the same life expectancies as in the table, give or take one or two years. This is because the advancements in healthcare that younger people will have, compensate for the extra life risks that they still have to endure. Meanwhile, people currently beyond 85, might not benefit as much from healthcare advancements, but are expected to live even a bit longer – just because they have made it that far already.

Here's to a long and healthy life! ■

¹ Life expectancies in this article are based on statistics used by Canadian pension plans which assume continued improvements in healthcare: 2014 Canadian Institute of Actuaries Canadian Pensioners' Mortality Report.



Stan Clark is First Vice-President, Portfolio Manager and Senior Investment Advisor for the Stan Clark Financial Team at CIBC Wood Gundy. Stan has direct responsibility for the team and oversees all areas of financial planning, investment selection and investment management.



Michael Chu is a Portfolio Manager and Investment Advisor for the Stan Clark Financial Team at CIBC Wood Gundy. Michael is a specialist in investment research and information technology.



The Stan Clark Financial Team
Where planning, investing and behavioral finance meet

Phone: (604) 641-4361 Toll free: 1 (800) 661-9442 Fax: (604) 608-5211 Email: StanClarkFinancialTeam@cibc.ca www.stanclark.ca

Stan Clark is an Investment Advisor with CIBC Wood Gundy in Vancouver, BC. The views of Stan Clark do not necessarily reflect those of CIBC World Markets Inc. This information, including any opinion, is based on various sources believed to be reliable, but its accuracy cannot be guaranteed and is subject to change. Clients are advised to seek advice regarding their particular circumstances from their personal tax and legal advisors.

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