

Fact SHEET

Life expectancies

This fact sheet discusses and illustrates some of the differences in life expectancy assessments.

Static life tables

A life table is a table that summarises, for each age, the mortality and survival probabilities of an individual. There are two official Australian Life Tables:

- The [Australia Government Actuary](#) publishes life tables every five years based on official census information.
- The [Australian Bureau of Statistics](#) publishes annual life tables, based on a rolling three year period of death registrations and resident population.

Both of these are known as static (or historic) life tables and use current mortality rates to derive life expectancies:

Age	Static life expectancy ¹	
	Males	Females
35	46.0	50.0
45	36.6	40.3
55	27.5	31.0
65	19.1	22.0

Cohort life tables

In order to project how long an individual might live, cohort (or prospective) life tables are needed. These tables project future mortality rates of individuals, thereby factoring in mortality improvements over an individual's lifetime and can extend life expectancy figures by **almost 10%**:

Age	Cohort life expectancy ²	
	Males	Females
35	50.4	53.4
45	40.5	43.5
55	30.7	33.6
65	21.1	23.9

Estimated future lifetime

A life expectancy, even a projected one, is simply an average future lifetime of a large group of people. The future lifetime of one individual can vary greatly due to health characteristics, lifestyle and random outcomes.

Assuming an average life expectancy will necessarily result in a significant number of individuals outliving this estimated duration.

The table below illustrates that targeting a 1-in-10 chance of insufficiency can extend figures by **a further 20-50%** relative to cohort life tables:

Age	Chance of insufficiency		
	1-in-4	1-in-10	1-in-20
Males			
35	58.3	63.0	66.1
45	48.1	52.9	56.0
55	37.6	42.4	45.5
65	27.2	31.8	34.7
Females			
35	60.4	64.9	68.0
45	50.3	54.8	57.9
55	40.0	44.6	47.7
65	29.7	34.1	37.1

Joint lives

The situation is further compounded when attempting to estimate a future lifetime sufficient to provide for joint lives (i.e. until the last survivor of a married couple). This can extend figures by **a further 5%**:

Age	Chance of insufficiency		
	1-in-4	1-in-10	1-in-20
Couple			
35	62.7	67.0	70.1
45	52.6	56.9	60.0
55	42.2	46.6	49.7
65	31.8	35.9	38.9

Summary

Estimating a future lifetime is a difficult process that cannot be conducted with certainty. Improvements in mortality rates, uncertain future outcomes and joint retirement needs are all factors that contribute to the assessment of appropriate life expectancy estimates.

Further information

For further information please visit www.cumsar.com.au or contact Corey Plover on (03) 9642 2242.

¹ [Australian Life Tables, 2005-07](#) published by the Australian Government Actuary

² [Life Expectancies, Weekly Multipliers, Deferral Factors \(2014\)](#) published by Cumpston Sarjeant