# Life expectancies and actuarial factors allowing for projected mortality reductions

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In personal injury actions, life expectancies and annuity values are normally based on the mortality rates most recently published by the Australian Government Actuary or the Australian Bureau of Statistics. Although mortality rates have been dropping rapidly, these calculations make no allowance for possible future reductions.

In preparing its "Projections of the populations of Australia" every two years, the Bureau projects substantial continuing mortality rate reductions. In a paper in the March 1998 issue of "Torts Law Journal", we have used the Bureau's most recent projections of future mortality rates to estimate life expectancies and annuity values applicable to Australians in 1998. This gives life expectancies up to 5 years higher, and life annuity values up to 5% higher, than those derived from the Australian Life Tables 1994-96 without allowance for future mortality reductions.

#### Increases in life expectancies

Most people are aware that relatives, friends and neighbours are living longer. Better diet, medical advances, less smoking, reduced road toll and healthier lifestyles are all contributing to this longevity. For example, the life expectancy of a newborn female was estimated to be 74.15 years in the Australian Life Tables in 1965-67, and 81.05 years in the Australian Life Tables 1994-96. Similarly, the life expectancy of a 65 year old male was estimated to be 12.16 years in 1965-67, and 15.82 years in 1994-96.

## Under-compensation resulting from use of published life expectancies

Although widely used, published life expectancies are normally misleading in one important respect. By actuarial and demographic convention, life expectancy is the average number of years that a person

of the stated age and sex will survive, assuming that present mortality rates remain unchanged. Published life expectancies thus make no allowance for future mortality rate reductions, even though there is wide agreement that such reductions will continue to occur. By using published life expectancies or the mortality rates underlying them, Australian courts are systematically under-compensating injured persons. The effects are greatest for plaintiffs with lifetime expenses of care, and for those who have lost lifetime pensions. Further under-compensation arises from the inevitable delays between observed deaths and the use of published tables. The Australian Life Tables 1994-96 are based on deaths centred around 30/6/95, and do not reflect any subsequent mortality improvements.

### Conservative nature of Bureau's assumed mortality rate reductions

The mortality rate reductions assumed by the Bureau at most ages are lower than those generally assumed by bodies such as the World Bank when projecting future populations. Adoption by Australian courts of life expectancies and annuity values based on the Bureau's assumed reductions would give awards a little higher than at present, but not as high as awards consistent with life expectancy projections by international agencies.

Using its assumed 1996 mortality rates without further reductions, the Bureau estimated the life expectancy of males as 75.3 years. Similarly using its assumed 2021 mortality rates, the Bureau estimated the life expectancy of males as 78.7 years. This is an increase of 3.4 years in the 25 years from 1996 to 2021, ie about 1.4 years improvement per decade.

In the World Bank's "World population projections 1994-95 edition", countries with

male life expectancies in the range 75 to 80 years were assumed to have 1.8 years improvement per decade in male life expectancies (p16). Population projections published by the International Institute for Applied Systems Analysis in 1996 assumed male life expectancy increases from 1995 to 2030 at 2.1 years per decade for all the developed countries (see Lutz W "The future population of the world", p441).

## Allowing for mortality rate reductions in practice

The actuarial principles for deriving life expectancies and present value factors are the same whether or not future mortality rate reductions are assumed. Once actuarial tables have been prepared, they can be used in the identical way to present tables. Our paper in the March 1998 issue of Torts Law Journal gives life expectancies and actuarial factors at 3%, 5%, 6% and 7% in the same form as in "Assessment of damages for personal injury and death" (Luntz H, 3rd ed, 1990).

### Gains from allowing for future mortality rate reductions

For example, our estimated life expectancy in 1998 for a newborn female is 86.19 years. This is 5.14 years more than the 81.05 years shown by the Australian Life Tables 1994-96 (the most recent life tables published by the Bureau). The increases in life expectancy resulting from allowances for future mortality reductions reduce with age, and are a little lower for males.

We estimate the value in 1998 of \$1 a week for life to a male aged 40, with a discount rate of 3%, as \$1197.4. This is 4.7% more than the \$1143.9 that would be estimated using the Australian Life Tables 1994-96. Allowances for future mortality rate reductions can thus increase life annuity

values by up to about 5%, with the increases being highest for older persons at low interest rates. Increases of up to about 7% can occur in joint life annuity values, sometimes used in estimating the value of services that might have been provided by a deceased spouse.

Because mortality rates up to age 65 are already low, the financial effects of allowing for future mortality reductions up to age 65 are small. For example, we estimate the value in 1998 of \$1 a week to age 65 to a male aged 40, with a discount rate of 3%, as \$894.5. This is 0.8% more than

the \$887.3 that would be estimated using the Australian Life Tables 1994-96.

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## **APLA WA fights to retain rights** for injured

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and in a focussed way with issues

The difficulty in applying them.

...impact thereof on the life of the injured) and reducing the prospects of the claimant suffering psychological sequelae arising from the accident.

APLA has also invited ICWA to consider setting aside monies for the purposes of research into injuries arising from motor vehicle accidents, in particular, whiplash type injuries. There is considerable scepticism amongst those advising injured claimants, not merely the medical practitioners, particularly regarding the long term effects of such injuries.

APLA has also written to the Office of Road Safety, Dept of Transport and ICWA supporting their media campaigns promoting road safety and bringing to the attention of the Department of Transport common causes of motor vehicle accidents with a view to urging the Department to promote a media campaign supporting the Police and ICWA. For example, in their campaigns to educate the public on the causes of road traffic accidents.

#### **Legal Costs**

APLA considers that the legal profession has not adequately dealt with the complaints of the public regarding legal costs and, each time such issues are raised, they appear to be diverted towards access to justice.

It is about time the legal profession in WA grabs the bull by the horns and deals

solely and in a focussed way with issues relating to legal costs and APLA has made submissions to the Attorney General of WA and the Law Society. It is about time that we hold a icrisis meeting on costsî within the legal profession, call for public submissions, prepare a discussion and consultation document and initiate proposals for reform in this area. It is practically impossible to explain to a non-lawyer the District Court scale of costs and indeed a taxing officer has been heard to say that he 'does not understand the scale'.

The legal profession generally is committed to the legal wellbeing of the people we serve but our commitment and efforts are blunted by unjustified attacks on the profession by a sceptical public whose fears are being fanned by cunning politicians running agendas of their own. Each time reform in the personal injury areas have been mooted, the government has rested its rationale for the reforms upon alleged abuses by the legal profession of the system and lawyers imaking money from the systemî. This uneducated approach is most regrettable and APLA has protested in the strongest possible terms to the appropriate persons.

Nevertheless, there are some elements of truth in the concerns of the community in WA and it is essential that we deal with these concerns, particularly the uncertainty, incompleteness of the court scales and the difficulty in applying them. No lawyer in Western Australia can be confident that if his bill of costs is taxed there will not be a reduction of his costs upon taxation.

Copies of submissions made by APLA on costs addressed to the Attorney General, the Chief Justice of Western Australia, the Chief Judge of the District Court and the media are available by contacting Sukhwant Singh.

#### **Criminal Injuries Compensation**

A discussion paper has been issued on the initiation of the Attorney General into reforms in the area of criminal injury compensation and APLA will be making submissions in this regard. Members are invited to fax to Sukhwant Singh on 08 9421 1953 with suggestions for reform.

The challenges we face can be overcome with a strong team effort. I encourage WA members of APLA to play an active role in the challenges we face. Members interested in joining the APLA WA Committee should contact me as soon as possible.

**Sukhwant Singh**, Partner at Freidman Lurie Singh, is President of APLA WA branch. **Phone** 08 9325 6133 or **email** fls@iinet.net.au