

# Avoidable mortality (AM) in Victoria from 1997 to 2003 due to *stroke*

## Definitions

*Avoidable mortality* (AM) refers to deaths classed as untimely and unnecessary – deaths from diseases for which effective public health and/or medical interventions currently exist – in those aged under 75 years.

Fifty-six conditions, including *stroke*, currently meet these requirements. All other deaths in people aged less than 75 years are considered unavoidable. Deaths in those aged 75 years and over are also considered unavoidable and not included in the analyses.

*Stroke* (also known as cerebrovascular disease) occurs when the supply of blood to the brain is suddenly disrupted. Blood may stop moving through an artery (blood vessel) because the artery is blocked or because the artery breaks or bursts.

A stroke can occur in two main ways: ischaemic stroke (blocked artery) or haemorrhagic stroke (bleed in the brain). When blood flow is stopped to the brain, brain cells in the area die because they can't get the oxygen they need. This can permanently damage the brain.

## Key AM findings on *stroke*

*Stroke* was the seventh leading cause of avoidable mortality (AM) between 1997 and 2003.

Avoidable *stroke* deaths increased sharply among people aged between 35 and 39 years and the greatest number of deaths was in people aged between 70 and 74. See graph 1.

The avoidable stroke death rate was significantly higher in men than women. The rate in men and women significantly declined during the reported period. Rates would be expected to further decline if the trend continues. See graph 2.

## Disadvantage and location

There were no significant differences in avoidable *stroke* death rates by socio-economic status or between rural and metropolitan Victorians, for either men or women. See tables 1 and 2.

## General information

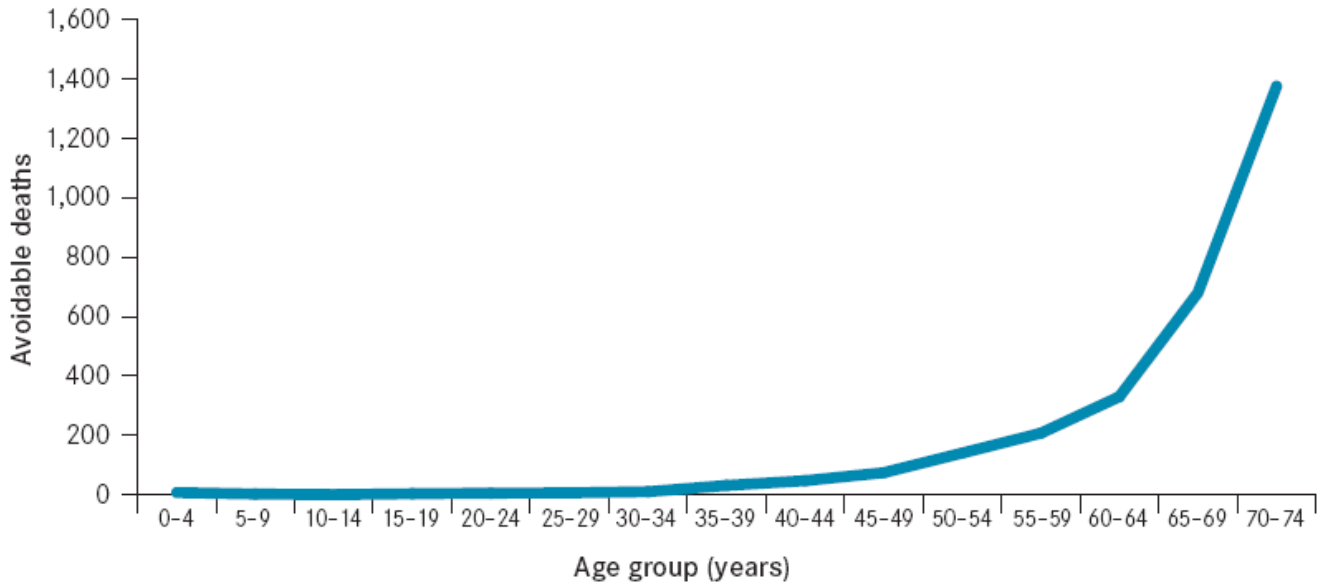
This fact sheet is an adjunct to *Avoidable Mortality in Victoria: Trends between 1997 and 2003*, the first comprehensive report on AM in Victoria, which provides a detailed examination of the 10 most common causes of AM, which together account for 50% of deaths in the state during this period.

The report is compiled via a simple and practical Victoria-wide, population-based method of counting AM rates.

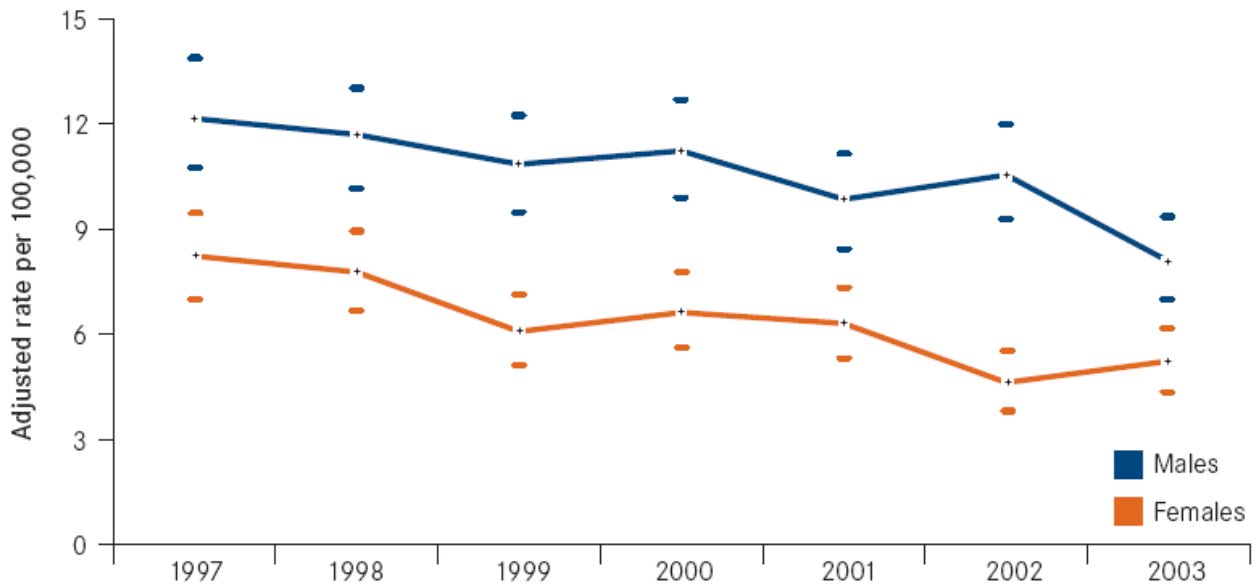
*Declining trends in AM* may indicate improvements in the healthcare system.

*Increasing trends in AM* may indicate shortcomings in the healthcare system, such as a lack of use of effective interventions.

**Graph 1: Avoidable stroke deaths by age from 1997 to 2003**



**Graph 2: AM rates in Victoria (1997 to 2003) due to stroke**



**Table 1: Adjusted stroke AM rates (95% CI) in Victorian males (1997–2003)**

		Males (rate per 100,000)																					
Stroke		1997		1998		1999		2000		2001		2002		2003									
		Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI								
Victoria		12	11	14	12	10	13	11	9	12	11	10	13	10	8	11	11	9	12	8	7	9	
	Metropolitan	12	10	14	11	10	13	11	10	13	11	9	13	10	8	12	10	8	11	8	6	9	
	Rural	13	10	16	12	10	15	10	8	12	12	9	15	10	7	12	13	10	15	9	7	11	
IRSED category:																							
	Most disadvantaged	11	8	15	14	11	18	14	10	17	14	10	17	10	7	13	12	9	15	12	8	15	
	2	13	10	17	13	9	16	9	6	12	13	9	16	9	6	12	10	7	12	8	5	10	
	3	12	9	15	11	8	15	14	11	18	12	8	15	11	8	14	13	9	16	7	4	9	
	4	12	9	16	11	8	14	9	7	12	11	8	14	10	7	13	8	6	11	8	6	11	
	Least disadvantaged	13	9	16	9	6	12	8	5	11	8	5	11	8	5	11	11	8	14	7	4	9	
ARIA category:																							
	Accessible	11	6	16	11	6	15	12	7	18	12	7	17	13	7	18	18	12	25	9	5	14	
	Highly Accessible	13	11	14	12	10	13	11	9	12	11	10	13	10	8	11	10	8	11	8	7	9	
	Moderately accessible	9	3	16	12	4	19	15	6	23	12	5	20	6	1	12	14	6	22	12	4	20	
Rate ratios:																							
	Male:Female	1.49			1.51				1.77				1.70				1.56			2.28			1.56
	Rural:Metro	1.13			1.10			0.89				1.11		0.97			1.29			1.15			
	Most:Least disadvantaged	0.88			1.64			1.67				1.77		1.30			1.10			1.74			
	Least:Most accessible	0.74			0.99			1.40				1.12		0.67			1.47			1.49			

Note: Adjusted rates are significantly different (P<0.05) when their 95% confidence intervals do not overlap  
 Adjusted rates and rate ratios in RED are significantly greater (P<0.05) than the corresponding rate for Victoria or 1, respectively  
 Adjusted rates and rate ratios in GREEN are significantly lower (P<0.05) than the corresponding rate for Victoria or 1, respectively

**Table 2: Adjusted stroke AM rates (95% CI) in Victorian females (1997–2003)**

		Females (rate per 100,000)																					
Stroke		1997		1998		1999		2000		2001		2002		2003									
		Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI	Adjusted	95%CI								
Victoria		8	7	9	8	7	9	6	5	7	7	6	8	6	5	7	5	4	6	5	4	6	
	Metropolitan	8	7	10	7	6	8	6	5	8	7	5	8	6	5	8	4	3	5	5	4	6	
	Rural	9	7	11	10	8	12	6	4	7	7	5	9	6	4	8	6	4	8	5	3	6	
IRSED category:																							
	Most disadvantaged	9	6	12	10	7	13	8	6	11	9	6	11	8	5	10	6	4	8	7	5	10	
	2	8	6	11	10	8	13	5	3	7	7	5	9	6	4	9	3	2	5	6	4	9	
	3	8	5	10	7	5	10	6	4	9	8	5	10	7	4	9	6	4	8	3	2	5	
	4	7	5	10	5	3	7	6	4	8	6	4	8	7	4	9	4	2	6	6	3	8	
	Least disadvantaged	9	7	12	6	4	8	5	3	7	5	3	7	5	3	7	5	3	6	3	2	5	
ARIA category:																							
	Accessible	7	3	11	8	4	13	6	3	10	7	3	10	5	1	8	9	4	13	4	3	6	
	Highly Accessible	9	7	10	8	6	9	6	5	7	7	6	8	7	5	8	4	3	5	7	5	9	
	Moderately accessible	4	0	9	11	4	19	10	3	17	6	1	12	4	0	8	6	1	12	7	4	9	
Rate ratios:																							
	Male:Female																						
	Rural:Metro	1.07			1.46			0.89				1.02		0.94			1.53			0.91			
	Most:Least disadvantaged	0.94			1.61			1.83				1.87		1.63			1.29			2.12			
	Least:Most accessible	0.51			1.52			1.64				0.96		0.60			1.47			0.99			

Note: Adjusted rates are significantly different (P<0.05) when their 95% confidence intervals do not overlap  
 Adjusted rates and rate ratios in RED are significantly greater (P<0.05) than the corresponding rate for Victoria or 1, respectively  
 Adjusted rates and rate ratios in GREEN are significantly lower (P<0.05) than the corresponding rate for Victoria or 1, respectively

Information in this fact sheet is taken from the report, *Avoidable Mortality in Victoria: Trends between 1997 and 2003*.