



# The Influence of Cost on Consumer Medicines Use in Australia

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## Objective

To investigate if cost is a barrier to medicines use and who is at risk.

## Background

- In 2008 Australians reported the second highest percentage of people who had not filled a prescription or had reduced the dose of a prescription medicine due to cost compared with 7 OECD countries.<sup>1</sup>
- The Pharmaceutical Benefits Scheme (PBS) plays a pivotal role in restraining the costs of many prescription medicines especially for those who have concessional status.
- Hynd et al. found that increased patient co-payment had led to decreased use of a range of prescription medicines.<sup>2</sup>
- Less is known about the influence of cost on the use of over the counter medicines and complementary medicines (CMs).

## Results

- 1576 questionnaires were completed and returned. The response rate accounting for exclusions was 37.1%.
- 92.9% reported using at least one medicine in the past month.



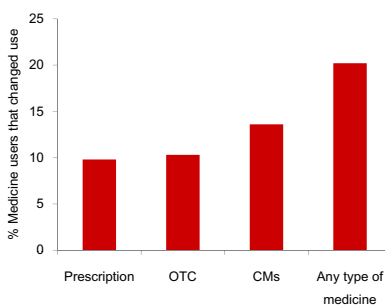
## Method

- As part of the National Census of Medicines Use research project, a random sample of Australians, aged 50 years, and older was drawn from the Australian electoral roll and stratified by state/territory.
- A piloted self-completed questionnaire was mailed to 4500 Australians aged 50 years and older.
- Four waves of postings; June 2009 – February 2010.
- Participants received an invitation postcard then a questionnaire, if participants did not respond they were sent a reminder postcard and then a reminder questionnaire.
- The questionnaire consisted of a one-day medicines diary, a record of medicines taken in the last month and questions covering topics including the influence of cost on medicines use.
- Analysis was conducted using SPSS 18 for Windows.
- Post-stratification weights were applied using Australian Bureau of Statistics (ABS) population estimates for age and sex (2009)

### Does cost influence the use of medicines?

- One in five participants who used medicines in the last year, reported they didn't purchase, stopped using, or cut down the dose of a medicine recommended by a health professional due to cost.
- CMs were the type of medicines most likely to be changed due to cost (Figure 1).

Figure 1: Proportion of participants who changed medicine use due to cost in the last 12 months by medicine type, Australians 50+, 2009-10.



### Who is most influenced by the cost of medicines?

- Across all types of medicines, changes due to cost tended to be greater in: females; the younger proportion of the population (50-64); those with poorer self-reported health status; those who spoke a language other than English at home; those who had less education; those who didn't have private health insurance and those who took 5 or more medicines regularly.

Table 1: Participant characteristics associated with changes to medicines use due to cost, Australians 50+, 2009-10.

Characteristics	% Who changed medicines use due to cost		
	Prescription	OTC	CMs
Male	7.8	6.2	8.5
Female	11	13.5* (P=0.002)	17.7** (P<0.001)
50-64 yrs	11.5	10.7	15.5
65+ yrs	6.6* (P=0.039)	8.8	10.3* (P=0.032)
Excellent/good health status	9.5	9	13.2
Fair/poor health status	11.8	15.4	16.5* (P=0.016)
Speak English at home	9.2	9.6	13.2
Speak other language at home	19.0* (p=0.036)	22.7* (P=0.02)	19* (P=0.037)
Post school education	9.1	9.3	12.5
High school or less education	10	11.4	15.2
Use healthcare card	7.5	13.9	13.6
Don't use healthcare	11.5	7.5	13
Private health insurance	9.2	6.9	11.5
No Private health insurance	10.4	18.4** (P<0.001)	17.9
1-4 regular medicines	10.4	8.4	13.3
5 or more regular medicines	8.7	12.5	15.0

\* P<0.05, \*\*P<0.01

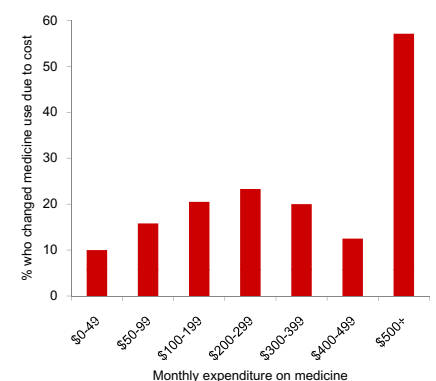
### References:

- The Commonwealth Fund. 2008 Commonwealth Fund International Health Policy Survey of Sicker Adults. New York: The Commonwealth Fund, 2008.
- Hynd A, Roughead EE, Preen DB et al. The impact of co-payment increases on dispensing of government-subsidised medicines in Australia. *Pharmacoepidemiology & Drug Safety* 2008. 17(11):1091-99.

### Is there a relationship between individual expenditure and the influence of cost?

- Participants who had the lowest monthly expenditure (\$0-49) were the least likely to report changing medicines use due to cost.
- Participant who spend more than \$500 a month on medicines were the most likely to report changing medicines use due to cost.

Figure 2: Proportion of participants who changed to medicine use due to cost in the last 12 months by monthly expenditure on medicines, Australians 50+, 2009-10.



## Conclusions

- For many people (20%) cost is a barrier to the use of medicines recommended by a health professional.
- The use of all types of medicines, including prescription, OTC and CMs can be influenced by cost.
- Health professionals need to consider the impact cost may have on concordance when recommending all types of medicines.
- Strategies need to be identified that assist consumers to make wise medicines choices when cost is an issue.