This independent research project was conducted by Professor Scott Koslow, a senior academic in the Department of Marketing and Management at Macquarie University. It was funded by the Australian Self-Medication Industry and a Macquarie University research grant.
As Australia faces the prospect of escalating healthcare costs, this was the question posed in a two-part study jointly funded by the Macquarie University Centre for the Health Economy (MUCHE) and the Australian Self Medication Industry (ASMI).

In the study’s first section, the current value of over-the-counter (OTC) medicines to the Australian healthcare system was quantified. This was done by analysing responses to the hypothetical scenario of eight categories of common OTC medicines becoming available by prescription only.

Faced with the unavailability of an OTC solution, the study revealed that across different medical conditions, 52 to 70 per cent of respondents would visit a doctor to obtain their required medication.

However, visits to the doctor cost Australia’s healthcare system money – this hypothetical scenario would cost an incremental $3.8 billion in doctors’ visits. Of that amount Medicare would have to pay an additional $2.5 billion for 58 million doctors’ visits. Health insurers would pay out $360 million or a median of $35 for each covered doctor’s visit. Everyday Australians would be approximately $1 billion the poorer, and for those visits for which they have to pay, they would be paying a median of $40.

The costs of these eight categories of medicines not being available over-the-counter leap to over $10 billion a year if one takes into further consideration the indirect costs of visiting a doctor, like the time spent actually travelling to and sitting in a doctor’s rooms – or the lost production spent waiting to see a doctor.

With over 80 per cent of adult consumers and over 40 per cent of children using an OTC medicine in any given month, consumer self care currently saves the Australian economy $10.4 billion overall.

With Australia’s health bill predicted to rise dramatically as the country’s population ages, the second part of the joint MUCHE/ASMI study investigated further possible savings to the healthcare system. Specifically, this was done by investigating the financial impact of 11 categories of common prescription only (Rx) medicines being switched to Pharmacist Only (Schedule 3) status.

The study found that the benefit to Australian healthcare coffers in the event of this occurring was a further $2.1 billion, of which roughly half would be the savings made from the direct cost of doctors’ visits alone.

Medicare would save $730 million; health insurance $110 million; and individuals would recoup $300 million.
Overwhelmingly, the MUCHE/ASMI research found that consumers across the 11 categories of prescription medicines preferred getting their medicines via a Schedule 3 Pharmacist Only route.

The study’s findings strongly suggest that self-medication through OTC medicines is an efficient way for Australia’s healthcare system to make financial savings, allowing the government to redirect resources to areas of critical shortage, and free up time for medical practitioners to focus on more difficult health priorities.

The following table breaks down the total savings possible:

<table>
<thead>
<tr>
<th></th>
<th>CURRENT SAVINGS FROM OTC MEDICINES</th>
<th>FUTURE SAVINGS FROM POTENTIALLY SWITCHABLE PRESCRIPTION MEDICINES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIRECT VALUE OF SAVED DOCTOR VISITS</strong></td>
<td>3.86 billion (58 million doctor visits)</td>
<td>1.14 billion (17 million doctor visits)</td>
<td>5.00 billion (75 million doctor visits)</td>
</tr>
<tr>
<td><strong>INDIRECT VALUE OF LOST PRODUCTIVITY</strong></td>
<td>6.55 billion</td>
<td>0.99 billion</td>
<td>7.54 billion</td>
</tr>
<tr>
<td><strong>TOTAL SAVINGS TO HEALTHCARE SYSTEM</strong></td>
<td>10.41 billion</td>
<td>2.13 billion</td>
<td>12.54 billion</td>
</tr>
</tbody>
</table>

Study Methodology

The study, undertaken in December 2013, surveyed in two parts the attitudes of 1,146 Australians over the age of 18 regarding OTC and Rx medicines.

In the first section, a comparison with a hypothetical non-OTC world was modelled based on the Booz & Co report for the Consumer Healthcare Products Association (CHPA) in the United States. The study’s second section followed a similar logic in considering the Australian environment as it applied to the ‘switch’ of certain medicines from prescription to OTC.

In both sections, the study modelled only the costs associated with payment for a doctor’s visit. The study’s authors assumed no net change in the payout of the Pharmaceutical Benefits Scheme (PBS).

The study also assumed patients spent 29.9 minutes per visit on average in the doctor’s waiting room, and assumed 30 minutes travel time and 10 minutes dealing with administration. The reported number of extra days off work for delayed treatment for each condition is also included in the cost of lost productivity.

3 The Value of OTC Medicines to the United States, January 2012. Booz & Co and Consumer Healthcare Products Association
PART 1: THE CURRENT VALUE OF TODAY’S OTC MEDICINES

The study presented a world in which eight categories of common OTC medicines were rescheduled to prescription only (Schedule 4), and calculated the additional costs in doctors’ visits that would result. Respondents were surveyed regarding:

- their medical conditions and use and regularity of use of OTC medicines for these conditions;
- what they would do if their OTC medicines became available by prescription only;
- what work hours they would lose if they did not have access to the currently available OTC medicines;
- their supervision, where applicable, of the healthcare needs of children or other family members.

PART 2: THE POTENTIAL VALUE OF FUTURE OTC MEDICINES

The study then investigated the possible impact of down-scheduling 11 categories of common prescription medicines to OTC. Respondents were surveyed regarding:

- their current medical conditions and their use of the 11 categories of prescription medicines;
- their likelihood of buying these medicines over the counter, with “definitely yes” responses taken to be a 100 per cent likelihood of switching; “possibly yes” assumed to be a 75 per cent chance of switching; “don’t know” a 50 per cent chance of switching; “possibly no” a 25 per cent chance of switching; and “definitely no” a zero chance of switching;
- how many doctor’s visits they expected to save in total, using a medication now switched to Pharmacist Only.

In all cases, estimates were weighted by respondents’ gender, age and education to reflect the Australian population. As a check against known data, the study compared several estimates with known aggregate averages for Australia.

For example, Medical Benefits Scheme (MBS) statistics keep track of the average amount consumers pay for a doctor’s visit and this was $29.85 in the September 2013 quarter. This study used a conservatively calculated median patient contribution of $23.76, which is made up of a median out-of-pocket consumer cost of $40 per visit when consumers had to pay, plus $35 payout per visit from private health insurance, which was the median value when private cover applied. The data indicated that 51 per cent of the sample had private health insurance, which is the same rate reported by the Australian Bureau of Statistics.

The sample also reflected national usage patterns of a number of Rx medicines. For example, the survey revealed that cholesterol controllers/lipid reducers were used by 4.0 million Australian adults and that there were 22.2 million prescriptions paid for by the PBS.

For stomach acid reducers, the survey estimated the number of users at 3.5 million Australian adults, and the PBS paid for 11.7 million prescriptions. In both cases the number of prescriptions per person reflected an appropriate range.
THE VALUE OF OTC MEDICINES IN AUSTRALIA

THE CURRENT VALUE OF TODAY’S OTC MEDICINES

Overall, the current value of OTC medicines provided to the Australian health system is high. If Australians needed to see a doctor to obtain these medicines, the extra cost would be around $3.8 billion for doctors’ visits alone.

Of this amount, the government’s share through the Medicare system would be $2.5 billion. Another $360 million would be incurred by health insurance and approximately $1.0 billion by individual consumers.

The chart below tables the savings that Australia’s eight largest categories of OTC medicines currently contribute to the healthcare system:

**IMPACT OF UP-SCHEDULING – TWO EXAMPLES**

Faced with the scenario of their Schedule 3 (S3) Pharmacist Only analgesics no longer being available over-the-counter at their local pharmacy, the research indicated that adult consumers would go to their doctor to continue to access their preferred medication. Only about a quarter would use an OTC alternative.

If Pharmacist Only analgesics were up-scheduled to prescription only the cost to the system would be considerable. Currently, these medicines make up 22 per cent of the volume of analgesics sold in pharmacies, so the decision to up-schedule would cost $675 million. Of this, almost $170 million is the direct cost to Medicare for additional doctors’ visits, $25 million is borne by insurance companies and $70 million will be paid by individual consumers. The indirect costs of lost productivity and delayed treatment are over $400 million.

Faced with the scenario of their S3 Pharmacist Only cold and flu medicines no longer being available over-the-counter at their local pharmacy, most respondents (58 per cent) would opt to visit a doctor in order to obtain their preferred medications.

For S3 Pharmacist Only cold and flu products, up-scheduling would result in additional costs of almost $550 million. Of this amount, Medicare would have to reimburse $115 million for doctors’ visits; almost $20 million would be health insurance payouts; while individual consumers would have to pay close to $50 million – all just for a visit to the doctor. If the indirect costs of lost productivity are included, these total an additional $370 million in costs.

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4 MUCHE OTC Value Study Quantitative Results, December 2013
5 Nielsen 2014 Retail Scan Data
THE POTENTIAL SAVINGS OF A FUTURE OTC WORLD: Rx TO OTC SWITCH

The predicted value of switching 11 categories of current Rx medicines to OTC results in savings of a further $1.1 billion for Australia's healthcare system. This constitutes savings of almost $730 million for Medicare; $110 million for health insurance and $300 million for individuals.

The chart below highlights the savings of "switching" 11 categories of prescription medicines to OTC, calculated in terms of the money saved by not paying for a doctor’s visit.

The study gave respondents the choice to either visit a doctor to receive a prescription medicine or start buying their medicines through a pharmacist, or some combination.
These estimates have significant implications for doctors' patient loads. Currently, the BEACH survey\(^6\) estimates that 12 per cent of all doctors' visits are for patients seeking prescriptions.

**ALTERNATIVE SOLUTIONS IF OTC PHARMACY IS UNAVAILABLE**

As the graph below illustrates, between 52 and 70 per cent of respondents would visit a doctor if the medication for their condition became unavailable over the counter.

The study found that the majority of consumers across all categories would rather access their medicines through a pharmacy. The following chart illustrates this point:
The Combined Value of Present and Future Scenarios

In total, the current and potential value of OTC medicines in saved doctors’ visits is approximately $5.0 billion. Of this, the combined savings to the government via Medicare-paid visits to the doctor is $3.2 billion.

The current and potential value of gained productivity is even larger, at $7.5 billion. Thus, the total value OTC medicines can contribute to the Australian economy is $12.5 billion.

On average, every dollar spent by consumers on the eight categories of OTC medicines saves the Australian economy over four dollars. Any savings from the PBS would be additional.

The findings notwithstanding, clinical protocols would need to be established to determine precisely which medicines could become available through a Pharmacist Only route. The final savings extrapolated would then be either higher or lower.

Study Limitations

Some of the medicines surveyed in the study – for example, osteoporosis or weight-reducing products – had low levels of usage in the general population, resulting in single digit percentage figures. Given a sample size of 1146 individuals, higher error bands are thus expected for these categories.

Across 11 prescription medicines and eight OTC medicines however, it is expected that aggregate error will be reduced.
Study Authors

Professor Scott Koslow with the assistance of fellow researchers Andrew West, Cathy Xu, Laknath Jayasinghe, Con Korkofingas, Lawrence Ang, Stephanie Huang, Laypeng Tan and Hume Winzar.

The study was part of Macquarie University’s Centre for the Health Economy. www.health-economy.mq.edu.au