



The Potential Economic Impact of Expanded Access to Self-medication in Australia

Summary

Based on a simple taxonomy describing possible treatment pathways for the management of the 10 most frequently encountered minor ailments in general practice, this report explores the feasibility and potential, under assumed Scenarios, for substituting enhanced pharmacist primary care for GP (general practitioner) care. This would effectively increase the supply of GPs in an environment of chronic GP shortage. Enhanced pharmacist primary care could thus constitute an innovative policy response to ensure that the community's needs for necessary primary care were met and for which consumers took greater personal responsibility. It would also make better use of pharmacists' skills and, in many cases, permit the safe and appropriate substitution of non-prescription medicines for prescription medicines.

There would be notional financial savings to Government associated with the reduced GP cost of treating and prescribing for minor ailments. In the case of GP attendances, the savings in the cost of benefits paid by Medicare during 2007/08 could have amounted up to \$260 million. However, when netted out against the incremental cost of redeployed GP time elsewhere in servicing national priority areas such as the management of chronic disease, it is unlikely that these savings would have been realised directly. The dollar amounts involved nevertheless provide a money metric illustrative of the extent of 'wastage' and resource misallocation associated with the treatment of many minor ailments in general practice.

The main underlying gain from deflecting, where possible, minor ailment care away from general practice would be the public health benefit associated with mitigating the chronic shortage of general practitioners and building a sustainable health workforce for the future. Under assumed (but plausible) Scenarios, based on the GP care of minor ailments during 2007/08, this report shows that an augmented minor care initiative in pharmacy could contribute over time to an effective increase of between some 500 to 1,000 full time equivalent GPs, or some 3% to 7% of Australia's FTE GP workforce.

Taxonomy for minor ailment treatment pathways in general practice

Using sample data collected by IMS Health, we have developed a simple taxonomy to describe possible treatment pathways for the management of minor ailments in general practice. These are summarised in Figure 1. Patients may be classified broadly according to whether they are treated with or without a prescription medicine. The former, in turn, may receive no more than a prescription, or they may receive other treatment as well, including advice, a referral for investigation or a referral to an allied health practitioner (the RHS in Figure 1).

Those who do not receive a prescription may not receive any treatment; they may receive advice and be referred for investigation, etc or they may be treated with or without advice by way of a recommendation to purchase a non-prescription medicine, over the counter from a pharmacy (or other point of sale) (the LHS in Figure 1).

Finally, either of these broad categories of GP management may be complemented occasionally with a referral to a specialist.

Figure 1: Taxonomy of current treatment pathways for the management of minor ailments in general practice



The IMS data file on GP treatment of minor ailments

Based on a classification of minor ailments derived from work undertaken by the PAGB in the United Kingdom, ASMI commissioned IMS Health to investigate how GPs in Australia manage patients who present with minor ailments. For this purpose, IMS used a data file constructed from treatment reported by stratified cluster samples of GPs on the way they treat different minor ailments. Data were collected weekly during the course of IMS's routine quarterly medical audits from a rolling sample involving some 600 GPs who treated patients during the year ended June 2008. The data file contains records of some 43,700 GP attendances coded for the nominated minor ailments and their associated treatment.

From this sample, IMS estimate projected total GP attendances for minor ailments that attracted a Medicare benefit during the year ended June 2008 to be some 26 million in a population of 118 million unreferred GP attendances in that year. The latter figure compares with Medicare Australia's claims experience for records processed during the year ended June 2008 of some 110 million 'unreferred GP attendances'¹.

The discrepancy between the IMS projection and Medicare data could relate to a number of factors. These include normal sampling error, the fact that Medicare claims data do not include claims for GP services made through the Department of Veterans' Affairs and lags associated with lodgement and processing of claims relative to the actual dates of service on which the IMS projection relies.

Treatment of the most frequently encountered minor ailments

The IMS sample indicates that the 10 most frequently treated minor ailments involved some 22,000 unique patients and accounted for 58% (about 25,000) of all minor ailment attendances in the year ended June 2008. The latter would project to about 15 million GP attendances for Australia as a whole.

The distribution of GP attendances for the 10 most frequently treated minor ailments is given in Figure 2. This shows that the most frequent minor ailment treated by general practice was 'acute URTI', accounting for some 36% of the top 10 minor ailments, followed by 'dorsalgia' (14%) and 'diarrhoea and gastroenteritis' (11%).

¹ Medicare Australia, *Annual Report*, Financial Year Statistics, Table 1.1: Medicare – by Broad Type of Service and various periods





Details of the treatment experience for these ailments corresponding to the pathways in Figure 1 that were reported by the GP sample have been extracted from IMS's data file and are summarised in Table 1 (on page 4 below). This, for instance, shows that 'acute URTI' involved 7,912 unique patients. Of these, 47% (4,222) were treated without a prescription, 53% (4,792) were treated with a prescription in conjunction with investigation and/or other care, 28% (2,523) were untreated, 5% (483) were advised to purchase a non-prescription medicine, 5% (463) received an investigation and /or other care in conjunction with a recommendation to purchase a non-prescription medicine and 8% (753) simply received advice and/or investigation - and so on for other minor ailments (see Figure 1)².

² For purposes of clarity, the nomenclature we employ for minor ailment treatment pathways differs from that employed by IMS. For instance, IMS uses the term 'Treated Consultation' to refer to an attendance *not* treated with a prescription and the term 'Untreated Consultation' to refer an attendance treated with a prescription in conjunction with investigation, counselling, etc. In this report, 'Untreated' means that *no treatment* was reported as having been provided.

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Source: IMS Health data file

5 10 10	1	1	1	1					1	1				
Total	10 Constipation	9 Headache	8 Cough	7 Low back pain	6 Dorsalgia	5 Malaise &fatigue	4 Pain in joint	3 Viral infection	2 Diarrhoea & gastro	1 Acute URTI				
11,768	446	507	746	1,238	2,416	59	552	118	1,007	4,679			Scrip only	Attenda
700	14	41	64	97	119	4	124	5	119	113	advice	investig /	Scrip +	inces with pre
13,026	467	564	788	1,510	2,621	64	684	236	1,300	4,792		other	Scrip, incl all	escription
251	9	29	16	28	37	6	88	6	22	10			Untreated	Atten
34	7	ы	ц	ω	ω	1	1	0	12	1			OTC	dances re
179	6	16	11	35 35	36	19	44	2	ы	ы			Other	eferred to
129	ω	4	6	24	47	0	22	0	8	15			Scrip	o specialist
593	25	54	34	90	123	26	155	8	47	31			AII	

Table 1: Treatment p	athways	for top 10) minor ailme	ents reported i	in an IMS s	ample of GP	's treating p	atients durin	1q, 2007/08
						Attendar	ices with no	prescription	
	No of	Unique	Total	Attendances	Untreated	Non-scrip	Non-scrip	Other treat	Sub total
	GPs	patients	attendances	per patient		OTC	OTC +	/ investig /	
								advice	
1 Acute URTI	538	7,912	9,014	1.1	2,523	483	463	753	4,222
2 Diarrhoea & gastro	516	2,556	2,787	1.1	746	70	134	537	1,487
3 Viral infection	306	1,260	1,320	1.0	691	139	100	154	1,084
4 Pain in joint	446	1,652	1,774	1.1	495	16	14	565	1,090
5 Malaise &fatigue	375	1,063	1,088	1.0	250	9	18	747	1,024
6 Dorsalgia	464	2,695	3,524	1.3	545	21	21	316	903
7 Low back pain	394	1,669	2,170	1.3	393	11	29	227	660
8 Cough	394	1,354	1,435	1.1	400	52	13	182	647
9 Headache	43	1,008	1,066	1.1	277	29	14	182	502
10 Constipation	377	948	978	1.0	233	167	56	55	511
Total		22,117	25,156		6,553	766	862	3,718	12,130

Table 1, Cont'd

Half of the 10 groups of most frequently treated minor ailments were treated predominantly with a prescription medicine and just over half of all attendances (13,026) of all of the 10 most frequently treated ailments involved a prescription. The balance of attendances (12,130) not associated with prescription treatment involved one or all of a non-prescription medicine, an investigation or counselling; the others received no treatment (6,553), which for all minor ailments but one represented the largest single category of attendances not associated with a prescription.

Is the current general practice model of treating minor ailments efficient?

Under the current model of care in which general practice represents the main gateway to primary care, there is nothing inherent in the above data to suggest that the treatment patients receive for minor ailments is necessarily inappropriate. Neither can the disposition of treatment provide any normative commentary about the most clinically supportable treatment pathway.

Because we have no information about patient outcome, it is not possible to ascertain, for instance, whether patients who were not treated or treated with non-prescription medicines were under treated, or whether those who received laboratory investigations and prescription medicines were over treated. In hindsight, one may conclude only that justifiably risk averse consumers who lacked information, best accommodated their preferences by visiting a GP. In some cases, patient reassurance apparently justified investigations that were more frequent than the use of medication. More patients who were treated without a prescription for 'cough', for instance, received chest x-rays than a non-prescription medicine³. A few GP attendances resulted in specialist referral, the need for which may not have been reasonably apparent without the benefit of a GP attendance.

It is nevertheless noteworthy that almost all treatments involved no more than a single attendance - at least during the week in which a doctor included in the IMS sample reported. There is thus a presumption that for most patients who were untreated or simply advised to purchase a non-prescription medicine, it did not at short notice become imperative for them to convert to prescription care. Other evidence of the minor nature of their treatment is that the overall rate of referral to specialist care was less than 5% in all but 'pain in joint' and 'headache' (Table 1).

Without making a judgement about the appropriateness of treatment, it is thus plausible to reflect upon whether existing modalities for treating minor ailments that may be quickly resolved can satisfy efficiency criteria. Could, for instance, analogous outcomes have been secured at lower cost?

The case for an alternative model of minor ailment care

With correct triaging, perhaps in pharmacies (but away from doctor's rooms) or with patient access to reliable information or both, opportunities could present for superior recognition of minor ailments for what they were, at the onset of their symptoms without recourse to medical service. If the corresponding care were of equivalent quality, were in accord with consumer preferences and secured the same health outcome, it would clearly constitute an efficiency gain.

Lower cost pathways for treating minor ailments could accordingly entail either or both of the following:

³ The sample contained 65 patients who received a non-prescription medicine for 'cough', as against 126 who were referred for a chest x-ray.

- Substitution of GP advice with self-care or pharmacist care this could save valuable GP time in an environment where there is a recognised shortage of general practitioners⁴. This would amount to an effective release of the GP workforce to attend to more urgent primary care needs and priorities.
- As a corollary of the above, and where treatment with a medicine were indicated substitution of a prescription pharmaceutical with a non-prescription pharmaceutical may ensue. Table 1 shows that use of non-prescription medicines is an accepted (although perhaps underutilised) practice as an element in the treatment of minor ailments - but its extension could nevertheless cause additional costs to be transferred to the consumer (if their the non-prescription medicine were not to attract a PBS benefit entitlement).

There could hence be a public health case for developing or encouraging alternative gateways to primary care that met consumer needs, without compromising their access to quality and appropriate care and which at the same time accorded greater responsibility to consumers for their self-care.

A model of enhanced pharmacist primary care

In relation to the sample data in Table 1, for the top 10 minor ailment diagnoses for the year ended June 2008, it is reasonable to suggest an alternative model of care in which several categories of treatment currently managed in GP settings were moved to appropriate alternative, substitute treatment pathways. Various plausible scenarios could be considered as counterfactuals to what actually occurred, employing assumptions about what might have been safely deflected from general practice to the lower cost pathway.

For instance, candidates for non-general practice treatment might include some patients that might otherwise have received a prescription, some that would have been treated with a recommendation to purchase a non-prescription medicine and some that would have apparently been untreated. The assumption underlying such a deflection in patient demand would be that pharmacists were competent to make straightforward diagnoses and either to recommend a non-prescription medicine or to substitute appropriately a non-prescription medicine for a prescription medicine. In most of such cases, it would also be reasonable to assume that pharmacists would be capable of counselling patients and offering them advice on their medicines well as other general health and lifestyle advice. The model of enhanced pharmacist primary care is really a stronger reaffirmation and crystallisation of the intentions of the evolving model of cognitive pharmacy service⁵.

Under the precautionary principle, it is reasonable to assume that an attendance that justified any type of investigation by way of either a pathology or radiographic request or a specialist referral would be less amenable to differential diagnosis and management outside general practice⁶. For instance, there were some 600 cases in the sample, many apparently 'untreated', that were candidates for specialist referral (Table 1). Because of the risks inherent in such cases, they would need to be managed in medical settings. If these were not first intercepted by a GP, they would at least need to be triaged by pharmacists and immediately referred to a GP.

Of course, the capacity to implement and sustain any systematic pattern that gave more emphasis to pharmacist care and triage and self-care along the lines intimated, would

⁴ Australian Medical Workforce Advisory Committee. *The general practice workforce in Australia: supply and requirements to 2013.* Sydney, AMWAC, 2005

⁵ See for example, Benrimoj SI *et al, A program to develop and test a mechanism to raise national standards of practice for the provision of 'pharmacist only 'and 'pharmacy' medicines in Australian community pharmacy, Final Report, April 2002, Faculty of Pharmacy, University of Sydney*

⁶ We are ignoring distortions associated with moral hazard issues to do with possible excessive ordering of pathology tests in general practice.

necessarily depend upon the willingness of more patients to make pharmacies a 'first port of call'. They would need initially to decide for themselves to go to a pharmacy in preference to a GP - perhaps based on an initial self-diagnosis of an illness as being a minor ailment because they had recognised symptoms previously experienced as associated with a minor ailment. Patients would also need to have confidence in the skills of pharmacists to effectively triage in situations likely to require care outside the boundaries of straightforward diagnosis we have sketched above. The logic associated with this model of care is summarised in Figure 3.

The rationale and scope for its implementation is feasible: the criteria outlined above are consistent with the current model of primary care; there would also be gains to the patients who participated, in the sense that pharmacists are readily acknowledged as being the most easily accessible of health professionals. Pharmacies are ubiquitous. No appointments and waiting times would be involved - all of which would effectively reduce patient time cost in obtaining rapid treatment and advice.



With suitable pharmacy triage arrangements available that could involve some devolution of the current GP gatekeeper model of care, we accordingly consider the illustrative savings that might have been realised during 2007/08 for GP care not associated with referral for investigation or to specialist care. This is shown in Table 2 below for two alternative hypothetical scenarios for the 10 most frequently treated minor ailments in general practice.

Illustrative savings in the GP workload under different Scenarios in a model of enhanced pharmacist primary care

Each scenario comprises savings in the general practice workload that might hypothetically accrue from reduced GP attendances flowing from the transfer to enhanced pharmacy care of an assumed proportion in three groups of GP attendances from the taxonomy in Figure 1 - less in each case, any attendances associated with referral to a specialist (assumed to be more complex) - as follows:

- GP treatment by way only of a prescription, with substitution of a non-prescription for a medicine prescription medicine on the recommendation of a pharmacist
- apparently untreated patients
- GP treatment involving a recommendation to purchase a non-prescription medicine

	Table 2: Estimated hypothetical savings in GP attendances from assumed reductions in
,	demand for the treatment of selected minor ailments associated with enhanced
	pharmacist care, 2007/08

	SCEN	IARIO 1		
Assumed relative savir	ng in GP attendance	es associated with	different therapies	s, 000s
Therapy	Prescription	Untreated	Non-	Total saving
	only	50%	prescription	
Minor ailment group	20%		medicine	
			50%	
1 Acute URTI	516	857	164	1,538
2 Diarrhoea & gastro.	143	181	15	339
3 Viral infection	127	24	5	155
4 Pain in joint	115	68	3	185
5 Malaise and fatigue	134	4	0	138
6 Dorsalgia	117	338	12	467
7 Low back pain	97	161	4	262
8 Cough	87	119	16	222
9 Headache	73	68	7	147
10 Constipation	67	60	43	170
Total	1,476	1,880	267	3,624
	SCEN	IARIO 2		
Assumed relative savir	ng in GP attendance	es associated with	different therapies	s, 000s
Therapy	Prescription	Untreated	Non-	Total saving
	only	100%	prescription	
Minor ailment group	50%		medicine	
			100%	
1 Acute URTI	1,289	1,715	329	3,333
2 Diarrhoea & gastro.	358	363	29	749
3 Viral infection	317	47	10	374
4 Pain in joint	287	136	5	427
5 Malaise and fatigue	335	7	0	342
6 Dorsalgia	293	676	24	993
7 Low back pain	244	322	7	573
8 Cough	218	239	32	488
9 Headache	182	136	13	331
10 Constipation	168	120	86	374
Total	3,691	3,760	534	7,985

The reductions in the general practice workload in Table 2 are based upon minor ailment treatment patterns in the in the IMS sample, inflated by IMS's implicit projection factors for each minor ailment⁷. In Scenario 1 there is an assumed 20% reduction in attendances associated with treatment simply involving a prescription and a 50% reduction in each of the workloads for patients apparently untreated or who were treated with a prescription medicine.

In Scenario 2, the corresponding reductions are respectively 50% and 100%. The assumptions underlying the extent of these reductions are necessarily speculative, since there is no empirical evidence on which to base our modelling. The sensitivities we have used for the shift effects nevertheless are illustrative of the boundaries to the likely response that might be realised over a time, following the successful implementation of a program of enhanced pharmacist care. Phased modelling, however, would be beyond the scope of this assignment.

⁷ It should be noted that at the time of writing, standard errors had not been supplied by IMS.

Table 3: Estimated hypothetical headcount increase in the GP workforce from notional
reductions in demand for the treatment of selected minor ailments associated with
enhanced pharmacist care, 2007/08 [*]

	SCEN	IARIO 1		
Effective increase	e in GPs associated	with different the	rapies—'headcount	<i>,</i> /#
Therapy	Prescription	Untreated	Non-	Total increase
	only		prescription	in GPs
Minor ailment group			medicine	
1 Acute URTI	80	134	26	239
2 Diarrhoea & gastro.	22	28	2	53
3 Viral infection	20	4	1	24
4 Pain in joint	18	11	0	29
5 Malaise and fatigue	21	1	0	21
6 Dorsalgia	18	53	2	73
7 Low back pain	15	25	1	41
8 Cough	14	19	2	35
9 Headache	11	11	1	23
10 Constipation	10	9	7	26
Total	230	293	42	564
	SCEN	IARIO 2		
Effective increase	e in GPs associated	with different the	rapies-'headcount	ť
Therapy	Prescription	Untreated	Non-	Total increase
	only		prescription	in GPs
Minor ailment group			medicine	
1 Acute URTI	201	267	51	519
2 Diarrhoea & gastro.	56	56	5	117
3 Viral infection	49	7	1	58
4 Pain in joint	45	21	1	67
5 Malaise and fatigue	52	1	0	53
6 Dorsalgia	46	105	4	155
7 Low back pain	38	50	1	89
8 Cough	34	37	5	76
9 Headache	28	21	2	52
10 Constipation	26	19	13	58
Tabal		E96	83	1 744

^{*} Mean time per attendance is 14.8 minutes; Britt H, Miller GC, Charles J, Henderson J, Bayram C, Harrison C *et al.* 2008. *General practice activity in Australia 1998–99 to 2007–08: 10-year data tables.* General practice Series no 23. Cat no GEP 23. Canberra: Australian Institute of Health and Welfare, p 50.

Annual patient contact hours worked by an average GP (i.e. excluding office work) are 1,584; Britt H & Miller GC (eds) 2009. *General practice in Australia, health priorities and policy 1998 to 2008*. General practice Series no 24 Cat no GEP 24. Canberra: AIHW. pp 23 -7; Australian Institute of Health and Welfare. 2009. *Medical labour force 2006*. National health labour force Series no 41 Cat no HWL 42. Canberra: AIHW, Table 11, p 22.

[#] Time per attendance (14.8 minutes) \times attendances saved (from Table 2) \div patient hours per GP per year.

In Scenario 1 (Table 2), the GP workload would have fallen by some 3.6 million attendances; in Scenario 2, the reduction would have been about 8.0 million attendances (more than half the total attendances associated with the top 10 minor ailments in 2007/08). It may be noted that there is a striking variation between the respective possible contributions of the top 10 minor ailments to savings in the GP workload. This is because of variations in their frequency and the manner of their treatment. Because of its incident frequency, for instance, more than 40% of the total reduction in attendances is attributable to 'acute URTI' (1.5 and 3.3 million attendances respectively in each of the Scenarios).

Relationship between workload reduction and the effective supply of GP labour

Using information about the time a GP devotes to the average attendance, the weekly hours GPs work, their patient contact time and the extent of their working year, it is possible to reinterpret the reduction in the GP the workload in Table 2 as an effective increase in the GP workforce. Table 3 (on page 9 above) accordingly shows that under the assumptions of our modelling, the impact of enhanced pharmacist care could contribute to an effective increase of 564 doctors in the general practice workforce under Scenario 1 and 1,244 under Scenario 2. The contributions of each of the minor ailments to the gain in the doctor workforce would run *pari passu* to the savings in attendances with which they are respectively associated.

Table 4: Estimated hypothetical effective increase in the FTE GP workforce from notional reductions in demand for the treatment of selected minor ailments associated with enhanced pharmacist care, 2007/08^{*}

	SCEN	ARIO 1		
Effective incr	ease in GPs associa	ated with different	therapies—FTE	-
Therapy	Prescription	Untreated	Non-	Total increase
	only		prescription	in GPs
Minor ailment group			medicine	
1 Acute LIRTI	66	110	21	108
2 Diarrhoea & gastro	18	23	21	44
3 Viral infection	10	23	1	20
4 Pain in joint	15	9	0	20
5 Malaise and fatigue	17	0	0	18
6 Dorsalgia	15	43	2	60
7 Low back pain	13	21	0	34
8 Cough	11	15	2	29
9 Headache	9	9	1	19
10 Constipation	9	8	6	22
Total	190	242	34	466
	SCEN	ARIO 2		
Effective incr	ease in GPs associa	ated with different	therapies—FTE	
Therapy	ease in GPs associa Prescription	ated with different Untreated	therapies—FTE Non-	Total increase
Therapy	ease in GPs associa Prescription only	ated with different Untreated	therapies—FTE Non- prescription	Total increase in GPs
Minor ailment group	ease in GPs associa Prescription only	ated with different Untreated	therapies—FTE Non- prescription medicine	Total increase in GPs
Minor ailment group	ease in GPs associa Prescription only	ated with different Untreated	therapies—FTE Non- prescription medicine	Total increase in GPs
Minor ailment group	ease in GPs associa Prescription only 166	ated with different Untreated 220	therapies—FTE Non- prescription medicine 42	Total increase in GPs 428
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro.	ease in GPs associa Prescription only 166 46	ated with different Untreated 220 47	therapies—FTE Non- prescription medicine 42 4	Total increase in GPs 428 96
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection	ease in GPs associa Prescription only <u>166</u> 46 41	ated with different Untreated 220 47 6	therapies—FTE Non- prescription medicine 42 4 1	Total increase in GPs 428 96 48
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection 4 Pain in joint	ease in GPs associa Prescription only <u>166</u> 46 41 37	ated with different Untreated 220 47 6 17	therapies—FTE Non- prescription medicine 42 4 1 1	Total increase in GPs 428 96 48 55
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection 4 Pain in joint 5 Malaise and fatigue	ease in GPs associa Prescription only <u>166</u> 46 41 37 43	ated with different Untreated 220 47 6 17 1	therapies—FTE Non- prescription medicine 42 4 1 1 1 0	Total increase in GPs 428 96 48 55 44
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection 4 Pain in joint 5 Malaise and fatigue 6 Dorsalgia	ease in GPs associa Prescription only <u>166</u> 46 41 37 43 38	ated with different Untreated 220 47 6 17 1 87	therapies—FTE Non- prescription medicine 42 4 1 1 1 0 3	Total increase in GPs 428 96 48 55 44 128
Interceptive incr Therapy Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection 4 Pain in joint 5 Malaise and fatigue 6 Dorsalgia 7 Low back pain	ease in GPs associa Prescription only 166 46 41 37 43 38 31	ated with different Untreated 220 47 6 17 1 87 41	therapies—FTE Non- prescription medicine 42 4 1 1 1 0 3 3 1	Total increase in GPs 428 96 48 55 44 128 74
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection 4 Pain in joint 5 Malaise and fatigue 6 Dorsalgia 7 Low back pain 8 Cough	ease in GPs associa Prescription only 166 46 41 37 43 38 31 28	ated with different Untreated 220 47 6 17 1 87 41 31	therapies—FTE Non- prescription medicine 42 4 1 1 1 0 0 3 3 1 4	Total increase in GPs 428 96 48 55 44 128 74 63
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection 4 Pain in joint 5 Malaise and fatigue 6 Dorsalgia 7 Low back pain 8 Cough 9 Headache	ease in GPs associa Prescription only 166 46 41 37 43 38 31 28 23	ated with different Untreated 220 47 6 17 1 87 41 31 17	therapies—FTE Non- prescription medicine 42 4 4 1 1 0 0 3 3 1 1 4 4 2	Total increase in GPs 428 96 48 55 44 128 74 63 43
Minor ailment group 1 Acute URTI 2 Diarrhoea & gastro. 3 Viral infection 4 Pain in joint 5 Malaise and fatigue 6 Dorsalgia 7 Low back pain 8 Cough 9 Headache 10 Constipation	ease in GPs associa Prescription only 166 46 41 37 43 38 31 28 23 22	ated with different Untreated 220 47 6 17 1 87 41 31 17 15	therapies—FTE Non- prescription medicine 42 42 4 1 1 0 0 3 3 1 1 4 4 2 11	Total increase in GPs 428 96 48 55 44 128 74 63 43 43

Annual patient contact hours worked by an average FTE GP are 1,920; see documentation in Table 3 above.

Not all GPs work full time and female GPs work a significantly shorter day than males. The data in Table 3 represent raw 'headcount' estimates of the effective gain in the GP workforce. Table 4 translates the effective gain in the GP workforce into full time equivalent (FTE) doctors. It shows that under Scenario 1, there could be an effective increase of 466 FTE GPs and under Scenario 2, the effective FTE increase would be 1,026 - respectively some 3% to 7% of Australia's FTE GP

workforce. The gain in FTE GPs is naturally lower than the 'headcount' figure because a FTE is a measure of gain associated with all doctors working at their full capacity (and hence is commonly used in standardising comparisons in health workforce studies⁸).

Public health gain and financial savings

The effective gain in the GP workforce associated with enhanced pharmacist care would represent a significant public health gain in the sense of assisting in mitigating a severe medical workforce shortage.

There would also be notional financial savings to Government associated with the benefit cost saving on the reduction in GP consultations devoted to the treatment of minor ailments. In the case of Scenario 1, these would have amounted to an aggregate of \$118.6 million per year at 2007/08 prices, and for Scenario 2 they would have been \$261.4 million⁹.

In the face of the general GP shortage and unrequited service demand, however, it is unlikely that benefit savings would be realised directly by Government. The effective increase in the GP workforce would immediately become redeployed in the treatment of other more urgent needs and priorities, especially those associated with Australia's underserviced rural and Indigenous communities as well as its ageing population and the associated demand for the treatment and management of chronic illnesses under its National Chronic Disease Strategy¹⁰. The liability of a universal Government insurance scheme such as Medicare, which provides insurance to the whole population, differs from what would occur in a health insurance setting where a carrier who ceased to write benefits for minor ailments in a defined group of members or policyholders, may appropriate a direct financial gain.

Although no money savings would be likely to accrue directly to the Government in a budgetary sense, the significant amounts involved provide a money metric illustrative of the extent of 'wastage' and resource misallocation associated with current management of minor ailments in general practice.

Redeployment GP care into other health priorities under Australia's universal insurance arrangements would also be encouraged by the generous bulk billing arrangements that were implemented under Medicare between in 2004 and 2005. These have now successfully addressed a decreasing GP attendance rate, which was a matter of concern because of issues concerning equity in accessing GP services¹¹. Current bulk billing incentives include incentive payments to GPs for services bulk billed to children and Concession card holders, a benefit equivalent to 100% of the Schedule Fee for GP services bulk billed in conjunction with a significant extension of Safety Net arrangements to cover the cost of 'extra billing'¹². The generous benefit entitlements that make GP care accessible at a zero, or close to zero price to patients have a potential to escalate further service demands¹³. It seems clear that this kind of environment would readily absorb any notional fiscal savings associated with a reduction in the demand for minor ailment services.

There would also be notional fiscal savings to the PBS. As a corollary of reduced GP minor ailment services, fewer PBS prescriptions would be dispensed for minor ailments - and provided

[from Table 2] × mean benefit cost to Government per service during 2007/08 [\$32.74]).

⁸ Gadiel D and Ridoutt L. *The specialist medical workforce and specialist service provision in rural area.*

Department of Human Services & Health and Medical Workforce Data Review Committee, AGPS, Canberra, 1995 ⁹ Calculated in each case from the number of attendances saved at the MBS item 23 level (the number saved [from Table 2] × mean benefit cost to Covernment per service during 2007/08 [\$32,741])

¹⁰ Australian Health Ministers Conference, *National Chronic Disease Strategy*, Australian Department of health and Ageing. Canberra, 2005

¹¹ Britt and Miller (eds) *op cit*, p 30.

¹² Ibid

¹³ *Cf*: Folland S, Goodman AC, Stano M. *The economics of health and health care*. Prentice-Hall, (5th edn.) Prentice-Hall, New Jersey, 2007, pp 165-6.

they were not under co-payment prescriptions, this would also constitute a notional saving to Government. The amount that would be involved, however, remains indeterminate since the data on minor ailment prescriptions in the IMS sample were not coded for Safety Net threshold and Concession Card status - which (unlike GP services) determines the amount of a statutory co-payment on all PBS prescriptions¹⁴. Analogous to GP services, however, any savings to Government in PBS benefit costs associated with reduced prescribing for minor ailment services would be offset by the incremental benefit cost of prescribing associated with the redeployment of GP services in other areas.

Concluding comments

In summary, the implementation of a model of enhanced pharmacy care would engineer a shift towards an expanded and more effective use of non-prescription medicines in the treatment of minor ailments. It would also constitute an important initiative to reinforce the cognitive skills of pharmacists and to improve their links with the rest of the primary health care sector. There would be gains to patients associated with immediate access to rapid treatment and advice for minor ailments at minimal time cost. Moreover, the saving in GP time in treating minor ailments would present an efficiency gain: it would facilitate the effective redeployment of the GP workforce in the interest of furthering more equitable access to necessary primary care in national priority areas such as the management of chronic disease.

An issue not addressed in this report is a strategy for implementing the enhanced pharmacist care model. There has been an underlying assumption of the new model being introduced as though it might be an exogenous, once-for-all change. In reality, there will be a time dimension to its implementation. Its phasing would require Strategic and Business Plans that would need to respond to various practicalities, including:

- Pharmacist and pharmacy assistant education and standards additional to those already in train under the QCPP, with special emphasis on formalised risk management and effective patient triage
- Possible alternative retail formats in pharmacy that were attractive to patients and conducive to diagnosis and treatment
- GP education addressing in particular any concerns to do with expanded and formalised pharmacy triage and what might be construed as a demarcation issue
- Consideration of how the impact of any out-pocket-costs incurred by consumers might be mitigated because of their switch from medicines previously attracting a PBS benefit
- A strategy to engage numerous stakeholders including various health professional groups as well as consumers endorsed by Government to assist in engineering cultural change and to provide support to help consumers navigate their way within the health system
- A project team to manage and monitor the new program
- The quantum, source and disposition of an implementation budget to deliver the required change over the implementation term

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¹⁴ For instance, during 2007/08 the mandatory co-payment was \$31.30 for 'General' PBS claimants and \$5.00 for Concessional claimants.