

Pharmacists as accessible primary health care providers: Review of the evidence

PRIMARY HEALTH CARE IS DEFINED AS A PATIENT'S FIRST POINT OF CONTACT WITH THE HEALTH CARE SYSTEM. As such, pharmacists are an integral part of primary health care. Indeed, for many years, we have said that pharmacists see their patients more frequently than they see any other health care practitioner, including physicians. Let's review the evidence for that.

To address this topic, we searched PubMed/MEDLINE, Scopus, EMBASE, Cochrane Library, Web of Science and CINAHL Plus from their inception to October 2017. The searches combined relevant keywords and subject headings relating to the concept of pharmacist visit frequency. The search terms used included *pharmacist*, *pharmacy*, *visit*, *visit frequency*, *follow up frequency*, *physician*, *doctor* and *general practitioner*. An additional search was conducted in Google for the phrase "pharmacists see patients more than physicians." The results of these searches are shown in Table 1.

Using Saskatchewan population data, Shiu et al.² demonstrated that pharmacists see patients with diabetes at least twice as frequently as general practitioners and 36% more than any physician.² These results did not change when stratified by the size of the urban centres.² McNamara et al.¹ reported that patients in rural Australia visit their general practitioners more frequently than they visit their pharmacists. However, when broken down by age groups, this finding appears to be driven by patients who are younger than 65 years of age (25-64 years, with over half of those being under 55 years). It is very plausible that younger patients might not have as many chronic conditions as older patients, and so they might visit their general practitioner more frequently (presumably for acute conditions). When looking at patients aged 65 years and older (65-84 years; 40% of patients), the visits to community pharmacists were more frequent. Jose et al.³ did not include a comparator group but interestingly reported visit frequency numbers similar to those reported by Shiu et al.² and the older

cohort of McNamara et al.¹ A 2008 *Pharmacy Satisfaction Digest*⁴ article reported that patients visit their pharmacists 30 times vs 2.9 for their family physicians. The average age of patients for this study was 59.2 years. This is consistent with the mean age that was reported by Shiu et al.² and the older cohort of McNamara et al.,¹ which reinforces the prevalence of chronic conditions in this patient population. We found other studies for which the data could not be verified. They reported that primary care pharmacists see patients 5 to 8 times more frequently than primary care physicians.⁵⁻⁷

Based upon our review, the best available evidence suggests that primary care pharmacists see their patients somewhere between 1.5 and 10 times more frequently than they see primary care physicians. In addition, emerging evidence from Alberta suggests that about 30% of patients with chronic conditions cannot, do not or will not see a family physician (personal communication, Dr. Richard Lewanczuk, November 8, 2017). Taken together, these have important implications for patient access to primary care. With a broader scope of practice that includes prescribing and appropriate remuneration incentives, pharmacists could assume an even more important role in primary care.

We have identified that more research is needed in this important area. Areas for future research should look at various age groups and by specific disease states (e.g., hypertension, asthma, mental health, etc.). Such data will be important for health care policy makers.

In conclusion, the evidence suggests that pharmacists play a major primary care role that is enhanced by their accessibility. Such role could be further enhanced with a broader scope of practice and remuneration that reflects this role. It has been said that the strength of a country's health care system is fundamentally driven by the strength of its primary care system.⁸ Here is an opportunity that we cannot ignore. ■

TABLE 1 Literature review

Study author	Date	Setting/ country	Disease	Frequency of pharmacist contact with patient per year (median, IQR)	Comparison group (median, IQR)
McNamara et al. ¹	2012	Wimmera/ Australia N = 694 patients	CVD (or risk factors for)	Overall: (2, 0-10)	Overall: (GPs) (3, 1-6)
				Age <65 years	Age <65 years (GPs)
				Age 25-44 years (1, 0-3) n = 94	Age 25-44 years (2, 1-4) n = 94
				Age 45-54 years (2, 0-6) n = 161	Age 45-54 years (2, 1-5) n = 161
				Age 55-64 years (2, 0-10) n = 162	Age 55-64 years (3, 1-5) n = 162
				Age >65 years	Age >65 years (GPs)
				Age 65-74 years (6, 0-10) n = 161	Age 65-74 years (4, 2-6) n = 161
				Age 75-84 years (10, 1-12) n = 116	Age 75-84 years (5, 3-8) n = 116
Shiu et al. ²	2006	Saskatchewan/ Canada N = 36,493 patients	Diabetes	(15, 9-24)	GPs (7, 4-13)
Jose et al. ³	2015	Oman N = 390 patients	General	56.9% of the participants visited the pharmacy at least 6 times a year	No comparator
2008 <i>Pharmacy Satisfaction Digest</i> ⁴	2008	United States N = 34,454 patients	General	30 (mean)	GPs, 2.9 (mean)
Unverified* Reports					
Campbell ⁵	1993	Unknown	Unknown	States that pharmacists see patients at least 5 times more than any other health professional	
Kroon et al. ⁶	1997	Unknown	Diabetes	States that people with diabetes see their pharmacist 7 times more than their family physician	
Moose et al. ⁷	2014	Unknown	Unknown	35 (mean)	GP, 4 (mean)

CVD, cardiovascular disease; GP, general practitioner; IQR, interquartile range.

*No data or citation provided.

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