



Self-care and minor ailments: The view from Canada

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ABSTRACT

This manuscript offers a glimpse into the Canadian healthcare system, emphasizing the prevalence and management of minor ailments through self-care practices. The first section outlines the strengths and challenges of the healthcare system, including access issues and escalating costs. The second section explores self-care in Canada, outlines the Self-Care Readiness Index, and Canadians' proactive management of common conditions through self-care activities, including the use of over-the-counter (OTC) medicines. Consumer behaviors, preferences, and the thriving OTC market are discussed. It also discusses existing programs and initiatives encouraging self-care. While lacking a coordinated national strategy, various organizations, including Health Canada, have taken steps to regulate and promote self-care products. The role of pharmacies, industry groups, and public health campaigns in fostering self-care is explored, along with public access to OTC medicines, Rx-to-OTC switching, and consumer expectations related to such medicines. Factors influencing self-care and self-medication are explored, focusing on access to medical care, public perceptions of OTC medicines, and the public's ability to engage in appropriate actions. The crucial role of pharmacists in minor ailment care is examined. Insights are provided into Canada's healthcare landscape, emphasizing the significance of self-care in managing minor ailments. The public has access to many resources on how to engage in self-care and deal with minor ailments, but a formal system to promote them is lacking. The findings prompt considerations for future healthcare policies and public health campaigns, highlighting the evolving nature of healthcare practices in the nation.

1. Healthcare in Canada

Canada is a country of 40 million people and has a modern healthcare system typical of most Western nations.¹ It is suitably high-tech in many aspects, is staff by well-trained practitioners and support staff, has important infrastructure in place, but also has drawbacks and inequities such as access to family doctors, rising costs, and concerns over indigenous and rural care. Total health spending was expected to reach \$331 billion (CAN) in 2022 or \$8563 per Canadian.² The country has universal healthcare coverage (public health insurance) that is funded through general taxation.

Over the course of a year [circa 2004], 83% of Canadians consulted a family doctor, 54% visited the dentist, and 42% interacted with a community pharmacist.³ It is important to note that Canadians generally describe their health in positive terms, with half categorizing it as *good* and one in six as *excellent*.³

2. Self-care in Canada

As with most parts of the world, self-care activities are an important component within the healthcare system. Self-care encompasses healthy eating, physical fitness, personal safety, hygiene, and so on.⁴ It is relevant for general health and for both acute and chronic ailments. Pharmacists have a role to play at each level, but other healthcare providers will be the primary source of information, such as dentists for oral health, physical therapists for personal fitness, and registered dietitians for eating habits. Of note is that dietitians continue to be concerned that Canadians do not follow Canada's Food Guide.⁵ Concern for the health of pregnant women led to the creation of the *Sensible Guide to a Health Pregnancy* in 2007.⁶ Many provinces have HealthLines staffed by nurses to support decision-making by the public.

For acute illnesses, pharmacists include non-pharmacological measures when interacting with patients. For example, warm compresses can be mentioned as adjunctive therapy for Folliculitis, dry skin lotions during Eczema management, and normal saline rinses for nasal

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congestion. While pharmacists are trained in schools of pharmacy to make such recommendations, a gauge as to how often they are done is not available.

Many chronic conditions have important aspects of self-care.⁴ Individuals with diabetes must understand their condition to maintain blood sugar within a safe range, inspect their feet, adapt to upper respiratory tract infections, and so on.^{7,8} Patients at risk for cardiovascular disease will have to consider a wide range of health behaviour modifications.⁹ Lifestyle changes such as moderate to vigorous exercise and limiting fat intake are critical to the management of obesity.¹⁰

As a measure to quantify the extent a country embraces self-care principles and practices, Canada was attributed a Self-Care Readiness Index score of 2.77 by the Global Self-Care Federation in 2022, putting it fifth out of ten countries.¹¹ Some examples were given of conditions where self-care is critical, such as heart failure and asthma, and several clinical guidelines include this aspect. While the report revealed many concerns (e.g., lagging in adopting electronic records and access to self-testing), it noted that Health Canada's work in regulating self-care products through a *Self-Care Framework*. The report concluded that Canadians are receptive to self-care and take more control over their health. Health literacy of Canadians may be comparable to Europeans, but no federal agency is involved in improving the status quo. Improvements to food labels with easy-to-use symbols may help consumers make more informed choices, and this will be supported by public education and awareness efforts.

While emergency room visits, medical appointments, and chronic conditions garner extensive attention, it is the minor ailments such as sore feet, colds, back aches, heartburn, and coughs that make up the bulk of all illnesses.¹¹⁻¹³ If such situations were always to enter our formal healthcare system (rather than care at home), the system would surely grind to a halt. The rest of this report will specifically focus on minor ailments within the self-care realm.

2.1. Programs to encourage self-care

Canada does not have a coordinated national approach or strategy for the implementation, nor promotion, of self-care activities to the public.¹¹ However, a review of such activities did acknowledge some awareness campaigns on a range of topics, such as antibiotic stewardship, smoking cessation, flu vaccines, mental health, and the safe use of acetaminophen. While not a lot of proactive self-care promotional activity is evident in Canada, various websites do have that information. But with the dynamics currently in place, the onus would be on the citizen to search for it. A notable exception was during the pandemic, where many national and provincial public service announcements (PSAs) were launched to encourage COVID-19 vaccinations.

Healthcare in Canada is currently experiencing some extremely important issues and stressors, made worse by the pandemic. As a result, attention by health authorities on self-care fell in importance. Health Canada's current impetus is in updating its approach to regulating self-care products. For example, it has amended the *Natural Health Products Regulations* to ensure that the information on labels of natural health products is clear, consistent and legible for Canadians to support them in safely selecting and using these products.¹⁴ As well, a goal is for natural health products to be labelled in a comparable manner to similar self-care products, such as non-prescription drugs.¹⁴

Although the Canadian Pharmacist Association has a website that provides an overview of minor ailments, it does not have any promotional initiatives in place to encourage Canadians to engage in self-care or self-medication as a conduit to improved health. Currently, the organization's priorities are a national COVID-19 testing strategy, the opioid crisis, indigenous access to healthcare, the implementation of universal healthcare, and drug shortages.¹⁹

An industry lobby group (Food, Health, Consumer Products of Canada) has addressed the need for a national self-care policy through a document called – *Take Care, Canada: Blueprint for a National Self-Care*

Strategy.¹⁵ In the document, seven pillars of self-care are identified: health literacy, self-awareness, physical activity, optimal use of products and services, healthy eating, risk avoidance, and good hygiene. They note that while the federal government has national strategies for most (healthy eating, mental health, substance abuse, increasing physical activity), there is no apparent co-ordination under an over-arching self-care strategy. They cite an internal report (2015) whereby shifts in the balance between practicing self-care and seeking professional care would significantly increase capacity in the Canadian healthcare system. They stated that if the 2% of Canadians with colds, headaches or heartburn who seek professional care (despite mild to moderate symptoms) shifted to self-care, there could be three million less doctor visits annually. Internal polling found that the COVID-19 pandemic increased the interest of Canadians in their own health and motivated them to practice a range of self-care activities and seek more information about their health. The organization called on the government to strive to improve self-care literacy.

While not actively promoting self-care via specific PSAs to the public, there would seem to be implicit support for it at the provincial level. Some health departments, if not all, have made self-care resources available to the public. The British Columbia *HealthGuide Handbook* has comprehensive information on how to recognize and manage common health concerns.¹⁶ *MyHealthAlberta* has similar information on their online portal, as does Nova Scotia Health. The Winnipeg Regional Health Authority has website information on how to discern between a cold, the flu, or Covid 19 and on how to use a pediatric nasal aspirator.¹⁷ *Choosing Wisely Saskatchewan* coordinates with the Saskatchewan Health Authority, the Saskatchewan Medical Association, and patient partners,¹⁸ although the current areas of focus are not exclusively self-care-centric: antimicrobial stewardship, opioid stewardship, using blood wisely, imaging for lower back, reducing unnecessary lab tests, and advanced care conversations.

2.2. Spectrum of minor ailments

Minor ailments cover a gamut of illnesses. They are common and/or uncomplicated conditions that most patients can resolve without healthcare provider intervention.¹⁹ While an official list as to what is in fact 'minor' is lacking, by default many provinces crafted representative lists when minor ailment prescribing programs were ushered in. For example, the following list outlines the spectrum of applicable situations in one province (Table 1)¹²:

Such symptoms/conditions (excluding threadworms and pinworms) make up a significant portion of what ailments affect Canadians. By way of example, it was estimated that over one year, Canadians suffered from an estimated 82 million headaches/migraines, 85 million colds/flu, and 46 million episodes of indigestion/heartburn.¹³ In another report based on a national survey ($n = 1860$), the most common ailments over a 6-month period were colds (41%), headache/migraine (34%), muscle aches and pains (34%), and upset stomach 22%.¹⁹

Approximately one in three adults will have a sore throat, cold, or the flu in any given month.³ The most commonly reported minor ailments included headache (76%), cough/cold (70%), sore throat (47%), muscle aches/pains (38%), with hay fever coming in tenth (of the top ten) at 12%.

Further to feedback on symptom experiences, a survey of 1202 citizens in one city presented a list of nine minor symptoms known to be common – cold/flu, headache, muscle ache, dry skin, constipation, heartburn, sore back, allergies, and insomnia. While seasonal aspects would have been in play, almost everyone (96.5%) experienced at least one. Of the 1160 people making up this group, 17.1% experienced more than six different symptoms over the 6-month period. On average, respondents experienced 3.6 different symptoms, with considerable differences between gender and ages.²⁰

Table 1
Minor Ailments in New Brunswick.

Acne (mild)	Allergic Rhinitis	Calluses and Corns	Contact Allergic Dermatitis	Cough
Dandruff	Dysmenorrhea	Dyspepsia	Eczema (mild to moderate)	Fungal Infections Skin
GERD/heartburn	Headache (mild)	Hemorrhoids	Herpes Simplex	Impetigo
Joint Pain (minor)	Muscle Pain (minor)	Nasal Congestion	Nausea	Non-infectious Diarrhea
Oral Fungal Infection (thrush)	Oral Ulcers (canker sores)	Sleep Disorders (minor)	Sore Throat	Threadworms and Pinworms
Urinary Tract Infection (uncomplicated)	Urticaria (mild – hives, bug bites, stings)	Vaginal Candidiasis	Warts (excluding facial and genital)	Xerophthalmia

2.3. Action taken relative to minor ailments

Canadians will engage in one (or more) of the following actions in response to a minor ailment:

growth.²⁴ In 2003, OTC medicines were the most common type of health product used by the Canadian public: 66% of respondents had used one in the past six months, compared to 59% having used a prescribed medicine, and 58% having used natural health products.²⁵ The elderly in

Canadians will engage in one (or more) of the following actions in response to a minor ailment:



Information on the dynamics of these choices has been described. Impacting this will be that over 6.5 million Canadians, representing more than one-fifth of the population, currently lack regular access to a family physician or nurse practitioner for their healthcare needs. Fifty-five percent of Canadians visit a community pharmacy once weekly and see a community pharmacist up to ten times more frequently than their family physician.²¹ With minor ailments, people often opt for self-medication rather than visiting their physician, mostly because of the illness’s minor nature.²² For a national survey (N = 1860), what Canadian usually do with various situations were as follows (as percentage) (see Table 2)¹⁹:

An industry report stated that at the onset of a new medical condition or ailment, just over half of Canadians will likely “tough it out, wait and see if it gets worse”. One in five will go to their family doctor and one in ten will self-medicate with an OTC medicine.³ However, when that condition is interpreted to be ‘minor’, the course of action changes (Table 3):

The minor ailments most likely to be treated with an OTC medicine included headache (79%), athlete’s foot (73%), yeast infection (73%), cough/cold (70%), sinus congestion (64%) and menstrual cramps (64%).³ An older report found a global prevalence rate (self-medication) of 30%, with Canada logging in at 24%.²³

In 2021, the Canadian OTC market reached a value of 3.1 billion dollars, with a projected annual growth rate exceeding 2% in the forecast period.²⁴ Cough and cold preparations dominated the market, while vitamins and minerals were anticipated to experience the fastest value

Table 2
Care options chosen by Canadians.

Ailment	Consult doctor	Consult pharmacist	Use OTC* medicine	Use other treatment	Do nothing
A cold	21	17	72	14	16
Headache/migraine	22	10	81	10	10
Muscle aches/pains	39	8	43	20	30
Upset stomach	28	9	55	12	27
Hemorrhoids	36	11	53	15	29

* OTC = over-the-counter.

the largest Canadian province have been reported to use more OTCs than prescriptions.²⁶

2.4. Public access to OTC medicines

Federal health agencies determine the requirements/location of sale for all medicines and as such will fall into one of four categories (Table 4):

By far, most medicines on the Canadian market are in two of these categories – prescription and non-prescription: sale only from pharmacies. Accordingly, Canadians have considerable access to medicines that do not require a prescription. A number are advertised to the public in various media formats. Behind-the-counter agents (NAPRA Schedule II products) are small in numbers and include pseudoephedrine, some lice products, loperamide under 12 years of age, and tetrahydrozoline for pediatric use.²⁸ Agents placed here implicitly restrict public access and require a pharmacist to intervene during such a request. Almost invariably, it is the consumer who asks for the product by name and then the pharmacist decides on the suitability of the request after questioning.

Table 3
Patient behaviour with minor ailments.

Use an OTC* medicine they have on hand	36%
Let the ailment run its course	29%
Visit a pharmacy to buy an OTC* medicine	14%
See a doctor	14%
Use a home remedy	8%

* OTC = over-the-counter.

Table 4
Legislative categories of medicines in Canada.^{27,28}

Prescription	Physician, Dentist, Nurse Practitioner, Pharmacist
Non-prescription	Sale from behind-the-counter in pharmacies Sale is over-the-counter only from pharmacies Sale allowed from any retail outlet

2.5. Public impressions of OTC medicines and information-seeking

OTC medicines are clearly important to Canadians. With this level of use comes an important goal, that the public is safely and effectively using such medicines. How agents are perceived – their safety and effectiveness – will be important to how and when they are used.

In a national survey, most Canadians agreed that people should be careful when using OTC medicines, to only use them when necessary, and if unsure about the problem to not use it. It was important to responders that OTC medicines were available to help with minor ailments.¹⁹ The vast majority claimed to pay attention to the cautions and warnings and read the label carefully during first use. The majority felt that the agents they used are effective.

In almost 9 of 10 cases, Canadian OTC medicine users claimed they followed the manufacturer's directions; in 7% of cases, they did not.²⁹ Users do not feel the need to access package directions every time they use a medicine, given that familiarity with repeated use will accrue. On that, only 20% checked the directions on the day they last used their medicine. In 72% of cases, users also consulted another information source other than that on the package. In another national survey, most felt such agents were generally (if not completely) safe to use, but also noted the importance of getting relevant information on them.²⁵ On this, 38% seek out information on the product they use. Pharmacists and doctors are important sources for information. Overall, 29% were very satisfied with the drug safety information available to them, while 19% were dissatisfied.²⁵

2.6. Action taken relative to minor ailments

When people get sick, some will choose to ignore their symptoms, others will self-medicate, while still others will seek professional help. The steps chosen, and how soon they are enacted, will depend on many factors including severity and experience. A glimpse at what Canadians do was presented above.

Evidence in other parts of the world supports the consumer's ability to self-manage their minor ailments with OTC medicines.^{30–32} Factors contributing to this ability include long personal experience of successful self-management and product familiarity. That said, many reports over the years also call this into question.

Less is known in Canada on the competency of such activity, and any confidence in play that goes with it. In one provincial report, just under 300 surveys were completed.²² The lowest severity rating was a head cold at 1.7 (out of 9), followed by a chest cold (2.7). Acute chest pain was rated the most severe at 8.3. Most responders felt a person with a persisting head cold should see a physician in 2 weeks. A case of long-standing low back pain found 18.2% of responders suggested waiting until the 4-week point for care. Symptoms of a heart attack (although not spelled out as such) were perceived to (correctly) need very quick attention. Rectal bleeding also was deemed to need quick attention, as did diarrhea in a young child, painful urination, and conjunctivitis. A chest and head cold, conversely, were seen by responders to be less problematic. Based on scale wording, these latter two conditions fell between *not serious* and *slightly serious* on the severity scale. Further evidence of reasonable assessment skill was that gastroesophageal reflux disease symptoms in a patient with health issues ranked a full point higher in severity than the same scenario in a healthy individual. While symptom severity did not change in those two cases, the increase in case complexity was recognized by responders. This led to a slightly higher percentage stating that the unhealthy person should seek medical care within a week (58.5%) when compared to the healthy person (50.0%).

Case decision-making occurred with some conviction. Confidence did vary across situations, but only fell below *somewhat confident* three times. No situation reached a level of *not confident*. The public's confidence in decision-making was lowest for the cases involving Low Back Pain, Tension Headache, Tinea Corporis, and Constipation. While confidence does not necessarily translate into appropriate actions, this

sample appeared to deal with illness recognition and assessment with some surety. Of note is that personal experience generally led to more confidence in what to do and in rating the situations as less serious. The authors concluded that the public appeared to be sufficiently responsible, and appropriately cautious, in their assessment of when to seek medical care for 21 situations of varying severity.

2.7. Ability of the public to self-medicate

Information on whether Canadians pick the right agents for their ailments, and then use them correctly, is lacking. There are some concerns. A study among Canadians reported usage of more than one OTC medicine to treat the same symptoms, and the inability to identify the active ingredient in their medicines.³³

Canadians have provided insight into their knowledge of the safety and effectiveness of OTC medications.³⁴ On safety, 33% rated themselves as knowledgeable, while 33% said they had poor knowledge. Increased frequency of use led to being more knowledgeable. Regardless, 70% of respondents perceived OTC medicines to be safe. Dosage and directions are two of the most frequently read parts of a label.

3. Pharmacist involvement in minor ailment care

Advising patients on self-care, OTC medicines, and natural health products has been a key responsibility of Canadian community pharmacists for decades. Anecdotes from years past tell of the public turning to community pharmacists for help as the only healthcare provider in town, especially in rural parts of the country.³⁵ Pharmacists are highly regarded on this front.^{36,37} Some attempts have been made to quantify this activity in Canada.^{38–40} The *Canadian Pharmacist Intervention Study* found that approximately 15.3 million encounters involving OTC medicines took place over one year (circa 1995).⁴¹ The estimated benefit of this activity potentially resulted in cost-savings to the healthcare system of \$168.8 million to \$265.8 million, depending on the circumstances. Pharmacists recommended that a patient see a physician in 8.6% of cases.

Pharmacist approach to therapy will depend on drug regulations. To assess this, of the nearly 30,000 licensed pharmacists in Canada at that time (circa 2006), 5037 were mailed surveys. Of these, 2305 provided feedback as to whether they agreed with the current scheduling status of OTC medicines.⁴² Overall, it showed pharmacists generally favored tighter control of OTC medicines, particularly those that were unscheduled at the time (sold from any retail outlet). For example, senna tablets fell into this latter category.

In related work, a majority of responding pharmacists would not support the deregulation of omeprazole or simvastatin to OTC status.⁴³ A move to OTC intra-nasal fluticasone, however, garnered more support. The complexity of disease and drug management was listed as the main barrier by those who were against such a switch, while additional training on the assessment and monitoring of these conditions was deemed necessary by pharmacists who would agree to such a legislative change. Since that time, omeprazole and fluticasone have been given OTC status.

One author noted that while pharmacists are indeed physically available in community pharmacies for help on minor ailments, if asked to do so, their actual *accessibility* or *approachability* to a given patient might be debatable.⁴⁴ In other words, while the profession often claims to be the most accessible healthcare provider, there may be an underlying problem whereby the demand for help is not completely being met.⁴⁵

3.1. Pharmacist training on minor ailments / OTC medicines

Community pharmacists and students recognize the importance of this area to practice. To add credence to this stance, pharmacists and students at one institution were asked to rate the level of attention

needed within their program across 17 possible topics (pharmaceutics, management, pharmacokinetics, therapeutics, compounding, etc.).⁴⁶ For upper-year students, therapeutics and patient counselling rated highest for topics that required attention, while assessing drug-related problems and OTC therapeutics were third and fourth, respectively. For pharmacists, attention needed for OTC therapeutics finished lower, but was in the top 8 of 17 topics overall.

In the broad context, accreditation for all schools requires that attention be paid to training on minor ailments and the agents to treat them. Accreditation standards lists *self-care/non-prescription drug use* as foundational to a program.⁴⁷ However, this is an implied goal rather than an overt directive with our national faculty organization, given that the terms *self-care*, *self-medication*, and *minor ailment* do not appear in the documentation.⁴⁸

All Canadian pharmacy schools have claimed their curriculum adequately prepares graduates to effectively gather relevant information from patients seeking self-care, effectively assess and triage patients seeking such help, and counsel patients on the proper use of OTC medicines.³⁵ All schools agreed that programs should require coursework in OTC drug therapy and 90% believed it should be integrated across all years. This content was mostly placed within therapeutics courses and pharmacy practice labs (as opposed to dedicated OTC-based courses). All programs educate on the pathophysiology of self-treatable medical conditions, as well as the therapeutics of OTC medicines, and most (90%) educate on the pharmacology of such agents.

3.2. Pharmacist prescribing for minor ailments

The introduction of pharmacist prescribing programs for minor ailments in Canada over the last 15 years has brought about a profound transformation in the healthcare landscape, improving patient access to timely and cost-effective healthcare services, reducing the burden on primary care facilities, decreasing wait times and increasing patient satisfaction levels, leading to savings for governments.⁴⁹⁻⁵¹ However, the effects of these programs on patient self-care and self-medication remain uncharted territory. As of July 2023, pharmacist prescribing for minor ailments is a reality across all 10 Canadian provinces.

As pharmacist prescribing continues to evolve, it is crucial to assess its long-term impact on patient outcomes and self-care behaviors while fostering collaboration among healthcare professionals. This service has the potential to continue contributing significantly to the broader healthcare landscape, enhancing patient access to quality care and exemplifying Canada's commitment to advancing patient-centered healthcare services.

4. Conclusion

Canada does not have a coordinated national approach nor strategy for the implementation and promotion of self-care activities to the public. That will need attention to foster more uptake of such behaviour in a safe and effective manner. While that is noted, there may be no other time when the Canadian public has been better supported on how to deal with minor ailments and/or engage in self-care. A formalized process to promote online resources (by way of PSAs) would be welcomed as one tangible improvement.

CRedit authorship contribution statement

Nardine Nakhla: Conceptualization, Formal analysis, Investigation, Supervision, Visualization, Writing – original draft, Writing – review & editing. **Jeff Taylor:** Conceptualization, Investigation, Writing – original draft, Writing – review & editing, Supervision.

Declaration of competing interest

The authors have no conflict of interest to report.

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