

Pharmacy as a gateway to care

Helping people towards better health

2017



International
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Federation

Colophon

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Executive summary

Health, whether attained through self care or otherwise, is a fundamental right that includes access to timely, acceptable and affordable health care of appropriate quality. Access to a quality health system with universal health coverage, a focus on illness prevention and health promotion, access to a sufficient and appropriately trained health workforce and increased consumer health literacy are all significant factors for achieving and maintaining good health. The desire, ability and availability of pharmacists to support consumer self care is growing.

Self care is the ability of individuals, families and communities to promote health, prevent disease and maintain health. It allows the individual to cope with illness and disability, with or without the support of a health care provider. Consumer access to pharmacists as a first-line health professional is well documented. Around the world, pharmacists are developing many individual or collaborative initiatives to support self care.

The economic pressures faced by consumers in acquiring health services, and by governments to deliver quality services, are greater than ever. Global expenditure for health in 2011 was USD 6.9tn. The sustenance of viable quality health systems and, therefore, health will require optimal use of all health competencies, both by individuals and governments.

Appropriate support by pharmacists will assist consumers in better health maintenance, greater health system efficiency and greater economic efficiency.

Although we could discuss the appropriate terminology of “patient” versus “consumer”, this document details the myriad factors involved in individual self care, and the evidence that pharmacists can release and increase value for those individuals through many avenues. Informed, engaged and educated consumers will play a greater and critical role in caring for themselves.

This document highlights several aspects of self care, from its architecture (especially behavioural and system components) to the understanding and importance of health systems, and from the diversity in legal frameworks to the many pharmacy/pharmacist services available or being enhanced.

It is important to understand consumer beliefs, confidence and experiences in the development of self care. The role of innovation, data collection and analysis, and technology are some of the factors that play a part in better self care.

Pharmacy is changing from a product-focused profession to one that is patient-focused — a profession that works more collaboratively with patients and their other health providers. The pharmacy profession can be considered a gateway to care, where pharmacists support individuals in their self care.

1. Introduction

1.1. Drivers for self care: Why self care more than ever

Before we report directly on the topic of pharmacists as a gateway to self care, we will first comment on the most significant factors that have pushed the concept of self care to the forefront of health care. These factors are, but are not limited to, consumer demand for better health care, consumer demand for convenient access to non-prescription medicines, better educated consumers who are more health informed and willing to take greater responsibility for their own health, pressure on governments to control health expenditure, and the expanding role of community pharmacists.

With an ever-increasing demand for better health care and medicines by consumers, the fundamental goals for pharmacists to provide the right medicine to the right patient at the right time, and to support effective self care are increasingly important. Although there are many definitions and nuances for self care, one version this report adopts is that of the World Health Organization (WHO), namely: “the ability of individuals, families and communities to promote health, prevent disease, and maintain health, and to cope with illness and disability with or without the support of a health care provider.” (1)

As population longevity across the globe increases, be it through better hygiene and nutrition or advances in medicine, the provision of medical care is becoming more and more expensive. (2) In an attempt to control costs, many countries have gone through major health care reforms to maximise existing financial and human resources (the global shortage of health workers is estimated at 7.2 million) (3) to deliver effective and efficient health care. (2) These reforms include integrating self care into mainstream public health policy, including the management of long-term conditions. (2)

In terms of health costs and the pressure on governments, the 2011 total global expenditure for health was in the realm of USD 6.9tn (Table 1).

Table 1. World’s health expenditure in 2011 (4)

Health expenditure data	
Total expenditure for health for 2011	USD 6.9tn
Average total expenditure for health per person per year	USD 1,008
Country with highest total spending on health per person	Norway (USD 9,908)
Country with lowest total spending per person on health	Eritrea (USD 12)
Country with highest government spending per person on health	Norway
Country with lowest government spending per person on health	Myanmar
Country with highest annual out-of-pocket household spending on health	Switzerland
Country with lowest annual out-of-pocket household spending on health	Mozambique
Average amount spent per person on health in countries belonging to the Organisation for Economic Co-operation and Development (OECD)	USD 4,584
Percentage of the world’s population living in OECD countries	18%
Percentage of the world’s total health expenditure on health currently spent in OECD countries	82%
WHO estimate of minimum spending per person per year needed to provide basic, life-saving services	USD 44
Number of WHO Member States where health spending — including spending by government, households and the private sector and funds provided by external donors — is lower than USD 44 per person per year	26
Number of WHO Member States where health spending is lower than USD 20 per person per year	6
Percentage of funds spent on health in the WHO African Region that has been provided by donors	9.4%

Most countries across the globe are facing a formidable challenge to manage the rapidly increasing cost of health care. Although spending only rose by an estimated 1.9% in 2012, it is expected to pick up again, with total spending rising by 2.6% in nominal terms in 2013, and by an annual average of 5.3% until 2017. Given population growth, this means that spending per head is anticipated to rise by an average of 4.4% a year from 2014 to 2017. In Australia, for example, a 2014 Parliamentary Budget Office Report predicts health will be the largest single item of expenditure for state governments. (5)

The economic pressures related to the delivery of health care are further compounded by the shortage of suitably trained personnel to provide the necessary services. From a global shortage of 7.2 million health care workers in 2013, WHO has estimated that shortage will grow to 12.9 million by 2035. (3) Optimal self care will, no doubt, ameliorate some of these pressures. Life expectancy is projected to increase from an estimated 72.6 years in 2012 to 73.7 years by 2017. When the global population reached 7 billion in 2012, 562 million (8.0%) were aged 65 and over. In 2015, three years later, the older population rose by 55 million and the proportion of the older population reached 8.5% of the total population. Thereafter, from 2025 to 2050, the older population is projected to almost double to 1.6 billion globally. (6) The ageing population will create additional demand for health care services and poses a significant challenge for governments in both the developed and developing worlds. Governments in many emerging markets are taking note of this economic growth and planning to roll out public health care services to meet consumers' rising expectations.

With ageing populations, an increase in those afflicted with chronic ailments that require more health care spending, government initiatives to increase the access to care in both industrialised and emerging markets, and treatment advancements expected to drive sector expansion, pressure to reduce health care costs is escalating. These circumstances combined with heavy government debt and constraints on tax revenue are forcing health payers to make difficult decisions on benefit levels. (7) There is a question of sustainability without appropriate reforms.

The drive for expanded self care is, therefore, propelled by the pull of consumer demand, including easier or more convenient access to services as well as the push to reduce costs for service providers. Growing patient empowerment, rooted in broader access to education and fertilised by information and interactivity online, encourages an increasing percentage of patients to seek active participation in decisions affecting their health and medical treatment. (5)

1.2. Self care within a total health care system

In terms of patient decision to access health resources, a 1961 study published in the *New England Journal of Medicine* concluded that for every 1,000 randomly chosen people, an average of 750 people experienced one health problem per month, with 250 consulting a physician, 10 being hospitalised and one being hospitalised in specialist care, based on data from the UK and the USA. In 2001, a similar analysis of data from the USA concluded that for every 1,000 people, 800 declared experiencing a health problem, with approximately 330 among them requesting medical assistance, with 10 being hospitalised, and one being hospitalised in specialist care (Figure 1).

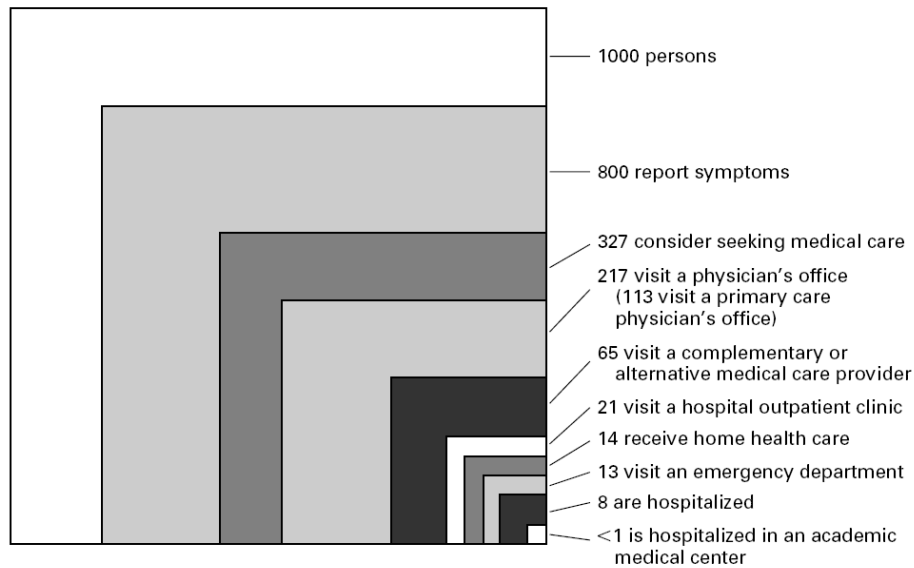


Figure 1. Analysis of prevalence of illnesses and source of health (8)

Little has changed in 40 years.

We quote Michel Buchmann, Immediate Past President of FIP, in *Prescribe*: “The authors concluded that the almost exclusively hospital-based education of medical students focused on a very small portion of health problems experienced by the population and that this study confirmed the need to educate future generalists, as well as students in all specialties, on all health problems, especially those with non-differentiated symptoms, experienced by patients. This phenomenon also affects pharmacists and needs to be addressed. Meanwhile, these two studies do not say anything about the people who declared a health problem but did not consult a physician. What do these people do? Certainly, some wait for their symptoms to disappear spontaneously or treat them with the means they have at hand; others go to the pharmacy. In this last case, the pharmacist (generally available without an appointment or fee for service) becomes a frontline primary health care professional. This leads to three main reflections. Firstly, physicians are not the only ones to be consulted when there are health problems. Secondly, proximity with patients is an essential element of primary care. Thirdly, for the care to be effective, health professionals must work together to optimise the care of community members, within the available health care budget.” (9)

After pharmacists are established as health care providers, some of the clinical services they provide can be reimbursed, although the challenges are to convince the payers and decision-makers the cost-effectiveness of services and ‘value proposition’ around better use of pharmacists. In some countries, pharmacists are already reimbursed for their clinical services and, as a principle, all pharmacists should be able to receive reimbursements globally.

Figure 2 and Figure 3 indicate the relationship between self care and total health care.

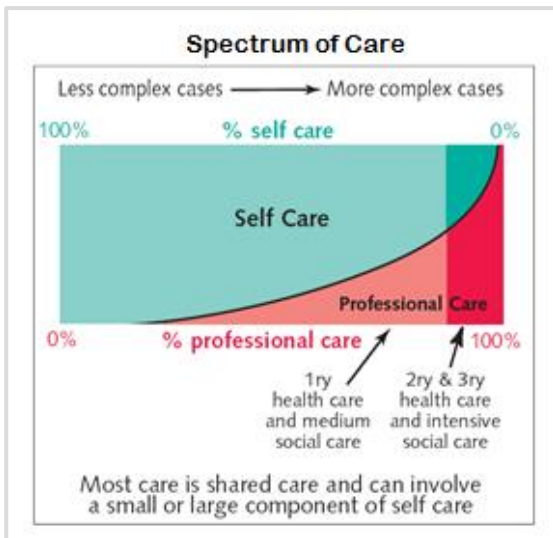


Figure 2. Proportion of self care in the spectrum of care (10)

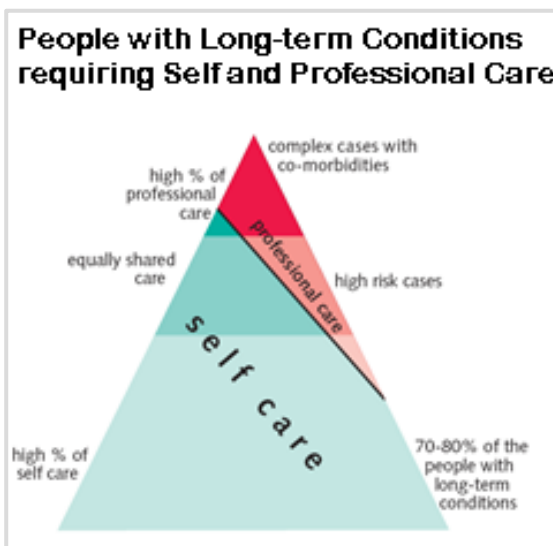


Figure 3. Proportion of self care among patients with chronic diseases (10)

We already know that patients self-manage problems to a large extent, (2) but encouraging more people to exercise greater levels of self care, either for acute or chronic problems, could shift costs away from professional care because minor changes in behaviour have significant potential to affect demand for formal health care. We recognise, however, that in some countries where public spending on health is low, out-of-pocket expenses are high.

One of many key issues in health care where community pharmacies have a role in supporting the public's health is self care, (others being medicines adherence, vaccinations, screening and disease prevention). Key findings from a survey conducted by the European Platform for Patients' Organisations, Science and Industry in 2013 indicated that 90% of respondents saw self care as a vital part of the management and prevention of chronic conditions and diseases, including minor ailments. Most respondents viewed improved health and quality of life, prevention and management of their conditions and diseases as the benefits of self care, followed by greater independence, productivity and individual satisfaction. Consumers were willing to take care of their own health and the majority agreed that it is their responsibility to do so. However, less than 20% of respondents felt "very confident" to take care of their own health. The lower the perceived knowledge, skills and capacities for self care, the higher the dependence on health care professionals for information. (11)

One may consider that the sales of non-prescription medicines from a pharmacist are a proxy measure of public self care presentations to a pharmacist. It is also widely acknowledged that pharmacists are continually raising standards in terms of accessibility, convenience and capability. The availability of such accessible professional services is increasingly recognised by governments as to be exploited more productively in order to reduce burden on the state, on other health providers and on consumer high out-of-pocket expenses, and to empower the public.

We are witnessing a profound change in the way the health care system operates: from government driven to collaboratively driven; from a curative model to a preventive model; from aiming for results to aiming for value; and from a system focus to focus on people.

That shift has been visualised in Figure 4.

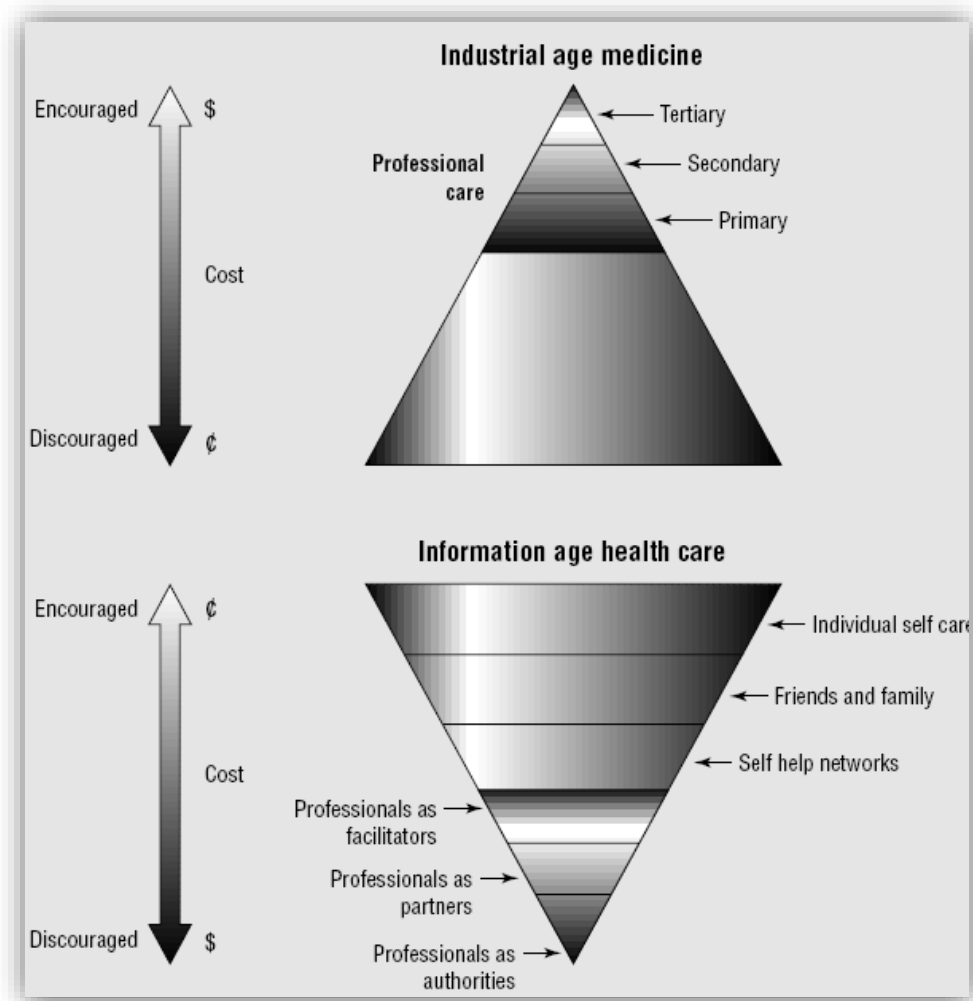


Figure 4. Relationship between encouraged treatment and expenditures in information age health care in comparison to industrial age health care (12)

When considering the concept of information-age health care, health literacy will help release the power of self care. Community pharmacies are no longer only a place where prescriptions are filled; they are an integral part of the health system with increasingly better-trained staff. Consumers seeking a pharmacist's advice must feel confident that the pharmacist will refer to other professionals as appropriate.

Responsible and effective self care, founded in health literacy and informed by two-way communication with health professionals, plays an ever more important role in health delivery around the world. Expanded self care and improved health literacy would ease the burden borne by any country's hard-pressed health services and budget, while improving health outcomes, consumer convenience and quality of life for all. (5)

Responsible and effective self care offers advantages for all stakeholders — patients/consumers, health care providers (including pharmacists), the pharmaceutical industry, government and other payers — and builds on powerful social and political trends towards individual choice and government deregulation. Expanded self care would reduce the pressure on scarce and hard-to-access health services, especially in rural areas. (5)

1.3. Pharmacists and self care

In 2011, FIP and the WHO adopted an updated version of good pharmacy practice (GPP) entitled “*Joint FIP/WHO guidelines on good pharmacy practice: standards for quality of pharmacy services*”. This defined the aim of pharmacy practice as “to contribute to health improvement and to help patients with health problems to make the best use of their medicines”.

GPP is defined as “the practice of pharmacy that responds to the needs of the people who use pharmacists’ services to provide optimal, evidence-based care.” To support this practice, it is essential that there be an established national framework of quality standards and guidelines. The WHO/FIP GPP document (13) should serve as guidance for the development of specific standards of GPP at national levels by national pharmacists’ associations and other related stakeholders. First, when establishing minimum standards for GPP, it is important to define the roles played by pharmacists, as expected by patients and society. Second, relevant functions for which pharmacists have direct responsibility and accountability need to be determined within each role. Thirdly, minimum national standards should then be established, based on the need to demonstrate competency in a set of activities supporting each function and role.

As health care professionals, pharmacists play an important role in improving access to health care and in closing the gap between the potential benefit of medicines and the actual value realised, and should be part of any comprehensive health system. In addition, the increasingly complex and diverse nature of pharmacists’ roles in the health care system and public health demands a continuous maintenance of the competence of pharmacists as health care professionals who have up-to-date skills and expertise. National pharmacy professional associations need to work together with their governing bodies and other health care professional associations to support pharmacists in their countries through provision of continuing professional development activities, including distance-learning programmes, and establishing national standards of pharmacy services and practice objectives. These guidelines are intended to provide a description of ways in which pharmacists can improve access to health care, health promotion and the use of medicines on behalf of the patients they serve. (14)

There is a particular section of the Good Pharmacy Practice Guidelines that is relevant to this reference paper: “Contributing to improve effectiveness of the health care system and public health”. In that section, there are two recommended functions and six activities for pharmacists:

Function A: Disseminate evaluated information about medicines and various aspects of self care.

- Pharmacists should ensure that the information provided to patients, other health care professionals and the public is evidence-based, objective, understandable, non-promotional, accurate and appropriate.
- Pharmacists should develop and/or use educational materials for health management, health promotion and disease prevention programmes that are applicable to a wide range of patient populations, age groups and health literacy levels.
- Pharmacists should educate patients on how to evaluate and use web-based or other forms of health care information (including medicines information) and strongly encourage them to seek advice from a pharmacist regarding the information they find, particularly from the Internet.
- Pharmacists should assist patients and their care providers to obtain and analyse information critically to meet their individual needs.

Function B: Engage in preventive care activities and services. Minimum national standards should be established for these activities.

- Pharmacists should engage in preventive care activities that promote public health and prevent disease, i.e., in areas such as smoking cessation, and infectious and sexually transmitted diseases.
- Pharmacists should provide point-of-care testing, where applicable, and other health screening activities for people at higher risk of disease.

The 2012 International Pharmaceutical Federation Centennial Declaration, “*Improving global health by closing gaps in the development, distribution, and responsible use of medicines*”, while not focused on self care directly, includes the following concept:

Pharmacists and pharmaceutical scientists accept responsibility and accountability for improving global health and patient health outcomes by closing gaps in the development, distribution, and responsible use of medicines. Society can contribute to these objectives by supporting the advancement of pharmacy practice and the pharmaceutical sciences. As pharmacists and pharmaceutical scientists, we are experts in the development, distribution, and responsible use of medicines. We are committed to ensuring optimal outcomes from medication therapy through patient-centred care. We recognise that the health of patients and populations is compromised and the value of medicines is diminished when medicines are not accessible, are of inferior quality, or are used inappropriately. These complex problems are beyond the reach of any single scientific field or profession, but our sense of obligation to society motivates us to be a leading force in addressing these issues. (15)

Over the centuries and in different cultures and in different economies, the cultures and beliefs of global citizens, the access to basic health care and medicines, the progress of learning, and the determinants of health and commerce have been anything but common. While still wanting to recognise the important milestones in history of medicine and pharmacy, this paper will review current evidence in the consumerism of health care and the role that an informed and educated public plays with a quality pharmacy profession. As a profession, and as witnessed in the aforementioned Centennial Declaration, the pharmacists and pharmaceutical scientists of FIP will continue to seek to provide better health care, requiring serious obligations from both the users and the providers of the services and accompanying products.

This reference paper will address several components of self care, not the least of which are: access to medicines, the role of community pharmacists, and health literacy as a universal enabler of greater self care. The concept of self care may not be completely understood or appreciated in some cultures; this document will hopefully help that concept to translate well into all cultures. It will discuss the following:

- The architecture of self care
- Health systems and universal health coverage
- Diversity in medicine/pharmacy/pharmacists’ regulation and practice
- Consumer factors commonly observed throughout the world
- Risks/benefits balance to better self care
- Roles and added values of pharmacists
- Barriers and facilitators impacting on the full potential of pharmacists in self care
- Recognition and integration of pharmacists’ contribution in the overall health care system
- Policy objectives and pharmacists’ activities

2. Methods used

Content in this paper has been sourced from the databases of PubMed, the search engine accessing primarily the MEDLINE database of references and abstracts on life sciences and biomedical topics (the United States National Library of Medicine (NLM) at the National Institutes of Health maintains the database as part of the Entrez system of information retrieval), Google Scholar (while not a scholarly source, it does provide links to scholarly literature), the database of the International Pharmaceutical Federation (FIP) including activities of FIP member organisations, International Pharmaceutical Abstracts (IPA), and the Russian State Library and e-library.

Several resources are referenced throughout this document. A supplementary annex is on file at FIP containing additional publications relevant to self care and related topics.

3. Architecture of self care

3.1. Definitions and relationship between self care and self-medication

Fundamentally, the concept “self care” puts responsibility on individuals for their own health and well-being. Many authors have described what constitutes self care, and while no universally agreed definition exists, it is clear that self care is seen as a broad concept that encompasses activities to establish and maintain health, through to preventing ill health. (2)

Definitions of self care vary as to who engages in self care behaviour, what motivates self care behaviour, and the extent to which health care professionals are involved. Perspectives of self care differ between health care professionals and the general public, and between health care professionals in different disciplines and different roles. As different professions view self care within their own domain of practice, we are left with a multitude of explanations and descriptions. (16)

Self care encompasses the activities people undertake to stay fit and maintain good physical and mental health, prevent illness and accidents and avoid unnecessary risks. It includes self-medication for minor ailments and chronic conditions and actions taken to recover after acute illness or discharge from hospital. Responsible self care requires good health literacy and communication with health professionals including pharmacists and physicians. Self care, in addition to access and use of non-prescription medication, also involves the personal management of one’s health including the use of prescribed medication, lifestyle choices and behaviours. So, it is in this context that the pharmacist has not only a part to play in patient self care as they access and use non-prescription medicines but also as they manage their prescribed treatment. In this regard, we may expect the pharmacist to have an overview of a patient’s non-prescription medication (including alternative/traditional remedies) and prescription medication and be able to offer more comprehensive and informed support. (5)

While self care is a process to optimise a person’s health, it should be noted that there are many definitions of health, from the WHO definition, “a complete state of physical, mental and social well-being, and not merely the absence of disease or infirmity”, (17) to Saracchi, “a condition of well-being, free of disease or infirmity, and a basic and universal human right”. (18) Australian Aboriginal people generally define health as follows: “Health does not just mean the physical well-being of the individual but refers to the social, emotional, spiritual and cultural well-being of the whole community.” (19)

In describing self care in the above terms, unilateral action is implied and in the initial phase it is indeed the prerogative of the individual. However, it often moves on to involve a second party, where additional advice and possibly treatment options are considered. In this context, patient-centred care is important.

Person-centred care is comprised of four principles (Figure 5) that underpin how individuals, teams and services should work in order.

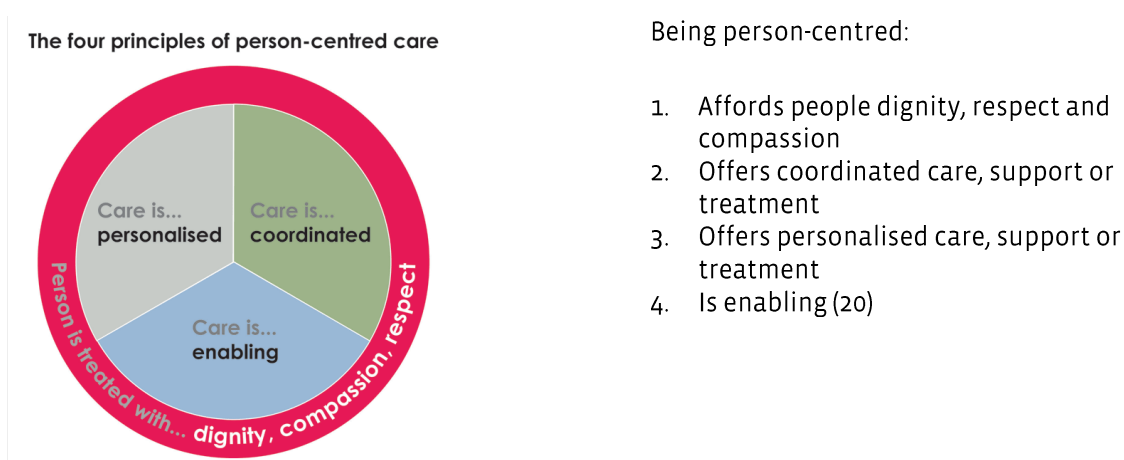


Figure 5. Principles of person-centred care (20)

The Joint Commission of Pharmacy Practitioners describes patient-centred care as a five-step process (Figure 6).

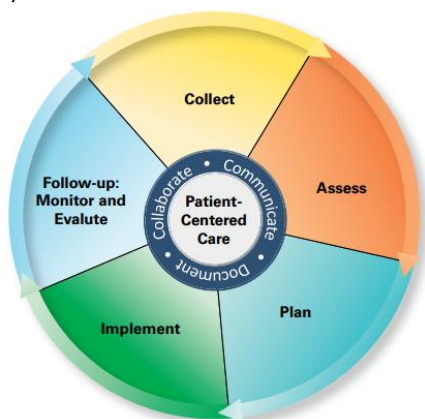


Figure 6. Five step process to deliver patient centred care (21)

Self-medication involves the treatment of health problems by individuals with home remedies or products bought from pharmacies and other retail outlets. Self-medication is just one element of self care and can be defined as the selection and use of advised or non-advised medicines by individuals to treat self-recognised illness or symptoms. How these medicines are made available to the public varies from country to country, but all have been approved by regulatory agencies as safe and effective for people to select and use without the need for medical supervision or intervention (notwithstanding the presence of spurious/falsely-labelled/falsified/counterfeit medicines). Products come with comprehensive labelling, and while some evidence suggests that the majority of consumers will read this information before taking a new medicine, (2) other research highlights the importance of clear and concise information to optimise effectiveness and maximise safety. (22) Separate aspects of the package label and inserted information leaflets are read and understood at various levels. Whether the decisions made are correct is largely unknown.

Self-selection medicines are commonly referred to as “over-the-counter” (OTC) medicines or “non-prescription” medicines. Notwithstanding the millions of consumers using self-medication daily, with apparent minimal risks, it is important that consumers treat any and all medicines with the appropriate amount of respect and seek appropriate pharmacist advice. It is important to emphasise the importance of responsible use of self-medication, (23) and the importance of medication quality assurance. A 2015 survey by McCann Pharmacy Initiative in collaboration with FIP revealed that the majority of pharmacists believe that customers value a pharmacist’s information and product recommendations significantly more than price. The survey also confirmed that pharmacists are triaging patients when asked to make over-the-counter recommendations, uncovering health conditions in the process. Key messages from the survey were, firstly, that clear and unbiased information is necessary to empower patients in managing their health and self-medication and, secondly, that pharmacists play an essential role in assisting patients in the selection and responsible use of such medicines. (24)

Facilitated or advised self-medication is a term used when consumers seek help at the point of purchase. The majority of purchases for non-prescription medicines are by the consumer alone, using available product information from packaging to make an informed decision on whether to purchase. Where medicines are purchased through pharmacies, staff are in a strong position to facilitate self care decision making by consumers, since in most pharmacies the transaction takes place through a trained assistant or the pharmacist. In some countries, scheduling of non-prescription medicines mandates the requirement of a pharmacist in the sale of certain non-prescription medicines. Limited research has shown that consumer-purchasing decisions are affected by this “facilitation”. Research from two independent studies has demonstrated that consumers (25% and 43%, respectively) altered their purchasing decision when proactively approached by pharmacy students. Furthermore, a small proportion of consumers did not purchase anything (13% and 8%, respectively) or were referred to their physician (1% and 4%, respectively). (25) (26) These studies highlight how the pharmacy team can positively shape consumer decisions and help guide consumers to alternative (and arguably better) choices, (2) especially when the people have chosen not to initially consult a physician.

3.2. Behavioural and system components of self care

3.2.1 Behaviours

Behaviours (and the motivations that drive them) in health may be similar or different for the public, pharmacists, other health care professionals, policymakers and industry.

Why is self care good for people? Empowering people with the confidence and information to look after themselves when they can, and visit their family physician or neighbourhood pharmacist when they need to, gives people greater control of their own health and encourages healthy behaviours that help prevent ill health in the long-term. In many cases people can take care of their minor ailments, reducing the number of physician consultations and enabling physicians to focus on caring for higher risk patients, such as those with co-morbidities, the very young and elderly, managing long-term conditions and providing new services. More cost-effective use of stretched resources allows money to be spent where it is most needed and improve health outcomes. Furthermore, increased personal responsibility around health care helps improve people's health and well-being and better manage long-term conditions when they do develop.

Often just simple changes aimed at meeting the needs of local communities can be very effective at encouraging increased self care. These include giving patients the information they need to care for their common ailments and to make healthy lifestyle choices, signposting people to the right local services and outreach work to provide health advice in non-traditional settings such as pubs, libraries and job centres. Programmes in the UK and Australia support and encourage this behavioural change. (27) (28) One paper identifies and reflects on the pharmacist's role in self care: "Pharmacists play an important role in guiding patients' self care behaviours. Thorough assessment and effective communication are crucial to meaningful self care counselling. Pharmacists can act as advocates who empower patients and help them make sound decisions about self care." (29)

3.2.2 Consumerism

Paul Rutter, professor of pharmacy practice at the University of Central Lancashire, UK, (2) describes many motivational factors and behaviours affecting the purchase of medicines.

The way in which consumers decide on particular courses of action is primarily influenced by the perception of symptoms experienced, their severity and duration. Market research surveys have highlighted that consumers strongly exhibit certain health-seeking behaviours depending on the signs and symptoms experienced. For example, bleeding from the rectum is almost exclusively associated with consulting a physician, as too are symptoms like arthritis, cystitis, and those of a depressive type. In contrast, headache, indigestion, coughs and colds, and minor skin problems (e.g., insect bites and sunburn) are mostly self-treated with no advice from any health care professional. Consumers therefore attach "seriousness" to symptoms and act according to the perceived level of seriousness.

The creation of the Internet and almost instantaneous access to limitless data on all aspects of health and care means that people across the globe have the means to query decisions and challenge medical opinion. The use of non-prescription medicines is the most prevalent form of medical care in the world. Sales in the global market are estimated to be worth €73 billion. Fuelled by these markets, non-prescription medicines have seen greater sales growth than that of prescription medicines since 2008. These sales derive from only 25% of the people. Another 25% tend to seek medical attention, and 50% do nothing.

Contrasted to the self-medication self care model, some patients may feel that a prescription for a medicine or therapy from an authorised prescriber may more accurately legitimise a disease and substantiate time off work if appropriate, whereas self-treatment may not have the same legitimising power.

3.2.3 Support for self care

Self care has progressively gained widespread support from health care professionals and from key organisations in primary care. More than nine out of 10 UK physicians also now believe that self care by patients has an important role to play in general practice. (30)

Kennedy *et al* state that support for self care is increasingly viewed as a core component of the management of long-term conditions. (31) In addition to this, another study by Liddy *et al* state that supporting people in self-management has been shown to be effective at improving outcomes and has been promoted across the widest array of conditions and populations. (32)

3.2.4 Responsibility in self care

The moral imperative to keep healthy through self care is based in part on responsibility to others, primarily:

- Other users of public health care services, i.e., to current and future patients, and
- Future generations, including one's own children. (33)

3.2.4.1 Current and future patients

In a resource-constrained health care system, medical treatment offered to one patient represents an opportunity cost to other patients with potentially more pressing health care needs. We have a duty to others whenever our choices impact on them. People leading healthy lifestyles and practising self care for self-limiting conditions will consume fewer health care resources, leaving more capacity to treat those requiring those resources most. People readily accept responsibilities that recognise the needs of others in many spheres of society. Cars and properties must be maintained so as to be at least minimally safe with regard to others as well as to the primary user. Smoking bans in public spaces are now ubiquitous and widely accepted public health measures. The excessive consumption of alcohol, tobacco smoking, an inactive lifestyle or an unhealthy diet may all appear to be purely personal choices but, as the cause of lifestyle diseases which consume a large proportion of constrained health care resources, their impact on others should be similarly recognised.

3.2.4.2 Future generations

Parents have a major influence on the lifestyle habits of their children, making parents suitable agents for change. Children of parents who engage in physical exercise such as sports, who try to eat “five-a-day” fruit and vegetables and who do not smoke are more likely to be aware of, and adopt, healthy habits when they are adults (and parents) themselves. There is also a need to improve parental self-awareness of their children's health determinants. Parents are, at least initially, primarily responsible for the lifestyle choices of their offspring and therefore for the consequences of those choices. (33) Not every country is able to provide sufficient opportunities for children to learn about self care in the formal early school system.

Comprehensive school health is an internationally recognised framework for supporting improvements in students' educational outcomes while addressing school health in a planned, integrated and holistic way. It encompasses the whole school environment with actions addressing four distinct but inter-related pillars that provide a strong foundation for comprehensive school health: social and physical environment; teaching and learning; healthy school policy; and partnerships and services. Many schools work with a range of partners, including their associated primary or secondary schools, to support their health education curricula and the promotion of healthy lifestyles. They often benefit from regular input by a range of health professionals. (34)

3.2.5 Framework for self care

The International Self Care Foundation proposes a framework that can be visualised and organised around seven “pillars” or “domains”:

1. Health literacy: The capacity of individuals to obtain, process and understand basic health information and services needed to make appropriate health decisions.
2. Self-awareness of physical and mental condition: Knowing your body mass index (BMI), cholesterol level, blood pressure; engaging in health screening.
3. Physical activity: Practising moderate intensity physical activity such as walking, cycling, or participating in sports at a desirable frequency.
4. Healthy eating: Having a nutritious, balanced diet with appropriate levels of calorie intake.
5. Risk avoidance or mitigation: Includes quitting tobacco, limiting alcohol use, getting vaccinated, practising safe sex, and using sunscreens.
6. Good hygiene: Washing hands regularly, brushing teeth, washing food.
7. Rational and responsible use of products, services, diagnostics and medicines: Being aware of dangers, using responsibly when necessary. (35)

The foundation maintains that self care is, therefore, the fundamental level of health care in all societies and should be seen as a major public health resource.

The FIP self care working group reminds readers that this framework does not necessarily cover all the dimensions of health: physical, mental, emotional, social, spiritual and societal. For example, the maintenance of relationships and contact with others may be as important to one's health as taking medicines for

symptomatic relief. One survey revealed significant differences between what “healthy” means to younger and older people; the young concentrated on the physical aspects of health whereas the elderly were often more concerned with the social dimensions. It is important for health professionals to understand that “health” means different things to different people — health to a woman with rheumatoid arthritis for many years may be a day that she is relatively free of pain, but a good day could also be when she has something to look forward to, such as a visit from a friend.

Self Care Support and Self Care

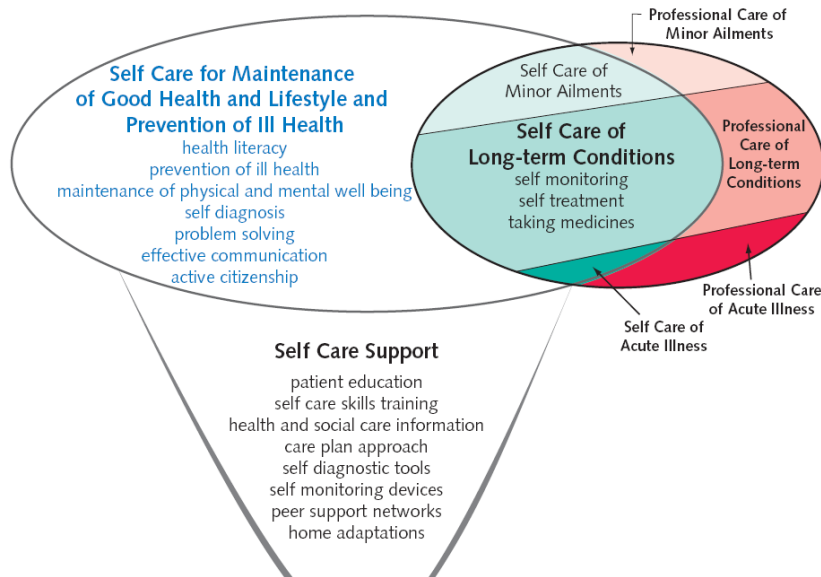


Figure 7. Elements in self care and self care support (10)

The larger ellipse in the centre left of the diagram describes some of the elements of public health in terms of wellness promotion and prevention of ill health (Figure 7). The smaller ellipse in the right of the diagram portrays the relationship between self care and professional care of acute and long-term conditions. Various supports for self care are listed in the bottom portion of the diagram.

D. E. Webber *et al*, writing for the International Self Care Foundation, proposed this table of responsibilities and expectations in self care (Table 2).

Table 2. Responsibilities in self care (33)

Personal responsibilities	Primary care health professionals' responsibilities	Government/ community responsibilities
<p>Preserve and promote my own health and wellbeing:</p> <ul style="list-style-type: none"> • Adopt a healthy lifestyle with regard to activity and diet • Know my risk factors for major “lifestyle” diseases such as heart disease, stroke and diabetes and take action to reduce them • Avoid harmful lifestyle factors such as smoking and high alcohol intake <p>Avoid harming the health of others by my actions:</p> <ul style="list-style-type: none"> • Use health care resources only when I really need to, e.g., by first practising self care of self-limiting illnesses • Do not allow myself to be a source of infection • Do not engage in behaviours that can harm others, e.g., smoking in public places <p>Promote health and wellbeing in my family, particularly in my own children:</p> <ul style="list-style-type: none"> • Make sure my family knows about healthy diet and exercise behaviour and harmful effects of behaviours such as smoking • Ensure my children are vaccinated according to recommendations 	<p>Promote self care in individuals within their practice:</p> <ul style="list-style-type: none"> • Provide evidence-based self care advice on adopting healthy lifestyle behaviours with regard to activity and diet • Provide advice on ways to avoid spreading infections in daily life • Provide tailored individual self care advice and support on risk factors for major diseases and how to address them • Provide advice and interventions to reduce harmful behaviours such as smoking and drinking alcohol in excess <p>Promote the responsible use of health care resources:</p> <ul style="list-style-type: none"> • Provide evidence-based advice on the self-limiting nature of common illnesses and available self care treatment options 	<p>Legislate to reduce harmful lifestyle factors (e.g., smoking and high alcohol intake) based on robust evidence and global best practice.</p> <p>Provide the systems (e.g. National Institute for Health and Care Excellence and public health agencies) to produce evidence-based guidelines for the promotion of a healthy lifestyle.</p> <p>Provide incentives to primary care health care professionals to prioritise the provision of self care advice on:</p> <ul style="list-style-type: none"> • Healthy lifestyle behaviours • The responsible use of health care resources by appropriate self care <p>Provide incentives to employers to make available the means to adopt healthy lifestyles at work through, e.g.:</p> <ul style="list-style-type: none"> • Healthy diet in the workplace • Provision of exercise facilities, e.g., nearby walking routes • Sponsored weight loss or exercise programmes <p>Provide community facilities to improve access to a healthy lifestyle through, e.g.:</p> <ul style="list-style-type: none"> • Initiatives to support healthy lifestyle knowledge and practice in schools • Provision of exercise facilities for communities <p>Prioritise provision of information and support to disadvantaged groups in society to enable the adoption of healthy lifestyles.</p>

3.3. Pathways to self care

There are several iterations of care pathways containing several steps, junctures, pathways and loops where the patient may transit in the management of their health and wellness. In the first example (Figure 8), from the Self Care Forum, the continuum illustrates the sliding scale of self care in the UK, starting with the individual responsibility people take in making daily choices about their lifestyle, such as brushing their teeth, eating healthily or choosing to do exercise. Moving along the scale, people can often take care of themselves when they have common symptoms such as sore throats, coughs or minor skin ailments. The same is true for long-term conditions where people often self-manage without intervention from a health professional. At the opposite end of the continuum is major trauma where responsibility for care is entirely in the hands of health care professionals, until the start of recovery when self care can begin again.

The self-care continuum

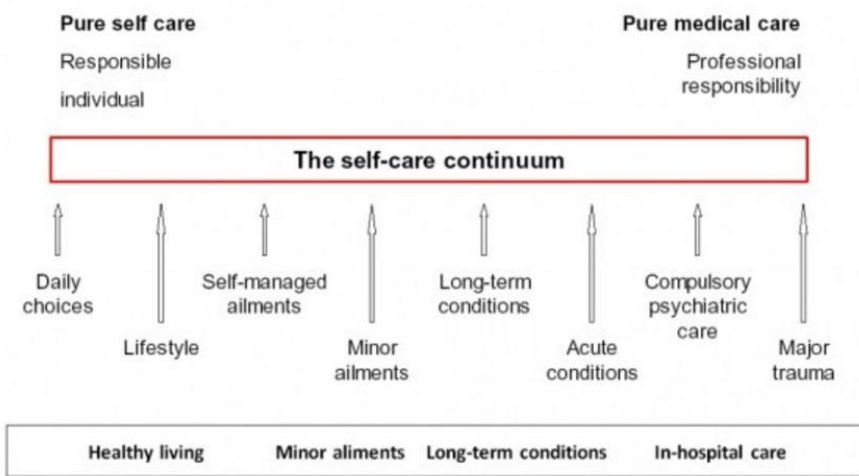


Figure 8. Elements affecting the self care continuum (30)

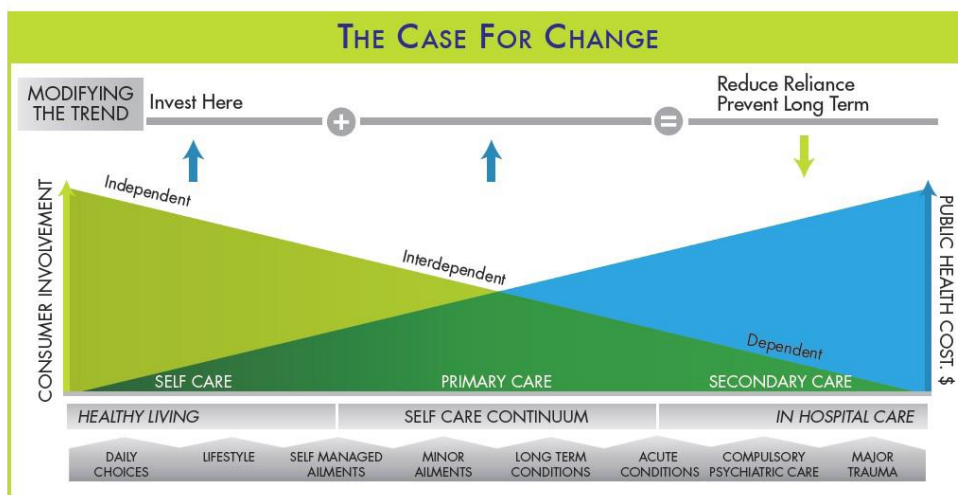


Figure 9. Relation of public health costs to consumer involvement and choices (36)

In the second example (Figure 9), the idea that individuals should take greater responsibility for their health also fits with a growing trend of consumer empowerment, aided by increased availability of information, remedies and medicines that can improve and prolong quality of life. The take-up of self care coincides with a growing interest in personal health and well-being, increased access to a wide range of health information,

and government-funded public health promotions that have targeted smoking, obesity and consumption of alcohol.

In the above two pathways, it is important to note that there are variations of pathways among individuals based on their own characteristics (i.e., a difference between individuals), and the characteristics of the health care systems (including insurances and accessibility of health care facilities). These, and other, variations are important to consider in the regulatory decisions on the sale of non-prescription medicines.

In terms of self care within the current health system, the following infographic (Figure 10) can help explain the role of and interaction of the pharmacist and consumer:

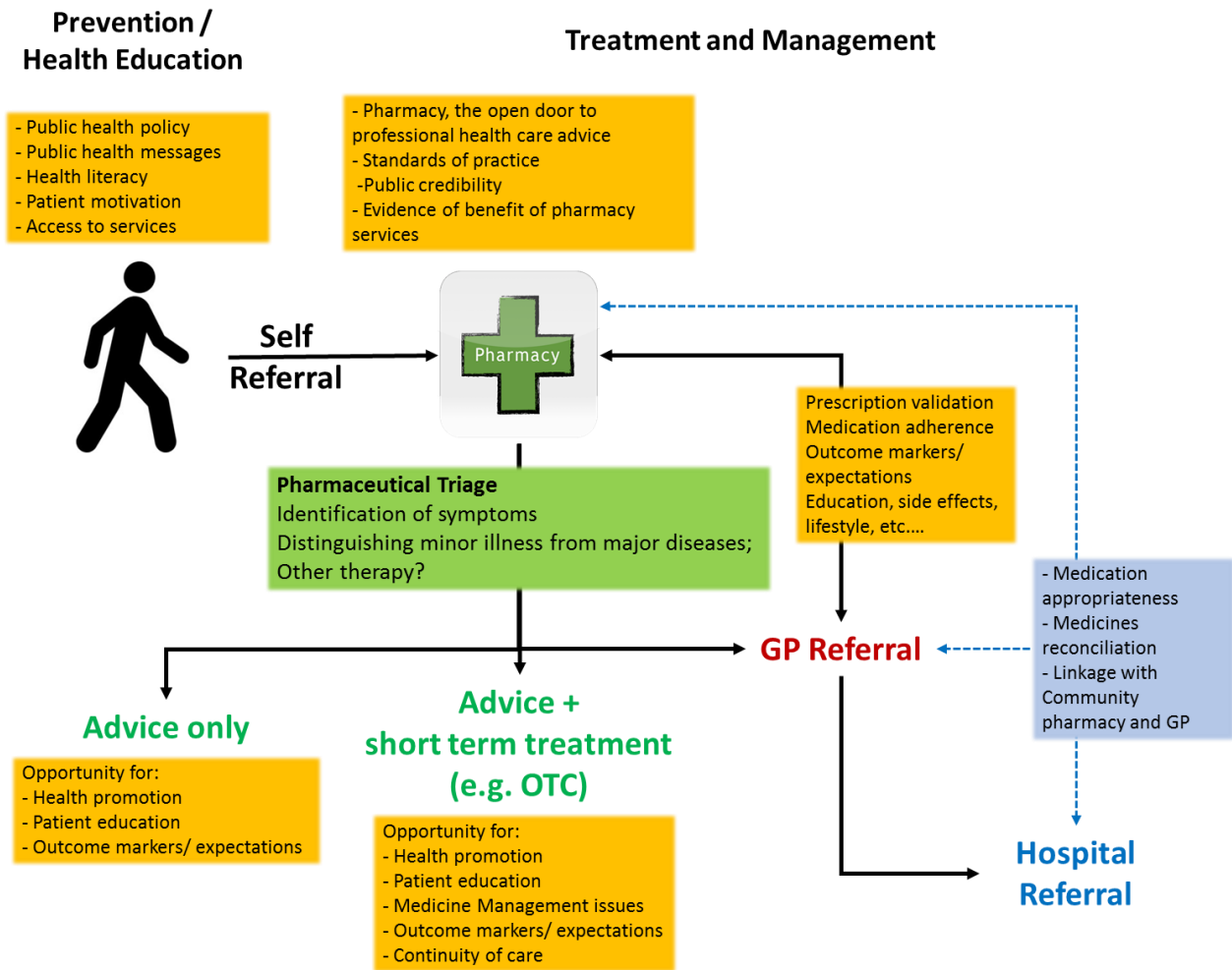


Figure 10. Pharmacies’ role in self care

Traditionally, a medical model of health has prevailed where the emphasis has been on placing one's care in the hands of a health practitioner, usually the physician. While that model continues to offer a beneficial approach to health care, increasingly members of the public are being urged to take responsibility for their own health and to seek self care options, particularly, but not exclusively, in the context of minor ailments. Patients, therefore, may seek different entry points to health care advice and information. In this regard, access to pharmacists and their advice is particularly pertinent in an era of internet available medical information, self diagnosis, treatment options and advice on healthy lifestyles.

Figure 10 illustrates the integration of care management encompassing patient action and responsibility and health care practitioner roles. In effect, it outlines the patient care journey, starting with presentation at a pharmacy, providing the opportunity for pharmaceutical triage, particularly to distinguish minor illness from major disease. Minor illness may result in advice only or advice and provision of non-prescription medicines, both actions offering the opportunity for appropriate health interventions and follow up activity. Where major illness is suspected, referral to a physician is appropriate, which may result in a further referral to

secondary care. Where the physician initiates treatment, prescription validation, dispensing of the medication, patient education and appropriate follow up, including monitoring, may be undertaken by the pharmacist. Ideally this system should operate in an integrated way to ensure maximum patient benefit and access to the most suitable professional resource at any one time, with good communication between practitioners and across health care boundaries.

To successfully navigate any health or self care pathway, best-practice policies involving the public will no doubt optimise health. For example the Department of Health, Public Services and Safety in Northern Ireland has renewed a strategy and implementation plan that will provide a clear direction for the delivery of pharmacy services in the community which place the individual at the centre and aim to optimise their health and well-being throughout life by helping people to gain better outcomes from medicines, helping people to live longer, healthier lives, helping people to safely avail of care closer to home, and helping people to benefit from advances in treatment and technology. (37)

Furthermore, in Northern Ireland there is a partnership between the Community Development and Health Network and the Health and Social Care Board that aims to promote and support local communities to work in partnership with community pharmacists to address local health and social well-being needs using a community development approach. The programme works towards increasing local people's skills, encouraging community activity and self-help, increasing local people's understanding of health issues and encouraging local people to play a role in promoting health. (38)

Scotland's health and pharmacy strategy (39) does not explicitly mention the term self care, however, it is concerned with a more comprehensive approach to pharmaceutical care in the community embracing the treatment and management of minor illness. A companion report specifically focuses on the public health dimensions of pharmacy practice in Scotland allied to smoking cessation and emergency hormonal contraception. (40)

Various governments and pharmacy organisations are publicising the enhancements offered by pharmacies and pharmacists, especially in the concept of self care, and self-management. A recent supplement published by the *Health Service Journal* in the UK provides illustrative examples of what pharmacists are and can do by way of patient support services. (41)

The promotion of self care and the implementation of successful initiatives require changes at several levels. Self care should be accompanied with enhanced patient empowerment, improved patient information and an appropriate organisation and financial health care framework. Self care, with pharmacists as a first contact point, will require and benefit from greater inter-professional collaboration. This implies a change in the definition of pharmacists, expanding from a "dispenser" to an integrated health care professional offering counselling, advice and new pharmacy services. This change has already been undertaken in many countries. Self care allows physicians to focus on patients with serious illnesses in such a setting and, at the same time, requires them to be more strongly involved in collaborative care. (42)

4. Evidence of the direct and indirect value of self care

We define direct value as that attributed directly to and about the patient, and indirect value as that arising from reduced pressures in other health areas and better access and use of resources.

A literature review of more than 550 pieces of quality research shows that “proactive, behaviourally focused self-management support designed to increase self-efficacy can have a positive impact on people’s clinical symptoms, attitudes and behaviours, quality of life and patterns of health care resource use, and that it is worthwhile to support self-management, in particular through focusing on behaviour change and supporting self-efficacy. Hundreds of systematic reviews, randomised controlled trials and large observational studies have examined the impact of supporting self-management for people with long-term conditions. While the findings of individual studies are mixed, the totality of evidence suggests that supporting self-management can have benefits for people’s attitudes and behaviours, quality of life, clinical symptoms and use of health care resources.” (43)

A 2015 Global Access Partner report concludes: “In addition to its effectiveness in treating specific conditions, self care can ease more general problems of pain, depression, anxiety and fatigue. It can boost self-reported well-being and quality of life and improve a patient’s independence, thus reducing the burden on formal and family carers as well as improving self-esteem.” (5)

A 2013 report of the Working Group On Promoting Good Governance Of Non-Prescription Medicines in Europe refers to patient empowerment: “People want to have a more active role in their own health care, including in the decisions about what medicines to take. When it comes to access to self-medication, good information and support translate into empowered patients who can benefit fully from the opportunities of self care and who can practise it safely and effectively with informed choice. As people take on greater responsibility for their health care, the need grows to become better informed. It is important for people to have access to high quality information from multiple sources and that information is provided in a variety of formats to meet the needs of different patient groups.” (44)

The UK document “Self care — A real choice” states: “There is growing evidence to show that supporting self care leads to improved health and quality of life, rise in patient satisfaction and significant impact on the use of services, with fewer primary care consultations, reduction in visits to outpatients and emergency departments, and decrease in use of hospital resources. The impact on patients are better symptom management, such as reduction in pain, anxiety, depression and tiredness, improved feeling of well-being, increase in life expectancy and improvement in quality of life with greater independence. The impact on care services are several: visits to physicians can decrease by 40%, outpatient visits can reduce by 17%, emergency visits can reduce by up to 50%, hospital admissions can be halved, hospital length of stay can be halved, medicines intake is regulated or reduced and days off work can reduce by 50%.” (10)

OTC medicines are convenient and cost-effective options for self-treating patients. Every USD 1 spent on OTC medicines results in a savings of USD 6 to USD 7 for the health care system due to fewer medical visits and prescriptions. Overall, OTC medicines provide USD 102bn in savings each year compared with alternative treatment options. These savings are attributable to USD 77bn in avoided medical office visits and diagnostic testing and USD 25bn in medicines cost savings compared with prescription products. If OTC medicines were not available without a prescription, the increased demand for medical office visits would require an additional 56,000 full-time medical professionals. On the other hand, it has been estimated that increased use of self care — including the use of OTC medicines and elimination of unnecessary medical visits — could save the US health care system an additional USD 5.2bn each year. (45)

5. Health systems and universal health coverage

5.1. Health systems

Where does self care fit within health systems and universal health coverage? A good health system delivers quality services to all people, when and where they need them. The exact configuration of services varies from country to country but, in all cases, requires: a robust financing mechanism; a well-trained and adequately paid workforce; reliable information on which to base decisions and policies; and well-maintained facilities and logistics to deliver quality medicines and technologies. (46)

Figure 11 defines some widely used health terminology.

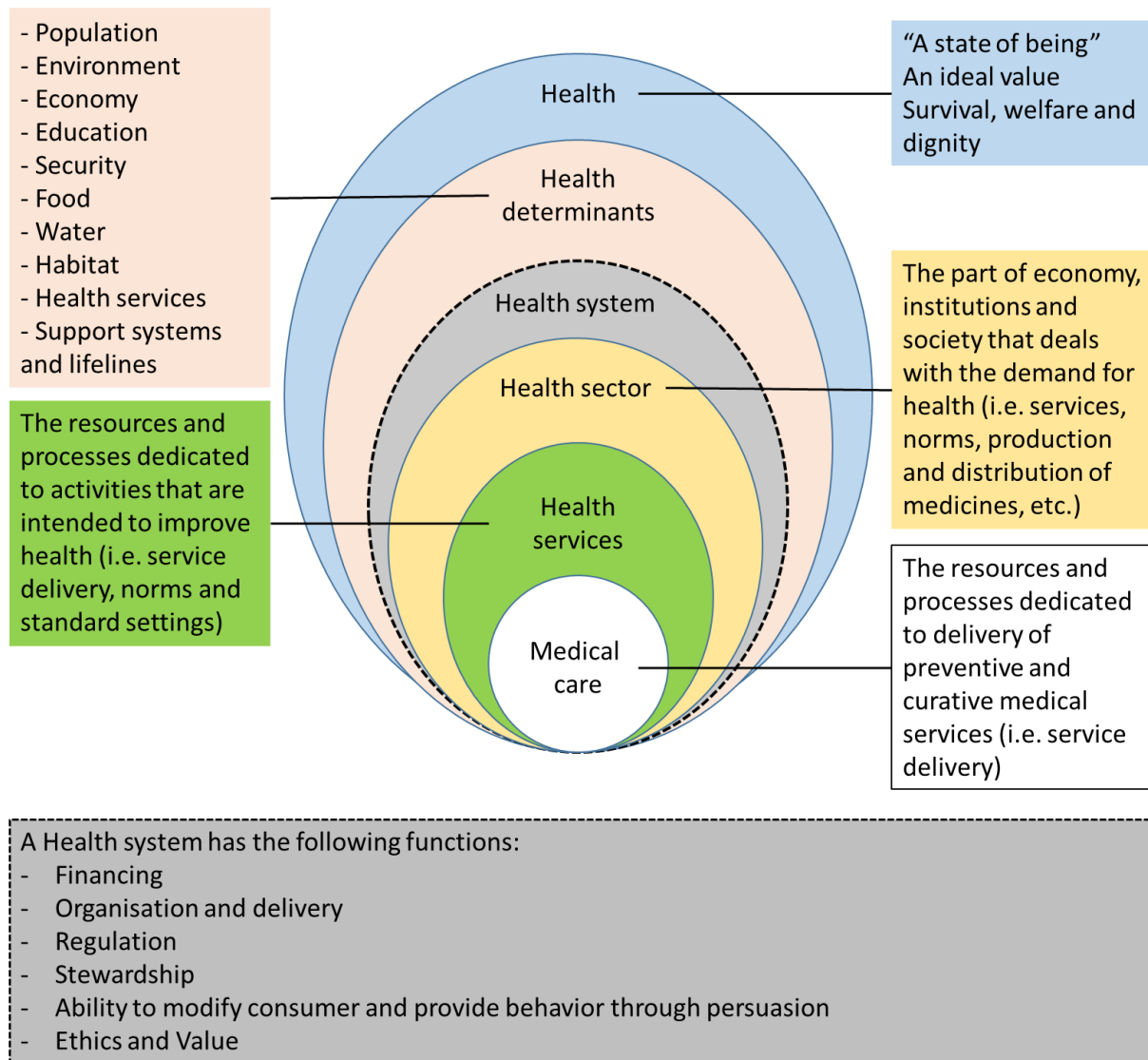


Figure 11. Defining divisions of health (Adapted from www.wbginvestmentclimate.org)

WHO Member States met in Alma-Ata (now called Almaty, in Kazakhstan) in September 1978 to define and advocate the implementation of primary health care (PHC) worldwide, above all in developing countries, which had a real need to review their strategies for meeting the health needs of their populations. Equity was a core value in the declaration (36), which defined PHC, an integral part of economic and social development, as essential health care, based on practical methods and techniques that are both scientifically sound and socially acceptable, universally accessible to all individuals and all families of the community, through their

full participation and at a cost that the community and countries can afford at all stages of their development in the spirit of self reliance and self determination.

The Alma-Ata Declaration emerged as a major milestone of the 20th century in the field of public health, and it identified primary health care as the key to the attainment of the goal of health for All. Further analysis of the definitions, objectives, principles and recommendations of the Alma-Ata Declaration and the United Nations Millennium Declaration adopted in 2000 reveals multiple dependencies and fundamental points of similarity between these two representations. Almost all states pledged to achieve the eight Millennium Development Goals (MDGs) by 2015: to eradicate extreme poverty and hunger, achieve universal primary education, promote gender equality and empower women, reduce child mortality, improve maternal health, combat HIV/AIDS, malaria and other diseases, ensure environmental sustainability, and develop a global partnership for development. Enormous progress was made on the MDGs, showing the value of a unifying agenda underpinned by goals and targets. Social equity, community participation, and intersectoral cooperation are involved in the achievement of both primary health care and the MDGs.

Public health is an essential condition of poverty eradication and MDG achievement. Public focus health issues are central to the problem of sustainable development and must, therefore, remain of attention. It is increasingly urgent to break the vicious circle created by the close correlation between environmental degradation, poor health and poverty. (47)

Subsequent to the MDGs, the United Nations adopted Sustainable Development Goals (SDGs) from 2015 to 2030. The new SDGs, and the broader sustainability agenda, go much further than the MDGs, addressing the root causes of poverty and the universal need for development that works for all people. The SDGs will now finish the job of the MDGs, and ensure that no one is left behind. Promoting health and well-being is one of 17 Global Goals that make up the 2030 Agenda for Sustainable Development. An integrated approach is crucial for progress across the multiple goals. (48) (49)

Efficient and effective pharmacist-supported self care will be an important element in achieving the SDGs and is an important component in any health system.

5.2. Universal health coverage

In a media release during December 2014, a new global coalition of more than 500 leading health and development organisations worldwide urged governments to accelerate reforms that ensure everyone, everywhere, can access quality health services without being forced into poverty. The coalition was launched to stress the importance of universal access to health services for saving lives, ending extreme poverty, building resilience against the health effects of climate change and ending deadly epidemics such as Ebola.

Universal health coverage (UHC), defined as the desired outcome of health system performance whereby all people who need health services (promotion, prevention, treatment, rehabilitation and palliation) receive them, is a pillar of sustainable development and global security. UHC has two interrelated components: the full spectrum of good-quality, essential health services according to need, and protection from financial hardship, including possible impoverishment, due to out-of-pocket payments for health services. Both components should benefit the entire population. (50)

Despite progress in combatting global killers such as HIV/AIDS and vaccine-preventable diseases such as measles, tetanus and diphtheria, the global gap between those who can access needed health services without fear of financial hardship and those who cannot is widening. “The need for equitable access to quality health care has never been greater, and there is unprecedented demand for universal health coverage around the world,” said Michael Myers, managing director of the Rockefeller Foundation. “Universal health coverage is an idea whose time has come — because health for all saves lives, strengthens nations and is achievable and affordable for every country.”

For much of the 20th century, UHC was limited to a few high-income countries, but in the past two decades, a number of lower- and middle-income countries have successfully embraced reforms to make quality health care universally available. Countries as diverse as Brazil, Ghana, Mexico, Rwanda, Turkey and Thailand have made tremendous progress toward UHC in recent years. The two most populous countries, India and China, are pursuing UHC, and more than 80 countries have asked the WHO for implementation assistance. “Putting people’s health needs ahead of their ability to pay stems poverty and stimulates growth,” said Tim Evans, senior director for the health, nutrition and population global practice at the World Bank Group. “Universal health coverage is an essential ingredient to end extreme poverty and boost shared prosperity within a generation.” (51)

6. Diversity in legal frameworks

When one examines health systems around the world, one will find that the basic premise is similar, but there is a diversity in operation and performance. In terms of pharmacy, pharmacists, and medicine performance, laws and regulations, one will also witness a great diversity in operation and performance. Notwithstanding that, pharmacists and pharmacy organisations have made great strides in the past few decades in seeking and gaining more harmony in regulation of education and practice. With those achievements, there is much evidence that pharmacists and pharmacy are well on the way to being valued participants in patient wellness, not merely observers. (52) This is further evidence of the shift from product-centred to patient-centred focus.

The regulation of pharmacy and pharmacists varies by country. The vast majority of countries have regulations requiring the presence of a licensed pharmacist at all times, a standard meant to provide, in the interest of public safety, consumers with continual access to pharmacist advice and services. The majority of respondents to an FIP survey (for its “Global trends shaping pharmacy — regulatory frameworks, distribution of medicines and professional services 2013–2015” report) indicated that a pharmacist is present at all times in 76 to 100% of pharmacies. (13) Some of those countries where the pharmacist is not present 100% of the time are developing or have developed good pharmacy practice guidelines to address this issue.

This section will address the diversity in global pharmacy as it currently exists. Subsequent sections in this document will show evidence of the changes taking place in pharmacy in general and, in particular, the move of pharmacists and pharmacy to be integral in patient self care.

The legal and practice framework can be described in two dimensions:

- The presence or absence of a monopoly on dispensing medicines (and consequently OTC medicines)
- The classification of medicines at national level.

An overview of the current diversity of the situation is presented in Table 3.

Table 3. Differences in regulation determine where medicines are sold

	Country where dispensing of some medicines is performed in settings other than pharmacies	Country where dispensing of all medicines is performed only in pharmacies
Over-the-counter medicines	<p>Can be sold anywhere</p> <hr/> <p>Can be sold only in authorised settings:</p> <ul style="list-style-type: none"> - Without trained staff - With trained staff 	<p>Can only be sold in pharmacies</p> <ul style="list-style-type: none"> - Free access of patients to medicines (pharmacy-only) - Access only through a trained health care professional (no direct access): <ul style="list-style-type: none"> o Access through a technician or a pharmacist o Access only through a pharmacist <ul style="list-style-type: none"> ▪ Any option ▪ Only face-to-face; exclusion of online sale
Pharmacy-only medicines	<p>Can only be sold in pharmacies</p> <ul style="list-style-type: none"> - Free access of patients to medicines (pharmacy-only) <ul style="list-style-type: none"> o Access through a technician or a pharmacist o Access only through a pharmacist <ul style="list-style-type: none"> ▪ Any option ▪ Only face-to-face; exclusion of online sale 	<p>Category does not exist (because of the monopoly) because, by definition, OTC medicines are all pharmacy-only medicines</p>
Prescription-only medicines	<p>In almost all countries: only through pharmacies</p>	

6.1. Classification of non-prescription medicines (NPMs) and over-the-counter (OTC) medicines

A 2015 survey conducted by FIP (“Trends in the regulation of pharmacy and access to medicines”) (13) revealed that in 20 countries (of 71 studied), non-prescription medicines (NPMs) are dispensed exclusively by community pharmacies. Of the 51 remaining respondents, 23 countries (45%) have established a “third list”, i.e., a category of NPMs that can only be dispensed at a pharmacy.

One paper querying the difference between countries with increased public access to medicines (53) identified barriers (limited market potential, cost of a reclassification, competition from distributors of generic medicines, committee inconsistency and consumer behaviour) and enablers (government policy, pharmacist-only scheduling, and large market size) to the reclassification of medicines from prescription to OTC availability. A second paper on deregulation in community pharmacy and any impact on accessibility of medicines, quality of pharmacy services and costs (54) noted these three factors: (i) new pharmacies and dispensaries of OTC medicines tended to be established in urban areas; (ii) prices of OTC medicines were not found to decrease after deregulation; and (iii) indications of an increased workload for pharmacists in some deregulated countries.

6.2. Pharmacist/pharmacy-only medicines

A case study from New Zealand presented at FIP’s 2014 annual congress, “Pharmacy-driven prescription-to-non-prescription switch to improve consumer access to medicines”, concluded: “Pharmacy can drive switches to increase consumer access to medicines and better utilise pharmacists in primary care. Regulations may need to change to allow this process.” (55)

Access to NPMs allows people to take a more active role in the management of their own health and in the treatment of common illnesses. These medicines give people the responsibility for caring for themselves until or unless a health care provider’s expertise is necessary, and empowers them to decide about their health care and to choose medicines that meet their needs and conditions. When people can treat common ailments themselves, it saves them time and effort and can avoid a visit to the physician.

These “pharmacy medicines” usually must be sold either by the pharmacist or under a pharmacist’s supervision. Regulations on the location and sale of NPMs vary around the world, with two, three or four schedules/categories. The result is that in some countries NPMs are available only in pharmacies while in other countries NPMs are available from non-pharmacy outlets. Over the past 30 years, this approach has seen a wide range of therapeutic agents made available to consumers. This approach has advantages but also disadvantages in terms of reducing access to a pharmacist for those medicines sold in non-pharmacy environments. (2)

The expansion of NPMs has provided community pharmacy with an opportunity to demonstrate real and tangible benefits to consumers by facilitating patient self care. However, research data on the impact community pharmacy has on patient outcomes through facilitated self-medication are lacking when compared with those on patient self care. Yet in more formalised situations where community pharmacy delivers self care, there is more credible research evidence to show the positive contribution it makes. For example, in the UK, government-endorsed (and funded) schemes such as minor ailment schemes and healthy living pharmacies have shown the positive impact community pharmacy can have. (2)

6.3. OTC medicines sold from non-pharmacy outlets

There are arguments for and against both the sale of medicines from non-pharmacy outlets, and a non-prescription class of medicines sold under pharmacist supervision within a pharmacy.

In late 2011, Buenos Aires confirmed its status as the only province in Argentina to allow the sale of OTC medicine away from pharmacies. This was in direct contradiction to a national law passed in 2009 which promoted NPMs such as decongestants and ibuprofen to behind-the-counter status. Lobbying efforts came to fruition in 2009, when national law 26567 outlawed the sale of OTC medicines from non-pharmacies as well as at self-service stations inside pharmacies. An institutional statement by the Pharmaceutical Confederation of Argentina (COFA) lauded the decision as a “major step toward better health for Argentines”. “The law was created to control medication that was being adulterated,” said pharmacist Sebastian Vazquez. Around the

time the 2009 ban was passed, Mario Castelli, consultant and former president of COFA, told *La Nación* that 10% of the OTC medicines sold outside of pharmacies were “illegal” according to World Health Organization. “This encompasses the counterfeit, adulterated and stolen,” he said. Vazquez admits that although the frequency of overdosing on these types of medicines is low, the abuse of substances such as aspirin, ibuprofen, metamizole, caffeine, etc., has potential health risks such as fetal malformation in pregnant women, blood circulation problems and various health problems for people with diabetes.

However, according to independent regulatory consultant Jimena Worcel: “We have searched, and have found reports documenting OTC-related deaths in Argentina. . . . They are known to be at the same frequencies as the rest of the world, and are not dependent on the place of purchase, but on the characteristics of people.” An international study done by the US General Accounting Office seems to bolster Worcel’s claim. It found that countries with a “behind the counter” designation for certain medicines like aspirin show no greater health benefits than those that are simply available over the counter. (56) (57) The debate on the sale of OTC medicines in Russia appears to have more arguments against any liberalisation of the sales of the products outside pharmacies. (58)

Rutter opines that there should be no pharmacists’ monopoly on the sale of certain medicines. Natalie Gauld of the Pharmaceutical Society of New Zealand claims there is evidence that the public would be disadvantaged under his proposed model. (59)

The sale of pharmaceuticals is not a simple issue of location of sale. The Organisation for Economic Co-operation and Development also has an opinion on the competition required in the trade of pharmaceuticals: “Despite this need for regulatory constraints, competition can and should play a role in ensuring that the market for the distribution of pharmaceuticals works well for consumers, so that these can benefit from higher quality, greater choice and variety, more innovation and lower prices.” (60)

According to a report commissioned by the Danish Association of Pharmacies: “As part of the health care system, which is not a standard commodity market, the pharmacy sector should be supported by a sound regulatory framework for community pharmacies to support them fulfilling their key tasks (i.e., providing safe medicines to patients, counselling and advice, involvement in health promotion and prevention). A focus on merely optimising retail sales should be avoided.” (61)

The Inspection Générale de Finances (IGF), France’s leading financial watchdog, stated in 2014 that pharmacies’ monopoly should be ended by allowing supermarkets to sell OTC medicines. According to the IGF, liberalisation would not only increase the availability of these products, but also allow more competition to bring down prices. Most OTC medicines are not reimbursed through government insurance schemes, so buyers bear the full cost. According to the IGF, OTC medicine prices rose by an average of 3% annually between 1998 and 2011, twice as fast as inflation. It blames the pharmacists’ monopoly on this retail segment, which allowed them push up OTC medicine prices in order to offset the effect of the government’s cost-containment measures for prescription medicines. (62)

A Portuguese abstract submitted to FIP’s annual congress in 2010, “Non-prescription medicines in EU: Distribution channels, pharmacy-only status and the next generation of medicines under European centralised switch”, concluded: “The diverse legal framework in EU concerning distribution channels and the availability of POM (prescription-only medicines) should be reviewed according to a growing NPM market and to a new generation of NPMs emerging from centralised switch for the interest of patient safety. Pharmacists must prepare themselves to assume higher roles in the dispensing and post-authorisation safety monitoring of future NPMs.” (63) Subsequently, the results in a research article from Portugal “allow for reflection on the relevance of extending the range of medicines classified as non-prescription-pharmacy-only in Portugal, with benefits for the citizens, always ensuring the safety of use due to pharmacist intervention”. (64)

Regulations in the UK allow for three classifications of medicinal products for human use: general sale list (GSL) medicines, pharmacy (P) medicines and prescription-only medicines (POMs), where GSL medicines can be purchased from a wide range of outlets, including general stores, supermarkets, newsagents and petrol stations. Products classified as GSL are considered to be reasonably safe and therefore can be sold without the supervision of a pharmacist. (65)

FIP has revealed that only 28% of 71 countries surveyed for its 2013–15 “Global trends shaping pharmacy” report have an exclusivity of NPMs in pharmacy. All other countries allow some OTC medicines or NPMs to be sold outside pharmacy, without systematic support from a health care professional. (13)

6.4. Access to prescription-only medicines without a prescription

Any violations of pharmacy regulations for the sale of prescription medicines should be reviewed and studied to determine the core reasons for the violations, and how to prevent future cases. In certain jurisdictions, prescription-only medicines (POMs) may be provided to a patient by a pharmacist acting responsibly in that patient's interest, following a specific protocol. (66)

6.5. Reclassification of medicines

One of the most notable long-term global health care policies, which directly affects pharmacy, is the reclassification of POMs as non-prescription medicines (NPMs). In many countries (e.g., Australia, New Zealand, France, Sweden, Canada, UK), regulatory frameworks support reclassification by having a gradation in the level of medicines availability, whereby certain medicines can only be purchased at a pharmacy.

National authorities have individual policies on the sale of OTC medicines. For example, the Danish Medicines Agency has the following practice describing when an OTC medicine is released for sale outside pharmacies. "All new OTC medicines and medicines which change classification from prescription-only to OTC will by definition be restricted to pharmacy sale (dispensing status HA) for a period limited to two years. When the OTC medicines have been on the market for two years, they will be released for sale outside pharmacies (dispensing status HF), unless exceptional circumstances go against it. New generic versions of OTC medicines that are already sold outside pharmacies will naturally be released for sale outside pharmacies immediately. Under section 60(2) of the Danish Medicines Act, the Danish Medicines Agency may, *'where it is justifiable in terms of health, decide that a non-prescription medicinal product . . . may be sold to users outside pharmacies.'*" (67)

As illustrated by a Swedish example, the reclassification of medicines can be reversed. Due to safety concerns, regulations in Sweden were altered to restrict the sale of previously available non-prescription paracetamol to pharmacies only. (68) (69)

To date, most reclassifications have involved medicines that are used to treat acute problems. However, recent reclassifications have strayed into the area of medicines for the management of long-term conditions. These medicines may herald the beginning of a new era in NPM availability, whereby pharmacists will be able to manage long-term conditions. It should be noted that reclassification of select medicines may or may not improve patient access to medicine, depending on the payment models of any given jurisdiction, and any changes to point-of-sale regulations. Such reclassifications impact on the relationship between consumer and pharmacist.

7. Consumer factors commonly observed throughout the world

7.1. Health literacy

Health literacy is not achieved by the mere presentation of accurate information. Many consumers struggle to understand important technical information about doses, medicine interactions or side effects if it is not presented in a user-friendly manner. More fundamentally, many people lack the critical skills required to differentiate between trustworthy and unsubstantiated or actively dangerous advice from friends, fringe practitioners or the internet. Other consumers feel swamped with information when they search for it, with the flood of data overwhelming their ability to comprehend it. Any number of traditional and alternative remedies compete with evidence-based medical science for their attention, and physicians and pharmacists must help people navigate through the dense and confusing jungle of claim and counter-claim to find the solution that best suits their needs. Within any given population, differences in culture and literacy exist to varying extents and, therefore, appropriate pharmacist interaction with the patient is desirable, if not essential, for optimal understanding of self-medication label content and associated medication leaflets. The safe use of non-prescription medicines, often without access to a health care professional, is reliant on the quality of the information provided with the treatment as well as the beliefs and abilities of the individual to utilise this information. Various reports and surveys show the consumer age- and education-related variances in ability to read and comprehend self-medication labels, instructions and dosages. In one report, 56% of 48 subjects were unable to correctly calculate a safe dose for a cough syrup. (70) Limited health literacy is a global problem. An Agency for Health Care Research and Quality Report estimates that only 12% of Americans have proficient health literacy, costing the US economy USD 200bn a year. Recent Australian figures suggest that 56% of Australian adults have limited health literacy, with this figure increasing to 80% of those aged over 65 and 96% of adults from diverse cultural and language backgrounds. (5)

If pharmacists, technicians and assistants are to play a greater role as the first health professional the consumer seeks advice from, they must become more proactive in providing advice on treatment options, possible medicines interactions and other aspects of care. The Pharmacy Guild of Australia has already called for community pharmacies to offer standardised, accredited health literacy programmes and underlines the importance of the quality use of medicines regarding prescription, as well as non-prescription medicines. (5)

Cultural and language differences and socioeconomic status interact with and contribute to low health literacy, defined as the inability to understand or act on medical/therapeutic instructions. Health literacy is increasingly recognised as an important factor in patient compliance, cancer screening utilisation and chronic disease outcomes. (71)

Although initiatives to reduce health care disparities have been more system- and provider-centred, strategies are in place to intervene at the patient level. For example, improving patients' health literacy can reduce health disparities. If patients cannot understand needed health information, attempts to improve quality of care and reduce health care costs and disparities may be unsuccessful. Patients who lack literacy skills are prone to hospital admission, medication errors, misunderstanding the policies of their health care benefits provider, and premature death. Educational endeavours aimed at improving health literacy levels among specific minority and ethnic populations can bridge the gaps in health status. One way to increase health literacy is through community health interventions that target the communities of specific minority populations. An Institute of Medicine report on health literacy recommends that programmes to encourage health literacy, health education and health promotion should be developed with involvement from the people who will use them. Public health expert Don Nutbeam is cited as saying that improving health literacy, in addition to sharing health information, involves helping people to develop confidence to act on that knowledge through personal forms of communication and through community-based educational outreach. (72) Pharmacists influence patients' health status directly through pharmaceutical care and indirectly by engaging patients in their treatment. Therefore, it is essential for pharmacists to be able to provide culturally competent care.

7.2. How consumers use OTC medicines

Numerous studies demonstrate the three main reasons consumers use OTC medicines: (i) they are familiar with how to self-treat a particular condition due to past experience, (ii) they have concluded that their illness is not serious enough to warrant a physician's visit, and (iii) it saves money and time when they self-medicate with an OTC medicine. (73) The latter aspect reflects the convenience value of OTC medicines. Although convenience is recognised as being an important parameter of health care services, there is limited medical literature addressing the importance of convenience as it relates to OTC medicines. OTC medicines offer location, access,

and choice convenience. The ease with which OTC medicines can be accessed enables patients quickly to initiate therapy for conditions which respond best to early intervention. Patients who perceive a physician's visit as inconvenient, and therefore do not seek out prescription medicines, may use an OTC medicine which can be obtained locally without a prescription. (74) OTC purchasers who valued individuality of information were more likely to use pharmacists and consultation at pharmacies. (75)

According to a 2014 survey conducted by the National Council on Patient Information and Education (USA), there are eight types of health-conscious consumer, ranging from health-elite parents and health-elite boomers to physician-less self-reliants and health-rejecters. (76) That same survey also indicated that an overwhelming majority of people agree that self care is strongly connected to taking personal responsibility for one's health and is an important part of promoting overall health and wellness. (77)

In terms of citizen access to pharmacists and pharmacies, using the European Union as one example, approximately 98% of EU citizens can reach their nearest community pharmacy¹ within 30 minutes, while 58% of citizens indicate that their closest community pharmacy is within 5 minutes' reach from their work or home. Results from a geospatial report in Australia show similar results, with 87% (72%/95% rural/metropolitan) of Australians living within 2.5km of their nearest pharmacy — further evidence supporting the hypothesis of easy access to pharmacist support and services. (78)

One study on consumer decision-making in natural health products and pharmaceutical non-prescription sleep aids using the means-end chain approach identified that product attributes such as "natural" or "chemical" source, associated consequences after taking the product (e.g., perceptions of effectiveness, side effects) and evoked values (e.g., quality of life) linked with the products play a key role in consumer product choice. (79)

There are several steps in the process of a consumer search for the appropriate OTC medicine: awareness, need recognition, information search, evaluation of alternatives, purchase decision and post-purchase behaviour cognisant of any declared health policies. (80)

A study by Kuchko reported that consumption of medicines for prophylaxis depends on social status, education level and economic status — higher levels being associated with higher consumption. Other factors were product price and country of origin. (81)

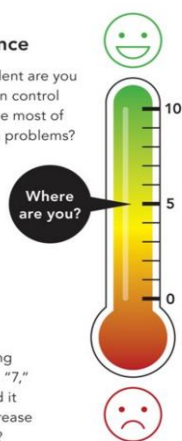
7.3. Consumer confidence

Whenever You Think About Your Health and Health Care Ask Yourself These Questions

Health confidence

How confident are you that you can control and manage most of your health problems?

If your rating is less than "7," what would it take to increase your score?



A variety of terms — such as patient activation, patient self-efficacy, self care, and self-management — have been used to describe patients' health-promoting actions. A preferred term is "engagement". The evidence-based, chronic care model illustrates the crucial connection between engagement and desirable patient outcomes. For example, engaged patients have better health outcomes and better health care experiences, and are likely to use fewer health care services and cost less. Clearly, a patient's level of engagement is a good thing for a clinician and patient to know. Health confidence is an effective proxy for engagement, and practices can easily measure it using a single question: "How confident are you that you can control and manage most of your health problems?" (Figure 12). The question initiates self-reflection and meaningful communication between patients and health care providers. A helpful accompanying question is "How understandable and useful is the information your physicians or nurses have given you about your health problems or concerns?" (82)

Figure 12. Scale to measure patients' health confidence (82)

¹ Pharmacies in the majority EU countries are required to ensure that premises have access for people with disabilities.

A 2016 Commonwealth Fund-supported study reviewed 98,000 adult medical records and found that patients who did not feel competent to manage their own health or navigate the health care system were more likely to develop a chronic disease over a three-year period than “activated” patients with good self-management skills. “Understanding the patient’s capability for self-management is a key part of understanding the risk of health declines and avoidable utilisation.” (83)

There are three groups of consumers, those who are self-reliant (high level of self-diagnosis, self-treatment), those who are careful (prefer physician’s advice or need second prophylaxis), and those who are suspicious (troubled about their health and having a low level of self-diagnosis). (84)

Most people have high levels of confidence in the products they take, believing them to be effective and as good as prescription medicines. This seems to stem from prior positive use of the product, with most consumers using the same product for subsequent episodes of the same illness. In effect, they build up a small “formulary” of trusted medicines.

Taylor *et al* report that location of sale has minimal effect on consumers’ clinical expectations of OTC medicines. Consumers also appear to have healthy attitudes regarding OTC medicines and realise care is needed during their use. This may have implications in how people use such products after they are purchased. (85) Research suggests that proactively supporting self-management and focusing on self-efficacy and behaviour change can have an impact on clinical outcomes and emergency service use. (43)

Traditional patient education is based on the underlying theory that disease-specific knowledge creates behaviour change, which in turn produces better outcomes. Self-management education, in contrast, is based on the theory that greater patient confidence in his or her capacity to make life-improving changes yields better clinical outcomes. (86)

Age and education level appear to play a role in self-confidence. (81)

Despite people’s willingness to self-treat initially, in the UK there are still 57 million physician consultations a year for minor ailments at a total cost to the NHS of GBP 2bn, which takes up, on average, an hour a day for every physician. Research shows that people often abandon self care earlier than they need to, typically seeking the advice of a physician within a period of four to seven days. The main reasons for this are:

- Lack of confidence in understanding the normal progress of symptoms (e.g., a cold can last up to 14 days)
- The perceived severity and duration of symptoms
- Reassurance that nothing more serious is wrong
- A desire for a prescription to “cure” the illness, even though the same medicine may be available over-the-counter (30)

7.4. Consumer experience

One in 20 searches on Google is health-related, and the search engine has recognised this by increasing its efforts to provide more reliable health information. Critically, the device most people use to search Google is their mobile phone. 2015 saw mobile searches overtake desktop searches for the first time — a move which signals the beginning of the “connected patient”. Effectively, we can research our health or condition at any time, wherever we are on the planet. (87)

As the patient experience movement continues to flourish, there is greater alignment between factors involved in health care — not simply a customer encounter, but how we engage people in mind, body and spirit, how we integrate the critical aspects of care from quality to safety to service and how we link the very complexities of our health care systems globally to provide for easy journeys for those receiving care. The trends of this growing movement are seen as positive and a set of clear and defined outcomes driven by a positive patient experience are emerging, representing the impact experience now has as a central focus for health care globally. (88) It is reported that choice of product is not only based on medical factors, but also psychological and social aspects. (89)

7.5. Consumer satisfaction

One US study had the objective to determine whether patients would be willing to pay for pharmacist self care services on proper use of OTC medicines. In addition, the study examined whether patients' willingness to pay was associated with community pharmacy setting and patients' socio-economic factors. The study concluded: "This increased patient willingness to pay, along with growing self care markets, provides pharmacists with opportunities to develop self care clinics or services." (90)

Patient satisfaction is a multidimensional health care construct affected by many variables. Health care quality affects patient satisfaction, which in turn influences positive patient behaviours such as loyalty. Patient satisfaction and health care service quality, though difficult to measure, can be operationalised using a multi-disciplinary approach that combines patient inputs as well as expert judgement. (91)

The image and professional performance of community pharmacists are improving in Saudi Arabia. Saudi patients are showing better satisfaction, perception and appreciation of the pharmacists' role in the health care team. Community pharmacists should play a pro-active role in becoming an effective and indispensable part of health care, and should equip themselves with appropriate knowledge and competencies in order to tender efficient and outstanding pharmaceutical health care. (92) One report from Kazakhstan indicated that respondents were generally satisfied with the results of self-treatment. (93)

A high level of satisfaction was observed in a majority of the studies reviewed for all service types. General services, pharmacist attitude, medication availability, convenience, pharmacy facilities and location were found to strongly influence patient satisfaction positively. Prescription-fill longer waiting time consistently influenced patient satisfaction negatively. In case of intervention services, patients were usually very highly satisfied with the intervention delivered. Further, studies reviewed indicated that the higher the frequency of counselling and monitoring and the more directed the guidance, the greater the satisfaction rating. In one study, however, high levels of patient satisfaction were reported despite suboptimal ratings for counselling levels. Another interesting observation was the high levels of baseline satisfaction reported prior to any intervention delivery. High satisfaction ratings with different cognitive services were also observed in all reviewed studies. (94)

7.6. Consumer knowledge and understanding

In an interview for *PMLiVE*, Caravan Redmond, CEO of WebMD, said: "For self care overall, the biggest challenge is that over-riding term — information. You want to make sure that the [patient] or consumer [standing at the shelf], can self-diagnose, that they have the ability to make a choice and that when they are making that choice it is clear what the benefits and risks are of the products. . . . If pharma [industry] is to evolve into serving this aware patient, it needs to learn . . . and communicate to consumers using language that they understand to provide a clear and valid message about health." (95)

In 2015, Ian Banks, president of the European Men's Health Forum, stated: "Today's consumers are both empowered and enabled to manage their health, and consequently will live longer and healthier lives. In fact, many patients know more about their condition than their physician. Unfortunately, we often label people who want to take measures to improve their health and well-being as the 'worried well' and some even claim that knowledgeable patients are an undesirable or dangerous thing. The fact that more people have a desire to safeguard their future health, even when they are not sick, is something that should be encouraged and celebrated. The role of health education in preventing chronic conditions cannot be underestimated, nor be started too early. One focus of the European Men's Health Forum is segments of our society that could be better encouraged to use available services. The redesign of many health services could be effective in attracting groups that currently shun health advice. For example, men happen to be the lowest users of pharmacy, yet according to the UK National Pharmacy Association, if you design a system appropriately, men will be more receptive. The impact of men using pharmacy services and being educated about some very simple complaints that are easily addressed would improve quality of life immediately and perhaps even prevent the development of chronic conditions down the line." (96)

Two reports from Ukraine and Russia indicated that although the majority of respondents rated their knowledge about medicines as appropriate, there is a need for greater understanding. (97) (98)

An Ipsos survey in the USA in 2015 showed an overwhelming proportion of people (92%) like being able to have better control of their health, and believe they are expected to be active in managing their own health now more than ever before (80%). While 95% of people associate self-management of health with good habits such as diet and exercise, a majority (>80%) also identify actions such as engaging in screenings and wellness check-

ups (88%), preventative care (87%), consultations with physicians (83%) and decision-making about how they want to deal with a health problem (87%). People are researching health problems and symptoms (67%), tracking health indicators such as weight and blood pressure (64%) and taking OTC products to manage acute health conditions (59%). (99)

8. Risks and benefits in better self care

In terms of self-medication, pharmacists are aware of several potential benefits and risks at both the individual and community level (100); for example:

Potential benefits

Individual level:

- An active role in one's own health care
- Self-reliance in preventing or relieving minor symptoms or conditions
- Opportunities for education on specific health issues (i.e., stop smoking aids and products to treat heartburn)
- Convenience
- Economy, particularly since medical consultations will be reduced or avoided

Community level:

- Saving scarce medical resources from being wasted on minor conditions
- Lowering the costs of community-funded health care programmes
- Reducing absenteeism from work due to minor symptoms
- Reduce the pressure on medical services where the numbers of health care personnel are insufficient
- Increase the availability of health care to populations living in rural or remote areas

Potential risks

Individual level:

- Incorrect self-diagnosis
- Failure to seek appropriate medical advice promptly
- Incorrect choice of therapy
- Failure to recognise special pharmacological risks
- Rare but severe adverse effects
- Failure to recognise contraindications, interactions, warnings and precautions
- Failure to recognise that the same active substance is already being taken under a different name
- Failure to report current self-medication to the prescribing physician (double medication/harmful interaction)
- Failure to recognise or report adverse medicine reactions
- Incorrect route of administration
- Inadequate or excessive dosage
- Excessively prolonged use
- Risk of dependence and abuse
- Food and medicine interaction
- Storage in incorrect conditions or beyond the recommended shelf life

Community level:

- Improper self-medication could result in an increase in medicine-induced disease and in wasteful public expenditure

9. Roles and added value of pharmacists

Pharmacists and pharmacies are, in general, well used access points for patients seeking safe and effective medicines and advice for a myriad of common ailments, in addition to the services involved in and related to prescriptions. The roles of pharmacists — communicator, quality medicine supplier, trainer and supervisor, collaborator and health promoter — are continually expanding. While the health and economic values of self care in particular are not easy to measure, it is understood that pharmacists in the capacity of medicine experts contribute effectively to self care. Although self care has been with us for hundreds of years, today there is a greater opportunity for pharmacists to assist patients with self care. Society is better educated than ever before and now has access to accurate, understandable and objective, up-to-date information about medicinal therapies. Moreover, there is a general trend to take back control from physicians and other caregivers, and for patients to make decisions about their own care. On a parallel plane, the pharmacist is being recognised as a trustworthy source of information and advice. When these trends interact, there becomes a golden opportunity for pharmacists to demonstrate their worth and roles to their patients. (101)

Raising public confidence: A large majority of respondents — almost 90% according to a recent European survey — see self care as important. However, less than one in five were very confident about treating health issues themselves, even fewer in Eastern European countries. Other surveys have shown that consumers naturally tend towards a “prudent health care” approach, with nearly two-thirds saying that they would “wait and see” before starting self-medication. This highlights a need to work together on information programmes. Central to this will be promoting the role of pharmacies as reliable sources of advice: the long-standing campaign in the UK of “Ask your pharmacist. You’ll be taking good advice” could be one model for this as well as campaigns urging people to seek advice “the earlier, the better”.

Maintaining the range of products: For many conditions, a few words of reassurance from a pharmacist or a well-trained member of the pharmacy team will be enough to help people manage. But there are many conditions where symptoms can be relieved or reduced using a suitable non-prescription (OTC) product. Patients are benefiting from being able to purchase effective medicines in pharmacies that were previously only available on prescription. Many can now be treated quickly and effectively. To encourage patients to use self care where possible, it will be important to keep up a flow of new and innovative products for pharmacists to recommend.

Reducing health system pressures: If the public lacks confidence in its own ability to self care, with or without the support of pharmacists, then it will turn to other parts of the health system for help. Patients with minor ailments can take up valuable time with physicians or in emergency departments. In Germany, a system of “green prescriptions” was established to allow physicians to make recommendations for non-prescription medicines which patients would then have confidence in purchasing. Some health systems have established services to encourage patients to visit pharmacies as their first call for minor conditions. These often allow pharmacists to supply OTC medicines, chosen from an agreed formulary, without direct charge, to encourage the use of pharmacies rather than physicians.

Pharmacies are at the heart of the communities they serve: For pharmacy to become a fully integrated part of health care systems, certain enablers will be needed. The pharmacy profession needs to continue to evolve to meet the changing needs of health systems and the public. Pharmacists have the capability to do much more than supervise the safe dispensing of medicines. They need to be central to maintaining public health, as well as optimising medicines use. To achieve this, pharmacy must adapt and press for change in areas such as technology, legislation and additional skills.

Technology: Pharmacies need to adapt the way in which they work to take advantage of new technologies, including automation of dispensing and, where allowed, internet pharmacies. They also need to be prepared to use their medicines expertise to help patients use and interpret the vast amounts of health care information and data now available.

Legislation: Pharmacy bodies, regulators and legislators should seek relevant laws updated in order to permit pharmacies to deliver a wider range of appropriately reimbursed public health services.

Additional skills: Pharmacists and pharmacy staff should be supported to expand their training and knowledge to ensure that they can address patients’ needs. In particular, this should focus on how to listen to and communicate better with patients and their carers.

Additionally, pharmacists play a role in:

- Preventing or minimising adverse medicine events
- Promoting optimal adherence to medicinal and other therapies
- Assuring minimum practice standards
- Assessing both risks and benefits of services and/or medicines
- Assuring quality and safety through medication reconciliation
- Promoting the value (risk/benefit) of self care, self care products and self care services to patients, governments and within themselves.
- Promoting the value (risk/benefit) of self care and self care products to citizens
- Assessing and qualifying the advice they provide in self care and self-medication
- Applying pharmaceutical care concept to self care
- Educating patients for self care and counselling on preventive health care measures
- Monitoring therapy and outcomes through medication management
- Appropriate referral of patients to an alternate service within the health care system (pharmaceutical triage)

In terms of potential or associated risks, (5) all aspects of medicine incur risks as well as deliver benefits. Although recognising the advantages of consumer empowerment and self care for minor ailments, some physicians fear it might delay people from seeking advice for potentially serious problems. Measures which appear to dissuade people from visiting their physician might further alienate those who feel disconnected from the health service or dishearten people who might use a minor ailment as a catalyst to raise a more serious concern. While the self-assessment and treatment of many common ailments is comparatively simple, in some cases the symptoms of serious illnesses might be obscured by their treatment with non-prescription medicines, delaying and complicating later care. Incompetent self-medication risks adverse reactions or unforeseen interactions with other medicines, and medicines of any sort are never trivial consumables and should only be used to treat known and specific conditions. It is not surprising in some jurisdictions that “self-treatment” or “self care” has negative implications, even to the extent of contravention of some national laws and regulations. (102) The importance of partnership and communication between consumers (well and unwell) and health professionals — especially pharmacists — is unique must therefore be emphasised in any drive for self care.

There is also a risk that more vulnerable population groups may not know where to find assistance for their self-treatable minor health problems and so attend physicians or even emergency departments as their first choice for any minor conditions. Clinicians may also need access to interpreter services so they can assist people from culturally and linguistically diverse backgrounds. The gateway to pharmacy is important in these situations (Box 1).

Box 1. Some common characteristics of community pharmacies

- Located in, and have a long-standing commitment to, local communities
- Knowledgeable about their local communities and their health and social care needs
- Enjoy a positive reputation among the public — satisfaction and trust
- Accessible — long opening hours and no appointment needed for professional advice
- Interface extensively with both healthy and unwell people
- Provide public (contracted/funded) and private services
- Operate from regulated premises and with regulated professionals
- Provide for medicines supply, clinical advice/monitoring and health promotion
- Responsive to local needs and adaptable to offering new services

10. Optimising pharmacists' contribution to self care

Table 4 summarises what may be considered the key barriers and facilitators impacting on the full potential of pharmacists in self care. These factors are explained in greater detail in this section.

Table 4. Barriers and facilitators to full potential of pharmacists in self care

Factor	Barrier	Facilitator
Organisation of the health care system		
Skill-mix	Current estimate of global shortage of health workers is 7.2 million	Delegate appropriate tasks to pharmacy assistants and (regulated) technicians
Allied health professionals		Provision of coordinated/integrated health services
Enablers of services optimisation		
Point-of-care testing		Diagnostic and screening closer to the patient enhances access and convenience
Education and training of pharmacists and pharmacy student		Greater incorporation of self care instruction in pharmacy curricula
Regulation of the profession	Practice change challenges to a workforce focused on prescription supply	Protecting the safety and security of the public
Availability of service by time and jurisdiction	Determining resources and plan to implement best practices in self care	
Pharmacists as barriers	Status quo is not an option	Requirement for pharmacists to be on the leading edge of self care.
Guideline		
Guidelines — presence or absence of evidence-based guidelines		Pharmacists committed to the preparation of best practice guidelines
Implementing practice guidelines	The gap between best practice and clinical care is wide	Pharmacists committed to support guideline implementation
Innovation		
Innovation in service delivery	Time and support for pharmacists and incentives	Pharmacists committed to efficient and quality service delivery
Innovation in pharmacy organisation		Optimising pharmacist duties and patient interaction with pharmacy
Product-related factors		
Regulation of medicines		Ensuring available self care medicines are quality
Product advertising	Consumer understanding of the advertised risks and benefits	Potentially educating consumer on treatment options
IT and new technology		
Technology	The disconnect between various software programmes	Applying the best health apps, devices and communication technology

Factor	Barrier	Facilitator
Data collection	Logistics	Collecting data on the outcomes of treatments will be at the heart of future health services
Electronic health record	Accurate and secure access and management	Maximising patient responsibility, accuracy, leading to greater efficiency, safety and outcomes
Internet	Health information needs qualification and reference	Pharmacists committed to educating patients and providers as to which websites are trustworthy for health information.

10.1. Organisation of health care system

10.1.1 Skill mix: the rational redistribution of tasks among health workforce teams based on a set of unique skills.

The principle of using a skill-mix concept is to provide the best, most effective care for patients, emphasising the importance of: team working across professional organisations and boundaries; flexible working to optimise the range of staff members’ skills and knowledge; streamlining workforce planning and development, which stems from the needs of patients, not of professionals; maximising the contribution of all staff to patient care; modernising education and training to ensure that staff are equipped with the skills they need; developing new, more flexible, careers for all staff; and expanding the workforce to meet future demands. Development and application of the best skills by the best person can help various jurisdictions cope with an ageing population, address developments in the management of long-term conditions and provide service in a health workforce-deficient world.

Ever since the 2006 World Health Report advocated the systematic delegation of tasks to less-specialised cadres and “placing strong emphasis on patient self-management and community involvement”, there has been a great deal of debate about the expediency, efficacy and modalities of task shifting. It is estimated that sub-Saharan African countries will have to triple their current health workforce to come close to reaching the Health Millennium Development Goals. (103)

A critical issue is the intensity of human resources used in the medicines-use process and the rationale for how those resources are applied. Society will not be served well if we do not get the effectiveness and efficiency equation right. We must use technology and task shifting to improve pharmacists’ effectiveness and efficiency. (104)

10.1.2 Allied health professionals

Quoting from “Supporting Self Care in Primary Care”:

“Chambers *et al* state that many patients would benefit from, and indeed welcome, more information and support for self care — advice on lifestyle changes, how to manage minor ailments or to better self manage their long-term conditions. There is evidence to support claims that confidence in dealing with these challenges will improve quality of life for such individuals, but also it can give them better self-esteem which, in itself, leads to better health. With an appropriate programme, health care teams will be aware of the evidence for supporting self care, knowing what works and what is worth trying. It will also be well coordinated so that everyone is giving out similar advice and thinking of all aspects of a person’s health. Evidence shows that once self care is in place and patients are taking more control of their health care, one should notice a drop in the demand for unnecessary consultations and an improvement in patient health and well-being.” (105)

There are both facilitators and barriers to effective teamwork. Team-building interventions are described as one way of improving team effectiveness in primary health care, but their limitations are also acknowledged. The research will measure viability (the extent to which the team sufficiently sustains good relationships to continue working together) and team performance (achievement of desired outcomes). The overall aim is to develop a model of team effectiveness for primary health care, which can then be used to diagnose and guide teams in their work. (106)

Langins *et al* propose a list of competencies to be consolidated by the health workforce to realise coordinated/integrated health services delivery. They suggest a cycle for the process of competencies consolidation, identifying strategies required at the services delivery level and possible tools for implementation as well as describing the enabling conditions at the health system level and providing an overview of roles and responsibilities of key stakeholders involved. This approach may be useful to consider in relation to strengthening pharmacy practice in certain parts of the world . . . and transforming educational models. (107)

10.2. Enablers of services optimisation

10.2.1 Point-of-care testing

Point-of-care testing (POCT) diagnostics are medical tools or devices that can diagnose disease in a patient's community, generally outside a formal clinic setting. By shifting disease diagnosis to the community level, POCT diagnostics can save patients money (as they no longer have to travel to clinics), allow earlier diagnosis and expand access to previously under-served populations. Suggested steps in using POCT are, firstly, identify the major disease burdens in the community and the major gaps in existing diagnostics, and only choose a given POCT diagnostic if it responds to the needs of the community directly and effectively. Secondly, understand whether the diagnostic is suitable for a resource-limited setting by assessing its robustness, ease of use, accuracy and cost. Lastly, consider whether the organisation has the medical, financial, human and technology resources to adequately support the diagnostic and any required follow-up medical and support interventions. (108) Other POCT devices may be used to screen for or monitor various diseases or medical conditions.

Opportunities for the development of, barriers to and considerations of POCT in pharmacy are explored in many review articles. (109) (110) (111)

10.2.2 Education and training of pharmacists and pharmacy students

Self care instruction is incorporated into the pharmacy curriculum in many ways. Some colleges and schools require it to be a standalone course, while others offer it as an elective. Still others may integrate the curriculum within existing therapeutics courses or simulation laboratories. Although lecture is still the most common mode of delivery, active-learning strategies appear to be a growing trend. Use of active-learning strategies in the classroom to support and develop a student's ability to critically think and problem solve has been well established. (112)

There are many cases where self care has been incorporated into health care students' education. An innovative example of this comes from California, where a first-year diabetes self care education programme significantly improved pharmacy students' knowledge and confidence in providing diabetes self care education, and the majority immediately used their learnt skills to assist diabetes patients and caregivers. Training first-year pharmacy students in diabetes care so they are prepared to use these skills as early as their first year of pharmacy school may be an effective approach to increasing the number of providers available to counsel and care for this expanding patient population. (113)

The Pharmaceutical Group of the European Union (PGEU) has undertaken research in connection with pre- and post-qualification education and training of pharmacists in self care and in supporting reclassification by the European Commission Working Group on Promoting Good Governance for Non-prescription Medicines. One focus was on education in non-prescription medicines counselling and self-medication support.

According to a recent PGEU survey on common pharmacist activities in the EU, all PGEU members indicated supporting patients in self care as a core activity of community pharmacists in their countries. European community pharmacists are therefore expected to be competent in supporting self care and encouraging, assisting and providing the means for pharmacy clients to take responsibility for their own care. Good Pharmacy Practice is widely recognised and implemented among PGEU members.

Both the WHO and FIP have agreed that interprofessional education (IPE) is a foundation that leads to a collaborative, practice-ready workforce, and collaborative practice leads to a strengthened health care system, resulting in improved patient health outcomes. IPE is, therefore, a key strategy for initial and continuing professional education and training. IPE efforts should, ideally, involve both future and present health care workers, and should begin before registration or licensing and persist through the course of the career via continuing professional development (CPD). (114)

In the publication “Self care standards” by the Royal Dutch Pharmacists Association, various standards provide advice and background information that are important for quality self care advice. In order to manage the quality of the service and advice, guidelines/standards should be in place. Safety and risk/benefit analysis are important considerations for pharmacists and physicians to give professional advice. In self care, consumer health is a fast moving market and target. Individuals are confronted with new treatment methods through marketing and social media. Creating new, scientifically based, guidelines takes time. Pharmacists should be able to advise self care even before the new guidelines are issued. They possess knowledge and experience to be able to advise individuals even when official standards are not yet available.

A 2015 survey developed by the American Pharmacists Association on pharmacists as self care advisers highlighted various pieces of information to be gathered from patients to ensure medication effectiveness and to ensure safety. (45)

Complex institutional relationships between providers of clinical education, research organisations and health delivery systems are common to all developed countries. But how these relationships are interpreted differs between countries. In this respect, as in many other areas of health care, the US and the UK present a marked contrast. (115)

10.2.3 Regulation of the profession

Almost every country in their legislative statutes has legislation that regulates the profession of pharmacy with the interest of protecting the public. One example is from the National Association of Pharmacy Regulatory Authorities (Canada), namely, Model Standards of Practice for Canadian Pharmacists. (116) General Standard 24 encourages pharmacists to: “Ensure their availability to patients requesting assistance for purchasing of non-prescription medicine therapy or self care measures of disease management or health maintenance.”

Another example is from the Pharmaceutical Society of Ireland (the country’s pharmacy regulator) “Role of the pharmacist in self care” publication. (117) Ireland’s Pharmacy Act 2007 requires that the supply of medicines be from a pharmacy under personal supervision of a pharmacist. The pivotal role of the pharmacist is to ensure and facilitate appropriate medicines utilisation. There are legislative requirements that when supply occurs, information and advice be provided. A robust regulatory framework provides for opportunity to develop pharmacy services. Certain sections of the Act look at evolving roles in respect of ensuring health, medicines use review, medicines management and screening. There is supportive evidence that the development and promotion of self care is of value for the patient and of value for public health. Pharmacists have a significant role in self care as medication experts committed to patient care. The emerging evidence supports this. Pharmacists are obliged to take increased accountability and responsibility for the safe and effective use of medicines. The pharmacist has a role in promoting wellness and disease prevention and empowering patients in collaboration with other health professionals.

10.2.4 Availability of service by time and jurisdiction

As community pharmacies are implementing increasingly more clinical services they are faced with a new challenge of marketing these services. One article entitled “Community pharmacy marketing: Strategies for success” discusses The Ohio State University College of Pharmacy Clinical Partners Program’s (Clinical Partners) experiences in marketing clinical services to patients and barriers encountered through these experiences, and presents suggestions for future marketing of services. (118) National surveys, for example, “Canadian community pharmacy trends and insights 2015”, report that various expanded services that connect with self care have various factors that may be facilitators or barriers. (119)

10.2.5 Pharmacists as a barrier to self care

Is pharmacy ready to be seen by policymakers, consumers and other health care providers as a credible alternative in the delivery of patient-focused services? It is first necessary to know how willing pharmacy is to practise change. Many countries have produced “road maps” or “blueprints” for becoming more patient focused, but translating these into actual practice has proven slow and problematic. As stated by Everett Rogers in his book “Diffusion of innovations”, typically only 2.5% of a population performs as innovators and 13.5% will be early adopters. Research reporting on the introduction of new cognitive services often cites predictable barriers to practice change, including issues such as time, funding and limited support. Rosenthal *et al* considered the culture of pharmacy to explain this reluctance to change. They argued that pharmacists’ lack of confidence in their own clinical ability and fear of taking on responsibility and accountability are stifling the ability of the profession to take on these new challenges. The literature seems to suggest that

pharmacists themselves are a major barrier to adopting behaviours that would allow facilitated self care and self-medication. (2)

Regardless of what degree of control is placed on medicines availability in different countries, pharmacists can now manage and treat a wider number of conditions than before. This raises the question as to whether pharmacists are capable of selling these medicines appropriately. Lamsam and Kropff found that in a third of interactions the pharmacists made recommendations without assessing the patient's symptoms and in a further third of cases recommendations were poor, which could have potentially caused harm. (120) Rutter et al found that the expected outcome was only reached in half of observed cases. (121)

The use of protocols/guidelines and mnemonics seems to have been almost universally adopted by pharmacy, yet performance using these decision aids seems to have little impact on improving performance. Recent research findings on investigating pharmacists' diagnostic decision-making have shown that community pharmacists show poor clinical reasoning due to over reliance on protocol-driven questioning. (122) (123) (124)

In an attempt to drive standards up, it would seem logical, then, to involve the pharmacist earlier and more frequently in consultations. This raises questions over the level of importance placed on differing pharmacy tasks and the appropriate use of staff in community pharmacies. Data over the past 20 years suggest that pharmacists still spend the largest amount of their time in non-patient-focused activity. Undoubtedly this is dictated, in large part, by prescription volume, but it also suggests a reluctance to move out of the dispensary. It appears that pharmacists' ability to consistently and appropriately facilitate self care through managing people requesting advice on signs and symptoms has improved little over the past 25 years.

10.3. Guidelines

10.3.1 Presence or absence of evidence-based guidelines

Regardless of the source or focus, best practice guidelines are developed and implemented to achieve one or more of the following objectives:

- To deliver effective care based on current evidence
- To resolve a problem in the clinical setting (e.g., poor management of pain)
- To achieve excellence in care delivery by meeting or exceeding quality assurance standards
- To introduce an innovation (e.g., a new test or treatment)
- To eliminate use of interventions not recognised as best practice
- To create work environments that enable clinical excellence

A Best Practice Guidelines Toolkit (Figure 13) by the Registered Nurses' Association of Ontario is based on emerging evidence that the likelihood of achieving successful uptake of best practice in health care increases when:

- Leaders at all levels are committed to support facilitation of guideline implementation
- Guidelines are selected for implementation through a systematic, participatory process
- The guideline is tailored to the local context

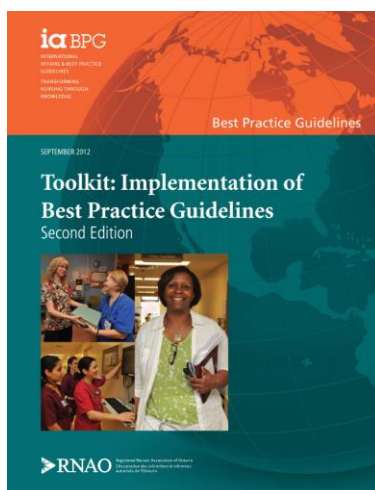


Figure 13. Cover of the “Toolkit: Implementation of Best Practice Guidelines”

10.3.2 Implementing practice guidelines

One of the most consistent findings in health services research is the gap between best practice (as determined by scientific evidence) and actual clinical care. Studies in countries such as the USA and the Netherlands suggest that at least 30 to 40% of patients do not receive care according to current scientific evidence, while 20% or more of the care provided is not needed or is potentially harmful to patients. (125)

Kaplan highlights physician barriers to new guidelines and steps to improve guideline implementation. Some of the physician barriers listed were: lack of awareness, lack of familiarity, lack of agreement, lack of self-efficacy and inertia of clinical practice. (126) Examples of some of the steps to improve guideline implementation were: highlight new evidence with each new iteration of guidelines, ensure simplicity and clarity of messages tailored to each intended audience, create a clear directive call to action that will energise stakeholders, and develop the dissemination/implementation plan in parallel with the development of the guidelines. (127)

A further paper discusses the quality of self care counselling by pharmacy practitioners, supported by IT-based clinical guidelines. Software-guided counselling (following national clinical guidelines) improves patient self care practices and reduces the burden on the health care system by making it such that fewer patients seek physician counselling. (128)

A 2014 article in *Australian Family Physician* premises that implementing best practice care for patients with chronic and complex conditions is one of the greatest challenges facing general practice and other primary care providers. It has been suggested that digital technologies could assist by decreasing the administrative burden of care delivery, improving quality of care, increasing practice efficiencies and better supporting patient self-management. (129)

10.4. Innovation

10.4.1 Innovation in service delivery

Researchers from the University of Alberta and the University of Waterloo (Canada) are researching innovation in service delivery according to the Canadian Foundation for Pharmacy. (130)

The University of Alberta’s Christine Hughes and her research team will examine how pharmacists provide patient care services using the pharmacy services framework in Alberta. Working with the Alberta Pharmacists Association, researchers will explore relationships between real-life community pharmacy practice and the development and implementation of care plans. The hope is that study findings will inform policymakers interested in reimbursement frameworks as well as professional organisations looking for ways to support pharmacists’ practice change. Examples of innovation in service delivery research are listed in Table 5.

Table 5. Innovative practice in Canada

Name, position	Innovative research/practice
Tejal Patel, assistant professor, University of Waterloo, Canada	Investigating the use of pharmacist interventions to reduce polypharmacy and high-risk medication among the frail elderly in the primary care setting. With pharmacists being increasingly integrated into primary care practices, this study will highlight pharmacists’ potential to improve care and outcomes among the most vulnerable in the population.
Sherilyn Houle, assistant professor, University of Waterloo, Canada	Investigating the clinical effectiveness and patient satisfaction of a pharmacist-managed travel medicine clinic under a pharmacist’s expanded scope of practice. While previous research has looked at patient satisfaction, clinical appropriateness and acceptance of recommendations provided with pharmacist travel consultations, none of these was within the context of the pharmacist being an independent prescriber of these therapies.
The University of British Columbia, Canada	The clinic looks more like a family practice office than a typical pharmacy — it has nothing to sell and you can’t have a prescription filled there. But a patient can have a free hour-long consultation in-person, by phone or via Skype. A pharmacy student can develop hands-on practice skills with real

Name, position	Innovative research/practice
	patients so they can be ready to provide medication management on day one of their first job. A pharmacist can access tools and resources for their practice, volunteer and even participate in a unique five-day immersion experience. (131)

10.4.2 Innovation in pharmacy organisation

Clinical pharmacy has a rich history of advancing practice through innovation. These innovations helped to mould clinical pharmacy into a patient-centred discipline recognised for its contributions to improving medication therapy outcomes. A view of the publishers is that the growth of academic-practice partnerships could stimulate innovation among the next generation of pioneering clinical pharmacists. The academic-practice partnership can be optimised by making both partners accountable for the desired outcomes of their collaboration, fostering symbiotic relationships that promote value-added clinical pharmacy services and emphasising continuous quality improvement in the delivery of these services. Optimising academic-practice collaboration on a broader scale requires both partners to adopt a culture that provides for dedicated time to pursue innovation, establishes mechanisms to incubate ideas, recognises where motivation and vision align and supports the purpose of the partnership. With appropriate leadership and support, a shift in current professional education and training practices and a commitment to cultivate future innovators, the academic-practice partnership can develop new and innovative practice advancements that will improve patient outcomes. (132)

Pharmacy practice innovation can be categorised into:

- Collaborative primary health care teams
- Expanded prescribing authority
- Chronic disease management
- Health promotion and disease prevention
- Continuity of care and medicines reconciliation
- Consulting and cognitive services
- Enablers: Automation, information and communication technology, and pharmacy technicians (133)

10.5. Product-related factors

10.5.1 Regulation of medicines

Self-medication moves patients towards greater independence in making decisions about management of minor illnesses, thereby promoting empowerment. Self-medication also has advantages for health care systems as it facilitates better use of clinical skills, increases access to medicines and may contribute to reducing prescribed medicine costs associated with publicly funded health programmes. However, self-medication is associated with risks such as misdiagnosis, excessive medicine dosage, prolonged duration of use, medicine interactions and polypharmacy. Polypharmacy may be particularly problematic in the elderly. Monitoring systems, a partnership between patients, physicians and pharmacists and the provision of education and information to all concerned on safe self-medication are proposed strategies for maximising benefit and minimising risk. (134)

Based on the results of a literature review of the Good Pharmacy Practice roles relating to antimicrobial resistance (AMR) and a survey conducted among the WHO European Member States, a report outlines the roles of pharmacists in health improvement and, since they are often the first point of contact for patients, their potential as important allies in the fight against AMR. The report illustrates that pharmacists already have experience in treating patients with antibiotics, both responsibly and within an appropriate legal framework. It also indicates, however, that in many countries the general public can still buy antibiotics over the counter without a diagnosis or prescription and use them at will. Pharmacists are among the best positioned to influence the appropriate use of antibiotics and, therefore, have a crucial role to play in combatting AMR alongside policy-makers and general practitioners. (135)

10.5.2 Product advertising

An article discusses the methods by which medicines are approved for OTC use by the US Food and Medicine Administration, and also reviews trends and issues related to self care with OTC medicines, including cost-effectiveness, managed care, advertising and safety. The clinician should assume that OTC use is a common patient self care behaviour; therefore, information regarding the patient's OTC use should be collected during the history taking. Other implications of OTC use for primary care providers are proposed. (136)

The global market for OTC products is USD 111bn. (137) There are both agreements and disagreements on the merits of advertising these products.

Two studies on the aspect of advertising and labelling of over-the-counter medicines are “Has labelling and advertising abrogated the role of the pharmacist in advising consumers on appropriate use of OTCs in a developing country’s perspective?” and “The effect of medicine advertising on use of OTC medicines: What does the research show?” (138) (139)

According to Karmanova, non-professional choice is based mostly not on medical aspects, but on psychological and social aspects. Consumers depend on different sources of low quality information. Such activity can lead to terrible consequences not only for individual health, but also for social health and personal dissatisfaction. Some 62% of responders make decisions based on physicians’ advice, 56% on personal experience and 17% on pharmacists’ advice. Self-dependent choice of medicines usually is based on the price of the medicine (28%) and the origin of the medicine (22%). (89)

In a Ukrainian study, the overall percentage of people who prefer self-medication was as much as 89.8% and only 10.2% of citizens used the physician’s services. Analysis of the results obtained suggested an intimate connection between the quantity of advertising and level of self-medication. (140) Other reports indicate that physician advice was used five times more often than pharmacists’ advice. (89) (141) (142) At the same time, the importance of pharmacist advice for patients differs by only 1.3 points to the importance of physician advice (5 and 6.3 points, respectively). (143)

10.6. Patient factors

10.6.1 Culture (patient values, cultural norms)

Patient-centredness and cultural competence are movements in health care that have garnered a great deal of attention and momentum in the past decade. Both aim to improve health care quality, but the emphasis of each is on different aspects of quality. The primary aim of patient-centredness has been to individualise quality, and to complement the health care quality movement’s focus on process measures and performance benchmarks with a return to emphasis on personal relationships and “customer service”. As such, patient-centredness aims to elevate quality for all patients.

The primary aim of the cultural competence movement has been to balance quality, to improve equity and reduce disparities by specifically improving care for people of colour and other disadvantaged populations. Because of these different emphases, patient-centredness and cultural competence have targeted different aspects of health care delivery. Despite these different focuses, however, there is substantial overlap in how patient-centredness and cultural competence are operationalised and, consequently, in what they have the potential to achieve. Individualising care must take into account the diversity of patient values and perspectives; to the extent that patient-centred care is delivered universally, care should become more equitable.

Enhanced awareness and sensitivity to Amish lifestyles and beliefs, for example, can lessen misconceptions and minimise barriers that interfere with optimal provision of patient-centred pharmacy care and services. Pharmacists can best serve Amish communities by working through established community norms, building trust and effectively applying cultural competency techniques. (144) Different steps to take towards culturally competent pharmacy practice are described in Figure 14.



Figure 14. Seven components to improve culturally competent care in a variety of practice sites. (145)

It is notable that in various jurisdictions, while the meanings of the terms “medical help” and “medical services” are similar, they are not identical. In the former case the consumer is a passive object; in the latter, the consumer is an active object. (146) Therefore the legislative, religious, political and cultural standards should allow such forms of medical and pharmacy activity.

As noted previously, especially with consideration to various cultures and perceptions, it is important for health professionals to understand that health and, therefore, the quality and measurement of health means different things to different people.

10.6.2 Education of citizens (in terms of determinants of health)

The link between social determinants of health (including social, economic and environmental conditions) and health outcomes is widely recognised in the public health literature. Moreover, it is increasingly understood that inequitable distribution of these conditions across various populations is a significant contributor to persistent and pervasive health disparities. One effort to address these conditions and subsequent health disparities is the development of national guidelines. One of the many approaches to achieve health equity is education not only of individuals, but also of communities. (147)

The public and other health care professionals need to be made aware of the services and support that pharmacies have to offer. Pharmacy bodies and health ministries should work together on public awareness campaigns. Pharmacies are located at the heart of the communities they serve. Often they are the only health service in that area. This offers a major opportunity for pharmacy to reinforce its position as the first line of health care. A European Pharmacists Forum White Paper has identified five key areas where pharmacies can and should play a greater role in improving public health and delivering better primary care: medicines adherence, vaccinations, screening, self care and disease prevention. (148)

10.7. IT and new technology

Three key issues — people (patients and workforces), systems (organisation and finance) and medicines and technologies — lie at the heart of the challenges facing today’s health systems.

With regard to medicines and technologies, the best treatments are only effective if they are actually used by patients in the way that manufacturers and prescribers intend. There is now an increasing trend to use technology to support patients’ treatment. This includes greater use of point-of-care testing and self-monitoring to ensure that treatments can be rapidly adjusted to match patients’ needs. Community

pharmacies, with their great accessibility, are emerging as key places for services based on rapid testing. Patients and carers are taking a much greater interest in obtaining, owning and using their own health data. Patients are increasingly able to collect measurements of their own health, and real-time indicators are expected to become more common with wearable technologies, such as smart watches.

The health apps available for smartphones largely fall into one of the following categories:

- Measuring “health”, including programmes to help monitor variables associated with health, e.g., calorie intake, exercise parameters, quitting smoking and sleep.
- Health advice, including health tips and, e.g., what to expect week by week in a healthy pregnancy.
- Symptom checkers and triage, which, essentially, help people decide whether symptoms are serious or not, and what action to take. Some of these originate from health care providers, e.g., the NHS in England.
- Programmes to use with hardware, which are designed to measure parameters that can help monitor chronic disease. The best known of these relate to diabetes and tracking blood sugar but there are also, for example, apps that measure pulse oximetry when linked to appropriate hardware in patients with chronic obstructive pulmonary disease. Pharmacists can be integral in assisting and assessing various devices and applications.

In the field of apps for adherence, a recent example which shows the potential of these in helping to encourage patient adherence to medication regimens is the development of smart inhalers. AstraZeneca is just one of many pharma companies partnering with Adherium, an Australian company that makes a line of US Food and Drug Administration cleared smart inhaler attachments. In addition to collecting and analysing usage data via the partnering app, alerts can be set by the user or automatically generated in the case of missing doses of controller medicines and increased use of rescue medicines. (149)

The power of the connected device ensures that patients have access to huge amounts of personal information that has been passively collected for years, and which something can now be done with. Consultations can take place remotely, when their smartphone tells them it is time. Care in the community can free precious resources. Almost everything we do generates data — health care systems must adopt digital wizardry to take advantage of the self care era. (87)

Smartphone owners see devices changing how they manage their health. More than one third of adult smartphone owners claim they are healthier thanks to their devices and use of apps, and the health and wellness industry may be the next digital frontier. In a survey regarding the digital impact on various industries and consumer segments polling 1,000 smartphone owners aged 18 years and older, 86% claimed smartphones allow them more control over their lives. About half, 49%, wanted their physicians to use data collected from a fitness tracker and health apps, and 80% expected physicians would offer key functionality via smartphone apps within the next two years. Use of a tethered mobile personal health record system can spur patient empowerment with regard to treatment, boost communication between patients and caregivers, reduce medical errors and improve safety, according to research published in *Telemedicine and e-Health*. Within the next two years, smartphones and apps will impact on health and wellness management as much as smartphone use in the more “digitally mature” banking and retail industries. (150)

The use of text messaging in a study revealed that “among patients with coronary heart disease, the use of a lifestyle-focused text messaging service compared with usual care resulted in a modest improvement in LDL-C level and greater improvement in other cardiovascular disease risk factors. The duration of these effects and hence whether they result in improved clinical outcomes remain to be determined.” (151) A further example of a smartphone app helps consumers with the preparation, maintenance and use of a medicines list that can be a useful way to keep all the information about medicines together. Keeping an up-to-date list of all one’s medicines will help one to get to know the medicines, get better results from them and enjoy better health. It can also remind users how and when to take medicines to get the most out of them, help everyone involved in health care to know which medicines are being used and thus prevent medicines mistakes, help physicians and pharmacists to check and review medicines so they can help in making the right decisions about health, and provide vital information about medicines in an emergency, helping to ensure safety.

10.7.1 Data collection

Almost everything we do generates data — health care systems must adopt digital wizardry to take advantage of the self care era. (87) In some instances, telehealth, the remote exchange of data between a patient and medical staff, with adequately developed common data elements, should provide tele self care management and improve quality of care. (152)

Collecting data on the outcomes of treatments will be at the heart of future health services. Pharmacies need to see data collection as part of their core role. Pharmacists need full access to shared online health records. (29)

A new mHealth app may boost chronic disease management by using health informatics data to spur increased self care by patients managing diabetes. The researchers say advanced analytics and data mining can improve development of personalised tools to help chronic care management and also identify behavioural changes to improve outcomes. New ways to engage patients as active participants in the management of their care will derive from the shift from volume-based to value-based reimbursement models. (153)

Data collection in self care activities is important. Sharing and analysis of any such consumer data will undoubtedly lead to better individual health management and potentially to better population health. Studies have indicated that sharing of self-monitoring of blood glucose (SMBG) data and subsequent feedback from the health care provider can help achieve glycaemic goals such as a reduction in glycated haemoglobin. Electronic SMBG data management and sharing tools for the PC and smartphones may help in reducing the effort to manage SMBG data. (154)

10.7.2 Electronic health record

Apple, Google and other tech giants are rapidly developing health platforms that may soon offer all-in-one health solutions for consumers and medical professionals based on the generation, recording, analysis and storing of patient health data to improve the diagnosis, monitoring and management of disease. (5) There may well be value in the further development of a readable/writable electronic health record (eHR) accessible by pharmacists to help in patient self care. One segment of any eHR would be a medicines information system. That system would have several benefits: a comprehensive overall profile of a person's medication information, fewer adverse medicine reactions, detection of potential medicine-to-medicine interactions, sharing of information between authorised health care providers, and avoiding duplication of medicines. (155) OTC medicines are the most commonly excluded parts of the eHR and more emphasis needs to be placed on these medicines for inclusion in the eHR. In a study looking at elderly patients' OTC medicines use, 33% of use was not reported in the electronic medical records. Of those who reported OTC use, 50% of patients had at least one drug interaction. (156) In a study evaluating medication discrepancies in electronic medical records, patient omission of OTC medicines or products was responsible for over 60% of discrepancies found. (157)

A pilot of community pharmacy-based review clinics of patients with specific long-term conditions (LTCs) was established in collaboration with three physician practices. The clinics were facilitated by remotely accessing the physician server, thereby providing the pharmacist with the ability to perform a full clinical review with the patient. This included recording relevant diagnostic results, conducting a medication review, noting advice given to patients and recording outcomes. A confidential patient survey at the end of each consultation highlighted patients' satisfaction with this service, with 97% indicating they were very satisfied with the care they received and 99% stating they had received the same level of care as expected from a consultation within the physician practice. The results demonstrate that remote access community pharmacy clinics improves patient access to LTC review clinics. (158)

10.7.3 Internet

People increasingly rely on health information sourced through the internet and social networking tools. The access to information is having a profound impact on our health care systems in that patients now present with arguably more knowledge of their condition and the ways in which it can be treated. According to recent studies, 34% of people already search for health information using social networking tools. Also they use a wide variety of sources to gather information (e.g., www.patientslikeme.com/) that would historically have been accessed primarily through health professionals. Information is not necessarily education and today's pharmacy patient who has done some initial investigation wants their assessment corroborated and may need an evaluative comment on the possible treatment options. Indeed, providing authoritative, evaluated and contextual information, particularly about medicines, is a critical role of the pharmacist.

An Accenture survey of 1,100 US patients shows that most patients (90%) would prefer to use the internet, mobile devices and e-mail to self-manage their own health care information and services, such as refilling prescriptions and booking appointments. Whether they obtain their care in person or remotely, patients receive "personalised care" as long as their personal health information and services can be self-managed, individually tailored for them and transparent. (159)

The survey also indicated that the vast majority of patients (90%) wanted to self-manage their health care leveraging technology, such as accessing medical information, refilling prescriptions and booking appointments online, but nearly half (46%) were unaware if their health records were available electronically. Furthermore, the survey also found that while people wanted to increase access to digital channels, most of those surveyed (85%) also wanted to preserve their in-person interactions with physicians when needed. “Patients increasingly want access to their personal medical information, anytime, anywhere, but they’re not willing to give up the option of face time with their physicians.” (160)

From a 2013 Pew Research survey, 35% of US adults (called “online diagnosers”) say that at one time or another they have gone online specifically to try to figure out what medical condition they or someone else might have. Fifty-three % of them talked with a clinician about what they found online; 41% of online diagnosers had their condition confirmed by a clinician; 59% of US adults have looked online for health information (from 72% of the 81% who use the internet) in 2013. Eight in 10 online health inquiries start at a search engine. (161) The internet, primed as the next generation of health care delivery, is thus an influential force and, as such, this medium could have a revolutionary role in retooling the trillion-dollar US health care industry to improve patient self-management, patient satisfaction and health outcomes.

Studies have shown that many patients are interested in internet-based technology that enables them to control their own care. As a result, innovative eHealth services are evolving rapidly, including self-assessment tools and secure patient-caregiver email communication. Patients and caregivers may encounter problems when using self care applications. The aim of a study by Nijland *et al* was to determine user-centred criteria for successful application of internet-based technology used in primary care for supporting self care. The authors concluded, in part: “Patients’ and caregivers’ expectations did not correspond with their experiences of the use of the internet-based applications for self care. Patients thought that the applications would support them in solving their health problems. Caregivers were more reserved about the applications because of medico-legal concerns about misuse. However, the applications failed to support self care because eHealth is more than just a technological intervention.” (162)

11. Recognition and integration of the pharmacists' contribution in the overall health care system

Many governments are realising the importance and need to have pharmacists more closely connected to and within their respective health systems. This connection comes with challenges in the integration within the system, remuneration of the services provided and fair product reimbursement.

Notable schemes that have been developed are described in this section.

11.1. Minor ailment scheme

One of the best examples of a national government developing a strategy for citizen health under the heading of minor ailments is that in Scotland. The government strategy for pharmaceutical care in Scotland (39) — “The right medicine” — is part of its “Delivering for health” strategy.

NHS National Services Scotland reported information on the Minor Ailments Service (MAS) that allows community pharmacies to provide direct care to eligible individuals for common conditions which require little or no medical intervention. The MAS supports the provision of direct pharmaceutical care within NHS Scotland. It allows eligible people to register with a community pharmacy for the consultation and treatment of common conditions. The pharmacist then advises, treats or refers the person (or provides a combination of these actions) according to their needs. (163)

Key points:

- At 31 March 2015, nearly 18% of the population of Scotland was registered for the MAS.
- Over 2.1 million items were dispensed under the MAS, accounting for 2.2% of all items dispensed by community pharmacies in Scotland.
- The cost of items dispensed under the MAS in 2014/15 was GBP 5m.
- Paracetamol (in all formulations) was the medicine most frequently dispensed through the MAS in 2014/15, accounting for 21.4% of items dispensed.

Every community pharmacy in Scotland had patients registered for the MAS at 31 March 2015. The total number of registrations increased by 2.0% between financial years 2013/14 and 2014/15.

The Pharmaceutical Journal reported “excellent value for money that this service brings to the Scottish taxpayer. With so much pressure placed on [physician] surgeries and [physicians], it is extremely encouraging to see some of that pressure being lifted through effective implementation and running of the Minor Ailment Service. Without a doubt, this is one of the most innovative and successful pharmacy services ever brought to fruition. There's nothing from stopping the pharmacy profession from continuing to have something to shout about when it comes to promoting the Minor Ailment Service.” (164)

11.2. netCare

The Swiss Pharmacists Association has launched a new collaborative project, netCare. Community pharmacists provide a standard form with structured triage based on decision trees and document findings. As a back-up, they can collaborate with physicians via video consultation. (165)

The aim of was to evaluate the impact of this service on the Swiss health care system.

All pharmacists offering netCare completed two training courses, a course covering the most common medical conditions observed in primary health care and a specific course on all the decision trees. The pharmacists were free to decide whether they would provide the usual care or offer netCare triage. The patient was also free to accept or refuse netCare. Pharmacists reported the type of ailment, procedure of the consultation, treatment, patient information and outcomes of the follow-up call on a standardised form submitted to the study centre.

Pharmacists from 162 pharmacies performed 4,118 triages over 21 months. A back-up consultation was needed for 17% of the cases. In follow-up calls, 84% of the patients who were seen only by pharmacists reported complete relief or symptom reduction.

netCare is a low-threshold service by which pharmacists can manage common medical conditions with physician back-up, if needed. This project showed that a pharmacist could resolve a large proportion of the cases. However, to be efficient and sustainable, this service must be fully integrated into the health care system.

12. Linking self care factors and pharmacist activities

There is much evidence demonstrating that pharmacy input into self care is highly effective. The value of this pharmacist input derives from:

1. The competency factor: pharmacists' ability to safely and effectively assess minor illness and distinguish it from major disease
2. The economic factor: the ability to support self care efficiently, by reducing health costs, both in terms of medicine and salary costs and through indirect costs by enabling people to remain at work or minimise time off work
3. The integration factor: the ability to ensure continuity of care
4. The communication and access factors: the ability to interact and interface effectively with the public

The relationship between self care factors and pharmacists' activities is described in Table 6.

Table 6. Pharmacists' role in supporting self care factors

Self care factor	Pharmacist activity
Access to medicines	The wider availability of safe, proven and affordable medicines has the potential to make a positive impact on public health by providing consumers with easier, more convenient and faster access to therapeutic products to treat illness and maintain good health. (166)
Access to pharmacists	Pharmacists play vital roles in health care delivery systems, as they are highly accessible among all health care workers, and provide a wide range of services ranging from manufacturing and regulating medicines, distributing and dispensing medicines, to providing medicines information and pharmaceutical care services. They also serve as regulators and policymakers to control, manage and supply quality medicines to their countries, and as educators and researchers for pharmacy education and health-related research areas. (167)
Adherence to therapy	Pharmacists increase patient adherence to medication therapy, improving health outcomes and lowering health care costs. (168) (169) (170) (171)
Affordability of self care	Encouraging people to take more responsibility for their own health through self care is seen as an important potential opportunity to achieve a double positive effect of better health and at lower cost. Without self care and self-medication, the resulting increase in physician and hospital costs will further strain health care systems. (101)
Adverse medicine event	The MedEffect program (Canada) provides centralised access to relevant and reliable health product safety information as it becomes available in an easy-to-find, easy-to-remember location, makes it as simple and efficient as possible for health professionals and consumers to complete and file adverse reaction reports via web, phone, fax or mail, and builds awareness about the importance of reporting adverse reaction reports, and how this information is used to identify and communicate potential risks.
Assessment	Patient assessment and documentation integrated in community practice: Chat, Check, and Chart (172)
Behaviours	Brief advice and intervention from physicians and other professionals — with information or decision aids — is one of the most effective and cost-effective ways to change behaviour. (173)
Coaching	Research indicates that self-management is important but does not have lasting benefits without support from health care professionals, that is, health coaching. (174)
Collaboration	Medication therapy management is offered as an all-encompassing model that incorporates the philosophy of pharmaceutical care, techniques of

Self care factor	Pharmacist activity
	patient counselling, and disease management in an environment that facilitates the direct collaboration of patients, pharmacists and other health professionals. (175)
Determinants of health	To practise effective self care, individuals and communities should address a wide range of social determinants of health. (1)
Disposal of medicines	One report has as an underlying premise, namely, the concept that pharmacists should accept a degree of responsibility for changing the entire medication-use process so as to minimise the environmental effects of pharmaceuticals — the entire process of prescribing, dispensing, pharmaceutical care, disposal of unused medicines and ultimately reduction in metabolic waste discharge into the environment. (176)
Education	Educating patients about self-management can improve their knowledge and understanding of their condition, coping behaviour, adherence to treatment recommendations, sense of self-efficacy and symptom levels. Computer-based self-management education and support help to increase a patient's knowledge and self care ability and help improve social support, leading to better health behaviour and a better outcome. (177)
Education — pharmacist	Identification of potential benefits of performance feedback data to pharmacists' practice and performance. (178)
Global workforce	In many countries, pharmacists are the most accessible of all health care workers and as such play a key role in the delivery of health care services, particularly the safe distribution of medicines at all levels. In an era of rapidly accelerating change in health care delivery, the roles of pharmacists are constantly being redefined, as roles, competency, and training requirements change. (179)
Good Pharmacy Practice	Good pharmacy practice guidelines are intended to provide a description of ways in which pharmacists can improve access to health care, health promotion and the use of medicines on behalf of the patients they serve. (14)
Health literacy	Responsible self care, founded in health literacy and informed by two-way communication with health professionals, plays an ever more important role in health delivery around the world. (5)
Health programmes	There is a myriad of services and public health programmes that are offered to varying degrees by pharmacists. (180)
Health promotion	Community pharmacists, in addition to ensuring an accurate supply of appropriate products, also cover counselling of patients at the time of dispensing of prescription and non-prescription medicines, medicine information to health professionals, patients and the general public, and participation in health promotion programmes. (181)
Innovation	Pharmacists continually strive to be innovative, e.g., there are six categories of innovation outcomes in community pharmacy: improved patient care; increased external collaborative working with other health professionals; greater business efficiency and effectiveness; improved inter-pharmacy relationships; improved intra-pharmacy relationships; and increased professional esteem and recognition. (182)
Lifestyle	Community pharmacists play a significant role in supporting patients in self care, which broadly speaking encompasses: hygiene advice (general and personal), nutrition advice and counselling (type and quality of food eaten, etc), lifestyle advice and counselling (sporting activities, leisure, etc) and self-medication support. (183)
Minor ailment schemes	Low reconsultation and high symptom resolution rates suggest that minor ailments are being dealt with appropriately by pharmacy-based minor ailment schemes. (184)
Person-centred care	The scope of pharmacy practice now includes patient-centred care with all the cognitive functions of counselling, providing medicines information and monitoring medication therapy, as well as technical aspects of pharmaceutical services, including medicines supply management. It is in

Self care factor	Pharmacist activity
	the additional role of managing medication therapy that pharmacists can now make a vital contribution to patient care. (185)
Point-of-care testing	Point-of-care testing (POCT) is defined as “diagnostic testing performed at or near the site of patient care”; it is a supplement to, not a replacement for, central laboratory testing. POCT may be performed by pharmacists as part of a screening event at a community pharmacy. The concept of POCT has been integrated as a vital part of wellness promotion and disease management programmes in community pharmacies. POCT provided by pharmacists is a logical addition to a patient-focused care programme. (110)
Product labelling	The label comprehension model for improving warnings relating to serious side effects of medicines can serve as a reasonable approach with acceptable cost and with rapid turnaround for regulatory agencies, companies and independent researchers interested in improving the likelihood that product labels and labelling will be used to help improve medication safety. (186)
Quality of medicines	Pharmacists support enhanced standards for the development, production and distribution of medicines, foster compliance with those standards, and fight for the elimination of substandard and counterfeit medicines. (15)
Referral	As the most accessible member of the health care team, pharmacists are trained to work with patients to answer questions and assess their condition or health needs to help determine if self care is appropriate or if medical care/referral is needed. (187)
Regulations and lay representation	Various pharmacy Acts and regulations respecting the practice of pharmacy require that certain councils have a minimum number of non-pharmacist appointees to represent public interest. (188)
Risk factor modification	Life is a combination of non-modifiable and modifiable risk factors. Examples of modifiable risk factors are physical inactivity, obesity, hypertension, smoking, diet and alcohol consumption. (189)
Role of pharmacist	The roles of pharmacists — communicator, quality medicine supplier, trainer and supervisor, collaborator and health promoter — are continually expanding. (148)
Safe use of medicines	A significant decrease in the proportion of women with any paracetamol use in early pregnancy was noted after access to large packs was restricted by legislation. (190)
Satisfaction	One literature review found that most person-centred care interventions for people with long-term conditions included attempts to educate patients or prompt them about how to manage a health consultation. There were some promising findings in terms of patient satisfaction and perceived quality of care. (191)
Self-awareness	Self-awareness is important because when we have a better understanding of ourselves we are able to see ourselves as unique and separate individuals. We are then empowered to make changes and to build on our strengths as well as identify areas where we would like to make improvements. (192)
Self care benefit	Health improvements have been seen in people adopting health-enhancing behaviours rather than just through medical intervention. This has led to self care being seen in a broader context than just the way in which people deal with everyday illness. (2)
Self care risk	Self care relies on the patient making correct decisions, in response to the symptoms they are experiencing, about the appropriate use of medical care. The risk is that the patient may miss something subtle but important about their symptoms, thereby leading to a misdiagnosis and potentially inappropriate treatment. Delay in seeking necessary professional advice could lead to delays in diagnosing more serious illnesses. It is important that people wanting to self care have access to quality advice and information, at the right time, together with the right support. (193) Input from a pharmacist should eliminate or minimise these risks.
Self-medication	Self-medication is just one element of self care and can be defined as the selection and use of advised or non-advised medicines by individuals to treat self-recognised illness or symptoms. How these medicines are made available to the public varies from country to country.
Support	Supporting people to be more involved in behaviour change is likely to be successful in many cases, and a good use of scarce resources. (173)
Symptom control	The way in which consumers decide on particular courses of action is primarily influenced by the perception of symptoms experienced, and their

Self care factor	Pharmacist activity
	severity and duration. Consumers strongly exhibit certain health-seeking behaviours depending on the signs and symptoms experienced. (2)
Skill-mix	Pharmacists are suitably placed for task shifting in health care and could be further trained to undertake functions such as clinical management and laboratory diagnostics. Indeed, pharmacists have been shown to be willing, competent, and cost-effective providers of what the professional literature calls “pharmaceutical care interventions”; however, internationally, there is an under-use of pharmacists for patient care and public health efforts. (194)
Technology	There is now an increasing trend to use technology to support patients’ treatment. This includes greater use of point-of-care testing and self-monitoring to ensure that treatments can be rapidly adjusted to match patients’ needs. Community pharmacies, with their great accessibility, are emerging as a key place for services based on rapid testing. (148)
Triage	A pharmacist-patient interview may conclude with up to three decisions: the patient does not need any product for the condition, the condition requires professional intervention, or the patient is a candidate for self care. (195)
Value — convenience	The convenience of self care may be a “wish” factor of easy access to appropriate resources and cost-savings, or a “need” factor due to lower levels of health infrastructure. (2)
Value — personal	The literature shows that proactive, behaviourally focused self-management support designed to increase self-efficacy can have a positive impact on people’s clinical symptoms, attitudes and behaviours, quality of life and patterns of health care resource use. (43)
Value — system	Hundreds of systematic reviews, randomised controlled trials and large observational studies have examined the impact of supporting self-management for people with long-term conditions. While the findings of individual studies are mixed, the totality of evidence suggests that supporting self-management can have benefits for people’s attitudes and behaviours, quality of life, clinical symptoms and use of health care resources. (43)
Value — time	Self care saves time and money, since time off work or organising childcare to see a health care professional is not required. (196)

13. Conclusions

The ability to achieve and maintain personal wellness varies across the globe. The challenges are many. The solutions are not simple. Pharmacist-supported self care is one of them.

This document shows that pharmacists can provide valuable assistance in the goal of personal wellness through self-directed and pharmacist-assisted education and medication.

The evidence shows that citizens want to play a greater role in the development, management and monitoring of their own health.

Pharmacists are committed to collaborating with consumers and their health team members, especially in one essential process of care — self care.

While considerable resources are committed to managing disease, increasing efforts are being deployed to effect preventable health care.

There is increasing movement away from the traditional medical model of care to place more responsibility on citizens to take personal responsibility for their own health.

Community pharmacists are the most accessible health care provider, offering an open door to services without an appointment. There is considerable opportunity to enhance this professional interface with the public in support of self care.

The provision of self care and particularly advised self care brings with it professional responsibility and accountability which pharmacists must accept.

Pharmacist involvement in self care must also take cognisance of prescribed treatment so that there is safe and effective continuity to the care being provided.

Self care needs to operate within an integrated framework so as to prevent a siloed approach to services or siloed health professionals.

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