

# The role of pharmacists in relation to natural health products

Report from an international insight board

2023



## Colophon

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# 1 Introduction

In recent years, there has been a significant shift in consumer preferences towards natural approaches to healthcare. This trend has been driven by a degree of scepticism or dissatisfaction in relation to conventional medicines and their associated costs, as well as the perception that natural substances are less harmful than conventional medicines. This growing trend has led individuals to seek alternatives to conventional medicines and to explore various natural approaches to the management of their health.<sup>1,2</sup> During the COVID-19 pandemic, the use of cost-effective, globally available NHPs such as zinc, selenium and vitamin B-complex supplements was necessitated to reduce spread and boost immunity.<sup>3-6</sup> However, “natural” is a broad term and encompasses everything from lifestyle changes to natural health products (NHPs).

NHPs cover a wide range of products, including vitamins and minerals, dietary supplements, herbal products, medical devices, home remedies, homeopathic medicines, probiotics, amino acids, essential fatty acids and traditional medicines such as traditional Chinese medicines, traditional African medicines and Ayurvedic medicines.<sup>1,7</sup> However, the broad and diverse nature of NHPs (often called “naturals”) presents challenges in terms of safety, efficacy and appropriate use. This is where the role of the pharmacist becomes crucial.

Common health conditions where NHPs are used include pain, respiratory tract infections, pregnancy and lactation, urinary tract infections, diabetes, cancer, high blood pressure, mental disorders, digestive disorders, pain and general health maintenance, among others.<sup>8-11</sup> Traditional herbal therapies and traditional complementary and alternative medicine are also frequently employed by newly diagnosed HIV patients attending public healthcare in South Africa.<sup>12</sup>

A Canadian survey of patient perceptions and use of natural health products found that 66% of respondents (156/238) reported purchasing NHPs from health or vitamin stores, 38% (91/238) from community pharmacies, 32% (76/238) from large format stores and 29% (70/238) from grocery stores. Twenty-one percent of respondents (49/238) buy NHPs via the internet and 17% (41/238) from other sources. The internet was the most common source of information about NHPs at 64% (152/238), followed by friends/family at 47% (112/238), books/magazines/newspapers at 44% (105/238) and naturopathic doctors at 41% (98/238). Only 25% of respondents get information about NHPs from their pharmacist (60/238) or family physician (59/238).<sup>2,8</sup> Another study showed that among pregnant and breastfeeding women who used complementary medicine products for various self-perceived benefits related to their own health, their unborn baby or their breastfeeding baby, pharmacists were also not the number one source of information about the herbal products they used.<sup>9</sup>

Although literature shows that a significant number of people use NHPs as an alternative to conventional medicines, several studies indicated that most people use NHPs as a complement to conventional medicines.<sup>2,7,13,14</sup> This means that people using NHPs may be at risk of potential medicine-related problems (e.g., medicine-herb interactions, food-herb interactions, medication non-adherence) associated with the concomitant use of NHPs and other medicines.<sup>2,15</sup> Most natural health products available for sale are offered over the counter at community pharmacies. Pharmacists, as front-line health professionals involved in the dispensing of natural health products, are expected by their professional practice guidelines to provide care related to NHPs to their patients. Pharmacists are generally open to NHPs, but see their role primarily as ensuring patient safety through counselling and improving their education on NHPs.<sup>1</sup> By recommending reputable products, checking product certifications (e.g., Good Manufacturing Practices) and advising against potentially harmful or counterfeit products, pharmacists can help to ensure product safety and quality. Pharmacists can also monitor consumers' use of NHPs to ensure their effectiveness and identify any potential problems, and work with other healthcare providers, including physicians and complementary medicine practitioners, to ensure coordinated care.<sup>3,7</sup>

Pharmacists' ability to advise patients on NHPs is limited by poor access to evidence-based information, undergraduate courses that are not designed to provide practitioners with the necessary knowledge and skills related to NHPs, ethical conflicts arising from the profit motive associated with the sale of NHPs and dietary supplements, and a lack of up-to-date and clear regulations governing the sale of NHPs and services.<sup>2,7,16</sup> When it comes to purchasing and dispensing NHPs, the accessibility of these products in pharmacies is not commensurate with the advice and management that patients receive. In addition to the retail services provided by pharmacists, fully addressing the role of pharmacists in the widespread use of NHPs and

developing a “systems” thinking approach will change pharmacists’ practice in regard to these products and promote a coordinated, systematic provision of pharmaceutical care.<sup>17,18</sup>

Despite some of the barriers mentioned above, pharmacists are key allies in supporting self-care for all conditions, with a focus on providing education and self-care solutions to manage specific symptoms. The provision of information about NHPs is often underemphasised and pharmacists should consider their valuable role in this area. Community pharmacies are safe and accessible places to dispense and recommend NHPs, and pharmacists play an essential role in providing valuable guidance on different NHPs. Pharmacists can judiciously procure evidence-based, quality and safe NHPs, and provide appropriate advice on the benefits, potential interactions and adverse effects of these products. Pharmacists can facilitate informed decision-making by providing consumers with evidence-based information on the safety, efficacy and quality of NHPs. They can also assess an individual’s specific health needs and recommend and educate about appropriate NHPs.<sup>1,2</sup>

Both the inconsistent use of terminology and a lack of clear definitions in pharmacy policy documents have led to a gap in defining practice responsibilities related to NHPs, as well as misconceptions across other stakeholders. Previous studies have shown that pharmacists generally perceive NHPs as being different from conventional medicines, and the implications of this warrant investigation.<sup>1,2,7</sup>

Given that NHPs are commonly available in pharmacies, it is essential to establish clearer definitions and guidelines to consider, explore and potentially define the roles and responsibilities of pharmacists concerning these products, assuming these roles can enable pharmacists to play a significant part in promoting the safe and effective use of NHPs. They can assist consumers in navigating the complex landscape of natural health choices and contribute to improving overall health outcomes.

With this in mind, FIP convened an international advisory insight board in August 2023 with frontline community pharmacists, policy experts, educators and researchers. The aim of the meeting was to develop a comprehensive understanding of the role of pharmacists and community pharmacy in the field of natural health products, and to obtain information on different strategies and issues faced by pharmacists in this area. In particular, the insight board discussed and advised on:

- General understanding of the terms “naturals” or “NHPs”;
- Best practices from various countries about pharmacists’ role in NHPs;
- Educational and training needs of pharmacists to support their role in NHPs;
- Barriers and enablers to pharmacists’ role in NHPs; and
- Ways forward for expanding and developing pharmacists’ role in NHPs.

The insights gathered from the board will be used to highlight the role of pharmacists in this area and provide strategic information to FIP, its members and other stakeholders. FIP wishes to use the expertise shared at the insight board meeting to inform further actions to support pharmacists in this area. The report from this meeting will be used by FIP to assess the need for further activities in this area and inform future plans.

This report provides a summary of the insight board discussion as well as some specific key insights that were shared. It should be noted that the views shared during the insight board are those of the individuals who expressed them, based on their expertise and experience. They do not represent FIP’s policy or positions, although they may build on existing positions and statements. FIP will use these insights to consider what further support will be required by colleagues in the community setting to support decision making and appropriate person-centred care.

## 2 Insight board participants

Moderators		
Dr Catherine Duggan	FIP chief executive officer	The Netherlands
Luís Miguel Lourenço	FIP professional secretary	Portugal

Note takers and researchers		
Dr Inês Nunes da Cunha	FIP practice development and transformation projects manager	The Netherlands
Mfonobong Ekpoh	FIP intern	Nigeria

Insight board participants		
Prof. Parisa Aslani	Professor of medicines use optimisation, deputy head of School and director of academic career development, The University of Sydney School of Pharmacy FIP vice president Immediate past president of FIP Health and Medicines Information Section	Australia
Leticia Caligaris	Community pharmacist in Uruguay and FIP Community Pharmacy Section's Executive Committee observer	Uruguay
Col. Chen Zheng-yu	FIP China envoy	China
Dr Luna El Bizri	Community pharmacist, Lunapharm founder and manager, clinical associate professor, Lebanese International University, adjunct faculty member, Lebanese American University, and executive committee member for Africa and Middle East of the Health and Medicines Information Section, FIP	Lebanon
Dr Horst-Dieter Friedel	Chair of the Special Interest Group on Regulatory Sciences and Quality	Germany
Tara Hehir	President of the FIP Social and Administrative Pharmacy Section	Australia
Prof. Dr Bey Hing Goh	Professor, Sunway Biofunctional Molecules Discovery Centre, School of Medical and Life Sciences, Sunway University, Malaysia; Advisory board member, International Natural Product Sciences Taskforce	Malaysia
Dr R (Sham) Moodley	Research fellow at University of Kwa Zulu Natal and FIP Community Pharmacy Section's Executive Committee member	South Africa
Raj Vaidya	Community Pharmacist, and FIP Community Pharmacy Section's Executive Committee member	India

Observer (FIP representative)		
Gonçalo Sousa Pinto	FIP lead for practice development and transformation	The Netherlands

Observer (Reckitt Benckiser representative)		
Franciele Alves	Global medical marketing responsible for naturals portfolio at Reckitt	

### 3 What is understood as “naturals” or “NHPs”?

Quality, safety, and efficacy of conventional medicines are critical for appropriate healthcare and patient safety, and the same must be applicable to natural health products. Insight board participants indicated that several terms are used across regions to define natural health products. Different terms used in various countries include “naturals” or “NHPs”, “complementary medicines” (CM), or “complementary and alternative medicines” (CAM).

*“In Europe, there is a clear distinction between traditional medicines, and there are three main categories: herbal medicines, homeopathic medicines and dietary supplements, with the latter comprising vitamins, minerals, probiotics, amino acids, and essential fatty acids.” — Dr Horst-Dieter Friedel, Germany*

*“[In Australia], the designation ‘complementary and alternative medicines’ is used. This covers all non-traditional Western medicines and is used to indicate when medicines are used in addition — thus complementary and with medicines/therapies that are used as alternative treatments. However, patients may not always use this term, and will use herbal, natural medicine, and supplements. . . . In countries where the use of traditional medicines is more widespread, and where these medicines have their own background and history of use, these may not be considered alternative or complementary, having their own place in the treatment of conditions.” — Tara Hehir, Australia*

In Lebanon and South Africa, NHPs are either medicines or food supplements, with regulatory stamps to identify the broad class they belong to and the proper category of registration.

*“The Ministry of Public Health established two big categories of products. The first one is medicines and the second one is called food supplements. Medicines follow a specific registration process. Every food supplement has the stamp from the Ministry of Public Health stating that it is not a medicine but a food supplement, so that patients can read it and understand that it is not a medicine.” — Dr Luna El Bizri, Lebanon*

*“When you talk about NHPs in an African cultural context, it usually refers to the natural root or the animal product that would be sold on the street, for example. But once you start to introduce chemicals and refine them and put them in boxes for sale, they change the complexity of the product and they start to fall under the regulatory authority.” — R (Sham) Moodley, South Africa*

In India, a separate governmental ministry (AYUSH) is designated for traditional systems of medicines and homeopathy. Whereas nutraceuticals or food supplements (which could be in the form of tablets, capsules, powders, squashes, juices, etc) are licensed under the Food Safety & Standards Authority of India, certain products, like stevia leaves, are licensed as agricultural produce.

*“Being largely imbibed for so long in our systems, a lay person would more commonly use the word ‘ayurvedic’ (since it the most popular one), and it could mean anything which is from a natural source, including powders, juices, pastes, etc.” — Raj Vaidya, India*

From patients’ perspective, participants agreed that patients generally do not consider NHPs to be a potential source of harm or interactions, because they are natural; so, to them, NHPs are an alternative to something that they see as a potentially harmful chemical. However, from a professional angle, many conventional medicines are also derived from plants.



*“People may not know all the basics and would look at NHPs as safe, because they believe that they are free of side effects, and they are not very happy to take modern medicines for too long. So this is the perception in the minds of consumers.”*  
— Raj Vaidya, India

In Malaysia, aside from the different classifications of NHPs, the concentration of different ingredients in marketable products is regulated and determines if the natural product will be classified as a pharmaceutical product instead. Some NHPs can be abused by patients if not properly regulated by the government. For example, Uruguay has regulations concerning the planting, growing, harvesting, production, storage, distribution and transporting of cannabis.

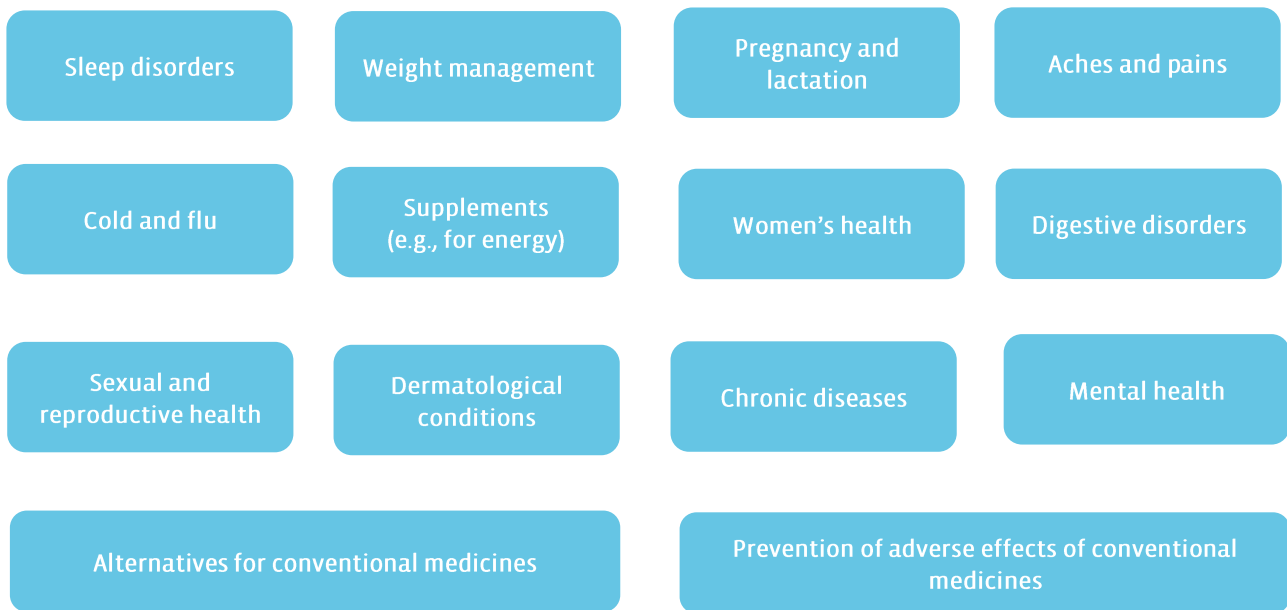
*“In our country, recreational cannabis is available for sale in community pharmacies.”*  
— Leticia Caligaris, Uruguay

All participants agreed that “natural” is a broad term, with many misunderstandings about its correct definition.

## 4 What are the most frequent topics leading to pharmacist consultations about NHPs?

Insight board participants indicated the main topics that patients regularly consult them about in relation to NHPs in their practice (Figure 1).

Figure 1. Topics pharmacists are consulted about in relation to NHPs



In relation to NHPs used during pregnancy and lactation, the following observation was made by one of the participants:

*“During pregnancy, the need for NHPs can be classified into two approaches: prevention, where women want to prevent issues during that period; and treatment, when there is something wrong and they want to use natural, complementary medicines instead of trying conventional medicines. From the perspective of breastfeeding and pregnant women, they look for products to improve their own health, make them stronger, make them able to support a healthy pregnancy or to support a healthy child when they’re breastfeeding.” — Parisa Aslani, Australia*

Participants agreed that pharmacists can recommend NHPs to patients, but they should advise patients who would benefit from conventional medicines to use them instead.

*“Often, because something else has happened and patients have been diagnosed with diabetes, for example, and have been told that it can cause kidney problems, they come to the pharmacy to ask about other natural treatments that they can use to prevent or reduce the progression of the disease. They may have new medicines that they haven’t even started yet, but they’ve been told all this information about what they should be doing, they’ve Googled it, and they’re eager to try every remedy at once. It is important that they are encouraged to start new medicines first and then a reassessment can be made to include NHPs, as starting everything at once can be a big mess.” — Tara Hehir, Australia*

*“Patients newly diagnosed with non-communicable diseases tend to want to try an alternative before starting a lifelong conventional treatment. Once they’re on diabetes treatment, for example, they’re on it for life. Also, they may want to use alternatives to supplement their current treatment, thereby reducing the daily intake of recommended conventional medicines as well as taking lower doses of the prescribed dosages to improve physiological functions and quality of life.” — R (Sham) Moodley, South Africa*

In underserved healthcare regions, impoverished patients, following a physician’s advice for a daily vitamin regimen, may seek guidance from pharmacists regarding natural health products. This can be challenging, as they may require multiple such products. However, the pharmacist may support decision-making, selecting and advising on the most suitable and cost-effective products for the patient’s condition.

*“A lot of walk-ins are for various cough and cold remedies, and upper respiratory tract infections. Besides, we have plenty for gastrointestinal problems — digestion, constipation, acidity, flatulence. These are very common.” — Raj Vaidya, India*

Interestingly, other common questions asked by patients during these consultations are related to the safety of NHPs, lack of side effects, possible interactions, onset of action and duration for complete relief of symptoms.

*“Many patients want our advice on natural remedies, including quite often making statements such as, ‘I have tried so many doctors, and I have still not gotten any relief. I’m sure you will be able to help me when it comes to that’.” — Raj Vaidya, India*

## 5 What roles should pharmacists play in relation to NHPs?

There is often no control over the claims that natural health products make, and no control over the promotion and advertising of these products, especially on the internet and social media in jurisdictions where this is poorly regulated. The insight board participants identified several roles for pharmacists in relation to NHPs, particularly in relation to their selection, procurement, dispensing and counselling.

### Selecting, procuring and dispensing NHPs

Considering that NHPs are often available through community pharmacies, it is critical that pharmacists who are responsible for the professional management of a pharmacy exercise a judicious selection of the products they procure and provide to patients. This selection should be based on criteria of quality, safety and efficacy that are proven and certified. The selection, procurement and dispensing of NHPs through community pharmacies should therefore be informed by the ethical responsibility of pharmacists towards patients and health systems, and their professional expertise.

### Identifying NHP “prescribers” and counselling patients

It is common for patients to trust third parties other than pharmacists to recommend NHPs. These third parties include friends and family members, dieticians, fitness instructors and social media influencers, for example. Some trusted sources of advice may lack the expertise to assess the quality, safety, efficacy or adequacy of an NHP to a specific patient’s health needs. Pharmacists need to identify these “prescribers” and use all means to advise patients about NHPs.

*“People hear the word ‘natural’ in their mind, they feel that it is a safe product, even if the Ministry of Public Health says this is not a medicine. So, people often go to their pharmacist for advice. Medical doctors often do not ask patients about what they are taking in terms of supplements before prescribing medicines or making any intervention. They underestimate the NHPs.” — Dr Luna El Bizri, Lebanon*

### Advising on cost-effective choice of NHPs

In certain parts of the world, where the purchase of NHPs is not reimbursed by third-party payers, walk-in customers to a community pharmacy can be advised on cost-effective products to meet their health needs.

*“In Germany, NHPs of any kind cannot be reimbursed by the public health insurance agencies. So, the patient has to pay for them out-of-pocket. This is a good opportunity for the pharmacist to give recommendations to the patient in terms of which products may be most appropriate and cost-effective. Pharmacists should take this opportunity and not leave it to the internet or to other practitioners in the field.” — Dr Horst-Dieter Friedel, Germany*

### Collaborating with other healthcare professionals

Participants mentioned that a collaborative approach to care using natural health products will make a significant difference, as opposed to the sole role of pharmacists. Collaboration with, for example, naturopaths and dieticians can improve the value of services provided to patients in relation to NHPs. Likewise, informing general practitioners or specialist doctors about a patient’s use of NHPs that may interfere with other treatments will contribute to improved patient outcomes and safety.

*“It would be encouraging to see if we can work with our colleagues as a collaborative team in terms of selection, procurement, dispensing, advice, checking for medicine-medicine or medicine-food interactions etc., to find out what else people are taking. There are some NHPs that we do not know about, or do not know that a patient is taking them. So, sharing information across the healthcare team will give us more information to guide our patients.” — Parisa Aslani, Australia*

*“I work in some pharmacies with a naturopath and a dietician on occasions, and they have been super helpful. They located and showed me where information could be found on efficacy and other adverse effects. In most of the medicines databases we are using for interactions, we do not have that detailed information and it is not easily available to pharmacists, so having that relationship with those other practitioners who had access to and availability of additional information is super useful to me as a medicines review pharmacist. As a pharmacist working in a pharmacy, I could then direct those patients and say, look, this medicine has efficacy and has been shown to do this and that.”*

— Tara Hehir, Australia

### Providing patient education

It is important that pharmacists educate and counsel patients on medicine combinations as well as overdose when taking NHPs individually or as an alternative or a complement to conventional medicines or as part of a conventional medication regimen.

*“Often, during home medication reviews, patients don’t disclose all food, drinks and potions they are taking because they feel they are natural. For example, they might be taking caffeine and cola which can interact with medication, and include things that they might not actually consider a medicine because it’s a supplement. They might be taking a B vitamin, but then they’re overdosing on the B vitamin, or they’re taking a natural medicine that their neighbour gave them because it helped them with their knee, but they might not see that as a medicine”* — Tara Hehir, Australia

Patient education will improve treatment outcomes, reduce avoidable interactions and increase trust in pharmacists.

*“Pharmacists should be able to guide patients over product selection and suggest to them based on the signs and symptoms that they present at the pharmacy.*

— Raj Vaidya, India

Pharmacy professionals should also consider ethical considerations in relation to the priority needs of patients.

*“There are other products in our pharmacies that people feel that they are persuaded to buy. Pharmacists are in the best position to recommend the best medicines not because of the economic aspect but because of what is the best for the patient. I think this is an important role for the pharmacist, [who] should be independent.”*

— Dr Horst-Dieter Friedel, Germany

### Conducting pharmacovigilance, medicine monitoring and follow-up

Participants agreed that pharmacists can monitor and follow up patients taking NHPs and medicines and help to integrate the NHP into the treatment regimen. They should ensure that adverse medicine reactions associated with NHPs are reported.

*“In the pharmacy we can also monitor and follow up the patients who are taking NHPs and medicines and help them to integrate the natural product into their regimen. I think most of the time they don’t realise that, because they feel that it’s natural, it doesn’t have side effects. We need to integrate these products into the therapeutic plan and communicate to the doctors that the patient is taking some NHPs, because most of the time the patients don’t share this information with their doctor”* — Leticia Caligaris,

Uruguay

### **Continuous professional development and education**

Participants mentioned that it is important for pharmacists to be aware of NHPs and their uses. In some countries, regulatory classification makes this easier. However, where this is not the case, pharmacists must have a deep understanding of these products in order to make good recommendations for ailments. They have to answer patients' questions, which is also a difficult task given the huge range of products available under the "natural" label. Therefore, an ever-evolving information and exposure to research and findings will enable them to make a conclusive decision and take care to spot the good, reliable, quality products.

*"Pharmacists should recommend natural medicines only if they are certain of the safety and quality." — R (Sham) Moodley, South Africa*

### **Conducting and keeping up-to-date with research**

Patients seek NHP treatment from a variety of experienced professionals, including traditional healers, doctors and pharmacists. The collation of evidence-based information from these professionals can lead to the dissemination of research that is essential for the treatment of conditions using NHPs.

*"Pharmacists should consider that other communities across the world have used the same NHPs. So, they need to diversify their sources of information in terms of medicine use and interactions with NHPs that are not in their available medicine information, but are used by other traditional systems."  
— R (Sham) Moodley, South Africa*

There is no priority for research collation for NHPs, however, these are continually being used by patients. Pharmacists can contribute to a database of NHPs which can be used as a reference and ensures a more systematic practice. We might not necessarily sell all things that we know to be useful. So, using an evidence-based system would therefore allow for those traditional medicines that are more common, prolific and evidence-based in those countries to be continued to be used.

*"The majority of our conventional practice is on evidence-based recommendations. So why not for 'naturals'?" — Tara Hehir, Australia*

## 6 What are the barriers to pharmacists' roles in NHPs and what solutions could be developed?

### Attitudes within the healthcare team

Two participants, Parisa Aslani and Dr Luna El Bizri, identified that pharmacists are not embraced as a voice for NHPs. Many countries are not receptive to the role of pharmacists in NHPs. They do not see NHPs as being as important as conventional medicines, and the existing culture results in gaps in care, so pharmacists are not relied upon to provide accurate information about these products or are consulted when all else fails. On the other hand, countries that are much more open to the involvement of pharmacists in the provision of cases for NHPs are making consumers aware of the value of an integrative system.

### Lack of confidence by pharmacists

Some participants pointed out that pharmacists can sometimes be hindered by not having a good knowledge of plants, herbal products or NHPs and their side effects. They may not be well prepared to discuss NHPs with patients. Education and training on NHPs would help pharmacists feel more confident in providing these services to patients.

*“It is important to highlight and educate pharmacists about NHPs so that they are better equipped and more confident to discuss these products with their patients”*

— Dr Luna El Bizri, Lebanon

### Knowledge gaps in pharmacy curricula

Some participants expressed that, while some schools of pharmacy are incorporating natural product-related topics into their curricula, there is a need to encourage a more robust commitment from pharmacy academic institutions. These institutions should take proactive measures to equip pharmacy students with comprehensive scientific knowledge and practical skills related to NHPs. This work can be extended and integrated into the framework that guides practice.

*“Lack of pharmacists' knowledge and awareness of NHPs due to lack of education and training in the field. . . . A review of pharmacists' education may be required.”*

— R (Sham) Moodley, South Africa

*“India has such a huge presence of NHPs in Ayurveda. The pharmacy curriculum has minimal or almost nothing of it, so pharmacists struggle a lot in practice. There needs to be a lot of input either during the curriculum or backed by professional development programmes, so that there is enough exposure and experience that pharmacists can feel more confident in handling these products.”— Raj Vaidya, India*

### Online purchasing

Participants agreed that internet purchasing is a significant barrier for pharmacists dealing with NHPs. Many people have turned to online purchase of NHPs, particularly during and after the COVID-19 pandemic, and these products may not be properly regulated, especially if they are shipped from jurisdictions with less stringent regulations. Pharmacists have no information about the content of these products. This situation could potentially lead to additional health problems and underlines the importance of having these products selected, procured and dispensed by medicines experts.

Participants proposed a global awareness campaign, supported by FIP, to encourage patients to visit pharmacies and talk to their pharmacists about the NHPs they are using. This campaign could help patients to ask about the suitability of these products for their needs or whether they are only a temporary solution.

### Lack of product standardization and regulation

Participants noted that there are different designations and regulations for NHPs. For example, NHPs may be sold as food supplements, health supplements or complementary medicines. It is also common that the regulatory frameworks for NHPs, where they exist, are not stringent and, as a result, the clinical indications for their use, efficacy and safety are not adequately assessed or established. The use of NHPs is then influenced by the traditional experience in each country or community. Participants agreed that there should be a clear definition of these products and that they should be regulated.

*“As long as there are good quality products and good regulations, this would reduce the burden of substandard and harmful medicines in circulation. The existence of a uniform nomenclature, if not across the world, at least in the country, would also help a lot. Having an elaborate pharmacovigilance system for product monitoring, reporting of adverse drug reactions and drug interactions will ensure accurate documentation for easy accessibility to pharmacists.” — R (Sham) Moodley, South Africa*

### Insufficient research of NHPs

Participants agreed that the body of literature available to practising pharmacists on NHPs is insufficient and inadequate. While comprehensive references are available for conventional medicines, including information on medicines interactions, quality evidence is lacking for NHPs. This lack of information may hinder the ability of pharmacists to provide advice on such products.

*“As good a resource as what we currently have for our conventional medicines, for complementary and alternative medicines, we can’t look for some of the drug interactions because they haven’t been tested or they haven’t been identified. We can’t look for some of the adverse reactions because they are not reported in the same consistent way.” — Parisa Aslani, Australia*

*“The need for authentic information is very much felt, not only about the natural health products but also their side effects. So there needs to be strong pharmacovigilance, backup and evidence and information available.” — R (Sham) Moodley, South Africa*

*“In older people, who have used traditional Chinese medicine for years, there is some evidence of their efficacy. Hence, there is a need to create a framework to collect more data and contribute to a robust database to support practice.”  
— Col. Chen Zheng-yu, China*

### Artificial intelligence as a source of information on NHPs

Participants mentioned that poor information available online for consumers can get computed into artificial intelligence systems and search algorithms, leading to a spiral of misinformation that can be detrimental to improving health outcomes and overall patient wellbeing.

*“A point of concern is that people are starting to look for information about NHPs by using AI systems, rather than going through traditional online search engines. That is something we have no control over, which means that, if there is poor information available for consumers, that’s going to get compounded through the AI systems.”  
— Parisa Aslani, Australia*



## 7 What evidence should support pharmacists' decisions and practice?

Certain natural medicines and therapies have been used for thousands of years to treat and manage disease conditions in some cultural contexts. This knowledge is usually passed down generations through word of mouth and many NHPs have become established as effective remedies. However, the use and market entry of many such products does not follow the same processes in terms of the required evidence of safety and efficacy data as for allopathic medicines. With little to none of such data documented, the disparity in evidence across different products used in the prevention and treatment of medical conditions varies widely, and the issue of access to quality and safe products makes it challenging to determine the criteria for what makes good evidence for therapeutic use. Participants agreed that the practice of healthcare professionals, and specifically pharmacists, in relation to NHPs should be informed by the best possible evidence available for the various products. This will be particularly important for products that are not registered as medicines or have not undergone clinical research, and for which evidence may be less abundant or robust.

*“Pharmacists should have enough evidence to advise and support on the available treatment options. Obviously, each country will have their own guidelines, so pharmacists' decisions are going to be governed to a large extent by their professional ethics. . . . Pharmacists should assure that the products they recommend are safe and contain what they are supposed to, as per their label claim, and assess if there is sufficient evidence on the benefits and risks available for NHPs.”*

— R (Sham) Moodley, South Africa

*“Preference should be given to products which are well regulated and established. The know-how of science and sufficient authentic information/literature studies related to the products should be available/accessible to pharmacists to guide practice.”*

— Raj Vaidya, India

Participants suggested the creation of a comprehensive repository of resources covering different levels of evidence, research findings and oral histories related to natural health products from different countries and regions. This compendium could serve as a basis for the development of global guidelines to improve the practice of natural health care. Standardisation of evidence would prove invaluable in addressing challenges such as ensuring bioequivalence between different forms of NHPs, understanding the responses of these products in different genetic backgrounds around the world, and addressing the impact of different manufacturing processes on the quality of medicines.

*“Several countries are dealing with complex diseases and finding that their patients are using alternative medicines or NHPs for their management or treatment. There is a need for evidence to support this, and collation of such evidence and global knowledge sharing would be useful to support practice.”*

— R (Sham) Moodley, South Africa

*“For many products, there is no strict regulation, even in terms of manufacturing. Due to information dynamics and mass advertisement, people often get more convinced about these products and their utility from such sources than when we advise them. The widely available testimonies and media advertising cause an unnecessary surge in demand.*

*Therefore, evidence is very important.” — Raj Vaidya, India*

*“From a regulatory point of view, quite a lot has been done but there are still many problems. For example, vitamins supplements were used during the COVID-19 pandemic and there were many issues. Some pharmacists may say that there is evidence, and present evidence which is very biased and one-sided. So, it’s not just about having evidence, but robust, solid evidence. Another issue is the type of evidence: how do we compare a thousand years of people using a given product and having results from it, with one single paper that has been peer reviewed, published in a journal and says this product is good?” — Tara Hehir, Australia*

*“While there is a growing body of research on NHPs and their potential interactions, I believe there is a need to standardise these studies as they often produce conflicting results.” — Leticia Caligaris, Uruguay*

Participants also agreed that it can be challenging to have enough evidence during crises or emergencies, or even to determine what evidence is needed in evolving situations.

*“During the COVID-19 pandemic, there were many intoxications, with nausea and vomiting, from overdoses of vitamin D. People were alarmed, frightened and didn’t want to catch COVID. So, they would do anything. So, the evidence is important. But how can we access it in a timely manner in times of emergencies, crises and catastrophes?”  
— Dr Luna El Bizri, Lebanon*

## 8 How can different levels of evidence and medical traditions inform policy development, product regulation and practice?

Pharmacists can use their professional knowledge to empower patients and healthcare professionals about the efficacy of NHPs, but it is still up to the patient to decide whether to take the advice given. Medical traditions can guide the use of certain medicines or lead to a better understanding of how these products work in different conditions. In Chinese healthcare practice, NHPs have been used for centuries, and these practices have shown visible and lasting effects on a wide range of health conditions. However, the scientific regulation set by the government is stricter for new complementary medicines to provide more robust evidence of the safety and efficacy of these products.

*“In some countries, the use of specific NHPs, such as Chinese traditional medicines, has a history spanning several centuries. In such cases, I consider that an initial approach could involve case reports of usage, which could serve as a starting point for further investigation” — Leticia Caligaris, Uruguay*

*“When evaluating clinical trials, those that have larger sample populations give greater scope to a study. If we consider the size of populations who have used a product, then those who have used traditional medicines for a particular purpose over generations, including a wide cohort of the population (young, old, unwell, pregnant, etc), this cohort would provide more information than a clinical trial with a new medicine run in patients who are either suffering from a particular illness, or are healthy, young and not pregnant. It could be argued that the larger population demographics covered by the use of traditional medicines would be more useful in determining dose, duration and manner of delivery, than a single narrow cohort, using the exact same product.”*  
— Tara Hehir, Australia

*“In China, there are effective laws and regulations to regulate traditional Chinese medicine, based on a combination of traditional TCM theories and modern scientific systems. Many of the traditional TCM theories are now updated with evidence-based pharmacy.” — Col. Chen Zheng-yu, China*

*“Collating a Cochrane review database for NHPs, with information mainly focused on analysis, dosages, etc., will give a better idea of how to navigate evidence and coordinate care.” — Bey Hing Goh, Malaysia*

Australian legislation requires registration of all NHPs and the assessment of the safety and quality of their ingredients. However, only complementary medicines that are considered of high risk are assessed for efficacy by looking at the data from clinical trials supplied by the manufacturer.

*“NHPs are regulated, but the regulation is not really assessing any evidence of efficacy; it’s basically just looking at the safety of the ingredient to be consumed or to be used as a tea or to be rubbed on the body.” — Tara Hehir, Australia*

Participants agreed that, with indigenous populations all over the world and various traditions and medicines in use, the availability of evidence or the requirements for market entry are not comparable for all products.

*“The pharmacy space is filled internationally with alternative therapies, and there is general neglect in research in terms of safety, efficacy and mechanism of action of these products. FIP can advocate that member states have national policies on NHPs, or a set of minimum international standards. Through this, FIP can assist in ensuring safety, efficacy and quality (different from current mainstream) that takes into consideration the historical usage, its level of success and its safety profile possibly listed already in traditional medicine records. Different levels of evidence can only be gathered if we have equitable allocation of resources for the development of ‘naturals’.”*

— R (Sham) Moodley, South Africa

## 9 Conclusions

Across regions, natural health products have many definitions and designations, including complementary and alternative medicines, traditional medicines, herbal products or supplements. However, a general cross-regional understanding points to natural health products as anything that is not conventional allopathic medicine.

This understanding often gives the public the impression that these products are entirely safe, have no side effects and can be used for different ailments such as mental health, sexual and reproductive health, cold and flu, weight management, pregnancy and lactation, aches and pains, chronic diseases, digestive disorders, dermatological conditions, stress and sleep disorders, among others.

Patients also consult pharmacists about the choice of NHPs when they need supplements, alternatives for conventional medicines or products for the prevention or relief of the adverse effects of conventional treatments. Considering the range of NHPs available for several health conditions, pharmacists can provide trusted health information and reliable advice about these products, based on the assessment of the scientific evidence supporting them in terms of safety and clinical efficacy.

Pharmacists can use their pharmaceutical expertise and evidence-based standards to select, procure, dispense and advise on NHPs. In addition, they can use their communication skills to effectively communicate scientific information in lay language for patient counselling. Pharmacists also play a critical role in protecting patients from the risks associated with counterfeit and substandard NHPs by diligently verifying product authenticity and quality. They may also collaborate with other healthcare professionals and monitor and follow up on patients who are using NHPs. In addition, as part of their key role in pharmacovigilance, pharmacists are instrumental in providing reliable information, detecting unexpected toxicity, assessing tolerability and identifying potential addiction problems associated with NHPs. They must carefully document and communicate all relevant findings and potential side effects to contribute to the overall safety and efficacy of these alternative treatments.

Some barriers to pharmacists' role in relation to NHPs were identified, such as attitudes within the healthcare team, poor evidence supporting some NHPs, lack of product standardisation, insufficient research, lack of product regulation processes in comparison with those applied to allopathic medicines, knowledge gaps in pharmacy school curricula, and online purchasing behaviours.

Pharmacists are uniquely placed to triage, assess and provide advice about quality and safe NHPs. They have a responsibility to educate the public on where and how to obtain NHPs, their dosages, side effects, and interactions, as well as steer the cause for standardisation and proper regulation of these products. This role is well aligned with FIP Development Goal (DG) 14 (Medicines expertise), alongside DG19 (Patient safety), DG3 (Quality assurance), DG18 (Access to medicines, devices and services), DG15 (People-centred care) and DG7 (Advancing integrated services).

To further support pharmacists in their roles in relation to NHPs, several developments are required. Compilation and review of all available evidence of the efficacy and safety of NHPs across regions will result in a globally accessible compendium of data, inform policy development and product regulation, and provide a guideline for coordinated care. Incorporation of NHP topics in pharmacy undergraduate education and in CPD training programmes as a basis for developing competencies for pharmacists in NHPs is important. The use of tools such as public awareness campaigns to educate patients about the risks of purchasing medicines online (especially NHPs) and the importance of getting reliable information about NHPs from their pharmacist were also highlighted.

FIP will draw on the views, findings, and conclusions of this international insight board to evaluate the next steps in terms of further meetings and the development of policy or practice support resources.

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