Review on the Global Expansion of Community Pharmacy Services

TAM, Eliza YT *; CHU, Jody KP; TAM, Janice PH
Department of Pharmacology and Pharmacy, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong SAR, China
L 2-56, Laboratory Block, 21 Sassoon Road, Pokfulam, Hong Kong
*(*Corresponding author)*

ABSTRACT

This review examines the global expansion of community pharmacy services, focusing on emerging trends that reposition pharmacists from traditional dispensing roles towards patient-centred clinical service delivery. Drawing on international policy developments and evidence, the review highlights the measurable benefits of these services in improving access to healthcare, reducing system costs, and optimising patient outcomes.

The review serves as a basis for evaluating adoption prospects in Hong Kong, emphasising the pressing need to enhance primary healthcare capacity in response to demographic changes and rising chronic disease burdens. It concludes that these expanded services offer a proven, scalable pathway to strengthen health system efficiency, continuity of care, and population health outcomes in the evolving primary care landscape.

Keywords: *Community pharmacy, community pharmacist, primary healthcare, vaccination,medication management, prescribing*

INTRODUCTION

The global expansion of community pharmacy services marks a transformative era in healthcare, with pharmacists increasingly recognised as pivotal providers of clinical care beyond traditional dispensing roles. This evolution is particularly urgent for regions grappling with rapidly ageing populations, such as Hong Kong. According to the Hong Kong population projection report, Hong Kong faces a rapidly ageing population, projected to reach 34% by 2046 [(1)]. There is an increased need for the management of elderly health, from disease prevention to the management of chronic conditions. One solution is to divert these services into primary healthcare, which encourages citizens to receive preventive and chronic disease management from the healthcare team in the community [(2)]. Community pharmacists are essential partners in primary healthcare, delivering accessible, efficient, and patient-centred care in addition to the traditional role of dispensing services.

This review examines three emerging pharmacy services that are transforming community pharmacy practice globally: **vaccination services**, **medication management services**, and **pharmacist prescribing**. Each service represents a critical expansion of the pharmacist's role from traditional dispensing to comprehensive clinical care delivery within primary healthcare settings. These developments reflect a global recognition that pharmacists, as highly accessible healthcare professionals, can significantly contribute to improving health outcomes, enhancing healthcare accessibility, and optimising health system efficiency. The lessons drawn from global experience offer vital perspectives for adopting similar innovations in Hong Kong, where pharmacists can play a strategic role in meeting evolving health system needs.

Vaccination Services

Pharmacist-led vaccination services have gained significant attention worldwide, reflecting a broader shift toward accessible, community-based preventive care. As trusted healthcare providers embedded within communities, pharmacists are uniquely positioned to enhance immunisation coverage, reduce disease burden, and support public health goals [3]. The models involving pharmacists in providing vaccination services have evolved from policy advocacy to practical implementation across diverse healthcare systems in many overseas countries, and Hong Kong is now exploring its potential as part of expanded pharmacy services.

According to the data reported by the International Pharmaceutical Federation (FIP) in 2024 [4], pharmacists in 44 countries are authorised to administer vaccines, which has dramatically increased from 13 countries in 2016 [5]. In countries such as the United States, the United Kingdom, Canada, and Australia, pharmacists routinely provide immunisations for influenza, pneumococcal disease, HPV, COVID-19, and travel-related illnesses. Pharmacist-led vaccination services in these countries are funded through a combination of public reimbursement, private insurance, and out-of-pocket payments, with each country adopting a slightly different model. Nevertheless, the services are well-supported and sustained by country-wide initiatives that provide remuneration for pharmacy-based vaccination services, covering vaccine costs and service fees.

The integration of vaccination into pharmacy practice has demonstrated measurable benefits, including increased vaccine uptake, reduced healthcare costs, and improved access in underserved areas [3]. Furthermore, as highlighted by the FIP's 2025 report focusing on funding models, the economic and societal impact of pharmacy-based vaccination [3], the key enablers for the successful implementation of such a programme included legislative support, standardised training, reimbursement mechanisms, and public awareness campaigns. Countries that have adopted these frameworks report higher vaccination rates and greater patient satisfaction.

The global development of pharmacist-led vaccination sets an essential example for Hong Kong to consider in evaluating our own services locally. As highlighted by the 2023 review published in the Hong Kong Pharmaceutical Journal on 'Review of Pharmacy-Based Vaccination in Hong Kong' [6], some of the significant barriers to the implementation of pharmacy-based vaccination in Hong Kong observed from this publication included access to vaccine, expectation of pharmacists' roles and the difficulties for community pharmacies to fulfil infrastructure-related requirements. Furthermore, other crucial considerations should consist of clear guidelines on the criteria for community pharmacies or other primary healthcare settings, as well as a standard operating procedure within the site to ensure the safe administration of the vaccination service to patients. Finally, public engagement and education on the potential expanded roles of pharmacists should be emphasised, and an effective collaborative model for integrating pharmacist-led vaccination services with existing healthcare infrastructure should be explored to facilitate continuity of care.

Medication Management Services

The scope of community pharmacy practice in primary healthcare has evolved significantly internationally, with the provision of structured, clinical medication management services representing one of the major developments. Medication management services are known by different names in different parts of the world, but essentially involve the systematic assessment of a patient's medications by a pharmacist. Key examples include Medication Therapy Management (MTM) and the Comprehensive Medication Review (CMR) in the United States [7], the New Medicine Service (NMS) and Discharge Medicines Service (DMS) in the United Kingdom [8], the Home Medicines Review (HMR) in Australia [8], and programmes such as MedsCheck in Canada [10]. The core aim of all these services is to optimise therapeutic outcomes through improved adherence, identification of adverse drug events, and resolution of medication-related problems [11]. This widespread adoption under various nomenclatures signals a global recognition of the pharmacist's value in managing medication regimens.

Structured medication review is a well-established component of modern healthcare systems, with services tailored to regional funding and policy frameworks. Internationally, these programmes vary in scope and delivery but share a common goal: optimising medication use and improving patient outcomes.

In the United States, Medication Therapy Management (MTM) and Comprehensive Medication Reviews (CMRs) are mandated for at-risk beneficiaries under Medicare Part D [12].

The United Kingdom's National Health Service funds targeted services such as the New Medicine Service (NMS), which supports adherence during the initiation of new treatments, and the Discharge Medicines Service (DMS), which promotes medication safety following hospital discharge [8]. Canada's MedsCheck and Australia's Home Medicines Review (HMR) similarly offer publicly funded, pharmacist-led reviews through provincial or national frameworks [9,10].

These international models demonstrate that structured medication review is a recognised and funded element of care, often operating synergistically with other pharmacist-led services. The scope of these services typically encompasses two main types: comprehensive reviews of a patient's entire medication regimen and targeted interventions addressing specific issues [7,13]. This holistic approach—focusing on the patient's complete medication profile rather than a single disease state—complements disease-specific management and preventive services, contributing to a more integrated and effective healthcare system.

Crucially, the sustainability of medication review services is secured through formal reimbursement structures. Unlike traditional dispensing, these cognitive services are funded by governments and insurance systems that recognise their value in improving health outcomes and reducing overall healthcare costs [11,14]. Primary funding models include government-funded systems (e.g., UK, Australia, Canada) and insurance-mandated models (e.g., US Medicare) [8–10,12]. The cost is typically not borne directly by the patient, as the service is valued for its system-wide impact on preventing costly hospitalisations and complications [11,14].

The global evidence presents a clear and compelling case for the value of structured medication review. A recent systematic review and meta-analysis consolidates this evidence, demonstrating that these services produce significant positive outcomes across clinical, economic, and humanistic domains by reducing overall healthcare costs and enhancing patient satisfaction and quality of life [14].

While some jurisdictions offer these services as a private, out-of-pocket option, this model could potentially create significant access barriers and fail to capture the public health benefit of widespread medication optimisation. The international trend is decisively towards funded models that recognise the system-wide value and cost savings. Hong Kong, as a world-class city facing the dual challenges of an ageing population and increasing polypharmacy, has seen many pharmacists independently incorporating medication review services into their own practices. However, the absence of a coordinated and structured programme presents a great opportunity — transitioning from a reliance on direct patient payment to a publicly or insurer-funded medication review model could strategically enhance the efficiency, equity, and overall quality of the healthcare system.

Pharmacist Prescribing

According to the 2025 FIP report, a growing global trend is emerging, allowing pharmacists to prescribe, ranging from collaborative practices with prescribers to full independent prescribing [15].

The extent of prescribing rights can be categorised as dependent or collaborative prescribing, where the prescribing is driven by a protocol, or as collaborative practices with prescribers, such as repeated prescription prescribing. On the other hand, pharmacist independent prescribing (PIP) refers to a situation where pharmacists have full autonomy in initiating, continuing, adjusting, and discontinuing drugs, using their own clinical judgement[15,16].

The table below summarises the countries/jurisdictions and the type of prescribing services offered. Although the list is not exhaustive and may be incomplete, it clearly illustrates the global trend in pharmacist-prescribing services.

Countries and / or jurisdictions	Prescribing Services by Community Pharmacists
Canada [17]	Practice varies between jurisdictions, range from conditions-based prescribing (e.g. for minor ailments, smoking cessation, urgent medicines) to full rights on prescription only medicine with additional prescribing authorisation, except controlled drugs
United States [15]	Practice varies between jurisdictions, range from collaborative prescribing agreement on certain conditions/ drugs for contraception, HIV pre/post exposure and smoking cessation
United Kingdom [18,19]	Independent prescriber within their clinical competence

Wales and Scotland [15,18]	Conditions based (e.g. travel medicines, UTI, shingles etc) Provision of urgent medicine under protocol
Switzerland and Denmark [15]	Renewal of prescription for certain chronic conditions Prescribing medicine from a pre-defined list for acute conditions such as allergic rhinitis, UTI or respiratory conditions
Australia [20–22]	Practice varies between jurisdictions. Some states (e.g. Queensland) had established permanent service already on conditions-based prescribing (e.g. UTI, acne, contraceptive pills), while other states had some permanent practice implemented, while piloting other conditions
Singapore [23]	Collaborative prescribing within approved drug formulary

In all the overseas models reviewed, additional postgraduate training is required to become a pharmacist prescriber as this is generally not covered in the undergraduate curriculum. This includes courses that cover general principles in prescribing and, more specifically, the enhancement of knowledge in the clinical area of prescribing to ensure competency level is met [16]. Most countries would require some years of clinical experience as a prerequisite for these postgraduate courses [16,19]. From 2026, graduates from the UK will have full independent prescribing rights at registration, as prescribing training is now embedded into the curriculum [24]. It will be important to observe the extended scope of services this critical mass of prescribing pharmacists can create, potentially transforming the role of community pharmacies as an essential primary care access point.

Regarding the benefits of pharmacist prescribing, a scoping review conducted in 2015 on Canadian pharmacists [25] and a systematic review [26] examining global publications both agree that pharmacist prescribing can enhance patient access to healthcare services and improve patient outcomes.

However, establishing pharmacist prescribing takes time and careful planning, often involving piloting to evaluate the best approach before becoming a usual practice. For example, the state of Queensland in Australia has piloted several condition-based protocols before accepting them as standard practice [20]. Apart from the need for piloting new services, substantial government input is required for implementation, as seen in the overseas experience, whether it involves legislative changes that allow for prescribing rights or a funding model that supports its sustainability. It is worth noting that some countries adopted the user-pay model, and not all prescriptions are subsidised by the government. For example, most programme piloting in Australia employs a consumer-pay model [16,22], in addition to some jurisdictions in the United States that utilise an insurer-pay model [15].

CONCLUSION – HONG KONG PERSPECTIVES

The three services reviewed—vaccination services, medication management services, and pharmacist prescribing—represent significant opportunities to transform community pharmacy practice in Hong Kong from a primarily product-focused model to a patient-centred clinical service model. Global evidence consistently demonstrates that these expanded pharmacy services enhance healthcare accessibility, improve patient outcomes, reduce system costs, and optimise the utilisation of highly trained pharmacy professionals. The timing is particularly opportune in Hong Kong with the expansion of primary healthcare services and the electronic health record platform allowing the availability of transparent information between different healthcare providers. As we navigate the challenges of an ageing society and seek to build a sustainable, equitable, and efficient healthcare system, the expanded scope of community pharmacy services offers a proven pathway to strengthen primary healthcare while ensuring that the public has timely access to high-quality pharmaceutical care.

Author's background

TAM, Eliza YT *is a senior lecturer at the Department of Pharmacology and Pharmacy, the University of Hong Kong. Her email is eyttam@hku.hk*

CHU, Jody KP *is a senior lecturer at the Department of Pharmacology and Pharmacy, the University of Hong Kong. Her email is chukpj@hku.hk*

TAM, Janice PH *is a lecturer at the Department of Pharmacology and Pharmacy, the University of Hong Kong. Her email is jphtam@hku.hk*

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