


COMMENTARY



The pharmacist and pharmacy have evolved to become more than the corner drugstore: a win for vaccinations and public health

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ABSTRACT

Perhaps under acknowledged in the adult immunization delivery system are pharmacists. Depending on the state, pharmacists can assess and administer vaccines to patients under vaccination protocols, standing orders or with a physician's prescription for vaccination. As most individuals live within miles of a community pharmacy that offer accessibility, broad operating hours, and lack of visit fees or few requirements for appointments, the role of the local community pharmacy and pharmacists has evolved. Many pharmacies have embraced immunizations as a service offering seasonal influenza and often a range of Advisory Committee on Immunization Practices-recommended vaccines across the lifespan. Pharmacists are moving away from strictly product distribution to supporting public health and prevention, experiencing tremendous growth and expansion of services across the public health and primary care spectrum. Pharmacies are using vaccination services as a strategy to transform and advance community pharmacy, shaping a model that provides greater convenience and access to vaccines and other preventive services benefiting population and public health while seeking to optimize health outcomes and control health-care costs.

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The pharmacists' role in the business of keeping people well has to evolve as the pharmacy model changes to meet the needs of the changing health-care delivery system. Historically, pharmacists were also known as chemists or druggists, health-care professionals in the field of health sciences who focused on safe and effective medication use, checking and distributing drugs to doctors for medications prescribed to patients. This role has evolved whereby the modern-day pharmacists act as a learned intermediary between a prescriber and a patient.

In modern times, pharmacists not only manage medication systems – dispensing medication on prescription and providing pharmaceutical information – compound medicines, and ensure correctness of medication labels, but provide patients with health monitoring and advice, assess patients with undiagnosed conditions related to clinical medication management needs and even manage drug therapy under collaborative practice agreements. The modern-day pharmacist also serves as a critical advocate in public health, administering vaccinations, providing counseling to patients on smoking cessation, sexual health, obesity, and substance use disorder treatment. However, depending on the legal scope of practice in some jurisdictions, pharmacists may be limited in their ability to contribute to public health practice, impeding the evolving needs of the healthcare delivery system.¹

Scope of practice and expansion: pharmacists are public health providers and vaccinators

The authority of pharmacists to practice is dictated by state licensing boards which govern activities of pharmacists can perform independently. Through state laws or practice

agreements, the role of pharmacists has been expanding, for example in the scope of practice to administer immunizations.² Most states have laws that leverage pharmacists and their immunization scope of practice, enabling pharmacists to expand access to care by providing immunizations and counseling – often at locations more physically accessible for many patients including rural areas of the country where the pharmacists may be the only primary care provider.

Pharmacy locations are within reach of most Americans, averaging 2.11 pharmacists per 10,000 individuals in the United States.³ Eight out of 10 Americans live within 10 miles of a pharmacy.⁴ Moreover, in regional urban centers, the average distance to a community pharmacist is 1.6 miles.⁵ Community pharmacists live, work and serve their communities. As a trusted and highly accessible health-care provider, pharmacists are well positioned to support public health, specifically in increasing access to immunizations, and particularly for adults who value convenience in receiving health care. The role of pharmacists to administer immunization has evolved rapidly over the past two decades.⁶ In 1995 only nine states allowed pharmacists to immunize. Today pharmacists have authority to administer immunizations in all states, the District of Columbia, and Puerto Rico; however, the extent of the authority of these providers varies by state, often limiting the type of vaccines and the patient age to whom pharmacists may administer vaccines. Despite these limitations, pharmacists provide a significant role in immunization service delivery by screening for Advisory Committee on Immunization Practices (ACIP)-recommended vaccines, strongly recommending, and referring patients for vaccination if not administering vaccinations to patients.

Pharmacists as the invisible seam in the healthcare delivery fabric

Many pharmacists conduct essential public health services such as partnering with the community to identify and address health risk and the needs of the community, particularly in rural pockets versus urban centers of the country where primary care provider shortages can be common.⁷ Pharmacists serve vital roles in individual patient care areas of disease state management, medication therapy management, and transitions of care from inpatient to outpatient, extending beyond health screenings and education in areas such as pain medication counseling, immunizations, and tobacco cessation counseling.

Pharmacists are at times an invisible seam in part of the healthcare delivery fabric. Pharmacists advocate and educate in fundamental infectious disease domains such as administering vaccinations and counseling on HIV/STI prevention and contraception. Pharmacists also have a role in supporting non-communicable disease public health domains – such as obesity counseling and substance use disorders including tobacco cessation – all toward reaching Healthy People 2020 targets, a national framework of health-promotion and disease-prevention goals.⁸ This natural role for pharmacists is increasingly recognized by the broader provider community and the public. As shifts in health-care delivery are changing the way we seek and administer care, the pharmacist has an increasingly important role as a public health practitioner and health-care provider, to be seen beyond medication dispensing and management.

The pharmacy: beyond the corner drugstore

The pharmacy itself is evolving to become more than a site of dispensing medication. As the nation desperately seeks to contain the costs of healthcare and hospital readmissions while providing quality patient-centered care, pharmacies are evolving to provide more comprehensive services expanding walk-in clinics for simple things like immunizations and blood pressure screenings and designing wellness hubs that marry big data and neighborhood drug stores to identify members at risk for chronic and arguably costly diseases to test and treat patients before diseases progress.⁹

Use of data is an evidence-based strategy central to raising vaccination coverage rates. Pharmacist providers, like other providers in the healthcare delivery system (e.g., physician providers, health systems), send reminder messages for immunizations, recall messages for immunizations past due or phone, email and postcard messages to specific patient populations (e.g., diabetic patients), reducing missed opportunities to vaccinate, particular for dose completion of multi-dose series vaccines.¹⁰ Pharmacist vaccinators are a localized trusted health-care provider within the community. By using health information data, pharmacists can fill gaps in care.

Pharmacists serve a central role in the global fight against non-communicable disease, an increasing trend unsurprisingly listed on the 2019 World Health Organization list of global health threats.¹¹ For example, vaccination mitigates other chronic condition such as pneumococcal disease in adults with

chronic conditions like heart, liver or kidney disease. Pharmacists with the ability to administer the pneumococcal vaccination aid in the fight against these threats to good health.^{10,12} Moreover, influenza vaccination has become increasingly important given the link between influenza disease and thromboembolic events such as heart attack and stroke.¹³

In the continuum of self-care management, care ranges from individual responsibility to professional responsibility. On this continuum, self-care in prevention plays a large roll in mitigating the global rise in health-care costs and potential health burden to individuals and society by maintaining health and lower costs. Patients together with pharmacist providers are partners in health across this spectrum, particularly in areas complementary to the physician provider who is central in diagnosing and treating disease and addressing major trauma. Pharmacists can help transform and manage high-cost conditions and transitions of care from in-patient to outpatient care with an eye toward optimizing health outcomes and controlling health-care costs.

Partnerships in the immunization neighborhood

Patient acceptance is central to demand for pharmacy services and health-seeking behavior, strengthening pharmacy assess points for vaccination services. Consumer-patients are often satisfied in their experience with pharmacist-providers as vaccinators, making pharmacists a natural partner as public health vaccinators.¹⁴ With walk-in or scheduled appointments, pharmacies seek to support the goal of a fully vaccinated family. Pharmacists help children get back-to-school vaccinations and pharmacies serve as a natural site of service for influenza vaccinations, which are recommended annually.

For older adults who are more likely to need prescription medications and therefore use pharmacy services, pharmacists can be an important trusted source of information, counseling, and administration of vaccines. For vaccines covered under the Medicare Part D pharmacy benefit including shingles vaccine, the pharmacy platform is a natural site of service for vaccination. In the Medicare insurance program, only influenza, pneumococcal, and hepatitis B vaccine (for high-risk beneficiaries) are covered under the Medicare part B medical insurance benefit (which covers outpatient services in the physician's office); all other vaccines are covered under the Medicare Part D drug benefit. This has been a challenge for physician providers to provide Part D covered vaccines in the office-based setting.¹⁵

Pharmacists: immunization and public health champions

Most health care is a shared responsibility. The role the pharmacist plays as part of the larger health-care delivery team has evolved and continues to evolve, well beyond compounding and dispensing medicines. Moreover, the convenience of the pharmacy serves as a fundamental characteristic trait of a successful model that may be able to increasingly address more evolving health-care needs. With the giant footprint of large chain and local community pharmacies, the current health-care system of episodic care and treatment can be transformed to a system of good care that is localized

and convenient for the consumer, with vaccinations as a central offering. Fortunately, public health can capitalize on the evolution of the pharmacists and the expansion of the pharmacy as partners in vaccination and public health, supporting a fully vaccinated family by serving as a critical partner in increasing vaccination coverage-levels for all.

Disclosure of potential conflicts of interest

Dr. Shen is a retired Captain with the US Public Health Service. She is currently a Professor at the Drexel University Dornsife School of Public Health and a public health consultant. The authors have no conflicts of interest or disclosures to declare.

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