



Personalized Pharmacist Care
Healing America's Post-Reform Health Care System

A WHITEPAPER_x by RxAlly · May 2013

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Executive Summary

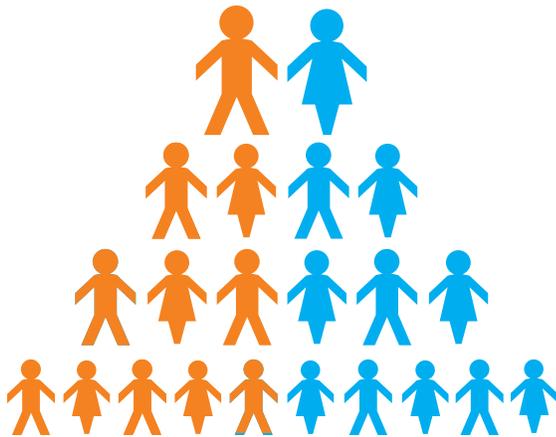
The future of the United States' health care delivery system is uncertain. Traditional cost-control and care delivery models have largely failed to achieve desired improvements in quality and cost efficiency. Despite the passage of the Affordable Care Act (ACA), three major challenges will continue to threaten our system:

- The prevalence of chronic diseases
- Increased demand for patient care
- Non-adherence and the growing complexities associated with medications

As the United States moves toward a more accountable, performance-based delivery system, it is imperative that pharmacists, highly-trained medication experts, be more fully leveraged as part of the solution to these challenges. The expertise of the pharmacist, which is largely absent elsewhere along the care continuum, is perfectly suited to address the increasing complexities related to medication use, chronic disease prevalence, and care access.

Personalized Pharmacist Care is a care delivery model proven in numerous studies to improve patient health outcomes and lower overall health care costs for all the audiences it serves: patients, payers, and providers. That's why payers, providers, and collaborative care groups are currently spearheading efforts to utilize Personalized Pharmacist Care services on a larger scale as a solution for effectively addressing many of our system's current challenges.

Chronic Disease is a Growing National Crisis



By 2030, half the population will have one or more chronic conditions.

The United States is a sick nation. Chronic diseases, including diabetes, hypertension, cardiovascular disease, and respiratory disease, affected nearly half of the population, or 145 million Americans, in 2009.¹ By 2020, this will increase to 157 million people, and by 2030, half the population, or 171 million Americans, will have one or more chronic conditions.²

The associated human and economic costs are staggering and projected to grow worse:

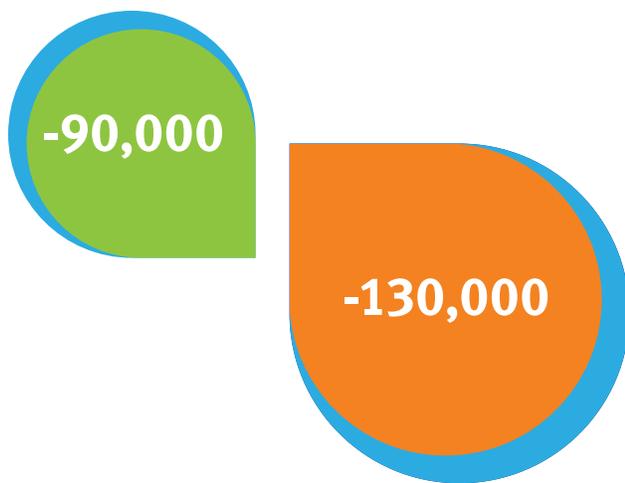
- Chronic diseases account for 75% of the \$2.6 trillion the nation spends annually on health care.³
- Chronic diseases account for about 81% of all hospital admissions, 91% of all prescriptions filled, and 76% of physician visits.⁴
- Non-medical economic costs associated with chronic disease, including lost productivity, may be as high as \$1 trillion dollars annually.⁵

Translated to an individual payer, the financial implications are large:

- The average annual cost of treating an adult with diabetes is \$11,700. This sum nearly doubles to \$20,700 if there are complications.⁶ In contrast, the average annual cost for treating a “healthy” adult with no chronic disease is \$4,400.⁷
- Up to 40% of a large employer’s health insurance claims costs can be tied to diabetes and related comorbidities.⁸

Demographic Shifts and Projected Physician Shortages Will Restrict Access to Care

Greater prevalence of chronic disease means more individuals will need access to more medical services. An aging population will also increase this demand. The number of Americans 65 and older is projected to increase 36% from 40 million in 2010 to 55 million by 2020.⁹ Another 30 million Americans who don't have health insurance are expected to gain access to coverage within the next 10 years through the Affordable Care Act, further fueling demands on the medical care system.¹⁰



By 2020, it is estimated the US will have a shortage of more than 90,000 physicians, a number that will increase to 130,000 by 2025.

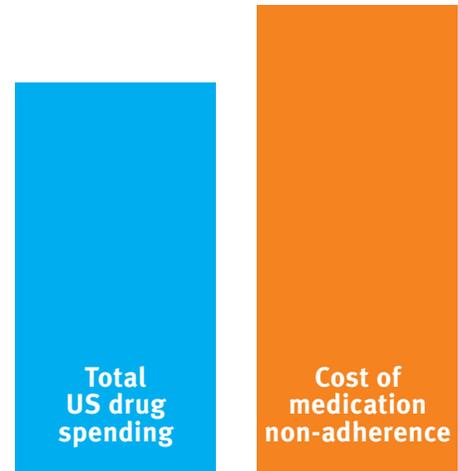
Yet as demand for medical services grows, the supply of physicians available to meet that demand is expected to dwindle. It is estimated that by 2020, the United States will have a shortage of more than 90,000 physicians, a number that will increase to 130,000 by 2025.¹¹ These trends will likely restrict patient access to basic care and preventive services, even if the number of people with health insurance increases.

Non-Adherence and Medication Complexities are Expected to Increase

Medications increasingly play a central role in the treatment, management, and prevention of disease, with medications estimated to be involved in more than 75% of all patient treatment plans.¹² Studies have shown that increasing the correct usage of medication therapies, medication adherence, can result in improved patient health outcomes and reduced medical costs.¹³ Yet roughly half of the people who are prescribed medicines for chronic diseases, like diabetes and hypertension, don't take their medications correctly.¹⁴

It is estimated that medication non-adherence, or patients not taking medications correctly, costs the United States \$290 billion annually.¹⁵ That is 10% of the nation's total health care spending and more than what the United States spends on prescription medications each year.¹⁶ The \$290 billion estimate includes emergency room visits, hospital admissions and readmissions, nursing home stays and other medical services that could have been avoided if patients had taken their medications correctly.¹⁷

Patients not taking medications correctly cost the US \$290 billion annually. That is more than the \$260 billion the US spent on prescription drugs in 2010.



The bottom line: under the current system, patient care is being severely compromised, and collectively, payers are not seeing a positive return on their medication spend. This situation will likely get worse in the coming years for three main reasons:

- **Increased prescription volume:** Spending in the US for prescription medications is expected to double over the next decade from current levels of about \$260 billion.¹⁸ US physicians wrote more than four billion prescriptions in 2011, an average of 13 prescriptions for each person in this country.¹⁹ As medication volume increases, so does the risk for more prescribing errors, adverse drug-drug interactions, and other medication-related issues that result in poor outcomes and drive up costs.
- **Aging population:** Individuals 65-69 years old on average take nearly 14 prescriptions per year while individuals 80-84 take an average of 18 prescriptions annually.²⁰ Twenty-eight percent of hospitalizations among seniors are due to adverse drug reactions.²¹
- **Increasing use of specialty medications:** Specialty medications, including biologics, now account for about 17% of the average employer's pharmacy costs and are expected to account for 40% of total medication spending by 2020, a 135% increase.²² Because of their complexity, specialty medications are often more difficult to take correctly compared with traditional prescription medications, thus increasing non-adherence risks.



Realigning Forces Utilizing Personalized Pharmacist Care

To drive positive changes in our health care system, we need to move toward reimbursing providers based on quality of patient health outcomes and other performance measures, including cost efficiency. At the same time, chronic disease prevalence, access to care issues, and medication non-adherence threaten to overwhelm the system, undermining patient outcomes and further escalating costs, unless we approach these problems differently.

Personalized Pharmacist Care is a solution for balancing these forces in favor of improving patient outcomes, enhancing care delivery performance, and generating cost-efficiencies and savings. Personalized Pharmacist Care refers to a range of individually-tailored pharmacist-provided clinical and consultative services to improve patient quality of life and optimize clinical and economic outcomes.

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Personalized Pharmacist Care leverages the extensive clinical education, training, and medication expertise of the pharmacist and combines that with face-to-face interaction between

the pharmacist and the patient. This combination creates the best opportunity to perform highly-effective, individualized interventions to optimize drug therapy and promote behavior change, as needed. Personalized Pharmacist Care is best delivered by local pharmacists in the patient's community where the pharmacist has relationships with local providers.

The successful adoption and implementation of Personalized Pharmacist Care on a national scale demands consistent delivery of evidence-based clinical standards of care as well as a strong technology underpinning to ensure this consistency. The technology platform must also enable connectivity across the entire health care system and be interoperable, meaning it will be shared among pharmacies, health care plans, doctors, nurses, hospitals and caregivers so that all health care professionals can be fully aligned in the recommendations and treatments provided for each patient. This will ensure consistent delivery of care, measurable performance and better outcomes in a cost-effective manner.

Why Pharmacists are a Critical Part of the Solution

Pharmacists possess a unique set of attributes that position them well to be highly effective in improving patient outcomes and serve as critical members of the broader collaborative health care team.

- **Accessibility:** The average patient sees his or her pharmacist a dozen or more times per year. Each week, the equivalent of the US population, approximately 275 million visits, are made to a pharmacy.²³ This provides patients repeated and regular access to a qualified care provider at a critical juncture along the care continuum.
- **Medication Expertise:** More than any other provider, pharmacists are the medication experts. They have the most exacting and detailed knowledge of how medications work in the body and interact with other medications, foods, and disease states. Pharmacists can keep patients safer and healthier by notifying them and their often-siloed prescribers of possible adverse effects or interactions that may lead to complications or hospitalizations, and recommend safer or more effective alternatives.
- **Education:** The entry-level degree for a pharmacist today is a Doctor of Pharmacy, which requires a minimum of six years of education with a curriculum that includes pathophysiology, pharmacology, therapeutics, clinical problem solving, laboratory monitoring, and patient assessment skills.
- **Training:** In addition to completing at least six years of education, pharmacy students must perform clinical rounds with medical students and physicians. Many pharmacists also complete one to two years of residency training. Additionally, board certification of community pharmacists in ambulatory care or as pharmacotherapy specialists is a growing trend. Pharmacists also complete annual required Continuing Education (CE) requirements.
- **Highly trusted:** A November 2012 Gallup poll ranked pharmacists as the second most trusted professional, with 75% of respondents rating pharmacists as “very high” or “high” for honesty and ethical standards.



Examples of Personalized Pharmacist Care Services

- **Medication counseling and coaching:** a variety of services including instructions on proper usage, side effects, managing side effects, medication reminder systems, and safe handling
- **Flu shots and other adult immunization services** (shingles, pneumonia)
- **Monitoring, screening, and prevention services** (blood pressure, cholesterol, and blood glucose levels)
- **Medication Reviews:** evaluation of a patient's current prescription and over-the-counter medications to identify and resolve medication-related problems such as duplicate therapies and medication interactions
- **Medication Therapy Management (MTM):** a distinct group of pharmacist-provided services that optimizes patient drug therapy and typically includes a Comprehensive Medication Review (CMR), Medication Action Plan (MAP), and Personalized Patient Medication List (PML)
- **Medication Synchronization:** an appointment-based model of care whereby the pharmacist coordinates a patient's refill schedule to enable multiple medications to be refilled on the same day each month, and utilizes the appointment time to provide medications, address adherence issues, reinforce other points to optimize medication therapy, and answer patient questions
- **Medication Reconciliation:** the process of ensuring that patients transitioning from one care setting to another (such as from hospital to home) avoid medication-related problems that can lead to hospital re-admissions

The Evidence for Personalized Pharmacist Care

Personalized Pharmacist Care works. A 2011 report to the US Surgeon General, which analyzed 298 separate research studies, concludes that integrating pharmacists into the patient care process promotes greater levels of patient engagement, as well as improved clinical and economic outcomes.²⁴

These gains are based on the ability of pharmacist interventions to reduce hospital admissions, reduce emergency room (ER) admissions, reduce overall physician visits, and reduce the use of unnecessary or inappropriate medications. For each dollar invested in pharmacist-delivered patient care, the average economic benefit gained was more than \$10.²⁵

For every dollar spent on clinical pharmacy services, the average benefit gained was \$10.



Case Studies: Personalized Pharmacist Care in Action

The Asheville Project

To better manage costs associated with several chronic diseases, the City of Asheville, NC partnered with trained pharmacists in their community to provide personalized, face-to-face medication counseling to patients. The program also included patient education and waived copayments for select medications determined to be crucial to the effective management of several high-cost diseases.²⁶ Results reported in several peer-reviewed studies included:

- Cardiovascular medical expenses decreased 47%²⁷
- Diabetes medical costs decreased \$1,200 per patient²⁸
- Productivity increased by \$18,000²⁹
- Asthma ER visits and hospitalizations decreased 50%³⁰



The Asheville Project was so successful it became a model for other employers and payers across the country looking for innovative ways to improve outcomes, enhance productivity, and reduce costs.

Other provider and payer groups across the country have leveraged pharmacists as key members of a collaborating health care team to improve patient outcomes and lower costs. Here are some noteworthy examples:

Medication Therapy Management Program Yields Double-Digit ROI

Pharmacist-provided Medication Therapy Management (MTM) to patients with high blood pressure and high cholesterol covered by BlueCross BlueShield of Minnesota reduced total health expenditures from \$11,965 to \$8,197 per patient, a reduction that exceeded the costs of providing the services by more than 12:1. Higher percentages of patients met their blood pressure and cholesterol goals in the MTM intervention group compared with the control group.³¹

Pharmacist-Driven Program Drives Higher Adherence

In a one-year study, 3,300 patients who enrolled in a medication synchronization (refill coordination and counseling) program provided by Thrifty White Pharmacy were 3.4 to 6.1 times more likely to be adherent than patients in the control group. Additionally, control group patients had a 52% to 73% greater likelihood of becoming non-adherent compared to the enrolled patients, depending on drug class.³²

Pharmacist Services Reduce Readmissions

Berger Health System in Central Ohio reduced hospital readmission rates by more than 50% for patients with congestive heart failure, pneumonia, and COPD after hiring a pharmacist to coach recently discharged patients about their medications.³³ The concept is gaining traction. Pharmacists from Walgreens are now providing medication reviews and follow-ups for patients discharged from the hospital to reduce risks of readmissions. Some hospitals are paying for these pharmacist-provided services to avert new Medicare financial penalties if post-discharge patients are readmitted too soon.³⁴



Reducing Barriers and Effecting Change

The Affordable Care Act seeks to expand patient access to health care by making health insurance coverage affordable for more Americans and improve health care quality by shifting provider reimbursement away from a volume-of-procedures-based system to a performance- and outcomes-driven system.

No matter what the outcome is for health care reform, health care is moving toward a more accountable, performance-based delivery system. As such, it is imperative that Personalized Pharmacist Care be recognized as a viable and valuable part of the solution to many of our most pressing health care system challenges. The expertise of the pharmacist, which is largely absent elsewhere along the care continuum, is perfectly suited to address the increasing complexities related to medication use now and in the future.

Unfortunately, substantial barriers remain. One is a lack of awareness about the value and depth of services that pharmacists can provide. This awareness is improving as evidenced by the increasing number of patients visiting community pharmacies to receive their flu vaccinations. Hospital systems also are increasingly recognizing the value of pharmacist-provided medication reconciliation services in reducing hospital readmission rates, now that Medicare is penalizing hospitals for preventable readmissions.

The expertise of the pharmacist, which is largely absent elsewhere along the care continuum, is perfectly suited to address the increasing complexities related to medication use now and in the future.

The biggest barrier to widespread implementation of Personalized Pharmacist Care is our antiquated reimbursement system that pays pharmacies based on the volume of medication products dispensed, rather than on the quality of clinical and consultative services provided. Given that medications play such an omnipresent role in patient treatment plans, the traditional drug-as-commodity-based reimbursement

model no longer makes clinical or economic sense. At a time when patients increasingly need better access to appropriate medication expertise, guidance, and monitoring, it is fiscally counterproductive to limit pharmacists' role as dispensers of medication only.



Calls to Action for Creating a More Sustainable Health Delivery Model

Pharmacists:

- Be prepared to demonstrate the value you provide to patients and to the health care system beyond dispensing.
- Look for new opportunities to provide clinical and consultative services.
- Align yourself with pharmacy networks that focus on performance and quality of care.
- Leverage data and technology platforms to achieve operational, clinical and other cost efficiencies.

Payers:

- Look at your medication costs as an integrated component of total patient care, holistically, rather than in isolation. Siloed discounts and rebates on medication products can't begin to offset the enormous medical and other costs incurred (including absenteeism and lost productivity) if those medications are not taken correctly.
- Make sure health service contractors can clearly demonstrate where your real pharmacy and medical cost control opportunities exist and can measure the impact of their interventions on the health of your members and on the overall cost of care.
- Demand transparency and accountability from your health service contractors. Know what you are getting in return for your health and pharmacy benefit dollar.

Health Care Consumers and Patients:

- Take advantage of the regular opportunities your pharmacist provides for helping you get the maximum health benefit from your medications.
- Ask your pharmacist if he or she provides specific services, such as immunizations, blood pressure screenings, medication reviews, or medication therapy management, that could benefit you or a family member.
- Remember that your pharmacist is a valuable member of your larger health care team, someone who can answer your questions, provide advice, and discuss your specific health or medication issues directly with your physician, if needed.

Policymakers:

- Encourage greater availability of Personalized Pharmacist Care services.
- Support legislative and regulatory initiatives that would designate and recognize pharmacists as care providers and provide reimbursement for clinical and consultative services demonstrated to improve patient outcomes and lower costs.

About RxAlly

RxAlly is the nation's first-of-its kind performance network of more than 22,000 aligned pharmacies committed to improving patient health and lowering costs for payers, patients, and the health care system overall. The RxAlly Performance Network of community pharmacies aims to improve health through Personalized Pharmacist Care, clinical research and evidence-based clinical practices, and an interoperable technology platform. By advancing the role of pharmacists, RxAlly is facilitating new solutions as it leads an innovative approach to health care that aligns the interests of patients, pharmacists and payers.

For more information
visit www.RxAlly.com.



Endnotes

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