The emerging role of the pharmacist in chronic care management and cost containment.

The changing landscape of healthcare reform, a shortage of primary care providers and an increase in chronic health conditions are creating increased and potentially significant gaps in patient care. Innovative solutions are needed to provide greater access to quality chronic care. One strategy is leveraging the pharmacist as a core part of the healthcare delivery system. Apart from dispensing medication, pharmacists have proven to be an accessible resource for health and medical information. Walgreens, the nation’s largest pharmacy provider, is implementing this strategy by using its more than 27,000 pharmacists to help improve care and lower costs.

More than 133 million Americans, 44% of the population, have at least one chronic health condition, and 26% have multiple chronic conditions. These conditions include, but are not limited to, arthritis, asthma, cancer, heart disease, depression and diabetes. Given these statistics, it’s not surprising that 75% of our country’s $2.2 trillion in annual healthcare expenditures is attributed to the costs associated with chronic disease. And based on current projections—by 2023 there will be a 50% increase in cases of cancer, mental disorders and diabetes; more than 40% growth in heart disease; and a 30% rise in hypertension and pulmonary conditions—the occurrence of chronic diseases and the costs to treat them will only worsen.

At the same time chronic conditions are increasing, the Association of American Medical Colleges projects that by 2015, the United States will have 63,000 fewer doctors than needed. Given that 10,000 Americans are turning 65 every day, and 90% of people above the age of 65 have at least one chronic condition, while 73% have two or more chronic conditions; a shortage of physicians will exacerbate the gaps in patient care even further.

Clearly, both substantial improvements in the prevention and management of chronic disease and an increased availability of healthcare providers are needed to control costs and fill the growing need for care.
Pharmacists on the frontlines of the healthcare delivery system.

Though the trend is toward an increasing shortage of physicians, in 2008 the Bureau of Labor Statistics projected that there would be an upsurge in pharmacists, with an additional 45,900 in the U.S. workforce by 2018. Moreover, employment for pharmacists between 2008 and 2018 is expected to grow faster than the average for all occupations. Too often, pharmacists are seen as people who simply fill prescriptions. However, pharmacists undergo several years of advanced clinical training to obtain a PharmD degree as mandated by the Accreditation Council for Pharmacy Education (ACPE). This professional organization promotes, ensures and advances the quality of pharmacy education—including continuing education—through safe and effective medication use. “In terms of the number of hours spent studying drug effectiveness, pharmacists are better trained than many physicians,” says Bruce Roberts, CEO of RxAlly™, a national performance network of more than 22,000 pharmacies dedicated to helping patients achieve better health through personalized pharmacist care.

Pharmacists are not only highly trained, they’re also easily accessible. In fact, patients visit pharmacies more often than any other healthcare setting, placing community-based pharmacists in a prime position to provide preventive care, counseling and medication therapy management support for patients living with chronic conditions.

One pharmacy system leading the way to better patient care is Walgreens. The nation’s leading pharmacy provider, with more than 27,000 pharmacists and 8,500 points of care across the country, Walgreens recognizes the impact pharmacists can make to improve chronic care management. In addition to their standard academic training, the Walgreens pharmacy team receives advanced training in patient counseling and chronic care management through a unique and exclusive partnership with Johns Hopkins Medicine. By focusing on four key areas—adherence, preventive care, the care continuum and convenient access—Walgreens community pharmacists are making fundamental progress in improving outcomes for those with chronic conditions.

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Walgreens Points of Care

![Map of Walgreens Points of Care](image)

- **8,500 Points of Care**
- **27,000+ Pharmacists**

Two-thirds of Americans live within three miles of a Walgreens community pharmacy.
Increasing adherence.

Medication adherence refers to patients taking their medications as prescribed (dosage and frequency), and for the duration required. Many patients, however, are nonadherent and fail to subscribe to their prescription regimen. This medication nonadherence is a growing concern to clinicians, healthcare systems and other stakeholders including payers, because of mounting evidence that nonadherence is prevalent and associated with adverse outcomes and higher costs of care. It has been estimated that medication nonadherence costs the U.S. healthcare system approximately $300 billion annually.

External research, such as the Asheville Project and Ten Cities Challenge, has demonstrated the value that pharmacists provide in patient care, and Walgreens is increasingly publishing its own outcomes research reinforcing these findings. For instance, in a Walgreens study titled “The Impact of Pharmacist Face-to-face Counseling to Improve Medication Adherence Among Patients Initiating Statin Therapy,” published in April 2012, pharmacists trained in brief motivational interviewing conducted counseling sessions that addressed barriers to adherence. The counseling intervention group consisted of 586 patients, and the non-counseled comparison group comprised 516 patients. The study found that at 12 months the intervention group had significantly greater adherence than the comparison group. Study highlights include:

- At 12 months the intervention group had a medication possession ration (MPR) of 61.8% and the comparison group had an MPR of 56.9%. This 4.9% difference is significant.
- The 12-month categorical MPR also showed significant differences between groups; 40.9% of the intervention group and 33.7% of the comparison group had an MPR greater than or equal to 80%.
- Finally, the intervention group had significantly greater persistency with their medication therapy than did the comparison group at 60, 90, 120 and 365 days, respectively.

In another study Walgreens worked with automotive manufacturer BMW at its facility in Greer, South Carolina, to implement a voluntary diabetes patient education program at BMW’s workplace pharmacy. Walgreens pharmacists served as health coaches, working closely with the patients’ primary care physician and provided face-to-face counseling, medication advice and regular follow-up. This study, referred to as the Dimensions program, attained the following results after an 18-month period.

- HbA1c values were reduced by an average of 0.67%. In addition, patients who began the study as uncontrolled diabetics saw HbA1c levels drop by 1.51%. Improvements in HbA1c are known to be associated with reduced complications and healthcare costs.
- The percentage of patients with blood pressure measurements at goal (<130/80 mmHg) increased by 50%. Controlled blood pressure can potentially lower the risk of heart disease by as much as 50%.
- The retention rate in the Dimensions program reached 91%, a significant number considering that traditional disease management programs have average retention rates of 45% at six months, and 29% at one year.

Advancements in adherence among HIV/AIDS patients is another area where Walgreens has made significant strides. One such study compared antiretroviral (ART) adherence rates of Walgreens HIV-specialized pharmacy with traditional community pharmacies. Findings showed that:

- Patients filling prescriptions at Walgreens HIV-specialized pharmacy had a higher median mMPR than those who went to non-specialized pharmacies (90% vs. 77%, respectively; p<0.0001).
- Walgreens HIV-specialized pharmacy users were significantly less likely to be in possession of a regimen that was inconsistent with national HIV treatment guidelines (28% vs. 54%, respectively; p<0.0001).
- Walgreens HIV-specialized pharmacy users were more likely to also fill a prescription for diabetes, hypertension, and/or hyperlipidemia (35% vs 30%, respectively; p<0.01).

By structuring benefits to incentivize people living with HIV/AIDS to use unique programs—like Walgreens HIV-specialized pharmacies—health plans and employers have the opportunity to improve adherence to complex ART regimens and drugs used to manage co-morbidities, which can result in better financial and clinical outcomes.
Delivering preventive care.

Researchers and practitioners at national, state and local levels have designed, tested and implemented cost-effective programs and policies for chronic disease prevention and control. In fact, Trust for America’s Health estimates that an investment of $10 per person per year in community-based programs that tackle physical inactivity, poor nutrition and smoking could yield more than $16 billion in medical cost savings annually within five years.\(^1\)

At Walgreens, preventing the onset of disease and avoiding complications after its onset are key components to chronic care management.

Immunizations.

One significant preventive measure is through administering flu shots and other immunizations. Influenza can cause serious complications—and sometimes even death—for people with chronic medical conditions that include asthma, chronic obstructive pulmonary disease (COPD), diabetes and heart disease. Getting a flu shot every year can lower those risks. Providing the accessibility and the value is the bridge to successful outcomes.

• As the nation’s largest provider of flu shots after the U.S. government, Walgreens casts a wide net: Two-thirds of Americans live within three miles of a Walgreens community pharmacy. This also gives optimal reach to nearly half of the 43% of the U.S. population who live in communities designated as medically underserved areas, or MUAs. Our unshakable presence in these communities puts us in a unique position to focus on prevention.

If 100% of people with asthma were immunized, up to 104,000 hospitalizations could be prevented each year.\(^1\)

• An analysis by the American Lung Association found that if 100% of people with asthma were immunized, up to 104,000 hospitalizations could be prevented each year.\(^1\)

• In a Walgreens study published in 2011 in the peer-reviewed journal *Vaccine*, results indicate that pharmacists successfully identified at-risk patients among patients receiving flu immunizations, and increased immunization rates for pneumococcal disease to 4.88% of the at-risk population, compared to 2.9% of at-risk patients in a benchmark population. This 68% increase seen in the populations immunized at Walgreens compared to the benchmark demonstrates the significant impact the pharmacists can have in identifying high-risk populations and administering appropriate immunizations.\(^1\)

• A customer research survey titled, “Pharmacists as Immunization Providers”—published in September 2011 in *Pharmacy Times*\(^1\)—and consisting of randomly-selected patients/participants—revealed that they were extremely satisfied with flu immunizations at Walgreens. In fact, over 90% of respondents indicated that they were “extremely satisfied” regarding:
  - Flu shots hours fitting into their schedule (95%)
  - The courtesy and friendliness of the person giving the flu shot (94%)
  - Flu shots being a good value (90%)
Patients have the opportunity to discuss results from their Wellness Pack testing with a pharmacist and can enter them in My Life Check Assessment, the American Heart Association’s online health tool.

My Life Check Assessment can be accessed at www.walgreens.com/hearthealthcheck

Health Testing.

Walgreens community pharmacists are ideally accessible to provide consultation on health testing results to engage patients in behavioral change. Pharmacists conduct preventive health testing—including services for cholesterol, blood glucose and hemoglobin A1c level—at Walgreens over 3,100 retail locations in 37 states and Washington D.C. “These tests are an important part of preventive healthcare,” says Walgreens National Medical Director, Dr. Bob London. “Our pharmacists through finger stick testing can provide feedback educating consumers about the importance of ‘knowing your numbers’ and consulting with healthcare providers. Using the health test data, pharmacists can promote the safe and effective use of medications, improve health outcomes, and reduce the overall cost of medical care.”

Some notable findings:

• According to Walgreens, more than 40% of the patients who received cholesterol and blood glucose tests at these locations tested with levels considered out of the desired range or high. As part of routine follow-up with participants who received above-normal testing results, Walgreens learned that more than one-third had scheduled an appointment with their primary care physician as a result of the test.

• In conjunction with American Heart Month, daily blood pressure testing was launched in 2011 at all of the more than 7,600 Walgreens stores nationwide. In 2012 alone, Walgreens averaged 50,000 tests per month, totaling more than 500,000 for the year. More than half of those tested had above-normal blood pressure readings.

• Every November since 2009, Walgreens has conducted blood glucose and A1c testing at select stores—increasing awareness and reaching underserved populations with great effectiveness. Nearly 300,000 tests were administered during these events, with more than 20% of the patients testing out of the desired range.

• Wellness Pack testing consists of a battery of five tests—cholesterol, blood glucose, height, weight and blood pressure. It can be purchased at any Walgreens Pharmacy for $65 and be utilized by employers for biometric screenings in conjunction, in many cases, with Health Risk Assessments. Patients have the opportunity to discuss these results with a pharmacist and also enter them in My Life Check Assessment, the American Heart Association’s online health tool. A health score is assigned and steps are given to improve heart health.
Providing a collaborative continuum of care.

A pharmacist contributes to patient care through multiple venues: hospitals, home care, long-term care, community pharmacies and other components of organized health systems. Many inpatient and ambulatory care programs have added a clinical pharmacy segment to the traditional distribution function, and an increasing number of pharmacy practitioners are engaged in clinical practice. The role of the pharmacist has expanded to allow for the provisional prescribing of medications in collaboration with a physician within some jurisdictions.

Walgreens pharmacists are an integral part of establishing a smooth transition of care and can provide expertise in a patient’s drug therapy regimen. Our highly scalable, collaborative services include:

- Daily consultation between our community pharmacists and thousands of physicians across the country
- Transition of care that extends beyond the walls of health systems to ensure seamless care—particularly critical for those with chronic conditions
- Patient screening for potentially inappropriate medications, chronic disease states lacking appropriate therapies, compliance barriers and persistency issues

Maximizing the benefits of Medication Therapy Management (MTM) using a pharmacist-led program.

The continuum-of-care approach at Walgreens has been strengthened in the last few years by an evolved concept of MTM. What began as a government-led mandate from Medicare Part D to provide comprehensive services to the most vulnerable is now a fully embraced pharmacy program. It is a natural progression of the holistic, patient-centered model for promoting and managing the safe and effective use of medications—a model that distinguishes Walgreens in the marketplace. With the larger scope of MTM and the evolution of the MTM of Medicare Part D, Walgreens pharmacists ensure an optimal medication regimen by offering a number of significant services for all patients without distinction: adherence and education, identification of potential adverse drug events, and adoption of appropriate and cost-effective therapies.

The program is framed around two bookends of care:

- **Comprehensive Medication Review (CMR)** is the “holistic annual checkup” for patients, evaluating all pharmacy services. It provides an opportunity for the Walgreens pharmacist to guide a “level-setting” effort between the pharmacist, the patient and their primary care practitioner to ensure that everyone has the most current (and the same) medications list, as well as to create an action plan to ensure that all medications and immunization schedules are adhered to, and all corresponding health testing is up-to-date. These CMRs occur at least annually, but can also be fine-tuned to a particular circumstance, such as a hospital discharge, to both verify and adjust any medications for maximum effectiveness after these critical events.

- **Targeted Medication Reviews (TMR)** is an “event-based checkup” that is a focused consultation prompted by specific patient events, usually identified during the dispensing process. These may include identifying gaps in therapy or duplicative therapies as new medications are initiated, or pharmacist identified adverse events captured through routine patient consultations. TMRs are pertinent in maintaining the continuum of care between the “annual checkups.”

One-on-one MTM consultations, conducted by pharmacists face-to-face with patients, have led to greater cost savings for payers (including health plans, government sponsors and patients alike) with healthier outcomes for patients. For example:

- In a pilot program with the State of Iowa, an independent review of the first six months validated a Drug Product Cost Savings ROI of $1.98 and Drug Product Cost Savings overall of $953,561.\(^{18}\)

- In another study with CheckMeds NC, 15,000 seniors and their pharmacists saved nearly $10 million in healthcare costs and avoided numerous health problems. Estimated Cost Avoidance was $8.09 per $1.00 of program fees (both administrative and provider fees).\(^{19}\)

Numerous other studies point to increased effectiveness in terms of quality care, a reduction in adverse reactions and savings. To access more studies, please go to WALGREENSHEALTH.COM/BUSINESS and click on the Resources tab.
Managing chronic care in the community.

The Centers for Disease Control and Prevention (CDC) states that access to care is one of the major challenges for those with chronic conditions. That’s why Walgreens pharmacists have made a significant contribution in meeting the community where it’s at.

One worksite study, “Improving health outcomes and reducing cost in chronic disease management: Impact of a pharmacist-led diabetes education program at a workplace pharmacy,” published in Health and Productivity Management in 2010, highlighted the outcomes of the Walgreens Dimensions program. This 18-month study, beginning in 2008, consisted of 185 patients in a worksite disease management program. Key results included the following:

- HbA1c decreased from 7.72% to 7.05% (Δ = -8.71%), Systolic blood pressure decreased from 138.31 mmHg to 133.15 mmHg, (Δ = -3.73%), and Diastolic blood pressure decreased from 81.88 mmHg to 79.96 mmHg, (Δ = -2.34%)
- Achievement of goals consistent with clinical guidelines were also measured and included:
  — HbA1c less than 7% increased 20.52%
  — Systolic blood pressure at goal increased 33.9% and diastolic at goal increased 50%
  — Combined HbA1c, systolic and diastolic values at goal increased 84.62%
- Program retention was 91% after 18 months vs. typical disease management programs, with retention rates of 45% for 6 months and 29% at 1 year.

On top of producing effective health results, estimated cost savings for the employer included $253,500 in direct and $87,360 in indirect savings—for a total potential savings of $340,860 for 185 employees.

Another one of our community-based studies, “Community Pharmacy Diabetes Management Program to Improve Biometric and Cardiac Risk Factors,” presented at the American College of Clinical Pharmacy 2011 Annual Meeting, highlighted the positive impact of a pharmacist-led diabetes patient education program. Findings included:

- Five of seven biomarkers (A1C, TC, HDL, TG and SBP) improved significantly.
- On average, participants in the program decreased their 10-year Framingham cardiac risk score by 10.5%.

Still another study, “Impact of an Extensive Pharmacist-Delivered Counseling Program on Patient Adherence to Target and Non-Target Chronic Medications,” presented at the AMCP 2012 Educational Conference, demonstrated that patients participating in an extensive pharmacist-delivered counseling program showed improved adherence to target medications:

- Patients receiving counseling had 33.0% greater adherence to target medications than did patients in the control group, and they also exhibited 12.1% greater adherence to non-target chronic medications.
- Compared to patients in the control group, patients receiving the intervention who were new-to-therapy (NTT) had 36.7% and 8.6% greater adherence to target medications and non-target medications, respectively, and continuing patients had 30.3% and 15.4% greater adherence to target medications and non-target medications, respectively.

### Increased adherence rates of patients in Pharmacist-delivered counseling program

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<tr>
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<th>Patients receiving counseling</th>
<th>NTT Patients receiving intervention</th>
<th>Continuing patients</th>
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<td>Non-Target medications</td>
<td>12.1%</td>
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Making the pharmacist the future of healthcare.

Walgreens has demonstrated that pharmacists working in a collaborative care team can provide a breadth of clinical services to support patients with chronic conditions—a testament to their highly specialized training.

On the frontline of modern pharmacy services, like MTM, we have proven the positive outcomes that come from:

- **Improving collaboration** among physicians and other healthcare professionals,
- **Enhancing communication** between patients and their healthcare team, and
- **Optimizing medication** use for improved patient outcomes and driving cost-effectiveness across the board.

With the landscape of healthcare changing, Walgreens is well positioned to drive a pharmacist-led, patient-centered approach to care—one that is setting the industry standard.
Sources.


8 National Association of Chain Drugstores.


18 Informational handouts “State of Iowa Employees MTM Pilot Program” and “State of Iowa Employees MTM Pilot Program Update” produced by Outcomes Pharmaceutical Health Care, 2011.


