



Pharmacies: Improving Health, Reducing Costs

Introduction

How can we help people stay healthier while reducing healthcare costs? That is the age-old question that demands new answers. Increasingly, pharmacies are recognized as valuable to that equation.

Patient care that is delivered in pharmacies, as well as a growing awareness of its value, are creating a pharmacy renaissance. Policymakers, other providers, payors, opinion leaders and the public are turning to pharmacy to make a positive difference for patient health, and for the viability of healthcare delivery. Pharmacy is delivering – and stands ready to deliver in bigger and even more powerful ways.

Looking into the future, this pharmacy renaissance promises a time when more patients take their medications correctly, with the help of their pharmacists. The health of these patients will improve, and unnecessary healthcare costs that are associated with not taking the right medications in the right ways will decrease. The healthcare community refers to this correct use of medication as “medication adherence.” Pharmacists are vital to this important aspect of patient care.

As the healthcare reform debate now shifts to the implementation phase in the Executive Branch ... as Congress considers additional action items ... and as the private sector strives for advancements, decision-makers should rely on pharmacy as a health-improving, quality-boosting and cost-containing force.

Pharmacies. The Face of Neighborhood Healthcare.

- Pharmacists are highly trusted – rating in the top three in each of the past eight years in Gallup’s survey of integrity across professions.
- Nearly all Americans live within five miles of a community pharmacy.
- To sit for pharmacy Board licensure exams, candidates must have a Doctor of Pharmacy degree (PharmD), which requires a minimum of six years of professional education.
- The number of U.S. medical students entering primary care has dropped by more than 50 percent over the past decade.
- The overall cost of poor medication adherence (taking medications correctly) is as much as \$290 billion per year, or 13 percent of total healthcare expenditures.
- In one study, the return on investment for medication therapy management (MTM) programs – which involve pharmacists counseling patients to improve medication adherence – was \$12.15 per \$1.00 of MTM services provided.

What do these facts mean for patient health and healthcare savings? Read on...

The Face of Neighborhood Healthcare

The National Association of Chain Drug Stores (NACDS) represents traditional drug stores, supermarkets and mass merchandisers with pharmacies — from regional chains with four stores to national companies. Chains operate 39,000 pharmacies. NACDS members also include more than 900 companies that supply pharmacy, health, wellness, beauty and other products.

PricewaterhouseCoopers survey: pharmacists most accessible health providers

Chains employ more than 2.7 million employees, including 118,000 full-time pharmacists. They fill about 72% of prescriptions in the United States annually. Nearly all Americans live within five miles of a community pharmacy. That delivers amazing accessibility that is unparalleled among healthcare providers. In fact, a July 2009 report by PricewaterhouseCoopers reinforces the accessibility of pharmacists. Survey respondents reported the *least* amount of difficulty in accessing care from pharmacists.

“Survey respondents reported the *least* amount of difficulty in accessing care from pharmacists.”

By contrast, according to an August 2009 report of the American Academy of Family Physicians, the number of U.S. medical students entering primary care has dropped by more than 50 percent over the past decade. Increasingly, policy needs to reflect the important role of non-physician providers, including pharmacists.

**Atorvastatin from your cardiologist?
Fexofenadine from your allergist?
Lansoprazole from your internist?**



**Peace of mind from
your pharmacist.**

NACDS launched a campaign to highlight the true story of pharmacies as “the face of neighborhood healthcare.” It reflects pharmacy services offered in communities every day that are creating a pharmacy renaissance, as well as opportunities to build further on the expertise of pharmacists for the benefit of patient health and to reduce healthcare costs.



www.nacds.org

Prescription medicines can confuse the best of us. Fortunately, our nearly 120,000 pharmacists are always there, putting their expertise and the latest technology to

work for patients. Chain pharmacies help Americans use medicines safely and stay healthy. They're America's most convenient healthcare resource.



Pharmacies. The face of neighborhood healthcare.

Gallup, other surveys find patients trust pharmacists mightily

In addition to the accessibility of pharmacists among healthcare providers, pharmacists are among the most highly trusted professionals. In the annual Gallup survey of integrity across professions – not only in healthcare but across diverse fields – pharmacists ranked third in public perception, behind only nurses and military officers. The most recent results were released in December 2010. Pharmacists have been rated in the top three in each of the past eight years.

The trustworthiness of pharmacists has tested similarly well in other polls. For example, respondents to a poll conducted by the Charlton Research Company in February 2010 rated pharmacists as the most “trustworthy” source on health and medical research issues, even ahead of government agencies, patient groups and other healthcare providers. The survey was commissioned by Research!America and Eli Lilly and Company.

Pharmacists bring extensive education and training to patient health

Patients’ trust in pharmacists is well-placed. To sit for pharmacy Board licensure exams, candidates now must have a Doctor of Pharmacy degree (Pharm.D.), which requires a minimum of six years of professional education. This reflects an evolutionary change for pharmacy students in the 1990s that mirrors the evolution in pharmacy practice to a more patient-centered focus.

According to resource materials of the American Association of Colleges of Pharmacy (AACP), “The Pharm.D. curriculum is designed to produce a scientifically and technically competent pharmacist who can apply this education in such a manner as to provide maximum health care services to patients...It is the goal of all pharmacy schools to prepare pharmacists who can assume expanded responsibilities in the care of patients and assure the provision of rational drug therapy.”

AACP describes the six major areas of instruction of the Pharm.D. curriculum as: pharmaceutical chemistry, pharmacognosy (related to natural drugs), pharmacology (related to the action of drugs in the body), business management, pharmacy practice, and the clinical component. The clinical component involves several factors, including “effective interaction with patients and with practitioners of other health professions.” This aspect is essential to the patient counseling that is at the heart of the pharmacy renaissance. Practicing pharmacists - those with a Pharm.D. or those experienced pharmacists with a bachelor of science degree who pre-dated the change in requirements - are well-equipped to provide these services.

Medication “Adherence” Helps to Confront Chronic Disease

The case for pharmacy’s role in healthcare delivery is logical, and the state of chronic care provides a vivid illustration:

- In addition to its dramatic human costs, chronic disease is responsible for the vast majority of healthcare spending.
- Pharmacist-provided care can improve health outcomes for patients with chronic disease, and reduce costs.
- Therefore, public policy and healthcare delivery strategies should incorporate the value of pharmacy, and certainly should not jeopardize the viability or accessibility of pharmacies in the community.

Chronic disease responsible for seven in 10 deaths, 75 cents of every healthcare dollar

The Partnership to Fight Chronic Disease in May 2008 released a report that included these findings about chronic diseases: they affect more than 130 million Americans annually, they are responsible for seven in 10 deaths, and they account for more than 75 cents of every healthcare dollar. In October 2007, the Milken Institute released a report that indicated the seven most common chronic diseases in the nation inflict a \$1.3 trillion annual drag on the economy. The report estimated the economic drag could reach nearly \$6 trillion by the middle of the century.

Chronic Disease by the Numbers

130 million	Number of Americans affected by chronic disease
70	Percent of deaths caused by chronic disease
75	Cents of each healthcare dollar spent on chronic disease
1.3 trillion	Dollar value of the drag on the American economy caused by the seven most common chronic diseases
6 trillion	Projected dollar value of the economic drag by mid-century

Sources: Partnership to Fight Chronic Disease, Milken Institute

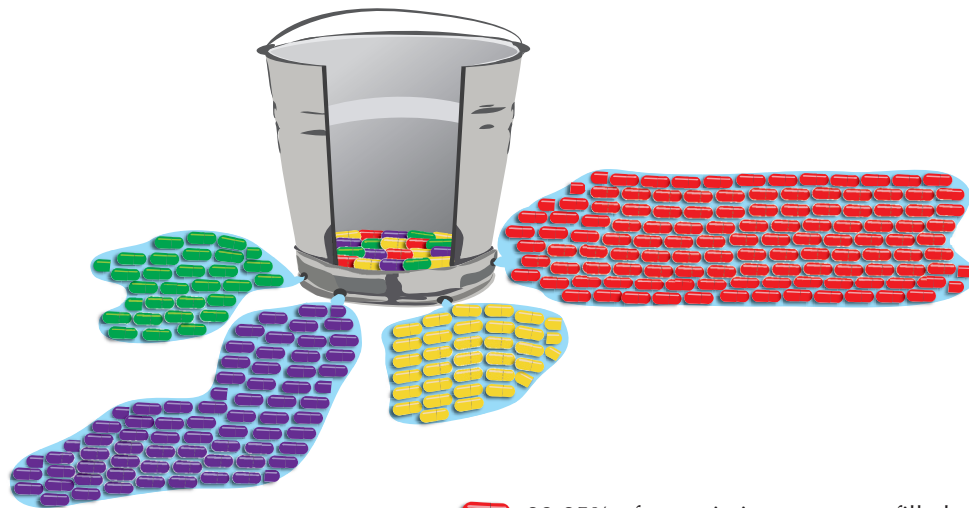
Not taking medications correctly = \$290 billion per year





If taken correctly, medications can help treat chronic diseases and prevent their astronomical costs. However, IMS Health, a company that specializes in healthcare industry intelligence and insights, has some information that describes the magnitude of non-adherence – not taking the right medications in the right ways. In what IMS Health calls the “leaky bucket,” it describes what happens to every 100 new prescriptions:

“the overall cost of poor medication adherence... is as much as \$290 billion per year”

- Between 50 and 70 percent are actually relayed to a pharmacy.
- Between 48 and 66 percent are picked up from a pharmacy by the patient.
- Only 25 to 30 percent are taken properly.
- And only 15 to 20 percent are refilled as prescribed.

The Leaky Bucket – What happens to every 100 new prescriptions



-  80-85% of prescriptions are not refilled as prescribed
-  70%-75% of prescriptions are not taken properly
-  34%-52% of prescriptions are not picked up from a pharmacy
-  30%-50% of prescriptions are not relayed to a pharmacy

NACDS Representation of IMS Health data

The concern is that patients who do not allow their medications to work for them suffer tremendously. They are more likely to wind up in an emergency room, or in the hospital for an extended stay. They have lower productivity, and simply enjoy life less. Non-adherence ends up costing more, too.

In fact, a July 2009 report by the New England Healthcare Institute estimated that the overall cost of poor medication adherence, measured in otherwise avoidable medical spending, is as much as \$290 billion per year, or 13 percent of total healthcare expenditures.

***New England Journal of Medicine* article focuses on correct medication use**

An article in the April 7, 2010, edition of the prestigious *New England Journal of Medicine* provides further support for the need to focus on adherence. David M. Cutler, Ph.D., a professor of economics at Harvard University who was senior healthcare advisor to President Obama's presidential campaign, and Wendy Everett, Sc.D., president of the New England Healthcare Institute, authored the article, "Thinking Outside the Pillbox – Medication Adherence as a Priority for Health Care Reform."

"Poor adherence to treatment regimens has long been recognized as a substantial roadblock to achieving better outcomes for patients," Drs. Cutler and Everett wrote. "We've known for some time that improved adherence can lead to improvements in health outcomes and reductions in health care spending."

Medicare's "losing huge sums of money" may urge focus on correct medication use

The March 3, 2010, edition of the *Journal of the American Medical Association (JAMA)* sounded a similar tone. The article described policy recommendations unveiled by NACDS and other entities in the fall of 2009, following the release of new research conducted by the RAND Corporation and by Avalere Health on the topic of medication adherence. The *JAMA* article extensively quoted Walid Gellad, MD, an associate scientist at the RAND Corporation and an assistant professor of medicine at the University of Pittsburgh.

"When people understand the financial losses from poor adherence, that is when they will make changes – especially when it hurts the bottom line," Gellad said, as quoted in the *JAMA* article. "When Medicare realizes it is losing huge sums of money in the long term because of adverse complications from poor adherence, then adherence may become a more important issue in Washington."

Pharmacist-provided Medication Therapy Management Increasingly Valued

While identifying a problem correctly is of tremendous importance, identifying and implementing an effective solution is necessary to effect change. NACDS highlights pharmacist-provided services as solutions for improved medication adherence and chronic care, and for improved lives and reduced costs.

Medication therapy management: from its birth in law to its delivery by pharmacists

The *Medicare Prescription Drug, Improvement and Modernization Act of 2003* defines medication therapy management (MTM) as “drug therapy management programs provided to ensure that drugs are used appropriately in order to optimize therapeutic outcomes through improved medication use and to reduce the risk of adverse events.”

In March 2008, NACDS Foundation and the American Pharmacists Association APhA released “Medication Therapy Management in Pharmacy Practice: Core Elements of an MTM Service Model Version 2.0.” This resource says, “MTM services are built upon the philosophy and process of pharmaceutical care that was first implemented in pharmacy practice in the early 1990s. As pharmacy education, training, and practice continue to evolve to a primarily clinical ‘patient-centered’ focus, pharmacists are gaining recognition from other healthcare professionals and the public as ‘medication therapy experts.’ Recognizing the pharmacist’s role as the medication therapy expert, the pharmacy profession has developed a consensus definition for medication therapy management and is increasingly using this term to describe the services provided by pharmacists to patients.”

The five core elements of MTM services in pharmacy practice include:

- conducting a medication therapy review (MTR), a consultation between a patient and a pharmacist,
- development of a personal medication record (PMR), a comprehensive record of a patient’s medications,
- development of a medication-related action plan (MAP), which a patient can use to track progress,
- intervention and/or referral to work with a physician or other healthcare professional to resolve medication-related problems, and
- documentation and follow-up.

Asheville Project shows MTM's per-patient savings in the thousands of dollars annually

Studies have shown that utilization of pharmacists' medication expertise delivers positive results for patient outcomes and healthcare costs. One of the most commonly cited programs is the Asheville Project. This initial experiment in North Carolina is being replicated nationwide. A five-year study involving diabetes patients and 12 community pharmacies found decreases in average direct medical costs of \$1,200 to \$1,872 per patient per year. Employers also cited the benefits of better health and fewer sick days for employees.

“[Pharmacists] are well-trained health professionals, yet they are often underused.”

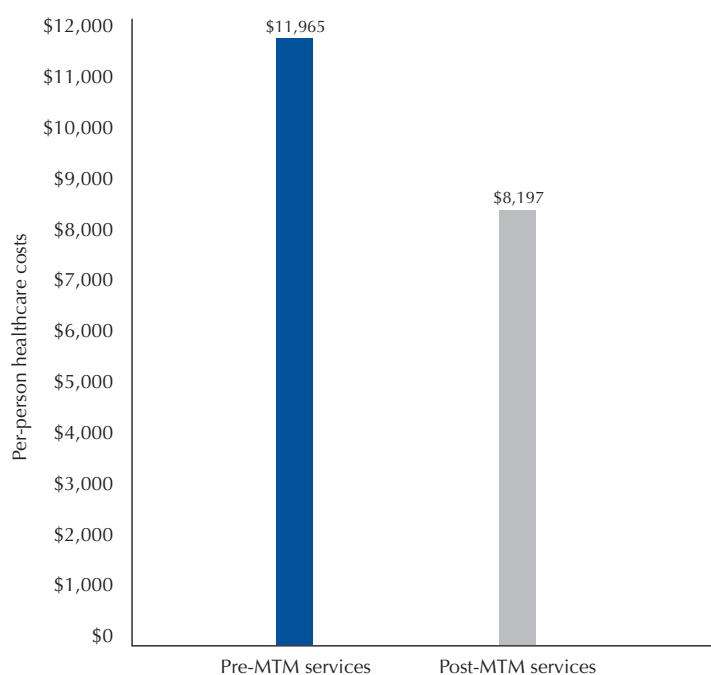
Another Asheville Project study involving 620 patients and 12 community and hospital pharmacy clinics over six years focused on hypertension and high cholesterol. The study found a reduction in cardiovascular events by nearly 50%, and a reduction in average cost per cardiovascular event from \$14,343 to \$9,931. While cardiovascular medication use increased almost 300%, savings for other medical costs exceeded the medication and program costs by nearly 13%.

Blue Cross/Blue Shield study: Return on investment of \$12 for every \$1 invested in MTM

A study of MTM programs with 186 patients through Blue Cross/Blue Shield of Minnesota found reductions in healthcare costs per person of 31.5%, from \$11,965 to \$8,197. Interestingly, prescription claims increased 19.7%. The total cost of the MTM services was an estimated \$49,490, but total healthcare expenditures for all patients were reduced by 31.5%, from \$2,225,540 to \$1,524,703. The return on investment was \$12.15 per \$1.00 of MTM services provided.

Yet another study evaluated the effects of pharmacist care on heart failure, a leading cause of hospitalizations. One review of 2,000 patients from 1998 to 2007 found a 29% reduction in all-cause hospitalization and a 31% reduction in heart-failure hospitalizations.

MTM's Reduction in Per-person Healthcare Costs in Blue Cross/Blue Shield of Minnesota Study



AARP Chairman lauds power of pharmacist-provided MTM

In testimony before the U.S. House of Representatives Energy and Commerce Committee's Health Subcommittee in December 2009, AARP expressed support for MTM in the organization's verbal and written testimony. Referring to MTM grants included in the new healthcare reform law, AARP's Chairman of the Board said, "Through these grants, pharmacists could not only review more patients' treatment regimens for lower-cost options, but more importantly could work with enrollees to ensure appropriate use of prescribed medications, help manage drug-related risks, and minimize preventable drug-related medical visits and hospitalizations."

***Health Affairs* article makes case for pharmacists in the "medical home"**

An article in the May 2010 edition of the prestigious publication *Health Affairs* also delivered a powerful statement about MTM. The article, titled "Why Pharmacists Belong In the Medical Home," was authored by Marie Smith, Pharm.D., head of the Department of Pharmacy Practice, School of Pharmacy, at the University of Connecticut; David W. Bates, M.D., division chief of general medicine at Brigham and Women's Hospital; Thomas Bodenheimer, M.D., adjunct professor of family and community medicine at the University of California, San Francisco; and Paul D. Cleary, Ph.D., dean of the School of Public Health, Yale University.

The concept of the "medical home" refers to the delivery of primary care through collaboration among patients, their providers and potentially the patient's family. The objective of this concept is to foster healthcare access and quality for better health.

"Pharmacists can play important roles in optimizing therapeutic outcomes and promoting safe, cost-effective medication use for patients in medical homes," the authors state. "They are well-trained health professionals, yet they are often underused."

The article describes specific studies in which pharmacist-provided medication management models of care helped to improve patient health and reduce overall healthcare costs. It also identified challenges – such as "the lack of reimbursement models" – that prevent the realization of pharmacy's potential for the good of patients.

"Pharmacist-provided medication management services and collaborative drug therapy management programs, supported by robust electronic health records and health information exchanges, should be implemented and evaluated with appropriate reimbursement models in medical home demonstration projects or research studies sponsored by the CMS [Centers for Medicare & Medicaid Services], state agencies, employers, commercial payers, physician groups, or academia," the article concluded.

The Roadmap to Increased Adherence, Better Health and Lower Costs

In October 2009, a diverse group of healthcare and consumer organizations and companies released five policy recommendations designed to promote better medication adherence and improved health outcomes for patients. The group, which includes NACDS, the American College of Cardiology (ACC), GlaxoSmithKline, the National Consumers League (NCL) and the Pharmaceutical Research and Manufacturers of America (PhRMA), focused their recommendations on the areas of quality improvement, care coordination, health information technology, patient/provider education and engagement and health services research.

In announcing the recommendations, Sally Greenberg, executive director of the National Consumers League, said, “Not only is poor medication adherence costly, but it also can be dangerous. Because patients don’t take their medications for a variety of reasons, including cost, such as co-pays and deductibles, side effects, misconceptions or fears, and trouble with administration, we need to employ a multitude of strategies to improve adherence. Our efforts are focused on identifying key opportunities to improve the health care system and reduce barriers that keep patients from getting the best benefit from their medicines.”

“Not only is poor medication adherence costly, but it also can be dangerous.”

Five recommendations from providers, patients, payors and academics

The five recommendations were constructed, refined and finalized following a July conference, with more than 40 medication adherence experts, including providers, patients, payors, and academics. The dialogue was informed by two research presentations by RAND Corporation, which provided a literature-based framework to help guide the creation of the policy recommendations, and Avalere Health, which described here-and-now programs to improve medication adherence.

The recommendations are summarized as follows:

- **Quality Improvement** – National quality improvement strategies should explicitly recognize medication adherence and appropriate medication use as critical components to improve health care quality and clinical outcomes.
- **Care Coordination** – Proposals aimed at improving care coordination must recognize the important role that medications play in treating and managing illnesses.
- **Health Information Technology** – Health information technology must improve the flow of timely and complete information between patients and providers, and enable providers and payers to identify and address gaps in patients' medication use.
- **Patient/Provider Education and Engagement** – Strategies to improve medication adherence must fully engage patients, and patient-centered care must involve strategies to help them better understand their conditions and treatments. These efforts also must support providers in effectively communicating the importance of following treatment plans, and in providing medication support services to patients and caregivers.
- **Health Services Research** – There is a need for additional research on medication adherence, including a focus on the effectiveness of a wider range of interventions to improve adherence, as well as an analysis of the diverse factors, behaviors, costs and consequences related to poor adherence.

Healthcare Reform Results and Next Steps

In advocating for pharmacy-specific provisions during Congress' consideration of the legislation that ultimately became the new healthcare reform law, NACDS focused on its Principles of Healthcare Reform, which include the following:

- Providing high-quality, affordable and accessible healthcare coverage to as many Americans as possible should be the goal of any healthcare reform proposal.
- The reformed healthcare infrastructure should consist of a combination of private insurance plans augmented by existing public insurance programs, rather than a single-payer model.
- The value of prescription drugs and retail pharmacy professional services should be recognized in healthcare reform, and patients should be able to choose where to obtain their prescription medications and pharmacy services.
- Financing mechanisms for reform initiatives should be broad-based, fair, and proportionate. They should be crafted to avoid negative consequences, such as creating excessive burdens on employers that might lead to the elimination of jobs, raise the prices of consumer goods, and negatively affect the overall economy. The flexible and nationally uniform framework for employer provision of healthcare benefits through the *Employee Retirement Income Security Act (ERISA)* should be maintained.
- Patients should have access to the most appropriate cost-effective medication to treat their particular medical condition. Lower-cost, equally effective generic medications should be encouraged when appropriate.
- Preventive services, such as medication therapy management (MTM), should be encouraged. The medication and healthcare expertise of the pharmacist should be reflected in any efforts to facilitate collaboration in patient care.
- Methods of evaluating the costs of legislation and regulations should take into consideration the role of pharmacy professional services in preventing poor health and acute healthcare events that result in more costly forms of care.
- Cost-sharing, such as patient co-payments, should be set at affordable levels that encourage the use of the most cost-effective medications. However, cost-sharing should not prevent patients from seeking appropriate medical care, or create barriers to accessing providers.

- Reimbursement to healthcare providers should be equitable to prevent access limitations that result when providers are forced to reduce or eliminate services. In the case of pharmacies, reimbursement should include those costs related to dispensing medication and pharmacist-provided care, as well as medication costs, both of which should be determined fairly.
- Non-pharmacy healthcare and educational services such as in-store clinics and healthy living presentations should be explored, in collaboration with other healthcare providers including the physician community.
- A robust and standardized health information technology system, including e-prescribing and electronic medical records, should be the backbone of healthcare reform. Speeding the adoption of this technology will increase the likelihood that patients will take their medications as prescribed, helping to prevent medication errors, and enhancing medical decision-making and collaboration.

Pharmacy provisions of new law help to advance pharmacy's role in patient care

The new healthcare reform law included NACDS-backed provisions, including the following:

- Creating a series of grants and pilot programs on MTM, and the use of MTM in the treatment of chronic diseases, with pharmacists envisioned as part of community health teams, accountable care organizations, and other coordinated care models;
- Codifying the expansion of MTM to more Medicare Part D beneficiaries, as well as increasing the breadth of available MTM services;
- Improvements to the substantially broken method of reimbursing pharmacies for generic drugs that was created by the *Deficit Reduction Act of 2005* and its resulting regulations;
- Expansion of eligibility for the Medicaid program, resulting in an increase of those with healthcare coverage, including that for prescription drugs;
- Maintaining the ability of seniors to obtain their durable medical equipment (DME) – such as diabetes testing supplies and canes – from community pharmacies, by providing a conditional exemption from a duplicative and costly accreditation requirement that was previously granted to other healthcare providers, but not pharmacies;
- Taking steps to close the “donut hole” in the Medicare Part D prescription drug benefit;
- Maintaining vaccine coverage under Medicare Part D.

On all of these issues, the focus now turns to the Executive Branch of the government. NACDS will remain vigilant to ensure these provisions continue to reflect a pro-patient and pro-pharmacy approach.

NACDS advocates for further pro-patient, pro-pharmacy legislation

In addition, NACDS already is working toward continued progress in Congress for legislation that would help pharmacists help patients improve medication adherence, and all that would mean for patients personally and for society as a whole. NACDS is supporting legislation that would further expand coverage for the MTM benefit under Medicare, ensure the availability of pharmacist-provided MTM, foster a workable pharmacy reimbursement model for MTM services, and set up mechanisms by which the MTM benefit can be evaluated and improved. In the 112th Congress, the Medication Therapy Management Empowerment Act (S. 274) was introduced by Sens. Kay Hagan (D-NC), Al Franken (D-MN), Sherrod Brown (D-OH) and Tim Johnson (D-SD). The Medication Therapy Management Benefits Act (H.R. 891) was introduced by Reps. Cathy McMorris Rodgers (R-WA) and Mike Ross (D-AR).



“By expanding eligibility to more seniors, MTM will certainly result in Medicare savings,” said U.S. Sen. Kay Hagan (D-NC) upon the introduction of legislation that would build on medication therapy management provisions in the new healthcare reform law. Sen. Hagan is pictured here with participants in the 2010 NACDS RxIMPACT Day on Capitol Hill, an annual event in which pharmacy advocates meet with members of Congress about pro-patient, pro-pharmacy policy.

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Representing its members – which serve as the face of neighborhood healthcare – NACDS looks forward to working with all policymakers and stakeholders as an active partner to enhance healthcare, including improving patient health and reducing costs.