The Key to Improving Medication Use & Lowering Health Care Costs Through Pharmacist Contributions to Public Health

Our nation’s—and state’s—medication use problem
Medications, the first line of defense, are our most important weapon in the fight against disease, including chronic diseases like diabetes and coronary heart disease. Unfortunately, improper medication use costs our nation an estimated $177 billion annually in total direct and indirect health care costs. From an individual state perspective, this means that millions and perhaps billions of dollars are being spent on this potentially avoidable problem. Many of these problems can be prevented by providing patients and prescribers with access to pharmacists—the medication experts on the health care team.

Reengineering and improving the medication use system
As recommended by the Institute of Medicine, systems must be designed to make the health care system safer at all levels, including medication related problems and associated costs. Physicians, pharmacists, and other health care providers must work together with patients to provide the structure, support, and services to improve medication use, avoid potential medication related problems, and improve treatment outcomes.

The medication therapy expert on the health care team
Pharmacists, trained with a focus and level of expertise on medication therapy that exceeds that of other health care providers, are ideally suited to be the health care professionals to improve medication use and outcomes. Pharmacists in all patient care settings provide these services through medication therapy management (MTM), a term that refers to services such as comprehensive and targeted medication therapy reviews, anticoagulation monitoring, pharmacotherapy consults, immunization, wellness programs, and many other diverse services that help to minimize risk and optimize outcomes associated with medication therapy.

Successful states using pharmacist-based services
In addition to notable programs at the regional and national level utilizing pharmacist-based services such as the Veterans Administration, Indian Health Service, and other private sector programs, several states have taken a leadership role in developing programs to address improving medication use through pharmacist-based services.

**Minneapolis Medicaid Medication Therapy Management program**
Pharmacists provide information, supportive services, and resources to enhance Medicaid patients’ adherence to medications through comprehensive medication reviews; assist patients in formulating medication treatment plans; and monitor/evaluate patients’ responses to medication for safety and effectiveness. Pharmacist-provided MTM services decreased health care costs from $11,965 to $8,197 per patient per year.

**North Carolina CheckMeds Medication Therapy Management program**
Pharmacists provide MTM services to all Medicare Prescription Drug Plan recipients ages 65 and older with complex medical and drug-related needs. During the first year of the program, more than 15,000 NC seniors received MTM services through CheckMeds NC, saving an estimated $10 million in health care costs and avoiding countless health problems for those receiving services.

**Pharmacists in Texas serving as public health extenders**
In San Antonio, TX, pharmacists are expanding clinical expertise and making significant contributions to health care and public health. Dr. Fernando Guerra, medical director for the San Antonio Metropolitan Health District, said that the H1N1 flu pandemic and other immunization challenges underscore the critical role of pharmacists in helping protect the public from disease. “There’s no way the usual systems of care can deliver the needed doses of vaccine to protect the public. Pharmacists should play a more prominent role in publicly promoting immunizations and reminding patients when booster doses of vaccine are needed.” He also foresees exciting new roles for pharmacists in the near future, particularly as health care reformers address ways to improve patient outcomes while reducing medical care expenses, and recognizes that they have also played key roles in adherence, MTM, and depression and mental illness. “The role of the pharmacist can be extremely helpful to bridge the gap between the clinician and patient. They really need to be part of our team,” he added.
Key State Requirements for Pharmacists to Contribute to Public Health, Achieve Quality, and Reduce Costs

TO ACHIEVE THE MOST SIGNIFICANT IMPACT ON PUBLIC HEALTH, pharmacists must be empowered to provide care to patients efficiently and effectively in a manner and scope consistent with their level of training and expertise. In addition, states must use pharmacists effectively to maximize their impact as health care providers on public health, to improve care, and to reduce costs. Recommendations for achieving these goals include:

- **Implementation of pharmacist-provided Medication Therapy Management (MTM) in state Medicaid & state employee benefit programs**
  - Employ pharmacists’ medication expertise and accessibility to fully optimize medication therapy.
  - Include pharmacists in integrated care teams; ensure that financial models neither prohibit nor discourage their involvement.
  - Provide MTM services as part of a comprehensive pharmacy benefit.

- **Expansion of pharmacist collaborative drug therapy management (CDTM) programs and coordination of care with other health care providers**
  - Include pharmacists in integrated care teams; ensure that financial models neither prohibit nor discourage their involvement.
  - Include pharmacists in transition of care activities.
  - Employ pharmacists’ medication expertise and accessibility to fully optimize medication therapy.
  - Include pharmacists in workforce strategies.

- **Expansion of the scope of pharmacist administration and immunization authority under standing orders**
  - Employ pharmacists’ medication expertise and accessibility to fully optimize access to medications that are not self-administered such as, but not limited to immunizations.
  - Include pharmacists in any integrated care model; ensure that financial models neither prohibit nor discourage their involvement.
  - Include pharmacists in workforce strategies to address immunization needs.
  - For immunizations, ensure that pharmacists have access to registries and are able to provide information into registries in a non-burdensome electronic format.

- **Expansion of pharmacist’s role as public health extender**
  - Employ pharmacists’ medication expertise and accessibility to respond to public health needs.
  - Include pharmacists in standing orders to address public health emergencies.
  - Use pharmacists’ training, experience, and accessibility to respond to public health priorities.

- **Inclusion of pharmacists in statewide or regional Health Information Technology (HIT) initiatives**
  - Ensure HIT is interoperable and provides pharmacists access to patients’ electronic health record (EHR) data necessary to provide MTM services and the ability to document care provided in EHR.
  - Employ pharmacists’ medication expertise and accessibility to assist the patient in reconciling their medication list for their personal health record (PHR).
  - Provide equal incentives to pharmacists as are provided to other health care providers for HIT adoption and use.
## Demographic Information

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<tr>
<th>Total Number of Residents (2008):</th>
<th>2,808,852</th>
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<td>Metropolitan: Non-Metropolitan:</td>
<td>64% 36%</td>
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## Health Coverage Information

- Employer Insured: 46%
- Individual Insured: 4%
- Medicaid: 16%
- Medicare: 14%
- Uninsured: 17%

| Total Medicaid Enrollment (2006): | 754,700 |
| Total Dual Eligibles: | 101,319 |

All Dual Eligibles as a % of Medicaid Enrollees (2006): 16%

## Health Care Costs

- Total Medicaid Spending (2007): $3,097,083,201
- State Share of Medicaid Spending (2007): $823,824,132
- Prescribed Drugs Medicaid Payments as a Percent of Total Medicaid Spend (2007): 10%
- Medicaid Payments per Enrollee (2007): $3,676
- Medicaid Spending Per Dual Eligible (2006): $13,377
- Inpatient Hospital Medicaid Payments as a Percent of Total Medicaid Spend (2007): 24%

## Health Care Utilization

- Hospital Emergency Room Visits per 1,000 Population (2007): 457
- Medicare Patients who were rehospitalized within 30 days of discharge (2007): 20%

## Immunization Rates

- % of Adults Aged 65 and Over Who Had A Flu Shot within the past year (2007): 71%
- % of Adults Aged 65 and Over Who Have Ever Had A Pneumonia Shot (2007): 64%
- % of Children Age 19-35 Months Who Are Immunized (2008): 75%

## Disease/Health Risk Factor Prevelance

- % of Adults Who Have Ever Been Told by a Doctor that They Have Diabetes (2007): 10%
- Number of Deaths Due to Diseases of the Heart per 100,000 Population (2007): 233
- Respiratory Disease (Asthma) Prevalence Rate (2007): 7%
- % of Adults Who are Overweight or Obese (2008): 66%
- % of Children (10-17) who are Overweight or Obese (2007): 38%
- % of Adults Who Smoke (2008): 22%

## Health Care Providers

- Physician Assistants (estimated 2008): 155
- Nurse Practitioners (2009): 1,657
- Licensed Pharmacists (2009): 4,460

## Medication Use

- Number of Outpatient Prescriptions Filled Yearly (2007): 45,428,037
- $ Spent on Outpatient Prescription Medications (2007): $2,270,730,245
- Estimated $ spent on Medication Related Problems: $3,860,241,417

## Current Pharmacist Patient Care Authority

- Collaborative Practice Agreement Authority: Full
- Extent of Vaccine Administration Authority: Partial
  - Patient Age: > 18
  - Allowed Routes: Any
  - Allowable Vaccines: Any vaccine
  - Authorized By: Protocol, standing order or Rx

Additional Information Available at: [www.arkansas.gov/asbp](http://www.arkansas.gov/asbp)
Pharmacist provided care is occurring across the United States

Visit the APhA and NASPA websites at www.pharmacist.com and www.naspa.us to learn more about pharmacist provided care.

Sources:
- Evaluating Effectiveness of the Minnesota Medication Therapy Management Care Program accessed July 1, 2009 at http://archive.leg.state.mn.us/docs/2008/mandated/080113.pdf
- http://www.ncpharmacists.org/displaycommon.cfm?an=1&subarticlenbr=69
- Individual State Board of Pharmacy websites and internal APhA databases