

Change in Community Pharmacy Practice—It is Not Just Coming from the Cash Register

a report by

Jean-Venable 'Kelly' R Goode, PharmD, BCPS, FAPhA

Associate Professor and Director of the Community Pharmacy Practice Program Department of Pharmacy,
School of Pharmacy, Virginia Commonwealth University

Jean-Venable R Goode, PharmD, BCPS, FAPhA, is an Associate Professor, Department of Pharmacy, School of Pharmacy, Virginia Commonwealth University (VCU).

She has worked with Ukrop's Pharmacy to develop enhanced patient care programs. Currently, Ukrop's provides patient care programs in the areas of wellness, immunization, diabetes, osteoporosis, and smoking cessation. She is the Director of the VCU Community Pharmacy Practice Program and Residency Program. Dr Goode is a Board Certified Pharmacotherapy Specialist. She has authored a number of abstracts, textbook chapters, and journal articles, and given presentations on a wide variety of topics including immunizations, asthma, diabetes, and community pharmacy practice.

Currently, she is President of the American Pharmaceutical Association Academy of Pharmacy Practice and Management (APhA-APPM) and a member of the APhA Board of Trustees. Dr Goode was the recipient of the 1997 VSHIP Practice Innovation Award, the 2003 VCU School of Pharmacy Teaching Excellence Award, the APhA-APPM Clinical/Pharmacotherapeutic Distinguished Achievement Award and the VCU Distinguished Service Award. She is an APhA-APPM Fellow.

Dr Goode received her BS in Pharmacy and Doctor of Pharmacy from VCU in Richmond, Virginia. She also received a BS in Agricultural Economics from Virginia Tech in Blacksburg, Virginia. Dr Goode is also a member of a number of professional organizations. Tina Brock is a Clinical Assistant Professor and Coordinator of the Pharmaceutical Care Laboratory Program at the School of Pharmacy, University of North Carolina at Chapel Hill. She received her BA in German, BS in Pharmacy (1990) and MS in Pharma

"Change is the law of life. Those who only look to the past or present are certain to miss the future."

John F Kennedy

Why are community pharmacists well-positioned to have a significant impact on patient care? Location, location, location! Community pharmacy practice is where the patients are—community pharmacists fill 280 million prescriptions each week, equating to at least that many visits by patients to a community pharmacy.¹ In a 2005 survey, 61% of patients stated that they have a relationship with their pharmacist. Additionally, 65% of patients revealed that it was important to interact directly with the pharmacist when filling a prescription.² Community pharmacy practice is also where the pharmacists are—six out of 10 pharmacists in the US practice in community pharmacy.³ Most significantly, the community pharmacist is an often underused but invaluable resource for the healthcare team. The community pharmacist's role is important. The estimated cost of drug morbidity and mortality exceeds US\$177.4 each year.⁴ Another study found that there was a 76% discrepancy between what medications are prescribed and what the patient takes.⁵ As the most accessible healthcare provider, the community pharmacist is in a key position to influence the use of medications and the public health of the nation.

State of Community Pharmacy Practice

Not every community practitioner has yet to change their traditional dispensing role, but practice in community pharmacy is reaching the 'tipping point'

defined as that magic moment when an idea, trend, or social behavior crosses a threshold, tips, and spreads like wildfire.⁶ Community pharmacists are taking advantage of opportunities by transforming their role from a dispensing-centered to a patient-centered practice. Opportunities for community pharmacists leading to this potential tipping point include the following:

- 45 states with collaborative practice authority;
- 45 states with immunization administration authority;
- Medication Therapy Management (MTM) services in the Medicare Modernization Act of 2003 (MMA);
- New Current Procedural Terminology (CPT) codes for pharmacists to bill for MTM services;
- Several states Medicaid programs paying pharmacists for patient care services;
- Community Pharmacy Residency Programs (A one year postgraduate training program in community pharmacies where residents learn to provide patient care); and
- Public health issues affecting the nation (e.g., unhealthy lifestyles, obesity, vaccine-preventable diseases).

These opportunities have opened the doors for enhanced patient care programs in the community pharmacy setting. Patient-centered practices in the community setting include a wide range of services from enhanced patient education and counseling to medication management under collaborative practice authority. The most basic level of patient care service entails the

1. Lien O, Franco C, Gronwall G, et al., "Getting medicine to millions in a public health emergency: can retailers play a role?", (2005), http://www.upmc-biosecurity.org/misc/medicine/medicine_to_millions.pdf last accessed June 6, 2006.
2. "Attitudes about Pharmacies and Pharmacists: National Survey of 1001 Adults", NACDS Foundation Public Opinion Research (2005).
3. Occupational Outlook: Pharmacists. US Bureau of Labor Statistics 2006 www.bls.gov/oco/ocos079.htm last accessed June 6, 2006.
4. Ernst FR, Grizzle AJ, "Drug-related morbidity and mortality: updating the cos-of-illness model", J Am Pharm Assoc (2001);41: pp. 192-199.
5. Bedell SE, Jabbour S, Goldberg R, et al., "Discrepancies in the use of medications: their extent and predictors in outpatient practice", Arch Intern Med (2000);160: pp. 2129-2134.
6. Gladwell M, *The tipping point*, New York; New York: Little Brown and Company, 2000.

community pharmacist being front and center to communicate with patients, something pharmacists have been doing for years. By focusing on this, pharmacists are better able to detect and resolve drug therapy and disease state problems and help patients with self-care medications and issues. On a more complex level, community pharmacists are also providing comprehensive education programs for patients and an/or in-depth medication monitoring for patients.

Community Pharmacist Drug Therapy Interventions in the Dispensing Process

Researchers have worked to quantify the value of community pharmacist interventions in improving patient care. Several early studies evaluated the ability of the community pharmacist to detect and resolve drug-related problems.⁷⁻⁹ Of the prescriptions filled by community pharmacists, 0.78–2.6% required intervention by the pharmacist. It was also estimated that approximately 28% of the identified errors could have resulted in harm to the patient if the problem had not been corrected by the pharmacist.⁸

Community Pharmacist Patient Education

Pharmacists provide disease state and health improvement programs via group sessions or seminars or through individualized education. Disease state education programs are provided in areas such as diabetes, asthma, cardiovascular risk, and hypertension. Health improvement programs are delivered in the areas of smoking cessation, and obesity. A number of community pharmacies have pursued American Diabetes Association (ADA) recognition for their diabetes education programs. ADA recognition requires that the community pharmacists work collaboratively with a number of health care professionals including nurses, physicians, and dietitians. Increased access to diabetes education through pharmacies may take the burden off traditional education centers to help provide care to the increasing number of people being diagnosed with diabetes.

Community Pharmacist Medication Monitoring

Medication monitoring is an activity that community pharmacists are specifically trained to do for their patients. Pharmacists monitor response to medications using interviewing and questioning techniques to gain an understanding for the patient's response to the medication. The pharmacist uses this information to work with the patient and the physician to improve the patient's outcomes to the medication. Another way community pharmacists are actively monitoring patients' response to medications is by using point of care technology such as blood pressure monitors, blood glucose monitors, lipid analyzers, and anticoagulation monitors. Pharmacists use the laboratory data gathered by patients or obtained at the pharmacy to provide patients and physicians with information and recommendations to better manage their medications.

Community Pharmacist Disease Management

The impact of community pharmacist disease management services has also been documented in the literature. Community pharmacists are involved with disease management of diabetes, congestive heart failure, anticoagulation, hypertension, dyslipidemia, asthma, and others. Community pharmacists working in collaboration with physicians were able to help 62% of patients with dyslipidemia meet National Cholesterol Education Program (NCEP) goals for lipid management.¹⁰ Community pharmacists in the City of Asheville, North Carolina, were able to successfully manage patients with diabetes. Outcomes included a decrease in A1C, decrease in the number of sick days by one-half, increase in the number of patients taking ace inhibitors, and number of patients receiving preventive foot exams.¹¹ The American Pharmacists Association Foundation launched the Patient Self-Management Program (PSMP) for Diabetes, which is modeled after the Asheville Project. The PSMP engages community pharmacists working together with patients with diabetes to help them self-manage their disease. Early

7. Rupp MT, Schondelmeyer SW, Wilson T, et al., "Documenting prescribing errors and pharmacist interventions in community pharmacy practice", *Am Pharm* (1988);28: pp. 574-580.
8. Rupp MT, DeYoung M, Schondelmeyer SW, "Prescribing problems and interventions in community practice", *Med Care* (1992);30: pp. 926-940.
9. Dobie RL, Rascati KL, "Documenting the value of pharmacist interventions", *Am Pharm* (1994);34: pp. 50-54.
10. Bluml B, McKenney J, Cziraky M, "Pharmaceutical care services and results in project ImPACT: Hyperlipidemia", *J Am Pharm Assoc* (2000);40: pp. 157-165.
11. Cranor CS, Bunting BA, Christensen DB, "The Asheville project: Long-term clinical and economic outcomes of a community pharmacy diabetes care program", *J Am Pharm Assoc* (2003);43: pp. 173-190.
12. Garrett D, Bluml B, "Patient self-management program for diabetes: first-year clinical, humanistic, and economic outcomes", *J Am Pharm Assoc* (2005);45: pp. 130-137.

results are very similar to the Asheville Project and when compared with Health Employer Data Information Set (HEDIS) outcomes are much better.¹² Again, in Asheville, North Carolina, community pharmacists were able to effectively manage patients with asthma. Both emergency department visits and hospitalizations were significantly reduced in the patients managed by the pharmacists.¹³

Medication Therapy Management

The recognition of pharmacists as providers of MTM under the MMA of 2003 in Medicare Part D has initiated a significant interest among large chain corporations, independent owners, supermarket chains, and entrepreneurs to determine how best to incorporate MTM in busy pharmacy practices. MTM is the biggest opportunity in recent years for change in community pharmacy practice. The American Pharmacists Association and the National Association of Chain Drug Stores Foundation adopted a model for basic MTM services in a community pharmacy, Medication Therapy Management in Community Pharmacy Practice—Core Elements of an MTM Service.¹⁴ It is a patient-centered practice model that involves the patient in decision-making focused on optimizing medication use. Many community pharmacists are using these Core Elements to begin developing their MTM services.

However, it is too early to document the impact of pharmacists providing MTM for seniors covered under Medicare Part D. It would be anticipated based on previous success of community pharmacist patient care services in other areas that the MTM services delivered by pharmacists will provide better therapeutic outcomes for the nation's seniors. Pharmacists involved in MTM need to ensure documentation and dissemination of the outcomes of their services. Pharmacists also need to realize there will be opportunities beyond Medicare for provision of MTM to other patients. In Minnesota, Medicaid is paying pharmacists to provide MTM for Medicaid patients and bill for the services using the newly adopted MTM Current Procedural Terminology (CPT) codes for pharmacists.

Community Pharmacist Activities in Public Health

In addition to providing patient care, community pharmacists are also making an important impact in the area of public health. Public health initiatives may include preventive disease in a large population, including promoting wellness and immunization. Involvement of community pharmacists ranges from patient education about preventive measures to screening for risk of chronic diseases to administering immunizations. Community pharmacists are using National Health Observances such as National Osteoporosis Awareness and Prevention Month to promote healthy behaviors by their patients. Community pharmacists are also enhancing patient care by helping patients with chronic diseases receive the appropriate preventive care. In one study, pharmacists working with physicians started aspirin therapy in 67% of patients with diabetes not currently taking aspirin therapy.¹⁵ This life-saving but simple preventive measure can help improve cardiovascular outcomes in this high-risk population.

Community Pharmacist Screenings

Many community pharmacists are involved with screening patients for diabetes, dyslipidemia, hypertension, osteoporosis, and other medical conditions. In one evaluation, 67% of patients participating in a lipid screening program had a total cholesterol greater than 200mg/dl and 29% had low-density lipoproteins above the NCEP goal. Another study conducted in Canada found that community pharmacists could improve cholesterol risk management in patients at high risk for cardiovascular disease.¹⁶ In a community pharmacy hypertension screening program, 36% of patients referred to their physician had a change in their medication regimen.¹⁷ Community pharmacists had a significant influence on motivating men with a potential health risk to seek medical attention from their physician.¹⁸ A community pharmacy osteoporosis screening program found 78% of patients had no previous knowledge of risk for a future fracture.¹⁹

13. Bunting BA, Cranor CW, "The Asheville Project: long-term clinical, humanistic, and economic outcomes of a community-based medication therapy management program for asthma", *J Am Pharm Assoc* (2006);46: pp. 133-47.

14. Medication Therapy Management in community practice: core elements of an MTM service (version 1.0)", *American Pharmacists Association, National Association of Chain Drugs Stores Foundation, J Am Pharm Assoc* (2005); 45: pp. 573-579.

15. Haggerty SA, Cerulli J, Zeolla MM, et al., "A Community pharmacy Target Intervention Program (TIP) to improve aspirin use in persons with diabetes", *J Am Pharm Assoc* (2005);45(1): pp. 17-22.

16. Tice B, Phillips CR, "Implementation and evaluation of a lipid screening program in a large chain pharmacy", *J Am Pharm Assoc* (2002);42: pp. 413-419.

17. Magnum SA, Kraenow KR, Narducci WA, "Identifying at-risk patients through community pharmacy-based hypertension and stroke prevention screening projects", *J Am Pharm Assoc* (2003);43: pp. 50-55.

Community Pharmacist Immunizations

Immunization advocacy and administration is one of the most significant public health initiatives involving community pharmacists in recent years. The American Pharmacists Association has taken a lead role in offering pharmacists the only Centers for Disease Control and Prevention (CDC) recognized training program. In the past 10 years, more than 20,000 pharmacists and student pharmacists have been trained through this program.²⁰ It is estimated that community pharmacists administer more than one million vaccinations each year. Community pharmacists primarily administer influenza vaccines to adults; however, many pharmacists are beginning to expand into administering immunizations such as tetanus-diphtheria, hepatitis B, hepatitis A, and meningococcal all year round. Some community pharmacists are involved with administering vaccines to children and adolescents. Adolescent immunization is an area where pharmacists may be able to partner with

pediatricians to help vaccinate a population that does not usually seek health care. This will be an increasing problem as many of the new vaccines on the horizon will be targeting adolescents.

Community pharmacy practitioners are the 'untapped' resource of the healthcare team. More and more community pharmacists are moving to a patient-centered practice impacting patient outcomes such as improvement in medication therapy, improvement in chronic disease measurements, and increasing immunization rates. They are accomplishing this with a team-based approach working with physicians and other healthcare providers. But we still need to reach the tipping point. Community practitioners who have not yet changed their practice may remember what Benjamin Franklin said, "When you're finished changing, you're finished." Far from being finished, innovative community practitioners are just getting started. ■

-
18. Boyle TC, Coffey J, Palmer T, "Men's health initiative risk assessment study: effect of community pharmacy-based screening", *J Am Pharm Assoc* (2004);44: pp. 569-577.
 19. Goode JV, Swiger K, Bluml BM, "Regional osteoporosis screening, referral, and monitoring program in community pharmacies: findings from Project ImPACT Osteoporosis", *J Am Pharm Assoc* (2004); pp. 152-160.
 20. Rothholz MC, *American Pharmacists Association, Personal communication, June 2006.*
-