

Maryland P³ Program

The [Patients, Pharmacists Partnerships \(P³\)](#) is a partnership between the Maryland Department of Health and Mental Hygiene (MDDHMH) and the University of Maryland School of Pharmacy (UMD) to improve hypertension and diabetes prevention and control by partnering with community pharmacists to provide medication therapy management (MTM) services to employees of self-insured employers across the mid-Atlantic region, including Maryland.

BACKGROUND

Every 33 minutes, one person in Maryland dies from a heart attack, stroke, or other cardiovascular disease-related event.¹ Heart disease and stroke are the first and third leading causes of death in Maryland respectively, and together account for one out of every three deaths (30.4%).²

Individuals with diabetes are particularly at risk for developing cardiovascular disease. According to CDC, heart disease is the leading cause of diabetes-related deaths (65%), with death rates two to four times higher among adults with diabetes compared to those without diabetes. Individuals with diabetes are also at risk for microvascular and macrovascular complications.³

MTM refers to a group of services pharmacists offer to help patients better manage their drug therapy regimens and address medication-related issues. MTM has five elements: medication therapy review, personal medication records, medication action plans, intervention/referral and documentation, and follow-up. MTM's potential benefits include decreased medication costs, fewer sick days, improved clinical outcomes, reduced hospitalizations, improved adherence to and understanding of drug therapy, and overall enhanced quality and continuity of care. Systematic reviews and evidence-based initiatives, including the [Asheville Project](#) and the [Diabetes Ten City Challenge](#), have shown MTM to be highly effective in supporting better patient medication self-management, improving clinical outcomes, and reducing healthcare costs for diabetes and other chronic conditions.⁴

OVERVIEW OF THE INITIATIVE

P³ began in 2006 and is modeled after the successful Asheville Project, a program implemented by a self-insured employer to provide education and personal oversight for employees with chronic health problems. In Maryland, P³ is a partnership between MDDHMH, UMD, local pharmacists, and employers to offer MTM services to employees or immediate family members who have been diagnosed with diabetes. Currently, two self-insured employers, the Maryland state government and McCormick Corporation, offer P³ to their employees, and 270 individuals participated between January 2011 and June 2012.⁵ The state government, which is the largest employer in the state, has opened a P³ clinic in the MDDHMH building. [McCormick Corporation](#), a spices, herbs, and flavorings manufacturer, also offers P³ to its employees.

P³ uses a process of care model that includes an initial visit and series of follow-up visits between the pharmacist and patient. The initial visit includes: (1) conducting a comprehensive medical/medication

Aim of the Initiative:

Improve hypertension and diabetes prevention and control by partnering with community pharmacists to provide MTM services to employees of self-insured employers across Maryland and the mid-Atlantic Region.

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history review; (2) assessing knowledge and behaviors related to medication adherence, diet, physical activity, and smoking status; (3) gathering clinical measures including HbA1c, blood pressure, weight, and LDL cholesterol; (4) performing a comprehensive medication review; (5) establishing short-term measurable self-management goals; and (6) discussing long-term goals. Follow-up visits occur at least quarterly and assess progress toward self-management goals, review medications, address education or other barriers, and monitor patient clinical measurements. The core P³ initiative focuses on diabetes management, but uses a model that could apply to any other chronic condition, such as hypertension, hyperlipidemia, obesity, or other medication-related problems. MDDHMH and UMD also piloted a hypertension MTM program with an independent community pharmacy that provided services for 55 patients. This case study focuses on the diabetes management initiative.

Key partners

Key partners include MDDHMH, UMD, McCormick Corporation, and community pharmacists, one of which is Professional Pharmacy.

State Health Agency: MDDHMH

MDDHMH plays several key roles in implementing P³, including:

- Providing funding support for P³ and pursuing ongoing funding opportunities (for example, CDC funding and State Innovation Models Initiative grants).
- Providing general strategic support.
- Coordinating P³ with other initiatives across the state and nation that support Million Hearts, including [Team Up. Pressure Down.](#) and healthcare reform efforts.
- Developing partnerships that connect P³ with other initiatives at the state level, as well as stakeholders such as McCormick.
- Communicating P³'s and MTM's benefits to a wide variety of stakeholders, including the state legislature, employers, and local pharmacies. For example, MDDHMH uses the Maryland Health Quality and Cost Council to communicate with leaders from state government, universities, payers, and health systems about P³ and Million Hearts. As a result, there is widespread awareness of P³ across the state.
- Building awareness and support for expanding the role of non-physician providers—particularly pharmacists—as important care team members, and supporting initiatives to increase access to these professionals and allow them to bill for services such as MTM.

Spotlight: State Health Agency Role

MDDHMH provides funding and strategic planning support, establishes performance indicators, champions P³ among stakeholders at all levels, and coordinates the program with other statewide initiatives.

State Partner: UMD

UMD pharmacy faculty members have extensive experience expanding the role of community pharmacists and MTM, and helped develop the [Team Up. Pressure Down. resource toolkit](#) .

UMD oversees P³'s day-to-day and management activities and provides a variety of services to both employers and pharmacists. Employer support includes operational and administrative services, such as:

- Managing program start-up.

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- Providing pharmacist documentation systems.
- Running reports on pharmacist-guided patient skills development and progress.
- Providing patient self-management tools.
- Overseeing data quality and ensuring protocols are up-to-date.
- Collecting, analyzing, and reporting data to employers regarding P³'s impact on their employees.
- Coordinating annual enrollee outcome data reports for employers.
- Marketing the program.

UMD's support for pharmacists includes:

- Recruiting and enrolling pharmacists.
- Providing training that addresses MTM, diabetes, hypertension and other chronic disease management, as well as motivational interviewing. More than 300 pharmacists in Maryland have been trained to offer MTM through P³ either at worksites or at their pharmacy.
- Providing quality assurance services such as audits to ensure pharmacists are following care protocols.
- Conducting ongoing in-service training and regular follow-up.
- Managing pharmacist reimbursement in coordination with the Maryland Pharmacists Association. UMD collects billing data from individual pharmacists and submits it to the employers who pay a flat rate per employee.

Regional-Level Partner and Employer: McCormick Corporation

P³ is offered by self-insured employers as a voluntary health benefit for covered employees and dependents. In general, employers' role in P³ includes leading participant recruitment and enrollment in collaboration with UMD, waiving co-payments for diabetes and other cardiovascular-related medications and supplies for participating employees, and providing payment to P³ pharmacists.

McCormick Corporation is one of the primary employers participating in P³ in Maryland. It has 3,600 employees nationwide, with nearly 2,500 in Maryland. McCormick places high importance on employee health in support of one of its values, "the power of people." It has been offering employee wellness services for nearly 15 years and has an on-site wellness clinic staffed by nurse practitioners, nurses, medical assistants, and a physician. The clinic offers a variety of services including annual health screenings (including HbA1c, blood pressure, and BMI), as well as P³ since 2007. During the most recent screening, wellness staff found 49 percent of employees had pre-diabetes and 30 percent had diabetes based on their HbA1c levels. However, participation in P³ is less than 30 percent, so McCormick's goal is to increase participation in P³ among its employees by 10 percent per year.

McCormick clinical staff educates employees about their health screening results (including blood pressure), encourage eligible employees to enroll in P³, and connect them with P³ pharmacists. They also incorporate P³ outreach into other wellness initiatives, such as a 12-week wellness challenge. McCormick also promotes P³ in new hire orientation, in employee newsletters throughout the year, and through referrals based on screening results. P³ pharmacists regularly visit on-site to meet with participating employees.

McCormick benefits department and wellness staff meet three to four times per year with UMD P³ program staff to discuss data and administrative issues. In addition to receiving UMD outcomes reports, McCormick's benefits department connects UMD to McCormick's health plan and pharmacy benefit

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management vendor to access claims data for evaluation purposes. The benefits department pays P³ pharmacists for clinical services provided through UMD. McCormick wellness staff and MDDHMH staff communicate regularly to share program updates and exchange educational and data resources on a broad range of wellness topics. McCormick also partners with CVS/Caremark, which waives medication costs for P³ participants.

Provider Partner: Professional Pharmacy

Professional Pharmacy is an independent pharmacy located in Rosedale, Maryland, that offers a variety of services. One of Professional Pharmacy's co-owners became a P³ pharmacist in 2007 and works with McCormick employees. Professional Pharmacy plans to offer independent MTM services in the future and enrolling in P³ aligns with that goal. Professional Pharmacy's P³ pharmacist says the program is well-coordinated and well-organized. His patient load has varied, reaching as many as 15 patients per quarter. Many of these patients prefer to be seen at their worksites rather than traveling to the pharmacy. Patients have expressed that the program has numerous benefits, such as receiving assistance from pharmacists to help them better understand their treatment regimens. The P³ pharmacist has found physicians to be receptive to the program and said that they work well with him to coordinate care for patients. At each visit, the pharmacist shares information in writing with the patient's physician, who in turn requests lab work or suggests adjusting medications.

Local-level partners: Local health departments

Although local health departments are not directly involved in P³, they play an important role in general in convening stakeholders to raise awareness of MTM and discussing opportunities to partner and bring MTM services to the community.

Next Steps

Next steps for state partners include pursuing State Innovation Models Initiative funding from the Centers for Medicare and Medicaid Services, which would allow the MDDHMH-UMD partnership to develop a delivery model to target communities with a high-disease burden. MDDHMH and UMD are also exploring partnerships with [Medicaid managed care organizations](#) to provide MTM services to Medicaid beneficiaries with or at risk for cardiovascular disease, with a potential reach of 16,729 patients. The initiative is also exploring collaborating with the Maryland Department of Budget and Management to implement a pilot initiative offering MTM services to 5,000 state employees.

At the employer level, once McCormick increases participation in the P³ diabetes management program, staff plans to start participating in the P³ hypertension pilot program and expanding to cardiovascular disease prevention and management.

Next steps related to data management and performance indicators include the launch of ThinkEHRx, an electronic pharmacist documentation system that allows easy access and aggregation of data from P³ pharmacists. MDDHMH is also collaborating with managed care organizations to include a hypertension indicator in the [Health Plan Employer Data and Information Set](#) (HEDIS)¹: the percentage of members

¹ The HEDIS measures are standards established by the National Committee for Quality Assurance and published in the *State of Health Care Quality* report, which annually covers health trends and variations in care. A majority of national managed healthcare plans use the HEDIS standards to measure plan performance and quality of care.

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18–85 years of age who were diagnosed with hypertension and whose blood pressure was adequately controlled (<140/90 mmHg) during the measurement year.

Tools and Resources

In addition to resources already described, other key tools and resources include:

- The CDC guide “[Partnering with Pharmacists in the Prevention and Control of Chronic Diseases.](#)” (P³ is a featured example.)
- [Million Hearts resources](#) and materials for pharmacists and patient education, including *Team Up. Pressure Down.*
- Funding: Initially, Maryland state funds were obtained to support developing the infrastructure for the P³ program through the support of a state legislator.
- UMD’s Center for Innovative Pharmacy Solution’s “[Knowledge Enterprise,](#)” an online training center that offers modules on expanding pharmacists’ role, the P³ Program, and pharmacists’ role in supporting Million Hearts.
- State-level resources from Healthiest Maryland Businesses and other initiatives.

MEASUREMENT and ACCOUNTABILITY

Health outcomes performance measures—MDDHMH and UMD established overall state-level P³ performance measures based on American Diabetes Association and HEDIS criteria. They include: HbA1c control rates; LDL cholesterol control rates; and blood pressure control rates. Control rates are measured as the percentage of participants achieving the target HEDIS benchmarks for diabetes and hypertension management. Specifically, the diabetes management program uses the Comprehensive Diabetes Care HEDIS measures set, which includes two measures for the percentage of participants diagnosed with diabetes reaching a blood pressure goal of less than 130/80mmHg and less than 140/90mmHg. The P³ hypertension pilot program (described previously) uses the controlling high blood pressure HEDIS set as the benchmark, which includes the percentage of participants diagnosed with hypertension reaching a goal blood pressure of less than 140/90mmHg.

Claims data and cost savings—UMD staff work with employers’ health plans and benefits departments to access medical care utilization data (claims data), including pharmacy claims, for one year before and one year after individuals’ participation in P³. UMD produces aggregate [reports](#) for employers that summarize impact on employee health outcomes, demonstrate cost savings, and calculate return on investment (ROI).

Reporting Systems and Data Management

In addition to the data sharing systems above, a number of other reporting systems are in place:

Progress reports—UMD submits periodic [progress reports](#) to MDDHMH on participant demographics, key performance metrics including HbA1c and blood pressure, and comparisons of P³ participants to national and Maryland HEDIS benchmarks. UMD and MDDHMH also submit periodic reports to CDC.

StateStat—In addition, UMD reports blood pressure management data to [StateStat](#), which MDDHMH uses track outcomes of Million Hearts activities across the state.

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ThinkEHRx—[ThinkEHRx](#) is an electronic MTM documentation system that links directly to Maryland's health information exchange, the [Chesapeake Regional Information System for Our Patients \(CRISP\)](#). P³ pharmacists submit medication review and adherence information, blood glucose, lab work (e.g., HbA1c, lipid profiles), blood pressure measurements, and more into the [entry fields](#) in ThinkEHRx. Physicians and hospitals across the state are then able to access the data directly. This integration also allows MDDHMH to track P³ and broader Million Hearts indicators at the state level. UMD uses ThinkEHRx to generate aggregate reports that are submitted annually to MDDHMH, as well as reports on individual pharmacists' patient populations. Individual pharmacists may also generate reports on individual patients to share with physicians. MDDHMH is exploring using ThinkEHRx to interface with EHR systems at the health insurance providers Aetna, Cigna, and CareFirst BlueCross BlueShield.

Spotlight: Health IT

ThinkEHRx is an electronic pharmacist documentation system that allows easy access and aggregation of data from P³ pharmacists. ThinkEHRx integrates directly with Maryland's health information exchange.

OUTCOMES

Key process-related successes to date include:

- UMD has developed a statewide documentation system with health IT connection capabilities.
- MDDHMH has helped solidify statewide partnerships and brought key stakeholders to the table. Future goals include better connecting with the physician community to develop a team-based care approach.
- McCormick has expanded P³ to sites in five other states.
- McCormick and UMD have successfully streamlined the employee enrollment process and resolved initial administrative issues.

Key health outcomes are outlined in the most recent [P³ Progress Report](#). Overall results indicate improved medication management among participating employees. Specifically, between Jan. 1, 2011 and June 30, 2012:

- P³ participants' average blood pressure decreased from 126/77 mmHg pre-enrollment to 124/75 mmHg post-program.
- The percentage of participants reaching a target of less than 140/90mmHg increased from 77 percent to 83 percent, compared to a national HEDIS rate of 66 percent and Maryland HEDIS rate of 59 percent.
- The percentage of participants meeting the lower blood pressure target of <130/80mmHg increased from 43 percent to more than 50 percent after program implementation, compared to a national HEDIS benchmark of 34 percent (no Maryland rate available).
- Among patients enrolled in the Hypertension Pilot program, the average blood pressure decreased from 141/81mmHg pre-program to 125/77mmHg post-program. Those meeting the target goal of less than 140/90mmHg increased from 41 percent pre-program to 88 percent post-program. A total of 88 percent of participants involved in the program reached the goal blood pressure of less than 140/90mmHg compared to 63 percent national HEDIS rates and 62 percent Maryland HEDIS rates.

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Impacts on healthcare costs include:

- Average total healthcare costs reduction of \$2,136 per participant. Savings were experienced mostly due to a 22 percent reduction in emergency department visits and hospitalizations.
- Average ROI of \$2.50 for each \$1 spent.
- For patients with diabetes, \$475,338 total (\$1,047 per person) indirect productivity savings (in addition to actual clinical cost savings).

At the employer level, McCormick is seeing increased employee participation and improvements in blood pressure and medication compliance. Outcomes at the individual-provider level vary. The Professional Pharmacy P³ pharmacist sees varying results across different patient populations, with best results among patients with very high HbA1c (>9).

KEY RECOMMENDATIONS and LESSONS LEARNED

Set a big table—Engage stakeholders from sectors besides public health. Be sure to engage community leaders, including elected officials. For MTM initiatives, key stakeholders to consider engaging include academic institutions, professional associations (e.g., pharmacists, medical association, and nurses), local health departments, employer groups, business coalitions, health plans, and legislators.

Identify and cultivate champions at each level—Successful initiatives must have a champion or advocate within each of the stakeholder organizations. Each champion must have a vision for how the initiative will provide long-term benefits.

Support pharmacist involvement—Provide adequate and appropriate training for providers to ensure competent and consistent services. Focusing on growing and promoting employer and patient participation in the program will incentivize pharmacist involvement.

Tailor information and education for different stakeholders—Find out about key partners' goals and priorities and educate them about how the initiative will help them achieve those goals. For example, UMD staff met with McCormick benefits staff to discuss how P³ would improve its bottom line through reduced healthcare costs and increased productivity.

CONDITIONS AND INFRASTRUCTURE THAT SUPPORT SUCCESS AND SUSTAINABILITY

National level opportunities exist through healthcare reform, including:

- Leveraging new billing codes will support increased reimbursement for care coordination services including MTM.
- Incorporating MTM and pharmacists into national standards, guidelines, and performance measures such as Meaningful Use and ACO quality measures; and
- Expanding the role of pharmacists and recognize them as healthcare providers in national legislation to allow compensation for clinical services including MTM and blood pressure screening.

State Level:

- State leaders, such as state legislators, who serve as champions and catalysts to secure resources and align legislation to support P³.

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- State regulations that allow and support expanded roles for non-physician providers.
- Strong coordination of statewide efforts around blood pressure management.
- Leveraging Community Transformation Grant efforts to engage local health departments and align with existing efforts.
- Payment structures and reimbursement: MTM has a designated billing code and is receiving increased recognition from health plans as a cost-effective service that should be covered.

Regional/Employer Level:

- Employer leadership commitment to be innovative, recognize the significance of healthcare costs to the organization's bottom line, and offer MTM services.
- Employee interest and demand for P³ services, which will encourage more pharmacists to offer P³ services. This demand will also support MTM services being incorporated as essential health benefits into employer health plans.
- Employer infrastructure and resources to support P³ (for example, paid clinical staff and on-site wellness clinics). Providing these resources may involve reallocating existing funds to cover MTM services.
- Strong, ongoing communication, support, and technical assistance from state-level partners.

Provider Level:

- Pharmacies and individual pharmacists' willingness to be innovative and develop and offer new and different services that expand the traditional pharmacist role.
- Adequate patient load to justify allocating resources to offering MTM services.

For more information:

Magaly Rodriguez de Bittner, PharmD, BCPS, CDE, FAPhA
Professor and Chair, Department of Pharmacy Practice and Science
University of Maryland School of Pharmacy
Phone: 410-706-4146
Email: mrodrigu@rx.umaryland.edu

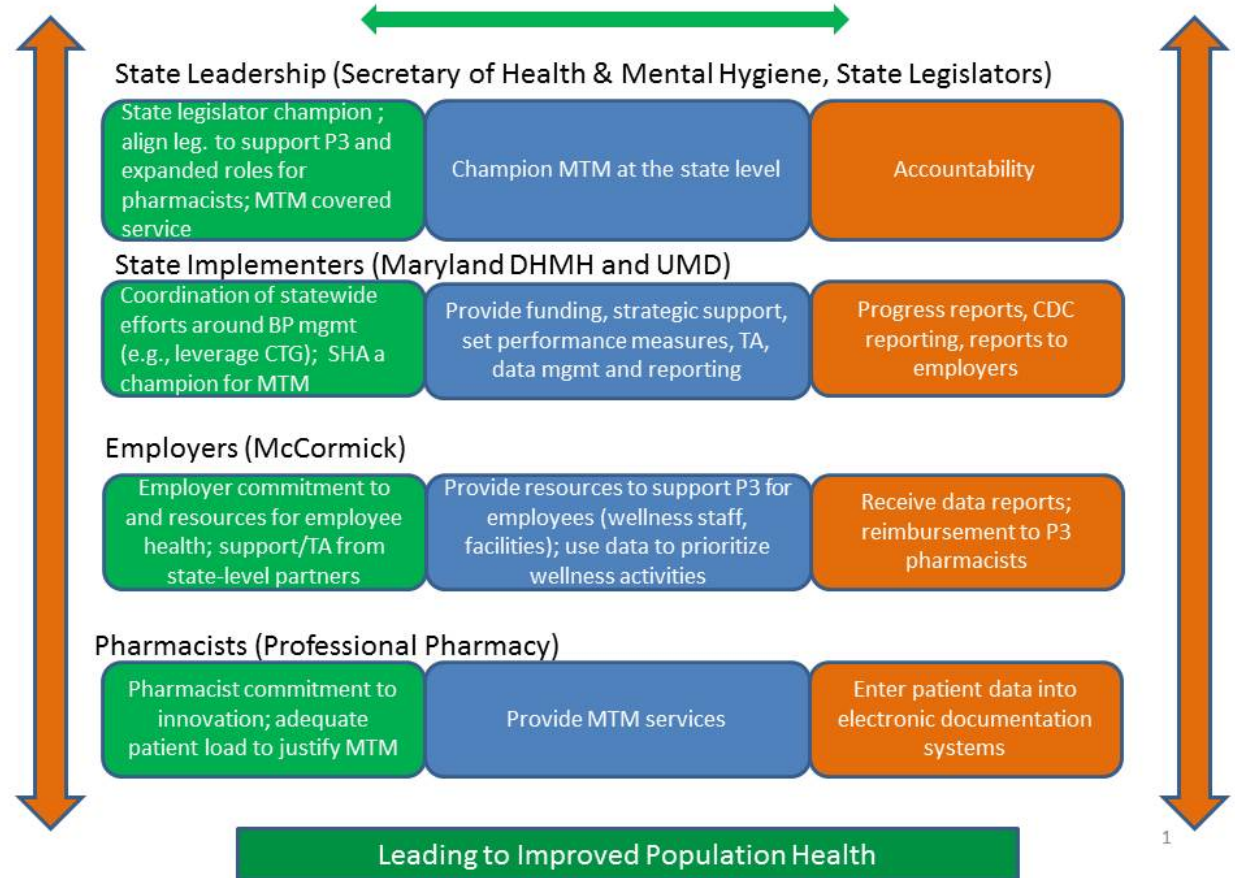
Laura Herrera, MD, MPH
Deputy Secretary of Public Health
Maryland Department of Health and Mental Hygiene
Email: laura.herrera@maryland.gov

Tahra Johnson, MPH
Senior Analyst, Evidence-Based Public Health
ASTHO
Phone: 571-527-3152
Email: TJohnson@astho.org

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Through-Line For the Maryland P3 Program



¹ Maryland Department of Health and Mental Hygiene, Prevention and Health Promotion Administration, Center for Chronic Disease Prevention and Control. "Maryland Million Hearts: Hypertension Fact Sheet." Available at <http://fha.dhmh.maryland.gov/hdsp/SiteAssets/SitePages/Million%20Hearts/Million%20Hearts%20Data%20Brief.pdf>. Accessed 8-28-2013.

² Maryland Department of Health and Mental Hygiene, Family Health Administration. "Maryland Assessment Tool for Community Health: Maryland Vital Statistics Administration, 2010." Available at www.matchstats.org. Accessed 8-28-2013.

³ Douglas-Wheeler T. "DHMH Healthy Heart for Marylanders: Final Report with Clinical Measure Results and Evaluation." Mid-Atlantic Association of Community Health Centers. 2013.

⁴ Rodriguez de Bittner M. "P³ Program Progress Report: January 1, 2011 through June 30, 2012." University of Maryland School of Pharmacy. 2012.

⁵ Ibid.