# Community Pharmacist Collaboration with a Patient Centered Medical Home: Establishment of a Patient-Centered Medical Neighborhood and Payment Model

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## Background

- A patient-centered medical home (PCMH) is a patient-centered, comprehensive, team-based, and coordinated model of care with a focus on accessibility.
- Several studies demonstrate the positive impact on appropriate medication use and disease management when pharmacists are incorporated into a PCMH practice.
- However, funding the pharmacist's salary remains a challenge and PCMH's often rely on residents and shared faculty positions.
- One opportunity for pharmacist integration into PCMH practices is through the development of a patient-centered medical neighborhood with a community pharmacy.
- In a medical neighborhood, the PCMH coordinates care with other local specialty practices, known as patient-centered medical home neighbors (PCMH-N).
- A patient-centered medical neighborhood including a pharmacy may increase access to care as patients could receive services at both the PCMH office and the pharmacy.
- A community pharmacy practice serving as a PCMH-N is a novel approach.
- This project integrated a community pharmacist into an existing PCMH and developed a referral process to the community pharmacy for initial and/or follow-up medication therapy management (MTM) services.
- Additionally, we investigated the feasibility of a capitated payment model for reimbursement.

## Purpose and Objectives

The objectives of this study were to determine the feasibility of a partnership between a community pharmacy and a PCMH and determine the impact on clinical outcomes.

## Acknowledgement

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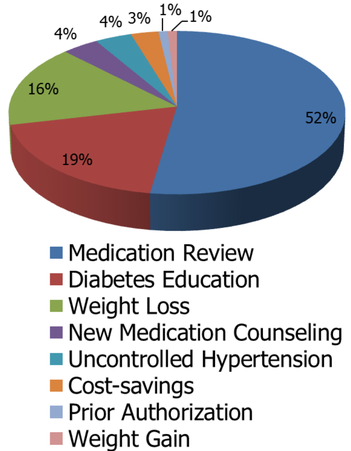
## Methods

- A collaboration was established between Kroger Pharmacy and one large, health-system PCMH in the Cincinnati area.
- From January 2013-2014, a Kroger clinical pharmacist spent 4 hours, twice weekly in the PCMH.
- Physicians referred patients or the pharmacist reviewed charts to identify patients with uncontrolled conditions, ≥3 chronic medical conditions, or ≥8 medications.
- Pharmacists reviewed medications, discussed lifestyle modifications, provided handouts, and set SMART goals and documented interventions in the EMR.
- Follow-up appointments occurred either at the PCMH or the pharmacy based on patient preference.
- Practice Innovation:
  - The Cincinnati-Dayton region participates in the Comprehensive Primary Care Initiative (CPCI).
  - PCMH offices receive shared savings based on performance on Accountable Care Organization (ACO) quality measures.
  - Kroger and the PCMH office contracted to receive payment on a capitated model of a defined fee per patient per month for an estimated 1,000 high risk patients to help achieve quality measures.
- Evaluation:
  - Office-level outcomes were measured pre and post the start date and compared to a control group with similar baseline clinical outcomes using a chi square test.
  - A retrospective review of patient-level data was analyzed using a paired t-test.
  - SPSS version 22 was used for analysis and this study was approved by the University of Cincinnati IRB.

## Results

**Reasons for Referral**



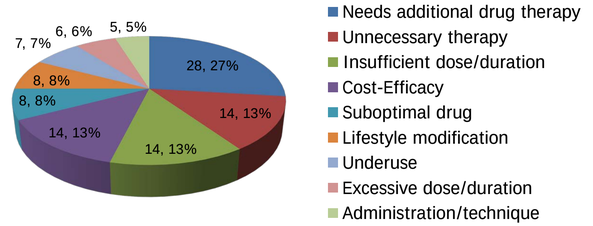

**Aggregate Office-level Outcomes+**

| | | Pre | Post | p-value |
|---|---|---|---|---|
| A1c | Patients < 7% | 457/1014 (45.1) | 516/1188 (43.4) | 0.441 |
| BP | Number of patients with controlled BP* | 1587/2664 (59.6) | 1746/2951 (59.2) | 0.757 |
| Lipids | Total Cholesterol <200 | 1948/3491 (55.8) | 2161/3769 (57.3) | 0.187 |
| | LDL <100 | 1387/3491 (39.7) | 1535/3769 (40.7) | 0.387 |
| | HDL ≥40 | 2208/3491 (63.3) | 2362/3769 (62.7) | 0.609 |
| | Triglycerides <150 | 1854/3491 (53.1) | 1993/3769 (52.9) | 0.845 |
| | Lipid panel in 6 months | 1811/2492 (72.7) | 1899/2721 (69.8) | 0.022 |
| Vaccines | Influenza | 1611/6602 (24.4) | 2096/7448 (28.1) | < 0.001 |
| | Eligible Pneumococcal | 1631/1875 (87.0) | 1779/2084 (85.4) | 0.14 |

* BP <140/90, or <130/90 in diabetes or CKD, + There were no differences in the control group from pre to post intervention.

## Results

**Reasons for Pharmacist Interventions**




**Patient-level Outcomes**

| | Pre (Mean, SD) | Post (Mean, SD) | p-value |
|---|---|---|---|
| A1C (n=41) | 8.7% (1.56) | 7.8% (2.04) | 0.002 |
| Systolic BP (n=12) | 145 mmHg (22.65) | 127mmHg (8.49) | 0.014 |
| Diastolic BP (n=12) | 77mmHg (13.80) | 76mmHg (9.17) | 0.751 |
| LDL (n=8) | 101 mg/dL (45.79) | 88mg/dL (22.63) | 0.212 |
| Weight (n=23) | 112.11kg (22.56) | 110 kg (22.78) | 0.124 |

## Discussion

- This project showcases a successful partnership between a community pharmacy and a physician's office.
- The PCMH office is currently still contracted with Kroger Pharmacy using the same payment model.
  - The pharmacist is now in the office only 4 hours per week, but continues to follow-up with patients at the pharmacy.
- Office-level outcomes were not substantially changed, however, the pharmacist only saw <2% of the total patient population, making it difficult to show an impact on the office as a whole.
  - However, flu vaccines were statistically increased, which was a focus of the pharmacist's interventions.
- Limitations:
  - While the retrospective data showed significant results, a lack of control group is a limitation.