COLLEGE OF PHARMACY
CLINICAL PHARMACY
UNIVERSITY OF MICHIGAN

Incorporating pharmacists into value-based care across primary and specialty care areas

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Objectives

- Discuss how pharmacists can impact and play a role in value-based care
- Discuss the impact of community partnership to help advance population health
- Describe University of Michigan Health System Clinical Pharmacy model

Value-Based Care and Contracting

- Value-based care models incentivize healthcare providers to deliver the best care quality, focusing on patient outcomes
- Payment is closely tied to performance on various quality metrics, such as patient satisfaction and healthcare efficiency
- Providers may share in savings achieved from improved care that leads to reduced healthcare costs
- Contracting involves negotiations on rates and terms based on the quality of care provided

Centers for Disease Control and Prevention. "Value-Based Insurance Design." March 2021.

Quintuple Aim

- Improved patient experience
- Better outcomes
- Lower costs
- Clinician well-being
- Health equity

Value-Based Care Basics

Utilization: Readmissions & Admissions

Quality

University of Michigan Health Team

Care Connect Team Roles	Role Descriptions
Clinic-based Care Navigator and *Central TOC* Care Navigator (RNs)	*Clinic-based* Care Navigators proactively focus on a panel of high-risk patients to minimize ED/hospital utilization through comprehensive care coordination, patient education and empowerment strategies. *Central TOC* Care Navigators conduct follow up calls after hospital discharges to address any care barriers and facilitate a successful transition to home, including close coordination with *Clinic-based* Care Navigators for ongoing care management.
Clinic-based Pharmacist, *Central TOC* Pharmacist, *Central* Anticoag Pharmacist	*Clinic-based* Pharmacists support patients with chronic disease management (diabetes, hypertension, hyperlipidemia) and provide comprehensive medication reviews. They follow up with patients in between their physician appointments and adjust medications as needed to achieve clinical and therapeutic goals. *Central TOC* Pharmacists conduct medication reconciliation after hospital discharges. *Central* Anticoagulation services support the anticoagulation team.
Social Worker (MSW)	MSWs provide episodic and ongoing psycho-social support and care coordination through three main roles: care management, Behavioral Health Collaborative Care (BHCC), and psychotherapy.
Registered Dietitian (RD)	RDs support patients with nutrition education and medical nutrition therapy (MNT) services for prevention, wellness and chronic disease management to help patients make positive lifestyle changes.
Diabetes Education	A multidisciplinary team of RD and RN CDCES team members support patients with Type 1 and Type 2 diabetes. This team has expertise in continuous glucose monitoring technologies, provides patient education, and ongoing care management / care coordination support for patients with diabetes.
Panel Manager	Panel managers conduct outreach to patients and coordinate communication between care team members to close patient care gaps, achieve quality targets, and reduce utilization. They also provide operational support for Care Connect teams.
Complex Care Management Program (CCMP)	The Complex Care Management Program supports the highest risk patients, coordinating care for those with high, avoidable utilization of the health system who also face challenges with complex medical, mental health, social, and physical resource needs. CCMP also houses the SDOH Coordinator role, which supports UMMG-wide implementation of the Partners in Care Questionnaire.

PharmD Students

- Offer independent study elective hours for early clinical exposure
- Students must provide 40-50 hours of work, over the course of the semester
- Students work closely with Clinical Pharmacist team members to learn our model
    - Goal is to engage students in the P2 year and work with them across 4 semesters

Ambulatory Clinical Pharmacy Presence at UMHS

- Anticoagulation
- CKD
- CF
  - Adult
  - Pediatrics
- Oncology
- Palliative Care
- Pharmacogenetics
- Post-ICU
  - Cardiology
  - Pulmonary
- Primary Care
- Psychiatry
- Transplant
  - Heart, Lung, Liver, Kidney
- Transitions of care
  - HF
  - Geriatrics
  - Liver
  - Coming soon: ACO Specialty

Assessment question #1

- The pharmacists' role in delivering value-based care includes all the following, except:

- A. Improving medication adherence
- B. Providing patient education
- C. Diagnosing chronic disease
- D. Managing chronic disease

University of Michigan Health: Primary Care

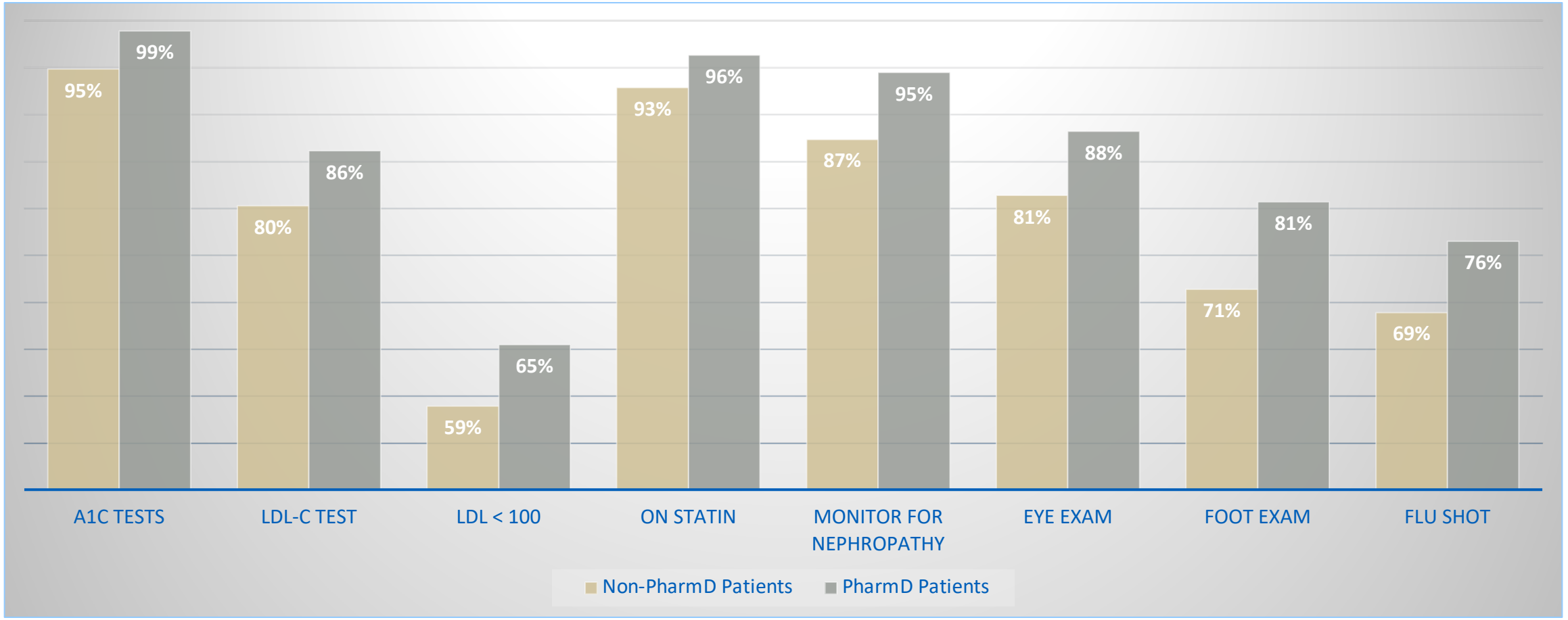
Patient-Centered Medical Home (PCMH) Pharmacist Services

- 15 embedded and central pharmacists (9.5 clinical FTE) and 2 Ambulatory Care Specialty Residents across 14 primary care clinics
- Provide disease management and comprehensive medication management services
- Pharmacist's time at PCMH sites varies depending on patient volume (range: 1–3.5 days per week)
- Goal of 6 visits/half-day
- Impact of COVID:
  - Transitioned from 100% onsite to ~75% remote
  - No team member is 100% back onsite

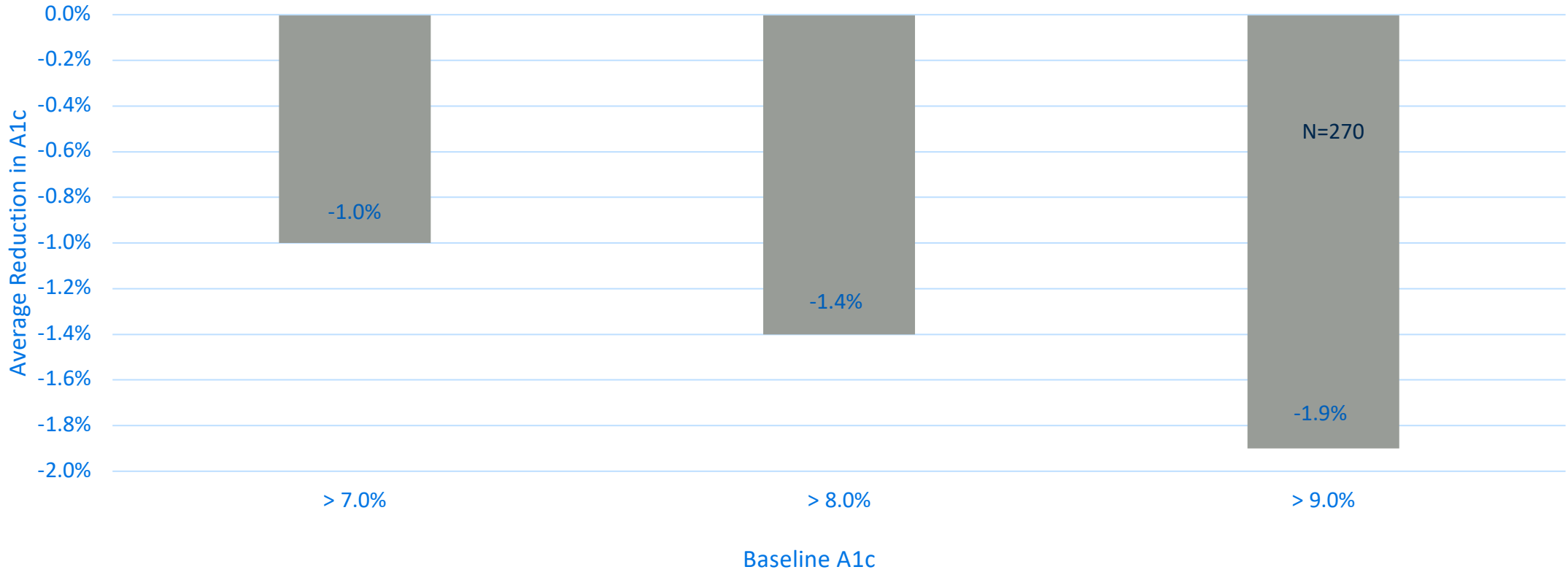
Quality Improvement Efforts in Value-Based Care

- Quality improvement initiatives to decrease avoidable hospitalization due to worsening of chronic disease
  - Diabetes
  - **Hypertension**
  - Transitions of care

Embedded Pharmacist Impact



Embedded Pharmacist Impact



Assessment Question #2

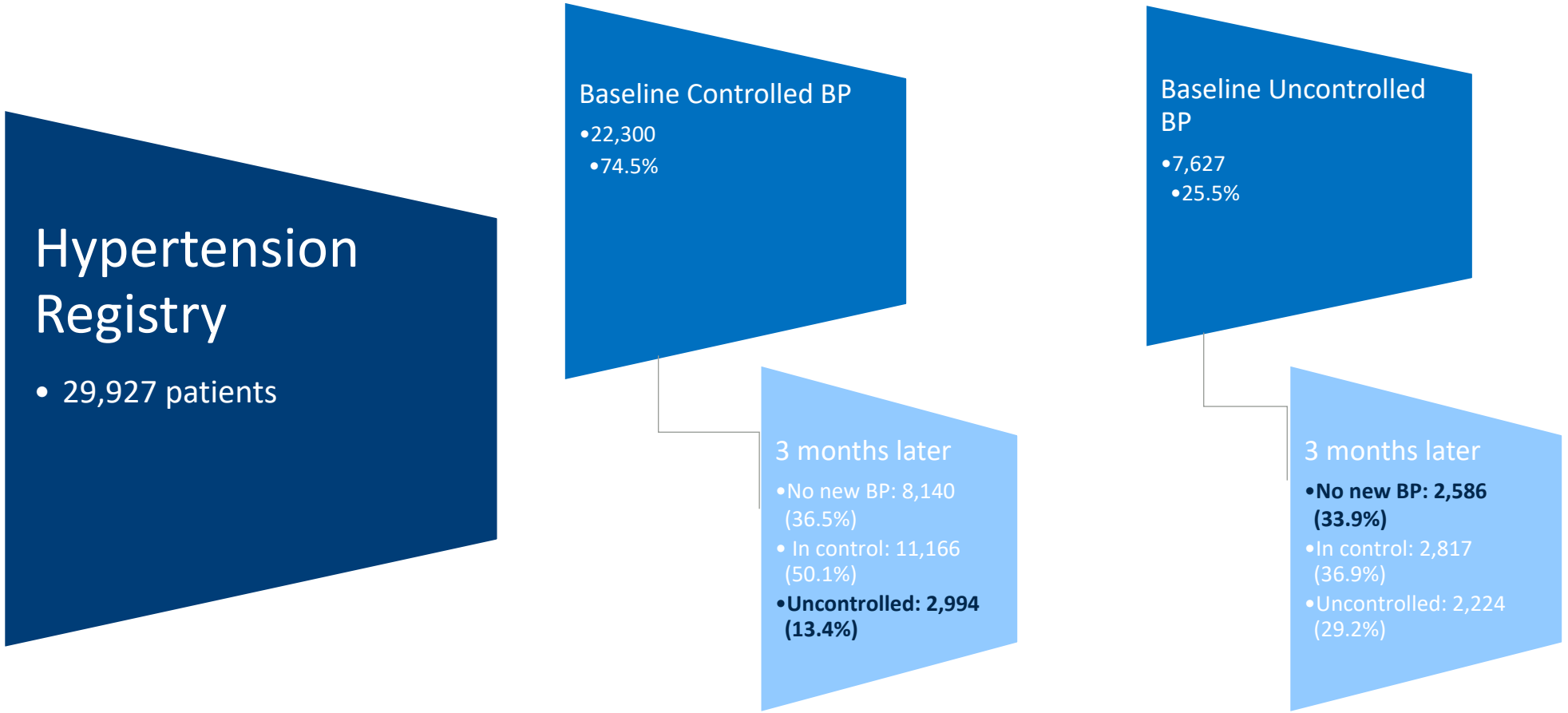
- What percentage of patients with diagnosed hypertension, in the U.S., have controlled BP?

A. 12.5%
B. 25%
C. 45%
D. 77%

Hypertension Background

- Nearly **1 out of 2 adults** in the United States has hypertension, leading to increased morbidity and mortality, particularly from cardiovascular and kidney diseases
- Among U.S. adults with hypertension, only about **1 in 4** has their blood pressure (BP) under control (<130/80 mm Hg)
- In 2019, nearly half a million deaths in the United States included hypertension as a primary or contributing cause
- There are significant differences in BP prevalence based on race/ethnicity
- High BP costs the United States over $130 billion/year

Hypertension Control

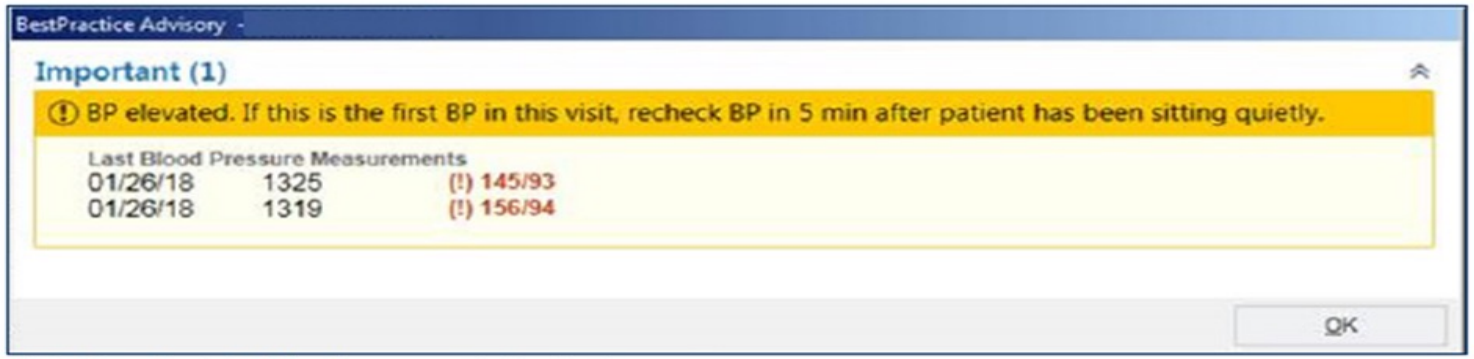


Technology-Best Practice Alert

BPA #2: Blood Pressure Recheck Only

The blood pressure BPA is an interruptive BPA that fires after elevated blood pressure vitals are filed. The BPA will only fire for encounters that have been converted. Encounters are converted when a chief complaint is entered. The BPA will fire for adult patients with a blood pressure of 140/90 or higher.

1. The medical assistant enters **blood pressure vitals.**
2. If blood pressure is elevated, an interruptive BPA fires instructing the MA to retake the blood pressure in 5 minutes.



3. Click **OK** and retake blood pressure in 5 minutes.
4. Enter the **new blood pressure** as a second set of vitals.
5. If blood pressure is within goal for the patient, continue with normal rooming. If blood pressure is still elevated, the BPA fires again. Please click **OK** again.

A Common Question

- **Q:** I entered 130/78 for the second blood pressure. Why did the BPA fire? **A:** The BPA looks back at the blood pressures entered over the last 4 minutes. If you enter a blood pressure within 4 minutes of the elevated blood pressure, the BPA will fire.

Technology-Best Practice Alert

BPA #1: Blood Pressure Recheck and Pharmacist Follow Up

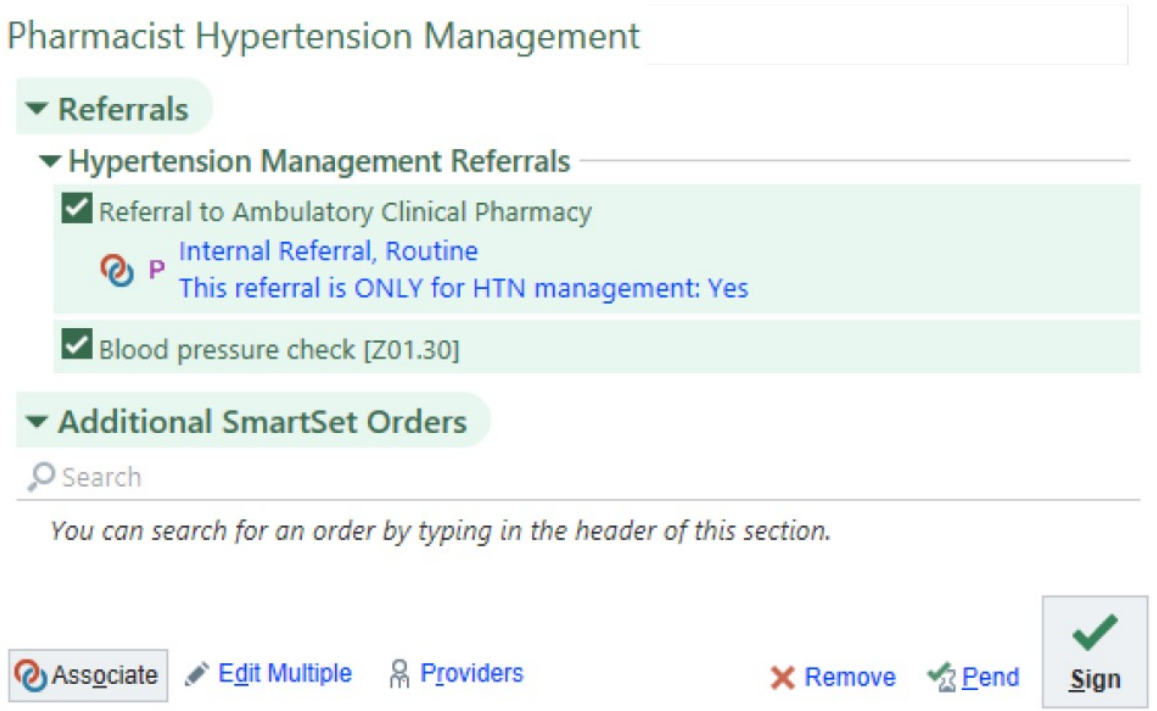
The blood pressure BPA is an interruptive BPA that fires after elevated blood pressure vitals are filed. The BPA will only fire for encounters that have been converted. Encounters are converted when a chief complaint is enteredBP of 140/90 for all patients 18 years or older

1. The medical assistant records the patient's **blood pressure**.
2. If blood pressure is elevated per the algorithm above, an interruptive BPA fires instructing the MA to retake the blood pressure in 5 minutes.

3. Click **Dismiss** and retake blood pressure in 5 minutes.
4. Enter the **new blood pressure reading** as a second set of vitals.
   - If blood pressure is within goal for the patient, continue with normal rooming. If blood pressure is still elevated per algorithm above, the BPA fires again instructing the MA to retake the blood pressure in 5 minutes.

Technology-Best Practice Alert

5. Click **Accept** and **Pend** the *SmartSet*, which contains the following order:

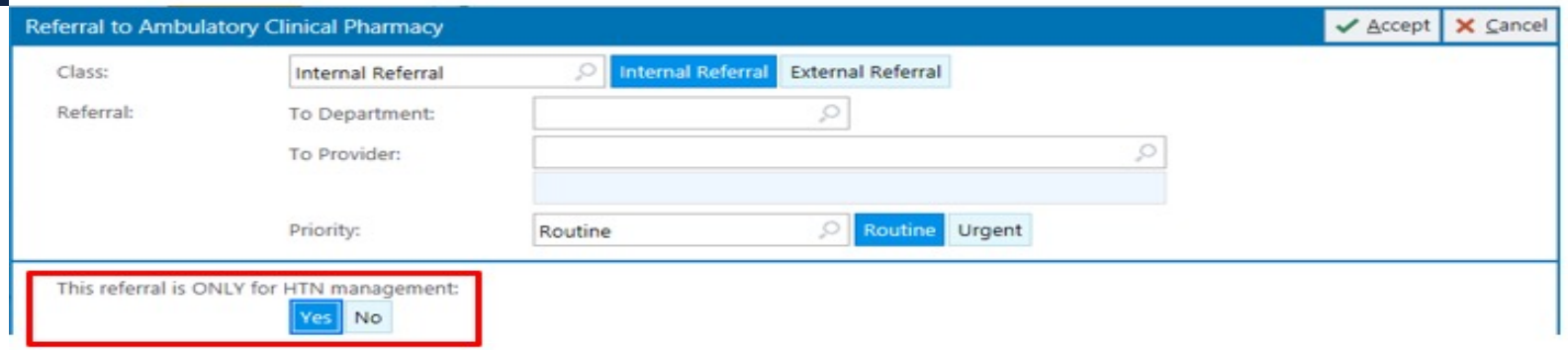


6. The provider will see the pended referral and sign it if they would like the patient to follow-up with a pharmacist.

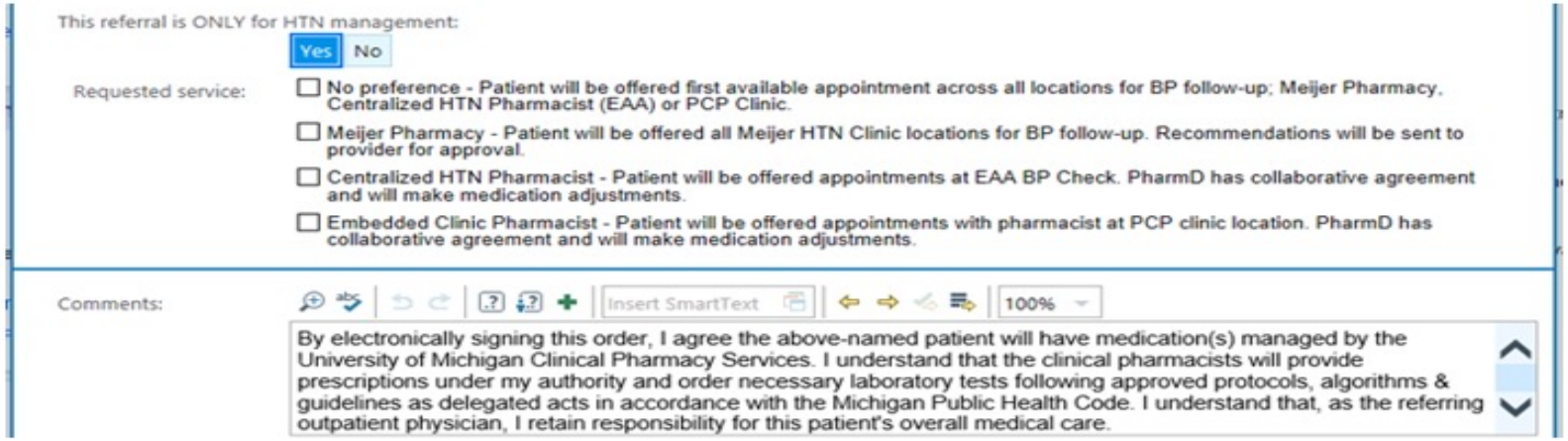
Referral

1. Search for referral by clicking add order button at the bottom left corner of any open visit.
   Note: any synonyms related to old referrals will link to the new referral.

2. If this referral to Ambulatory Clinical Pharmacy is for Hypertension (HTN) Management ONLY, please click Yes.



3. Once you click yes, the options for HTN management will display. It is not required to choose an option. If no option is selected, it will default to *No Preference* and the patient will be offered all location options for HTN follow-up (Meijer locations, Centralized HTN Pharmacist (EAA BP Check) or the Embedded Clinic Pharmacist).



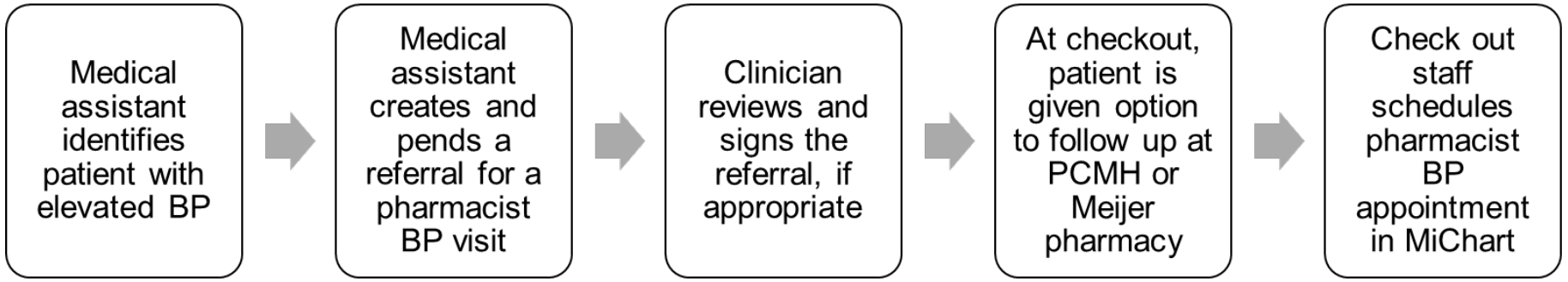
Why Collaborate with Community Pharmacy?

- 90% of Americans live within 5 miles of a community pharmacy
- Provides convenient location and easy access for patients
- Community pharmacists with appropriate training and skills can serve as extenders in the community setting
- Improves communication between physicians and community pharmacists
- Community pharmacists trained in medication management are often underutilized in managing patients with hypertension

UM Health/Meijer Community BP Centers

- 5 Meijer locations with a private consultation room
- 26 clinic hours per week (52 appointment slots)
- Trained Meijer pharmacists with a doctoral degree in pharmacy (PharmD):
  - BP check using an accurate BP machine that takes multiple readings
  - Provide patient education, reinforce medication adherence, and make therapeutic recommendations to primary care provider
  - Home BP monitor validation for accuracy
  - BP and visit summary documented in electronic medical record (EMR) system
  - Bi-directional communication with providers via EMR
  - Provide follow-up appointments for MM patients with elevated BP **regardless of where prescriptions are filled**

Patient Identification and Referral Process at PCMH

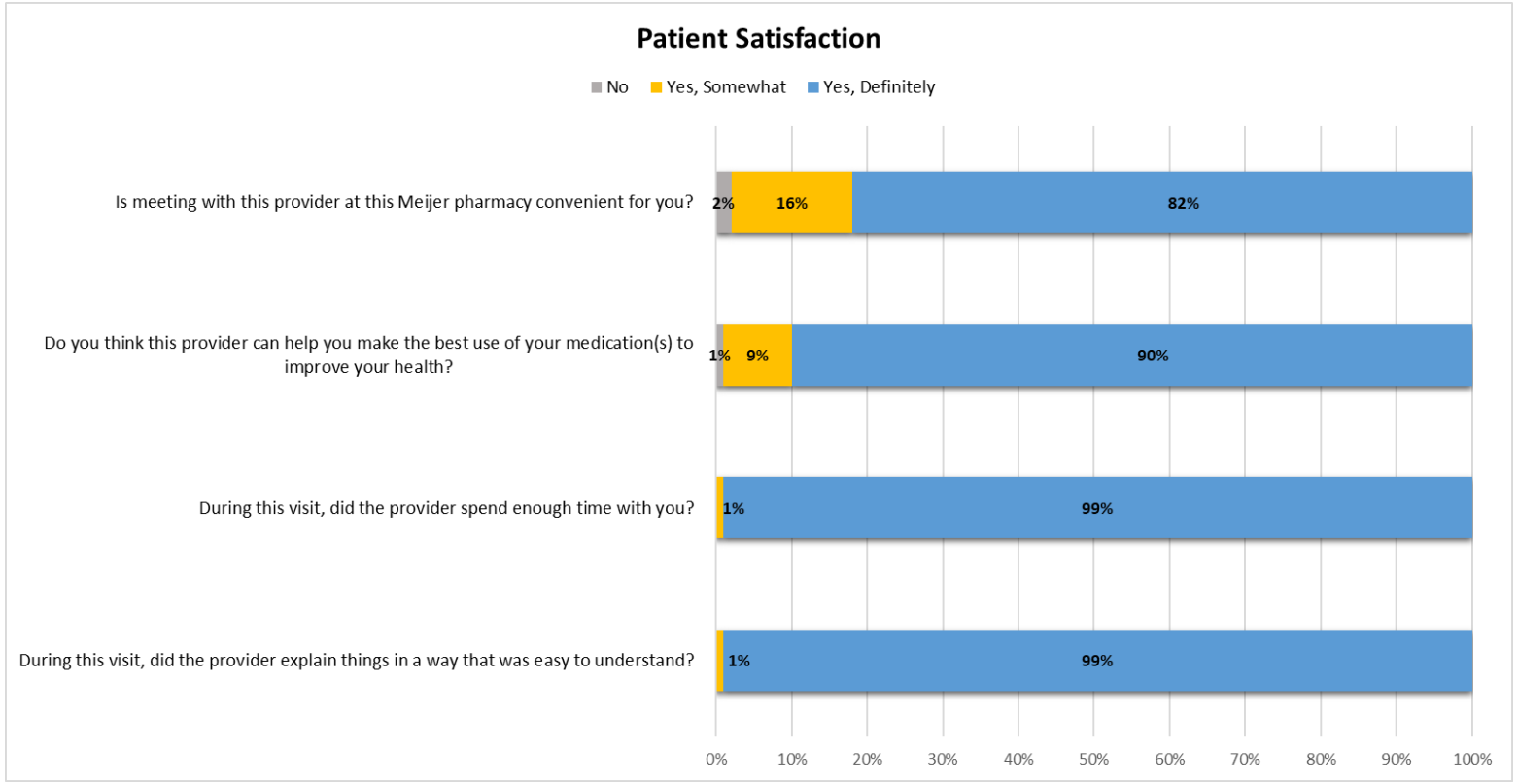


Meijer Visit Data

- September 2016- December 2023
- Total completed visits: 6,617
- Referrals from all 14 primary care sites, nephrology, endocrinology and cardiology

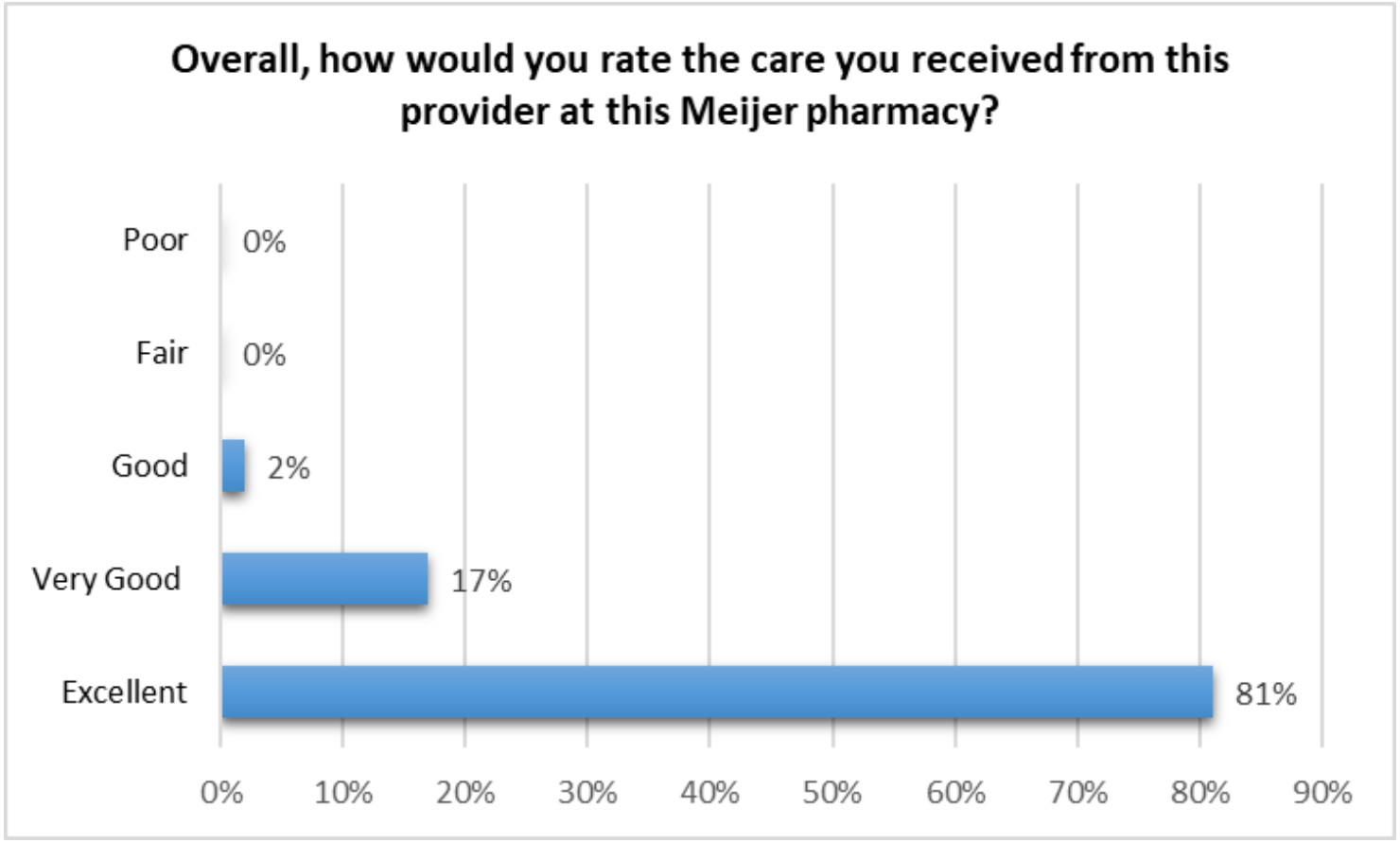
Year	Completed Visits
2016	77
2017	697
2018	960
2019	931
2020	306
2021	1049
2022	1059
2023	1538

Meijer Patient Satisfaction



https://doi.org/10.1002/jac5.1158

Meijer Patient Satisfaction (cont'd)



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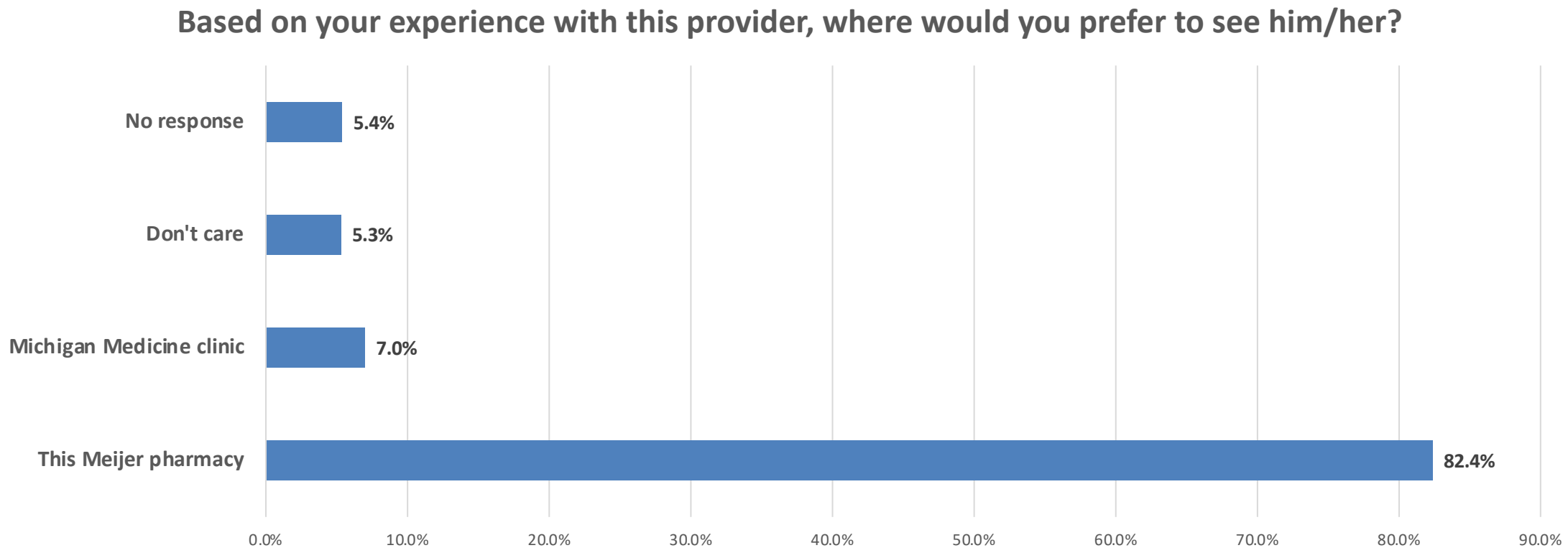
Meijer Patient Satisfaction (cont'd)



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Meijer Patient Satisfaction (cont'd)

- "I like that the pharmacist can help with care – better to have doctor and pharmacist working together. Can help with better care. Liked this very much."
- "Have had excellent care the two times I've been here."
- "This service is something that should be provided permanently for the community. Provider was knowledgeable, pleasant, and informative."
- "I'm surprised Meijer pharmacy offers this outstanding service to patients like me. Thank you so much!"
- "It's important you offer this program as an adjunct to regular doctor visits. It is less stressful than going to the doctor for readings and where several are needed to reach an appropriate average."
- "This is an excellent program. I hope to keep using in the future."

https://doi.org/10.1002/jac5.1158

Assessment Question #3

- Which of the following is not a benefit of the health-system and community partnership?

- A. Improved communication between providers and community pharmacists
- B. Increased access to care for patients in the community
- C. Ability to improve patient outcomes
- D. Increased wait times for prescription pick-up

https://doi.org/10.1016/j.japh.2020.11.022

Key Components to Successful Partnership

- MM clinical pharmacists provided in-depth disease management and EMR documentation training to Meijer pharmacists
- Ongoing training and monitoring by MM clinical pharmacists for additional support and guidance
- Bi-monthly meetings with MM medical directors and Meijer pharmacists to review new clinical care guidelines, discuss difficult patient cases, and identify any opportunities for process improvement
- Full access to MM EMR:
  - Appointments are scheduled through MM EMR
  - Bi-directional communication with MM providers and staff via EMR
  - Pend medication recommendations and lab orders. No independent prescribing

Key Components to Successful Partnership (cont'd)

- Obtain buy-in from primary care providers who will be eligible to refer patients to the program
- Meijer pharmacists were given contract employee status within the health system to hold the pharmacists accountable for complying with health system policies and procedures
- Administrative lead (project manager) played a vital role
  - Facilitate obtaining EMR access for Meijer pharmacists
  - Set-up and confirm appropriate training
  - Ensure all processes are implemented and address any barriers

National Program Endorsement

- UM Health was selected as the top program nationally for demonstrating team-based pharmacy care model in hypertension management

- CDC conducted an evaluation which led to the development of The Pharmacists' Patient Care Practice Approach Implementation guide

CDC Evaluation: Key Outcomes

- Patients who participated in the program were more likely to achieve blood pressure control within 3 and 6 months of starting the program than those who did not participate

Intervention Group (Usual Care + Pharmacists)		
BP control at baseline	BP control at 3 months	BP control at 6 months
0%	66.3%	69.1%
Comparison Group (Usual Care Only)		
BP control at baseline	BP control at 3 months	BP control at 6 months
0%	42.4%	56.5%

- Improved hypertension medication management
- Increased PCP availability to see patients

Hypertension Pharmacist Program (HPP) Replication

- CDC's Division for Heart Disease and Stroke Prevention (DHDSP) is replicating the core components of the HPP in a new healthcare and community pharmacy setting in the Southeastern region of the United States that serve primarily African American populations.

- This replication supports the DHDSP core **health equity goal to decrease racial disparities in hypertension control by improving hypertension control rates by 5% among Black adults**

    - UF Health announced launch of program in May

Hypertension Health Equity

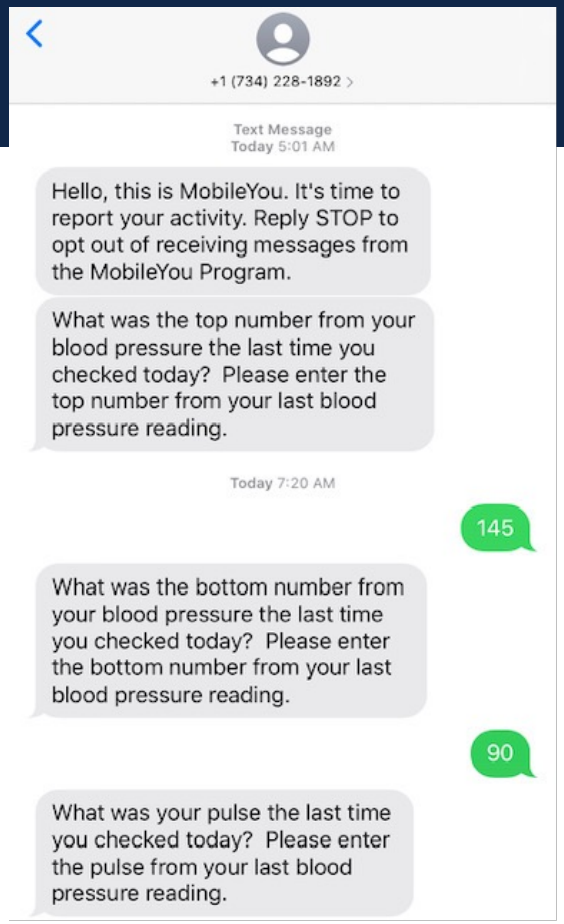
- Piloting a program at two primary care sites

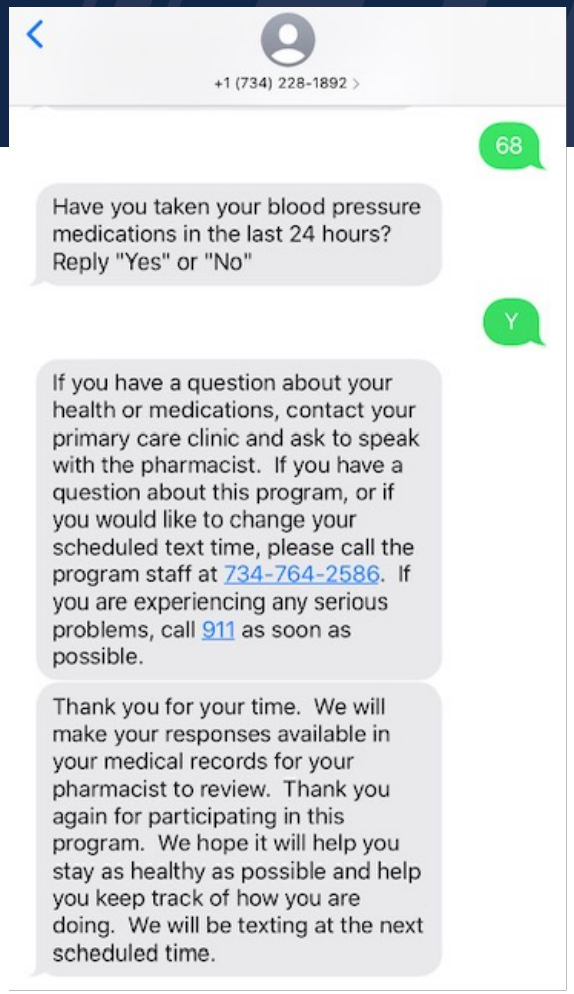
- Targeted outreach to black patients with uncontrolled hypertension
  - Offered clinical pharmacy appointments
    - BP check
    - Provided a home BP cuff (and validated at the appointment)

- Data thus far:
  - Appointments completed for 75 patients
  - Baseline BP: 146/81
  - Follow-up BP: 136/75

Technology Initiatives

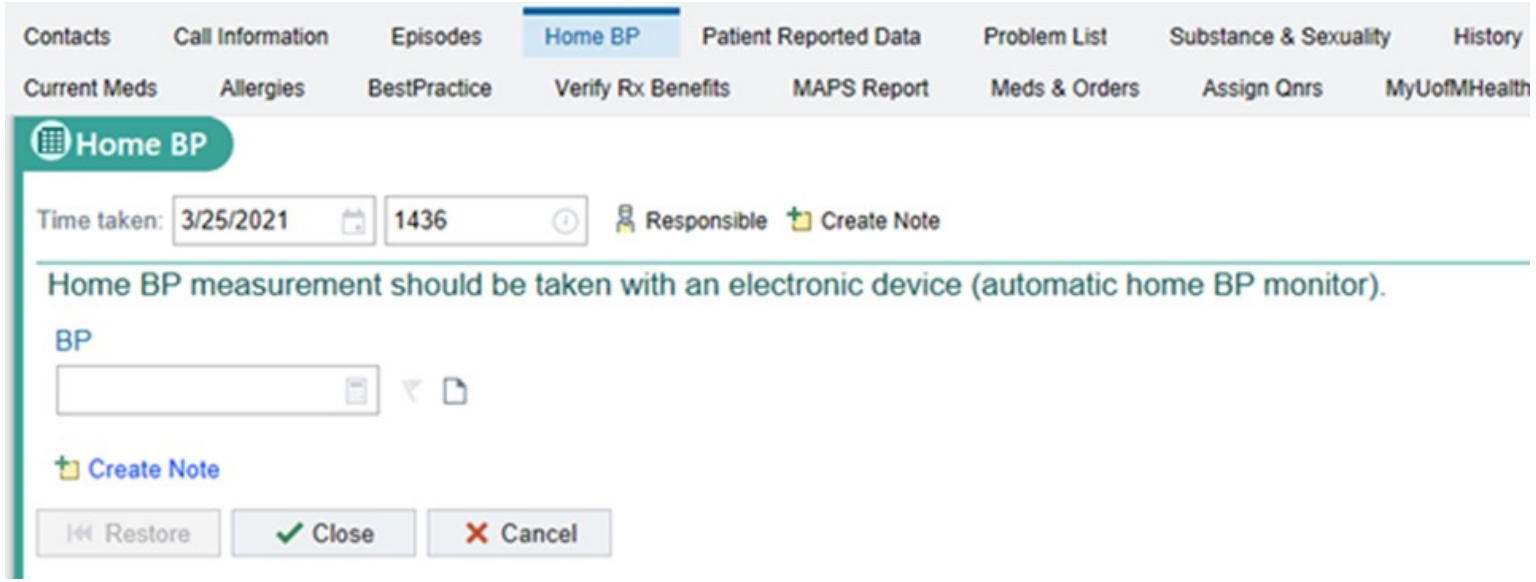
- Utilize texting platforms to capture home readings
  - Integrate readings directly into medical record
  - Alert triggered when patients are above or below thresholds



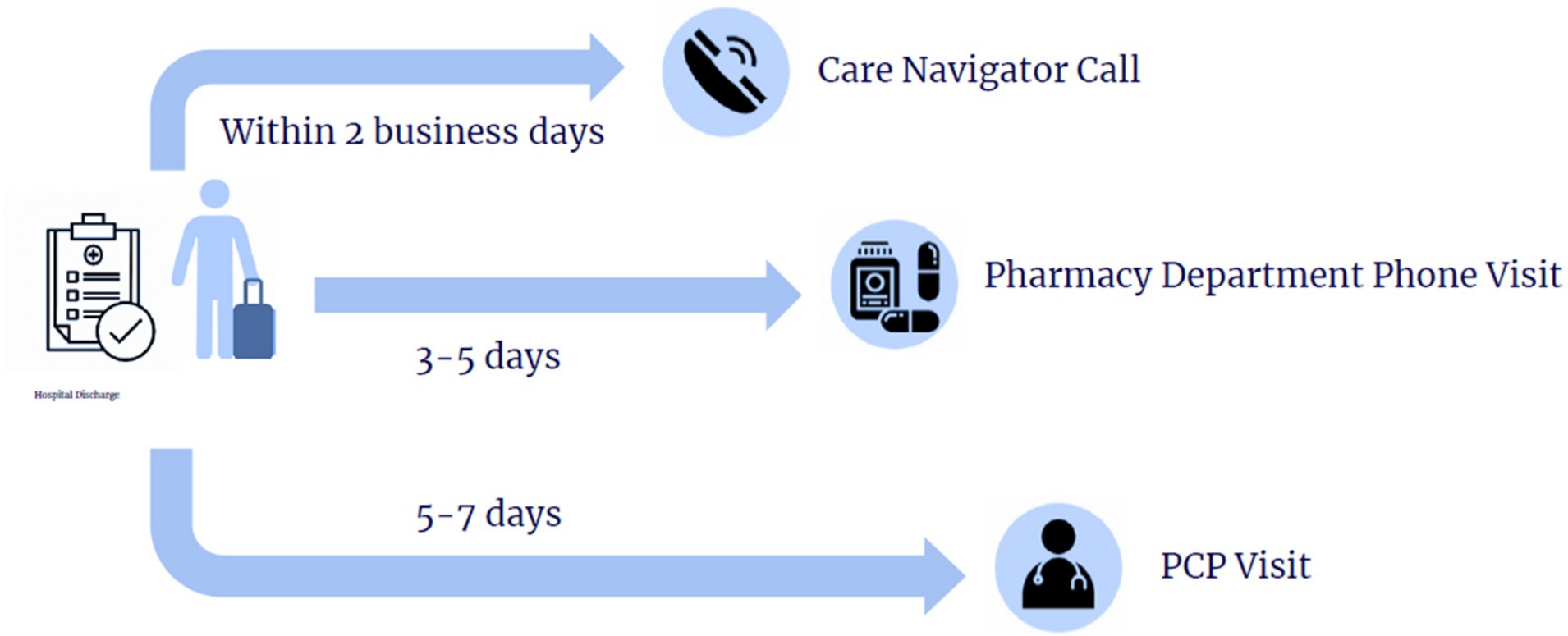


Technology Initiatives

- Embedding Home BP flowsheets into various encounter types to simply documentation for team members



Transitions of Care – Primary Care



PCMH Transitions of Care

- A total of 1.5 FTE dedicated to centralized transitions of care
  - Primary Care
  - Target:
    - LACE 10+
    - SEPSIS
    - POM ACO
  - Leverage intern help for pre-visit work

Encounter Summary

7/10/2023 to 3/31/2024

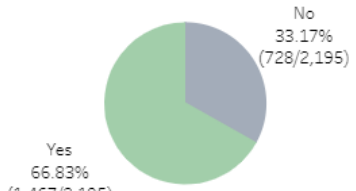
Total Encounters (Alive Patients)	2,202
Encounters without LACE	7
Total Encounters Used for Analysis (PharmD)	2,195

LACE Scores

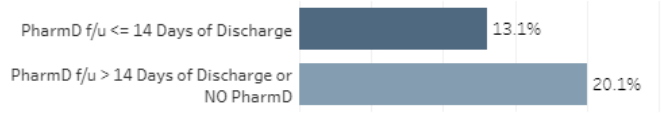
Please note, PharmD outreach is now LACE 10+ or POM ACO as of July 2023 discharges.

	LACE SCORES			
	Low Risk (<=9)	High Risk (10-12)	Highest Risk (>=13)	Denominator
PharmD f/u <= 14 Days of Discharge	244 (16.63%)	724 (49.35%)	499 (34.01%)	1,467 (100.00%)
PharmD f/u > 14 Days of Discharge or NO PharmD	112 (15.38%)	367 (50.41%)	249 (34.20%)	728 (100.00%)
Total	356 (16.22%)	1,091 (49.70%)	748 (34.08%)	2,195 (100.00%)

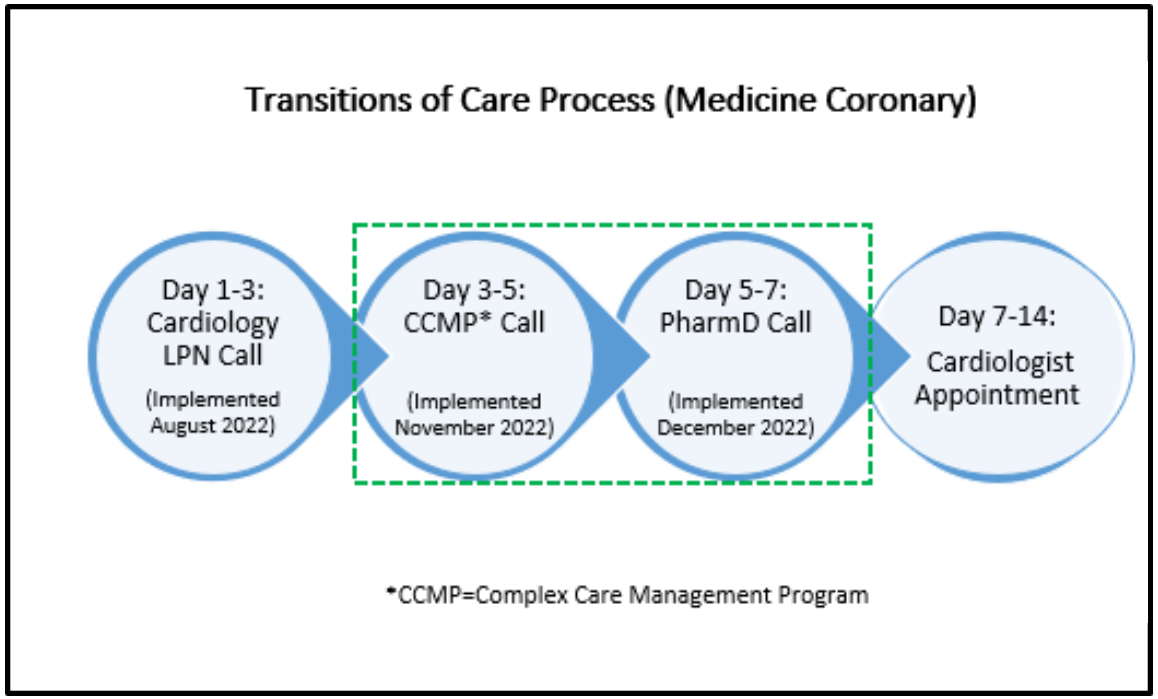
Was there a PharmD Call or Note within 14 Days of Discharge?

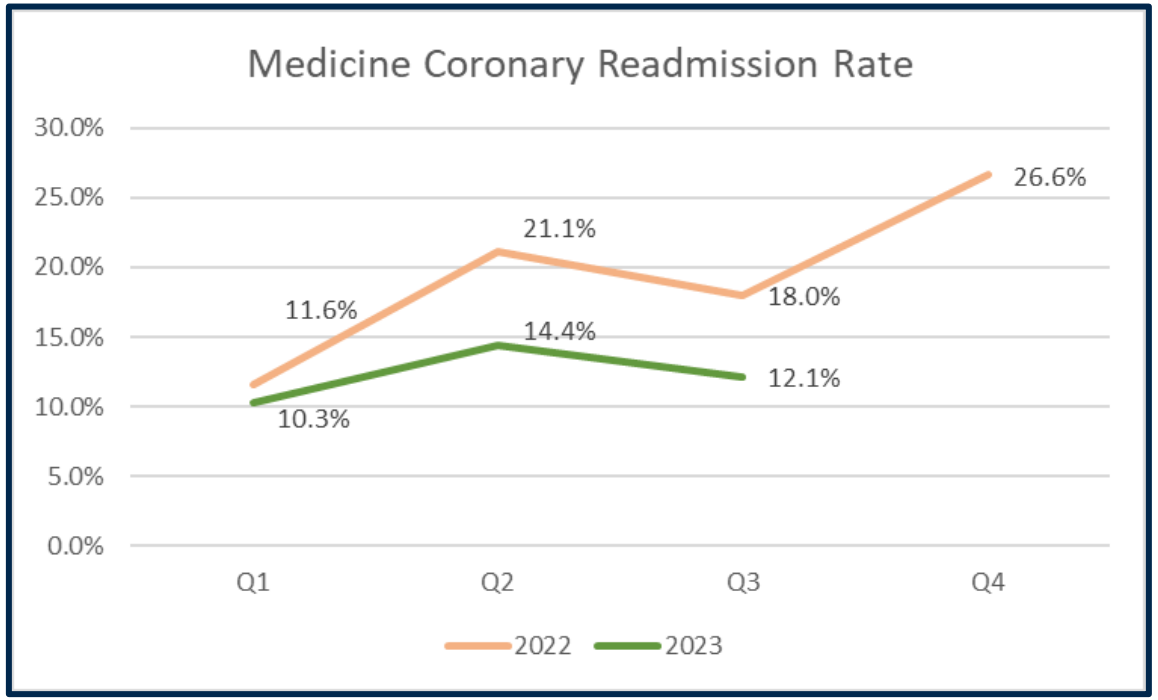


Readmissions Within 30 Days



Transitions of Care – Medicine Coronary





Readmission Reduction

- Readmission reduction by 1.6% year to date (from 2022 to 2023) in ACO population
    - Expanded primary care TOC process to Medicine Coronary
    - Justified hiring additional FTE PharmD and Complex Care Manager to support other ACO Specialty discharges
        - Launching new model targeting specialty discharges this August

Medication Optimization (MedOps) Program

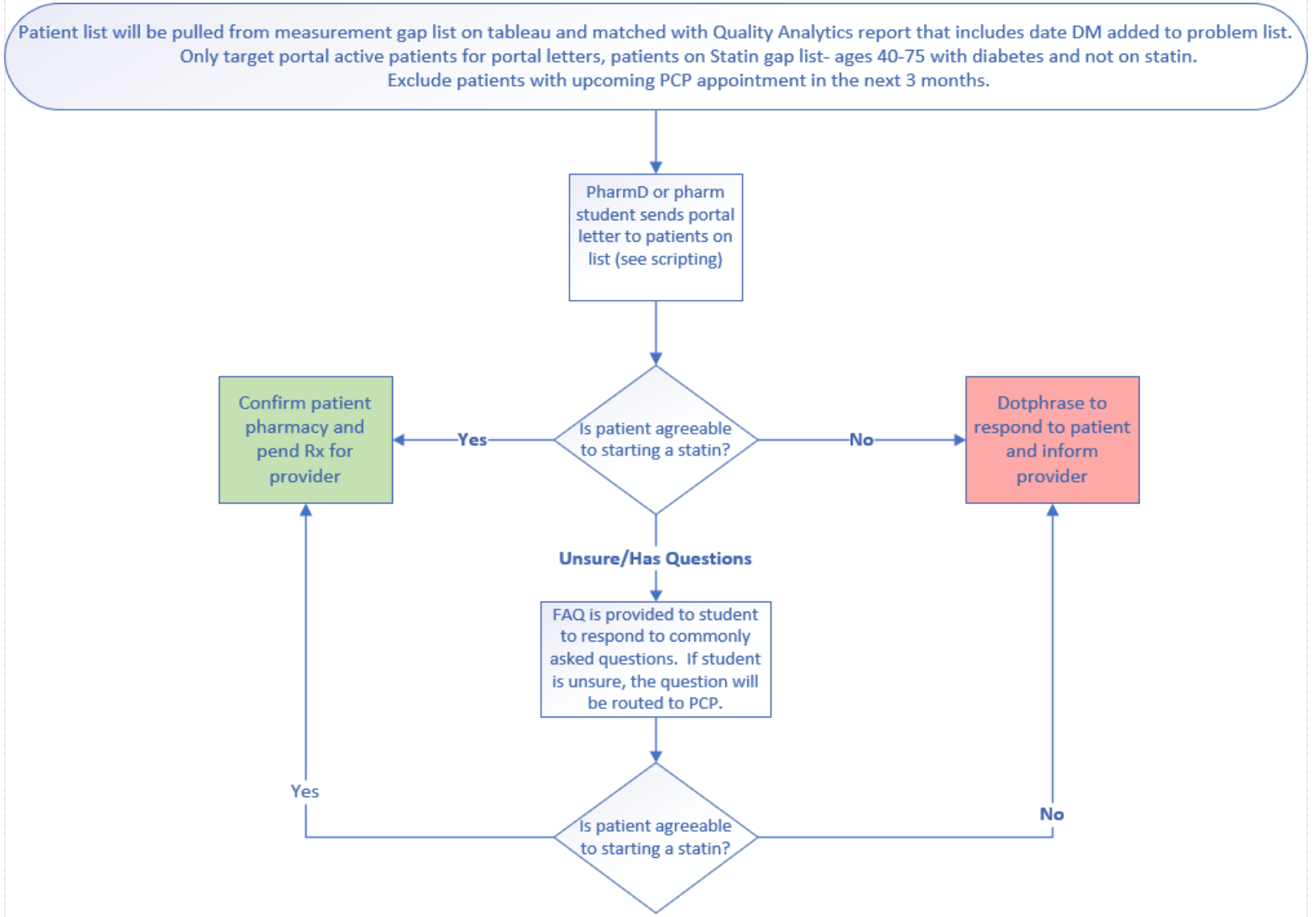
- 0.1 FTE PharmD effort
- 1-2 pharmacy interns
- Gap closure
  - Statin
  - Med adherence
- Partnership with U of M benefits office
  - Targeted CMR
  - Switch programs
    - Designed to save the patient and organization

Medication Optimization (MedOps) Program

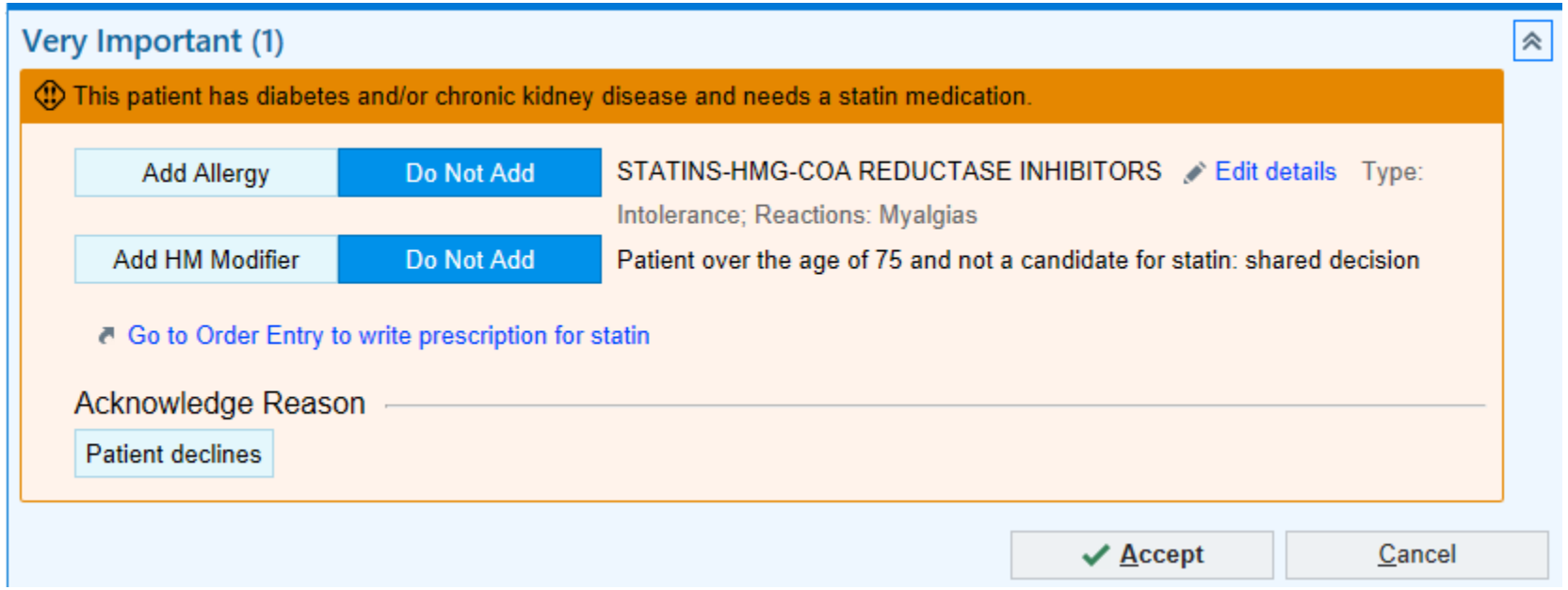
- Statin use for patients with diabetes
  - Internal benchmarks were identified and set

75th Percentile	85%
90th Percentile	87%

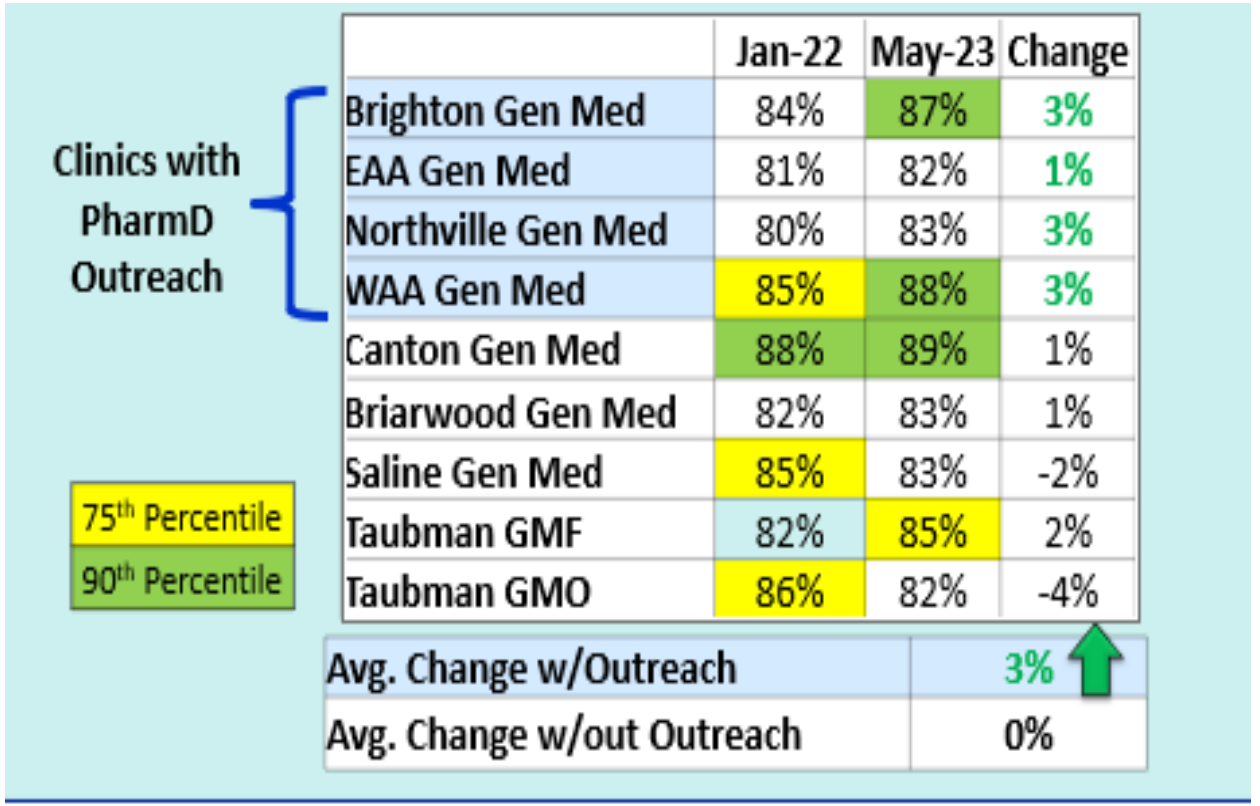
  - University of Michigan Medical Group baseline data:
    - UMMG: 83%
    - Gen Med: 84%
    - Med Peds: 86%


Patient list will be pulled from measurement gap list on tableau and matched with Quality Analytics report that includes date DM added to problem list.
Only target portal active patients for portal letters, patients on Statin gap list- ages 40-75 with diabetes and not on statin.
Exclude patients with upcoming PCP appointment in the next 3 months.
PharmD or pharm student sends portal letter to patients on list (see scripting)
Is patient agreeable to starting a statin?
Yes
Confirm patient pharmacy and pend Rx for provider
No
Dotphrase to respond to patient and inform provider
Unsure/Has Questions
FAQ is provided to student to respond to commonly asked questions. If student is unsure, the question will be routed to PCP.
Is patient agreeable to starting a statin?
Yes
No

MedOps Program (cont'd)



MedOps Program (cont'd)



Clinics with PharmD Outreach

	Jan-22	May-23	Change
Brighton Gen Med	84%	87%	3%
EAA Gen Med	81%	82%	1%
Northville Gen Med	80%	83%	3%
WAA Gen Med	85%	88%	3%
Canton Gen Med	88%	89%	1%
Briarwood Gen Med	82%	83%	1%
Saline Gen Med	85%	83%	-2%
Taubman GMF	82%	85%	2%
Taubman GMO	86%	82%	-4%

75th Percentile

90th Percentile

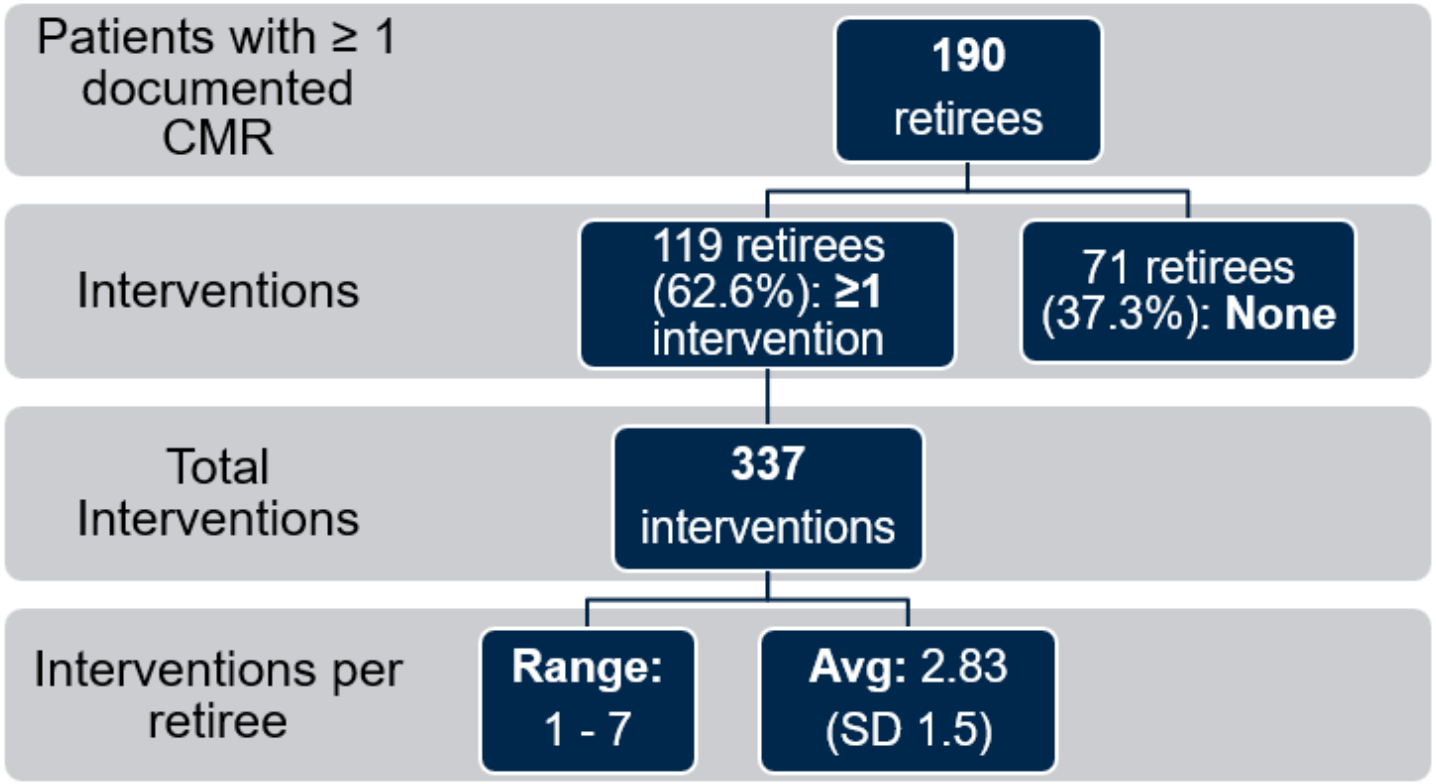
Avg. Change w/Outreach	3%
Avg. Change w/out Outreach	0%

MedOps Program (cont'd)

- Medication adherence gap closure
  - ACE-I/ARB
  - DM medication
  - Statin
- 6-weeks of PharmD Support (~10-15% effort/week)
  - Claims Filed Before Non-Recoverable Date: 125
    - BCBSM received a claim for a prescription in the medication adherence category(ies)
  - Non-Recoverable in 2023: 100
    - Member did not fill prescription before futile/non-recoverable date
  - 125/225 = 55%

MedOps Program (cont'd)

- Comprehensive Medication Review (CMR)
  - Initial program identified 489 eligible beneficiaries



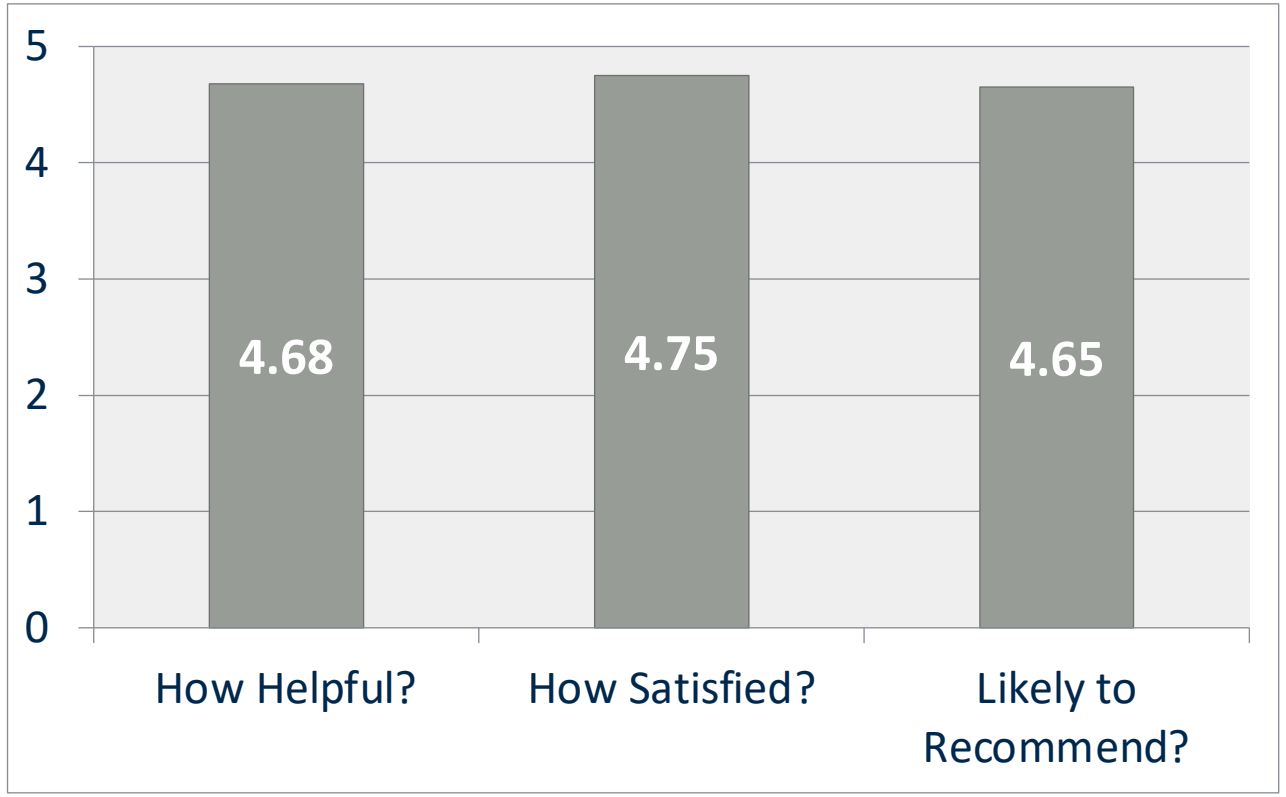
2022 Mar-Apr;62(2):580-587.e1. doi: 10.1016/j.japh.2021.09.015

MedOps Program (cont'd)

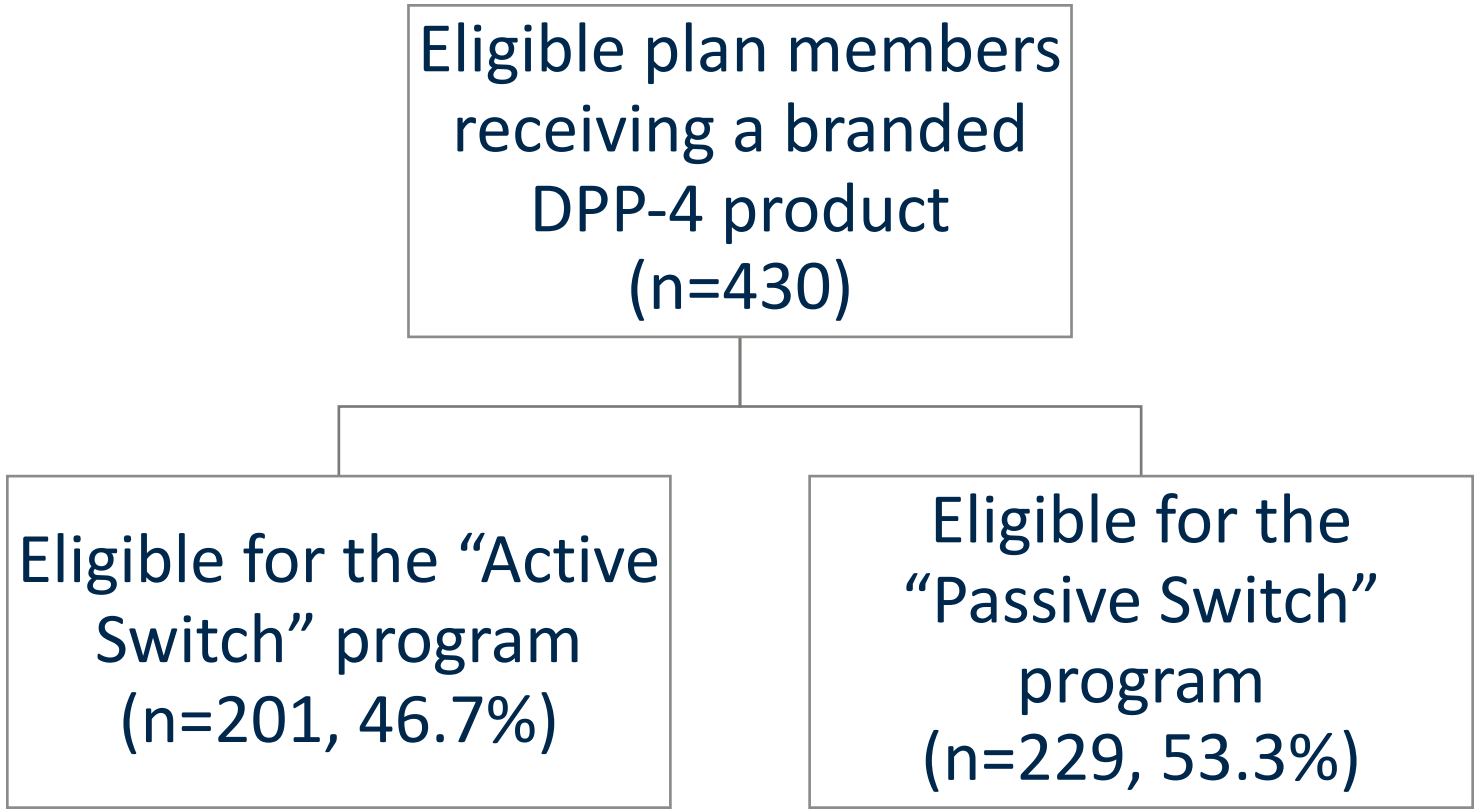
	Number of Interventions	Percentage of total interventions
Add	80	23.8 %
Delete	142	42.1 %
Increase	28	8.3 %
Decrease	25	7.4 %
Optimize	62	18.4 %
Sum	**337**	**100 %**

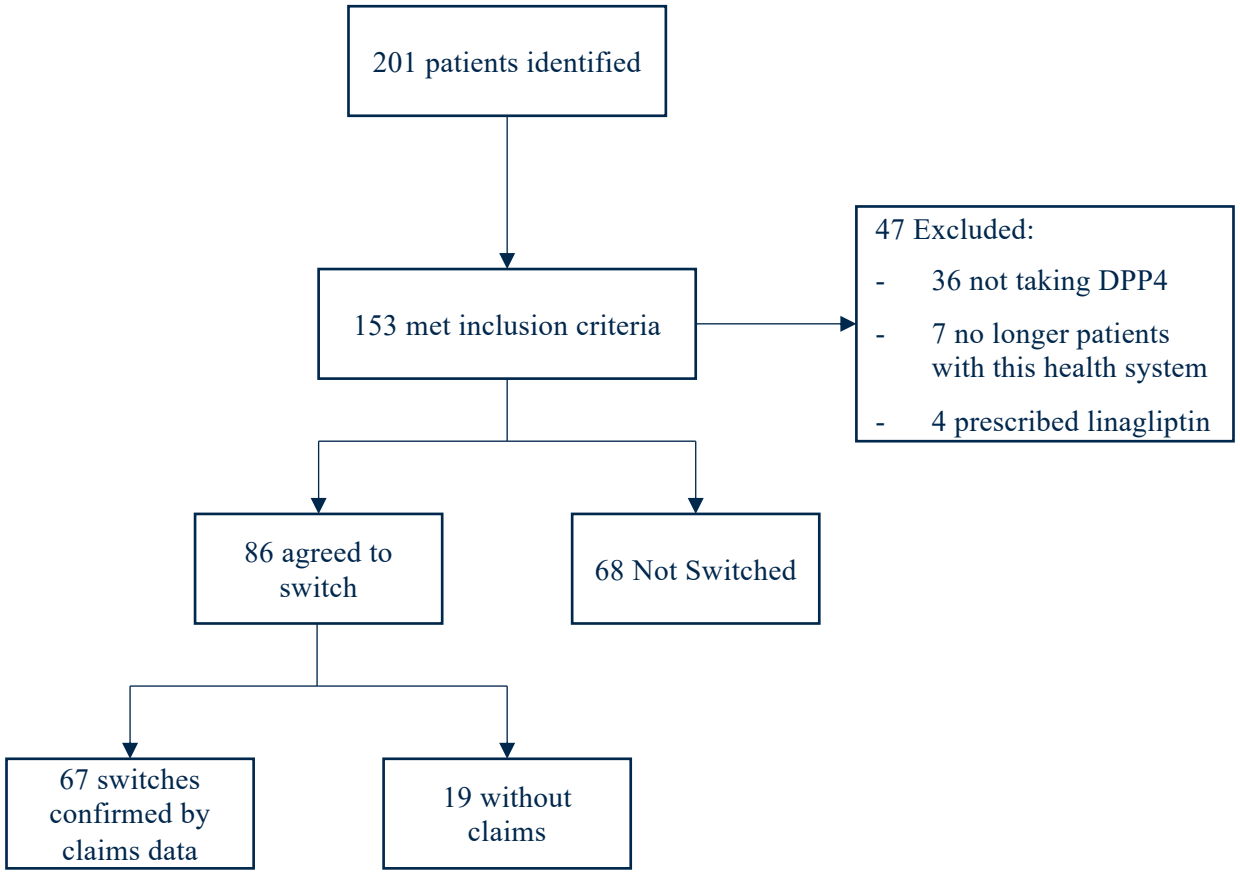
2022 Mar-Apr;62(2):580-587.e1. doi: 10.1016/j.japh.2021.09.015

MedOps Program (cont'd)

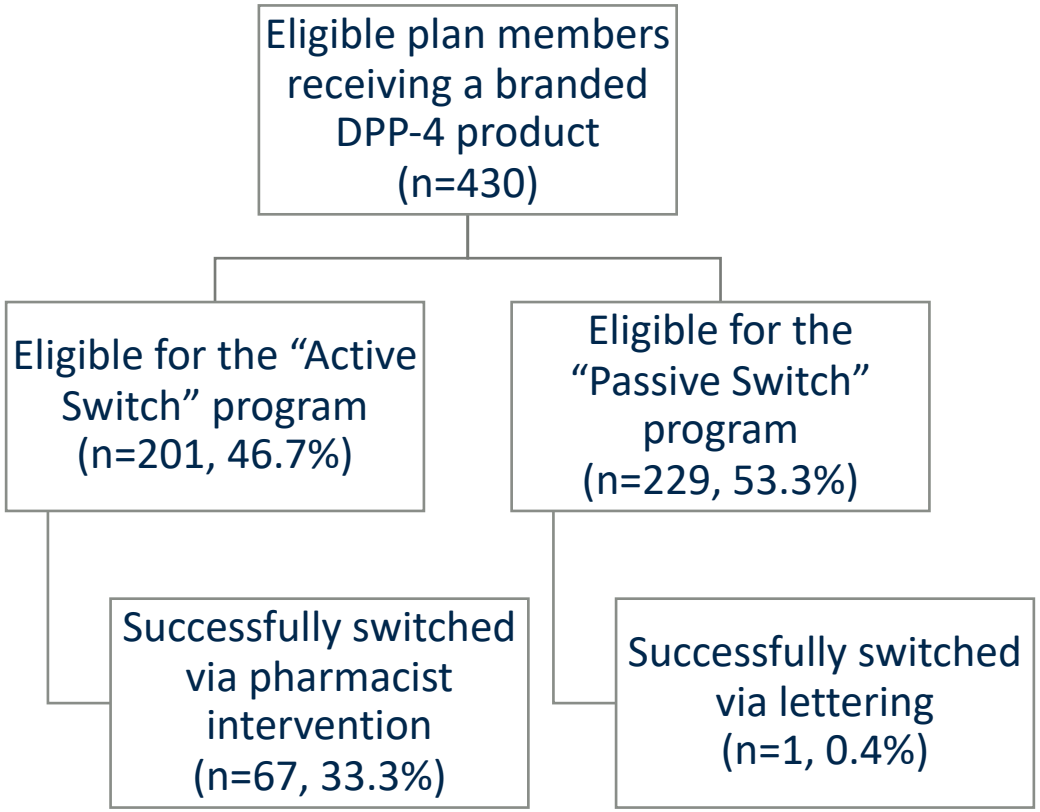


MedOps Program (cont'd)




201 patients identified
153 met inclusion criteria
47 Excluded:
- 36 not taking DPP4
- 7 no longer patients with this health system
- 4 prescribed linagliptin
86 agreed to switch
68 Not Switched
67 switches confirmed by claims data
19 without claims

MedOps Program (cont'd)



Specialty Practice

COLLEGE OF PHARMACY
CLINICAL PHARMACY
UNIVERSITY OF MICHIGAN

Anticoagulation Management

- Centralized service with Nursing and PharmD
  - 5.1 PharmD FTE
  - LVAD/Complex warfarin management
  - Perioperative/Bridging
  - DOAC management
    - New start
    - Dashboard monitoring

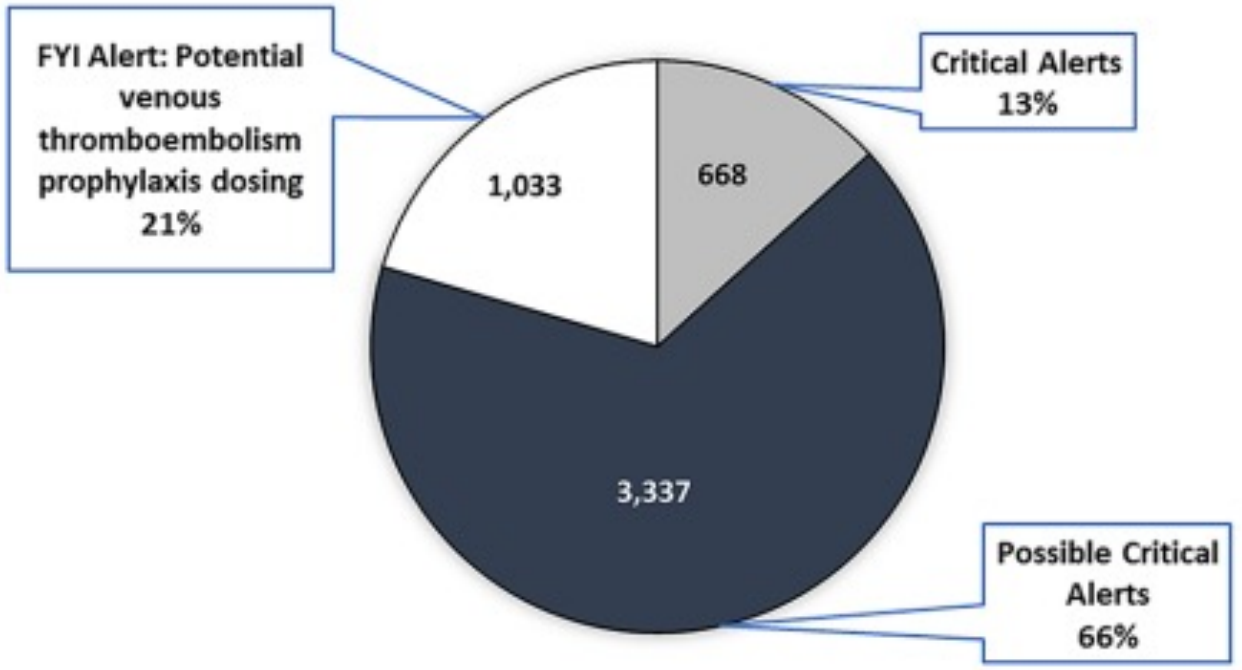
Anticoagulation (cont'd)

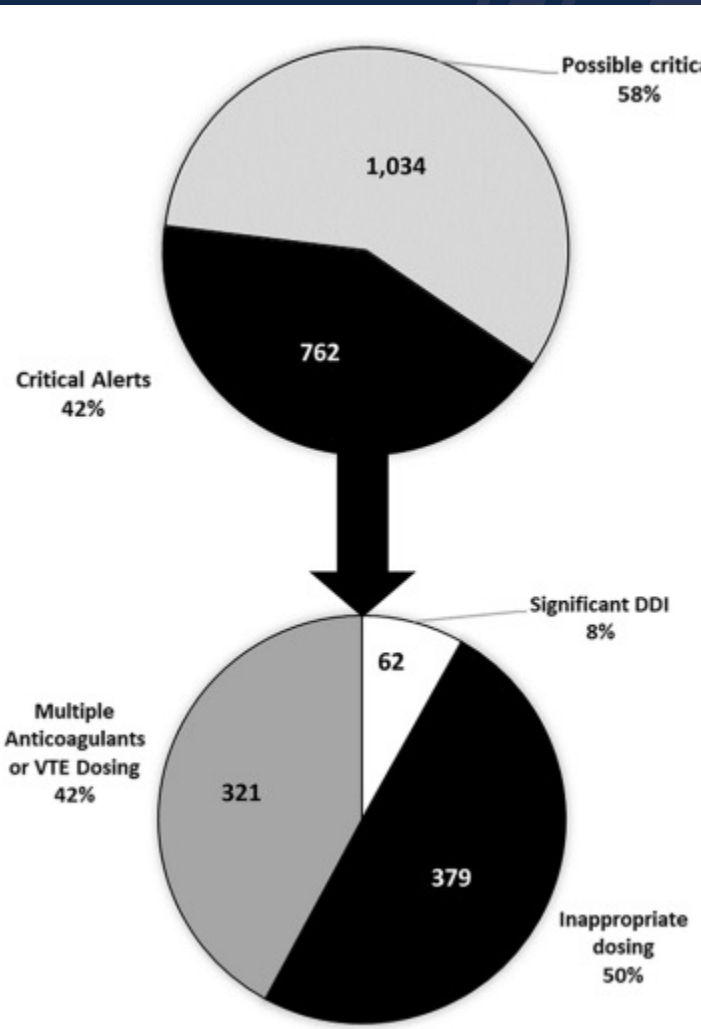
- DOAC Dashboard

	Nurses	Pharmacy student	Pharmacist
Multiple DOACs	x		x
DOAC and Warfarin: contraindicated	x		x
Missing data (creatinine, weight, etc)	x		x
Possible mechanical valve	x		x
Cannot determine dose	x		x
No indication found		x	x
Cannot determine indication		x	x
Incorrect dose			x
Drug-drug interaction			x

https://doi.org/10.1177/87551225231226431

Anticoagulation (cont'd)





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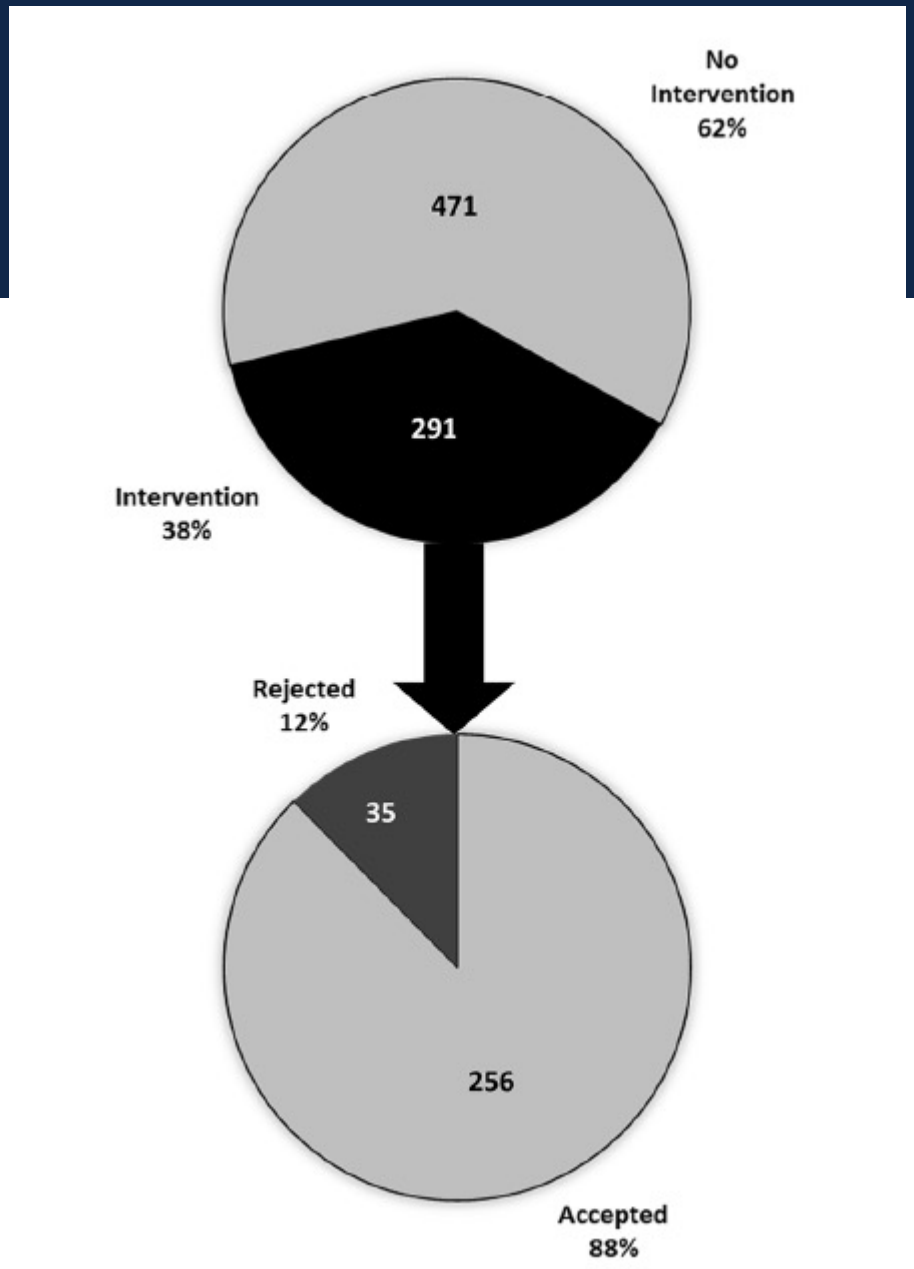
No
Intervention
62%
471
291
Intervention
38%
Rejected
12%
35
256
Accepted
88%

Thank You

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