



THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER

Interprofessional teams and diabetes management

OPCPCC Annual Meeting
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Objectives of this Session

- OSU GIM Multidisciplinary Diabetes Clinic
- Impact on Resident Education
- Impact on Patient Health



Intersection of PCMH and Diabetes

- Diabetes remains a chronic health condition that we are regularly working on to improve patient's overall health
- The pharmacology of diabetes management is constantly growing– but management is not just about adjusting medications
- Consider other models of care that can support diabetic patients and their understanding of disease
- PCMH: A model of care designed to put patient at center of the health care delivery paradigm ⁽¹⁾

(1) Crabtree BF, Nutting PA, Miller WL, et al. Summary of the National Demonstration Project and Recommendations for the Patient-Centered Medical Home. *Ann Fam Med.* 2010;8:S80-S90.



Traditional Approach

- Office visit every 3 months
 - Review Blood Sugar Logs
 - Assess Adherence to medications
 - Determine medications changes needed
 - Educate patient about dose adjustments
 - Ensure all other components of DM care are fulfilled:

Physical Exam	Lab Data	Vaccines
Blood Pressure	Hemoglobin A1c	Pneumococcus
Eye Exam	Lipid panel	Influenza
Foot Exam	Urine Albumin	Hepatitis B
Dental Exam	Serum Creatinine	



Multidisciplinary Diabetes Clinic

- Originated due to need for focused medication management and education of diabetic patients.
 - Recruitment from resident ambulatory clinic patient panels
 - Patients with lower health literacy
 - Patients with less resources
 - Patients with complex/multiple disease states
- Utilization of Clinic Space and Resources
- Team Approach
- Unique experience for patients and learners



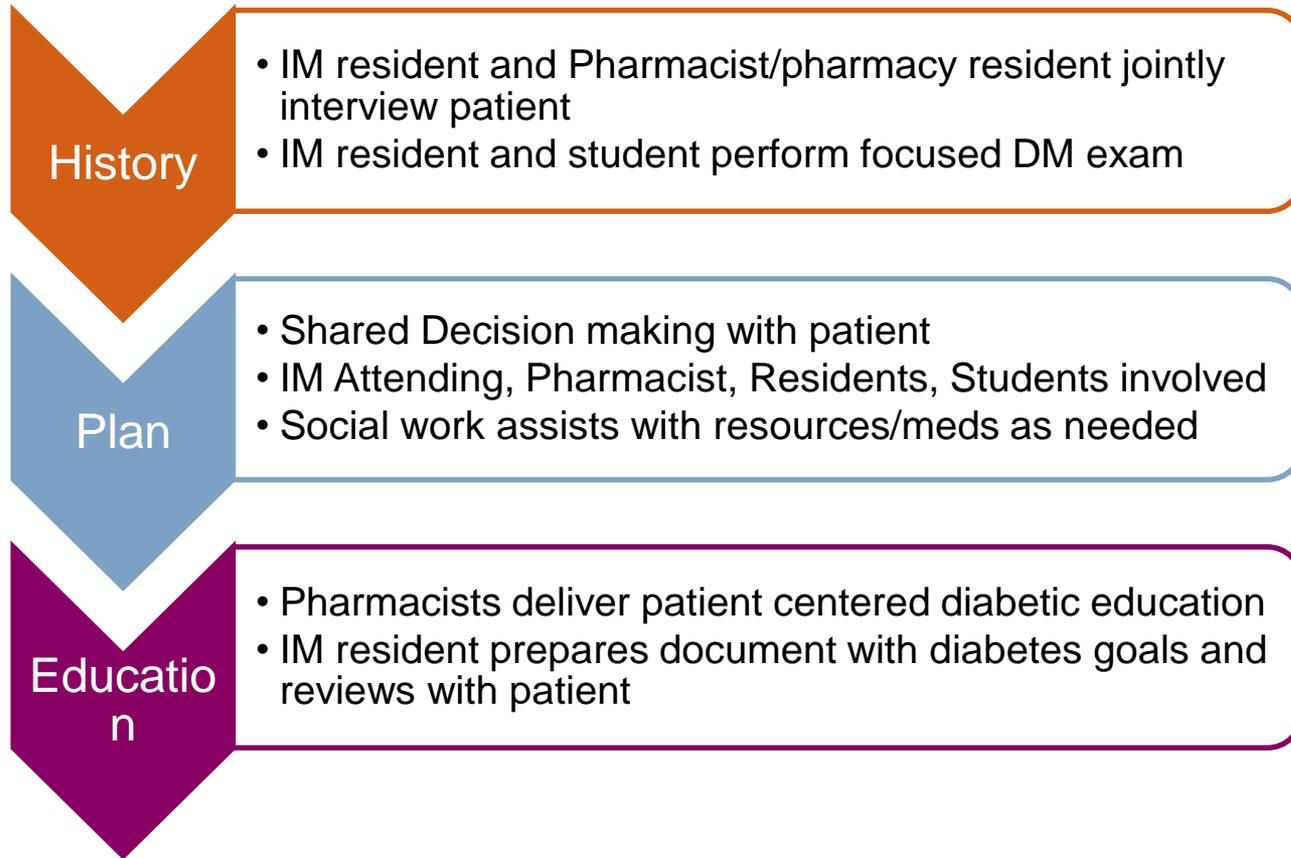
PCMH Team Based Approach



- IM residents
- Pharmacy residents
- Pharmacist
- Attending Physician
- Social Worker
- Students
 - Pharmacy
 - Medicine
 - Dentistry
 - Nursing



Multidisciplinary Diabetes Model: Patient Experience



Team Approach to Follow-Up

- Patients return to clinic at varying intervals
 - Every two weeks to every three months
- Pharmacists call/contact patients in between visits (ie- weekly during insulin titration)
- Labwork follow up is communicated with patient's PCP by IM resident on Diabetes Care Team
- Follow up testing, if needed, is ordered by IM resident on Diabetes Care Team
- Use of EMR to coordinate and communicate this information



PCMH: Major Principles⁽²⁾

- 1) Personal physician relationship
- 2) **Comprehensive team approach**
- 3) **Coordinated and integrated care**
- 4) **Whole person orientation**
- 5) Enhanced access
- 6) Emphasis on quality and safety

(2) Early Evidence on Patient Centered Medical Home.

http://pcmh.ahrq.gov/portal/server.pt/community/pcmh_home/1483/PCMH_Defining%20the%20PCMH_v2





Primary Care Track

- 12 residents overall
 - 4 per year
 - Length of training 3 years
- 50% of training inpatient, 50% of training outpatient
 - Traditional programs with 2/3 inpatient, 1/3 outpatient
- Program graduates receive at least 200 clinics before graduation.
 - ACGME requires 130 clinics



Multidisciplinary Diabetes Clinic

- Contrasting Models of Care
 - Multidisciplinary Diabetes Clinic Visit
 - Education Driven
 - Team Driven
 - What do residents get out of this???
 - What do patients get out of this???
 - Standard Diabetes Follow Up Visit
 - Focused vs. Unfocused visit
 - Getting to the Roots



PCMH and Resident Ambulatory Clinic

- How do we teach the concepts of PCMH to our internal medicine trainees?
- This is a CULTURAL shift
- The best way to move the PCMH culture forward is to train new physicians within a PCMH model
- Multidisciplinary approach to diabetic care as resident educational method with focus on:
 - Comprehensive Team Approach
 - Coordination of Care
 - Whole Person Orientation



Resident Education

- Multidisciplinary Diabetes Clinic
 - Residents rotate through clinic for one month during intern year
 - One half day each week
- Faculty Didactic Series
 - Daily Noon Conference Series
- Pharmacy Didactic Series
 - During Diabetes Clinic Half Day



ITE Quality Metrics

Effects of In-Training Examination performance following initiation of Multidisciplinary Diabetes Clinic

National Percentile Rank Overall	2009	2010	2011	2012	2013	2014	2015	2016
Endocrinology	36	55	78	65	77	81	58	64
General Internal Med	61	87	83	84	92	89	89	96
Geriatrics	35	68	82	83	86	74	64	83
Overall	60	61	75	75	82	81	81	86





Clinical Outcomes



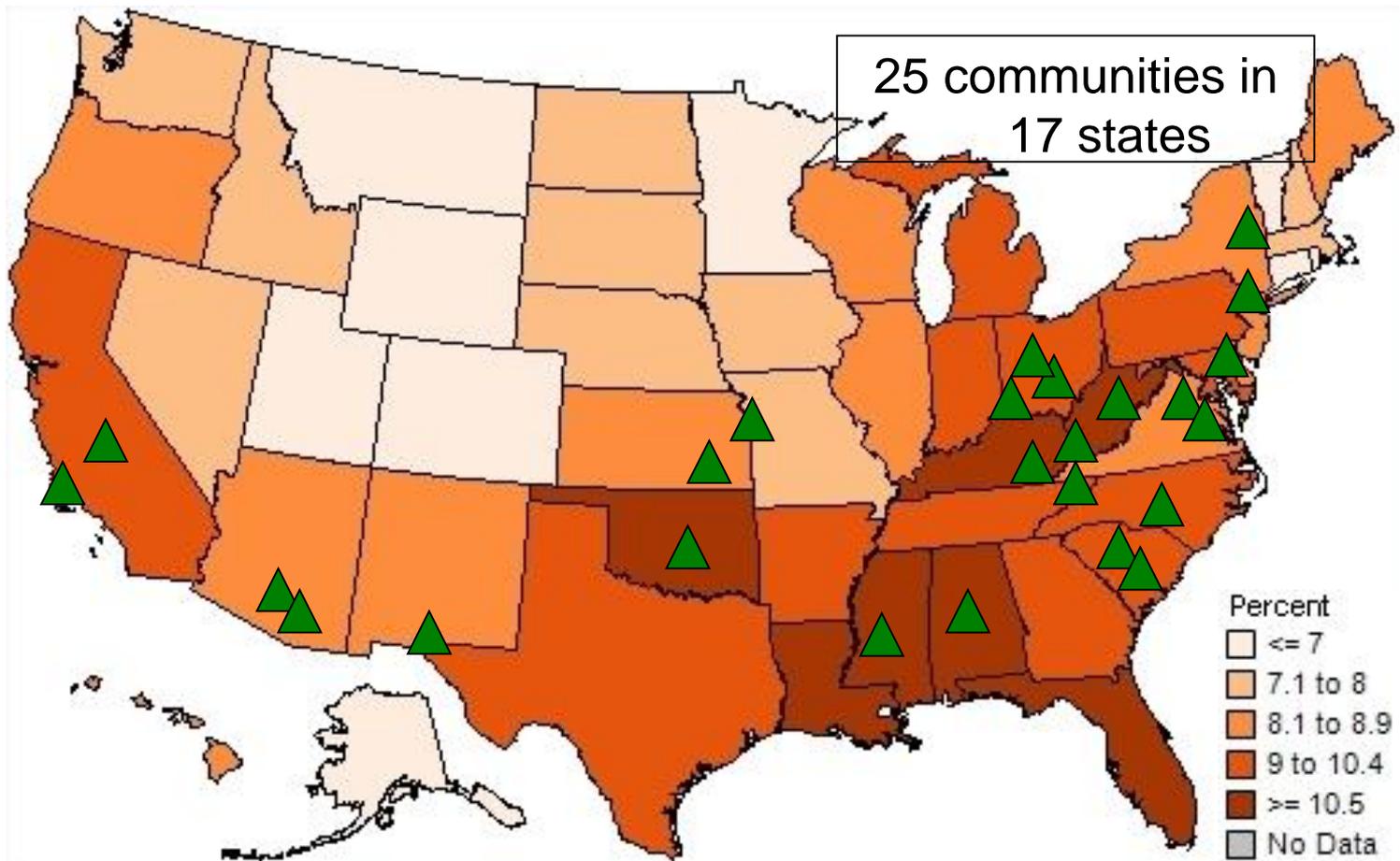
Project IMPACT™ Diabetes



Project IMPACT: Diabetes is made possible through the generous support of the BMS Foundation within their *Together on Diabetes* initiative.



Participating Communities



Getting quality diabetes care to patients who need it most...

Improving outcomes for diverse populations disproportionately affected by diabetes: Final results of Project IMPACT: Diabetes

Benjamin M. Bluml, Lindsay L. Watson, Jann B. Skelton, Patti Gasdek Manolakis, and Kelly A. Brock

Abstract

Objective: To improve key indicators of diabetes care by expanding a proven community-based model of care throughout high-risk areas in the United States.

Design: Observational, multisite, pre–post comparison study.

Setting: Federally qualified health centers, free clinics, employer worksites, community pharmacies, departments of health, physician offices, and other care facilities in 25 communities in 17 states, from June 2011 through January 2013.

Participants: 1,836 patients disproportionately affected by diabetes representing

Received December 6, 2013, and in revised form March 24, 2014. Accepted for publication May 3, 2014.

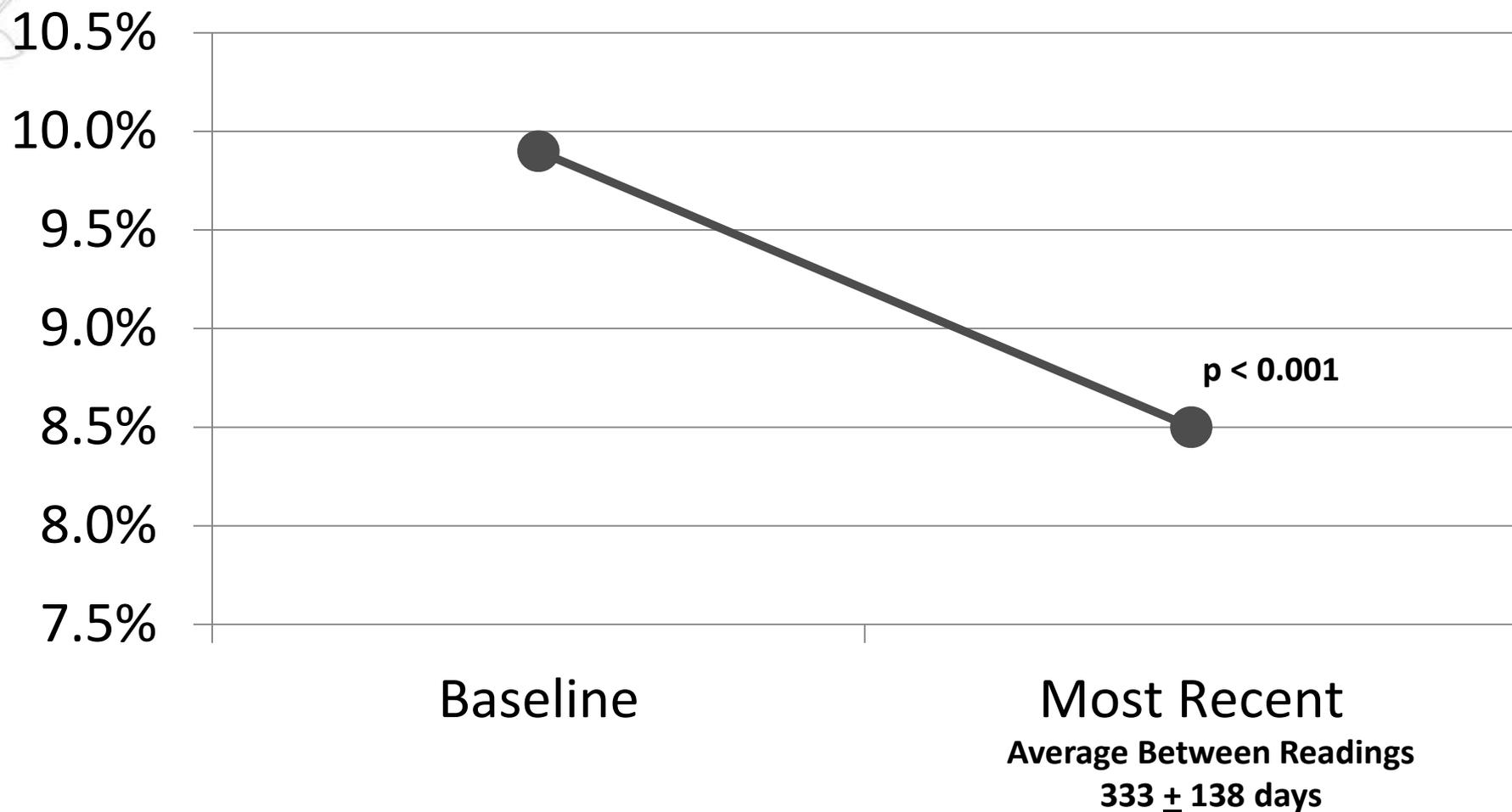
Benjamin M. Bluml, BSPHarm, is Senior Vice President for Research and Innovation; and **Lindsay L. Watson, PharmD**, is Director of Applied Innovation, APhA Foundation, Washington, DC. **Jann B. Skelton, BSPHarm, MBA**, is President, Silver Pennies Consulting, North Caldwell, NJ. **Patti Gasdek Manolakis, PharmD**, is President, PMM Consulting, LLC, Charlotte, NC. **Kelly A. Brock, PharmD**, is President, KB Pharmacy Solutions, Inc., Tustin, CA.

J Am Pharm Assoc. 2014;54:477–485.
doi: 10.1331/JAPhA.2014.13240

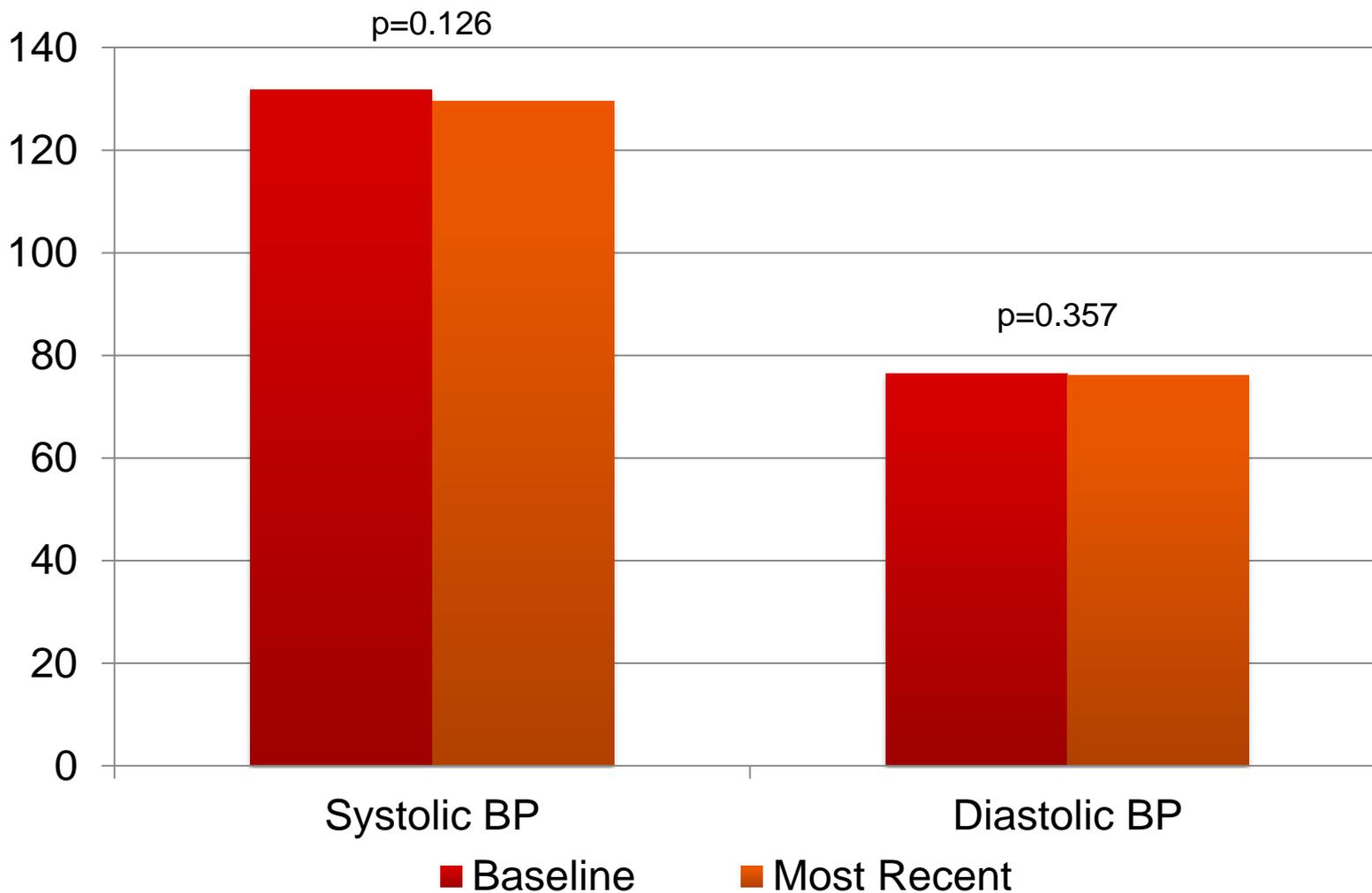


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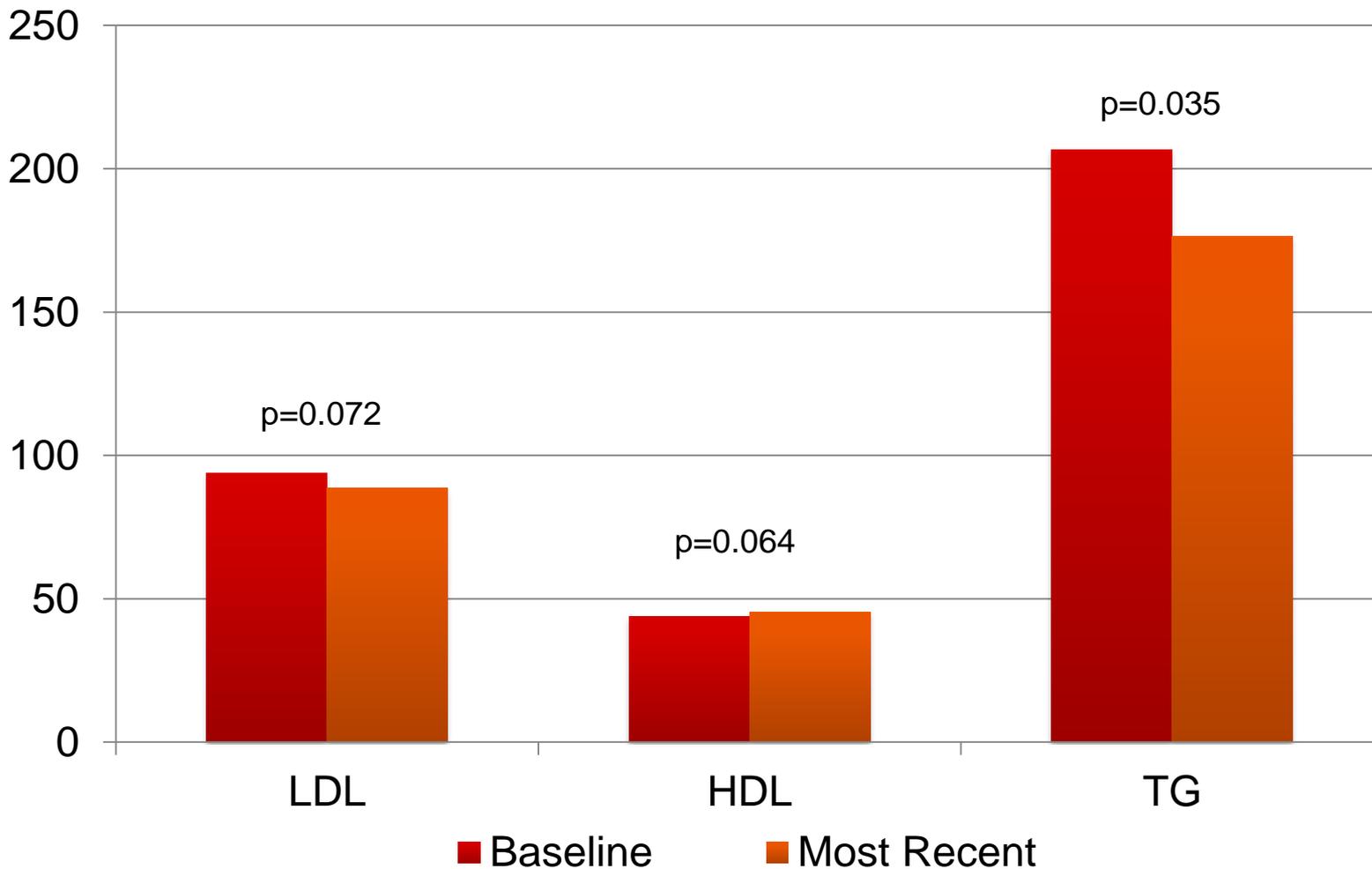
1 year Results – A1c (n=98)



1 year Results – Blood Pressure (n=98)



1 year Results – Cholesterol (n=98)



What happens next?

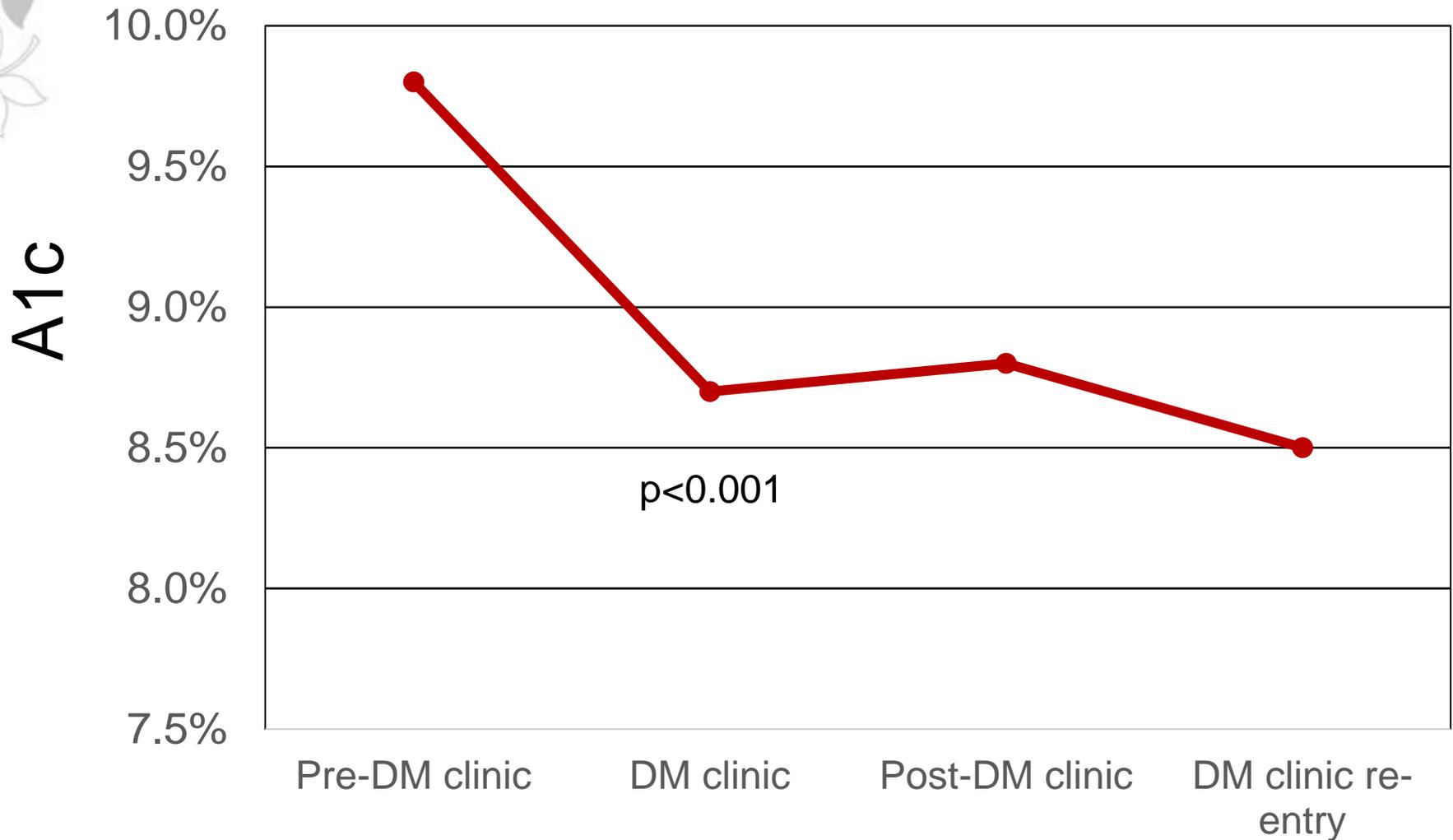
- Once controlled, passed back to standard care
- Outcome options:
 - Lost to follow-up
 - Maintain control or improve
 - Worsening diabetes control



Demographics (n=647)

Parameter	
Average Age	53 years
Sex – n (%)	
Female	340 (53.0%)
Race – n (%)	
AA	290 (44.8%)
White	297 (45.9%)
Third party	
Medicare	216 (33.4%)
Medicaid	205 (31.7%)
Private Insurance	182 (28.1%)

Diabetes Clinic Re-entry



Lessons Learned

- Patient adherence continues to be one of the biggest limitations to care
- Phone follow-up (or secure patient portal) is an effective way to improve diabetes outcomes
- Consistent approach from providers for diabetes management
- Motivational interviewing techniques help patients to achieve goals



Future Direction

- Use a population health registry to develop and maintain population most likely to benefit
- Develop partnerships with behavioral health and community partners
- CPC+ will allow innovations in care delivery that may expand diabetes clinic model



Summary

- A multidisciplinary approach to diabetic care has proven to be effective in:
 - Interdisciplinary Education
 - Education of PCMH principles
 - Education of Diabetes Management
 - Improvement of Patient Diabetic Outcomes





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Questions?

NFP Team Care
The Impact of the RN Wellness
Coordinator

NEIGHBORHOOD



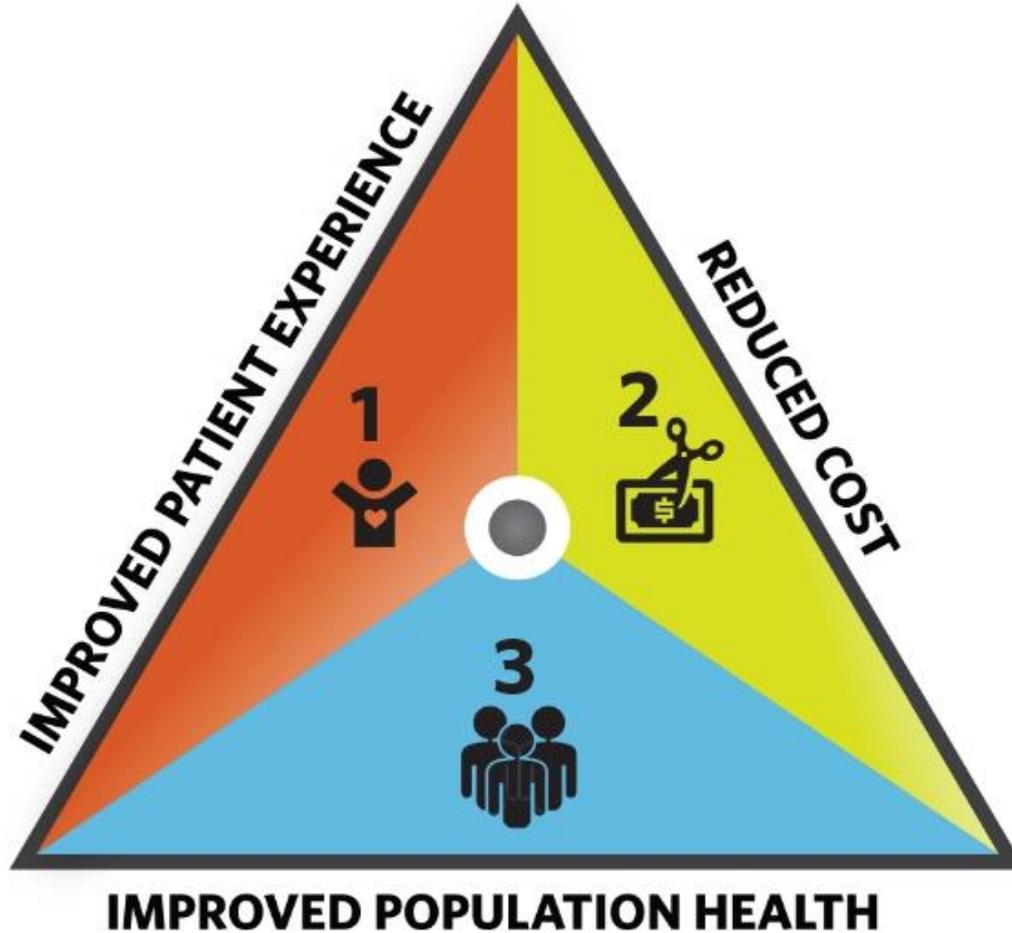
P R A C T I C E



Neighborhood
Family Practice
COMMUNITY HEALTH CENTERS

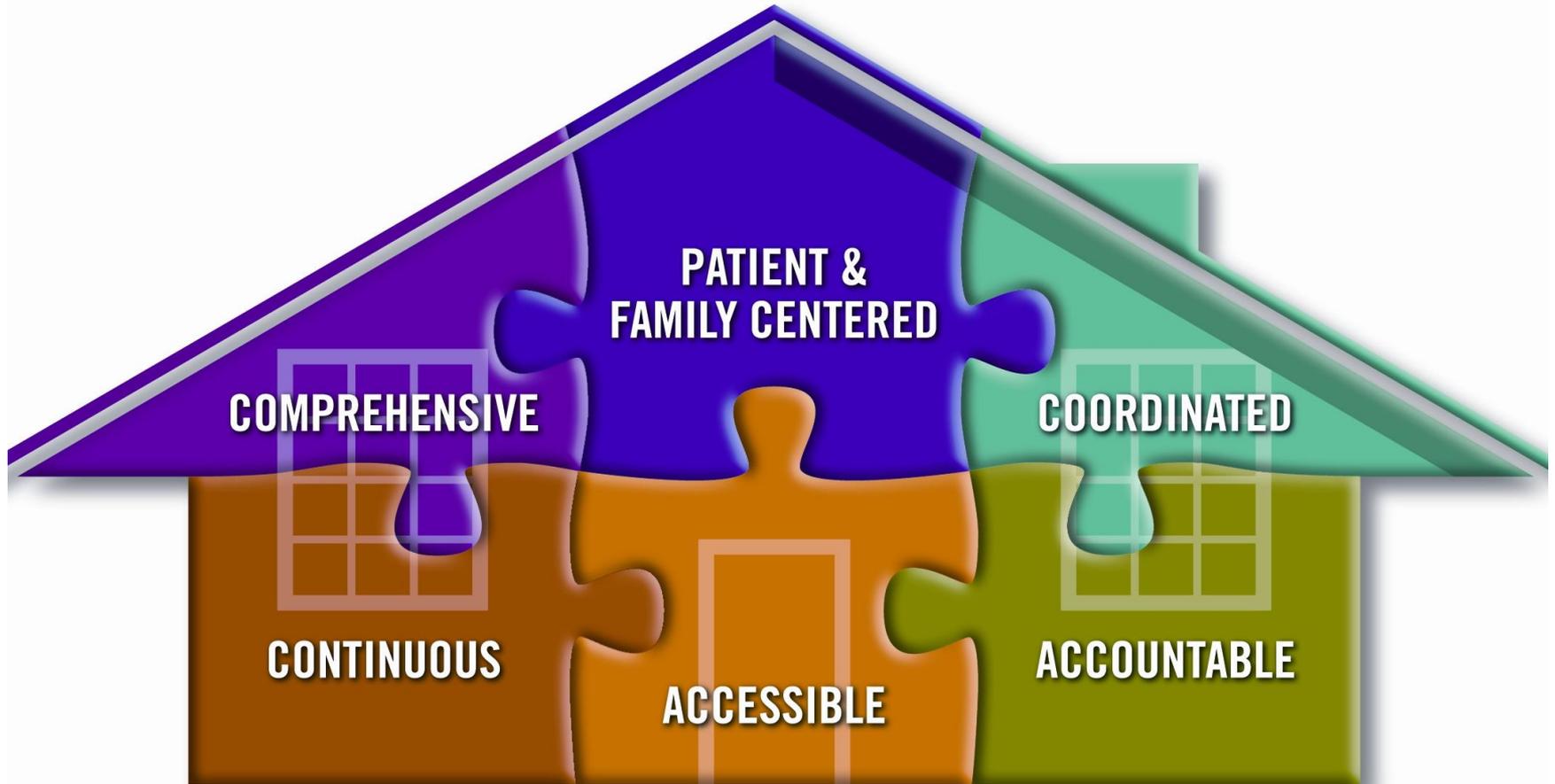
IHI Triple Aim

What do we need to do?



PCMH Care Model

How do we improve care?





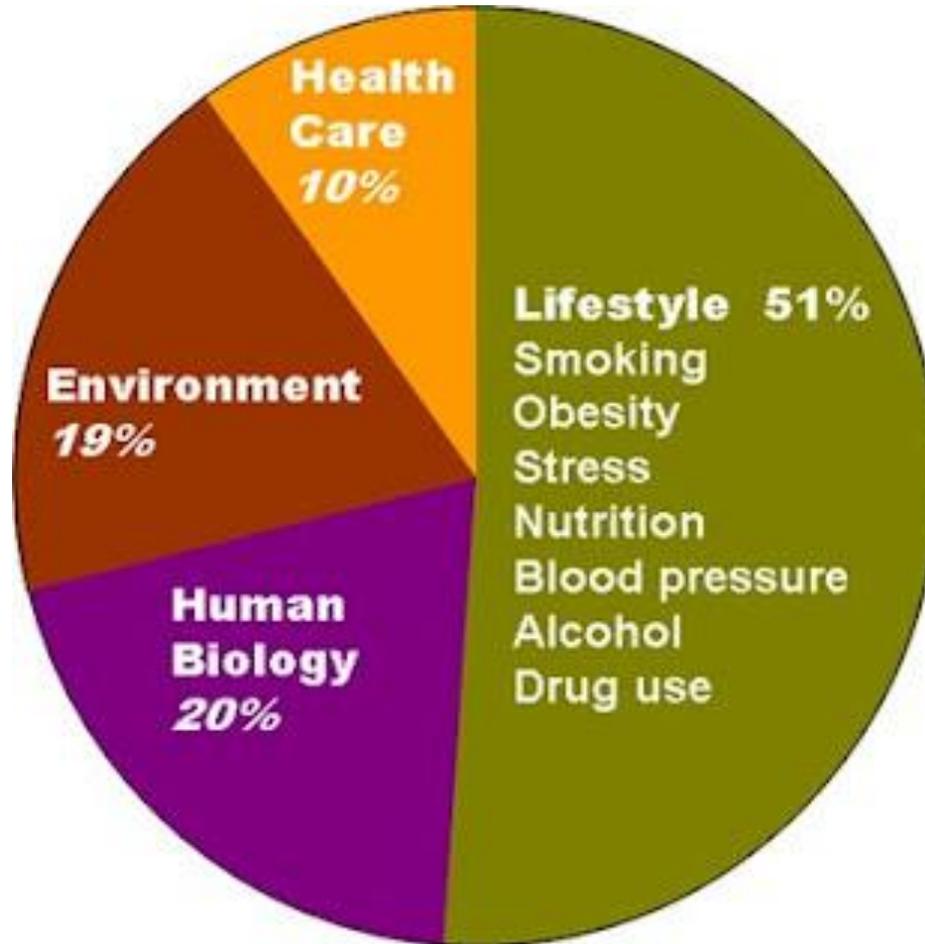


NFP Care Team

- 2 medical providers- MD & NP
- 1 RNs
- Patient Advocate
- 2 Mas
- Wellness Coordinator
- Co-located
- Monthly team meetings
- Regular outcome & process data

Determinants of Health

Why do we need Care Teams?



The Team Huddle

Optimize the patient visit/ provide social context



RN as Coach

Providers may inspire, but have difficulty coaching



Life Style Modification

- Diet
- Activity
- Stress Management
- Tobacco



Importance of prevention

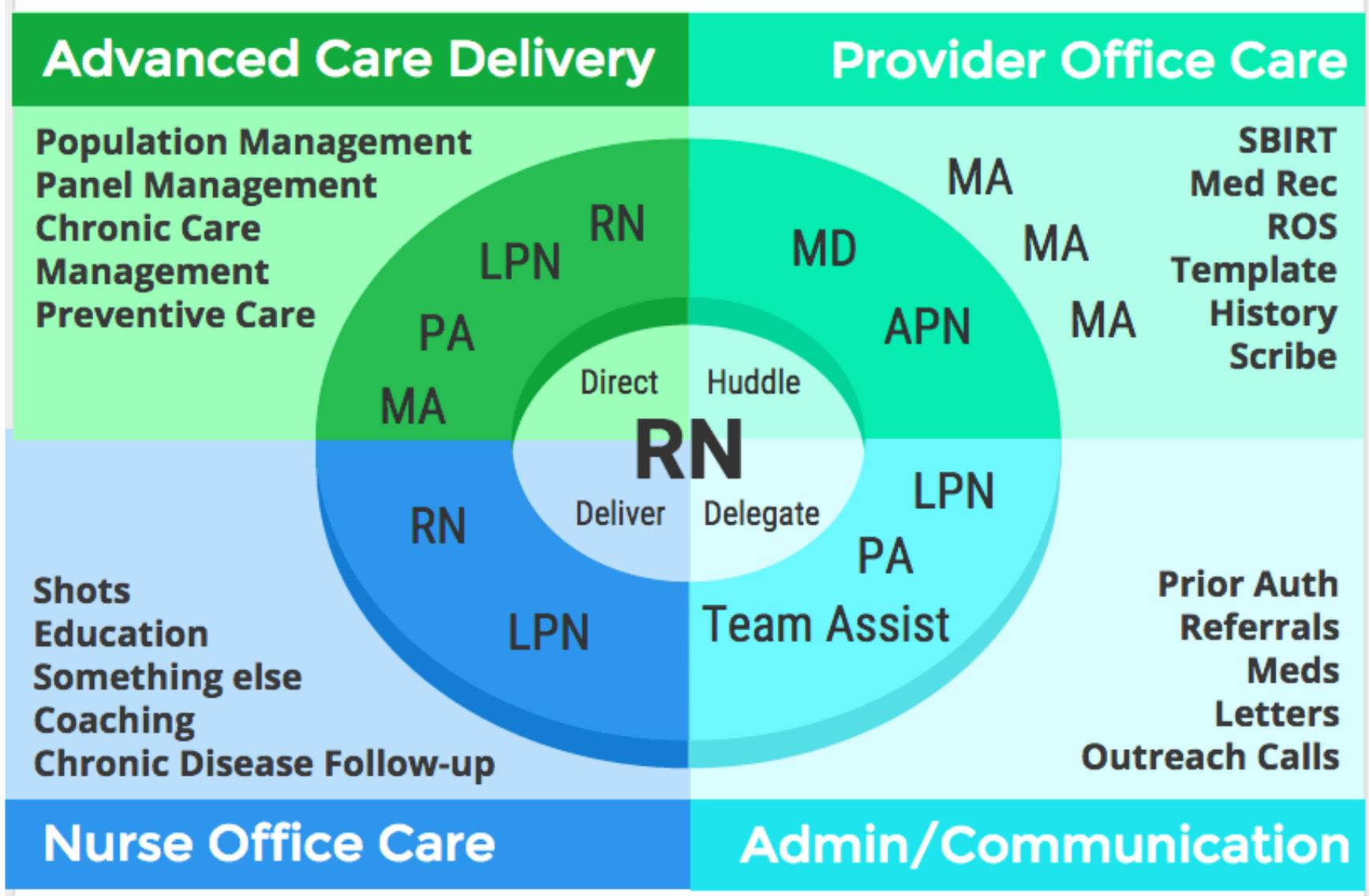
More than just ordering tests



Wellness Coordinator

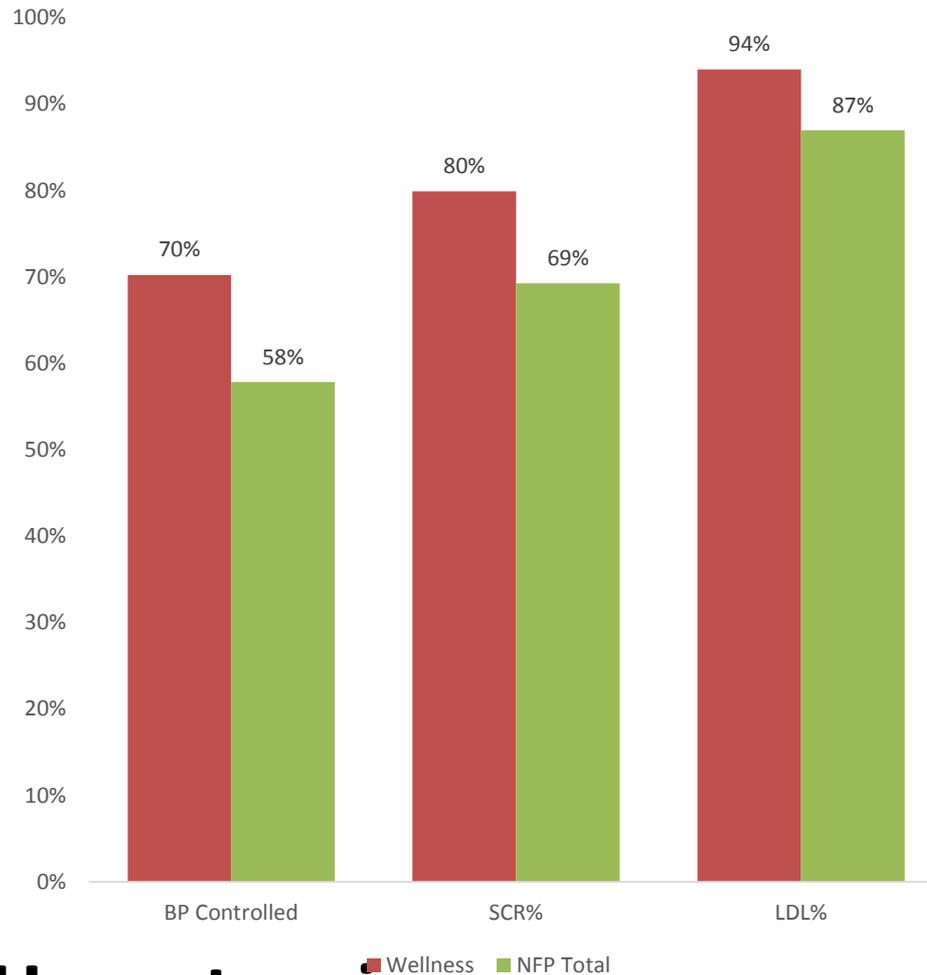
- Health Coaching
- Chronic disease Education
- DM & HTN mgmt in collaboration with provider
- Insulin titration
- Diet and activity modification
- Weight management
- Screening and prevention
- Tobacco cessation

Advanced Care Team



Key Elements

- Policy and authority to do higher level work
- Promotion in the organization of the concept of team care and shared care of patient
- Collaborative relationship with provider
- Training for RN – motivational interviewing, behavioral theory, health coaching, dietary, tobacco cessation
- Optimizing billing of the service



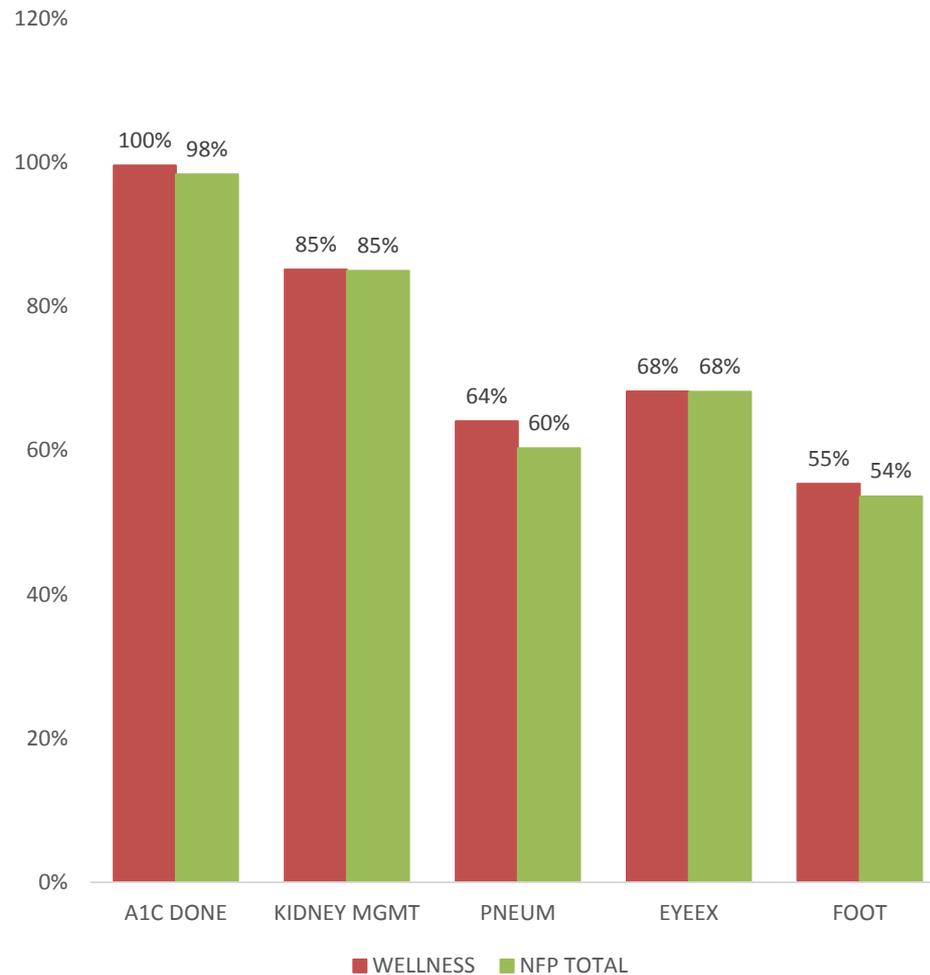
Hypertension

Comparison of high blood pressure standards of adult patients with hypertension who have engaged in Care Management by the Wellness Coordinator vs. Neighborhood Family Practice as a whole.

BP Controlled defined as BP < 140/90 for most patients and BP < 150/90 for patients ages 60 and older who do not have diabetes

Data: 12 month run ending 9/30/2016

Source: Epic Clarity Database



Diabetes- process measures

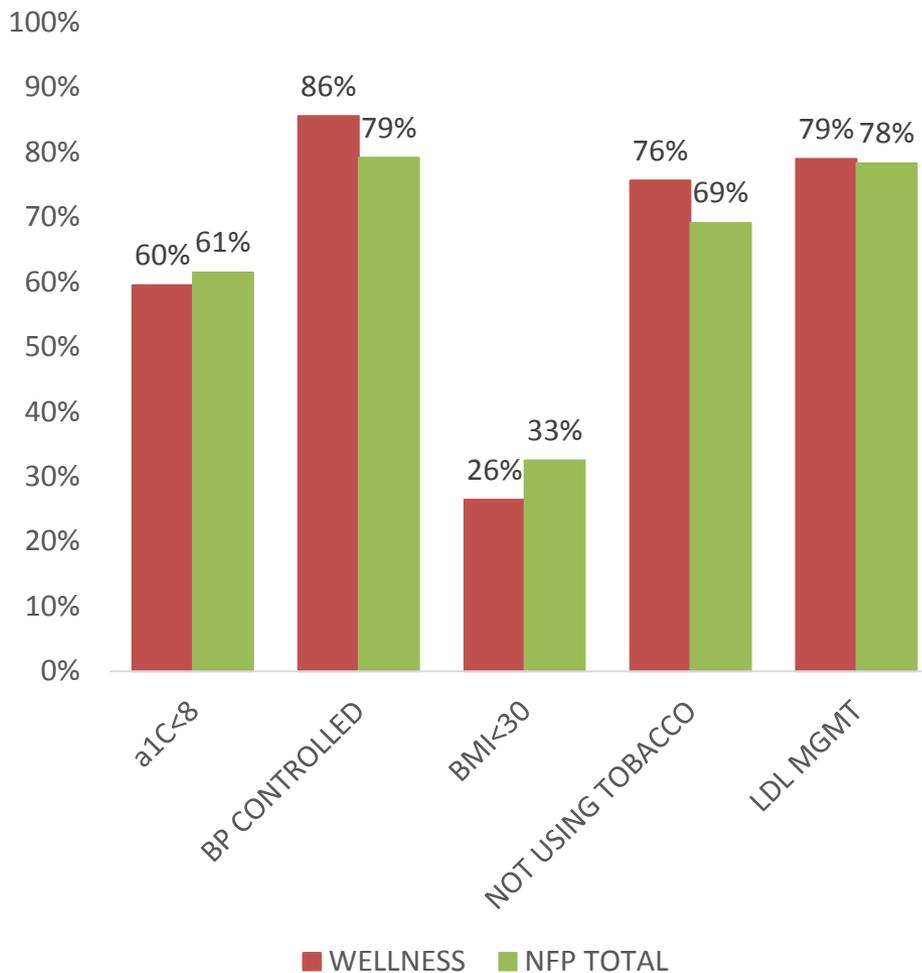
Diabetes: All patients with a diagnosis of DM 18 to 75 years with at least 2 PC visits within the reporting period 10/01/2015 through 9/30/2016.

BP Controlled defined as BP < 140/90

LDL management defined as LDL < 100 or statin medication

Data: 12 month run ending 9/30/2016

Source: Epic Clarity Database



Diabetes- outcome measures

Diabetes: All patients with a diagnosis of DM 18 to 75 years with at least 2 PC visits within the reporting period 10/01/2015 through 9/30/2016.

BP Controlled defined as BP < 140/90

LDL management defined as LDL < 100 or statin medication

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Opportunities

- Value & quality based payments
- Comprehensive Primary Care payments
- Chronic Care Management
- Shared savings from cost reduction
- Direct payment of services from some payers as continued care for a condition

Lessons

- Develop team support structures
- Train and empower nurses to do more shared care of patients
- Orient patients to the concept of shared care & team care
- Get payed for the work you are doing
- Analyze impact of programs