ASHP Best Practices Award

Implementation of a Scalable Pharmacy Population Health Model at a Large Regional Health System

Beth S. Williams, Pharm.D.
Molly T. Hinely, Pharm.D., BCPS, CPP
Tiffany J. Sherod-Harris, Pharm.D.
Candace M. Dixon, Pharm.D., BCACP, CPP, MSCR
Jennifer E. Tryon, Pharm.D., M.S., FASHP
Brian A. Marlow, Pharm.D., M.B.A.

Wake Forest Baptist Health
Winston-Salem, North Carolina

List of team members in order of appearance in photo (Left to Right):

Tiffany Sherod-Harris, Brian Marlow, Molly Hinely, Jennifer Tryon, Candace Dixon, Beth Williams

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation:

Authors have nothing to disclose.

Introduction

Healthcare Facility

- 5 campuses
  - › 1 academic medical center
  - › 4 network community hospitals
- 9 community and accredited specialty pharmacies
- Large ambulatory network of primary care and specialty practices
- 2015, joined Accountable Care Organization (ACO), participated in 1st value-based care (VBC) contract
- 2019, Advanced risk to 11 VBC contracts with approximately 59,000 covered lives

Background

- Centers for Medicare & Medicaid Services (CMS) is abandoning traditional healthcare models in favor of pay-for-performance
- VBC contracts focus on improving quality and reducing costs
- Performance is based on CMS ambulatory quality measures
  - › Many are medication-related
- Medicare Advantage contracts include incentives for improving medication adherence, which are triple-weighted measures
- Pharmacists are well positioned to impact VBC and outcomes by taking responsibility for
  - › Medication management
  - › Medication-related quality measures
- There is limited research regarding role of pharmacists in VBC

Introduction *(continued)*

CMS Medication-Related Quality Measures

CMS Medication-Related Quality Measures	
ACO Measures	Preventive Care and Screening: Influenza Immunization
	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
	Statin Therapy for the Prevention and Treatment of Cardiovascular Disease
	Diabetes Mellitus (DM-2): Hemoglobin A1c Poor Control >9%
	Hypertension (HTN): Controlling High Blood Pressure
HEDIS Measures	Asthma Medication Ratio (Total Rate)
	Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis
	Care of Older Adults - Medication Review
	Medication Reconciliation Post-Discharge
	Osteoporosis Management (women) with a Fracture
	Persistence of Beta Blocker Treatment after Heart Attack
	Rheumatoid Arthritis Management
	Statin Use in Persons with Diabetes
Medication Management Measures	Adherence to Antipsychotic Medications for Individuals with Schizophrenia
	Antidepressant Medication Management (Both Rates)
	Percent of Generic Medication Prescribed
	Medication Adherence for Cholesterol (Statins)
	Medication Adherence for Diabetes Medications
	Medication Adherence for Hypertension (RAS)
	Medication Management for People with Asthma (Medication Compliance 75% Rate only)
	Pharmacotherapy Management of COPD Exacerbation - Bronchodilator
Claims Measure	Prescription 90 Day Supply

Purpose

- To design, describe, implement, and evaluate the role of pharmacists in a population health model at a large regional health system

Description of the Program

Objectives

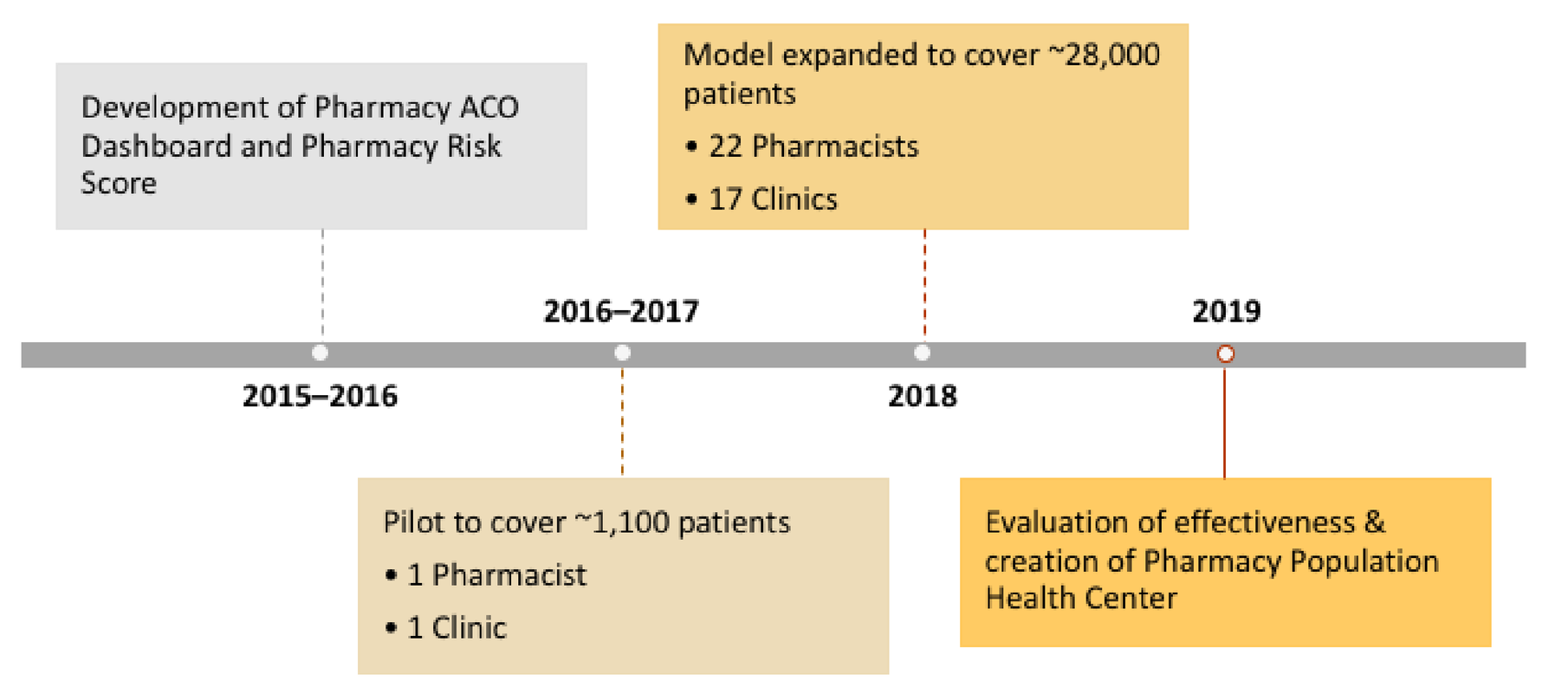
- Create scalable tools
- Prioritize patients and interventions
- Standardize communication to primary care providers (PCP)

Innovative Solutions

Tool or Strategy	Purpose
Pharmacy ACO Dashboard	Identify patients (in Epic electronic health record [EHR])
Pharmacy Risk Score	Prioritize patients by quality measure opportunity (in Epic EHR)
Best Practice Advisory	Standardize communication method between pharmacist & Primary Care Provider (PCP) (in Epic EHR)
Virtual Pharmacy Team	22 pharmacists who contribute incremental time to conducting comprehensive medication reviews (CMR) for assigned VBC patients
Monthly CMR Scorecard	Report monthly metrics and identify opportunities for process improvement
Embedded Pharmacists	Practice in rural communities with high risk/high volume patient populations

Description of the Program *(continued)*

Pharmacy Population Health Timeline



Development of Pharmacy ACO Dashboard and Pharmacy Risk Score
2015–2016
2016–2017
Pilot to cover ~1,100 patients
• 1 Pharmacist
• 1 Clinic
2018
Model expanded to cover ~28,000 patients
• 22 Pharmacists
• 17 Clinics
2019
Evaluation of effectiveness & creation of Pharmacy Population Health Center

Virtual Pharmacy Team & CMR Scorecard

- 22 Pharmacists
  - 5 PGY1 Residents
    - 3 Community
    - 2 Ambulatory-focused
  - 15 Community Pharmacists
    - 13 Traditional Community
    - 2 Specialty Pharmacy
  - 2 Ambulatory Care Pharmacists

Monthly CMR Scorecard							
Clinic Name	**Assigned Team/Pharmacist**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**
	Amb Care/Community	**178**	**175**	**165**	**184**	**192**	**14**
Clinic A	Resident 1	30	30	19	30	32	0
Clinic B	Resident 2	10	30	30	31	30	0
Clinic C	Resident 3	58	50	51	50	50	10
Clinic D	Resident 4	50	50	35	50	50	4
Clinic E	Resident 5	30	15	30	23	30	0
Clinic F	**North Tower**	**47**	**19**	**69**	**37**	**31**	**18**
	Community Pharmacist 1	10	16	8	8	9	1
	Community Pharmacist 2	9		34	8	3	2
	Community Pharmacist 3	20		18	16	15	0
Clinic G	Community Pharmacist 4	6	2	9	5	13	14
	Community Pharmacist 5	2	1	0	0	0	1
Clinic H	**Piedmont Plaza**	**41**	**42**	**43**	**33**	**45**	**28**
	Community Pharmacist 6	22	25	32	18	38	17
	Community Pharmacist 7	19	17	11	15	7	11
Clinic I	**Lexington**	**3**	**0**	**2**	**5**	**24**	**11**
	Community Pharmacist 8	3	0	2	5	24	11
Clinic J	**Clemmons**	**60**	**11**	**33**	**85**	**15**	**17**
	Community Pharmacist 9	60	11	33	85	15	17
Clinic K	**Bermuda**	**5**	**13**	**19**	**0**	**3**	**0**
	Community Pharmacist 10	5	13	19	0	3	0
Clinic L	**Specialty/DHP**	**18**	**28**	**29**	**32**	**35**	**13**
	Specialty Pharmacist	18	28	29	32	35	13
	Pharmacy Care Clinic	**172**	**181**	**274**	**237**	**232**	**157**
Clinic M	Ambulatory Care Pharmacist 1	53	67	98	62	61	30
Clinic N	Ambulatory Care Pharmacist 2	107	106	126	142	137	115
Clinic O	Ambulatory Care Pharmacist 3	12	8	50	33	34	12

2019

Experience with the Program

Assessment of data and opportunities 1-year after implementation

- Evaluation of 2,921 CMRs over 9-month period
  - › 33% pharmacist recommendation rate
  - › 23% provider acceptance rate
  - › Most commonly accepted recommendations
    - Diabetes management
    - Hypertension management
    - Health maintenance

Pharmacist Recommendations & Acceptance

Recommendations by Category		
	Recommendations	**Accepted Recommendations**
Uncontrolled Hypertension	294	61 (21%)
Atherosclerotic Cardiovascular Disease (ASCVD)/ Statin use	196	31 (16%)
Rheumatoid Arthritis/Disease-modifying anti-rheumatic drug (DMARD) use	2	1 (50%)
Osteoporosis/Dual Energy X-ray Absorptiometry (DEXA) Scan	6	5 (83%)
Ischemic Vascular Disease (IVD)/Antithrombotic use	25	5 (20%)
Discharged in Past 30 Days/Assessment of medication-related issues	5	4 (80%)
Medication Review: HbA1c > 8%, dosing	482	134 (28%)
Other: immunizations; tobacco cessation; pharmacy care clinic referral; lab request; supplements	375	77 (21%)
Total	1,385	318 (23%)

Experience with the Program *(continued)*

- Creation of Pharmacy Population Health Center
  - › Purpose
    - House virtual team
    - Triage patient care services
    - Deploy resources as needed
    - Utilize proactive strategies to ensure medication-related quality measures are addressed
    - Improve reports and analytics to identify
      - Benchmark performance opportunities
      - Patients at risk of failing measure(s)
      - Social determinants of health
  - › Required rotation for all PGY1 residents beginning 2019-2020
  - › Future focus
    - Rising-risk patients
    - High-utilizers (hospitalizations & ED visits)
    - Drug utilization
    - Behavioral health

Pharmacy Population Health Center

Pharmacy Population Health Center
Inpatient Pharmacists
Outpatient Pharmacists
PGY1 Residents
MAC Specialist (Tech)
Clinic Pharmacists
Hospital/ED
Med Education
DC Med Rec
TIRE
Outpatient pharmacies
MTM
Med Adherence
Opioid Misuse
Home
Comprehensive Medication Assessment
Clinic
PCC referrals
SMA
AWVs for select patients
Outreach
Post-discharge
Provider/ Navigator referrals
SNF/ALF
Comprehensive Medication Reviews

Abbreviations:
ED = Emergency Department
DC = Discharge
TIRE = Transitional Inpatient Rounding Experience
MTM = Medication Therapy Management
PCC = Pharmacy Care Clinic
SMA = Shared Medical Appointments
AWV = Annual Wellness Visits
SNF = Skilled Nursing Facility
ALF = Assisted Living Facility
MAC = Medication Access Center

Discussion/Conclusion

- With healthcare facing constrained financial resources and needing to demonstrate better outcomes for lower cost, it is imperative to define the pharmacy team's role on the care coordination team
- Application of this pharmacy population health model provides a method to
  - › Effectively address medication-related quality measures
  - › Prioritize patient-centered care for patients most in need
  - › Increase financial gains without significant addition of new full-time equivalents (FTE)
- As healthcare transitions to value and risk-based payment models, three elements are imperative for success
  - › Optimal use of technology to innovate tools that direct pharmacist workflow
  - › Standardization of communication with the healthcare team
  - › Addressing VBC contract standards related to quality and medication adherence