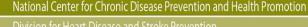
Partners in Health: Developing Collaborations between Public Health and Schools of Pharmacy

American Association of Colleges of Pharmacy In collaboration with the Center for Disease Control National Center for Chronic Disease Prevention and Health Promotion

Thursday June 15, 2016 at 2pm







Agenda

1. Introduction of Presenters

2. Introductory Comments

- a. Centers for Disease Control and Prevention (CDC)
- b. American Association of Colleges of Pharmacy (AACP)

3. Presentation of Successful Collaboration #1

University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & Colorado Department of Public Health and Environment

4. Presentation of Successful Collaboration #2

University of Mississippi School of Pharmacy & Mississippi State Department of Health

5. Questions and Answers

6. Closing Remarks

Agenda

1. Introduction of Presenters

2. Introductory Comments

- a. Centers for Disease Control and Prevention (CDC)
- b. American Association of Colleges of Pharmacy (AACP)

3. Presentation of Successful Collaboration #1

University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & Colorado Department of Public Health and Environment

4. Presentation of Successful Collaboration #2

University of Mississippi School of Pharmacy & Mississippi State Department of Health

- 5. Questions and Answers
- 6. Closing Remarks

CDC Perspective

Jeff Durthaler, M.S, BS(Pharm).

Population Health Consultant Pharmacist Division for Heart Disease and Stroke Prevention Center for Disease Control and Prevention.





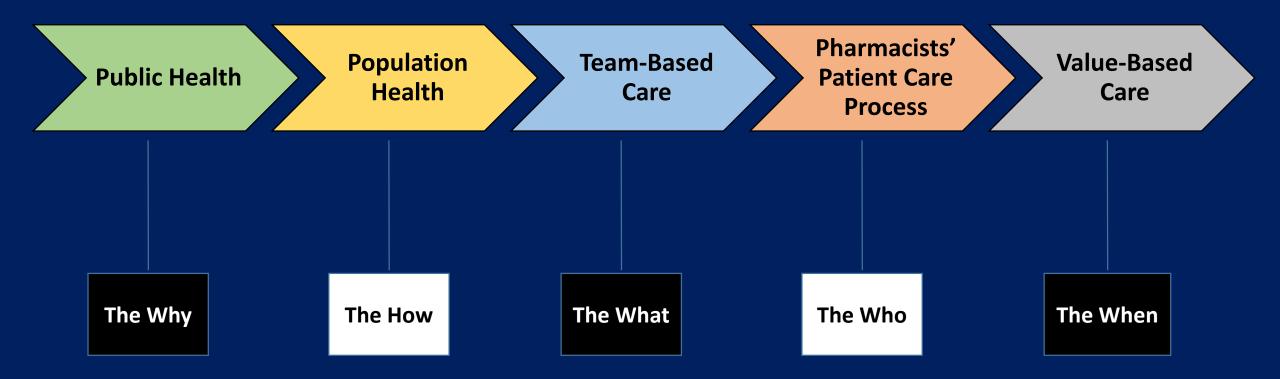


• To discuss the benefits of collaborating with pharmacy.

• To communicate CDC initiatives.

• To create awareness of CDC resources.

The Benefit of Collaborations



Public Health

- The role of public health
- Federally funded grants
 - Example: State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health (1305).
 - The Why: High rates of chronic disease. An opportunity to prioritize long-term investment in health promotion and disease prevention. Examples include Million Hearts and the 6/18 initiative.

The 6/18 Initiative

healthpolicynews@cdc.gov

To improve health and control health care costs in 6 disease with 18 specific evidence based practices by partnering with healthcare purchasers, payers, providers.



Rationale: CDC can help accelerate evidence into action by providing rigorous evidence about high-burden health conditions and associated interventions to partners who can then make informed decisions that have the greatest health and cost impact.

Action: To identify evidence, develop strategies, define outcomes and work closely with partners to implement.

Population Health

Electronic Health Records	
Reporting and achieving percent controlled	
Reporting and achieving Medication adherence	
Patient self-management	
Lifestyle modification	
Policies and systems	
Team-Based Care	

Team-Based Care

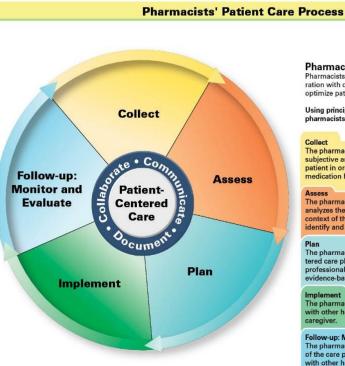


Advancing Team-Based Care through Collaborative Practice Agreements

"There is strong evidence that team-based care can improve blood pressure control when a pharmacist is included on the team" – The Health & Human Services Community Preventive Services Task Force.

Pharmacists' Patient Care Process





Pharmacists' Patient Care Process Pharmacists use a patient-centered approach in collaboration with other providers on the health care team to optimize patient health and medication outcomes.

Using principles of evidence-based practice, pharmacists:

Collect

The pharmacist assures the collection of the necessary subjective and objective information about the patient in order to understand the relevant medical/ medication history and clinical status of the patient.

Assess

The pharmacist assesses the information collected and analyzes the clinical effects of the patient's therapy in the context of the patient's overall health goals in order to identify and prioritize problems and achieve optimal care.

Plan

The pharmacist develops an individualized patient-centered care plan, in collaboration with other health care professionals and the patient or caregiver that is evidence-based and cost-effective.

mplement

The pharmacist implements the care plan in collaboration with other health care professionals and the patient or caregiver.

Follow-up: Monitor and Evaluate

The pharmacist monitors and evaluates the effectiveness of the care plan and modifies the plan in collaboration with other health care professionals and the patient or caregiver as needed.



Standard of Care

Value-Based Care

• The rise in quality and evidence thresholds.

• Acknowledgment of barriers.

• In pursuit of evidence.



The hurdle

CDC Initiatives Involving Pharmacy







- 1. MMWR Vital Signs Disparities in Antihypertensive Medication Nonadherence Among Medicare Part D Beneficiaries – United States, 2014.
- Public Health Grand Rounds: How Pharmacists Can Improve Our Nation's Health available. 2.

CDC Resources Involving Pharmacy

• Public Health

1. <u>A Program Guide for Public Health</u>: Partnering with Pharmacists in the Prevention and Control of Chronic Disease – available.

• Population Health

- 1. <u>Calculating Medication Adherence using PDC</u>: Technical Assistance Guide for CDC Funded Grantees available.
- 2. Medication Adherence Action Guide for Public Health Practitioners available.
- 3. Forming Community Clinical Linkages Resource Guide in development.
- 4. Resources and Methods Guide for Engaging Pharmacists: A resource guide for public health practitioners in development.

• Team-Based Care

- 1. Collaborative Practice Agreements (CPAs) available.
- 2. CPA Resource Guide for Pharmacists in progress.
- 3. <u>Pharmacists: Help Your Patients Quit Smoking</u> resource page available.
- 4. <u>Working Together to Manage Diabetes</u>: A Guide for Pharmacy, Podiatry, Optometry, and Dentistry.

Pharmacists Patient Care Process

1. Using the Pharmacists' Patient Care Process for the Management of High Blood pressure - in progress.

Value-Based Health Care

- 1. Adherence Action Guide for *Health Benefit Managers available*.
- 2. Medication Adherence Action Guide for *Public Health Practitioners available*.

This concludes my presentation.

Questions will be answer at the end of the webinar.

Agenda

1. Introduction of Presenters

2. Introductory Comments

- a. Centers for Disease Control and Prevention (CDC)
- b. American Association of Colleges of Pharmacy (AACP)

3. Presentation of Successful Collaboration #1

University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & Colorado Department of Public Health and Environment

4. Presentation of Successful Collaboration #2

University of Mississippi School of Pharmacy & Mississippi State Department of Health

5. Questions and Answers

6. Closing Remarks

AACP Perspective

Vibhuti Arya, PharmD, MPH

Associate Clinical Professor St. John's University College of Pharmacy and Health Sciences, and Clinical Advisor for Policy, Resilience and Response at the New York City Health Department



2016 ACPE Standards and CAPE Outcomes

- Required elements of PharmD curriculum include public health
- Fundamental knowledge and skills
- Practice and integration of population health, national and community-based public health programs
- Implementation of activities that advance public health and wellness
- Integration of skills and knowledge to produce culturally appropriate, patient-centered, collaborative care
- Public Health Special Interest Group activities and interests

Example Collaboration

- St. John's University and New York City Department of Health and Mental Hygiene (since 2009)
- Intro and Advanced experiential rotations
- Official NYC Health Department interns
- Health Promotion and Disease Prevention, Prevention and Primary Care, Alcohol and Drug Use, Correctional Health Services, Emergency Preparedness and Response, STD, HIV

Examples of Projects to Date

- Medication Adherence
- Legislation (pharmacist scope of practice)
- Access to care
- Emergency Response
- Reducing opioid overuse and associated deaths
- Access to tobacco cessation
- Medication Therapy Management

Pharmacists in Public Health

- From intersection to mergence
- Developing context for the larger healthcare system
- Where do pharmacists fit into pay-for-performance?
- What is quality improvement and why does it matter?
- Data analytics

Understanding the strategic plan of your local health department and creatively thinking of ways to incorporate sustainable pharmacy/pharmacist solutions

Agenda

1. Introduction of Presenters

2. Introductory Comments

- a. Centers for Disease Control and Prevention (CDC)
- b. American Association of Colleges of Pharmacy (AACP)

3. Presentation of Successful Collaboration #1

University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & Colorado Department of Public Health and Environment

4. Presentation of Successful Collaboration #2

University of Mississippi School of Pharmacy & Mississippi State Department of Health

5. Questions and Answers

6. Closing Remarks

Collaboration #1: University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & the Colorado Department of Public Health and Environment

Gina D. Moore, PharmD, MBA

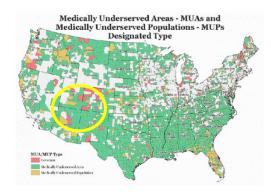
Assistant Dean for Clinical and Professional Affairs University of Colorado Skaggs School of Pharmacy & Pharmaceutical Sciences | Department of Clinical Pharmacy

Tara Tujillo, MNM Colorado Dpearment of Public Health and Environment

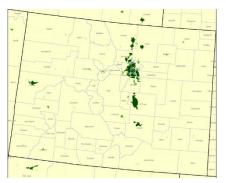


A History of our Partnership and Background Information

- Colorado is largely rural with large numbers of Medically Underserved Areas and Health Professional Shortage Areas
- Despite being the "healthiest state", there are areas of the state with a high prevalence of diabetes with very few (if any) diabetes educators and few rural primary care providers
- The University of Colorado Skaggs School of Pharmacy is top school of pharmacy with:
 - A large student body (160 students/class)
 - Required rural rotations for all 4th year students
 - Strong faculty expertise in ambulatory care and diabetes
 - University commitment to Interprofessional Education and team-based care
- Great support from CDPHE over the years with several initiatives
 - Student-run disease state management programs in rural pharmacies
 - DSME program within rural pharmacies
 - Medication adherence programs
 - "Incorporation of Clinical Pharmacists in the PCMH" Training Program (ECHO)







State Health Department Goals, 2013-2018

5-year grant, 1305

- Increase the proportion of adults with diabetes and high blood pressure in adherence to medication regimens;
- Increase the proportion of adults who have achieved blood pressure and/or diabetes control;
- Increase engagement of non-physician team members (ie., pharmacists) in Hypertension and Diabetes management in health care systems; and
- Increase the proportion of community pharmacists that promote medication-/selfmanagement.

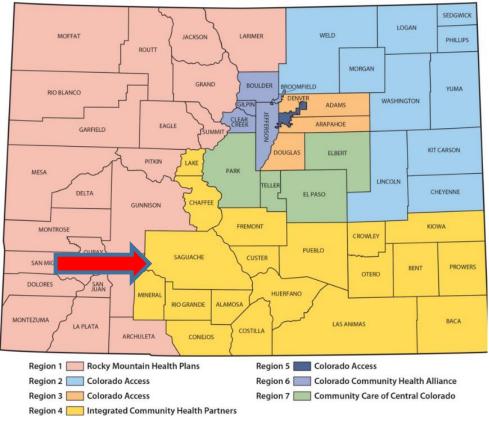
Schools of pharmacy were thought partners

Integration Initiative

Developed a project to test models of integration, building ROI evidence to promote sustainability

- Partner with Medicaid RCCO to use claims data
- Improve disease outcomes
- Provide analysis on ROI toward sustainability
- Local community pharmacies in 3 rural communities with disparate diabetes and cardiovascular disease outcomes





Student-run DSM Programs

- 2015-2016: 12 sites; 107 students rotated through APPE placements; 1021 face to face, 1hour visits; for 439 unique patients
- Students meet with patients with hypertension/diabetes once a month for 6 months
 - Point of care testing
 - Diabetes and blood pressure education, management, coaching and referral
 - Medication adherence
 - Immunizations (flu, pneumococcal)
 - Remote Comprehensive Medication Review (CMR)
 - Collaborate with local providers (CMR, CPA, disease metrics)
- Database that tracks client visits and metrics
- Improvement in patient outcomes
- Pharmacy students better able to provide interdisciplinary diabetes care post-graduation

Parameter (units)	Baseline, mean (SD)	6-month, mean (SD)	P value
Hemoglobin A1C (%)	<mark>7.6 (2.0)</mark>	7.1 (1.4)	p<0.001* <mark>I</mark>
Systolic BP (mmHg)	<mark>127 (16.1)</mark>	<mark>122 (15.6)</mark>	p<0.001* <mark>I</mark>
Diastolic BP (mmHg)	<mark>79.4 (11.5)</mark>	<mark>76.7 (11.5)</mark>	p=0.019* <mark>I</mark>
Total Cholesterol (mg/dl)	177.2 (49.1)	170.6 (33.6)	p=0.303*
LDL Cholesterol (mg/dl)	98.0 (40.1)	92.8 (26.4)	p=0.373*
HDL Cholesterol (mg/dl)	<mark>47.0 (12.1)</mark>	<mark>44.0 (11.9)</mark>	p=0.014* I
Triglycerides (mg/dl)	197.4 (104.7)	193.8 (91.8)	p=0.795*
Body mass index (kg/m ²)	38.1 (4.1)	27.9 (3.0)	p=0.193*

Over 60% of students answered that providing MTM services on rotations influenced their desire to provide this care in practice, with 23% rating the impact as "significant" or "very significant".

Clinical Pharmacist Integration in Primary Care

- ECHO Learning Community
 - Two cohorts; five sessions each
 - > Topics:
 - Pharmacist education, residency training, board certification
 - Collaborative Drug Therapy Management (CDTM)
 - Models of integration (onsite, remote consults)
 - Financial sustainability
- Clinical Pharmacy Resource Toolkit
 - Annotated bibliography
 - State Board of Pharmacy Rules
 - Example CDTM Protocols and Agreement



Benefits to Public Health and the School

- Improved access to care in rural areas of the state
- Improved chronic disease outcomes (hypertension and diabetes, in particular)
- Better medication adherence (both primary and secondary)
- > Higher immunization rates (especially in patients with chronic disease)
- > Our students are better prepared to care for chronic disease upon graduation
- Increased interest in rural communities
- Tested models for pharmacy sustainability
- Built relationships between community pharmacy and providers



Opportunities

- CDPHE specifically called out in SB 16-135 to participate in the creation of Statewide Protocols for pharmacist provided care (CU was the lead driver of the bill)
- Sustainable reimbursement models
 - Statewide Protocols
 - Population health RCCOs



Agenda

1. Introduction of Presenters

2. Introductory Comments

- a. Centers for Disease Control and Prevention (CDC)
- b. American Association of Colleges of Pharmacy (AACP)

3. Presentation of Successful Collaboration #1

University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & Colorado Department of Public Health and Environment

4. Presentation of Successful Collaboration #2

University of Mississippi School of Pharmacy & Mississippi State Department of Health

5. Questions and Answers

6. Closing Remarks

Collaboration #2: University of Mississippi School of Pharmacy Community-Based Research Program

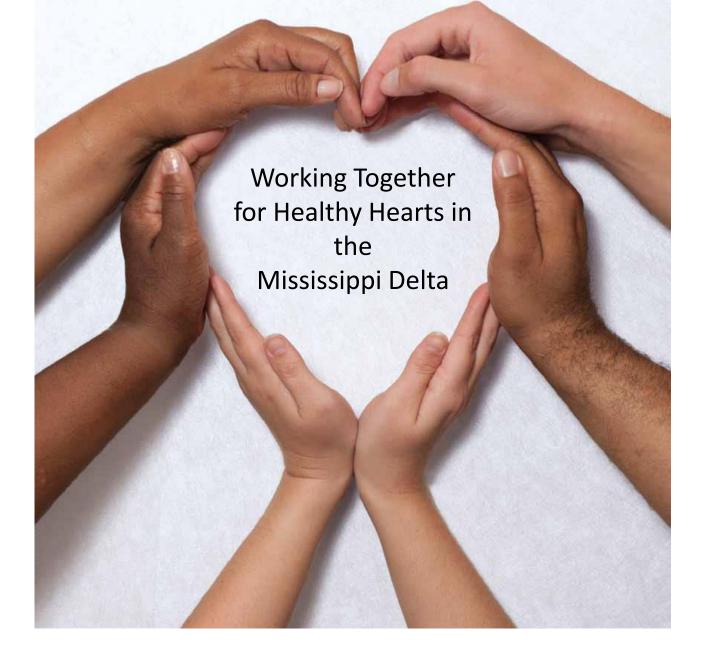
Leigh Ann Ross, PharmD, BCPS, FASHP, FCCP Associate Dean for Clinical Affairs Professor, Department of Pharmacy Practice Research Professor, Research Institute of Pharmaceutical Sciences The University of Mississippi School of Pharmacy

Mary Currier, MD, MPH State Health Officer Mississippi State Department of Health









Important State Public Health Concerns

- Physical Activity
- Nutrition
- Environmental Health
- Obesity
- Diabetes
- Teen Pregnancy
- Infant Mortality
- Tobacco

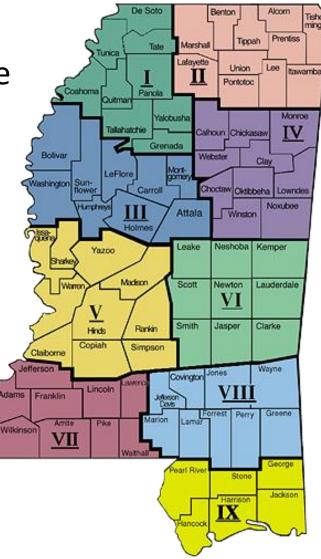




Mississippi State Department of Health

Mission: To promote and protect the health of the citizens of Mississippi

- Centralized system:
 - Central office
 - 9 Districts and
 - At least one clinic in every county except Issaquena and Benton



Mississippi Facts

- Mississippi Delta among the poorest areas in the United States
- 18-county Delta region has 31.5% of residents living below poverty level, compared to the 21.2% residents in state.
- 60% of the Delta population are African Americans, compared to 37% of total Mississippi population are African Americans
- Delta population vulnerable to health disparities
- If the Delta were removed from Mississippi, most of the state's health statistics would move close to the national average
- *Reference: U.S. Census Bureau 2006-2010*

Delta Health Collaborative

• Provides leadership in the Delta region to implement heart disease and stroke prevention interventions to reduce morbidity, mortality, and related health disparities

• <u>Clinical Initiatives</u>

- Community Health Workers Initiative
- Community Health Worker Certification Medication Therapy Management

Community Initiatives

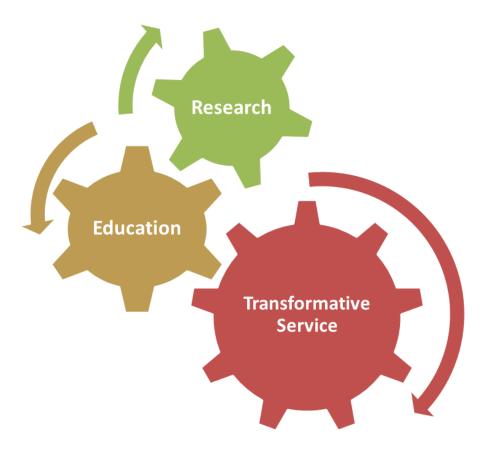
Mayor's Health Councils County Planning & Development Councils Delta Alliance for Congregational Health ABCS Screening Program

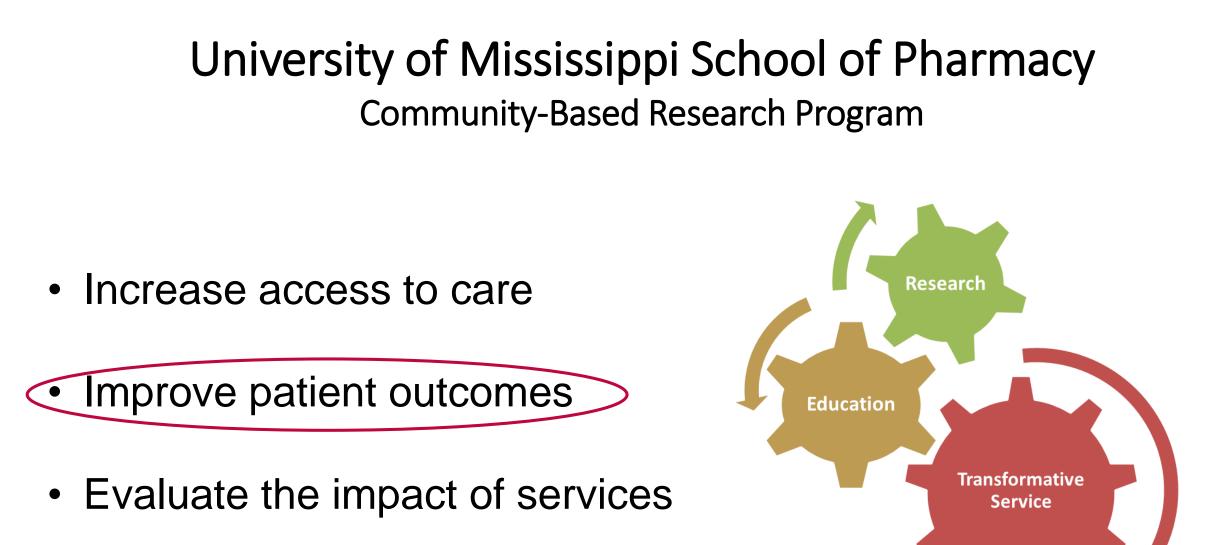


Delta Health Collaborative Pharmacy

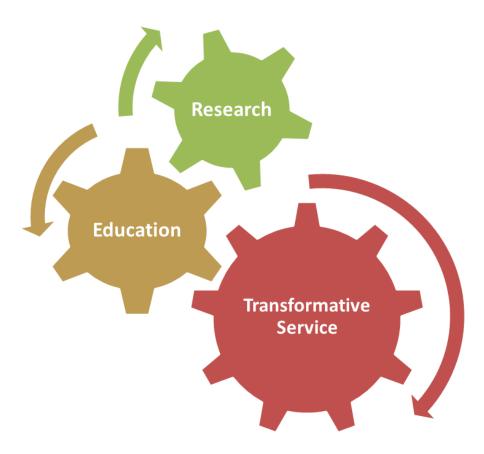
- Clinical Initiative 2011-present
- Medication Therapy Management
- Areas of focus: Diabetes, Hypertension, and Lipid Management
- Services provided in 4 Federally qualified health centers in the Mississippi Delta
- Pharmacy Cardiovascular Risk Reduction Project

- Increase access to care
- Improve patient outcomes
- Evaluate the impact of services





- Increase access to care
- Improve patient outcomes
- Evaluate the impact of services
 Principle: Quality + Access



- 18 county region
- Rural area
- High levels of poverty
- Large African American population
- Vulnerable to health disparities
- Lack of access to services
- Poor health outcomes



<u>Completed Projects</u>

- Delta Pharmacy Patient Care Management Project HRSA/DHA
- Worksite Wellness HRSA/DHA
- Active Surveillance Attitudes and Perceptions in Prostate Cancer – NRHA/Emory
- Delta Pharmacy Obesity Management Project HRSA/DHA
- Million Hearts Initiative: Team Up, Pressure Down CDC/NACDS Foundation
- Project IMPACT: Diabetes APhA Foundation
- Southern U.S. Diabetes Coalition Project CMS Innovation Award/MSPHI
- Beacon Community Cooperative Agreement DHHS/ONC/DHA
- Million Hearts Initiative: Team Up, Pressure Down Pioneer Challenge – AACP/Pharmacy Network Foundation
- Rapid HIV Testing in Pharmacies and Retail Clinics Demonstration Project – CDC

Ongoing Projects

- Pharmacy Cardiovascular Risk Reduction/Delta Health Collaborative – CDC/MSDH
- Pharmacist Linkage in Care Transitions– NACDS Foundation
- Patient Safety and Clinical Pharmacy Services Collaborative HRSA/PSPC
- Community Pharmacy Residency Expansion Project (PREP) NACDS Foundation
- Telehealth Medication Therapy Management UMMC
- G.A. Carmichael Family Health Center Clinical Pharmacy Services
- Jackson-Hinds Comprehensive Health Center Clinical Pharmacy Services
- Diabetes Care Group[™] Clinical Pharmacy Services

<u>Completed Projects</u>

- Delta Pharmacy Patient Care Management Project HRSA/DHA
- Worksite Wellness HRSA/DHA
- Active Surveillance Attitudes and Perceptions in Prostate Cancer – NRHA/Emory
- Delta Pharmacy Obesity Management Project HRSA/DHA
- Million Hearts Initiative: Team Up, Pressure Down CDC/NACDS Foundation
- Project IMPACT: Diabetes APhA Foundation
- Southern U.S. Diabetes Coalition Project CMS Innovation Award/MSPHI
- Beacon Community Cooperative Agreement DHHS/ONC/DHA
- Million Hearts Initiative: Team Up, Pressure Down Pioneer Challenge – AACP/Pharmacy Network Foundation
- Rapid HIV Testing in Pharmacies and Retail Clinics Demonstration Project – CDC

Ongoing Projects

- Pharmacy Cardiovascular Risk Reduction/Delta Health Collaborative – CDC/MSDH
- Pharmacist Linkage in Care Transitions– NACDS Foundation
- Patient Safety and Clinical Pharmacy Services Collaborative HRSA/PSPC
- Community Pharmacy Residency Expansion Project (PREP) NACDS Foundation
- Telehealth Medication Therapy Management UMMC
- G.A. Carmichael Family Health Center Clinical Pharmacy Services
- Jackson-Hinds Comprehensive Health Center Clinical Pharmacy Services
- Diabetes Care Group[™] Clinical Pharmacy Services

<u>Completed Projects</u>

- Delta Pharmacy Patient Care Management Project HRSA/DHA
- Worksite Wellness HRSA/DHA
- Active Surveillance Attitudes and Perceptions in Prostate Cancer – NRHA/Emory
- Delta Pharmacy Obesity Management Project HRSA/DHA
- Million Hearts Initiative: Team Up, Pressure Down CDC/NACDS Foundation
- Project IMPACT: Diabetes APhA Foundation
- Southern U.S. Diabetes Coalition Project CMS Innovation Award/MSPHI
- Beacon Community Cooperative Agreement DHHS/ONC/DHA
- Million Hearts Initiative: Team Up, Pressure Down Pioneer Challenge – AACP/Pharmacy Network Foundation
- Rapid HIV Testing in Pharmacies and Retail Clinics Demonstration Project – CDC

Ongoing Projects

- Pharmacy Cardiovascular Risk Reduction/Delta Health Collaborative – CDC/MSDH
- Pharmacist Linkage in Care Transitions– NACDS Foundation
- Patient Safety and Clinical Pharmacy Services Collaborative HRSA/PSPC
- Community Pharmacy Residency Expansion Project (PREP) NACDS Foundation
- Telehealth Medication Therapy Management UMMC
- G.A. Carmichael Family Health Center Clinical Pharmacy Services
- Jackson-Hinds Comprehensive Health Center Clinical Pharmacy Services
- Diabetes Care Group[™] Clinical Pharmacy Services

Additional Collaborations

• Educational Programs

- Interprofessional Provider Education:
- Patient Care Summit: 2014
- Hypertension Summit: 2015, 2016 (June and September)
- Pharmacy Provider Education:
- Medication Therapy Management Training Programs: 2014, 2015, 2016
- Patient Education:
- Patient and Caregiver Summit: 2016
- **Mississippi Quality Improvement Initiative II -** Aims to increase team-based care and use of pharmacists and community health workers in managing chronic conditions



Delta Health Collaborative Pharmacy

Medication Therapy Management

"A distinct service or group of services that optimize therapeutic outcomes for individual patients... [that] are independent of, but can occur in conjunction with, the provision of a medication product."

MTM encompasses a broad range of professional activities and responsibilities within the licensed pharmacist's or other qualified health care provider's scope of practice

Target Population

Patients who may benefit from MTM services include those who have:

- Experienced transitions of care
- Changed medication regimens
- Multiple conditions/chronic medications
- A history of non-adherence
- Limited health literacy
- A need to reduce healthcare costs

Core Elements of MTM Services

- Medication Therapy Review (MTR)
- Personal Medication Record (PMR)
- Patient Medication-Related Action Plan (MAP)
- Intervention and/or Referral
- Documentation and Follow-up

Reference: Medication Therapy Management in Pharmacy Practice: Core Elements of an MTM Service Model Version 2.0. A joint initiative of American Pharmacists Association (APhA) and the National Association of Chain Drug Stores Foundation. March 2008.







Provider Clinic Model





Quality Measures

Clinical Outcomes

- Drug therapy problems (DTPs) identified and resolved
- Disease-specific parameters: A1c, SBP, DBP, TC, TG, LDL, HDL, BMI

Humanistic Outcomes

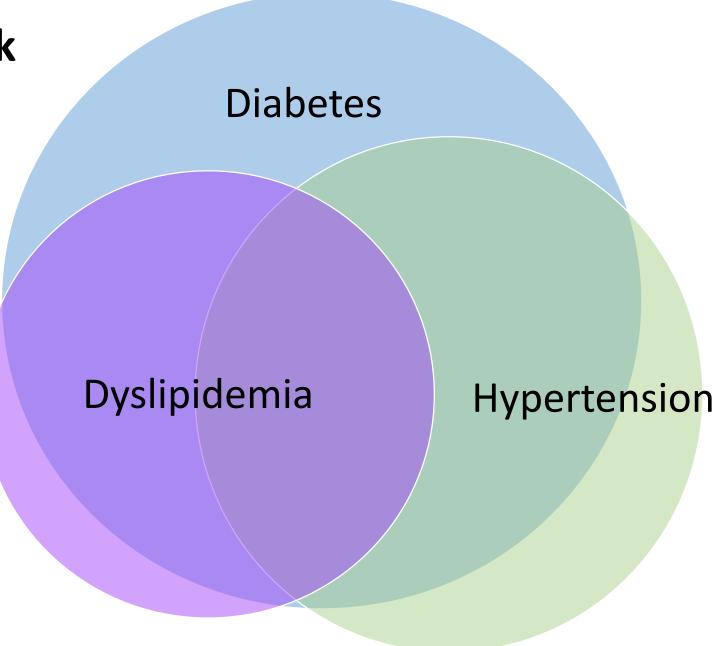
 Health status, health-related quality of life, diabetes knowledge, asthma knowledge, self-reported medication-taking behaviors, global assessment of treatment benefit, satisfaction with treatment, willingness to continue treatment

Economic Outcomes

Cost avoidance

Pharmacy Cardiovascular Risk Reduction Project Population

Hypertension	567	91.0%
Dyslipidemia	514	82.5%
Total patients	623	02.370



Benefits of Collaboration

- Shared Goals
 - Public Health is important to both School of Pharmacy and Health Department
 - The mission of the Mississippi Department of Health is to promote and protect the health of citizens of Mississippi
 - The School of pharmacy mission focuses on serving the community
 - Collaborating helps target the population of the most need
- Relationship Building
 - Strong relationships are an important component of community based research
 - Joining together allows for collaboration and both expand their network
- Improving Patient Care
 - More prevention of complications in the community

Acknowledgements

 The Mississippi State Department of Health (MSDH) is gratefully acknowledged for the support of the Pharmacy Cardiovascular Risk Reduction project through Grant Number 5U50DP003088-03.

Agenda

1. Introduction of Presenters

2. Introductory Comments

- a. Centers for Disease Control and Prevention (CDC)
- b. American Association of Colleges of Pharmacy (AACP)

3. Presentation of Successful Collaboration #1

University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & Colorado Department of Public Health and Environment

4. Presentation of Successful Collaboration #2

University of Mississippi School of Pharmacy & Mississippi State Department of Health

5. Questions and Answers

6. Closing Remarks

Agenda

1. Introduction of Presenters

2. Introductory Comments

- a. Centers for Disease Control and Prevention (CDC)
- b. American Association of Colleges of Pharmacy (AACP)

3. Presentation of Successful Collaboration #1

University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences & Colorado Department of Public Health and Environment

4. Presentation of Successful Collaboration #2

University of Mississippi School of Pharmacy & Mississippi State Department of Health

5. Questions and Answers

6. Closing Remarks

Thank you for your participation!

For more information contact :

Jeffrey Ekoma, MS

Policy and Professional Affairs Manager

AACP

jekoma@aacp.org

Jeff Durthaler, M.S, B.S (Pharm.)

Population Health Consultant Pharmacist Division for Heart Disease and Stroke Prevention Centers for Disease Control and Prevention yqn8@cdc.gov