Intervention Outline
Nurse-Driven Care Protocol

Kansas Healthcare COLLABORATIVE

Blood Pressure Reduction Challenge

Mini-Grant Request For Proposals
2018 Quarter 2

Project Goal

Background

Application Requirements

Supplemental Documentation

Proposed Timeline

Model for Improvement

Additional Resources

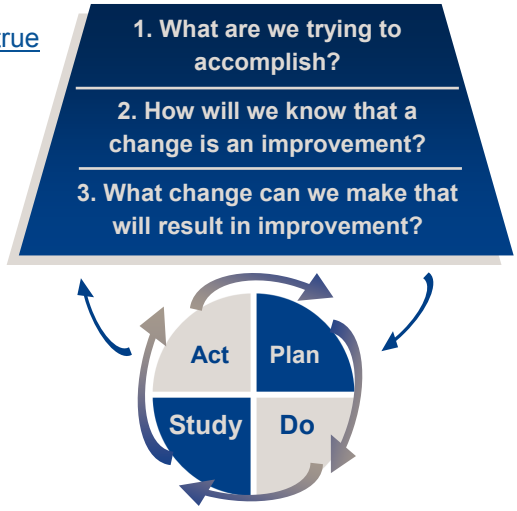
- Promoting Team-Based Care to Improve High Blood Pressure Control (CDC, included)
- Orange County Primary Care, Kaiser Permanente Nurse-Driven Protocol (included)
- Georgia Department of Public Health Nurse-Driven Protocol (included)
- JNC 8 Hypertension Guideline Algorithm (included)
- Utilizing Team-Based Care to Improve Hypertension and Diabetes Outcomes (KDHE, included)

Web Resources

Million Hearts Create Your Own Hypertension Treatment Protocol
https://millionhearts.hhs.gov/tools-protocols/protocols.html#HTP

Protocol-Based Treatment of Hypertension:
A Critical Step on the Pathway to Progress (JAMA)
https://jamanetwork.com/journals/jama/article-abstract/1778410?redirect=true

Model for Improvement



Intervention Outline

Nurse-Driven Care Protocol

Project Goal

Reduce physician burden, increase joy in the workplace, and reduce blood pressure of a population of patients by implementing a nurse-driven care protocol for patients with hypertension.

Background

Team-based care is a strategy that can be implemented at the health system level to enhance patient care by having two or more health care providers working collaboratively with each patient. Within the context of cardiovascular disease (CVD) prevention, it often involves a multidisciplinary team working in collaboration to educate patients, identify risk factors for disease, prescribe and modify treatments, and maintain an ongoing dialogue with patients about their health and care. These teams may include physicians, nurses, pharmacists, and others.

Compared with conventional care, nurse-driven care protocol can be a more effective intervention for patients with uncontrolled hypertension

Application Requirements

- ✓ Application with budget proposal (Required)
- ✓ Physician Letter of Support

Supplemental Documentation

- ✓ Draft protocol and/or workflow diagram

Proposed Timeline

March 12 - March 31: Planning Period

- ◊ Schedule an initial meeting between practice staff and KHC staff to finalize the care protocol and data collection plan.

April 1 – June 30: Intervention Period

- ◊ Week of April 15: Schedule Progress Update Call (PUC) with KHC and Practice
- ◊ Week of May 13: Schedule PUC with KHC and Practice
- ◊ Week of June 10: Schedule PUC with KHC and Practice

July 1 – July 31: Wrap Up Period

- ◊ Collect final measurements, including BP of participants
- ◊ Submit an Intervention Summary to KHC (template to be provided upon notification of awarded grant)
- ◊ Week of July 8: Schedule Wrap Up Call with KHC and Practice

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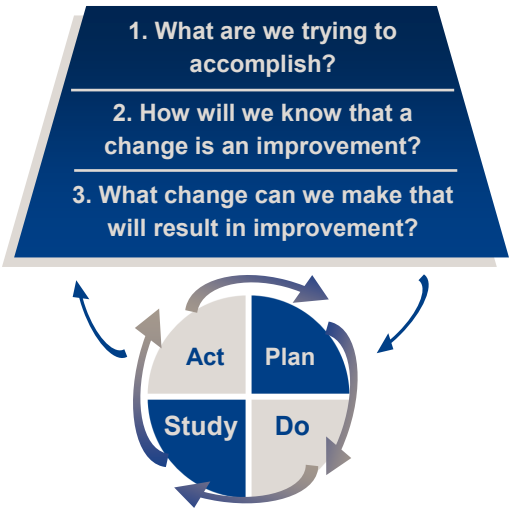
Intervention Outline

Nurse-Driven Care Protocol

Model for Improvement



1. What are we trying to accomplish?

Reduce physician burden, increase joy in the workplace, and reduce blood pressure of a population of patients by implementing a nurse-driven care protocol for patients with hypertension.

2. How will we know that a change is an improvement?

As part of the project, the practice will develop a study design and a data collection/analysis plan during the initial planning period. The practice will need to collect data on a sample of patients according to the study design. The data collected must include documentation of how the practice will implement the intervention (process measure), a measurement of blood pressure control (outcome

Example Process Measures

- Dates of visits, telephone calls, or other interactions involving hypertension management under the nurse-driven care protocol
- Log of prescription changes managed under the CPA
- Count of medication adjustments for each patient during the study period

Example Business-Related Measures

- Assess physician burden, pre– and post– intervention
- Assess job satisfaction of practice and pharmacy staff, pre– and post– intervention
- Count of the number of medication adjustments
- Total number of visits of participating patients to practice to seek care under the nurse-driven care protocol.

Example Outcome Measures

- Systolic and diastolic BP, recorded for each patient of the intervention
- Yes/No for BP < 140/90, recorded for each patient of the intervention
- Yes/No for BP < 130/80, recorded for each patient of the intervention

Practices will work with Kansas Healthcare Collaborative to finalize a data collection plan that is best suited for each project. For example, the practice may choose a pre—/ post—design which implies the practice will have two measurements for each measure.

Practices will also need to consider who will be affected by the project. Patient selection criteria could include:

- Patients with uncontrolled hypertension who have a visit scheduled during the month of April.

3. What change can we make that will result in improvement?

Select an Evidence-Based Intervention:

✓ Nurse-Driven Care Protocol

Example Project Plan:

Patients are eligible if they had a visit in the last 12 months at the practice, are diagnosed with hypertension, and had a blood pressure reading >140 SBP or >90 DBP at their last visit. Practice will note those patients who receive hypertension care from the nurse trained in the nurse-driven care protocol during the intervention period. Compare post-intervention blood pressures of patients who received care from the nurse to the last recorded blood pressure, prior to the intervention period.

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Promoting Team-Based Care to Improve High Blood Pressure Control

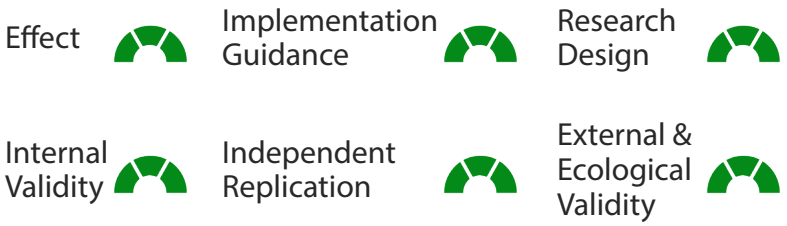
Team-based care is a strategy that can be implemented at the health system level to enhance patient care by having two or more health care providers working collaboratively with each patient. Within the context of cardiovascular disease (CVD) prevention, it often involves a multidisciplinary team working in collaboration to educate patients, identify risk factors for disease, prescribe and modify treatments, and maintain an ongoing dialog with patients about their health and care.[1,2] These teams may include doctors, nurses, pharmacists, community paramedics, primary care providers, community health workers, and others (e.g., dietitians).

Summary

Team-based care, involving collaboration between doctors, nurses, pharmacists, paramedics, and others, is a cost-effective strategy for increasing medication adherence and lowering blood pressure among diverse populations and in various settings.

Stories From the Field:
WinMed Health Services (Cincinnati, Ohio).

Evidence of Effectiveness



Legend: Well supported/ Supported | Promising/ Emerging | Unsupported/ Harmful

Evidence of Impact

Legend: Supported | Moderate | Insufficient

Evidence of Effectiveness

The evidence base for implementing team-based care in health care systems and practices is very strong. Solid evidence exists that this strategy achieves desired outcomes, with studies demonstrating internal and external validity. This strategy has also been independently replicated, which shows reliability of impact. Several randomized controlled trials, which are often considered the gold standard in research, have been conducted and show positive results from using multidisciplinary teams as a way to improve hypertension control. Various organizations, such as the American Medical Association and the Agency for Healthcare Research and Quality (AHRQ), have developed guidelines to help health care systems and practices implement this strategy as part of their policies and protocols.

Evidence of Impact

Health Impact

A systematic review by the Community Preventive Services Task Force concluded that team-based care can lead to significantly improved hypertension control, lowered systolic and diastolic blood pressure levels (overall median reductions were 5.4 mmHg and 1.8 mmHg, respectively), and improved patient adherence to hypertensive medication.[3]

The evidence base for implementing team-based care in health care systems and practices is very strong.

Health Disparity Impact

Team-based care has been found to be effective when used among diverse patient populations, including those with members of different racial and ethnic groups (e.g., whites, African Americans) and among patients with multiple health conditions.

Evidence also exists that this strategy is effective among low-income populations. Additional research is needed to examine effectiveness among populations that are primarily Hispanic and in communities with other minority populations.[3]

Economic Impact

Team-based care has proven to be cost-effective. The median total cost for providing team-based care for hypertension control was found to be $355 per person per year. The median cost per quality-adjusted life year (QALY) gained over 20 years was either $10,511 or $15,137, depending on the QALY conversion method used.[4] Both estimates were well below the commonly used and conservative cost-effectiveness threshold of $50,000 per QALY.

Researchers modeled the health and economic impact of nationwide adoption of team-based care for hypertension over 10 years and estimated a net cost savings to Medicare of $5.8 billion (2012 US dollars) over this period.[5] This model also estimates an overall national savings of $25.3 billion in averted disease costs, which offsets an estimated $22.9 billion cost of using this intervention to the health care system. Costs for patient time over this period are estimated at $15.8 billion, but are largely offset by an estimated $11 billion in productivity gains.

Section	NUMBER	
Interdisciplinary Practice Committee		
Title **PROTOCOL FOR UNCOMPLICATED HYPERTENSION: REGISTERED NURSE TITRATION OF LISINOPRIL, HYDROCHOLOROTHIAZIDE, ATENOLOL AND AMLODIPINE**	EFFECTIVE DATE	6/2004
	REVISION DATE	6/2006, 4/2007, 1/2008, 8/2008, 11/2009
Review Dates 6/06, 4/07, 1/08, 8/08, 11/09	PAGE NUMBER	16 of 18

APPENDIX E:

Algorithm for Uncomplicated HTN
(excludes HF, Stage 4 CKD or CAD)

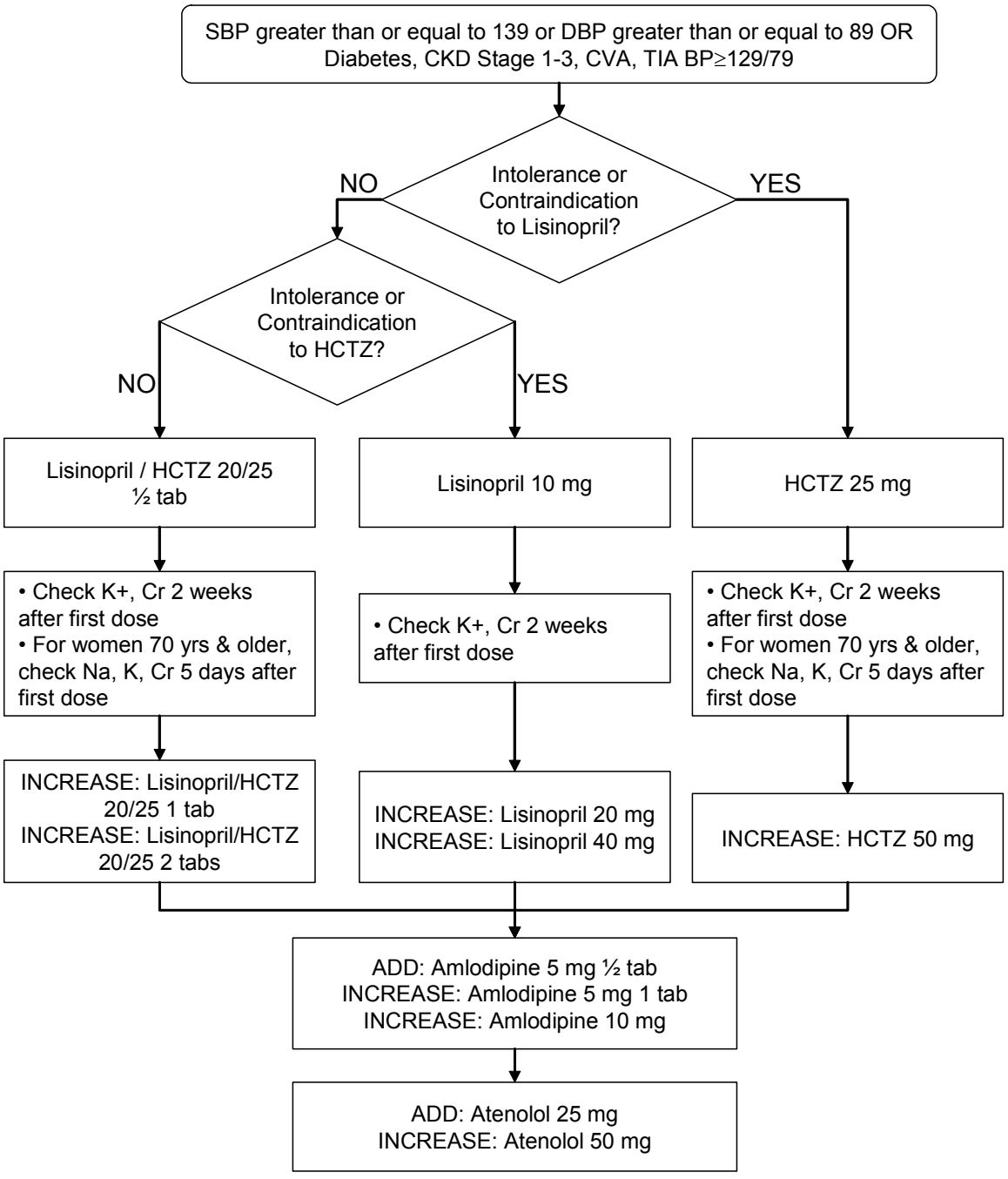
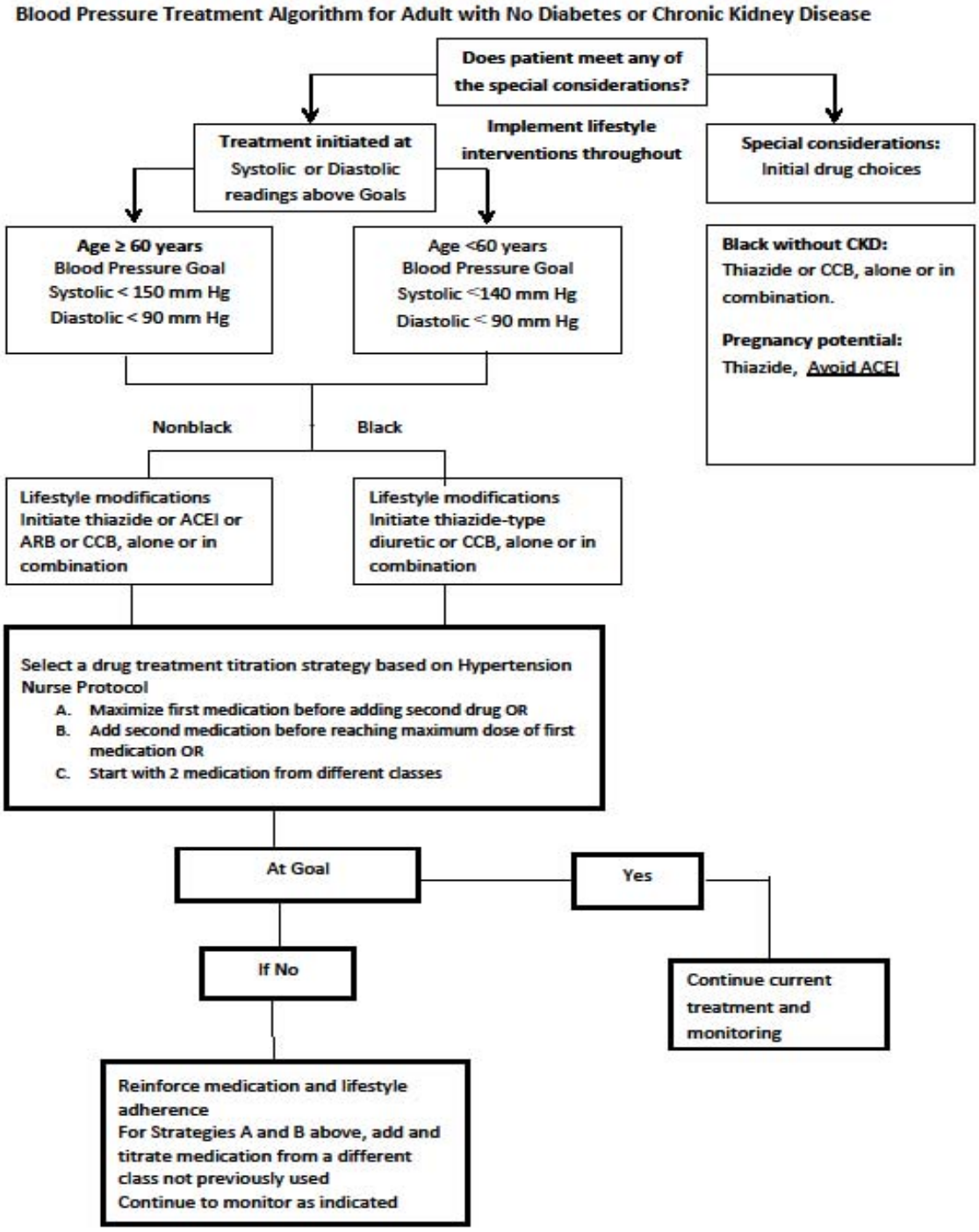
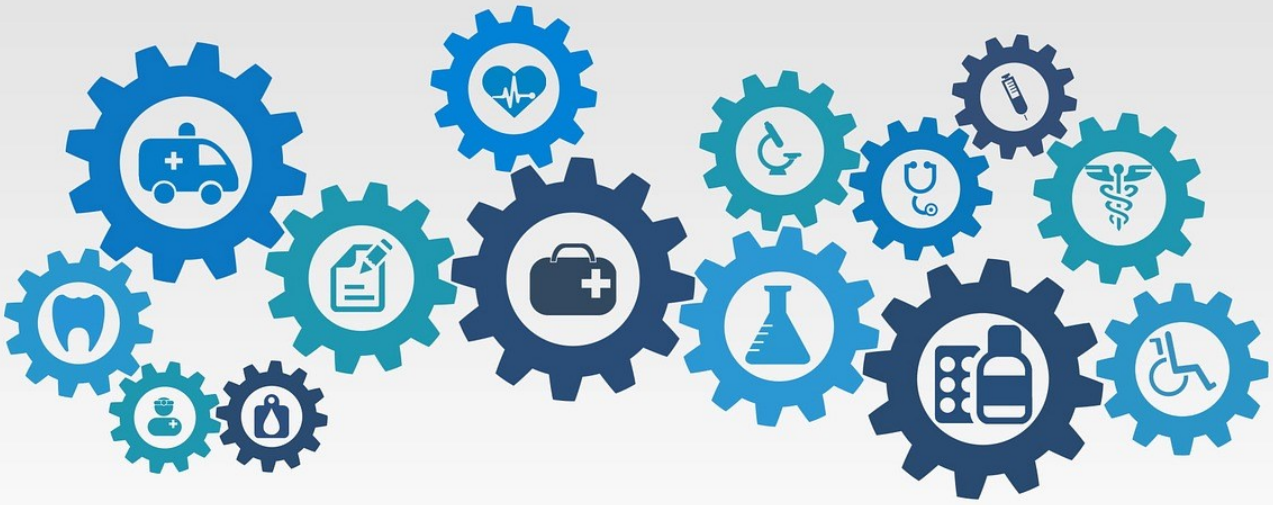


Figure 2 – Blood Pressure Treatment Algorithm for Adult with No Diabetes or Chronic Kidney Disease



Utilizing Team-Based Care to Improve Hypertension and Diabetes Outcomes



Team-based care[1-5] is an evidence-based model that combines the expertise of the patient and the patient's primary care provider, as well as other members of the care team such as nurses, pharmacists, dietitians, social workers, and community health workers. Team members augment the activities of the primary care provider by providing support and sharing responsibility for tasks in hypertension and diabetes care, such as:

- Medication management
- Patient education and follow-up
- Maintaining adherence to the patient's blood pressure control or diabetes management plan
- Reminding patients to take medications as prescribed
- Monitoring patients' blood pressure or blood glucose levels
- Connecting patients to community resources for self-monitoring and self-management programs
- Providing dietary counseling
- Working with patients to increase the level of physical activity

Helpful Tip:

Generating Support From the Team:

"Strong support from a project champion high in the organization is critical. Ensuring that everyone who will be impacted by the change has an opportunity to shape the change increases the chance of success."[2]

Team-Based Care saves money for your practice[2].

AMA's Steps*forward* Online module for Implementing Team-Based Care provides a Cost Calculator: https://www.stepsforward.org/modules/team-based-care

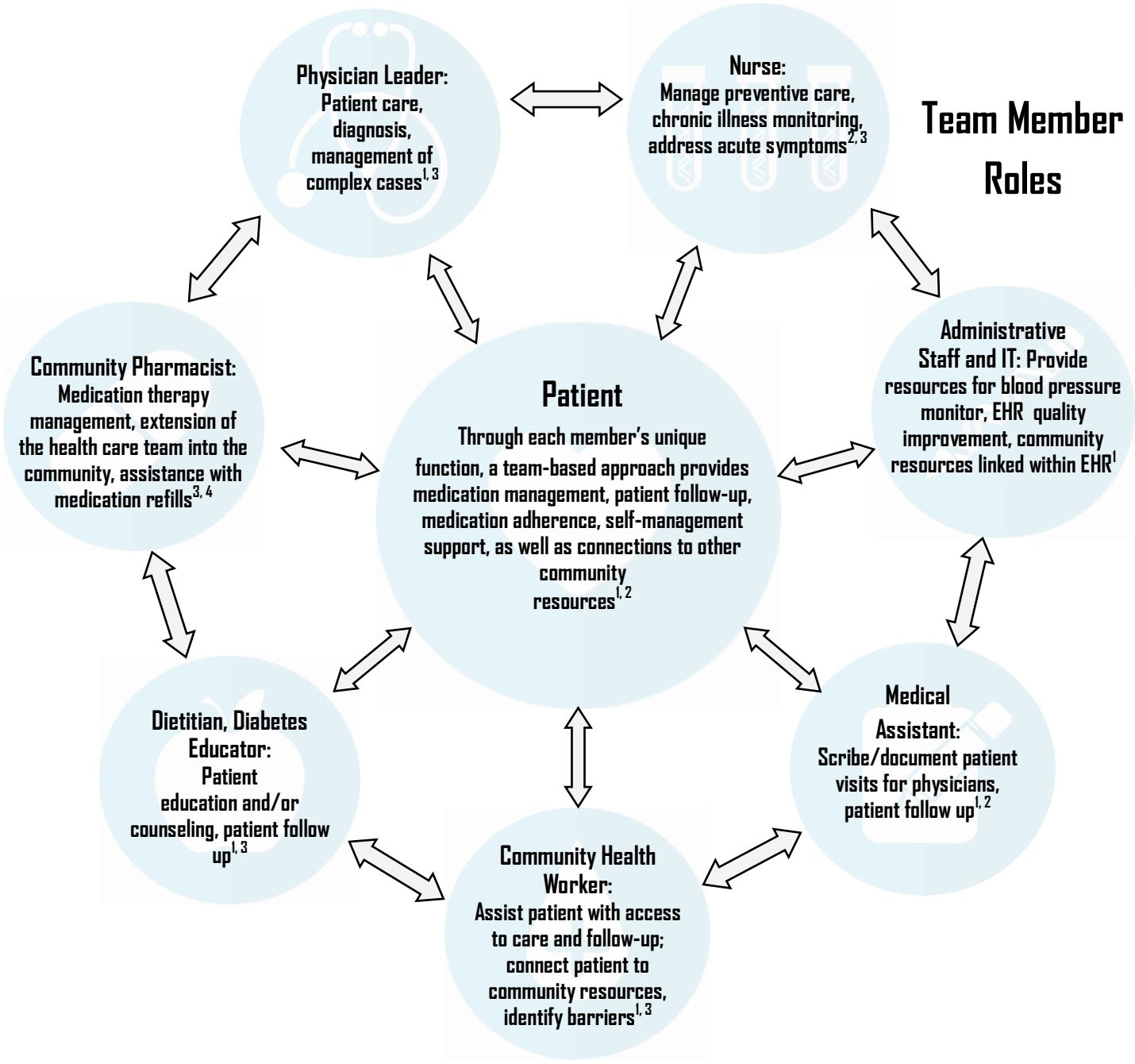
Kansas Department of Health and Environment

Outcomes of Team-Based Care Implementation[1-3, 5]

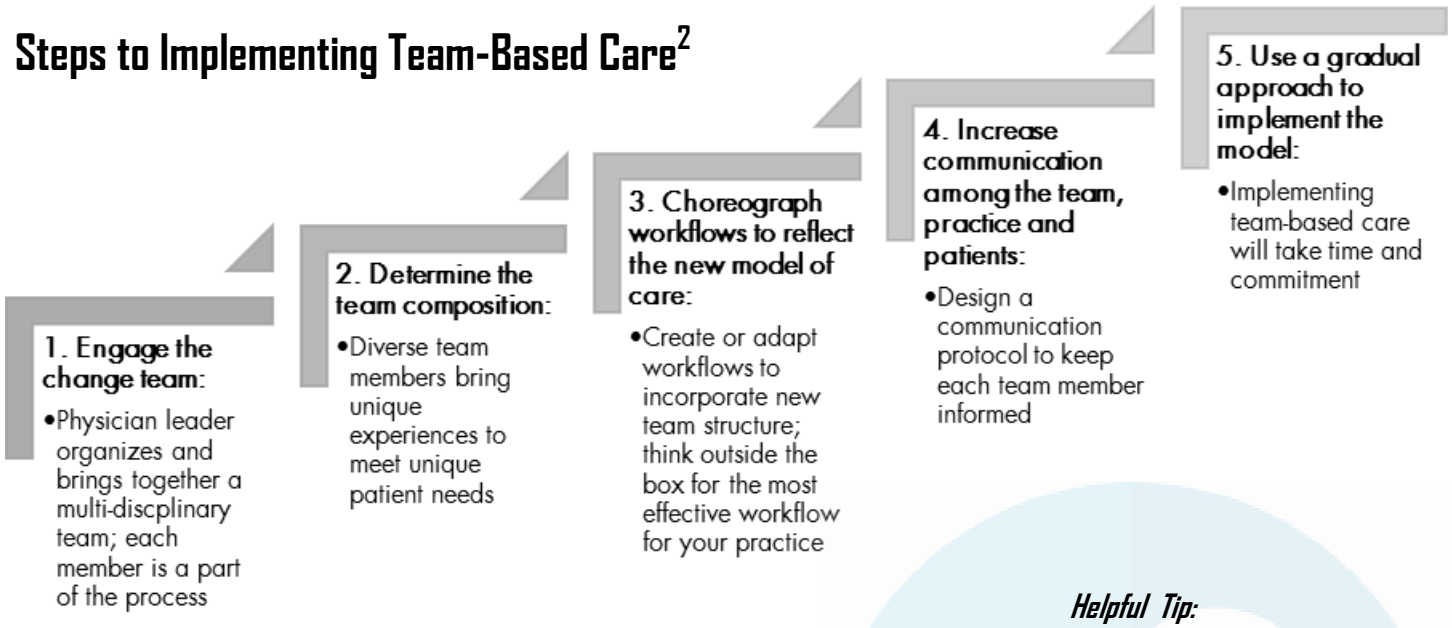
- Increased provider and staff job satisfaction
- Increased number of patients seen
- Increased cost-effectiveness of care
- Improved blood pressure and glucose levels
- Patients linked to community resources for chronic disease support
- Improved outcomes for other chronic conditions
- Increased patient satisfaction

Integrated, comprehensive care benefits everyone involved—patients, health care providers, and the community.[3]

Team Member Roles



Steps to Implementing Team-Based Care[2]



Helpful Tip:

Engage Community Pharmacists:

"Public health initiatives that promote efforts to engage pharmacists as members of the health care team can result in significant improvements in the treatment of diabetes, better control of high blood pressure, improved management of cholesterol, and reduced overall health care costs."[4]

References:

1. American Medical Association. Models of physician-led team-based care. 2015. https://www.ama-assn.org/sites/default/files/media-browser/public/cms/team-based-models_0.pdf. Accessed June 30, 2017.

2. American Medical Association. Steps Forward: Implementing team-based care to increase practice efficiency. 2015. https://www.stepsforward.org/modules/team-based-care. Accessed June 30, 2017.

3. The Centers for Disease Control and Prevention. Working Together to Manage Diabetes: A Guide for Pharmacy, Podiatry, Optometry, and Dentistry:12-17. January 2014. https://www.cdc.gov/diabetes/ndep/pdfs/ppod-guide.pdf. Accessed June 30, 2017.

4. National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Emerging practices in diabetes prevention and control: working with pharmacists. 2015. https://www.cdc.gov/diabetes/pdfs/programs/stateandlocal/emerging_practices-work_with_pharmacists.pdf. Accessed June 30, 2017.

5. Schottenfeld L, Petersen D, Peikes D, Ricciardi R, Burak H, McNellis R, Genevro J. Creating Patient-Centered Team Based Primary Care. AHRQ Pub. No. 16-0002-EF. Rockville, MD: Agency for Healthcare Research and Quality. March 2016. https://pcmh.ahrq.gov/page/creating-patient-centered-team-based-primary-care. Accessed June 30, 2017.

For additional information, please contact Bureau of Health Promotion at (785) 291-3742. Funding was provided by cooperative agreement GNU58DP004808-04-08 from the Centers for Disease Control and Prevention (CDC). Contents are solely the responsibility of the authors and do not necessarily reflect the official reviews of the CDC.

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