KENTUCKYREC

Chronic Disease Pilot Participant Guide

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Kentucky Regional Extension Center   kentuckyREC.com

Chronic Disease Pilot Overview

The Kentucky Regional Extension Center (Kentucky REC), located at the University of Kentucky, exists to serve as a trusted guide to practice and hospital leadership, clinicians and staff across the Commonwealth of Kentucky. The Kentucky REC provides a comprehensive set of services focusing on the specific needs of healthcare providers as they seek to modernize to deliver electronically-connected, high performance clinical care. The goal of our services and support is to help healthcare providers survive and thrive as they transform to meet the requirements for high quality patient-centered care, meaningful use and value-based payment.

The Kentucky REC began working with the Kentucky Department for Public Health (DPH) Chronic Disease Branch on a Chronic Disease Pilot in September 2014 to support primary care practices with improving performance on two clinical quality measures: **Hypertension Control (NQF 0018) and Diabetes A1C Poor Control (NQF 0059)**. **The purpose of the Pilot is to have practices report and use clinical quality data from electronic health record systems to support population health improvement.**

There are currently six practices/health systems which include 96 providers participating in the Pilot. Using proven quality improvement principles, the Kentucky REC has worked to establish a team approach to assist participants in improving these quality measures. This approach includes:

- Assigning practice advisors to assist practices/health systems to use evidence based interventions (EBIs)
- Providing guidance as practices test and implement changes to clinical workflows through the use of Plan, Do, Study, Act (PDSA) cycles
- Reporting and validating of monthly clinical quality measure data to improve rates of control for hypertension and hemoglobin A1c.

The expectation of the Department for Public Health (DPH) is to support Kentucky's Unbridled Health Plan by promoting a collaborative partnership between the patient and provider, along with a health care system chronic care model to promote disease prevention and treatment.

> *The overall goal of the Chronic Disease Pilot is to improve patient care and population health by leveraging clinical quality reporting capabilities within electronic health records and using quality improvement principles to improve performance within a practice over time.*

Additional Pilot goals include:

- Increase capacity for monitoring of aggregated and standardized quality measures at the provider and system level on a consistent basis for long term quality improvement.

- Encourage the clinical management of diabetes, heart disease, and stroke through the use of ABC's (A = Aspirin or A1C; B = Blood Pressure; C = Cholesterol; S = Smoking Cessation).

- Promote best practices of care for providers and patients.

Note: Opportunities to join DPH's Cardiovascular, Assessment, Risk-reduction and Education (CARE) Collaborative are also available to practices participating in the grant, as an additional resource (see Appendix 1).

Long-term hypertension goals focus on:
- Increasing the proportion of adults with known high blood pressure who have achieved blood pressure control
- Increasing patient adherence to medication regimens in the percentage of adults with a high blood pressure diagnosis

Diabetes goals include:
- Encouraging patients' adherence to medication regimens
- An increase in patients with diabetes who have attended Diabetes Self-Management Education classes
- A decrease in the number of patients with diabetes with A1C >9
- Decrease age-adjusted hospital discharge rate for diabetes

In Kentucky, these are critical goals to address. Kentucky ranks 8th highest nationwide for cardiovascular disease rates, and 30% of all deaths in Kentucky are attributed to cardiovascular disease. In 2011, Kentucky had the eighth highest rate of death due to Diabetes in the nation. There are many factors that can contribute to reducing the impact of cardiovascular disease and diabetes in Kentucky, but high-quality clinical care is critical to addressing the burden of disease and improving population health.

Using Practice Facilitation to Improve Performance

The Kentucky REC uses a widely used method for quality improvement work known as "practice facilitation" or practice coaching (see box below for more detailed description). Under this method, the Kentucky REC will use a combination of group learning and individualized onsite support to help practices improve their rates of hypertension and A1c control.

In addition, the Kentucky REC in conjunction with DPH is supporting practices in the Chronic Disease Pilot initiative by promoting a select group of evidence-based interventions (EBIs) that leverage the capabilities of electronic health records to improve care for hypertension and diabetes.

The four EBIs are:

1. Provider Reminders
2. Patient Reminders
3. Provider assessment and feedback
4. Reducing barriers

Additional REC resources for the DPH project involve assisting the participating practices to implement clinical workflows and EHR documentation changes to improve Hypertension Control (NQF 0018) and Diabetes A1c Poor Control (NQF 0059). During the initial stage of the project, practice advisors will complete a *practice assessment* of the patient population and will identify key issues in prevention, chronic care services, and high risk patients as part of an overall workflow analysis. Using the analysis, a *project work plan* will be completed to assist the practice in reaching future project goals. The practice advisors will offer guidance in EHR usability and quality measure reporting via *monthly on-site visits, calls and webinars*. Practice advisors will also assist with work plan goal completion and provide ongoing monitoring of best practices for improvement of clinical quality metrics. Quality Improvement (QI) assessments will be offered as well as training on *QI tools* such as: issue identification, goal setting, and running PDSA cycles.

Chronic Disease Pilot Team

Kentucky REC and DPH are engaged to assist practice teams over the course of the pilot by providing subject matter expertise and onsite and remote support as needed. Our team includes:

Department for Public Health (DPH) Team Members	Kentucky REC Managers	Kentucky REC Advisors
• Bonita Bobo • Reita Jones • Melissa Bondurant	• Trudi Matthews • Lynn Grigsby Tiller	• Mary Luvisi • Michelle Hibbard • LaShae Nall

Disease Pilot participants to discuss the many facets of quality improvement. The schedule is listed below:

Month	Topic
August	Pilot Overview, Clinical Quality Measures, Quality Improvement (QI) Tools
September	Provider Reminders / Clinical Decision Support (CDS)
October	Provider Assessment And Feedback Part 1: Quality Measurement and Reporting
November	Provider Assessment and Feedback Part 2: EHR Data Validation
January	Patient Reminders
February	DPH Presents - Patient Education / Self-Management
March	Reducing Barriers

The webinars will be a key way for participants to build practice capacity, disseminate proven methods to improve patient care and practice performance and identify challenges and barriers to progress together. **Participating practices are asked to have at least one practice lead attend the webinars in person to participate in group discussion and learn about monthly assignments.** Webinars will also be recorded so that additional staff and clinical leadership can listen and learn at their convenience.

Practice Facilitation (PF) is a supportive service provided to a primary care practice by a trained individual or team of individuals. These individuals use a range of organizational development, project management, QI, and practice improvement approaches and methods to build the internal capacity of a practice to help it engage in improvement activities over time and support it in reaching incremental and transformative improvement goals. This support may be provided on site, virtually (through phone conferences and webinars), or through a combination of onsite and virtual visits. In the research literature, PF sometimes is called quality improvement coaching or practice enhancement assistance. (AHRQ, 2016)

Facilitators focus on assessing initial practice conditions and creating a tailored approach to working with a practice based on its specific needs (Goodwin, Zyzanski, Zronek, et al., 2001). This type of individualized approach may be better in dealing with the distinct goals of a particular practice or using opportunities that arise, and could result in more sustainable change (Stange, Goodwin, Zyzanski, et al., 2003). Practice facilitators have been characterized as "catalysts for change," supporting transformation at the individual, team, organization, and systems levels (Guiding facilitation in the Canadian context, 2006). Facilitators help promote a culture of learning and QI within practices and set the stage for meaningful, sustainable practice redesign.

A Brief History of Practice Facilitation

The origins of PF can be traced back to its use in 1982–1984 as a part of the Oxford Prevention of Heart Attack and Stroke Project in England (also known as the Oxford Project). In this project, investigators used primary care facilitators to support clinicians with practical assistance for improving screening for cardiovascular disease (Fullard, Fowler, and Gray, 1984; Guiding facilitation in the Canadian context, 2006). Reports published from this study showed the success of the facilitator model and that facilitation supported the process of change and resulted in improved identification and follow-up of factors for these diseases. England was an early adopter of PF and used it as part of a comprehensive approach to support primary care. In the 1990s, the concept spread to other countries, including Australia, the Netherlands, and the United States (Nagykaldi, Mold, and Aspy, 2005). Several provinces in Canada have implemented province-wide PF efforts, and a research program on the effects of facilitation on the processes of care and patient outcomes is being directed out of the University of Ottawa.

During the past decade, the use of PF has continued to grow in the United States. Organizations such as practice-based research networks (PBRNs), State health departments, professional associations, and health plans have implemented PF programs, using many different models. These programs have focused on a variety of areas, including translating evidence-based guidelines and practice models into care, supporting dissemination of best practices, and supporting transformation of primary care practices into Patient Centered Medical Homes (PCMHs).

Most recently in the U.S., Federal agencies and policymakers have been looking at the potential value of PF both as a resource for helping to improve primary care and as a way to speed the adoption of new treatments, guidelines, or models of care from research into practice. The Affordable Care Act (ACA) calls for the creation of a primary care extension program in the United States to support improved quality in primary care practices across the country, to be modeled after the successful U.S. Department of Agriculture cooperative extension system. The legislation states this program will be "to educate providers about preventive medicine, health promotion, chronic disease management, mental and behavioral health services...and evidence-based and evidence-informed therapies and techniques" (Section 5405). Quality Improvement Organizations (QIOs), Health Information Regional Extension Centers (RECs), and PBRNs are some of the groups that could form the core of the proposed extension program, and practice facilitators are a likely workforce for the program. In the proposed model, practice facilitators would provide a way to spread new information, just as extension agents do in the agricultural system. Facilitators would be used to close the information gap between research and practice.

Evidence Supporting PF as a Resource for Quality Improvement

There is a growing body of evidence that supports the effectiveness of PF interventions. It is helpful to be familiar with this literature as you develop your program, as it can help guide decisions about program and intervention design, and also assist you in building a case for support with funders.

A recent meta-analysis of studies of PF within primary care settings concluded that primary care practices are almost three times as likely to adopt evidence-based guidelines through PF compared with no-intervention control group practices (Baskerville, Hogg, and Liddy, 2011). The study found that as the number of practices supported by a facilitator increased, the effect size of facilitation decreased, while the intensity of the intervention—the number and length of facilitation sessions—was associated with larger effects.

Source: Practice Facilitation Handbook published by the Agency for Healthcare Research and Quality, accessed 9/26/16 at http://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/index.html

The Basics of Quality Improvement

The Kentucky REC also uses the Model for Improvement to support practices in improving care under the Chronic Disease pilot.[1] The Model for Improvement is a framework that has been used successfully by Institute for Healthcare Improvement and other leading organizations to help health care organizations to improve care.

The Model for Improvement begins with three basic steps and questions:

- **Aim**: What do we want to accomplish?

- **Measure**: How will we know that a change is an improvement?

- **Test**: What change can we make that may result in improvement?

Under the Model for Improvement, a practice team will use successive Plan-Do-Study-Act cycles to drive changes to the practice and demonstrate improvement over time. An expanded framework for improvement also includes the following steps:

An improvement team may use the steps below when applying the Model for Improvement in a clinical setting:[2]

1. **Set an aim -** The **aim statement** should be time-specific and measurable

2. **Form a team -** Including the right people is critical when you're changing a complex system. The team should include representatives of all processes affected by the aim of the improvement team. For example, the group might include a senior leader, multi-disciplinary frontline staff members, and even a patient or two.

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[1] Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (2nd edition). San Francisco: Jossey-Bass Publishers; 2009.

[2] See the Institute for Healthcare Improvement resources available at:
http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx (accessed on 9/26/16)

3. **Establish measures -** How will you know if a specific change actually leads to an improvement? Quantitative measures can often provide the best feedback.

4. **Identify changes -** How are you going to achieve your aim? Where do new ideas come from? How do you spark creative thinking?

5. **Test changes -** This is where the **PDSA cycle** portion of the Model for Improvement comes in. By planning a small test of change, trying the plan, observing the results, and acting on what you learn, you will progressively move toward your aim.

6. **Implement changes -** After you have a change that results in improvement under many conditions, the logical next step is to implement it — meaning, make the change the new standard process in one defined setting.

Why conduct Plan, Do, Study, and Act (PDSA) cycles?

-   **Increase** your belief that the change will result in improvement

-   **Opportunity** for learning from "failures" without impacting performance

-   **Document** how much improvement can be expected from the change

-   **Learn** how to adapt the change to conditions in the local environment

-   **Evaluate** costs and side-effects of the change

-   **Minimize** resistance upon implementation

Intervention Modules

The Kentucky REC, in conjunction with DPH, has chosen to focus on four specific evidence-based interventions. These four EBIs are organized into modules that accompany the webinar topics and monthly practice facilitation/QI assignments:

1. **Provider reminders and Clinical Decision Support** – Utilizing the provider reminder/clinical decision support (CDS) functions in the EHR to remind providers when a patient is due or overdue for testing or other services.[3]

2. **Provider assessment and feedback** – Evaluating provider performance in delivering or offering disease specific screening to patients. Presenting providers with information about their performance on practiced goals and standards as compared to other providers in the practice.

3. **Patient Engagement and Reminders** – Utilizing the EHR to identify patients with A1C values > 9 and/or blood pressure $\geq$ 140/90 and those who are due or overdue for disease specific testing and/or referrals or otherwise needed follow-up. Sending reminders to patients and tracking responses to reminders.

4. **Identifying and Reducing barriers** – Using the resources within your community to mitigate both economic and non-economic burdens and obstacles making it difficult for patients to access healthcare. Barriers may include lack of transportation, language barriers, health illiteracy, medication/supply cost, etc.
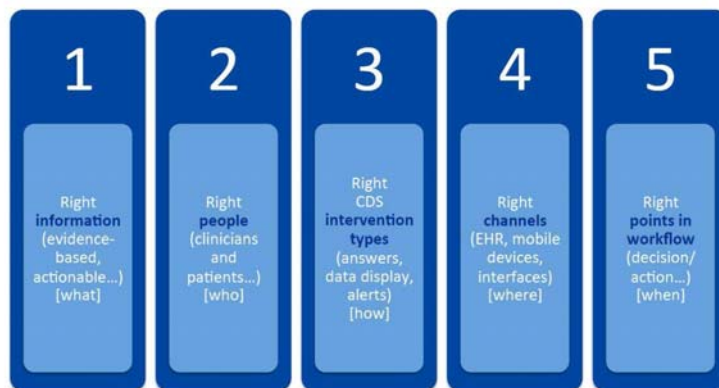
The practice/health system may choose to implement any or all of the EBIs above to improve diabetes and hypertension disease control. The practice/health system is also encouraged to express their ideas for increasing disease control activities. Once the practice/health system chooses the intervention(s) they would like to test, your REC Advisor will assist in implementing your proposed changes via the Model for Improvement. The Practice Advisor will also establish a schedule of monthly meetings including on-site and virtual visits to assess progress and assist in further improving and standardizing practice processes.

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[3] See Guide to Community Preventive Services. Cardiovascular disease prevention and control. http://www.thecommunityguide.org/cvd/index.html

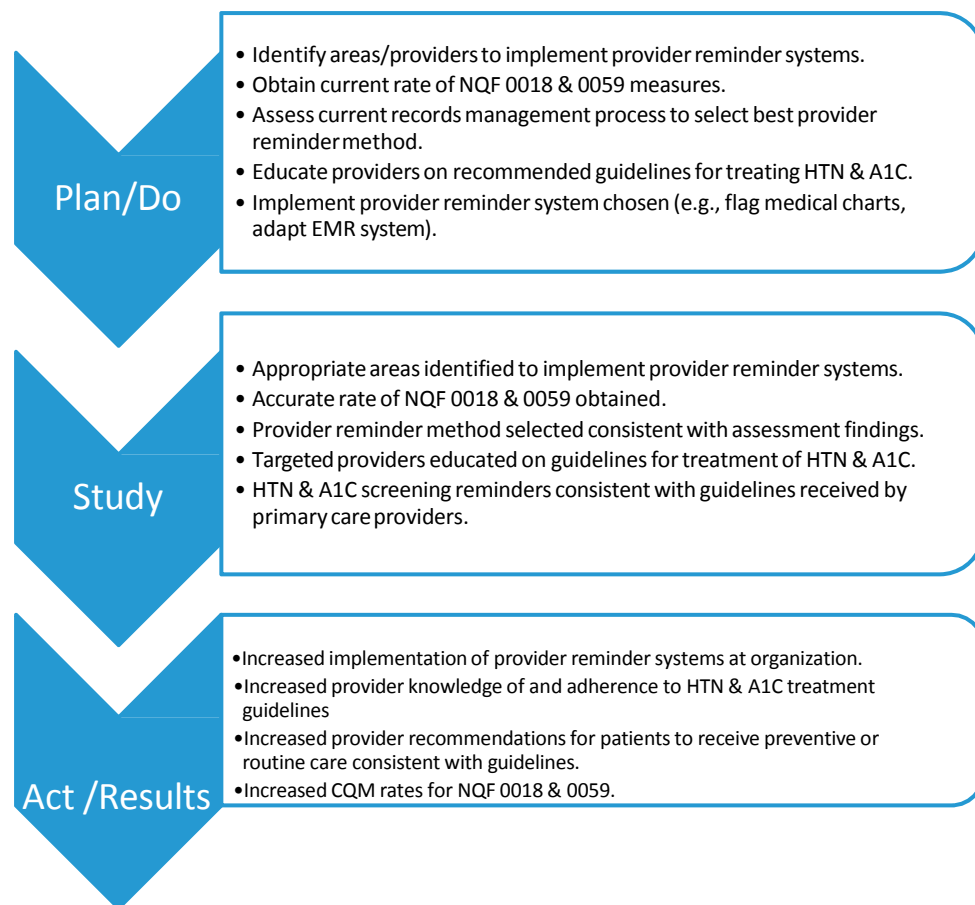## Module 1: Provider Reminders and Clinical Decision Support

The use of reminders in the clinical setting to prompt providers, staff, and patients for routine care or overdue care is a key element to guaranteeing patients receive all recommended services. Reminders vary from facility to facility, they can be paper based, automated through alerts in the EHR, mailed to patients at their homes, sent through the portal, etc. Most reminders in an EHR system are based on health maintenance needs of the patient and can be tailored for that patient's specific age, conditions, sex, etc. For example: Female patient over age 50 receives an annual reminder for a mammogram. The use of reminders can be set to remind annually, at each visit, etc. depending upon the options in the EHR. Dedicated resources in the facility to monitor, create, and update reminders for the patient are essential to ensuring reliable reminders and can eliminate reoccurring or non-applicable reminders that can slow clinic workflow and increase provider reminder fatigue.

Your EHR likely has available a Clinical Decision Support (CDS) system. CDS systems provide electronic reminders to your providers when they access the patient's chart. CDS systems can make appropriate recommendations for patients based on disease control and/or preventative health maintenance. CDS recommendations are based on the sixty-four Clinical Quality Measures (CQMs) that have been established by CMS. Two of the sixty-four measures are the focus of the Chronic Disease grant – NQF 0018 - Hypertension Control & NQF 0059 – Diabetes A1C Poor Control. Checking with your EHR vendor to see what CDS rules are available for these two quality measures can be a starting place to create reminders for your facility. The use of CDS for CQM reminders together works to increase a provider's performance on a specific quality measure. Monitoring of both CDS options and the CQM reports available to the facility should be done regulatory as part of your Quality Improvement work.

1	2	3	4	5
Right information (evidence-based, actionable...) [what]	Right people (clinicians and patients...) [who]	Right CDS intervention types (answers, data display, alerts) [how]	Right channels (EHR, mobile devices, interfaces) [where]	Right points in workflow (decision/ action...) [when]

THE FIVE RIGHTS OF CDS

PDSA Cycle Ideas for Provider Reminders

Plan/Do

- Identify areas/providers to implement provider reminder systems.
- Obtain current rate of NQF 0018 & 0059 measures.
- Assess current records management process to select best provider reminder method.
- Educate providers on recommended guidelines for treating HTN & A1C.
- Implement provider reminder system chosen (e.g., flag medical charts, adapt EMR system).

Study

- Appropriate areas identified to implement provider reminder systems.
- Accurate rate of NQF 0018 & 0059 obtained.
- Provider reminder method selected consistent with assessment findings.
- Targeted providers educated on guidelines for treatment of HTN & A1C.
- HTN & A1C screening reminders consistent with guidelines received by primary care providers.

Act /Results

- Increased implementation of provider reminder systems at organization.
- Increased provider knowledge of and adherence to HTN & A1C treatment guidelines
- Increased provider recommendations for patients to receive preventive or routine care consistent with guidelines.
- Increased CQM rates for NQF 0018 & 0059.

Monitor Moderating factors:

- Organizational barriers (e.g., limited IT or EMR system)
- Barriers (e.g., clinic hours)
- Patient barriers (e.g., transportation cost)
- Limited healthcare resources

Module 2: Provider Assessment and Feedback

This module will focus on the importance of ongoing monitoring of provider performance through the use of quality measurement and reporting along with regular feedback loops to providers. Presenting providers with information about their performance on evidence-based patient care goals and standards compared to other providers is a powerful way to engage clinicians in closing care gaps and improving performance on quality metrics.

Part 1 - Quality Measurement and Reporting

A primary component of provider assessment and feedback is the use of quality measurement and reporting capabilities within the EHR to evaluate provider performance in delivering appropriate, evidence-based care to patients. Another important aspect of provider assessment and feedback is presenting clinicians with information about how their performance compares to others in their practice, community, region or nationally. Comparative feedback may examine the performance of a group of providers (e.g., mean performance for a practice) or an individual provider, and may be compared with a goal, threshold or standard.

Part 2 - EHR Tracking, Data Validation, and Reporting

Most practices are already reviewing EHR reports to ensure providers are meeting measures for programs such as Meaningful Use, PQRS, and UDS. With the imminent payment model changes, from quantitative to qualitative payments, practices may need to work with their EHR vendor to create custom reports to identify specific high-risk patient populations and assess their disease control over time. Practices participating in the Chronic Disease grant will send monthly quality measure reports to their practice advisor for review. These reports will allow the advisor and the practice to see improvements over time and to determine which interventions have resulted in increased compliance and quality. Long term use of practice data can be used to show progress the organization has made since participating in the grant.

Reporting Possibilities

EHRs are increasingly developed with standardized reporting content as well as programs allowing you to create custom reports. With the assistance of your EHR vendor, you may also want to create custom reports within your EHR to:

- Identify and track your high-risk patient population
- Ensure care coordination by:
    - Monitoring care plans to assist patients in overcoming barriers and meeting goals
    - Tracking referrals from provider entry to receipt of the specialist letter
    - Tracking Diabetes Self-Management Education (DSME) referrals, Diabetic Eye Exams, and other diabetes specific guidelines to ensure patient compliance in completing.
    - Tracking hypertension patients and their adherence to medication use, diet and exercise plans.

- o Finding patients who have failed to schedule recommended preventive or maintenance care or have an uncontrolled A1C and/or blood pressure.

It is paramount that you create a system for validating the data in your EHR reports. If your EHR is one that includes the names of all patients in the denominator and then segregates the names of patients in the numerator, you can easily spot check patient charts to determine why specific patients were not calculated in either field. Otherwise, you may need to create a manual process for reviewing patient charts. Either way, if your numbers are incorrect, it is crucial to determine if you have system/vendor data issue or a human/workflow issue. A practice's ability to show improvement in chronic disease management over time is dependent upon consistent and accurate reporting capabilities in its EHR.

Using Clinician Feedback to Improve Performance

Development of a provider/clinician feedback program for your organization allows clinicians the chance to be informed about their quality measures, review them on a routine basis, and be more engaged in the QI initiatives/changes that are being implemented to improve measures. The tracking of quality measures over the time is the only way to determine what interventions and changes have worked to improve quality in your practice. Provider Feedback programs are typically part of the overall Quality Improvement strategy for organizations. Developing a feedback program that fits your practice goals, processes, and culture is important to ensure success.

The Health Resources & Services Administration (HRSA) has developed a step by step guide to develop a Performance Management & Measurement Program. While this process could be used for feedback on various initiatives, we believe it is also a great process to start to develop a clinician specific feedback program. For more information, see:
http://www.hrsa.gov/quality/toolbox/methodology/performancemanagement/index.html

The steps are:

Step 1: Evaluate organizational priorities
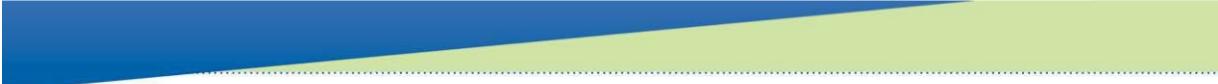
Step 2: Choose performance measures

Step 3: Determine a Baseline

Step 4: Evaluate Performance

Step 5: Report Results

Step 6: Develop a plan and make changes to improve performance

Step 7: Monitor performance over time

Additional Resources for Clinician Feedback & Quality Improvement

- **Information about developing a quality improvement approach** is available at: http://www.hrsa.gov/quality/toolbox/methodology/performancemanagement/part2.html

- **HRSA Diabetes Toolkit** is available at: http://www.hrsa.gov/quality/toolbox/measures/diabetes/index.html

- **HRSA Hypertension Toolkit** is available at: http://www.hrsa.gov/quality/toolbox/measures/hypertension/index.html

Module 3 - Data Validation Process

As discussed above, the data validation process and your own data validation strategy is essential to ensure the following for your organization:

- **Ensure data integrity and credibility**
- **Provide accuracy and reliability**
- **Detect Quality Measure errors**
- **Ensure timeliness of reporting**
- **Ensure usability of data internally and externally**

Your organization should focus on creating a data validation strategy that is tied to the mission of your organization, has realistic and measurable time frames and targets, is effective and can be useful in decision making, and is understandable and useful to all in your organization. An effective data validation plan and procedure will be another piece in the overall Quality Improvement process for your organization.

Below are seven key steps to creating a successful data validation process.[1]

Data Collection	Data Validation	Data Correction	Data Use
•Identify data for validation •Define goal for data •Assign data validation to a staff member •Create timeline for completion	•Validate data	•Correct errors •Re-validate data	•When organization is confident data is correct, it can be used for its intended purpose.
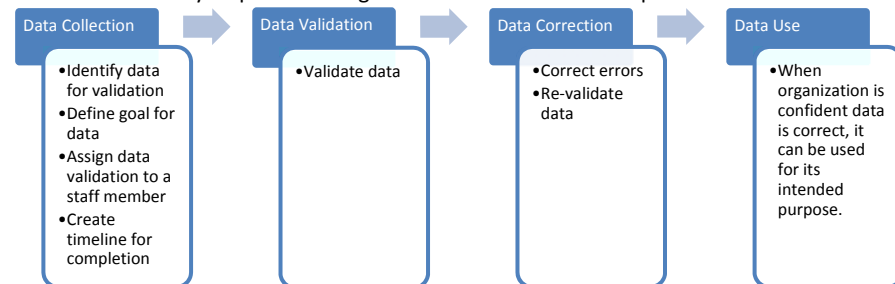
Step 1: Identify Data for Validation – Validate data that is needed for a specific purpose, that does not look correct, or as part of your routine QI work.

Step 2: Define a goal for your Data Validation Program – SMART (Specific, Measurable, Attainable, Realistic, Timely) goals are best.

Step 3: Assign a Specific Person / Resource to Data Validation – Ideally this person should have dedicated time to work on data validation and have the resources needed to correct errors as they are identified.

Step 4: Create a Timeline – Your timeline should be reasonable, measureable, and specific to any project deadlines you may have.

Step 5: Validate the Data – This is the main step in the process. To begin data validation, you must first identify all data sources for your information – this includes your EHR, registry reports, payer information, etc. You should have reports available from each system in order to create a baseline for comparison between systems. Take time to review all reports to determine any discrepancies between the information.

http://www.cpca.org/cpca/assets/File/Clinical-And-QI/AQUIC/AQUIC-Communications/Workgroups/2009-01-16-DV2-DataValidwhitepaper-v4.pdf

Below are some key areas were errors can occur:

Data Element	Types of Errors to Look For
Total number of patients w/ a certain condition	• CPT, ICD-10 coding errors, from encounter form • Duplicate patients in registry • Deceased, inactive patients in registry
Total number of patients that have received a certain test, procedure (i.e. mammogram)	• Patients received the test from external provider, & documentation is not in chart • Wrong patients identified as needing test (i.e. outside age, gender parameters)
Average value of a certain test (i.e. HbA1c)	• Invalid value outside the accepted range • Test results are available, but are not entered into the registry.

Once the source & type of error have been identified, use a sample of patients from each report to determine where the data issue occurred.

Step 6: Correct Errors – Now that you have determined your errors and their source, you must develop a process to correct them. Data errors are commonly due to an inconsistent workflow and can be either system or human generated errors. For system related errors, it is important to work with your EHR vendor or other Health IT vendors or contacts to understand exactly how the system creates reports and what the data sources are for those reports. Issues with interfaces between systems can also be a key area to review. Human errors require additional staff training and establishing the most efficient workflows for data capture.

Step 7: Re-Validate Data – Once your errors are corrected, you should re-validate the data to make sure reports from all data sources are similar. Repeating Steps 5-7 as many times as needed is the best way to effectively complete the process. Use of PDSA cycles is also helpful here and can assist you in identifying the steps that are working to resolve your issues.

Module 4 - Patient Reminders

The Kentucky REC, in conjunction with DPH, focused on one specific evidence-based intervention in this module. The EBIs for this module was:

Patient Engagement and Reminders – Utilizing the EHR to identify patients with A1C values > 9 and/or blood pressure $\geq$ 140/90 and those who are due or overdue for disease specific testing and/or referrals or otherwise needed follow-up. Sending reminders to patients and tracking responses to reminders.

Suggested Patient Reminders for Hypertension:

✓ Reminder to patients for annual / 6-month blood pressure monitoring
✓ Annual lipid monitoring reminder and routine blood test
✓ Patient specific medication management reminder or to return with log for follow up appointment
✓ Missed appointment, call to reschedule

Suggested Patient Reminders for HbA1C:

✓ Reminder to patients for 3 / 6-month HbA1C monitoring
✓ Annual lipid monitoring reminder and routine blood test
✓ Annual comprehensive foot exams (including microfilament) for patients with diabetes.
✓ Annual diabetes eye exam
✓ Diabetes self-management education (DSME)

Example of Patient Reminders:
❖ This is a reminder that it is time to have an **office visit** with Dr. Jones to check your blood pressure, perform an A1C lab test and other preventive tests. Please call to make an appointment.
❖ This is a message to stress the importance of **getting a flu shot** this fall. Call our office for an appointment or get this vaccination at one of the community locations offering this shot
❖ This is a follow-up call to see how you are doing with the **self-management goal** you set to increase physical activity………..
❖ We are following up for Dr. Jones to strongly encourage you to attend the **diabetes education classes** to which you were referred. Call 222-222-2222 for questions and to register.
❖ This is a reminder that your **dilated eye exam** is due   To protect your vision, please schedule this exam with your eye care doctor soon and be sure to request the exam reports be copied to Dr. Jones.

Things to consider to setting up your patient reminders:

- ✓ Frequency
  - Immediate
  - Weekly
  - Daily
  - Hourly
- ✓ Delivery Restrictions
  - Do not send messages on Friday, Saturday or Sunday
  - Do not send message on Holidays
  - Do not send messages before (time)
- ✓ Template Customization
  - Bold
  - Italicize
  - Font color
  - Add links to your website
- ✓ Content
  - Keep it concise
  - Get to the Critical Information Quickly
  - Remember HIPAA if in open office setting
  - Only provide what is needed for each patient
  - Consider a no-show fee warning

Benefits of Using a Patient Portal

The Electronic Messaging threshold for Meaningful Use has increased from 1 patient in 2016 to 5% for 2017 Modified Stage 2. For an EHR reporting period in 2017, for more than 5 percent of unique patients seen by the EP during the EHR reporting period, a secure message was sent using the electronic messaging function of CEHRT to the patient (or the patient-authorized representative), or in response to a secure message sent by the patient (or the patient-authorized representative) during the EHR reporting period.

Setting up patient reminders with links to your patient portal drives your patient to use the portal. Patient become more engaged in their care through utilizing a patient portal. Providers can utilize the portal to request and monitor blood pressure logs. They can follow up with patients on the care plans and utilize it for patient education.

Example of how to adjust your workflow to include patient reminders:

1. Enter diabetes (with hypertension) follow-up care as reason for visit
2. Measure and record vitals, current medications, and other pertinent data related to Diabetes care
3. Perform follow-up care as needed
    - Review standard laboratory tests, order tests if needed
    - Review blood pressure, prescribe drug therapy if indicated
    - Review date of most recent foot exam, perform foot exam if needed
    - Review date of last eye exam
    - Set up patient reminders in EHR

Study on Patient Reminders:

2014 Study Vanderbilt Medical Group (VMG) compared the success of robocalls vs. Text messages to patients.

Commented [LG2]: Added abbreviation

Robocalls:
- Robocalls four days out. VMG refill approximately 60% of all cancellations.
- Cancellations account for 7% of all patient responses.
- 30% of Robocalls get a response

Text Messages:
- Text option added September 2014
- 25% of patients wanted text reminders vs. Robocalls
- 50% of text reminders get a response
- 50 fewer no shows per day for VMG

Study of Web based vs. Text Messages:

Six-month trial of text to a web-based system

Chart legend: ■ Before Intervention ■ After Intervention

Categories:
- Hemoglobin A1c levels (HbA1c) decreased — 7.9% / 7.2%
- % Poorly controlled diabetes — 10.3% / 8.5%

Patient Experience

Patient Experience — 73% / 88%

Chart legend: ■ Before Intervention ■ After Intervention
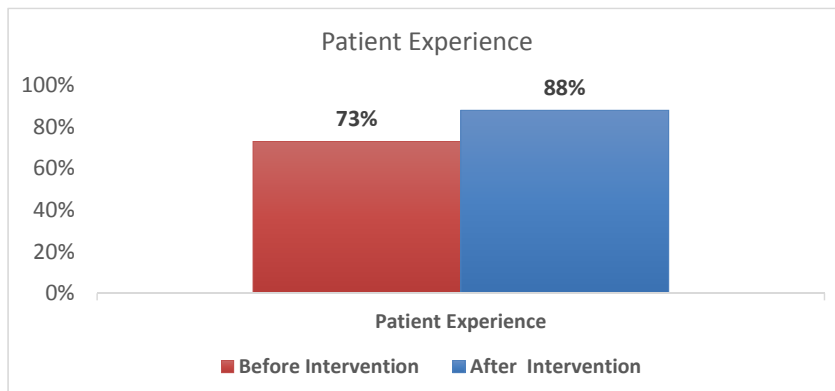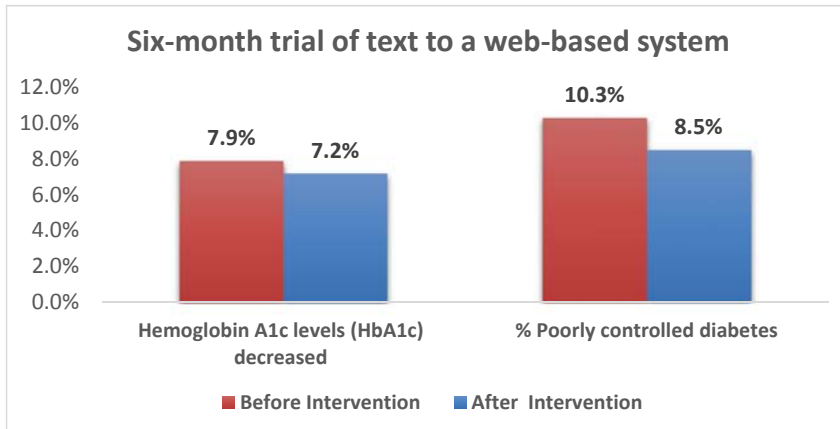
Pilot project at the University of Chicago Medicine
Six-month trial of text to a web-based system Before Intervention / After Intervention
Hemoglobin A1c levels (HbA1c) decreased from 7.90% to 7.20%, poorly controlled diabetes
from 10.3% to 8.5% and patient experience from 73% to 88% total cost of care $812. The net
savings for the program were $32,388 over six months, an 8.8 percent decrease in total cost
compared to the pre-test period.

Commented [LG3]: Correct typo

Sequist, Et. Al. "A Randomized Trial of Electronic Clinical Reminders to Improve Quality of Care for Diabetes and
Coronary Artery Disease." *Journal of the American Medical Informatics Association: JAMIA.* U.S. National Library of
Medicine, July-Aug. 2005. Web. 17 Jan. 2017

Think about a Challenge your practice has faced with Patient Reminders. Use this tool to identify the issue and recommendations to address the challenge.

SBAR Worksheet	Ask	SBAR Response
Situation	What is the success or challenge your practice faces right now?	
Background	What factors contributed to the situation? What history has to be understood?	
Assessment	What do you think is going on?	
Recommendation	What action do you propose?	

KENTUCKY REC PDSA WORKSHEET
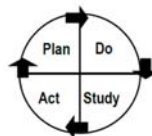
Team Name:	Date:	PDSA Completion Date:
What do you want to improve and by how much? Set an Objective:		
How will you know that the change is an improvement? Select Measures:		
What changes can lead to improvement? Conduct a Test:		

Plan / Do / Act / Study (cycle)

PLAN:
Briefly describe the test. Is the test doable?

How will you know that the change is an improvement? What are your measures? What do you predict will happen?

List the tasks necessary to complete this test (what)	Person responsible (who)	When	Where
1.			
2.			
3.			
4.			
5.			
6.			

How will we collect data for assessment/study?

DO: Test the changes. Record data and observations.

Did the test go as planned? ☐ Yes   ☐ No

What did you observe that was not part of the plan?

STUDY:
Did the results match your predictions?   ☐ Yes ☐ No

Compare the result of your test to your previous performance. What did you learn?

ACT: Decide to Adopt, Adapt, or Abandon.

☐ Adapt: Improve the change and continue testing plan. Plans/changes for next test:

☐ Adopt: Select changes to implement on a larger scale and develop an implementation plan and plan for sustainability

☐ Abandon: Discard this change idea and try a different one

Module 4 - Patient Education

What is DSME?

Diabetes Self-Management Education is defined as: "The process of facilitating the knowledge, skill, and ability necessary for prediabetes and diabetes self-care. This process incorporates the needs, goals and life experiences of the person with diabetes or prediabetes, and is guided by evidence-based standards."

"The overall objectives of DSME are to support informed decision making, self-care behaviors, problem solving and active collaboration with the health care team and to improve clinical outcomes, health status, and quality of life."

DSME focuses on seven self-care behaviors:

- ✓ Healthy Eating
- ✓ Being Active
- ✓ Monitoring
- ✓ Taking Medication
- ✓ Problem Solving
- ✓ Healthy coping
- ✓ Reducing risks
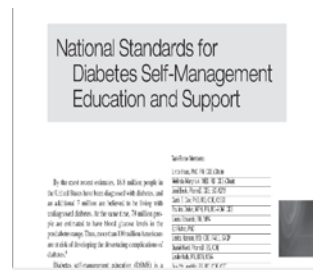
The National Standards for Diabetes Self-Management Education and Support 2012 includes the significance of ongoing diabetes self-management support (DSMS).

Diabetes Care, Supplement 1, January 2014

DSME Improves Outcomes

Immediate → **Intermediate** → **Post-intermediate** → **Long-Term**

Learning → Behavior Change → Clinical Indicators → Improved Health Status

Outcomes Continuum
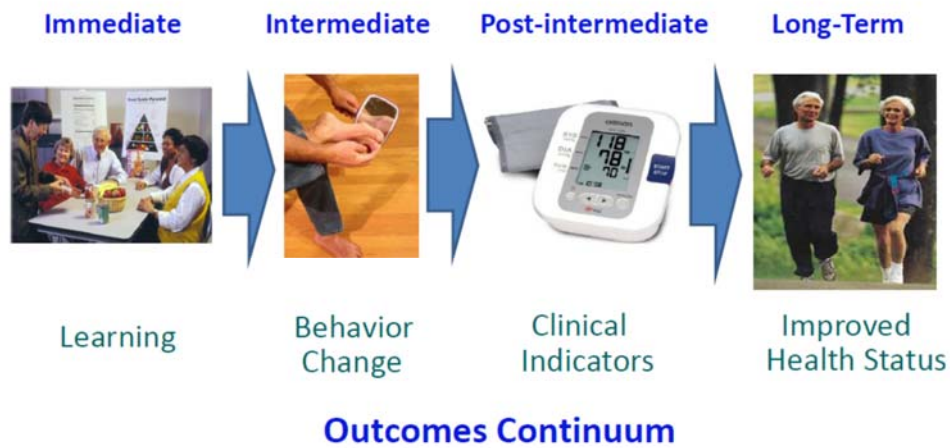
DSME Improves Outcomes:

- More likely to receive guideline driven care
- More likely to take medications as prescribed
- More likely to use primary care and preventive services or follow-up on treatment recommendations
- More healthful eating patterns and regular activity
- Increased self-efficacy and empowerment
  - Healthy coping
  - Improved quality of life
- Improved A1C - 1% reduction translates to
  - 21% reduction in diabetes-related death
  - 14% reduction in myocardial infarction
  - 37% reduction in microvascular complications
- Reduced hospital admissions and readmissions
- Reduced healthcare costs

Licensure of Diabetes Educators

In 2011. Kentucky became the first state to pass legislation requiring licensure of diabetes educators. Licensed diabetes educators are health professionals, registered nurses, registered dieticians, pharmacists, licensed clinical social workers and others.

Licensed Diabetes Educators/Provision of DSME can support the work you do

- ✓ Increase your practice efficiency
    - o By assuming time-consuming patient training and counseling to reinforce your Treatment recommendations
- ✓ Quality and payment
    - o Improve Clinical Quality Measures
    - o Achieve pay-for-performance/quality improvement goals
    - o Be better positioned for MACRA and ongoing healthcare reform
- ✓ Help track and monitor your patient's progress

Call to Action

Refer to an accredited or recognized DSME program-at all critical times
- ➢ When someone is diagnosed
- ➢ Yearly check ins
- ➢ When a new challenge is presented, such as financial or emotional distress, or medication Issues
- ➢ When there are changes in a person's healthcare: physician, insurance, moving to a new Location, or experiencing age-related issues

Resource Directory
   https://prd.chfs.ky.gov/KYDiabetesResources/

- ➢ Make DSME referral part of standing orders
    - o Establish mechanisms for coming outcomes in patients who have had DSME Compared to those who have not
- ➢ Use Clinical decision supports/prompts in your eHR system
- ➢ Encourage staff to observe a quality DSME program
- ➢ Become an accredited or recognized DSME provider
- ➢ Provide ongoing diabetes self-management support

CARE
COLLABORATIVE

Cardiovascular Assessment,
Risk Reduction, and Education

Kentucky Public Health
Prevent. Promote. Protect.

Kentucky Heart Disease and Stroke Prevention Program

Kentucky Regional Extension Center   kentuckyREC.com

Care Collaborative

- A free blood pressure (BP) awareness tool for men and women in Kentucky age 18 and above
- Focuses on an educational encounter, and is used to facilitate interaction between the individual being assessed (patient) and an authorized CARE Collaborative Coach
- Can be implemented anywhere that blood pressures are being taken

Program Benefits

- Increased awareness of the health benefits if normal blood pressure
- Increased education of the ABCs of Cardiovascular (heart) health
- Increased number of adults within that:
    - Have their blood pressure measured and can state whether it is normal or high
    - Are appropriately counseled about health behaviors and/or lifestyle changes
    - Are taking action to help control their elevated blood pressure through lifestyle Modification

BP Awareness Tool

At the core of the program is a comprehensive blood pressure record card that can be kept easily in the wallet. The tool is designed to:
- Be an educational encounter and is used to facilitate the interaction between the individual being assessed and an authorized CARE Collaborative provider
- Provide a visual aid to assist in the identification of blood pressure category - Blood pressure ranges are color coded: green (normal), yellow (caution) and red (high)
- Ensure the goals of the program are met. These steps include:
    1. Ask the individual to identify the corresponding blood pressure category
    2. Document the blood pressure of the individual in the blood pressure record card
    3. Discuss lifestyle choices and risk reduction strategies with the individual

National Quality Forum (NQF) 18

Measure Description: The percentage of patients 18 to 85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (<140/90) during the measurement year.

https://www.cms.gov/apps/ama/license.asp?file=/QualityMeasures/Downloads/EP_MeasureSpecifications.zip

Reference Card

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure provides a guideline for hypertension prevention and management. This report provides recommendations for doctors based on clinical research. The CARE Collaborative Blood Pressure Record Card is based on this national standard of care.
NOTE: The CARE Collaborative program is non-clinical and is blood pressure number awareness and education.
Download a copy of the full report at:
http://www.nhlbi.nih.gov/health-pro/guidelines/current/hypertension-jnc-7

JNC 8

JNC 8 has convened. It is important to note that JNC 7 defined hypertension and prehypertension, while JNC 8 did not address these definitions but focused on the thresholds for pharmacologic treatment. A table which compares JNC 8 with JNC 7 guidelines can be downloaded at:
http://jama.jamanetwork.com/article.aspx?articleid=1791497

JNC 7: Evaluation & Treatment

Evaluation
Classification of Blood Pressure (BP)

Category	SBP mmHg		DBP mmHg
Normal	<120	and	<80
Prehypertension	120-139	or	80-89
Hypertension Stage	140-159	or	90-99
Hypertension Stage	≥160	or	≥100

Treatment
Principals of Hypertension Treatment

*Treat to BP <140/90 mmHg or <130/80 mmHg in patients with diabetes or chronic kidney disease

*Majority of patients will require two medications to reach goal

Algorithm for Treatment of Hypertension
* Lifestyle Modifications

SBP = Systolic Blood Pressure

DBP = Diastolic Blood Pressure

Blood Pressure Evaluation and Treatment

The CARE Collaborative uses the standards of care set forth by JNC 7. KHDSP is not a clinical program and does not set standards; KHDSP provides education about the standards of care as stated on the previous page. These same standards are printed on the CARE Collaborative Blood Pressure Record Log. We will talk about them in detail later. For now, it is important to understand the method used in determining the correct blood pressure color zone.

For a determination of normal blood pressure (Green Zone), the Systolic Blood Pressure (SBP) must be less than 120 **AND** the Diastolic Blood Pressure (DBP) must be less than 80. If either of these are out of range, then the determination cannot be considered in the Green Zone. Hypertension, stage 1 or stage 2, (Red Zone) is the determination if the SBP is 140 or higher **AND/OR** the DBP is 90 or higher.

Remember it only takes one measure, SBP or DBP, to require the determination for high blood pressure. We will go through several examples later in this course.

Evaluation: Classification of Blood Pressure (BP)

Category	SBP mmHg		DBP mmHg
Normal	<120	and	<80
Prehypertension	120-139	or	80-89
Hypertension Stage 1	140-159	or	90-99
Hypertension Stage 2	≥160	or	≥100

Important Note: Algorithm for Treatment of Hypertension - * Lifestyle Modifications.

JNC 7: Lifestyle Modification

Principals of Lifestyle Modification

Encourage healthy lifestyles for all individuals.

Prescribe lifestyle modifications for all patients with prehypertension and hypertension.

Components of lifestyle modifications include weight reduction, DASH eating plan, dietary sodium reduction, aerobic physical activity, and moderation of alcohol consumption.

Lifestyle Modification Recommendations

Modification	Recommendation	Avg. SBP Reduction Range **
Weight Reduction	Maintain normal body weight (body mass index 18.5-24.9 kg/m2).	5-20 mmHg/10 kg
Dietary Approaches to Stop Hypertension (DASH) Eating Plan	Adopt a diet rich in fruits, vegetables, and low-fat dairy products with reduced content saturated and total fat.	8-14 mmHg
Dietary sodium reduction	Reduce dietary sodium intake to ≤100 mmol per day (2.4 g sodium or 6 g sodium chloride).	2-8 mmHg
Aerobic physical activity	Regular aerobic physical activity (e.g., brisk walking) at least 30 minutes per day, most days of the week.	4-9 mmHg
Moderation of alcohol consumption	Men: limit to ≤2 drinks* per day. Women and lighter weight persons: limit to ≤1 drink* per day.	2-4 mmHg

* 1 drink = 1/2 oz. or 15 mL ethanol (e.g., 12 oz. beer, 5 oz. wine, 1.5 oz. 80-proof whiskey).
**Effects are dose and time dependent.

Blood Pressure Evaluation and Treatment

Principals of Lifestyle Modification
- o Encourage healthy lifestyles for all individuals.
- o Suggest lifestyle modifications for all patients*** with prehypertension and hypertension.
- o Components of lifestyle modifications include weight reduction, Dietary Approaches to Stop Hypertension (DASH) eating plan, dietary sodium reduction, aerobic physical activity, and moderation of alcohol consumption.
  - Lifestyle Modification Recommendations
  - Modification - Recommendation - Avg. SBP Reduction Range **
- o Weight Reduction: Maintaining a normal body weight (body mass index 18.5-24.9 kg/m2) can lead to an average SBP reduction of 5-20 mmHg/10 kg.
- o DASH Eating Plan: Adopt a diet rich in fruits, vegetables, and low-fat dairy products with reduced content saturated and total fat can lead to an average SBP reduction of 8-14 mmHg.
- o Dietary Sodium Reduction: Reduce dietary sodium intake to ≤100 mml per day (2.4 g sodium or 6 g sodium chloride) can lead to an average SBP reduction of 2-8 mmHg.
- o Aerobic Physical Activity: Regular aerobic physical activity (e.g., brisk walking) at least 30 minutes per day, most days of the week, can lead to an average SBP reduction of 4-9 mmHg.
- o Moderation of Alcohol Consumption: Men: limit to ≤2 drinks* per day. Women and lighter weight persons: limit to ≤1 drink* per day can lead to an average SBP reduction of 2-4 mmHg.
- o 1 drink = 1/2 oz. or 15 mL ethanol (e.g., 12 oz. beer, 5 oz. wine, 1.5 oz. 80-proof whiskey).
  - ** Effects are dose and time dependent.
  - *** Patient terminology is not used in reference to the CARE Collaborative. his notation is directly from the JNC7 Reference Card, see Appendix.

Impact on Mortality
Systolic Blood Pressure

Reduction in SBP (mmHg)	Stroke	CHD	Total Mortality
2↓	-6%	-4%	-3%
3↓	-8%	-5%	-4%
5↓	-14%	-9%	-7%
(source Whelton PK, et al. JAMA. 2002)			

Impacts on Mortality – SBP

Even minimal changes in blood pressure provide benefit to the participant. The CARE Collaborative program is based on the participant knowing a blood and making lifestyle choices to modify behavior and ultimately improve blood pressure.
Note: The impact of stroke risk when the SBP is lowered!

Reduction in SBP (mmHg)	Stroke	CHD	Total Mortality
2↓	-6%	-4%	-3%
3↓	-8%	-5%	-4%
5↓	-14%	-9%	-7%

Source Whelton PK, et al. The Journal of the American Medical Association (JAMA) 2002
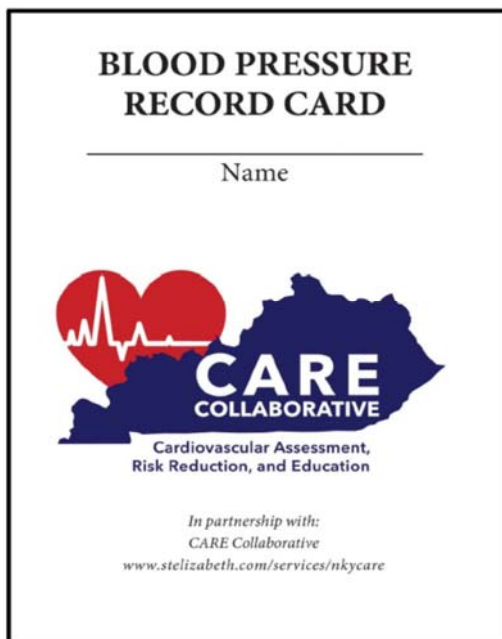
Pressure Record Card

The Blood Pressure Record Card is the key piece of the CARE Collaborative program. The card comes folded in a convenient wallet size. Encourage participants to carry their card in a purse or wallet.
The Blood Pressure Record Card includes several items of important health related information that should be reviewed as appropriate the first time a participant is given a Blood Pressure Record Card.
NOTE: CARE Collaborative Coaches do not have to review each section of the card with every participant. CARE Collaborative Coaches should encourage participants to ask questions about anything they do not understand. **Coaches should review all pertinent points with participants on all return visits, specifically the educational teaching point for the appropriate blood pressure color zone of their last blood pressure reading.**
Remember that participants will often forget to bring their cards back, so always give participants who forgot or lost their card a replacement card. Ultimately, the CARE Collaborative is about the Educational Encounter, not the Blood Pressure Record Card.

History

The Blood Pressure Record Card has space to record:
o   Medical history, surgery/hospitalization information, and self-management goals
o   Contact information: Pharmacy, Emergency Contact, Health Care Provider
o   Food and/or medicine allergies
o   Medication information: name and dose
o   Latest personal health numbers:
    o   Total Cholesterol
    o   LDL
    o   HDL
    o   Triglycerides
    o   Fasting Glucose
    o   Hemoglobin A1C
    o   BMI
    o   Waist Circumference
        • CARE Collaborative Coaches can assist participants in completing as much information as is feasible and encourage participants to share card information with their health care provider.

IS IT A STROKE?
CHECK THESE SIGNS FAST

FACE Does the FACE look uneven? Ask them to smile.

ARM Does one ARM drift down? Ask them to raise both arms.

SPEECH Does their SPEECH sound strange? Ask them to repeat a phrase.

TIME EVERY second brain cells die. Call 9-1-1 at ANY sign of a stroke!

STROKE IS AN EMERGENCY!
Call 911 **immediately** if you see or have any of these symptoms. Every minute counts!

Patient Education

May is
American Stroke Month.
StrokeAssociation.org/strokemonth

Stroke?

F.A.S.T. is an easy way to remember the sudden signs of stroke. When you can spot the signs, you'll know that you need to call 9-1-1 emergency medical services for help right away.

F.A.S.T. is:

F - Face Drooping – Does one side of the face droop or is it numb? Ask the person to smile. Is the person's smile uneven?

A - Arm Weakness – Is one arm weak or numb? Ask the person to raise both arms. Does one arm drift downward?

S - Speech Difficulty – Is speech slurred? Is the person unable to speak or hard to understand?
Ask the person to repeat a simple sentence like: "The sky is blue." Is the sentence repeated correctly?

T - Time to call 9-1-1 – If someone shows any of these symptoms, even if the symptoms go away, call 9-1-1 and get the person to the hospital immediately. Check the time so you will know when the first symptoms appeared.

Other Symptoms You Should Know:
- •Sudden **NUMBNESS** or weakness of face, arm, or leg, especially on one side of the body
- •Sudden **CONFUSION**, trouble speaking or understanding speech
- •Sudden **TROUBLE SEEING** in one or both eyes
- •Sudden **TROUBLE WALKING**, dizziness, loss of balance or coordination
- •Sudden **SEVERE HEADACHE** with no known cause

May is American Stroke Month
StrokeAssociation.org/strokemonth

SIGNS AND SYMPTOMS OF A HEART ATTACK

· Chest discomfort lasting more than a few minutes; pressure, squeezing, fullness or pain.

· Discomfort in one or both arms, the back, neck, jaw or stomach.

· Shortness of breath with or without chest discomfort.

· Cold sweat, nausea or light headedness.

· Women most often experience chest pain or discomfort, but may be more likely than men to experience shortness of breath, nausea/vomiting, and back or jaw pain.

If you or someone you are with has any of these symptoms, call 911 immediately. **HEART ATTACK IS AN EMERGENCY!** Every minute counts!

Patient Education

February is National Heart Awareness Month. http://www.heart.org/HEARTORG/

Signs and Symptoms of a Heart Attack

In the United States, many of the deaths attributed to coronary heart disease, which includes heart attack, can be prevented by acting fast! Some heart attacks are sudden and intense. But most start slowly with mild pain or discomfort.

Here are some of the signs that can mean a heart attack is happening:
- Chest discomfort: Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness, or pain.
- Discomfort in other areas of the upper body: Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw, or stomach.
- Shortness of breath: This may occur with or without chest discomfort.
- Other signs: These may include breaking out in a cold sweat, nausea, or lightheadedness.

 How can I help to avoid a heart attack?
- ➢ Do not smoke and avoid second-hand smoke.
- ➢ **Treat high blood pressure if you have it.**
- ➢ Eat foods that are low in saturated fat, trans fat, sodium (salt) and added sugars.
- ➢ Be physically active.
- ➢ Reach and maintain a healthy weight.
- ➢ Control your blood sugar if you have diabetes.
- ➢ Get regular medical check-ups.
- ➢ Take medicine as prescribed.
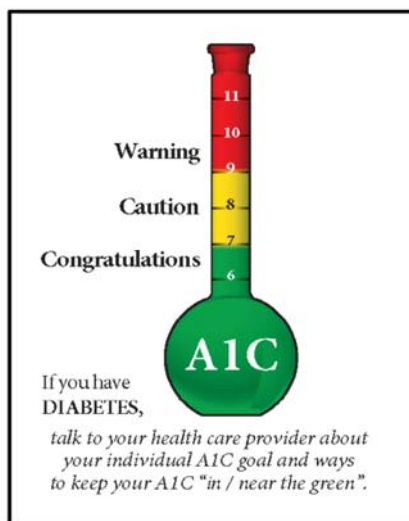
Patient Education

November is
American Diabetes Month.
www.diabetes.org

Diabetes – Know Your A1C

If you have diabetes, it is important to know your A1C number. An A1C is a lab test which shows average blood glucose (sugar) levels for the last 3 months. It is like a memory of your blood sugar values. Everyone with diabetes should have this lab test checked at least two times a year. The beaker picture with A1C values includes the correlating average blood sugar levels. Talk with your health care provider about ways to lower your blood sugar values and keep your A1C "in the green."

Learn all you can about diabetes and the things that influence daily blood sugar levels by www.heart.org/diabetes. Diabetes is a lifelong medical condition where your body is not able to process food properly. After eating a meal, food goes into the stomach where it is broken down into glucose (sugar). This sugar passes into the bloodstream and travels to the cells of your body to be used as energy. However, it needs help from a hormone called insulin to move the sugar from the bloodstream into the cells. With diabetes, the body does not make enough insulin, the insulin does not work right, or both. As a result, some or all of the sugar is not able to move into the cells for energy, and it builds up in the bloodstream. High blood sugar levels can lead to serious health problems right away and/or over time. A1C levels near or "in the green" lower the risk for developing serious diabetes complications.

November is American Diabetes Month.

www.diabetes.org

Download the complete Standards of Medical Care in Diabetes 2016, updated annually:
http://care.diabetesjournals.org/content/suppl/2015/12/21/39.Supplement_1.DC2/2016-Standards-of-Care.pdf

Pressure Log

The Blood Pressure Record Card is the key piece of the CARE Collaborative program.

The Blood Pressure Log is the key piece of the Blood Pressure Record Card.

The Blood Pressure Record Card has a log (a table) for recording the participant's blood pressure. One of the goals of the CARE Collaborative is participant identification of blood pressure. Multiple blood pressure readings and return visits provide data proof that the program is working. CARE Collaborative Coaches should write in the participant's blood pressure and encourage the participant to bring the card back on return visits. CARE Collaborative Coaches should encourage the participant to record his or her blood pressure any time it is taken (e.g., by a primary physician, at self-monitoring stations like those found at Kroger or Wal-Mart, and at home with a blood pressure cuff).

The Blood Pressure Log is color coded and uses color zones. Much like the diabetes participant education from the previous page, it is designed such that participants can focus on a range of numbers and not the numbers themselves. The green, yellow, and red concept is one most people are familiar with; think about traffic lights.

- Green means go – **Continue with your current lifestyle.**
- Yellow means caution – You should **modify your current lifestyle** before your health becomes a critical issue.
- Red means stop – Things are critical; you should **seek medical treatment**.

BP Color Zones (Teaching Points)
Green / Yellow / Red

CONGRATULATIONS!	CAUTION!	WARNING!
If your blood pressure falls in this category, you are in the normal range for blood pressure control. Your goal is to keep your blood pressure at this level. Some ways you can help to stay in this range are:	If your blood pressure falls in this category, you are in the "borderline" range for high blood pressure, also known as "prehypertension." Persons with prehypertension are very likely to develop high blood pressure in the future. Take steps now to lower your blood pressure.	If your blood pressure falls in this category, it is high. Ongoing high blood pressure or "hypertension" is a serious medical condition that can lead to strokes, heart attacks and other major health problems, even if you feel well.
♥ Stay at a healthy weight. ♥ Limit salt in your diet. ♥ Limit how much alcohol you drink. ♥ Get regular physical activity. ♥ Have routine blood pressure monitoring. ♥ Don't smoke. Talk to your health care provider about other ways to keep your blood pressure "in the green."	Some ways to help lower your blood pressure are: ♥ Lose excess body weight. ♥ Limit salt in your diet. ♥ Limit how much alcohol you drink. ♥ Increase physical activity. ♥ Don't smoke. KY Tobacco Quit Line: 1 (800) QUIT-NOW 1 (800) 784-8669 Talk to your health care provider about other ways to help lower your blood pressure.	Talk to your health care provider right away about ways to lower your blood pressure. Call 911 or go to an emergency room IMMEDIATELY if you have any signs or symptoms of stroke such as those listed on the back of this card. *Source:* *JNC7, National Institutes of Health, 2003 ATP* *III, National Institutes of Health, 2001*

Pressure (BP) Color Zones (Teaching Points)

We will review each teaching point in detail on the next few slides. For now, it is important to note that CARE Collaborative Coaches must review one of these (the appropriate one based on the participant's current blood pressure) every time they have an Educational Encounter with a participant. These three teaching points are the educational material in the CARE Collaborative' s Educational Encounter. The teaching points are designed to encourage participant behavior modification, which is ultimately one of the goals of the CARE Collaborative program.

Once again, you see the green, yellow, and red colors. With the CARE Collaborative, it is important for participants to remember what color zone their blood pressure falls into and their goal color zone

The Educational Encounter

At the core of the CARE Collaborative is the Educational Encounter. An Educational Encounter is the interaction between an individual being assessed and an authorized and specifically trained CARE Collaborative Coach. All participants are provided with appropriate and immediate feedback regarding their blood pressure including steps to reduce high blood pressure. This interaction includes the mandatory program requirement that CARE Collaborative Coaches refer participants with elevated blood pressures, who do not have a primary care provider/medical home, to a source of proper medical care.

Note: Health screenings and/or health fairs are not viewed as a systems change approach and are not approved by the KHDSP to be utilized for this project.

After completing this unit, you should be able to:
- List the goals of the CARE Collaborative.
- Discuss the fundamentals of the CARE Collaborative.
- Identify the step-by-step procedures of an Educational Encounter.
- Determine if a participant referral is required.

CARE Collaborative Fundamentals

CARE Collaborative is initiated only with adults at least 18 years of age; the CARE collaborative must not be used with minors.

What-
- The CARE Collaborative is not a screening.
  - During a screening, participants simply learn their health numbers.
- During the CARE Collaborative, the participant:
  - Identifies, or is educated about, his or her blood pressure color zone: Green / Yellow / Red.
  - Is educated about lifestyle changes that will help improve blood pressure.
  - Is referred to a primary care provider if he or she has elevated blood
  - pressure and does not already have a provider.
    - The CARE Collaborative requires a MOU between sites and primary care providers who will see a participant with an elevated blood pressure who does not have a medical home.

Where / When-
- The CARE Collaborative is initiated anywhere a blood pressure is taken.
- CARE Collaborative Coaches are not asked to take blood pressures as part of the CARE Collaborative; rather Coaches are asked to initiate the CARE Collaborative as part of taking a blood pressure.
  - CARE Collaborative Educational Encounters occur during normal interaction. How long does it take?
- The CARE Collaborative Educational Encounter, including data reporting, will average 1-2 minutes to complete.

Original Evidence for Doing Intervention
Percent of Elevated Blood Pressure
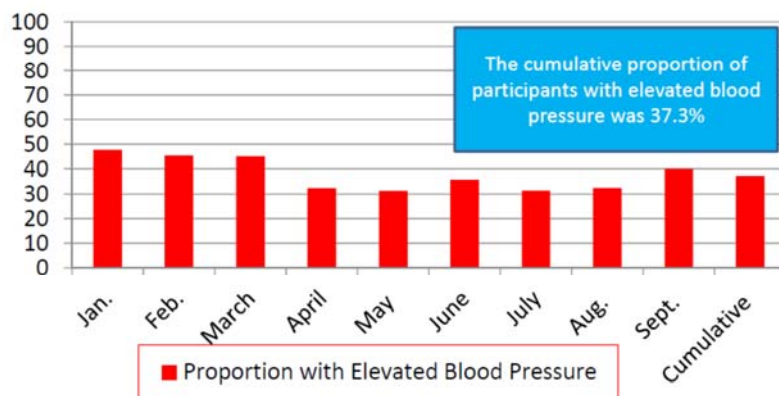
This graph shows the percentage of participants that were determined to have elevated blood pressure during their initial Educational Encounter, 37.3%.

Source: St. Elizabeth Healthcare - 2008

Historical Data: Elevated Blood Pressure

The CARE Collaborative design is based on the experiences of a previous program which provided blood pressure Educational Encounters in the Northern Kentucky region. The positive data from the original program in 2008 led to its implementation across the entire state. This graph shows the percentage of participants that were determined to have elevated blood pressure during their initial Educational Encounter, 37.3%.

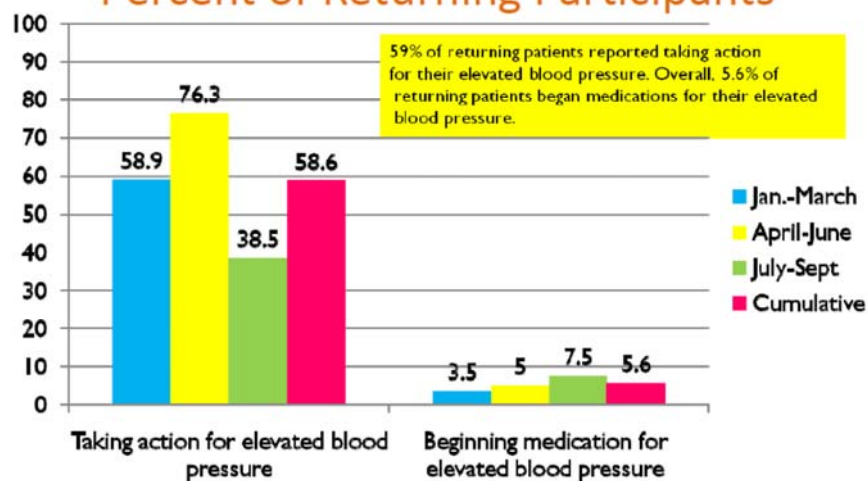*Source: St. Elizabeth Healthcare - 2008*

Original Evidence for Doing Intervention
Percent of Returning Participants

59% of returning patients reported taking action for their elevated blood pressure. Overall, 5.6% of returning patients began medications for their elevated blood pressure.

Taking action for elevated blood pressure: 58.9, 76.3, 38.5, 58.6

Beginning medication for elevated blood pressure: 3.5, 5, 7.5, 5.6

Legend: Jan.-March, April-June, July-Sept, Cumulative

These graphs show the percent of returning participants that reported making lifestyle changes after their encounter, 59%, and the percentage or returning participants that began taking medication because of their Educational Encounter, 5.6%.   Source: St. Elizabeth Healthcare - 2008

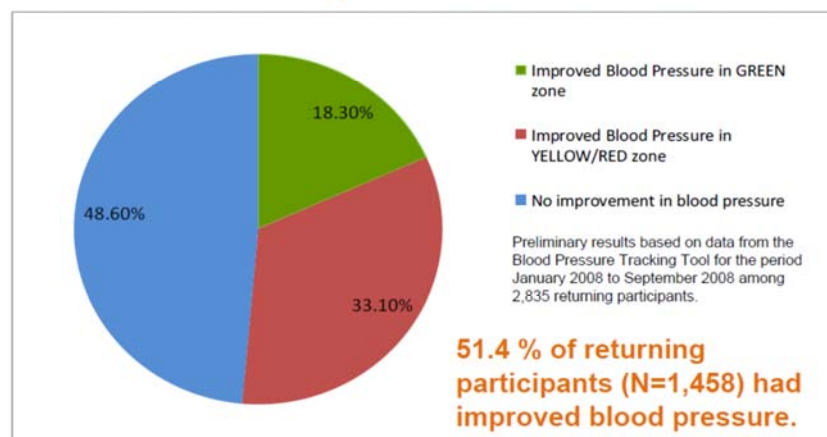### Historical Data: Taking Action and Beginning Medication
These graphs show the percent of returning participants that reported making lifestyle changes after their encounter, 59%, and the percentage or returning participants that began taking medication because of their Educational Encounter, 5.6%.

Source: St. Elizabeth Healthcare - 2008

Original Evidence for Doing Intervention
Percent of Improved Blood Pressure

- Improved Blood Pressure in GREEN zone
- Improved Blood Pressure in YELLOW/RED zone
- No improvement in blood pressure

Preliminary results based on data from the Blood Pressure Tracking Tool for the period January 2008 to September 2008 among 2,835 returning participants.

51.4 % of returning participants (N=1,458) had improved blood pressure.

This graph shows the percentage of returning participants that showed improvement in their blood pressure from Educational Encounters, 51.4%.

Source: St. Elizabeth Healthcare – 2008

Historical Data: Improved Blood Pressure

This graph shows the percentage of returning participants that showed improvement in their blood pressure from Educational Encounters, 51.4%.

Source: St. Elizabeth Healthcare - 2008

CARE Collaborative
XYZ Health Department

This document will act as an example of how data can be presented to the end user. The data presented is only to be used as an example and may not reflect current results

Metrics that Matter

|	
Total Patients Seen	1485

New Patients
BP Cards used	1271
Cannot Identify BP range	73
In Green Range	387
In Yellow Range	441
In Red Range	443
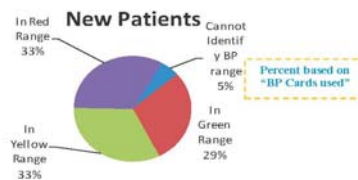
Returning Patients
With Cards	102
Without Card, New Card Given	112
Improved BP now in the Green Zone	67
Improved BP (still within the Red or Yellow Zone)	148
Improved BP who were started on medication	92
Lifestyle Changes Excluding medication	31
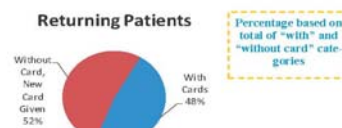
Patient Referrals
To Primary Care Physician	10
To KY Quit Smoking Line	2

Medical History
Patients Taking BP Medication	26
Told they have Diabetes	7
Told they have Heart Disease	14

Data submitted to Server (Quality control)
July	1
August	3
September	3
October	3

New Patients

In Red Range 33%
Cannot Identify BP range 5%
In Green Range 29%
In Yellow Range 33%

Percent based on "BP Cards used"

Returning Patients

Without Card, New Card Given 52%
With Cards 48%

Percentage based on total of "with" and "without card" categories

Improved BP (still within the Red or Yellow Zone) 69%
Improved BP now in the Green Zone 31%

Lifestyle Changes Excluding medication 25%
Lifestyle Changes Excluding medication 25%

Kentucky Public Health

Customized Reports by Date and by Data

Analysis and Reports

All partners retain the data collected by their agency. In addition, KDPH staff can provide all agency specific data, in an Excel spreadsheet, for any selected date range. Also, a KDPH epidemiologist will work with partners to analyze and create customized reports curtailed to agency needs.

Kentucky Regional Extension Center   kentuckyREC.com

Next Module-Barriers

Coming in March 2017!