Colorectal Cancer Screening

Quality Improvement Handbook

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To access this handbook online, please visit Louisiana Cancer Prevention and Control Programs' website at: https://louisianacancer.org/helpful-information/lcp-materials/

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INTRODUCTION

In 2009, the Institute of Medicine (IOM) released a seminal report, Crossing the Quality Chasm: A New Health System for the 21st Century, which delivered an urgent message that the quality of care patients are receiving in the U.S. falls vastly short of the quality of care they should be receiving. In order to improve quality of care and better meet patients' needs, health care systems need to focus on six main targets:

- Safe—avoiding injuries to patients from the care that is intended to help them
- *Effective*—providing services based on scientific knowledge to all who could benefit
- *Patient-centered*—providing care that is respectful of and responsive to individual patient preferences, needs, and values
- Timely—reducing waits and sometimes harmful delays
- Efficient—avoiding waste, including waste of equipment, supplies, ideas, and energy
- *Equitable*—providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

Patients should be able to count on receiving the full spectrum of care from which they could benefit, including preventive, acute, and chronic services. Additionally, clinic staff would benefit from the satisfaction of providing better coordinated, higher quality care.¹ Developed with these objectives in mind, this Manual aims to serve as a launch pad for colorectal cancer screening specific Quality Improvement efforts by providing an overview of facts and figures, QI tools, best practices, and real world examples.

¹ Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C.: National Academies Press; 2001. Executive Summary. <u>https://www.ncbi.nlm.nih.gov/books/NBK222271/</u>

COLORECTAL CANCER FACTS AND FIGURES

Before any Quality Improvement work can begin, it is important to have a big-picture understanding of the problem and to be able to answer the question of "why should we prioritize this?" The answer to this question should always be based on facts. **Recent data shows that colorectal cancer is the second leading cause of cancer death in the United States, eclipsed only by lung and bronchus deaths.**² CRC often starts with the development of polyps that may or may not become malignant, and if cancer does develop there are often no symptoms in the earliest stages. Survival rates are quite high (90%) if caught at Stage I, but diminish to 14% at Stage IV.³ The good news is, this cancer can be found and stopped early with regular screening.

Louisiana suffers disproportionately with colorectal cancer, ranking 3rd for highest incidence rate in the nation for CRC.⁴ Equity with geographic location is a significant issue in the state, as rural regions are generally impacted at higher rates. Notably, Louisiana's French-Acadian region, home of the Cajuns, has CRC rates among the highest in the nation. These disproportionately high incidence rates are likely due to genetic or environmental factors.⁵

Figure 1. Incidence Rates per 100,000 2013-2017



Source: American Cancer Society Cancer Statistics Center





Source: LA Tumor Registry Cancer Visualization Dashboard

The black population in Louisiana has a slightly higher risk of incidence and mortality for CRC than whites, but in general, men of all races are much more likely than females to suffer from CRC. It is a common myth that women do not get colorectal cancer - they certainly do!

² U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; June 2019. <u>www.cdc.gov/cancer/dataviz</u>

³ American Cancer Society. Cancer Facts and Figures 2020. <u>https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2020/cancer-facts-and-figures-2020.pdf</u>

⁴ U.S. Cancer Statistics Working Group.

⁵ Karlitz, J; Blanton, C; Andrews, P; Chen, V; Wu, X; Fontham, E. Colorectal Cancer Incidence Rates in the Louisiana Acadian Parishes Demonstrated to be Among the Highest in the United States, Clinical and Translational Gastroenterology: Oct 2014 – Vol 5 - Issue 10 - p e60 doi: 10.1038/ctg.2014.10. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4218930/</u>



Table 1. CRC Incidence and Mortality Rate per 100K in Louisiana 2013-2017

Data Source: Louisiana Tumor Registry Cancer Visualization Dashboard

Health systems tend to fall short in screening their low-income population, as reflected by Louisiana's screening rate of 37.6% among its Federally Qualified Health Centers (FQHCs) in 2020. This is a drop from 43.3% in 2019, mostly attributable to COVID-19. **The national FQHC** screening rate was only 40.1% in 2020, further emphasizing the need for improvement in CRC screening not just in Louisiana, but across the country.⁶





Data Source: HRSA 2020 National Health Center Data

Table 2 shows a significant screening gap across most of the nation in contrast to the national benchmarks of Healthy People 2030 (Target: 74.4%) and the National Colorectal Cancer Roundtable (Target: 80%).

⁶ Health Resources and Services Administration. 2020 Health Center Program Awardee Data. <u>https://bphc.hrsa.gov/uds/datacenter.aspx?q=d</u>

GETTING TO SCREENING

The National Colorectal Cancer Roundtable (NCCRT) has found that the primary barriers to CRC screening are procrastination, unpleasantness, perception of cost, and no family history or symptoms.⁷ Patients are likely to get screened if they have gastrointestinal issues, if they know someone who was diagnosed with colorectal cancer, or if their doctor insists. Healthcare providers can encourage their patients to follow through with screening by:

- Making the recommendation (most important)
- Providing alternatives to a colonoscopy (FIT test or Cologuard®)
- Clearly explaining insurance coverage requirements and/or providing information about low-cost stool tests
- Explaining why screening is important

SCREENING GUIDELINES

The United States Preventative Services Task Force (USPSTF) now recommends screening for average risk patients starting at age 45. The average age at time of diagnosis for men is 68, and for women is 72.⁸ Even though recent studies show a downward trend in the death rate for CRC, especially among adults ages 55 and older, the death rate has started to <u>increase</u> slightly among adults younger than age 55. This emerging trend has prompted the American Cancer Society (ACS) to lower its recommended screening age from 50 to 45 as of 2018.⁹ The USPSTF followed suit in 2021. **Not only is screening now recommended in patients starting at age 45**, **but symptoms in younger patients should not be minimized or ignored.**

Population	Recommendation	Grade
Age 45-49	Screen for colorectal cancer in adults aged 45 to 49 years.	В
Age 50-75	Screen for colorectal cancer in adults aged 50 to 75 years.	Α
Age 76-85	Selectively offer screening for colorectal cancer in adults aged 76 to 85 years. Evidence indicates that the net benefit of screening all persons in this age group is small. In determining whether this service is appropriate in individual	С

Table 3. CRC Screening Guidelines for Average Risk Patients: USPSTF (2021)

⁷ National Colorectal Cancer Roundtable. 2019 Colorectal Cancer Screening Messaging Guidebook: Recommended Messages to Reach the Unscreened. <u>https://nccrt.org/resource/2019messagingguidebook/</u>

⁸ Cancer.Net. CRC: Risk Factors and Prevention; Oct 2019. <u>https://www.cancer.net/cancer-types/colorectal-cancer/risk-factors-and-prevention</u>

⁹ American Cancer Society. <u>Cancer Facts and Figures 2020.</u>

cases, patients and clinicians should consider the patient's overall health,	
prior screening history, and preferences.	

RECOGNIZING HIGH RISK PATIENTS

Patients that have a personal or family history of adenomatous polyps or colorectal cancer, should follow the recommendations of their health care provider and/or gastroenterologist. Hereditary syndromes and inflammatory bowel diseases such as ulcerative colitis and Crohn's also puts patients at a higher risk for developing CRC. Be aware that colonoscopy is the only recommended screening for most high risk patients, and that screening recommendations are very different for each of these high-risk patient groups.

COLONOSCOPY VS STOOL BASED TESTS

The most common types of colorectal cancer screenings in the U.S. are either colonoscopy or stool-based. Table 4 outlines the recommended screening intervals for average risk patients.

	Benefits	Performance & Complexity*	Limitations	Interval
Visual Exam				
Colonoscopy	 Examines entire colon Can biopsy and remove polyps Can diagnose other diseases Required for abnormal results from all other tests 	<i>Performance:</i> Highest <i>Complexity</i> : Highest	 Full bowel cleansing (prep) required Can be expensive Sedation usually needed, will need a ride home Patient may miss a day of work Small risk of bowel tears or infections 	10 Years
Stool Tests				
Fecal immuno- chemical test (FIT)	 No bowel cleansing or sedation needed Performed at home Low cost No risk Can detect blood in stool 	Performance: Intermediate for cancer Complexity: Low	 Will miss most polyps Colonoscopy necessary if positive 	Annual
FIT-DNA test (Cologuard ®)	 No bowel cleansing or sedation needed Can be performed at home 	Performance: Intermediate for cancer	 Will miss most polyps Colonoscopy necessary if positive 	3 years

Table 4. Screening Intervals for the Most Common Types of CRC Screening (for Average Risk Patients)

No risk Can detect blood in stool	Complexity:	Higher cost than FIT test	
along with DNA mutation	Low		

*Complexity involves patient preparation, inconvenience, facilities and equipment needed, and patient discomfort.

LIMITATIONS WITH COLONOSCOPIES

Colonoscopies are highly effective screening tests, but do have some potential issues and barriers. Some examples of barriers to colonoscopies are fear of the test itself, having to take time off from work or care-taking responsibilities, and managing bowel prep; all real and significant factors to consider. Health systems must also keep in mind the concern about cost for uninsured patients and also the small risk of perforation during the procedure. Also, there are often a limited number of gastroenterologists providing care to the Medicaid/Medicare population due to low reimbursement rates and high number of no shows.

Other obstacles are the multiple appointments often required with a specialist (the initial assessment and then a separate appointment for the procedure). One effective and patient-centered solution is to set up "direct endoscopy referrals" with gastroenterologists, where the primary care clinic does most of the work assessing a patient for the procedure. The patient then only needs to show up to the specialist for the colonoscopy, making the screening process more efficient.¹⁰ This significant structural change requires collaboration between primary care and specialist care, however, which can be challenging.

STOOL BASED TESTING: AN EFFECTIVE ALTERNATIVE

Rather than relying mainly on colonoscopies for CRC screening, providing a take home stooltest option is proven to increase overall screening rates.¹¹ **FIT testing can help to alleviate some of the barriers around colonoscopies and "save" colonoscopy referrals for high-risk patients and for the patients with a positive FIT result** (see Figure 3). Health systems take different tactics to implement stool-based testing depending on their patient population, provider preference, and other factors.

• <u>FIT-First</u>: One popular approach at many FQHCs is a "FIT first" approach, where all eligible patients are automatically given a FIT test. Providers may override this policy and refer to colonoscopy at their discretion. This tactic can be particularly effective in clinics that have a high rate of patient refusal of colonoscopies.

¹⁰ American Cancer Society and the National Colorectal Cancer Roundtable. <u>Steps for Increasing Colorectal Cancer Screening</u> <u>Rates: A Manual for Community Health Centers;</u> 2014.

¹¹ Inadomi JM, Vijan S, Janz NK, et al. <u>Adherence to colorectal cancer screening: a randomized clinical trial of competing</u> <u>strategies</u>. *Arch Intern Med*. 2012;172(7):575-582. doi:10.1001/archinternmed.2012.332. Available from:

- <u>Patient Choice</u>: Allowing patients to choose their preference between colonoscopy and a stool-based test.
- <u>Backup</u>: Some individual providers are successful with relying mostly on colonoscopies, but use stool-based testing as a backup in case of patient refusal.



Figure 3. Using FIT Testing To Make Best Use of Scarce Resources

Source: Gloria Coronado, PhD, via the American Cancer Society

LIMITATIONS WITH STOOL BASED TESTING

While stool-based tests are an excellent option for CRC screening, there are some limitations. **Patients should be informed that positive results must be followed up with a colonoscopy.** This follow up may be difficult to accomplish; in most settings, follow-up is not documented in 1 out of 3 positive stool tests. Also, the follow up colonoscopy may be treated as diagnostic at a potential cost to the patient.

Some providers may be tempted to use a FIT test in combination with a Digital Rectal Exam (DRE) which is highly ineffective and not evidencebased. Compared to colonoscopy, stool testing done correctly performs almost as well in detecting colorectal cancer, but not as well at detecting advanced adenomas (polyps). For this reason it is important to remember that stool tests are only appropriate for *average risk* patients. There is no strong evidence of value in repeating a positive stool test.¹² Patients often ask: "Do I really have to do this stool test every year?"

Answer: Yes! We want to catch cancer early. FIT tests can detect cancer, but they are not as good as a colonoscopy at detecting polyps that could turn into cancer. That's why we need to check every year.

Table 5. Sensitivity and specificity of invasive compared to non-Invasive CRC tests.

		Sensitivity		
		CRC	Advanced Adenoma	Specificity
Invasive Test	Colonoscopy	95%	95%	90%
	FIT	70%	22%	95%
Non-Invasive Tests	FIT-DNA	92%	42%	87%

Data Source: Colonoscopy and FIT from Zauber, et al., AHRQ (2009); FIT-DNA from Imperiale, et al., NEJM (2014).

FIT TEST TIPS AND TRICKS

FIT testing often requires some provider education and workflow changes to be most effective when discussing the screening with patients. According to Renay Caldwell and Tracie Lewis from the <u>Center for Colon Cancer Research at the University of South Carolina</u>, these tips for disseminating stool tests have proven effective:

- Use simple pictures to show patients why they need CRC screening.
- Show patients enthusiasm: "Congratulations on your screening! Let me show you how to do this test."

¹² Robertson D, Lee J, Boland C, et al. <u>Recommendations on FIT testing to screen for colorectal neoplasia: a consensus</u> <u>statement by the US Multi Society Task Force on CRC</u>; *Gastrointestinal Endoscopy*, Vol. 85, No.1: 2017.

- Do not be too matter of fact. Say something like "I know this is crazy," then show them how simple it is to complete a FIT test.
- Show patient the how-to video (from manufacturer) or keep a "show-and-tell" FIT test handy.
- Tell the patient: "Put it on the back of your toilet seat when you get home. It's extremely important!"
- Reassure the patient that they will not be directly touching stool. If possible, provide them with disposable gloves to minimize the "ick" factor even further.

POOP ON DEMAND

Some clinics have had some success with implementing "poop on demand," where the patient is given a FIT test to complete in the clinic's restroom.

THE MODEL FOR IMPROVEMENT

The IOM's report, Crossing the Quality Chasm: A New Health System for the 21st Century, noted a large gap between what we know to be good health care and the health care that people actually receive. How do we attempt to begin to narrow the chasm for CRC? While there is no "right answer" to finding the solution, without some type of systematic approach, improvement work can become chaotic, ineffective, and unlikely to produce the outcomes desired. The Model for Improvement is one effective approach, originating from the work of William Edwards Deming, also known as the founder of continuous QI. The MFI is a change process framework based on three fundamental questions:

- What are we trying to accomplish?
- How will we know that a change is an improvement?



• What changes can we make that will result in improvement?

Any efforts for improvement should result in answers to these three questions. While there can be barriers to implementing the MFI and PDSA cycles in improvement work, it is a "habit" that is very helpful for practices to develop. ¹³ In addition to the MFI and PDSA cycles, there are a wide variety of QI tools that are helpful in guiding discussion, brainstorming, and making decisions. Some of these are covered in subsequent pages and include workflow mapping and fishbone diagramming. Common roadblocks to significant change are:

- Analysis paralysis. Thinking that continued study and debate will find the perfect solution is an easy trap and one that can continue endlessly.
- Getting stuck in the planning phase instead of moving forward with small tests of change.
- Fear of change because of unanticipated side effects.

Change can be developed in different ways; you can work to improve an existing system, or create an entirely new system.¹⁴ Regardless of the chosen approach, once you are able to answer the three questions of MFI and a change idea is agreed upon, it is then time to test, implement, and then spread the improvement.

TESTING CHANGE

Keep in mind the wise adage "if it isn't broken, don't fix it," as change can sometimes make matters worse. Initial testing on a small scale can minimize risks and grant time for observation of unintended consequences. The willingness to test and learn will ultimately help in the quest in finding a better solution. There are exceptions, but for the most part the pursuit of improvement should rely on small scale cycles of learning, not on an edict to get it right on a large scale the first time.

IMPLEMENTING CHANGE

Once a change is tested and proven, it needs to be fully integrated into the practice workflow. Resistance may be found here, and a balance must be struck between dictating the change and delaying progress until full consensus is reached. Additional learning may be required here, in

¹³ Health Resources and Services Administration. Quality Improvement. HRSA Quality Toolkit. April 2011. <u>https://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/qualityimprovement.pdf</u>

¹⁴ Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. <u>The Improvement Guide: A Practical Approach to</u> <u>Enhancing Organizational Performance</u>, 2nd Ed. San Francisco, CA: Jossey-Bass Publishers; 2009.

examining whether the objections are reasonable and/or whether the change needs to be adjusted for implementation.

SPREADING CHANGE

Often health systems will implement change in one area of the organization and later spread it to the entire system. This should be a smoother process, as the change concept has already been tested and implemented in other areas. Some minor adjustments may be needed.



FIRST STEP: DATA COLLECTION AND ASSESSMENT

Effective improvement work is data and information driven. Initial assessment of current procedures of the practice and its performance on key measures is used to:

- Compare the practice's performance to that of others (benchmarking)
- Build a case and create buy-in for improvement work
- Set goals
- Prioritize improvement efforts and activities
- Assess validity of the data to be tracked and improved
- Establish a starting point in which to measure progress

BASELINE DATA COLLECTION

Baseline data collection and validation is necessary before beginning any quality improvement work. If a screening rate problem exists, it is important to correct it before the improvement initiative begins. **Quality data is a key factor for success and is mandatory for staff buy-in**. Without the data, the improvement work becomes guesswork, and you cannot achieve clinical success by guessing.

Table 6. Example Baseline Screening Rate Collection Questions

Date Assessment Collected:	Chart review or E.H.R.?
Health System Name –	Start date of 12 month measurement period:
(and site location if applicable)	
Screening Rate %:	End date of 12 month measurement period:
Denominator to calculate screening rate:	How confident are you in the accuracy of the screening rate?
Numerator to calculate screening rate:	Measure Used (HEDIS, UDS, etc.):
Total # of Clinic Patients:	Is there a screening rate problem? If yes, describe.
% of Clinic patients eligible for screening:	Screening rate target:

The baseline data collection should be followed by tracking on a monthly or quarterly basis after the improvement initiative begins. It is important to be consistent with the method of collection (chart review vs EHR, etc.), and to correct any data validity issues that occur during the improvement project as quickly as possible.

QI READINESS ASSESSMENT

To prevent significant surprises or roadblocks during quality improvement work, it is worthwhile to ask some key questions before moving forward with an improvement initiative. A quick assessment can help to avoid much frustration down the road.

Examples of QI readiness questions:

- Is there a clearly defined need for improvement work? (low screening rate, etc.)
- Are there any competing priorities or major changes on the horizon? (opening new sites/leadership changes/EHR transition, etc.)
- Will the organization be able to accurately measure and assess progress?
- Will there be sufficient time, resources, and personnel allocated to the improvement project?
- Can the organization commit to sustaining financial support for successful improvement after the formal QI project ends? ¹⁵

¹⁵ Agency for Healthcare Research and Quality. Readiness Assessment. Content last reviewed December 2015. Rockville, MD. <u>https://www.ahrq.gov/teamstepps/officebasedcare/handouts/readiness.html</u>

(See Appendix A for a complete QI readiness assessment.)

COLORECTAL CANCER SCREENING ASSESSMENT

After a health system has "passed" the QI Assessment questions, the next step is to complete a cancer screening assessment. The purpose of this assessment is to identify what the health system is already doing to address CRC screening. This activity will help to identify next steps and illuminate areas of opportunity for improvement. The assessment should evaluate policies and procedures, information technology, and evidence-based interventions (see Appendix B for an example CRC screening assessment).

GATHERING A TEAM



QI for organizational improvement is meant to be performed as a team. An organization should seek to harnesses the knowledge, skills, experience, and perspectives of different individuals to make lasting improvements.¹⁶

A CRC Quality Improvement team should be comprised of at least four people:

- 1. <u>Clinical leadership</u> (authority to test, implement, and problem solve, and understands how changes may affect the clinical care process)
- 2. <u>Technical expertise</u> (knowledge HIT and QI processes)
- 3. <u>Day to day support</u> (often the lead for the team, ensures completion of team's tasks and data collection)

¹⁶ Health Resources and Services Administration. <u>Quality Improvement. HRSA Quality Toolkit.</u>

4. <u>Project sponsor</u> (executive authority, will assist but may not participate as frequently)¹⁷

CRC CHAMPION ROLE AND RESPONSIBILITIES

Each clinic should have a designated "CRC Champion." **The main duty of the CRC Champion is to be the driving force behind the implementation of CRC change initiatives.** This person should have a personal interest in colorectal cancer or cancer screenings, be a motivated "do'er," well respected, and have the backing of leaders within the organization.

A managerial or clinical role is generally preferred, but community health staff, marketing staff, practice administrator, informatics staff, and clinical staff have all served successfully as Champions. The average time commitment for CRC Champions is about 1-2 hours per week.¹⁸

The CRC Champion's scope of work could include the following:

- Attend all meetings with the clinic "CRC team."
- Ensure that the CRC screening rate is accurate.
- Work with the CRC Team to develop a yearlong plan that may include: presentations on screening guidelines; development of a screening policy; workflow mapping; small media campaigns; establishing goals for increasing rates.
- Ensure standardization of process regarding CRC policies and procedures that staff know what to do -- and when and how to do it.
- Educate and communicate with providers and supporting staff on CRC initiatives and interventions. Advocate for change and convince others to accept the innovation.
- Empower frontline staff to address CRC screening related issues as they arise and to escalate more complex problems to management as needed.
- Create a clear, simple data display showing performance of CRC screening rate over time to exhibit in the clinic's huddle area. Refresh this display at least quarterly.
- Become familiar with the appropriate manual jointly published by ACS and NCCRT: <u>Steps</u> for Increasing CRC Screening Rates: A Manual for Community Health Centers or <u>CRC</u> Screening Best Practices: A Handbook for Hospitals and Health Systems.
- Become an expert on up-to-date CRC data reporting instructions (i.e. UDS Manual).

¹⁷ Agency for Healthcare Research and Quality. Module 14. Creating Quality Improvement Teams and QI Plans. Rockville, MD. May 2013. <u>https://www.ahrq.gov/ncepcr/tools/pf-handbook/mod14.html</u>

¹⁸ Centers for Disease Control and Prevention. US Dept. of Health and Human Services. Increasing Colorectal Cancer Screening: An Action Guide for Working with Health Systems. Atlanta. 2013. <u>https://www.cdc.gov/cancer/crccp/pdf/ColorectalActionGuide.pdf</u>

WHAT WORKS TO IMPROVE CRC SCREENING RATES

An efficient method to develop improvement ideas is to borrow shamelessly from what has worked for others! <u>The Community Guide</u> is a collection of evidence-based findings of the Community Preventative Services Task Force (CPSTF), which is appointed by the Centers for Disease Control. This guide, as visualized in Table 7, uses a science-based approach to determining efficacy and cost effectiveness of evidence-based interventions (EBIs) for cancer screening.

EVIDENCE-BASED INTERVENTIONS FOR COLORECTAL CANCER SCREENING				
Patient-Oriented Interventions	Recommended (Strong Evidence)	Insufficient Evidence		
Patient Reminders				
Small Media				
One-on-One Education				
Reducing Structural Barriers	1			

Table 7. Evidence Based Interventions for Colorectal Cancer Screening

Mass Media		\bigwedge
Group Education		
Patient Incentives		$\overline{\Lambda}$
Reducing Patient Out-of-Pocket Costs		$\overline{\mathbf{\Lambda}}$
Provider-Oriented Interventions		
Provider Reminders	1	
Provider Assessment and Feedback		
Provider Incentives		
Multicomponent Interventions		
Multicomponent Interventions		

Source: The Community Guide. What Works for Cancer Screening. September 2017.

PROVIDER ORIENTED INTERVENTIONS

The National Colorectal Cancer Roundtable states that provider recommendation is the most powerful influence for patients to take action. Two evidence-based provider oriented interventions are provider reminders, and provider feedback and assessment. Except for huddles (a form of provider reminder), these interventions tend to be fairly straight forward and are a good place to start.

PROVIDER REMINDERS AND RECALL

The provider is responsible for many chronic care conditions, acute concerns, and preventative measures, and it is impossible for one person to remember everything. By using systems to alert providers that patients are due for screening, a practice can increase their screening rate by more than 7%.¹⁹ Challenges to implementation are often access to records (data sharing / HIE) and manpower. Provider reminders can be either manual or electronic.

Manual

- Flagging of medical charts or the outside of an exam room door using stickers or notations to highlight patients due for a cancer screening (don't be afraid to have fun and be silly)
- Huddles (See Appendix C for huddling "tips and tricks")

Electronic



• Some E.H.R. systems can send screening alerts to providers based on criteria selected

Be sure to gain provider and staff buy-in by including them in the planning and implementation process, and to provide any necessary training. Monitor and adjust as needed.

PROVIDER ASSESSMENT AND FEEDBACK

Research shows that giving feedback to providers can increase screenings by 13% for many cancers.²⁰ This EBI encourages health systems to take a close look at provider practices related to referring patients for screening, and facilitation of constructive suggestions to help increase screening rates. Be mindful that evaluation of how providers recommend and refer patients for screening can be a sensitive topic. It can help to enlist someone appropriate to take ownership of the process. Also, find out from your providers what resources or training they may need. Provider reminders, guideline refreshers, updates on new testing procedures, pocket guides, and key messages could all be helpful. Key components:

- Summarize screening rate results for the clinic as a whole and for individual providers, Data should be presented in a simple graphic or report
- Compare provider performance to national standards and overall clinic screening rates
- Use findings to initiate regularly scheduled discussions about screening rate barriers and improvement ideas with providers

¹⁹ Centers for Disease Control and Prevention, US Dept. of Health and Human Services. Screen Out Cancer: Evidence Based Interventions. Atlanta; Last reviewed September 2019. <u>https://www.cdc.gov/screenoutcancer/interventions/</u>

²⁰ Centers for Disease Control and Prevention, <u>Screen Out Cancer: Evidence Based Interventions.</u>

Provider Feedback and Assessment "Real World" Example: New Horizon Family Health Services (South Carolina)

Public Display of Data without Shame

- o Intranet available to anyone in the organization, at any time
- Display board in common area to create healthy competition

Private Feedback with Discussion

- Quality Measures tied to provider incentive
- Quarterly discussion of results with CMO
- Open discussion about barriers to meet the quality measure goal
- Address one-on-one with training or share with the Continuous Quality Improvement Team for process review

<u>Celebrate the Wins – No Matter How Small!</u>



Source: New Horizon Family Health Services. Engaging Providers in QI. Louisiana Cancer Prevention and Control QI Webinar Series. 2019, March 8. <u>https://vimeo.com/322334228/e1dcd5299b</u>

PATIENT ORIENTED INTERVENTIONS

The Community Guide recommends Patient (or Client) Oriented Interventions for CRC in the form of patient reminders, one-on-one education, small media, and reducing structural barriers. Other patient oriented interventions have mixed results for colorectal cancer screening: patient incentives, group education, mass media, and reducing out of pocket costs. These are not recommended due to insufficient evidence of effectiveness or sustainability.

PATIENT REMINDERS (OR CLIENT REMINDERS)

Health systems can boost cancer screenings just by reminding patients that it is time to schedule a screening. Studies show that patient reminders can increase colorectal cancer screenings by 10%. To set up a written and/or telephone outreach system for patients who are due for a cancer screening, health systems should consider their options and choose the ones best suited for their patients:



- Written reminders in the form of letters, postcards, email, patient portal messages
- Telephone messages in the form of direct calls, text messages, and automated phone calls

Before implementing, be sure to seek buy-in from staff through their input. It is important to identify staff who will generate and send patient reminders, develop appropriate messaging, and train on proper procedure. Decide how patient responses will be documented and how to handle undeliverable reminders. Establish a plan for regular evaluation and tweaking of the system. ²¹

SMALL MEDIA

Select small media, either something the patients can take home with them or view at the clinic, can be highly effective. These can be basic educational materials, information on how to access a screening location, or a reminder card for an overdue screening. Targeted messaging is important for success, and NCCRT's <u>CRC Screening Messaging Guidebook</u> is an excellent resource. **Take the time to tailor the messaging to the specific patient population(s), their language needs, and educational level.**

Some examples of small media (see Appendix D for images):

- Bus route to screening location
- Screening site maps (map of hospital, etc.)
- Educational materials
- Patient-centered flyers
- Push cards / postcards
- Posters

²¹ Centers for Disease Control and Prevention, <u>Screen Out Cancer: Evidence Based Interventions</u>.

ONE ON ONE EDUCATION

This intervention delivers important information to patients about the importance of cancer screening and ways to overcome barriers, with the intent to motivate them to seek recommended screening. The Community Guide recommends one-on-one education specifically for informing patients about stool-based testing. This information may be supported by "show and tell" (showing a patient a FIT test and explaining how to use it) or supporting materials such as small media (brochures). The messages can be delivered by any healthcare provider or lay health worker, and are delivered by a variety of means.

REDUCING STRUCTURAL BARRIERS

Many barriers can make it difficult for people to follow through with CRC screening. They include distance from screening location, limited hours of operation, lack of daycare for children, and language and cultural factors.²² These types of interventions seek to increase screening by removing or reducing structural barriers. Examples:

- Reducing distance or time
- Modifying hours of service
- Offering services in alternative or non-clinical settings
- Eliminating or simplifying administrative procedures
- Providing language translation services
- Eliminate or reduce obstacles (e.g. dependent care, transportation, language)

MULTICOMPONENT INTERVENTIONS



Multicomponent interventions combine two or more intervention approaches reviewed by the Community Preventive Services Task Force, or two or more interventions to reduce structural barriers.

SUPPORTING STRATEGIES

PATIENT NAVIGATION

Patient navigation is highly effective in supporting multiple EBIs and is an excellent example of a multicomponent intervention. **Patient Navigators are staff who work with patients to overcome barriers and guide them through the medical system.** Their support can help patients get the cancer screenings and follow-up care they need by:

²² Centers for Disease Control and Prevention, <u>Screen Out Cancer: Evidence Based Interventions.</u>

- Scheduling health screenings of new or established patients
- Ensuring understanding of and compliance with test instructions and preparation
- Helping patients understand why they should get screened
- Discussing with patient fear of finding out that they have cancer or fear of procedure
- Helping to address mistrust of the healthcare system
- Assuring that the screening or visit will take place through appointment reminders and other activities to support the patient through the process
- Communicating next steps with healthcare center team ²³

INFORMATION TECHNOLOGY

<u>Azara DRVS</u>, an EHR overlay dashboard, is highly useful for tracking cancer screening rates, creating huddle reports (provider reminders), developing screening registries, and much more. One notable feature is a way to flag a patient who is at high risk for CRC and needing more frequent screenings. Optional modules can be used to track FIT returns and also referrals, two factors that directly affect screening rates. If DRVS is implemented in your clinic, make sure it is being utilized to the fullest to help you meet your CRC screening goals.

CRC SCREENING POLICIES AND PROCEDURES

It is important to have CRC screening policies and procedures specifically documented, and reviewed on an agreed-upon schedule. This is not only to serve as a reference point for current staff, but to assist in training new staff. The document should describe the policy, the purpose of the policy, and supporting procedures in detail. Procedures should be as exhaustive as possible to mitigate any potential confusion and answer any questions that may arise from the policy.

When creating policies and procedures for CRC screening, be sure to:

- Describe staff responsible
- Describe eligible patients (average risk vs. high risk)
- Include contraindications
- How to discuss the screening with a patient

²³ Louisiana Primary Care Association. Keeping patients from falling through the cracks: patient-focused interventions. Louisiana Cancer Prevention and Control Programs QI Webinar Series. May 14 2019. <u>https://vimeo.com/336906562/295dafad55</u>

- What to do if patient refuses
- Explain in detail all necessary documentation in the EMR
- Explain in detail any other necessary documentation (i.e. tracking system)

(See an example CRC Policy and Procedures document in Appendix E.)

MOTIVATIONAL INTERVIEWING

Motivational interviewing (MI) is a conversational approach that addresses <u>uncertainty</u> to change. Healthcare providers find this evidence-based approach useful for addressing substance abuse or smoking cessation with their patients, but it can be useful for addressing uncertainty around cancer screening as well. Core MI skills are the ability to ask open ended questions, affirm, listen reflectively, and summarize. First, the provider must request permission to discuss an issue further with a patient. If the answer is yes, MI is designed to do the following:

- Assess readiness, confidence, and motivation to get screened
- Explore their ambivalence about the change
- Elicit "change talk" and enhance motivation
- Discover what other support the patient may need
- Strengthen their commitment to change²⁴

Motivational Interviewers must ultimately learn to express empathy, explore ambivalence, roll with resistance, and support self-efficacy. MI is <u>not:</u> a way of manipulating people into doing what you want them to do, an easily learned gimmick to tuck away in one's toolbox, a form of cognitive-behavior therapy, or a panacea to all clinical problems. **This brief introduction to Motivational Interviewing is by no means comprehensive, and only serves to whet interest in and shed some light on the subject.**

GETTING STARTED WITH QUALITY IMPROVEMENT

AIM STATEMENT

To use the Model for Improvement, first you will need to help your practice identify their "aims" or goals for improvement. The AIM Statement is not just a statement of a goal, but helps to answer the questions of what, why, who, when, and how.

²⁴ Wahab, S., Menon, U., & Szalacha, L. (2008). <u>Motivational interviewing and colorectal cancer screening: a peek</u> <u>from the inside out.</u> *Patient education and counseling*, 72(2), 210–217. https://doi.org/10.1016/j.pec.2008.03.023



• What is the goal we are trying to accomplish? (Use the words improve, reduce, increase, etc. and include a target number or rate)

- **Why** is it important to do this right now? Answer the "so what" question.
- Who is this for? Is there a specific target population?
- **By when**? Is there a specific timeframe for this improvement project?
- **How** will this be implemented and achieved? Think about how you will achieve your goal and the resources you have to work with.

Example AIM Statement

We aim to increase CRC screening at ABC Health Center by 10 percentage points (from 35% to 45%). We will accomplish this by May 2021. It is important to work on this now because 1) CRC causes the second highest number of cancer deaths in the nation 2) CRC is an HCCN and UDS quality measure, and 3) our current screening rate is below both the state and national average in comparison to other FQHCs. We will target eligible patients ages 45-75, based on USPSTF guidelines. We will achieve this goal by reviewing our current policies and procedures and identifying areas to improve.

Tips to keep in mind while creating AIM statements:

Avoid the temptation of jumping to conclusions about what changes you need to make. It is important to take the time to understand what's really happening in your system/ processes before identifying potential changes.

Be prepared to refocus the aim or to add sub-goals. If the team's overall aim is at a system level, team members may find that focusing for a time on a smaller part of the system will help to achieve the desired system-level goal. Just don't confuse backing away from a stretch goal (which usually isn't a good tactic), with consciously deciding to work on a smaller part of the system (which often is a good tactic).²⁵

<u>Original AIM:</u> Increase CRC screening rate 15 percentage points within 12 months.

<u>Refocused AIM</u> (or sub-goal): *Double the number of FIT tests distributed within 3 months.*

²⁵ Institute for Healthcare Improvement. Science of Improvement: Tips for Setting Aims; Boston, MA. Accessed May 2020. http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTipsforSettingAims.aspx

(See Appendix F for an AIM Statement template.)

ROOT CAUSE ANALYSIS

A root cause analysis (RCA) is a methodical approach to understanding and identifying system flaws, and is implicit within the planning phase of the PDSA process. RCA uses various tools such as process mapping, fishbone diagrams, and many others. The RCA team should include individuals at all levels of the organization who are close to and have fundamental knowledge of the issues and processes involved. **It is highly important for an RCA to focus on systems rather than individual performance.** Edwards Deming, a leading scholar in Quality Improvement noted that "94% of the problems and opportunities for improvement belong to the system."²⁶

Dr. Fred H. Rodriguez, Jr., Professor of Pathology at LSUHSC Medical School, uses the following steps to train all of his medical students in RCA: ²⁷

1. Identify The Problem

Be sure to start with a problem instead of a solution. It is tempting to assume we know what will fix the problem before it is thoroughly examined.

2. <u>Collect Relevant Information</u>

Identify and request any additional data, documents, or records that need to be reviewed. Organize and further clarify information as needed by creating flowcharts/process maps, fishbone diagrams, etc., to create a picture of what happened and/or the current process. Identify who else should be interviewed by the RCA team.



3. Analyze The Evidence

 ²⁶ Langley GL, et al. The Improvement Guide: A Practical Approach to Enhancing Organizational Performance. 2009. p 306.
 ²⁷ Rodriguez, F H. Root Cause Analysis. HealthTeamWorks and Louisiana Cancer Prevention and Control Programs QI Webinar Series. February 19 2019. <u>https://vimeo.com/317606171/eab3f76ff9</u>

This evidence would include any interview discussions, data from primary documents, medical records, insights from the QI tools, and other methods to understand and analyze all aspects of the problem. Be sure to examine both direct causes (most apparent) and contributory factors (indirect) during this process.

4. List The Facts

Produce a list of bullet points, for example:

- CRC screening rates are significantly below national benchmarks
- New EHR
- Providers not documenting in structured fields
- Nearest hospital > 20 min from CHC
- Backlog of Colonoscopy referrals at local public hospital (wait time 6mo – 1yr)
- No registry of patients due for CRC screening
- No quick reference or EHR alert
- Patient Reluctance

5. <u>Develop Causal Statements (Conclusions/Root Causes)</u>

Creating causal statements explains how the contributory factors – which are basically a set of facts about current conditions – contribute to bad outcomes for patients and staff. A causal statement has three parts: the cause ("This happened..."), the effect ("...which led to something else happening..."), and the event ("...which caused this undesirable outcome"). Examples:

- Lack of orientation to new EHR is delaying data entry and extraction
- Documentation in structured fields lacks provider compliance
- Lack of CRC patient registry and/or reminder system adversely impacts identifying patients
- Patients are reluctant or unable to show up for appointments for a variety of reasons
- The CRC referral process for colonoscopy is inefficient

8 Steps of Root Cause Analysis

- 1. Identify the Problem
- 2. Collect Information
- 3. Analyze the Evidence
- 4. List the Facts
- 5. Develop Causal Statements
- 6. Brainstorm Solutions
- 7. List Recommendations & Make a Follow-Up Plan
- 8. Compile Results and Share Findings

6. Brainstorm Possible Solutions

Solutions often fall into one of these categories (this list is not inclusive):

- Ensuring redundancy, such as using double checks or backup systems
- Using forcing functions that physically prevent users from making common mistakes
- Changing the physical environment
- Updating or improving software
- Using cognitive aids, such as checklists, labels or mnemonic devices
- Simplifying a process
- Educating staff
- Developing new policies/procedures
- 7. Make a List of Recommendations and Include a Follow-Up Plan

Make a list of recommendations to address the problem(s). A prioritization matrix can be helpful in narrowing down the list, making sure proposed solutions are both achievable and impactful. Do not forget to also develop a follow-up plan. For example (using CRC):

- Schedule orientation to new EHR for all employees who use the EHR (including providers)
- Validate compliance of provider documentation of structured fields
- Develop and implement a CRC patient registry
- Initiate a new RCA to identify root causes of patients reluctance
- Initiate a new RCA to identify root causes of the referral process inefficiency
- Follow up: Monitor in three months after recommendations have been implemented

8. Compile Results and Share Findings

This last step is an opportunity to engage key players to help drive the next steps in improvement. Write a report including a list of documents reviewed, exhibits of "tools" used in the analysis, list of findings of fact, conclusions, root causes identified, recommendations of actions, and a follow-up plan. Specifically address what the RCA Team is trying to accomplish and how to measure that a change is an improvement. Clearly state what is to be done, by whom, and when. Share this report with leadership, staff, and any others involved in the event.

Note: If a recommended action cannot be accomplished due to current constraints (e.g. lack of resources), the team should look for other ways of changing the process to address the issue. Doing nothing should not be an option. However, decision for action on any of the recommendations is ultimately the responsibility of leadership.

PROCESS MAPPING

A process map provides a visual representation of a particular workflow, allowing an observer to "walk through" the entire process. **Current State process mapping should represent how work actually gets done, not the protocols that have been established to do the work.**²⁸ This analysis is particularly useful in the early phases of improvement work.



Some potential benefits of process mapping:

- Help to identify duplication of efforts, unnecessary work, expense, or bottlenecks
- Provides an effective way to train new and existing employees
- Helps standardize the way tasks are completed

It is critical not to rely on a single person to create the map, but to involve every individual involved in the process. Taking notes on improvement ideas and/or mapping out an "Ideal State" is recommended and should reflect the workflow the group may consider testing. Keep in mind that problems can be hidden outside of the process being mapped.

It is important to allow the process mapping activity to be "messy" in the beginning so team members are not afraid to make changes, but the final process map should be formatted into an easily readable and sharable document. The final step would be using a software program such as Visio (paid Microsoft product) or <u>LucidChart</u> (free), to record the Quality Improvement activity for further study and/or to train clinic staff.

(See Appendix G for an example of a "swim lane" process map, and Appendix H for tips on what to consider when redesigning a process.)

FISHBONE DIAGRAM

A fishbone diagram, also known as an Ishikawa diagram, is a graphical display of cause and effect that assists with brainstorming and identifying potential areas for improvement. Typical categories for the diagram generally fall under Materials, Methods, Equipment, Environment, and People, but can be modified as needed. Another benefit to this tool is it helps teams understand that there are many causes that contribute to an effect (problem), and for this reason it is especially valuable when a team is stuck or tempted to jump to a conclusion.

²⁸ Agency for Healthcare Research and Quality. Module 5. Mapping and Redesigning Workflow. Rockville, MD. May 2013. Available from: <u>https://www.ahrq.gov/ncepcr/tools/pf-handbook/mod5.html</u>





Source: Bakhai S, Ahluwalia G, Nallapeta N, et al. Faecal immunochemical testing implementation to increase colorectal cancer screening in primary care. BMJ Open Quality 2018;7:e000400. doi: 10.1136/bmjoq-2018-000400

AFFINITY DIAGRAM

An affinity diagram is another form of cause and effect study. It is similar to a fishbone diagram in that it helps to motivate and organize brainstorming, but instead of a structured approach of labeling categories in advance, the process is somewhat reversed. As a team brainstorms causes and writes them on cards or sticky-notes, the ideas are continually grouped according to related concepts. Labeling the final concepts, or categories, is a final step. This is a simple, user friendly QI tool that helps to diagnose complex problems and identify common issues.





5 WHYS

The 5 Whys tool is useful for later in the brainstorming process. It helps to define conclusions and make recommendations. Ask "why" until you find a process that isn't working well or doesn't exist. Example:

The Car Won't Start

- *Why?* The battery is dead.
- *Why?* The alternator is not functioning.
- *Why?* The alternator belt has broken.
- Why? The alternator belt was well beyond its useful service life and not replaced.
- *Why?* The vehicle was not maintained according to the recommended service schedule. (A root cause)²⁹

What might have happened if they only replaced the battery? What might have happened if they fixed the alternator belt without asking why it broke? Without fixing the system-level root cause - maintaining the car according to the recommended service schedule - the car could continue to have problems. This time it was the alternator, but next time it could be the brakes!

Keep in mind this is a simplified example. In healthcare there is rarely just one "cause" to a problem, so it is often recommended to combine this exercise with fishbone diagramming or other cause and effect tool.

PRIORITIZATION MATRIX

A prioritization matrix is a tool to help prioritize change ideas. It is important for the team to have a conversation about what interventions could give some "quick wins" within the QI project timeframe, what ideas need to be "killed," and what needs to be held in the "maybe later" parking lot.

Figure 6. Prioritization Matrix



²⁹ Adapted from: Spear, S. J. *The high-velocity edge how market leaders leverage operational excellence to beat the competition*. New York: McGraw-Hill. 2010.

DRIVER DIAGRAM

A driver diagram is a visual display of a team's theory of what "drives," or contributes to, the achievement of a project aim. This diagram shows the relationship between the aim of the project, the primary drivers that contribute directly to achieving the aim, the secondary drivers, and change ideas to test for each secondary driver.³⁰ This is an excellent tool to use after brainstorming; use it to help formulate a vision and organize change ideas (from root causes).





Source: Keith Winfrey, MD, of NOELA Community Health Center

³⁰ Institute for Healthcare Improvement. QI Essentials Toolkit. Boston, MA; 2017. Available here: <u>http://www.ihi.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx</u>

TESTING CHANGE WITH PDSA

Brainstorming and discussing improvement ideas is often seen as the "easy" first step. However, almost anyone who has been involved in a QI project would agree that making the actual change can be difficult. It is important that the team has support of leadership throughout the entire QI process, as change often creates resistance. Start small if at all possible, or in steps, to minimize opposition and lessen the chance of negative consequences if a change is unsuccessful. Then make adjustments as necessary. These small tests of change are often called "PDSA cycles."

Figure 8. Linked PDSAs for Tests of Change.



Source: Health Quality Ontario

Plan-Do-Study-Act cycles are a cyclical method for continuous improvement of process with the intended output of learning and informed action. A PDSA cycle is intended to test a hypothesis, not necessarily promise that a user will achieve their desired outcome. They are to be used as part of a comprehensive suite of QI tools and methods; successful application of PDSA may enable users to achieve their QI goals more efficiently or to reach QI goals they would otherwise not have achieved. Be warned: PDSA cycles can sometimes identify new problems to tackle!³¹

³¹ Reed JE, Card AJ. The problem with Plan-Do-Study-Act cycles. *BMJ Quality & Safety* 2016;**25**:147-152. <u>https://qualitysafety.bmj.com/content/25/3/147</u>

Plan

It is important to plan your PDSA project wisely. First, define the problem and conduct a Root Cause Analysis. This means reviewing best practices, collecting and examining data, conducting interviews, and completing a cause and effect analysis. Once your team has prioritized a process to test, further plan the PDSA cycle by describing:

- What is the SMART goal? (SMART: specific, measurable, attainable, relevant, and timely)
- What is the intervention? Who, what, when, where, and how? Explain the process.
- How will you measure the success of this test?
- What is your prediction? Explore why it will work and why it might not work.

Get your plan in writing as detailed as possible. If feasible, start small and then expand if successful, rather than starting big and having to retract. If this is a pilot for a much larger system-wide change, explain the plan for spreading the change if the pilot PDSA is successful and how the effectiveness of spreading the change will be studied. It is extremely important to consult key stakeholders in the planning phase.

Do

Test the change, collect data, and take notes of any observations.

Study

The study phase is a time to compile results. A run chart can be useful to visualize data (see Figure 9). Did the results match your predictions? What did you learn? You may have identified some remaining gaps in process or performance. Document all of your findings and decide if any adjustments are needed to improve data collection.

Act

Based on the results of the study, you then make a decision to:

- <u>Continue</u> testing (change was good, but needs improvement; further testing is needed to increase staff buy-in; testing is needed under different conditions)
- Implement change and work on plan to spread or maintain
- <u>Scrap</u> change and "go back to the drawing board"

Figure 9. Control Chart Example.



Image source: Health Catalyst

To conclude, PDSA cycles should be legitimate (clearly linked to identified root causes), prioritized (potential for high payoff), and SMART (specific, measurable, achievable, realistic, and timed). Run charts or control charts can be used to track results. If the change is successful, these can be used to prove the value of implementing the process into standard workflow or spreading the improvement. ³²

³² This section was largely adapted from: HealthTeamWorks, Louisiana Cancer Prevention and Control Programs. Plan Do Study Act Cycle. QI Webinar Series. April 12 2019. <u>https://vimeo.com/330116299/d437421ecd</u>

SUSTAINABILITY

Sustainability may also be referred to as maintenance, or Quality Control. However, this is not the "Quality Control" of regulatory systems of inspection and accreditation, but in the daily work of leaders in guiding the provision of excellent care by frontline staff. It is the presence of structures and processes that allow the maximization or resources to successfully implement and maintain evidence-based policies and activities. Quality Improvement and Quality Control are not entirely separate entities, but integrated elements of a high performing health system.

According to the <u>Institute for Healthcare Improvement</u>, the most promising path to sustainability has six main drivers:

- <u>Standardization</u> Detailed standard procedures exist, are disseminated, and kept up to date.
- <u>Accountability</u> A process is in place to review and maintain standard work processes.
- <u>Visual management tracking</u> Key data tracking displays are available for all staff to easily view.
- <u>Problem solving (continuous QI)</u> Time and tools are available for staff to solve problems as they arise.
- <u>Escalation</u> Staff are encouraged to bring issues forward and management is empowered to resolve them (or further escalate).
- <u>Integration</u> Goals, QI initiatives, and standard work are fully integrated and coordinated across the organization. ³³

It is ultimately the responsibility of senior leadership to make sure the necessary drivers for sustainability are effectively in place. This maintenance can be difficult; when a QI team takes its focus off a particular measure best practice procedures can easily backslide. Having a strong sustainability framework in place can help prevent this lapse and maintain QI goals over the long term. (See Appendix I for information on practical application of the sustainability drivers.)

³³ Scoville R. Six essential practices for sustainable improvement. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2017. <u>http://www.ihi.org/communities/blogs/six-essential-practices-for-sustainable-improvement</u>

CONCLUSION

We know that the improvement of colorectal cancer screening rates is important to the health and welfare of the residents of Louisiana, and that higher quality preventative care is integral to narrowing the overall healthcare quality gap. By applying the Model for Improvement, Evidence-Based Interventions, and other Quality Improvement tools, health systems can get closer to reaching their goals in providing safer, more effective, patient-centered, timely, efficient, and equitable care for all. Use this CRC Screening Quality Improvement Manual, with the included case studies (Appendix J) and project checklist (Appendix K) to help you get started. We are confident these will give you enough practical approaches and change ideas to help you reach your colorectal cancer screening goals for your health system.



APPENDIX A. QI READINESS ASSESSMENT

Health System: _____

inallie of reison completing Assessmen	Name o	of Person	Completing	Assessment
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неа	th System:	
Nam	e of Person Completing Assessment:	
Title	:	
Ema	il:	
Date	of Assessment:	
Targ	et Cancer for Quality Improvement (choose one):	
	Colorectal Cancer Screening	
	Breast Cancer Screening	
	Cervical Cancer Screening	
DEFI	NED NEED	
1	Have you clearly defined the need that is driving your organization to improve your cancer screening rates?	□ YES □
2	Is implementing evidence-based cancer screening interventions an appropriate strategy to address your	
	organization's need?	
REA	DINESS FOR CHANGE	
3	Is now the right time for implementing a cancer screening rate improvement project (e.g., it will not compete with other major changes/priorities)?	□ YES
	If your organization is experiencing several changes, it may not be an ideal time to begin.	
	Plan to change EHR?	NO
	Opening new sites?	
	□ Big staffing changes?	
	Ownership changes?	
	Financial issues?	
4	Will your organization's leaders (CEO, CMO, CNO, CFO, CIO) support cancer screening changes and the effort required to implement and sustain the quality improvement initiative?	□ YES
	It is essential that the leaders within your organization actively support and champion the project, and be willing to participate in ongoing communication with the practice facilitator.	□ NO
5	Is there consensus throughout your organization that this quality improvement initiative aligns with your organizational goals?	□ YES
	It is important that clinicians and other staff support the initiative and understand its value, and enjoy working in a collaborative working environment. Team members are willing to meet regularly as a quality improvement team, and members follow through with this plan.	□ NO
L		

тім	TIME, RESOURCES, PERSONNEL					
6	 Will your organization provide sufficient staff with the necessary time and resources to support active project participation? ✓ A clinic champion who will be the practice facilitator's point person, and lead efforts within your organization. ✓ A staff person who has access to quality data on services and rates who can provide data to project staff and QI practice facilitator. ✓ QI staff with protected time for to engage in this quality improvement work. 	U YES NO				
7	 Will your organization be able to measure and assess progress and continuously improve processes? ✓ Team members will gather and report data on practice performance on key metrics. ✓ AZARA or other data solution in place to make rates and related data easy to report. ✓ Staff who knows how to use HIT, and are committed to regularly checking and sharing with QI team. ✓ Data validation process in place. 	U YES NO				
SUSTAINMENT OF CHANGE						
8	Will your organization be able to reinforce and reward positive teamwork behaviors and improvements in processes? Positive teamwork behaviors and improvements in processes and outcomes need to be reinforced and rewarded to become accepted practice. They need to be integrated into job descriptions, workflows, new	U YES				
	employee training, and professional education. Leaders, champions, instructors and coaches should be willing to provide ongoing feedback to others within the organization. Successes need to be formally recognized and publicized throughout the organization.					
9	Will your organization commit to sustaining financial support for successful improvements your work with LCP ends?	□ YES				
	When funding permits, LCP provides clinic's with mini-grants for one-time expenses to support participants' QI work. However, clinics must not rely on these funds for long term funding.	□ NO				

Sources

Agency for Healthcare Research and Quality. Module 12. Assessing Practice Readiness for Change. Rockville, MD; May 2013. Available here: https://www.ahrq.gov/ncepcr/tools/pf-handbook/mod12.html

Agency for Healthcare Research and Quality. Readiness Assessment. Rockville, MD; December 2015. Available here: https://www.ahrq.gov/teamstepps/officebasedcare/handouts/readiness.html

Quality Works. Readiness Assessment Checklist. Accessed 10/23/19. Available here: http://web.mhanet.com/SQI/Immersion/Readiness/Readiness_Assessment_0517.pdf

APPENDIX B. CRC SCREENING ASSESSMENT EXAMPLE

Colorectal Cancer Screening Assessment

Health System

Organization name

Contact person including e-mail, phone number, and other contact information

Number of providers

Number of patients

Describe the health system. Is it a hospital, an FQHC, or private practice?

Information Technology

Is your health system collecting and tracking CRC rates? And if applicable, for each site? Per provider?

How often is it reviewed?

What data is used? (CQM, HEDIS, etc.)

Policies and Procedures

What screening guidelines are in place for CRC? ACS / USPSTF / Other ____

Is there written policy and procedure guidance for CRC? Yes or No

Evidence Based Interventions – Patient Reminders

Is there a patient reminder system? Yes or No

If yes, is it used to promote CRC screening? Yes or No

What types of patient reminders systems are in use? (phone calls, post cards, text messages, etc.)

Evidence Based Interventions – Provider Reminders

Is there a provider reminder system? Yes or No

If yes, does the health system use it to promote CRC screening? Yes or No

What types of provider reminder systems are in use? (huddles, flags on charts, EMR prompts, etc.)

Does the EMR support the provider by prompts or pop up boxes? Yes or No

Evidence Based Interventions – Provider Assessment and Feedback

Is there regular assessment of provider performance of CRC screening rates? Yes or No

Is there regularly scheduled time to elicit feedback from providers on what they think could be implemented to improve screening rates and/or what they might need as resources?

Evidence Based Interventions - Small Media

Are there posters and brochures in the exam and waiting rooms? Yes or No

Could the small media use improvement? (lower literacy level, Spanish language option, etc.)

Provider Education

Does the health system have health provider education about CRC screening? Yes or No

Would the health system like a CME on CRC screening for their health providers? Yes or No

APPENDIX C. HUDDLE REPORTING "TIPS AND TRICKS"

The goal of huddles is for everyone to feel calm: It is better to plan ahead and anticipate problems as a team rather than dealing with them in the midst of seeing patients. In the beginning, huddles will require daily discipline, a champion, and a structured agenda. It is best if that champion is a physician, office manager, or both. Once the huddles gain momentum, usually within 2 days to 2 weeks, the benefits are self-evident and the huddle will run itself.

What is needed for a successful huddle?

- Keep it brief. A good huddle can be done in as little as 10 minutes.
- All team members present (typical teams include the provider, MA, and Nurse) and added benefit to have other members: team receptionist, pharmacist, nutrition, covering PA/NP, behavioral health.
- **Everyone is on time!** If your first appointment is at 8:30 am everyone on the patient care team must show up at 8:15 am to begin the huddle.
- A place for the team to meet with a couple of computers available for the team to use.
- Intense and purposeful focus. No interruptions! Do not be distracted by phone calls, emails, or other staff.
- **Proximity!** A team shouldn't spread out in a room sitting in chairs to huddle. Imagine how sports teams huddle. They get up close, heads together, and speak to each other with focus and energy. Try to mimic this kind of huddle.

What do you talk about? You discuss the patients that are coming in that day for their appointment and people you may need to worry about:

- 1. Patients with chronic disease: administering PHQ-9's for depression, Asthma questionnaire/Peak Flow, or removal of shoes and socks for Diabetics
- 2. Patients who are often late, problematic or have high service needs
- 3. Canceled appointments
- 4. Patients who need follow-up from the hospital or ED
- 5. Team communicates about future/standing immunization, lab, and radiology orders
- 6. Confirm which patients may need an interpreter for their visit
- 7. Population Health: those who will need FIT tests, mammography, pap smear, PSA

It is also important to do a quick check in with everyone. Know the status of each team member because everyone is critical to the success of the team: How is everyone feeling today? Is anyone leaving early? Is anyone out today? How can we support each other through the session?

Three factors that determine a "successful huddle" are that everyone contributes, the team anticipates as much as it can, and strategies are developed to handle potential problems or scenarios.

Steward, Elizabeth E., Johnson, Barbara C. <u>Huddles: Increased efficiency in mere minutes a day.</u> TransforMED; 2007. Cambridge Health Alliance. <u>Cambridge Health Alliance Model of Team-Based Care Implementation Guide and Toolkit</u>. Boston, MA. Accessed April 2020.

APPENDIX D. SMALL MEDIA EXAMPLES

Low Literacy Decision Aid Brochure for Average Risk Patients (Outside and Inside)



Are you **50 or older**? Call your doctor today!



Visit us at LouisianaCancer.org for more info



If you're **50 or older**, It's time to check for **colorectal cancer**.

People who live in Louisiana are more likely to get colorectal cancer than people in most other states. Regular colorectal cancer screenings can help find cancer early when it's easier to treat. Talk to your doctor about what colorectal cancer test is right for you.

Remember, the best test is the one you get!



Example of Hospital Map



100 Woman's Way, Baton Rouge, LA 70817 For Mammograms Only

Imaging (Non- Diagnostic)

Hospital 1st floor, next to the main entrance Outpatient hours: Monday thru Friday 7:30 AM until 5:00 PM Inpatient hours: Services provided 24 hours a day seven days a week

Advanced Imaging (Diagnostic)

Physician Office Building, Suite 110, adjacent to the lab Advanced Imaging hours: Monday thru Friday 7:00 AM until 4:30 PM

Poster Example







APPENDIX E. CRC SCREENING POLICY AND PROCEDURES EXAMPLE

Policy: Standing Order Colorectal Cancer Screening and Documentation.

Under this standing order medical assistants and RNs with proper training may order a fecal immunochemical test (FIT) to screen for colorectal cancer for clients who meet the criteria for average risk clients. For clients found to be high risk, the provider will provide additional assessment and referral for colonoscopy.

Purpose: To improve colorectal cancer screening and surveillance at [Clinic Name]

Colorectal cancer often begins as polyps, which are small growths inside the lining of the colon. While most polyps are harmless, some may turn into cancer. Colorectal cancer is the third most common cancer found in men and women in the United States. The lifetime risk for developing colorectal cancer is roughly 1 in 20.

The main purpose of colorectal cancer screening is to detect occult or hidden blood that may be present in the stool. The presence of blood may or may not be a sign of cancer. If blood is found, a colonoscopy is needed to detect the cause of bleeding. 9 out of 10 colorectal cancer deaths can be prevented through regular screening.

Research shows that a recommendation from a health care provider is the most powerful single factor in a patient's decision about whether to obtain cancer screening, specifically colorectal cancer breast cancer and cervical cancer. In fact, lack of a doctor's recommendation is actually experienced as a barrier to screening.

Therefore, let this policy demonstrate that the health care providers serving this clinic believe so strongly in colorectal cancer screening that we assure, through this standing order, each and every client between the ages of 45 and 75 are offered this screening.

Procedure:

- 1. Healthcare provider, Nurse or Medical Assistant identifies patient meeting screening eligibility for colorectal cancer:
 - a. <u>Average risk clients: Perform FIT test annually. If positive, diagnosis by colonoscopy</u>
 - i. Clients aged 45-75 with no symptoms. (No change in bowel habits, no visual blood in stool, no dark or tarry stool)
 - ii. No family history of colorectal cancer or adenomatous polyps
 - iii. No colonoscopy in the last 10 years or FIT in the last year
 - b. High risk clients: Refer to provider for closer evaluation and colonoscopy
 - Clients with family history of colorectal cancer or adenomatous polyps diagnosed at age 60 or younger: screening colonoscopy starting at age 40 or 10 years younger than the earliest diagnosis in the family. Repeat screening colonoscopy every 5 years. (Consider additional testing such as genetic testing or additional cancer screening)
 - ii. Personal history of Adenoma, CRC or Irritable Bowel Disease: Surveillance colonoscopy.
- 2. Screen for contraindications
 - a. Active hemorrhoid bleeding, wait until bleeding has stopped to perform test
 - b. Menstrual bleeding, wait until bleeding has stopped to perform test
 - c. Short life expectancy or too frail to do colonoscopy, check with clinician before screening
 - d. Symptoms suggesting colorectal cancer, refer to clinician
- 3. Record the reason(s) for non-receipt of the test [identify EMR location]
- 4. If clients refuse testing, provide education and then document.
- 5. Administer FIT hemoccult test:
 - a. Provide client with test kit and written instructions in client's preferred language
 - b. Review instructions on how to complete test with client
 - c. Explain diet or medication restrictions if necessary
 - i. FIT test: no diet or medication restrictions

ii. FOBT test: avoid for 3 days befor vitamin C supplements and pair	re the test: broccoli, turnips, red meat, horseradish, relievers, such as aspirin, ibuprofen (Advil, Motrin,					
d. Explain procedure to return completed t	est kit to clinic or laboratory in postage stamped					
envelope provided for this purpose.						
e. Close the loop: have client tell back the i	nformation, correct misinformation					
6. Document that kit was given to client and date give in client EMR.						
7. Document that kit was given to client in tracking	system					
a. If FIT test is not returned within 2 weeks	activate the reminder system:					
i. Client should be contacted with	reminder letter at 2 weeks post visit					
ii. Client should be contacted with	reminder letter at 4 weeks post visit					
iii. Client should be contacted with	reminder phone call at 6 weeks post visit					
[Suggested intervals: adapt as n	eeded]					
8. Clinic staff will document all colorectal cancer scr	eening (CRCS) tests in the electronic medical record					
(EMR) as a procedure code appropriate to the tes	(EMR) as a procedure code appropriate to the testing method used. [May choose to list the codes					
here. If multiple testing methods exist (FOBT, FIT)	then more than one code may be required.]					
9. Upon return of test kit, document results in EMR	[Identify location in the EMR]					
10. Enter CRCS due date into EMR as a deferred orde	r when completed CRCS is documented.					
[Clinic may choose to add billing procedure here]						
Medical Director						
Printed Name	Signature					
Effective Date:						
Data Davisward						
Date Revised:						

Source: Great Plains Quality Innovation Network, the Medicare Quality Improvement Organization for Kansas, Nebraska, North Dakota and South Dakota, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy.

APPENDIX F. AIM STATEMENT TEMPLATE

HEALTH SYSTEM NAME: _____

We aim to: (What are we trying to accomplish? Use words like improve, reduce, and increase to identify the overall goal. Make it specific, measurable, achievable, and relevant.)

because: (Why is it important? Answer the "so what" question and describe the rational and reasons to work on this improvement project.)

for: (Who is your specific target population/customer?)

by when: (specific time frame, ie, month/year in which you intend to complete the improvement

We will achieve this by: (How will you carry out the work and reach your overall aim? Think of the resources at your disposal.)

Example: I aim to reduce the amount of time it takes my family to get up and out of the house during the week by 50 percent. We will accomplish this by May 2010. This is important because my husband and I want to get to work on time. I will achieve this by reviewing our current morning routine and identifying areas to eliminate or improve.

Source: University of North Carolina Gillings School of Global Public Health. QI AIM Template.

APPENDIX G. PROCESS MAPPING EXAMPLE

New Patient Process at MD Anderson Head and Neck Center



Source: Kaplan, R. and Porter M. The big idea: how to solve the cost crisis in healthcare. Harvard Business Review; September 2011. Available from: https://hbr.org/2011/09/how-to-solve-the-cost-crisis-in-health-care

APPENDIX H. PROCESS MAPPING REDESIGN REFLECTION QUESTIONS

- Is there a problem with current performance? Do you need better results?
- Have you been skipping any critical steps?
- Are all steps necessary? Are there areas of unnecessary duplication or redundancy?
- How often do you have to do each step?
- Are there areas that rely on an individual to "remember" to do something? Any process that relies on memory is prone to error.
- What happens if the process breaks down? Do you need a fail-safe mechanism?
- Can some steps be done simultaneously?
- Is there a more logical way to sequence the steps?
- What skills are necessary to perform each step?
 - If more skills are required, can current staff be trained or do duties need to be shifted to more qualified staff?
 - Could someone with fewer skills perform this step? Would they need training or support?
 - Could someone be hired to perform this step?
 - Could this step be outsourced?
- Is there any technology that would make this process more efficient or easier to do?
- Are you thinking outside the box? Is there an entirely different way to get this done?
- Who do you know that handles this task very well (an exemplar)? Can you study their workflow?

Source: Agency for Healthcare Research and Quality. Module 5. Mapping and Redesigning Workflow. Rockville, MD. May 2013. Available from: https://www.ahrq.gov/ncepcr/tools/pf-handbook/mod5.html

APPENDIX I. DRIVERS FOR SUSTAINABILITY					
DRIVERS FOR SUSTAINABILITY					
1.	Standardization	Specific, detailed, documented standard procedures exist, are disseminated, and are kept up-to-date.			
		 Minimizes confusion and duplication, and ensures that staff know what to do - and when and how to do it. These processes, and any changes in process, are communicated appropriately. <i>i.e. policy; training & education; process or work-flow mapping</i> 			
2.	Accountability	A process is in place to review implementation of standard work, and maintaining staff attention to standard work processes.			
		 Understanding what staff training needs may exist, or identifying processes that do not work well. Managers use this information as the basis for analysis and improvement of the work unit. 			
		• <i>i.e.</i> "champions"; appropriate supervision/support; huddles			
З.	Visual Management Tracking	The use of clear, simple data displays accessible to all staff that show performance on key quality measures over time, and track problems the team is currently addressing.			
		 i.e. data dashboard/Azara DRVS; poster displays in huddle areas; provider assessment and feedback 			
4.	Problem Solving (Continuous QI)	Methods and tools are available for developing frontline improvement skills so staff can address issues as they arise.			
		 Time is consistently allotted for raising and triaging quality problems, and solving simple ones. Complex problems that require a formal QI project are escalated appropriately. <i>i.e. flow charts; run charts; root cause analysis; cause-and-effect diagrams; testing change with PDSA, etc.</i> 			
5.	Escalation	Escalation is not seen as a dirty word and becomes part of the standard work for frontline staff and managers alike.			
		 Employees are encouraged to be specific when presenting issues and to suggest a potential solution. Managers are empowered to address, or further escalate, the issues that require system adjustments beyond the control of frontline staff. Many QI projects do not yield sustainable improvement because the changes needed in support systems such as labs, purchasing, HR, or IT are never implemented. 			
6.	Integration	Goals, standard work, and QI project aims are integrated across organizational levels and coordinated among units and departments.			
		 A formal system is in place for coordinating strategic intent with frontline quality goals, prioritizing, initiating, and managing improvement initiatives. Improvement projects are integrated into daily work. Technology is appropriately integrated to improve team functioning, foster collaboration, and improve patient care. 			

Source: Scoville, Richard. Six essential practices for sustainable improvement. Institute for Healthcare Improvement; October 2017. http://www.ihi.org/communities/blogs/six-essential-practices-for-sustainable-improvement

APPENDIX J. CASE STUDIES



Raising Colorectal Rates

Access Health Louisiana spans the largest geographical area for Federally Qualified Health Centers (FQHCs) in the state. In 2017, the Kenner site implemented evidence-based Interventions and success there led to those interventions quickly spreading system-wide by 2018. Improvements included:

- · Implementing a system-wide Electronic Health Record (EHR) software overlay, Azara DRVS, to aid care transformation, drive quality improvement, reduce costs, simplify mandated reporting, and identify patients who need screening.
- · Providing basic colorectal cancer (CRC) education and screening methods (CRC 101).

Lives Saved

(2017-2018)

- · Completing monthly provider assessment and feedback.
- Using Azara's Pre-Visit Planning Report (huddles) to identify patients who need screening (provider reminders).
- · Creating standardized order sets for CRC screens (Electronic Medical Record modifications).









Process Mapping: A Picture Is Worth A Thousand Words

Access Health Louisiana led their staff in process mapping in order to identify areas that needed improvement. A process map is a planning and management tool that visually describes the flow of work.

Some improvement initiatives spearheaded by process mapping include:

- Stocking FIT tests in every exam
- Opening the FIT test and reviewing with the patient how to use it.
- Training new medical assistants on FIT testing.

American





For more information, contact LCP's Randi Kaufman at 504-568-5888



How One Small Clinic Beat National CRC Screening Rates

New Orleans East Louisiana Community Health Center



Tripling Screening Rates in New Orleans

In four years, the New Orleans East Louisiana Community Health Center (NOELA) raised their colorectal cancer (CRC) screening rates from 22% to 82%. This is no small feat for a FQHC provider that treats 3,800 patients annually, 42% who are 45 years or older. With a grant from the Centers of Disease Control (CDC), NOELA was able to take a system-wide approach that overcame barriers that contributed to low CRC screening rates, such as patients being afraid of driving over the I-10 interstate bridge for colonoscopy appointments.



*Percentage of Faderally Qualified Health Center patients ages 50-75 years up-to-date with CRC screening, 2018 Uniform Data System National Report.

Working with partners, NOELA:

- Initiated FluFIT, where patients who qualify for a CRC screening are sent home with a FIT test at the time of their annual flu shot.
- Helped patient navigators to achieve a 95% FIT return rate (78% returned within 2 weeks.)
- Optimized their health information technology (HIT) by creating registries and taking advantage of Azara DRVS, an electronic health records overlay software.
- Increased provider assessment and feedback from quarterly to monthly.





3

Tackling A Screening Problem

Dr. Keith Winfrey saw each clinic visit from his patients as an opportunity to talk about colorectal cancer. In 2012, only 3% of patients were being screened for CRC. This led Dr. Winfrey and NOELA to bring a patient navigator on board to provide care coordination focused on screenings. His team offered FIT tests to keep costs down and stressed the importance of returning the test as soon as possible.

"The most important lesson was taking this system-wide approach." - Dr. Keith Winfrey

For more information on how NOLEA achieved this success, email Randi Kaufman at rkauf1@lsuhsc.edu









A Smarter Approach to Screening

In just four years, Outpatient Medical Center (OMC), which has locations across Louisiana, raised their colorectal cancer (CRC) screening rates to 53% in 2018, from 3% in 2014. They accomplished this by:

- Incorporating a process map into their screening policy, and using it to train new staff on the CRC screening process.
- Providing "CRC 101" professional education to staff at all clinic locations, on-site and via conference line.
- Administering a FIT test for those reluctant to undergo a colonoscopy.
- Implementing a system-wide EHR overlay software, Azara DRVS, to facilitate care transformation, drive quality improvement, aid in cost reduction and simplify mandated reporting.



age of Federally Class lifed Health Center patients ages 50-75 years ap-to-date CRC screening, 2018 Uniform Data System National Rep date with





One Clinic's Experience: FIT Test Follow-Up

OMC Natchitoches raised its CRC screening rate 63% in four years. This feat was accomplished with increased distribution and an aggressive followup schedule to remind their patients to return FIT tests.

- Patients are educated with how-to videos on FIT tests and are instructed to return tests the next day
- Patient navigator makes follow-up calls if tests were not turned in.
- FIT tests were distributed through the mobile mammography bus.
- In addition, the "Poop on Demand". program was used to reduce transportation barriers for patients returning their FIT test.





For more information on how OMC achieved this success, email LCP's Randi Kaufman at rkauf1@lsuhsc.edu

APPENDIX K. COLORECTAL CANCER SCREENING QI PROJECT CHECKLIST

Colorectal Cancer Screening QI Project Checklist

BASELINE DATA AND INITIAL ASSESSMENTS

Pull Baseline Data

□ Complete QI Readiness Assessment

 \Box Complete CRC Screening Assessment

CRC TEAM

Gather an appropriate CRC Team and name a CRC Champion

□ Assign Roles and Responsibilities to Team

□ Become familiar with best practices for CRC screening

□ Set up regular meeting times and intervals for reviewing data

THE MODEL FOR IMPROVEMENT

What do we want to change and how will we measure if the change is an improvement?

□ Create an AIM Statement

What change(s) will result in an improvement?

□ Collect information about "current state" (any relevant documents, data, interviews, etc.)

 \Box Analyze the evidence and make a bulleted list of "the facts"

 $\hfill\square$ Brainstorm root-cause solutions and choose a few recommendations

 \Box Decide what change(s) to test first by prioritizing any "easy wins"

 $\hfill\square$ Compile a report and identify next steps

Testing Change

□ Decide on a timeframe and train staff as needed

□ Pilot the change, collecting relevant data and observations along the way

□ Review and act on results. Will you implement the change, improve it, or toss it out and start over?

IMPLEMENTING AND SUSTAINING CHANGE

□ Fully integrate the change into clinic workflow. Update any relevant training curriculum/policies/procedures.

IMPORTANT NOTES

Remember it is ultimately the <u>responsibility of leadership to implement change</u> and to ensure it is sustained. Frontline staff and managers may be able to spearhead some change ideas, but they often get stuck when the root cause involves involve IT, HR, purchasing, etc.

<u>Quality Improvement without data is just guesswork</u>, and you can't achieve success by guessing.