Implementation Guide for Getting Started

TAKE ♥ heart
AHRQ's Initiative To Increase Use of Cardiac Rehabilitation

AHRQ
Agency for Healthcare Research and Quality

Getting Started:
Laying the Groundwork for Implementing Automatic Referral and Effective Care Coordination

Acronym List

Term	Abbreviation
AACVPR	American Association of Cardiovascular and Pulmonary Rehabilitation
AHRQ	Agency for Healthcare Research and Quality
AR	Automatic Referral
CABG	Coronary Artery Bypass Graft
ASQ	American Society for Quality
CC	Care Coordination
CR	Cardiac Rehabilitation
CRCP	Cardiac Rehabilitation Change Package
EMR	Electronic Medical Record
IG	Implementation Guide
MI	Myocardial Infarction
PCI	Percutaneous Coronary Intervention
PPT	PowerPoint Presentation
QI	Quality Improvement

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Project Overview

What is TAKEheart?

Purpose: TAKEheart is an initiative of the Agency for Healthcare Research and Quality (AHRQ) that is designed to help hospitals and health systems implement two evidence-based strategies that have been proven to increase patient participation in cardiac rehabilitation (CR): automatic referral (AR) with effective care coordination (CC). TAKEheart provides training, guidance, and tools to assist hospitals in planning, preparing for, and undertaking the process changes needed to implement these two strategies.

Method: At its heart, TAKEheart is a quality improvement (QI) initiative focused on process redesign. QI projects like TAKEheart share these key features:

- Project success requires leadership support;
- Project success requires meaningful involvement – as a team or individually - of staff and other stakeholders who shape, interact with, participate in, or are impacted by the processes that are being redesigned;
- Involvement of a QI department or QI staff, where available.

The essential first steps for any successful QI project involve laying the essential groundwork for the process changes that will be sought. This is the focus of this Implementation Guide.

Implementation Guide (IG) Purpose and Supplementary Materials

The IG is designed provide actionable, step-by-step guidance for launching a QI initiative focused on implementing AR and enhancing CC processes to increase participation of eligible patients in CR.

Before or after you review each section of this IG, you are strongly encouraged to review the section with the same name in the companion ***Getting Started* Slide Deck**. The slides provide additional information about the WHAT and WHY of the activities described in the IG. *This information is presented in a customizable PPT format so it can be easily shared with other staff whose support or involvement you will need to succeed in automating your referral system and/or enhancing your care coordination processes.*

The third component of the TAKEheart Consolidated Curriculum for Getting Started is the associated **Resource Guide,** which contains additional tools, templates, articles, and other rich materials expanding on the topics covered in the IG.

The guidance provided in these TAKEheart training materials is meant to supplement the recommended process changes and corresponding resources presented in the **Million Hearts®/AACVPR Cardiac Rehabilitation Change Package (CRCP).** The CRCP was developed to help cardiac rehabilitation programs,

hospital QI teams, and public health professionals with whom they partner, implement strategies for improving patient participation in CR. You are strongly encouraged to explore the contents of the CRCP, especially the section devoted to **systems change**!

> **Be Advised: Process Redesign Takes Time!**
> While there is wide variation in the length of time needed to complete the activities described here, **most hospitals should expect to invest at least 1-3 months in laying the foundation for their CR QI initiative**.

Step 1: Making the Case

<u>Why</u>: You will need support from leadership to secure the time and resources necessary for implementing AR and CC and the assistance of colleagues in the redesign process.

<u>How</u>: Use the evidence to make the case to leadership and colleagues about the value of the investment and the benefits to patients.

- Create a one-page Fact Sheet that summarizes the problem, the available, evidence-based solutions, and the proven benefits of implementing them. Disseminate it to members of the team and/or the leadership. Use the sample infographic, located in the Getting Started **Resource Guide** as a model.

- Prepare tailored messages to address the specific needs, concerns, and priorities of your key stakeholders and audiences.
  - Make a table or list showing the main people or groups in the system whose cooperation is needed.
  - Consider the likely differences in the priorities and concerns of key leaders across departmental, service line and mid-management, and senior executives and across different functional areas (clinical, operational, quality and safety, IT, and financial).
  - Select information that highlights benefits that will appeal to each audience or that might reduce or avoid sources of resistance or opposition.
  - See Table 1 and Table 2, below, for samples of customized messages.

- Present your tailored messages in different ways:
  - Prepare customized, written materials;
  - Prepare elevator speeches: clear, brief messages (< 30 seconds) that present key facts and promote curiosity (<u>The goal is to create a message that flows easily as part of normal conversation</u>);
  - Try your speech out on trusted colleagues;
  - Seek opportunities to make the case; arrange to talk with colleagues whose assistance you will need.

> ***While the literature has shown the benefits of the addressing AR and CC simultaneously, time, and resource constraints may require a focus on one strategy at a time***

Examples of Tailored Messaging

Table 1: Tailored Messaging for a Clinical Manager

Clinical Manager	
CR Benefits	-Improving patient health -Reducing adverse events
Evidence of Benefits	-CR reduces morbidity and mortality and improves quality of life -CR reduces avoidable re-hospitalizations
Potential Barrier/Opposition	-Perceived patient barriers to attend CR -Knowing eligibility criteria/taking time to decide which patients to refer to CR -Remembering to refer all eligible patients
Ways to Reduce Barrier/Opposition	-Implementing AR allows patients to be automatically identified based on their characteristics, and their care management can be subsequently tracked electronically -Implementing CC allows staff to address perceived patient barriers to increase the likelihood of patient enrollment into CR

Table 2: Tailored Messaging for Finance Staff

Finance Team/Billing Manager	
CR Benefits	-Revenue optimization -Clear billing procedures
Evidence of Benefits	-CR participation, reporting of quality metrics can help fulfill quality standards-CR covered by Medicare Part B and most private insurance; CPT codes: 93798, 93797
Potential Barrier/Opposition	Cost of implementation
Ways to Reduce Barrier/Opposition	Generally, CR improves patient health and reduces adverse events, which are metrics tracked, incentivized by some value-based payers **Example:** CR reduces the likelihood of hospital readmissions, which may be subject to Medicare reimbursement reductions

Step 2: Forming a QI Team

Why form a QI team and who should be on it?

A well-functioning, multidisciplinary team is essential for:

- Maximizing the contributions of people with essential areas of expertise;
- Securing buy-in from people whose support you will need, and helping them "own" the process and commit to its success;
- Establishing relationships on which to draw for advice when obstacles occur.

Select a CR Champion

The role of the CR Champion is to engage and collaborate with hospital leadership to build buy-in and help marshal resources to set the course for AR with effective CC. In this role, the champion will need to:
- Persuade key stakeholders of the value of AR with effective CC;
- Promote a culture to support process changes for AR and effective CC;
- Manage conflicting interests and scarce resources to move the project forward.

For these reasons the CR Champion would ideally:

- Be a credible, influential, and trusted by peers;
- Be a skilled communicator;
- Understand CR programs, structure, and regulations;
- Have a strong passion for, and commitment to, improving CR.

Here is a helpful guide on how to recruit a clinical champion.

Select a QI Team Lead

The CR champion may benefit from having a separate QI team lead. For example, the champion might be a cardiologist capable of working with his/her peers while the team leader might be someone with the time and skills to focus on advancing and supporting the change process.

The ideal team lead will:
- Be an action-oriented individual;
- Have credibility among his or her peers;
- Be a skilled communicator skills; and
- Have experience with change management and improvement projects.

Who else should be on the team?

Your QI team should be composed of Individuals involved in all parts of the CR workflow process from both inpatient and outpatient settings. Crucial members are likely to include:

- IT representatives with the expertise needed to set up an automatic electronic referral for all eligible patients to CR;
- Clinicians: from cardiology, primary care, internal medicine, surgery; interventionalists; physician assistants; nurses and other allied health professionals who can advocate for AR with peers and other clinicians;
- Hospital QI staff and managers who can bring expertise in leading organizational change;
- Patients (including CR graduates) who, as end users, can bring valuable insights about the process. If the hospital has a patient-family advisory committee, consider asking them to participate;
- Other CR staff (if applicable).

> **Think about including someone who has tried to implement another change process in the hospital; this can provide a "fresh" perspective.**

Team Member Roles and Responsibilities

- Collaborate to reach consensus on project goal.
- Work together to create an action plan.
- Create a communication plan for providing status updates on action plan progress, sharing information and data about the project, celebrating successes, and generating new ideas.
- Be willing and engaged to accept and fulfill tasks.
- Join forces to create buy-in for the improvement efforts.
- Determine what is needed in terms of infrastructure, cost, and technical expertise to implement AR with effective CC.

Tips For Success

- Engagement of all key stakeholders in some capacity is essential to success – even if gathering everyone in a room for multiple meetings is not possible.
- The team can start small and grow over time. Start with a few key members, then as momentum builds, you may add others.
- When you cannot meet with everyone as a team, use other communications channels to solicit feedback (e.g., email, an intranet site, individual review of materials, and one-on-one conversations).
- Set and communicate reasonable expectations, including expectations that there will be recurring needs to adjust short-term plans and goals and to readjust priorities based on what seems most doable.

- Do not blame yourself or dwell on setbacks when they occur. Challenges and setbacks are normal and inevitable.
    - Team members might leave.
    - Sometimes needed data are not available.
    - Sometimes a seemingly minor task takes longer than expected or is not yet possible to complete.

- Stay positive and frame adjustments to the plan as a sign that the team is learning and making progress, the team will follow the lead.
- Remember: the job of the project lead is NOT to have all the solutions. Instead, it's to find solutions by working collaboratively with the team and other stakeholders!
- Remember: the only insurmountable challenge is to decide to do nothing!

Step 3: Project Aim & Action Plan

What is an Aim Statement?

- The aim statement answers the question "What are you trying to accomplish?"
- It is an explicit statement about the desired outcome of the project.
- The aim statement is the necessary first step for developing your Action Plan.

Tips for Writing an Effective Aim Statement

- Aim statements should be comprised of concrete and achievable S.M.A.R.T. goals:

  o <u>Specific:</u> describe a specific outcome or process
  o <u>Measurable:</u> define criteria for project success
  o <u>Achievable:</u> set the bar for project success
  o <u>Relevant:</u> must pertain to the aim of the project
  o <u>Timebound:</u> must have start and finish dates.

- Aim statements should include at least some S.M.A.R.T. goals that are achievable in *one month or less.*
- Aim statements should reflect the team's shared vision; they should be agreed upon by consensus – not dictated.

What is the Action Plan?

The action plan is a tool that will help you meet the goals you've specified in your aim statement.

The Action Plan:

- Lists the tasks and subtasks that need to be completed.
- Assigns a specific person to lead or complete each task. (Unassigned tasks do not get completed!)
- Specifies a target date for completion of each task.
- Is an iterative document; new tasks will be added as that the team learns more about implementing an AR system and enhancing CC.

How to Develop Your Action Plan

- Review the Action Plan Template included in the Appendix at the end of this document.
- Customize this template for your needs! You can begin by selecting tasks for your team to pursue from the drop-down menu that is built into the template. The 17 tasks included in this menu were recommended by people who successfully implemented AR and CC in their own hospitals and included in Million Hearts®/AACVPR Cardiac Rehab Change Package. You will probably need to add some new tasks that align with your specific needs.

- You may wish to develop your own Action Plan to guide your work, in which case you should start by focusing on these five high-level tasks that have been deemed especially important by experts in implementing AR and effective CC:

  o Develop EMR specifications for the AR
  o Implement the tested AR system
  o Design an effective CC system for CR with written roles or job descriptions
  o Develop training materials for the CC system
  o Implement a CC system for CR.

Step 4: Mapping Workflow Processes

What is Workflow Process Mapping and Why do it?

Workflow process mapping is a tool that can help you visualize and understand the steps involved in enrolling patients in cardiac rehabilitation (CR) and helping them to complete it. Workflow mapping:

- Creates a picture of the patient journey from referral to completion of the prescribed number of CR sessions.
- Reveals gaps and opportunities for improvement.
- Highlights areas for redesign.
- Identifies strengths and successful strategies that can be replicated.

Where Should You Focus Workflow Mapping for AR and CC?

- Referral workflow processes from inpatient and/or procedure suite to outpatient CR.
- CC workflow processes from inpatient/procedures to outpatient CR.
- Data collection processes from inpatient/procedures to outpatient CR.

Who should be involved in workflow mapping?

- Core QI team
- Referral and CC staff
- IT staff
- Billing staff
- Coding staff
- Analytics staff
- Scheduling staff
- Past patients
  - Ask them to map their journey from referral to enrollment through participation.
  - Include patients who enrolled and completed the prescribed number of CR sessions and those that did not.

Once the team comes together, representatives from each stage (e.g., referral, enrollment, and completion) should map the process as they understand it.
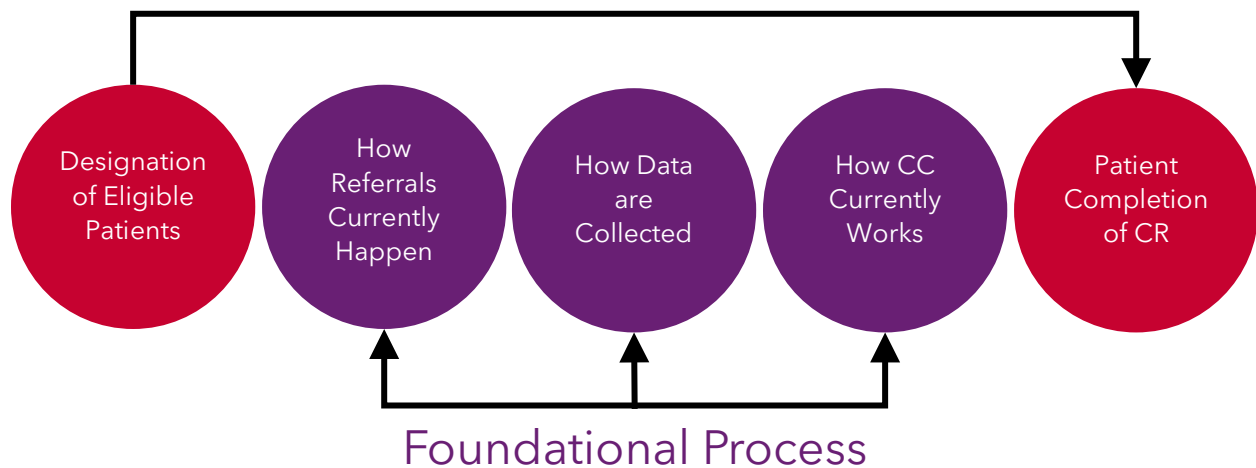
What Processes Should be Mapped?

The CR workflow begins with the designation of eligible patients and ends with completion of the prescribed number of sessions.

There are three workflow processes that create the foundation of implementing AR with effective CC:

- The process for identifying and referring eligible patients to CR.
- The data collection process.
- The process for ensuring that referred patients enroll in and complete the prescribed number of sessions (care coordination).

Figure 1: The CR Workflow Process

Designation of Eligible Patients → How Referrals Currently Happen → How Data are Collected → How CC Currently Works → Patient Completion of CR

Foundational Process

How Do You Do Workflow Process Mapping?

There are many ways to map workflow; using "sticky" notes is one. Follow the process from a starting point determined by the team; use different colored notes to document the flow chart elements:

- Major activities
- Major tasks
- Major decision points

for the current CR process. You can move the sticky notes around to refine and modify the process.

Figure 2: Title

What is a flowchart and how do you make one?

- Mapping creates a picture called a flowchart, which depicts all the major tasks, activities, and decision points in the current CR process.
- Symbols represent different parts of the process.
- A flowchart visualizes the process.
- Use the Flowchart Template from the American Society for Quality (ASQ) to create a flow diagram to visualize the process.

In addition, see the Appendix to the Getting Started Slide Deck (Slides 65-76) for a set of slides that can be used to guide your team in conducting the mapping exercise.

Tips for Workflow Process Mapping

- The mapping process is usually iterative.
- Take time to observe existing CR workflow processes before engaging in the mapping exercise.
- Map the workflow as it exists, not what it should be.
- Capture variability.
- Involve the stakeholders familiar with each step in your current process.
- Account for variability in practice and shift patterns.
- Be as detailed as possible.
- It may take multiple iterations to get the process documented.

How to Use the Workflow Process Map

Once the map is complete, take time to ensure it provides an accurate depiction of the CR workflow processes.

- Ask for feedback on the map/flowchart created from people and groups involved in the process.
- After validation, use the map as a tool to identify gaps and opportunities. Examples include:
  - Possible causes of gaps in referral
  - Opportunities to enhance care coordination
  - Ways to develop efficiencies and streamline processes
  - Processes that are working well and that should be replicated
- Work as a team to identify workflow process failures.
- Use a fishbone diagram [below] to categorize process failures that need to be addressed.
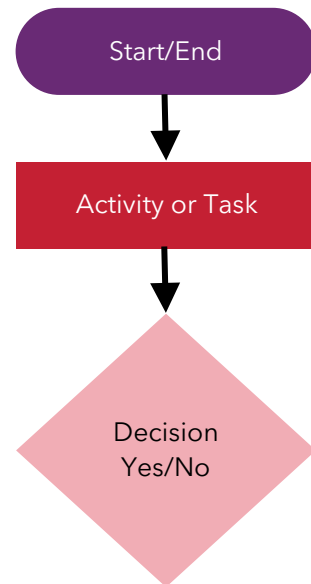
- Be sure to include your team and patients in this process to ensure a full understanding of underlying causes of process failures.
- Use this information to help the team during the redesign of processes.

Fishbone Diagram

A fishbone diagram is a visual way to look at the possible causes for a problem. In the sample fishbone diagram below, several specific failures prevent patients from being identified as eligible for CR.

- The program doesn't know which patients are eligible.
- Activities and beliefs of cardiologists are blocking referrals.
- Patients who are eligible for CR do not understand its importance.
- Program shortcomings, like not knowing who has been referred, result in patients failing to enroll in or complete the CR program.

The fishbone diagram makes clear that solving the problem of failing to refer eligible patients will require engaging with both cardiologists and patients. It also helps identify the specific topics that need to be addressed with both groups.

Maximizing referrals will require addressing all the challenges that are identified.

Figure 3: Title
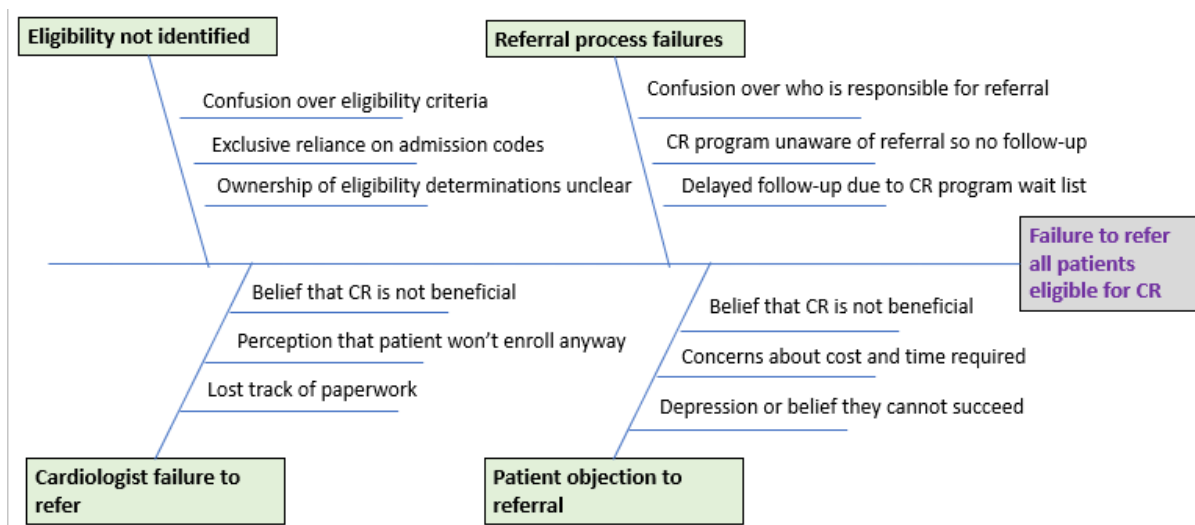
Additional Workflow Process Mapping Guidance and Resources

See the Getting Started Resource Guide for additional materials to support you in conducting the workflow mapping activity, including

- A step-by-step outline for conducting the mapping session with the team.

- A list of discussion questions to explore during the mapping session.
- A sample CR workflow process map.
- A sample fishbone diagram.

NEXT STEPS: From Workflow Mapping to Process Redesign

The workflow mapping exercise should help you identify shortcomings in your existing processes. The TAKEheart Consolidated Curricula for Implementing Automatic Referral and Enhancing Care Coordination provide actionable guidance for addressing gaps commonly identified during the workflow mapping process.

- Turn to the *TAKEheart Consolidated Curriculum for Implementing Automatic Referral* for step-by-step guidance for implementing evidence-based process improvements for automating referral processes and standardize the paths to CR for all eligible patients.
- Turn to the *TAKEheart Consolidated Curriculum for Enhancing Care Coordination* for step-by-step guidance on implementing evidence-based process improvements, including use of standardized protocols for scheduling the first session, improving transitions, facilitating seamless hand-offs, orienting patients, identifying and addressing patient-specific barriers to CR participation.

Tips for Implementing Workflow Process Improvements

- Involve the team in the redesign process, including in discussions of where to focus initial changes.
- Amend the action plan to incorporate all key tasks. Remember to include when, where, by whom and how, with timeframes. Make sure that all new tasks support your aim statement.
- Focus on developing standardized protocols and processes wherever possible.
- Iterate. Revisit processes until they are right for your hospital.
- Start with easy fixes and progress to hard ones.
- Take time to educate and support staff in the adoption of new workflow processes. Create and disseminate a new flowchart that reflects your updated workflow processes and documents describing any new policies or protocols.
- Be patient! Process improvements take time. Following the recommended steps for improving your AR and CC processes will take many months.

Step 5: Understanding Data

Successful implementation of AR and effective CC depends on your ability to access and effectively use relevant data.

In addition to the guidance in the remainder of this section, be sure to review the comprehensive **Data Assessment Tool** that is included in the Getting Started Resource Guide. This tool can help you conduct an assessment of:

- What data your organization collects, as well as their quality and completeness.
- What data-based reports you can generate to assess your progress.
- How you are currently using data to support specific, critical activities.

Terms and Definitions

- Measure: quantifies the extent, quality, value, or effect of something.
- Outcome: reflects the impact of the actions taken, for example, the number of patients graduating from your CR program.
- Process: reflects the specific action(s) taken, for example, providing each referred patient a letter explaining CR and its value.
- Patient-level data: data related to a specific patient, for example, age, sex, race/ethnicity.
- Aggregate data: data related to group of objects or persons, such as number of CR eligible patients referred in the last month.
- Dashboard: a graphical summary of performance on a set of priority measures that provides an overall picture of program performance.
- Baseline: data reflecting the "as is" state before changes made.
- Data quality: refers to the appropriateness of the data to serve their intended purpose.

Who needs to be involved?

Data-related activities require the involvement of individuals who may or may not participate in regular meetings of the CR Process Improvement Team. Depending on the task, these may include:

- People who understand what the data mean, why they matter, and where they come from.
- Cardiologists, nurses, and other clinicians, though you will need to make your asks modest and accept that clinicians may decline because they're too busy and don't want to commit.
- People who understand where data reside in the systems and how to extract and use them, including members of the IT department.
- At least one person from your CR program who tracks patient enrollment and attendance and knows how other process information is captured.

- People who need to, or who should, USE the data, including care coordinators, unit managers, persons who oversee the unit at the hospital or system level, and CR staff.

> **Sample Conversation with a Cardiologist**
>
> *We know your time is very valuable, but there will be times when we really need a cardiologist to review inclusion and exclusion criteria for CR eligibility. On those occasions, would you be willing to answer a question or review a document?*

Tips:

- It is not necessary to have a perfect team with exactly the right people to get started.
- It's better to get the process started and then fill in gaps as quickly as possible.
- If people see that the data group is really doing something tangible and includes some people they respect, they'll be more likely to agree to participate.

A common error is to leave the "data people" in charge of the data task. IT staff don't know enough to succeed on their own. So, make them a key PART of the data team, *supported by others*.

Establishing Clear Objectives

- Determining data needs for any improvement project must begin with clearly stating its objectives.
- For TAKEheart, the objectives are to:
  - Identify all patients who are eligible for CR;
  - Ensure that these patients are actually referred (via AR); and
  - Maximize the number that enroll, attend, and graduate through enhanced CC.

What data do you need?

- AR: All the data required for AR need to be contained in the EMR.
  - These include data necessary to determine eligibility, such as CPT codes and ICD-10 diagnosis and procedure codes.
  - Other essential data that is contained include patient date of birth and dates of admission and discharge.

- For effective CC, you will need data on factors that may affect enrollment, participation, and completion. For example, simple data analyses may help you see differences in enrollment or completion by sex or race/ethnicity.

More detailed discussions of the specific data requirements for automating referrals and enhancing care coordination are included in the consolidated curricula for each of those topics.

Determine What and When Data are Collected

- Use the same mapping principles outlined in Step 4.
- Map data processes to show:

  o What data are currently collected.
  o How data are stored.
  o Where data are saved.
  o What reports and program information can be generated.
  o Who has access to the data and reports.

- Investigate processes for tracking CR referrals, enrollment, and participation
- Restructure data collection workflow processes as necessary to collect:

  o Data about patient characteristics, e.g., race and ethnicity
  o Inpatient referral metrics
  o Enrollment and participation metrics

> Don't be overwhelmed by all the data that COULD be collected. Instead, pick a smaller subset of data elements to focus on first. Spending months or years getting data before using it will not lead to success.

Useful questions to guide the selection of an initial data focus include:

- What data will be most helpful in identifying an issue that you can address in in a comparatively short period of time?
- Are the data relatively easy to collect or already available?
- Is the initial focus aligned with CR program or hospital priorities?
- What is the team most passionate about?

> **Examples**
>
> **If the IT department has agreed to provide a programmer to build the AR system in the next three months, then focus on data necessary for this task.**
>
> **If AR is in place, but physicians are "opting out" most of their patients, then looking at patient data may reveal patterns in patient and/or physician characteristics that correspond to high numbers of "opt-outs."**
>
> **If you see big gaps in participation and graduation based on sex or other demographic characteristics, then data related to those issues could be your initial focus.**

Locating Available Data: What You Need to Know

- Classify data you plan to collect based on whether they are retrieved from:
  - an internal source (program, hospital, or system) or
  - an external source (e.g., a different hospital's EMR, from an unaffiliated cardiology practice, etc.).
- Be aware that location can affect data accuracy, ease of retrieval, and even whether the team can access them at all.
- Don't assume that information captured in your EMR will be easy to access. There may be valuable data in your EMR that will require additional programming to be used efficiently.
- Many CR programs capture additional information to support their patients that are not entered into the EMR. This information frequently includes:
  - Number of referrals in a given time period
  - Enrollment status
  - Attendance at initial training
  - Attendance at subsequent trainings
  - Graduation status
  - Reasons for dropping out
  - Patient information on follow-up contacts.
- Your team might may find that some valuable information isn't being consistently collected or stored. For example, you may have data on the number of CR sessions a person attended, but not on the number of missed, scheduled sessions. If it's not hard to capture information that you lack, then work with the staff to begin capturing and entering this information in a consistent way.

> **Registries can be a very useful source of data for those using them. Here is a link to a tool created by AACVPR for using registries:**
> **Using Clinical Data Registries to Access Cardiac Rehabilitation Referral Data**

Exploring Data Quality

Data quality refers to the overall ability of data to serve the intended purpose. Aspects of data quality include completeness, accuracy, and consistency. How current your data are is also important context for understanding quality. When exploring the quality of your data, focus on whether the data are good enough to support the team needs: all data have limitations and are NEVER perfect.

The following key questions and considerations can help you assess the quality of your data:

- Are the data complete?
    - Ideally, the team should have information about every person you are tracking.
    - If a few patient records are missing zip codes, that's not a big issue. If you find that 25% of more patient records don't have zip codes, then you have a data completeness issue that will need to be addressed or you could be systematically missing certain populations.
- Are the data accurate?
    - Accurate data are necessary to assess whether implementing AR and enhancing CC are positively impacting patients.
    - How data are reported (e.g., patient self-report vs. staff determined) may impact accuracy.
    - Diagnosis and procedure codes directly affect what the hospital bills for the patient's care, so this information tends to be accurate.
    - Race and ethnicity data don't typically affect either billing or clinical care so they're less likely to be complete or accurate than other data fields.
    - Data error checks can be added to the EMR to improve the accuracy of data elements like date of birth so that out-of-range (e.g., 01/28/1845) or inappropriate values (e.g., 02/30/1972) cannot be entered.
    - Verify the accuracy of new variables created by the IT department, (e.g., a variable created to identify which patients are eligible for CR).
- Are the data consistent?
    - Look for variation across departments or clinicians; different departments or clinicians may enter data into EMR fields differently.
    - One department may routinely skip certain data elements or show preference for one response (e.g., always choose the first item from a drop-down list).
- Are the data current?
    - Some data may enter the system almost instantaneously. Other information may take days, weeks, or even months to get into the system.
    - If there's very little time lag, then timeliness shouldn't be an issue. If there are regular, extended delays, the team needs to know this to avoid incorrectly using the data.

Assessing and Improving the Quality of the Data

To assess the quality of the data available to you:
- Understand how they are currently used.
    - Data that are new or that are not being used by many others in your institution should be scrutinized more closely.
- Understand where they came from.

- o Data that originate from a system with error checks built in and that flow directly into your EMR don't have as many potential sources of error as data that are captured by a care coordinator over the phone and manually transcribed and entered into a tracking spreadsheet that CR program staff use.
- Talk to people who currently collect or use the data about their experiences.
  - o Make it clear before asking questions that the goal is not to assign blame, but to improve patient care. This approach facilitates learning about data quality and how it can be improved.
  - o Ask about whether the data are ever (or often) missing, how long they normally take to be entered, and whether they're accurate once they are entered.

> ### *Example Conversation with Staff*
>
> *"How much time have you had to spend in the last month fixing mistakes in information we have about patients? What did you have to fix and why?"*

- Check for consistency and logical plausibility
  - o Get into the habit of looking for consistency and logical plausibility. These checkups are key to ensuring the quality of your data.
  - o If a measure tracked regularly changes dramatically from one month to the next, you should probably confirm that the change is real or determine if one of the reports was inaccurate and why.
- Keep track of and address quality issues.
  - o Compile a list of the data issues discovered during the discussions mentioned above.
  - o Empower team and staff members to look for data issues and call significant issues to the attention of the team or group.
  - o Share this list with stakeholders to elicit feedback on other data issues.
  - o Discuss the list with the team and IT Department to prioritize which data quality issues should be addressed first. They may be able to implement data error checks to improve data quality.
  - o Remember, bad data stems from bad processes. If a process can be improved, and a data quality issue addressed at the same time, that's a win-win.

Step 6: Monitoring Improvement

Improving the AR and CC systems depends on continual measurement and monitoring to:

- Track progress to determine whether additional refinements are needed.
- Support reporting of performance and quality metrics (more, better data can increase reliability of measures reported).
- Improve outcomes (better quality data increases ability to report complete measures and improved processes can lead to better outcomes).
- Understand if change is being sustained over time.

Measuring CR participation

Measures of CR participation can be:
- Numbers (how many patients enrolled in CR in the past 12 months).
- Averages (average number of sessions attended by patients starting CR in the past quarter).
- Rates or percentages
  - Rates or percentages are calculated based on the number of patients (or CR sessions, or staff, or whatever the measure is focused on) that are included in both the numerator and denominator for the rate.
  - The table below describes the role of the numerator and denominator in a rate more clearly.

Tips for Selecting and Using Measures

- Start with a small set of measures that are accurate, regularly updated, and aligned with the program's priorities.
- Align your measures with measures being used by respected national groups (e.g., measures in the AACVPR or ACC registries; see AACVPR Performance Measures).
- Apply the codes from the Million Hearts® Outpatient Cardiac Rehabilitation Use Surveillance Methodology.
- Consider these resources in generating your performance measures:
  - 2018 ACC/AHA Clinical Performance and Quality Measures for Cardiac Rehabilitation: A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures
  - AACVPR's Enrollment in CR Measure Specification and Data Definitions and Algorithm
- Be clear about exactly what is included in the group that's being measured for any measure that you create.
- Two common ambiguities can create problems.
  - The time period that the measure encompasses (e.g., number of referrals in the past month or quarter)

o   The things included in a group (e.g., number of eligible patients in our EMR, but not patients missing from our EMR), or percent of eligible patients without a contraindication that were referred.

Examples

If your measure was the percentage of patients graduating annually from your CR program and 100 patients started the program in the past year and 45 graduated, then your rate would be 45/100 = 45%.

If your measure was the percent of patients graduating annually from your CR program <u>who did not die or move away before they</u> <u>could graduate</u> and 10 patients were excluded for one of these reasons, then your rate would be 45/90 = 50%.

Identifying Points of Comparison

The purpose of developing and updating measures is to assess the rate of progress and determine whether additional improvements are still needed to maximize CR referrals, enrollment, and completion. For these purposes, having one or more points of comparison can be helpful.

An absolute zero or 100% level

These comparison points are most appropriate when an activity is expected to either never occur (e.g., patient safety errors) or always occur (e.g., attempting to contact each person that has been referred to your CR program).

Improvement over a defined baseline

It is good to know the level of performance for a process like referral before implementing activities designed to improve it.

When comparing baseline with later measures, be sure to account for any measurement changes that could affect the differences and make it hard to interpret them. An annotated run chart can be helpful to explain changes.

An internal or system goal or standard

Set goals with staff input to increase buy-in and commitment

An external standard

Registries allow benchmarking performance on key metrics against those of comparable CR programs. AACVPR has a registry that some programs pay to use. The algorithms for CR enrollment and CR adherence performance measures are available at [Performance Measures (aacvpr.org)](#), as are links to webinars to help certified programs learn how to generate them

Reporting to Maximize the Value of Your Measurement and Monitoring Activities

For measures to have value, people need to see them, understand them, talk about them, and use them. Toward this end, you may wish to create a monthly or quarterly report that consolidates measures you are tracking into a single, short document or set of slides. Follow up by:

- Circulating reports by email.
- Discussing reports with the team.
  - Team members can help identify errors that should be fixed before others see them
  - They can help to interpret the results
  - They can use the reports to help set or adjust priorities based on areas that are struggling.
- Referencing the reports in staff meetings.
  - Pick out two to three findings to highlight to staff
  - Make sure to highlight things that are going well, things that are going poorly and need attention, and things that you don't understand or know how to explain
  - Give staff the opportunity to ask questions or to propose solutions to problems or explanations for things you don't understand. This will help reinforce the importance of the initiative and the need for everyone to make it successful.
- Sharing reports with senior leadership.
  - This could be in an email or in periodic meetings
  - Leadership support will be needed for current and future efforts to succeed, so it's strategic to help them see the progress being made and the challenges being worked through.

Resources & Tips for Creating Reports

- Someone with a modest level of proficiency in Excel should be able to create data visualizations that can help CR staff and hospital leaders understand key patterns and trends.
- Use your first report as a template. Updating it to produce subsequent reports should take under an hour.

- Explain why you're tracking a measure and call attention to any results that are really good, really troubling, or that are leading you to make changes.
- **Sample Reports** are available in the Getting Started Resource Guide. Note: The time periods and measures that are highest priority are going to vary across systems, so your reports should be different from the examples that are provided.

Creating a Dashboard

- Some organizations use dashboards to keep leadership and staff focused on the metrics that are linked to the top priorities.
- The dashboard is a high-level view of a small number of measures that are drawn from the larger number of measures the organization is tracking.
- Dashboards are an effective strategy to convey your progress to senior leaders that oversee your program.
- Dashboards should reflect measures directly related to the program's top priorities.

Appendix: Action Plan Template

The template below is designed to assist you with the creation of your hospital's TAKEheart Action Plan. Work with your hospital team to develop tangible steps towards implementing automatic referral and enhancing care coordination.

Instructions:

- AIM STATEMENT: Write your aim statement. The aim statement answers the question "What are you trying to accomplish?" It is an explicit statement about the desired outcome of the project.

- TASK COLUMN: The Task column allows you to choose a prepopulated task or to enter a task your organization has determined it needs to undertake to successfully implement automatic referral (AR) and effective care coordination (CC). The prepopulated tasks are those that have been identified in the Million Hearts/AACVPR Cardiac Rehabilitation Change Package (CRCP) as important for successful implementation of AR and CC. **To find the prepopulated list of tasks, click on the first task, and click on the arrow that pops up on the bottom right of that task.** (Specific guidance on HOW to accomplish these tasks is covered in the *Training Curriculum for Implementing Automatic Referral* and the *Training Curriculum for Enhancing Care Coordination*.).

- TASK LEAD COLUMN: In the Task Lead column, type in the name of the person responsible for the task. The S.M.A.R.T Goal column allows for free text typing.

- STATUS COLUMN: The Status column allows you to track task progress by clicking on a prepopulated option or typing your own.

- FINISH DATE COLUMN: A calendar drop down will appear when you click on the Finish Date column. This column indicates the actual date the task was accomplished.

- COMMENT COLUMN: The Comment column provides a free text box to add notes about the task.

The template provides an initial table with two rows.

- The first row shows an example for each column.

- You can add as many rows as you need to this table by clicking on the last row of the table. A blue (+) sign will appear on the right side, click on the (+), an additional row will be added.

Table 3: Action Plan Template

TEAM MEMBERS
List here Team Members and Their Roles in Developing and Executing the Action Plan:

Aim Statement:

(Example: We aim to increase the number of patients with MI, PCI and CABG who are referred, enrolled, and participate in cardiac rehabilitation by 30%. This is important, because we want to improve patient care and outcomes and reduce hospital readmissions. We will accomplish this aim by implementing automatic referral with care coordination by March 31,2022. We intend to see a 30% increase in current participation rates by December 31, 2022.)

Task	Task Lead	S.M.A.R.T. Goal (Specific, Measurable, Achievable, Relevant, Timebound)	Status	Finish Date	Comments (challenges/facilitators)
Develop specifications for the automatic referral in the EMR system.	Luna Patel	Beginning 6/4/2021, the CR QI team will meet with IT representatives each Tuesday and Thursday at noon for a half hour to define the changes necessary for automatic referral and will complete the task by 7/28/2021.	Completed	8/13/2021	Took longer because IT staff had limited ability to attend meetings
Choose a task or enter your own.	Enter name.	Click here to enter a goal.	Choose or add one.	Click to enter a date.	Click to enter comments.
Choose a task or enter your own.	Enter name.	Click here to enter a goal.	Choose or add one.	Click to enter a date.	Click to enter comments.