



Pre-Work Package

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1. Background

Our health care system is plagued by delays to get an appointment with a physician, extended telephone waits, and repeated phone calls to obtain a test result or to have a question answered by a health care provider.

These delays adversely affect clinical outcomes, patient satisfaction, and cost. People often assume that reducing delays and increasing access will increase cost. In fact, the opposite is true - delays and restricted access are properties of poorly designed, costly systems. Using system design principles and queuing methods, organizations can develop and implement changes that reduce delays at the same or lower cost.

There is a proven process and a set of principles that will help providers and practices reduce the amount of time their patients have to wait. By predicting and managing patient demands, reduction of waits can be achieved without adding costly resources.

If we are delayed, we can never discover the right way to deliver care or determine the right team of people to deliver the right care. So prior to building the correct care team we have to eliminate the waits and delays in order to optimize system performance.

Delivering exceptional clinical care to our patients does not happen by accident but rather by purposeful intent and design. Achieving exceptional clinical care requires that we meet our expectations in terms of technical quality but also meet the expectations of those who use our service. There is a tension in health care that clinical quality competes against some of the expectations of our customers. Health care collaboratives from Alaska, England, and the United States tell us that exceptional quality in health care is obtainable. To achieve this, however, requires us to see and do our work differently.

The path to high quality health care is as different as individual practices are different, and there is no prescribed action plan to create a high quality health system. There are, though, some similarities among those who have been successful in making improvements and incorporating critical success factors into their practices. They have learned:

Patients who have a relationship with a doctor (and/or health care team) receive better clinical care than those who do not. The health care industry does not sell health. Despite our best efforts, our patients become sick and die, therefore we can not claim to sell health. The product that health care offers any consumer is a relationship with a doctor or other health care professional. To deliver quality health care, we need to create a system that supports this important relationship.

Patients who do not have to wait for services are healthier than those who are forced to wait. Exceptional clinical care cannot occur when patients must wait for service. Patients who wait for lifesaving diagnostic and intervention services deteriorate and/or die while waiting. To deliver exceptional quality in health care we must create a system that has no unnecessary waits.

High quality clinical care is a function of reliability and predictability within a physician practice. Clinical care must be delivered in a reliable and predictable manner. Delivering care consistently means less 'missed diagnoses,' less 'missed interventions,' and less 'missed opportunities.'

A team approach to care yields improved patient outcomes. The best clinical care is not delivered by a physician alone. Creating a multidisciplinary team that utilizes the strengths of its members and places the quality of care for the patient above all is inherent in a high quality health care system.

Most important, a culture of improvement creates and sustains exceptional clinical care. To create a system that delivers exceptional clinical care, a practice must use an improvement process. The improvement process helps those involved to understand current practice and obtain information to guide decisions, and provides a compass for directing the practice towards high quality health care.

Building a high quality clinical care system involves all of these and other critical success factors. This pre-work package and the AIM learning collaborative will provide a stepwise, comprehensive, and manageable process for achieving high quality, team-based clinical care.

2. AIM Overview

In an AIM collaborative, a group of clinic teams work intensively together for approximately 14 months to design, test and deploy new models of office-based practice, clinical practice and practice management that will lead to fundamentally improved performance levels including:

- Improved access
- Improved office flow and efficiency
- Increased patient, provider and staff satisfaction
- Improved clinical outcomes
- Improved financial outcomes
- Better use of multidisciplinary care teams

By working collaboratively with experts and practitioners, sharing ideas and knowledge, learning a new methodology of change, and measuring progress, clinics will build on existing practice and generate new innovations to create office practices that offer patients the best possible solutions to their healthcare needs. The *Learning Model* and *Model for Improvement*, used by the Institute for Healthcare Improvement, will serve as a framework. Methodologies for spreading organizational change across primary and specialty care systems will also be emphasized.

Learning Sessions

Learning sessions are the major integrative events of the AIM process. Through plenary sessions, small group discussions and team meetings, attendees will have the opportunity to learn about various aspects of improving office-based care. Learning sessions will involve both working and learning. During these sessions, attendees will:

- Learn from faculty and colleagues
- Gather new information on process improvement
- Receive individual coaching from faculty
- Share information and collaborate on improvement plans
- Develop action plans to improve access and office efficiency

Action Periods

Action periods are the time spans between learning sessions. During action periods, participants will work within their clinics/organizations to test and refine improvements in their provision and delivery of care.

Although participants focus on their own clinics/organizations, they remain in contact with other participants and faculty. This communication takes the form of conference calls and group email. In addition, teams share the results of their improvement efforts in monthly reports.

Action period activities are not limited to individuals who attend the learning sessions. Participation by all clinic personnel is encouraged and is a vital component of deploying change and innovation in the delivery of care.

Conference Calls

Conference calls will be scheduled monthly throughout the course of the collaborative in those months where there are no learning sessions. These calls deal with a particular aspect or aspects of access or improvement, depending on the emerging needs of the teams involved. A toll-free number will be available for teams to call in and participate. The conference calls offer a great opportunity for team members who do not attend learning sessions to participate in the improvement work.

Monthly Reports

Teams are expected to submit a monthly report providing details on the status of their aims, measures, and changes tested and implemented. Expectations for and format of these reports will be discussed at Learning Session 1. The reports are due on the first day of each month, except in months where there are learning sessions, in which case they will be presented at the learning sessions. All written reports will receive written feedback from the faculty.

Ongoing Communication

Electronic communication is the major mode of communication among faculty and participants. Group email will be used to disseminate information, ask questions of, and receive replies from faculty and other participants, and conduct ongoing discussions relating to AIM activity. All participating clinics will be given an email address for a list-serve which provides access to the group email.

As well, there is information posted on the AIM website at www.AlbertaAIM.ca.

3. Expectations

Participating Clinics/Programs

Clinics/programs will:

- Identify an improvement team (clinic manager, physician(s), other clinical staff, clinical care coordinator, medical office assistant(s) and receptionist(s)) to participate in all learning sessions. This team will be actively involved in communication and planning, and setting the expectation within the clinic as a whole that the philosophy of waits and delays is no longer tolerable. Senior leader support is necessary for success and senior leaders serve as champions for the spread of change within the practice.
- Identify a lead physician who will champion the testing and spread of changes in the practice environment, and will attend all learning sessions.
- Perform pre-work activities to prepare for the first learning session.
- Collect and enter data to measure improvements in access and office efficiency. These measurements should relate to the clinic aims, and be continued for the duration of the AIM initiative and beyond.
- Be open to making changes in activities and systems to improve access, office efficiency and clinical management.
- Use the team report format (narrative and data) to submit reports monthly or as requested.
- Test changes using rapid change cycles (PDSA tests).
- Participate in conference calls between learning sessions.
- Use the group email to communicate with faculty and other teams.
- Hold regular improvement team meetings
- Focus organizational intention to actively test and deploy new processes in office-based care by connecting AIM goals to a strategic plan for the practice.
- Provide resources to support the improvement team to attend learning sessions, and allow time to devote to testing and implementing changes in the practice.
- Share information with other clinic participants, including details of changes made and data to support these changes, both during and between learning sessions.
- Commit to transferring knowledge and providing information about AIM to the full clinic team.

AIM Faculty and Facilitators

Participating faculty and facilitators will:

- Offer coaching to participating clinics/programs.
- Provide communication strategies to keep teams connected to the faculty during the AIM period and beyond.
- Provide information on subject matter, application of the subject matter and methods for process improvement, both during and between learning sessions.
- Provide access and exposure to resources/articles by nationally recognized healthcare experts.
- Provide access to resources for assistance with spreadsheets, data collection and panel identification.
- Provide access to other resources such as support for situations where team issues are a barrier to success.

4. Pre-Work Activities

To prepare for the first learning session, teams will work to complete the following tasks:

- Create an improvement team
- Define aims
- Complete a clinic walkthrough
- Define measures and collect and enter baseline measures
- Prepare a storyboard

4.1. Creating an Improvement Team

Having an appropriate and effective improvement team is a key component of successful improvement efforts. Improvement team members should be chosen for their knowledge of and involvement in the work and processes that will be affected by the changes to be made, and for their willingness to embrace change as it relates to the work in the clinic.

The members of the improvement team will be the agents for improvements and measures and will attend all learning sessions. The team will typically have three to five members that are intimately involved in the changes and measures. It is important that the team be the optimal size to get the work done. This group should therefore include (as applicable to each clinic):

- The clinic manager
- At least one physician representative
- A nursing representative/coordinator
- At least one receptionist representative
- At least one medical office assistant representative

There may be one or more individuals on the team who fit each dimension, and one individual may fill more than one role, but each of the above areas should be represented to successfully drive the changes required.

Each improvement team should include members who are able and willing to assume the following roles:

Team Leader

(responsible for success of clinic team)

The person with enough clout in the clinic to institute change and with the authority to allocate the time and resources necessary to achieve the team's aim. Examples of an appropriate site leader include a clinic manager, or practicing physician/provider and/or clinical care coordinator

Physician Leader

It is critical that the team have at least one physician champion as a member. This champion should have a good working relationship with colleagues and with the day-to-day leader described below, and be interested in driving change in the system. The physician champion should be an opinion leader in the practice (an individual sought out for advice and who is not afraid to test change).

Clinical/Technical Experts

(responsible for understanding provider practice and processes of care)

Because the clinical office setting and its processes can be varied and complex, a variety of clinical/technical expertise is required on the team. For example, the physician has the best knowledge of what occurs in the exam room, nurses often know most about office flow, and schedulers have an intimate knowledge of the clerical office processes. For these reasons, it is important to have all these areas of expertise represented on the team.

Day-to-Day Leader

(key contact responsible for coordinating communications with faculty)

The day-to-day leader will be the driver of the AIM within a clinic/organization, assuring that tests of change are implemented and data is collected and input. This leader is frequently a nurse, nurse leader or clinic manager. It is important that this person understand not only the details of the operation of the clinic/program, but also the effects of making changes in the clinic/organization. This individual must also be able to work effectively with the physician champion. The day-to-day leader is frequently responsible for completing the monthly reports that are submitted to faculty.

Additional

Additional team members should represent all areas in the clinic/organization that can be helpful toward achieving the AIM goals.

In addition, active participation of all clinic team members is essential to the success of the program because the changes affect all providers and clinic staff who support clinical care. It will be incumbent on improvement team members to involve the entire clinic team in the changes and measures, and to ensure they are aware of and engaged in the process.

4.2. Defining Aims

The improvement model is based on three fundamental questions:

1. What are we trying to accomplish?
2. Of the changes we can make, which ones will cause an improvement?
3. How will we know that a change is an improvement?

The first question is what should be asked when establishing an aim for improvement. An aim is an explicit statement summarizing what the team hopes to achieve. Both senior leaders and front line personnel must participate in the establishment of the aims. It is essential that everyone in the clinic agrees on the aims in order to achieve optimal results.

4.2.1. Tips for Establishing Aims

State the aim clearly	Achieving agreement on the aim is critical for maintaining progress, but agreement is not easily achieved unless the aim is very clearly stated. Teams make better progress when they are very specific about their aims. Be brief; a single sentence is best.
Base your aim on data	Examine data on waiting times for appointments, waiting times at appointments and patient satisfaction. Focus on issues that matter to the clinic and your patients.
Include numerical goals and timelines	Numerical goals clarify the aim, direct the measures of improvement, and focus the change. For example, an aim like “Reduce delays in obtaining an appointment” is not as effective as “Be able to offer any patient a routine appointment for any problem within one day by September 30,2008.”
Set stretch goals	Setting stretch goals, for example, “assure superior satisfaction for > 95% patients” immediately tells people that the status quo is not an option, and the goal cannot be met by simply tweaking the existing system. Once this is clear, people begin to see how barriers to achieving the stretch goals can be overcome.

4.2.2. Setting Initial Aims

Each team will need to develop two initial aims - one for access and one for office efficiency. Groups should develop at least one aim in each of these categories before Learning Session 1, during which there will be an opportunity to refine the aims.

Sample Access Aim:

“Be able to offer any patient an appointment today for any problem, with their own primary care provider, by September 30, 2008.”

Sample Office Efficiency Aim:

“Decrease cycle time by 50 %, from 60 minutes to 30 minutes, by September 30, 2008.”

4.2.3. Clinical Aims

Once teams have established initial access and office efficiency aims, and have had an opportunity to test changes and track measures relating to these aims, the concept of clinical change is introduced. Teams will then want to identify goals for clinical change within their organizations. The following are *examples* of clinical goals set by previous participants:

- Increase proportion of adults who had their BP taken at most recent visit to 95%
- Reduce proportion of adults with high blood pressure (> 140/90) to 16%
- Increase proportion of diabetic adults who have at least 2 HbA1c tests done in past 12 months to over 90%
- Increase proportion of diabetic adults with at least 2 HbA1c readings < 7.0 in past 12 months to 90%
- Increase proportion of diabetic adults who have had a foot exam in past 12 months to 75%
- Increase proportion of adults age 65 and over who received influenza immunization during past year to 90
- Increase proportion of adults who ever received pneumococcal immunization to 90%

4.3. Conducting and Documenting a Clinic Walkthrough

Before embarking on the improvement journey, it is important to get a clear understanding of what a patient experiences during a typical visit to the clinic. This provides insights into where improvements might be needed and how processes could be changed to improve access, efficiency and clinical care. As part of the pre-work, it is recommended that a member of the improvement team arrange for someone to complete a clinic walkthrough to observe the patient experience in the clinic, as follows:

1. In advance, inform all staff about the walkthrough.

Staff might be on their best behavior, but it is far better for them to be a part of the process than to surprise them. They should be told not to provide “special treatment.” The person conducting the walkthrough should identify the scenario he/she will use during the walkthrough (e.g. to be an individual with a particular problem such as an elderly person with congestive heart failure or the parent of a child who has a fever).

2. The person doing the walkthrough should go through the experience just as the patient and family would.

This would include calling in for an appointment (try to select a day of the week and time of day when delays would be expected to be the longest), driving to the office, finding a place to park, and checking in. The person doing the walkthrough should try to act as if he/she has never been there before, for example following signs to find the clinic. Everyone should know that the walkthrough is simulating a patient experience and should follow the same processes as would happen with a real patient would during an appointment (e.g. checking in, filling out forms, waiting in the waiting room, etc.)

The same should be done in the examining room. The person doing the walkthrough should do whatever would be required of a patient for that type of appointment. Each staff member should treat the person as if he/she was a real patient.

3. The team member should try to put him/herself in the patient’s position, look around as a patient might, and try to anticipate what the patient might be thinking or how they might be feeling. Some things to observe might be:

- When they called for an appointment/referral, did they get a recording? Were they put on hold at any point during the conversation? How long did they wait to talk to someone? Did they have to call back? How long did the entire process take? How many days did they have to wait before the day of the appointment?
- When they arrived at the site, did anyone greet them? How did they know what to do?
- How long did they wait at each stage of the process (e.g., registration, waiting room, exam room, diagnostic testing, check-out, pharmacy)?

- Were there any points in the process where staff seem to be waiting for patients, for other staff, or for equipment?
 - Were there any points in the process where the waits seemed especially annoying (e.g., in the exam room waiting for the physician, or in the waiting room if it is crowded and noisy)?
 - Were there any points in the process where the waits seemed to pass more quickly (e.g., were there videos in the waiting room or educational material in the exam room)?
 - At the end of the visit, did they feel that they were well taken care of?
 - What ideas came to mind as the person doing the walkthrough passed through the clinic, particularly in relation to how the process might be streamlined or made more efficient for patients and staff?
- 4. Based on the walkthrough, compile a written summary that covers the following:**
- What was the experience as the “patient” moved through the clinic?
 - What issues were identified during the walkthrough?
 - What processes or aspects of the visit may need to be looked at and/or improved to address the identified gaps?

4.4. Defining Measures and Collecting and Entering Data

Improving access, office efficiency and clinical processes are the main focuses of AIM. In addition, measurement will play a central role in determining progress and success. The most important measures required are those that directly relate to a clinic's aims. Faculty will work with teams to create office-based measurement systems that are meaningful and practical to maintain. Measures are for usefulness, not perfection. Each clinic will be expected to continuously monitor a core set of measures around access and office efficiency. These measures are intended to accelerate improvement, not slow it down. Participants will be encouraged to use existing organizational metrics and resources (e.g. EMR) for measurement, where available and appropriate.

There is intentional repetition between this AIM Pre-Work Package and the information provided in the AIM Measurement Package. The Pre-Work Package addresses information that is specifically relevant in your preparations for the first learning session. The Measurement Package will serve as a more comprehensive reference throughout the collaborative and beyond.

All members of the improvement team will be expected to have a working knowledge of the measures even though a designated person may be in charge of entering and analyzing them. All team members who collect measures should know how and why they are doing so, to ensure the collected data is of high quality and can be used and trusted to guide decision making. When it is time to spread measures to the entire clinic, all improvement team members should be able to understand and explain all parts of data collection.

4.4.1. How to Measure

- Improvement requires change and change occurs over time. Much information about a system and how to improve it can be obtained by plotting data – delays, demand, supply, etc. – over time, and observing trends and other patterns.
- Focus on the measures that are directly related to your aims. If the aim is to reduce the length of time a patient spends in the clinic on the day of an appointment, collect data on that measure and plot the data on a run chart.
- Use sampling. Sampling is a simple, efficient way to understand how a system is performing. When large system changes are desired, the variety of conditions included in the sample rather than its size are the primary concern. Sampling is especially important if your organization does not have an electronic data collection system. To save resources, rather than obtaining data for every patient, try obtaining data for every 20th patient or for patients entering the clinic at set times during the day (such as 10 a.m., 4 p.m. and 4 p.m., for example). These data can be collected daily and summarized weekly.
- Integrate measurement into the daily routine. Useful data are often easy to obtain without relying on an electronic medical record. Develop simple data collection forms and make collecting data part of someone's job, rather than an "added on" activity.

4.4.2. What to Measure

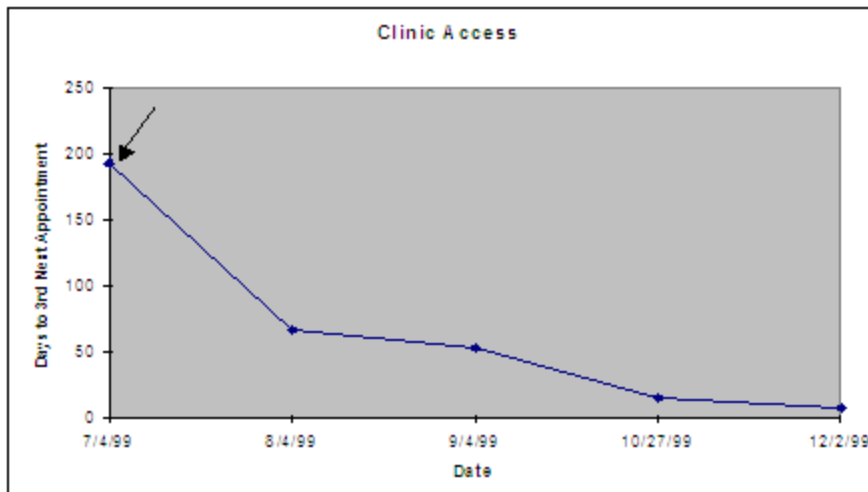
It is important to begin data collection before Learning Session 1. This will give you insight into your clinic's current performance and will serve as baseline data for your journey. At a minimum, each clinic should complete the following measures for Learning Session 1 (with special attention to the Third Next Available Appointment and Cycle Time). If there are additional measures that will help to track progress on your aims, you may also collect that information and present it at the learning session.

1. Third Next Available Appointment

Access to care is a key determinant of patient satisfaction. The recommended measure of access is the number of calendar days to the third next available appointment. The time to the third next available appointment is used (rather than the first or second) because it is a better reflection of actual appointment availability. The first or second appointment may be available due to a cancellation or some other event.

To understand current access to the clinic, select one appointment type to begin with, such as a request for a routine appointment, or a physical exam (in the case of Primary Care), or a new appointment or return appointment (in the case of Specialty Care). Use your scheduling system (whether it is computerized or manual) to count the number of calendar days from the day the data is being collected to the day when the third next appointment of that type is available for that provider.

Do this exercise the same day and time each week, and plot the number of calendar days to the third next available appointment for each provider for as many weeks as possible prior to Learning Session 1. An example plot is shown below.



2. Cycle Time

The recommended measure of patient flow is cycle time (time from check in to check out). All clinics can easily collect this information on a sample of patients three to four times a day, several days a week.

Since 10 a.m. and 3 p.m. tend to be the busiest, they are useful times to assess your cycle times. Have the receptionist record (either on the patient's chart or on a simple data collection sheet) the time each patient with an appointment between 10 and 11 a.m. and 3 and 4 p.m. actually enters the office.

At the end of the visit, the last staff person to interact with the patient (for example the billing person or the receptionist who schedules a return appointment) should record the time the patient leaves the office.

Details about calculating the percent of "value-added" time vs. "non-value added" time will be provided at the learning sessions. For now a simple measure of total cycle time is sufficient.

3. Demand

The focus of AIM is to reduce patient delays for an appointment. The wait time for an appointment reflects the gap or time lapse between when the demand for an appointment is declared and when the resource or the supply at the practice is available. Therefore, in order to understand the dynamics of the appointment system we also need to measure the demand for appointments and the supply of appointments.

Demand for appointments comes from two sources - external, for example patients calling in or walking in or being referred into the practice for an appointment, and internal, which are return appointments generated by the practice itself and booked as a patient leaves the clinic.

Demand is defined as the **number of appointments booked today for any day in the future**. It is not the number of visits made or appointments completed. Therefore, we need to measure demand prospectively. Initially, this can be a somewhat awkward measure. Daily demand, measured in this way, is calculated in the following way:

$$\text{Daily demand} = A1 + A2 + A3$$

A1 = Calls, faxes, emails that result in an appointment (external demand)

A2 = Walk-ins, squeeze-ins (external demand)

A3 = Returns/recalls generated while a patient is in the clinic as a result of requests by providers for the patient to make a follow up appointment (internal demand)

The booking of the appointment is the point at which demand is captured/noted.

When counting demand, count demand for the panel physician, (the requested provider), even if that provider is unavailable that day and the patient is seen by someone else. This is still demand for the panel physician

All teams should collect demand data. It can be collected on a form at the reception desk and wherever else appointments are made. It is suggested that demand be collected for each provider, and then totaled to get aggregate demand for the whole clinic. Both these measures should be reported by day of the week. In this way, clinics can start to see the variation by provider and by day of week.

4. Supply

Supply is the measure of provider capacity or availability. All systems rely on adequate and flexible supply. It is helpful to think of supply in three dimensions:

- Macro supply – the number of providers and how many hours they work
- Deployment of supply – the way that the macro supply is spread throughout the day, week, month and year
- Process of supply – defining the work and who should do it to optimize supply

For the purpose of measurement, supply data is entered as the number of appointment slots a particular provider is available to work for each day of a particular week.

5. Activity

Activity is a measure of the actual number of appointment slots a provider provided care in on any given day. Activity differs from supply in that a provider often ends up providing care to more patients in a day than he/she actually had appointment slots for (e.g. urgent squeeze ins) or less patients due to no-shows. Activity therefore more accurately reflects the amount of work done, not the number of appointment slots that were in the schedule. For example, a provider could have 30 appointment slots available on the scheduler for a particular day. But he/she could end up seeing three extra patients, due to walk-ins, squeeze-ins, etc., and having one patient not show, resulting in daily activity of 32 (calculated as $30 + 3 - 1 = 32$).

6. No Shows and Cancellations

No shows and cancellations can have a profound effect on access. Any appointment for which there is no patient is wasted capacity that cannot be allocated to another patient. It is therefore important to measure and manage this wasted capacity.

Count the number of no shows by day or week. These are then calculated as a percentage of the total number of appointments on the schedule for a particular day or week.

4.5. Preparing a Storyboard

Each learning session is designed to create an environment conducive to sharing and learning from each other's experiences. To begin the process of sharing, each team should construct a storyboard stating their aims, team members and initial data on office practice measures within the clinic, to be presented at the first learning session. Use a large foam core board, pushpins, tape, and/or other supplies to create your storyboard. Your audience will be other office/clinic teams, and collaborative faculty and observers who are not familiar with your clinic, your aims and your work. Therefore, the storyboard should provide as much information as possible to describe your clinic/program and the work you do.

The storyboard does not need to be fancy. It is simply a way for all clinics to share information and to learn about each of the other teams. Following are some suggested topics for your storyboard:

- Team name
- Brief description of the clinic
- Team members (introduce them)
- Team aims (access and efficiency)
- Graphs of baseline measures plotted to date
- Walkthrough summary

Storyboards will be updated over time and serve as an ongoing record of the clinic, team and progress during the course of the AIM program and beyond. The storyboard is also an excellent vehicle for communicating to the entire clinic about the improvement work being done through AIM.

4.6. Teams and Team Work

Delivering health care can only be done well in the context of a team. The interdependence of team members is critical to providing effective and efficient patient care. However, team dynamics can often lead to strained relationships and possible conflicts. The difference between “working alone together” and “working well together” is huge:

- It is the difference between retaining good employees and suffering the tremendous cost of turnover.
- It is the difference between delivering safe care and making mistakes.
- It is the difference between being an efficient productive practice and being an inefficient practice.

Over the course of the AIM period, clinics should work closely with their facilitator to access resources that will support team development in their environments.

As a first step, it is important to get a baseline measure of how team members are feeling about the team and the work they do.