

Quality Improvement: Practical Solutions for Improving Patient Care

Have you ever asked yourself:

- Am I delivering the very best care to each of my patients?
- Do I have the data I need to know when I'm successful?
- Can I improve my delivery process to generate the outcomes I seek?

Congratulations! You're on the path to quality improvement (QI), which seeks to answer these questions by focusing on the processes of health care delivery – one at a time.¹

Why should school-based health (SBH) embrace QI?

Although the health care industry was one of the last industries to embrace quality improvement, it's moving rapidly to catch up. Health care payers are demanding new payment models that reward *value*, not volume, and outcomes instead of process measures. New payment models can improve the patient experience; generate better health for the population; and reduce overall costs. QI is a critical tool to document provider value.

What does QI make possible?

QI can help you:

- make progress towards patient-centered medical home (PCMH) recognition,
- improve patient satisfaction and outcomes,
- enhance reimbursement,
- reduce costs,
- demonstrate a commitment to quality, and
- better understand the relationship between the *processes* of care and the *outcomes* you seek.

¹ Haughom J, Five Deming Principles That Help Healthcare Process Improvement. Health Catalyst Web Site. <https://www.healthcatalyst.com/5-Deming-Principles-For-Healthcare-Process-Improvement>. Updated 2016.

Step One: Establish a Quality Improvement Team

Quality improvement is a team sport. Encourage all SBH staff members to get involved in the process. Each QI team should include:

Team Leader: This person oversees data collection and assures that changes are tested. He or she should have some experience in QI and be committed to the process. This person should be able to facilitate meetings and resolve conflicts.

Clinical Providers: Clinical providers are the content experts for your measures. To avoid burnout, if possible, engage multiple providers who can share responsibilities. The providers should have a good working relationship with their colleagues and be interested in driving change with the team leader.

Data Lead: Data are critical to the success of any QI effort. If you can't measure it, you can't improve it. Much of the data will come from your electronic health record (EHR). It's also likely that some improvement changes will use features of your EHR. It's vital that this team member knows the EHR system and is able to extract data effortlessly. This person is responsible for reporting data for your team.

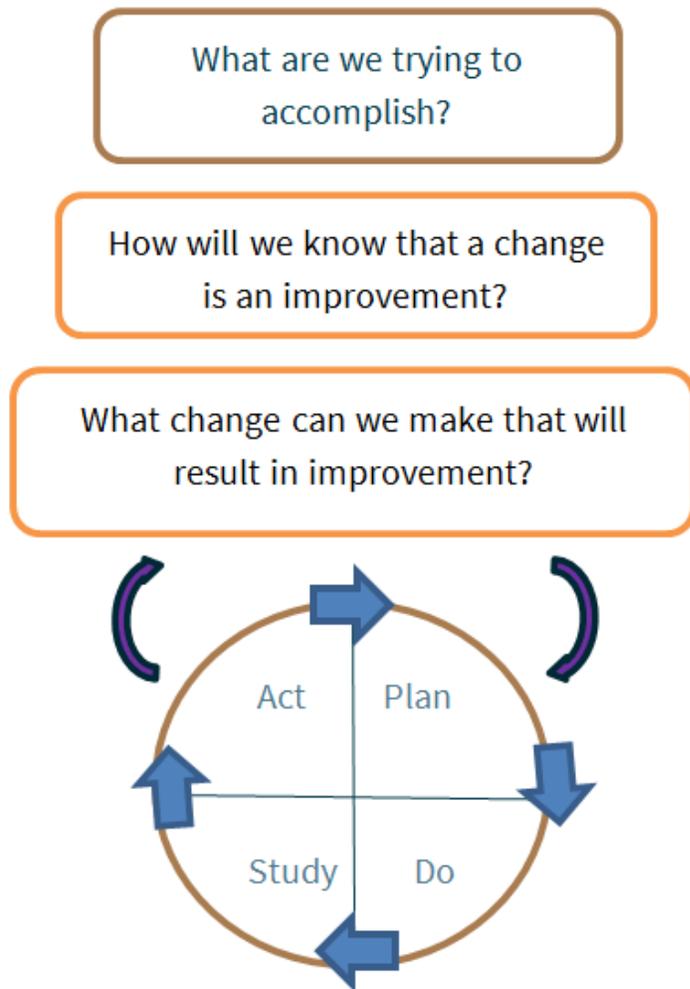
Technical Experts: Technical experts understand SBH care processes, so this is often the nurse or medical assistant. These team members should have good working relationships with their colleagues and be interested in driving change. For this position, consider individuals who aren't afraid to innovate and who are problem-solvers.

Step Two: Familiarize Yourself with the MFI Framework

The Model for Improvement (MFI) is a widely used tool to improve patient care, enhance clinic efficiency, and increase patient and provider satisfaction.²

² Langley GJ, Moen RD, Nolan KM, et al. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (Second Edition). San Francisco (CA): Jossey-Bass Publishers; 2009.

The Model for Improvement Framework²



The MFI framework asks health care practices to reflect on three strategic questions:

- “What are we trying to accomplish?” [the **AIM STATEMENT** or goal of the QI effort]
- “How will we know a change is an improvement?” [the **MEASURE** that determines whether the change led to improvement]
- “What change can we make that will result in improvement?” [the **CHANGE** that will be tested]

With an aim, measure(s), and change at the ready, the QI team engages in a series of learning cycles – known as Plan, Do, Study, Act (PDSA) cycles– to test whether a proposed **CHANGE** results in the desired **AIM**. PDSA cycles are ideally implemented on a small scale, often in rapid succession, and over a short period of time.

Check out these brief videos for more information about MFI.

Model for Improvement – Clip 1: <https://www.youtube.com/watch?v=SCYghxtioIY>

Model for Improvement – Clip 2 (Aim, Measures, Changes, and Data):

<https://www.youtube.com/watch?v=6MIUqdulNwQ>

Use the following webinar series to give your QI Team an overview of MFI and PDSA.

- [QI, Part 1:](http://www.sbh4all.org/events/quality-improvement-101-part-1/) <http://www.sbh4all.org/events/quality-improvement-101-part-1/>

- [QI, Part 2](http://www.sbh4all.org/events/quality-improvement-101-part-2-improving-team-performance-processes/): <http://www.sbh4all.org/events/quality-improvement-101-part-2-improving-team-performance-processes/>
- [QI, Part 3](http://www.sbh4all.org/events/quality-improvement-101-part-3-moving-toward-better-patient-care-via-qi-team-meetings/): <http://www.sbh4all.org/events/quality-improvement-101-part-3-moving-toward-better-patient-care-via-qi-team-meetings/>

Step Three: Implement the MFI Framework

Gather Baseline Data

It's helpful to collect baseline QI data before selecting a target for your QI activity. Baseline data measure progress and benchmark success. Two examples for collecting QI baseline data are described below.

National SBH Performance Measure Assessment

The National SBH Performance Measures provide promising strategies for improving the care delivered by school-based health professionals (see [National Performance Measures webpage](https://tools.sbh4all.org/s/clinical-performance-measures-playbook/) for more information: <https://tools.sbh4all.org/s/clinical-performance-measures-playbook/>). If selecting QI based on these measures, use the tools and resources from the Alliance's [National Quality Count Initiative](#).

Patient-Centered Medical Home Assessment

Several tools exist to help you assess the extent to which you have integrated the PCMH principles. For formal PCMH recognition, you can use the tool of the accrediting/certifying body – the National Committee for Quality Assurance, the Accreditation Association for Ambulatory Health Care, or the Joint Commission (see *The Puzzle: Piecing Together Patient Centered Medical Care and School-Based Health Centers* for more details).

Select a QI Focus Area

Review baseline data to narrow your focus area. Keep the following in mind:

- Less is better. Begin by selecting *one* focus area.
- Start with something that's an easy win.
- Select a measure that your staff want to improve. This will assure their buy-in and contribute to success.
- Pick an area that your sponsor supports.*

**Note that buy-in from your sponsor organization is essential. Depending on the scope of your QI efforts, success involves staff time, clinic and school resources, organizational capacity, decision making authority, and financial resources from both the school and the sponsoring organization.*

The table below can be used to evaluate your team's capacity and motivation to implement change around specific focus areas. This table can be completed individually or as a QI team. Consider selecting the focus area that receives the highest score.

Capacity and Motivation to Implement Change Table

FOCUS AREA	Need for Change (1-10) 1=no need 10=great need	Desire to Change (1-10) 1=no desire 10=great desire	Resources to Achieve Change (1-10) 1=many resources 10=no resources	Barriers to Change (1-10) 1=many barriers 10=no barriers
Well-Child Visit				
Depression Screen				
Risk Assessment				
BMI%/Nutrition- Physical Activity Counseling				
Chlamydia Screen				

Develop an Aim Statement

An aim statement should answer the question, “What are we trying to accomplish?” Your aim statement needs to be **SMART**:

- **S**pecific: Sets a clear goal.
- **M**easurable: Has concrete criteria for measuring progress and defines success numerically.
- **A**chievable: Can actually be accomplished.
- **R**ealistic: Includes objectives that the team is willing and able to work towards.
- **T**ime-bound: Establishes a timeframe (usually 6-12 months).

The [All About Aims](https://www.youtube.com/watch?v=Q6QJS9t9IO0&index=5&list=PLwpWmQpRN38NDtFr0HI22zqnteusAtZKC) video

(<https://www.youtube.com/watch?v=Q6QJS9t9IO0&index=5&list=PLwpWmQpRN38NDtFr0HI22zqnteusAtZKC>) summarizes how to develop an aim statement. The [Aim Statement Worksheet](#) (see Appendix A) can help you develop your aim statement.

Sample aim statements for the National Performance Measures include:

- “Increase the percentage of SBH clients aged 0-20 years (WHO) who have had a well-child visit in the last 12 months (WHAT) from 30% to 45% (HOW MUCH) by the end of the current school year (WHEN).”
- “Increase the percentage of SBH clients ≥ 12 years (WHO) who have had a depression screen using the PHQ9 modified for adolescents (WHAT) by 30% (HOW MUCH) from the last school year to the current school year (WHEN).”
- “Increase the percentage of SBH clients ≥ 12 years who have a positive depression screen (WHO) who have a documented follow-up plan (WHAT) to 95% (HOW MUCH) by the end of the current school year (WHEN).”
- “Increase the percentage of sexually active SBH clients (WHO) who have been screened for chlamydia infection (WHAT) from 50% to 75% (HOW MUCH) by the end of the current school year (WHEN).”

Determine the Measure

Determine the measure by asking, “How will we know a change is an improvement?” There may be more than one measure for an aim. For example, if using the last aim listed above, the measure could be stated as such:

- Numerator – # of unduplicated SBH female clients seen during the current school year (or during the month) identified as sexually active who had one or more tests for chlamydia documented in the past 12 months.
- Denominator – Number of unduplicated SBH female clients seen during the current school year (or during the month) identified as sexually active.
- Does it relate directly to aim? “Increase the percentage of sexually active SBH clients (WHO) who have been screened for chlamydia infection (WHAT) from 50% to 75% (HOW MUCH) by the end of the current school year (WHEN).” Yes, the numerator is the number of unduplicated SBH female clients seen during the current school year (or during the month) identified as sexually active who had one or more tests for Chlamydia documented in the past 12 months.
- Does it specify the population served? Yes, the denominator is sexually active female clients seen during the current school year.
- Are data available? Yes, they are in your EHR.
- At what frequency can it be collected? Daily, weekly, monthly? Yes, monthly.
- Is it worth measuring for at least 12 months? Yes, it’s a HEDIS, UDS, and CHIPRA measure and in PCMH recognition models.

Select Your First Change to Test

“What change can we make that will result in improvement?” Generate a list of possible changes to test. Welcome and consider all team member suggestions. The [Performance Measure Change Package](#) (see Appendix B) provides examples of successful changes that other SBH staff have implemented for each national performance measure focus area.

With the list complete, select which change to test first. The Impact Effort Matrix³ (see next page) can be used to help select a change strategy. For each change strategy, determine which level of difficulty to implement and how much impact it may have on the goal. Each strategy is placed on the Impact Effort Matrix based on the team’s decision.

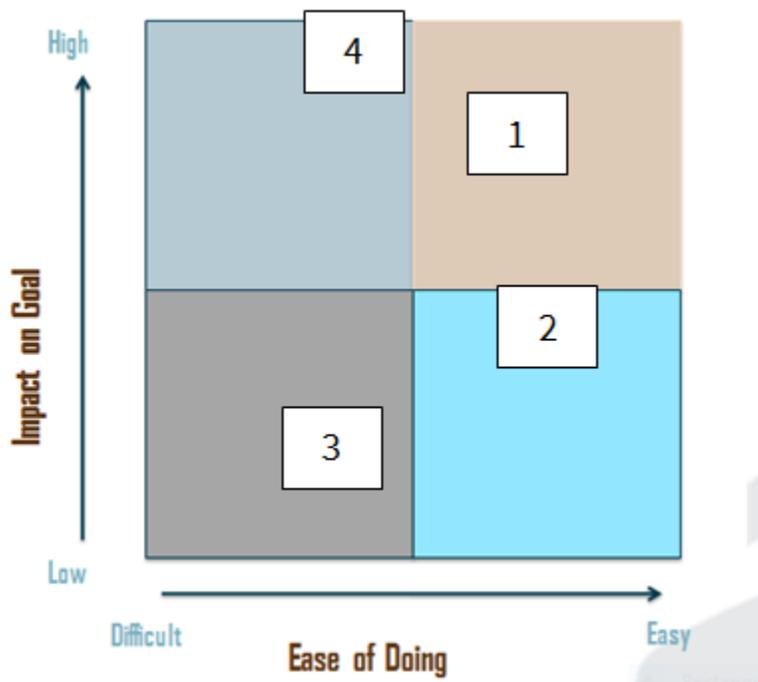
Start with change strategies that are easy to implement and will have the greatest effect on the aim. You don’t need consensus to test a change. You do need consensus, however, in deciding to adopt a change permanently as a policy.

³ Anderson B, Fagerhaug T, Beltz M. Impact Effort Matrix. ASQ Web Site. <http://asq.org/healthcare-use/why-quality/impact-effort.html>. Updated 2010. Retrieved March 23, 2016.

Example of Using Impact Effort Matrix

Goal: Increase Percentage of Clients who have Received a Well-Child Visit (WCV)	
List of Potential Strategies:	
1	Convert sport physicals to WCV by adding additional components.
2	Send reminder letters to parents to schedule a WCV.
3	Educate school staff on the importance of WCV.
4	Create a process for converting minor sick visits to WCV when time permits.

Impact Effort Matrix⁴



Test Change Using PDSA Cycle

The PDSA cycle⁴ is used to test the change on a small scale to see if it results in the improvement you expected. Multiple PDSA cycles are often needed to make successful change and reach the aim. PDSA cycles provide an opportunity to assess if there are costs involved with the change, like resources, time, and equipment, and determine if the change had unintended consequences. All of these things are important considerations when deciding whether to implement a change as policy. Each PDSA cycle should be brief in duration (1-2 weeks).

Plan:

- Determine test of your change.

⁴ Anderson B, Fagerhaug T, Beltz M. Impact Effort Matrix. ASQ Web Site. <http://asq.org/healthcare-use/why-quality/impact-effort.html>. Updated 2010. Retrieved March 23, 2016.

- List tasks to complete the test. Identify the person that is responsible for each task. Determine the timeframe for completing tasks. Tasks should not be confused with tests. Tasks are the steps required to run the test.
- Predict what will happen.
- Decide which data to collect (this is usually not the same as the measure determined in Step 3). For example, if the aim is to increase WCV, the measure is the percentage of SBH clients who had a comprehensive well-visit within the past 12 months. The first PDSA cycle might include scheduling a WVC every morning for one week. The data for this PDSA would be the number of mornings that week with a successfully scheduled well-visit.

Do:

- Carry out the plan.
- Make observations.

Study:

- Study the process and ask the following questions:
 - Did the results match the prediction?
 - How did the results of the test compare to previous performance?
 - What was learned?

Act:

- Decide whether to abandon, adapt, or adopt the change strategy.
 - **Abandon:** The change strategy is discarded.
 - **Adapt:** The change strategy will be tried again but with slight modifications. It may be tried with different staff, different patients, or under different conditions. You want to keep testing it to make it better.
 - **Adopt:** You will implement the change strategy on a larger scale and develop an implementation plan.

Repeat: To continue to test changes, the next PDSA cycle then begins with the goal of reaching the aim.

Consider using the [PDSA Worksheet](#) (see Appendix C) to document and track PDSA cycles or the [Tracking PDSAs from Testing to Implementation](#) (see Appendix D) document for tracking PDSAs over time.

Tips for Conducting PDSAs

- Test with small numbers (—patients, locations, etc.).
- Develop a hypothesis.
- Test with willing staff.
- Don't try for buy-in or consensus for every small test.
- Have consensus when adopting a change as policy.
- Be innovative—don't be afraid to try things in a new way.
- Collect *useful* data (qualitative or quantitative) during each test. If you aren't going to use results, don't waste your time doing the test.
- Test over a wide range of conditions (days of week, staffing variables, etc.)
- Avoid the rush to adopt.

- Plan multiple cycles to test a change.
- Think a couple of cycles ahead.

View these brief videos to learn more about conducting PDSA cycles: [PDSA Cycles, Part 1](https://www.youtube.com/watch?v=-_ceS9Ta820) (https://www.youtube.com/watch?v=-_ceS9Ta820) and [PDSA Cycles, Part 2](https://www.youtube.com/watch?v=eYoJxjmv_QI) (https://www.youtube.com/watch?v=eYoJxjmv_QI). Share these [talking points](#) (see Appendix E) with your team to explain PDSAs.

Step Four: Track Improvement

As PDSAs are conducted, track the measure(s) that are associated with the aim. For example, the PDSAs to improve adolescent depression screenings, should track the percentage of SBHC clients aged 12-20 years who had a depression screening in the last 12 months.

The measure for the aim is usually not the same data collected for each PDSA. PDSA data are more specific to the change strategy tested. For example, perhaps depression screens are not being done because the provider runs out of time during an annual well visit. Your team wants to test whether having the medical assistant administer the depression screen before every well visit increases screenings. In this case, the data for the PDSA would be the percentage of youth seen for well adolescent visit during that week who were also administered the Patient Health Questionnaire (PHQ-9) by the medical assistant.

If possible, track the measure(s) monthly during the aim's six to 12 month timeframe. Determine the following before tracking the measure:

- frequency of data collection,
- source(s) of data,
- who will collect data,
- when data collection will begin,
- what day/date data will be collected,
- where data will be entered, and
- any additional tools or training needed to collect the data.

Common Tracking Tools

Use [run charts](http://www.ihl.org/resources/Pages/Tools/RunChart.aspx) (http://www.ihl.org/resources/Pages/Tools/RunChart.aspx) to determine if the change in the measure you are tracking is statistically significant or attributed to regular variation over time. Use the [process map](#) (see Appendix F) to chart current clinic workflow and determine where there are potential roadblocks. Use the [Cause and Effect Diagram](http://www.ihl.org/resources/Pages/Tools/CauseandEffectDiagram.aspx) (Fishbone Diagram - http://www.ihl.org/resources/Pages/Tools/CauseandEffectDiagram.aspx) to visualize potential causes of problems or variation.

Step Five: Institutionalize QI among Staff

Create a culture of continual QI among your staff. This can be achieved by:

- Establish written policies and procedures on QI—and be sure to review annually
- Embed QI responsibilities in staff job descriptions
- Incorporate contributions to QI in performance reviews
- Integrate QI as part of onboarding for new staff
- Offer ongoing professional development on QI topics and methods

Appendix A

Aim Statement Worksheet

We will improve _____
(High level area, e.g., health of our patients, operational efficiency, patient experience, etc.)

By _____
(Reducing/decreasing or raising/increasing, etc.)

(What are you going to reduce/decrease, raise/increase?)

From _____ **to** _____
(Baseline) (Target goal)

By _____
(Target date)

Example: *We will improve operational efficiency by decreasing visit cycle time from 65 minutes to 45 minutes by June 30, 2016.*

Improvement measures tracked monthly to measure progress toward Aim:

- 1.
- 2.
- 3.
- 4.
- 5.

Appendix B

DRIVER	Recommended change concepts	Description/evidence/resources
<p>Crosscutting supports for the five core performance measures for SBHCs</p>	<p>Increase school integration and engagement.</p> <p>Build partnerships with community PCPs for regular communication about shared patients.</p> <p>Education to school staff, school administrators, students, patients, and community on importance of preventive care.</p> <p>Increase/improve integration between SBHC primary care and behavioral health providers.</p>	<p>School-Based Health Alliance:</p> <ul style="list-style-type: none"> • Collaboration with Primary Care Providers (to amend for use with school nurse) • School Integration Rubric (under “resources”) • School Integration Self-Assessment Tool (under “resources”) <p>American Academy of Pediatrics Bright Futures:</p> <ul style="list-style-type: none"> • Guidelines for the Health Supervision of Infants, Children, and Adolescents (3rd edition) <p>California School-Based Health Alliance</p> <ul style="list-style-type: none"> • Youth Engagement Process <p>Centers for Disease Control and Prevention:</p> <ul style="list-style-type: none"> • Fostering School Connectedness Staff Development Program (under “Staff Development” tab) <p>Centers for Medicaid & Medicare Services:</p> <ul style="list-style-type: none"> • Making connections: strategies for strengthening care coordination in the Medicaid benefit for children & adolescents <p>UMHS Adolescent Health Initiative:</p> <ul style="list-style-type: none"> • Drawing a Picture: Adolescent Centered Medical Homes • Youth reviewed health education materials <p>U.S. Department of Health And Human Services</p> <ul style="list-style-type: none"> • Joint Guidance on FERPA and HIPPA to Student Health Records
<p>Annual well child visit (WCV)</p>	<p>Outreach and education to teachers and school leadership on importance of WCV. Use communication strategies such as storytelling.</p> <p>Create a process to convert mild “sick visits” to WCV.</p> <p>Turn sports physicals into comprehensive WCV and market this service by emphasizing there is no cost sharing with WCV unlike sports physicals.</p>	<p>School-Based Health Alliance:</p> <ul style="list-style-type: none"> • Sample Parent-Guardian Follow Up Letter • Care coordination roadmap (to be released in early 2016) <p>Centers for Disease Control and Prevention:</p> <ul style="list-style-type: none"> • Promoting Parent Engagement in School Health: A Facilitator's Guide for Staff Development (under “Staff Development” tab) • Parent Engagement: Strategies for Involving Parents in School Health

DRIVER	Recommended change concepts	Description/evidence/resources
	<p>Outreach to students to schedule WCV.</p> <p>Use electronic “tickler file” flags to identify clinic patients who are due for WCV.</p> <p>Use EHR features to create reminders for when WCV are due.</p> <p>Identify students in the school population with documentation of WCV in previous 12 months or lack thereof.</p> <p>Outreach to parents to determine student annual WCV status.</p> <p>Provide regular and routine training for clinicians and staff on WCV best practices, evidence-informed anticipatory guidance, and policy and procedures.</p> <p>Improve data: Develop data collection system to capture well child visits performed at the SBHC or by another provider.</p> <p>Capture WCV performed elsewhere: Get self-report of WCV conducted outside the SBHC from student or parent or get this information from PCPs or state Medicaid database.</p>	<p>Centers for Medicaid & Medicare Services:</p> <ul style="list-style-type: none"> • Paving the road to good health: strategies for increasing Medicaid adolescent well-care visits <p>World Health Organization:</p> <ul style="list-style-type: none"> • Improving the Quality of Health Care Services for Adolescents, Globally: A Standards-Driven Approach
<p>Annual risk assessments</p>	<p>Conduct risk assessment at every new patient visit then annually thereafter.</p> <p>Create a “sticky date done” in the EMR as a reminder.</p> <p>Deliver risk assessments in conjunction with other clinic visits.</p> <p>Deliver risk assessments outside the WCV.</p> <p>Deliver appropriate follow-up services based on risk assessment results.</p> <p>Identify students with documentation of WCV in previous 12 months but no risk assessment documentation.</p>	<p>The Adverse Childhood Experiences Study:</p> <ul style="list-style-type: none"> • Linking childhood trauma to long-term health and social consequences <p>Centers for Medicaid & Medicare Services:</p> <ul style="list-style-type: none"> • What you need to know about Early Periodic Screening, Diagnostic and Treatment (EPSDT) <p>Colorado Association for School-Based Health Care</p> <ul style="list-style-type: none"> • Understanding Minor Consent and Confidentiality in Colorado

DRIVER	Recommended change concepts	Description/evidence/resources
	<p>Outreach to students to schedule risk assessment visits.</p> <p>Use youth friendly electronic tools to administer annual risk assessment.</p> <p>Improve data: Develop data collection system to capture annual risk assessments performed, including coding infrastructure to support separate coding for risk assessments performed outside the WCV.</p>	
<p>BMI assessment and nutrition/physical activity counseling</p>	<p>Program EHR to calculate BMI% automatically when height and weight are entered.</p> <p>Develop a workflow that guarantees nutrition and activity counseling for all patients, or at least all patients with a high BMI.</p> <p>Test exercise and/or nutrition groups for patients and families, e.g. cooking classes for students with their parents or field trips to the grocery store.</p> <p>Partner with teachers and/or physical education department to promote exercise and activity, e.g. a Mile Runners Club, or a cumulative 100-mile challenge for all students.</p> <p>Partner with teachers to do nutrition education, e.g. “Go Foods” for healthy foods and “Whoa Foods” for fast food and junk food and junk beverages.</p> <p>Improve data: Develop data collection system to capture BMI assessment and nutrition/physical activity counseling.</p>	<p>American Academy of Pediatrics:</p> <ul style="list-style-type: none"> • Periodicity schedule • Adoption of Body Mass Index Guidelines for Screening and Counseling In Pediatric Practice <p>Centers for Disease Control and Prevention:</p> <ul style="list-style-type: none"> • About Child & Teen BMI
<p>Depression screening</p>	<p>Screen for behavioral health needs in primary care with referrals for positive screens to behavioral health experts.</p> <p>Add primary care staff to the behavioral health center care team meetings particularly to serve SBHC clients who are most connected with behavioral health providers.</p> <p>Develop shared care plans with SBHC clients receiving primary care and</p>	<p>U.S Preventative Services Task Force:</p> <ul style="list-style-type: none"> • Screening for Major Depressive Disorder Among Children and Adolescents: A Systematic Review for the U.S. Preventive Services Task Force <p>UMHS Adolescent Health Initiative:</p> <ul style="list-style-type: none"> • Adolescent mental health resources

DRIVER	Recommended change concepts	Description/evidence/resources
	<p>behavioral health services to be tracked by all providers.</p> <p>Use of the PHQ-9, PHQ-2, or HADS-D Depression Screening Tool.</p> <p>Develop effective processes for communication and care coordination between physical and behavioral health providers</p> <p>Improve data: Develop data collection system to capture depression screening and follow-up plan documented (if positive screen).</p>	<p>The Reach Institute:</p> <ul style="list-style-type: none"> • Guidelines for Adolescent Depression in Primary Care Toolkit <p>Research Articles (Journal of the American Academy of Pediatrics):</p> <ul style="list-style-type: none"> • Guidelines for Adolescent Depression in Primary Care: I. Identification, Assessment, and Initial Management • Guidelines for Adolescent Depression in Primary Care: II. Treatment and Ongoing Management
<p>Chlamydia screening</p>	<p>Provide confidential counseling for sexual health.</p> <p>Screen for safe and respectful sexual relationships.</p> <p>Ask the One Key Question of female and male students: “Would you like to become a parent in the next year?”</p> <p>Develop an EMR process for the one key question for documentation and tracking.</p>	<p>Colorado Association of School Based Health Care:</p> <ul style="list-style-type: none"> • Adolescent Health Care Tool Kit <p>Healthy Teens Initiative:</p> <ul style="list-style-type: none"> • Seven steps to comprehensive sexual and reproductive health care for adolescents in New York City - A toolkit and resource guide for health care providers <p>Oregon Foundation for Reproductive Health’s One Key Question Initiative:</p> <ul style="list-style-type: none"> • Clinicians: Are you asking the one key question? • Patient and provider materials <p>UMHS Adolescent Health Initiative:</p> <ul style="list-style-type: none"> • Safe sex practices/resources for adolescents
<p>Student seat time and prevention of early dismissals*</p> <p><i>*Note: resources and best practices to be developed in the CoIIN</i></p>	<p>Develop internal tracking system (student disposition log) to document student disposition following acute and chronic care visits.</p> <p>Implement tracking of student disposition data following acute and chronic care visits.</p> <p>Determine how SBHC staff can incorporate new data documentation into workflow.</p> <p>Report and share student disposition data with school, community, and stakeholders.</p>	<p>California School-Based Health Alliance:</p> <ul style="list-style-type: none"> • Ready, Set, Success! How to maximize the impact of SBHCs on student achievement • Documenting the link between SBHCs and academic success (sample instruments for gathering student, school, and family feedback) <p>Research articles:</p> <ul style="list-style-type: none"> • Cura, M. (2010). The Relationship Between School-Based Health Centers, Rates of Early Dismissal From School, and Loss of Seat Time. Journal of School Health, 371-377. Retrieved from: http://www.attendanceworks.org/wordpress/wp-content/uploads/2011/10/SBHCs-Early-Dismissal-Seat-Time_Van-Cura_2010.pdf

DRIVER	Recommended change concepts	Description/evidence/resources
<p>SBHC student user survey*</p> <p><i>*Note: resources and best practices to be developed in the CoIIN</i></p>	<p>Test age-appropriate, confidential SBHC client survey tool assessing multiple domains of care and satisfaction.</p> <p>Improve provider-patient communication while integrating patient-centered concepts into a standard of care as measured through SBHC client survey.</p> <p>Implement delivery of SBHC client survey for SBHC clients to complete.</p> <p>Determine how SBHC staff can incorporate new data documentation into workflow.</p> <p>Report and share data with school, community, and stakeholders.</p>	<p>School-Based Health Alliance:</p> <ul style="list-style-type: none"> • Lead The Way: Engaging Youth In Health Care <p>Research articles:</p> <ul style="list-style-type: none"> • Mandel, L. A. and Qazilbash, J. (2005), Youth Voices as Change Agents: Moving Beyond the Medical Model in School-Based Health Center Practice. Journal of School Health, 75: 239–242. doi: 10.1111/j.1746-1561.2005.00031.x • Sebastian R.A., Ramos M.M., Stumbo S., McGrath J., and Fairbrother G. (2014). Measuring youth health engagement: development of the youth engagement with health services survey. Journal of School Health, 55(3):334-40. doi: 10.1016/j.jadohealth.2014.02.008.

Appendix C

Plan-Do-Study-Act Planning Worksheet

School/SBHC Team Name: _____

PDSA Cycle/Focus _____ **Date** _____

Overall Plan

List your main goal or aim for one of your priority areas.

Objective for this cycle

Select from your improvement plan.

Questions you may consider to help you achieve this objective

Here is where you reference and discuss what you and your team need to consider before moving forward. Think about any barriers or challenges you foresee and how to address them.

Theory of change (Brainstorm - by doing "X" will we achieve our objective?)

How or what do you predict will help achieve the objective? How are you framing the strategies you plan to use?

Plan (for change)

This is where you break down a larger objective.

Plan the test or observation, including a plan for collecting data.

- *Make predictions about what will happen and why.*
- *Develop a plan to test the change. (Who? What? When? Where? How?)*

What	Who	By When

How will we demonstrate the effectiveness of our actions:

- *What data needs to be collected?*
- *What are your metrics or measurements?*
- *Who is responsible for data collection?*

Do

Try out the proposed activities or strategies on a small scale.

- *Collect information and data.*
- *Document observations, problems encountered, and special circumstances.*
- *Begin preliminary analysis of the data.*

Study

Analyze effectiveness of plan and summarize lessons learned.

- *Complete the analysis of the data.*
- *Compare what was originally predicted.*
- *Summarize and reflect on what was learned.*

Act

Plan for the next cycle → How shall we modify our existing plan, or shall we start a new one?

- Based on lessons learned, where do we go from here?
- Do we need to modify our strategies or approaches to change?
- What should the next PDSA cycle focus on?

Plan-Do-Study-Act Cycles

Every goal or aim requires a series of smaller steps to facilitate improvement or change. Plan-Do-Study-Act, or PDSA, is a recurring method for rapid improvement process designed to maintain changes over time. It can focus on changing current practices or behaviors, or trying new things.

PDSA cycles typically take place after a broader improvement plan has been developed. A designed plan for improvement helps determine the subsequent steps for generating change. PDSA cycles are the actions that test proposed strategies or activities to achieve objectives and reach desired goals and outcomes. Some cycles are more complex and take longer to complete, while others are simpler and finish faster. In short, the PDSA rapidly tests a proposed change on a small scale, allows observations to be made, analyzes results and findings, and helps to decide how to move on to the next series of steps, or try these methods on a broader level.

Adapted from the Institute for Healthcare Improvement's Worksheet for Testing Change.

Appendix D

Appendix E



Plan-Do-Study-Act (PDSA) Cycle Talking Points

How do PDSAs help?

- Get organized!
- Gives structure to allow something to be tried without high stakes.
- Formalized framework to record what you do naturally.
- Timely feedback. Not waiting for longer outcome data. Learn quickly.
- Tells us where we are going and who is responsible.
- Documenting changes to share lessons across sites/between teams.

PDSAs: Why we test small first

- Easier/lower risk – resources, staff time, patient impact.
- Won't make major mistake if it doesn't work. Recover easily. Low impact.
- Quick turnaround – "Easier to turn around a rowboat than a cruise ship!"
- More fidelity/accuracy to do it smaller.
- Manageable – does not overextend team.
- "Go slow to go fast."
- Incremental changes.
- More ideas possible.
- Ability to scale up.

PDSAs: Why we want to fail

- Tells us what doesn't work.
- Shows what works.
- Puts to rest our ideas.
- Learn from mistakes in process or implementation.
- PDSAs where the change/test doesn't work are often the most helpful!

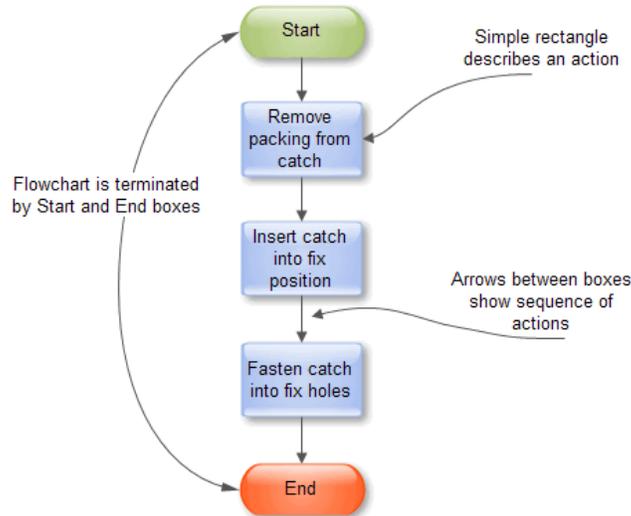
Give your own PDSA example!

Appendix F

How to Draw a Process Map

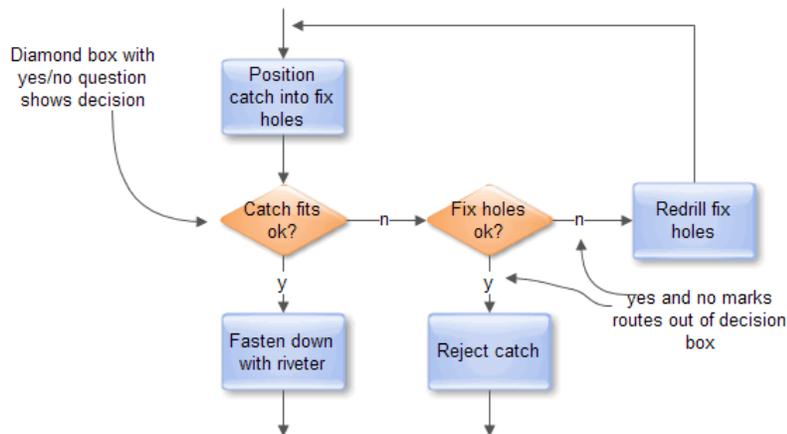
Basic structure

A process map (also called a flowchart) is a diagram that represents a process or workflow, showing each step of the process and connecting them with arrows to show their sequence. The basic element of a process map is a simple action, which can be anything from striking an anvil to making a cash payment. Each action, or process step, is represented by a box containing a description of the action. The mapping of the sequence of actions is shown with arrows between sequential action boxes, as shown in the illustration.



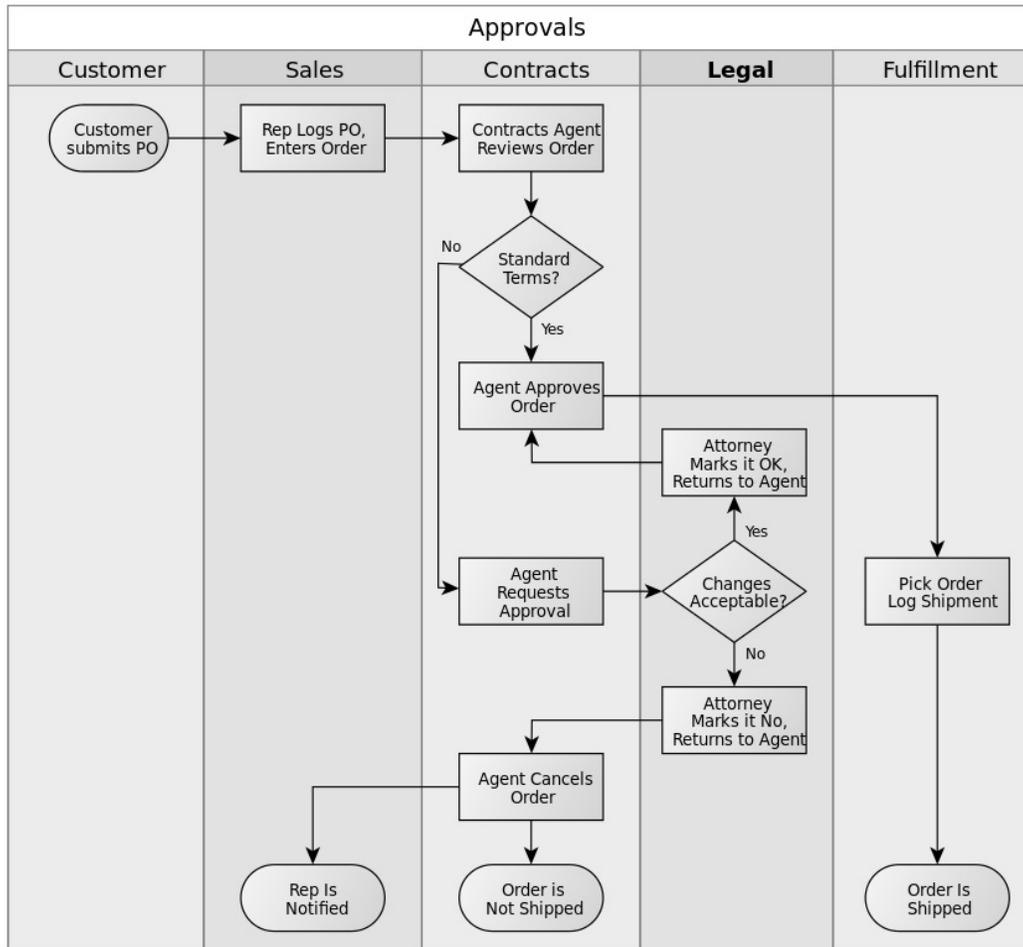
Decision steps

Processes become more complex when decisions must be made, when there are options to choose from or different steps to take based on different situations. A decision step is shown with a diamond-shaped box containing a simple question to which the answer is "yes" or "no." It is simplest to frame every decision as a yes/no choice, and to have only those two options branching from the decision diamond shape that holds the question. More complex decisions are usually broken down into a series of yes/no decision boxes, as in the example below.



Multiple roles

When mapping a process with multiple roles for multiple people, use **swimlanes** to separate tasks by job function. The example below has five roles delineated. Note that the arrows that create the sequence between tasks in the process cut across one or two lanes, and also flow back and forth between lanes until the process is completed. The lanes can be arranged horizontally or vertically. (Swimlanes are sometimes referred to as “functional bands.”)



Diagrams and some text from edrawsoft.com and wikipedia.org