RHP9 Behavioral Health Improvement Collaborative

Handbook

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RHP9 Behavioral Health Improvement Collaborative

INTRODUCTION

An Improvement Collaborative is an improvement method that relies on spread and adaptation of existing knowledge to multiple settings to accomplish a common aim. – IHI Breakthrough Series

OVERALL TOPICS:

The overall topics for the behavioral health improvement collaborative include:

- Integration of behavioral health and primary care
- Provide intervention for targeted health populations to prevent unnecessary use of services in specified setting (i.e., criminal justice system, ER, urgent care, etc . . .)
- Enhance service availability to appropriate levels of behavioral health care
- Development of behavioral health crisis stabilization services as alternatives to hospitalization
- Develop workforce enhancement initiatives to support access to behavioral health providers in underserved markets and areas

COLLABORATIVE CHARTER FRAMEWORK

Collaborative Charter

The charter defines the collaborative purpose, summarizes the evidence that will direct your work, outlines methods that your team will use to achieve the purpose and list what teams can expect from the Collaborative leadership as well as what the leadership expects of teams.

Purpose

RHP9 providers will achieve better health status, (mental, medical, or both), for individuals within their target population(s). The teams will focus on improving targeted patient identification through appropriate evidence based assessment, evidence based intervention initiation, creating best practice support systems, and integrating behavioral and primary care services. This will be accomplished by mental health providers, primary care health providers, and the providers in the criminal justice system. These providers will change and improve systems of communication, collaboration, and coordination with each other to enhance patient wellness.

The Improvement Collaborative Process goal is to share experiences and learning around like processes and topics to achieve improved outcomes in the areas desired. The models identified below outline various methods that providers can use to achieve the desired RHP9 project goals within their individual projects. The improvement collaborative is part of the RHP9 approved Learning Collaborative Plan. The improvement collaborative has been modified from the IHI Breakthrough Series Model to reflect the unique nature of DSRIP projects. Per the Texas Waiver, projects, objectives, and specific milestones, metrics, and outcomes were provided by a state approved menu. Many projects are already using the best practices identified in the models outlined to test, implement, and measure their projects.

To achieve the goals of the RHP9 Behavioral Health Improvement Collaborative, RHP9 providers will continue to plan, implement, test, and monitor their individual DSRIP projects. These projects align with the RHP9 community health needs assessment and the CMS Triple Aim of improved patient experience, improved health of population, and reduction in per capita cost of healthcare. In addition, providers will report on one or more learning collaborative outcome measures related to their DSRIP projects to provide a Regional health perspective.

Case for Improvement

Behavioral Health - Adult, Pediatric and Jail Populations - Behavioral health, either as a primary or secondary condition, accounts for substantial volume and costs for existing healthcare providers, and is often utilized at capacity, despite a substantial unmet need in the population. The business case for this improvement collaborative is driven by the RHP9 Community Health Needs Assessment (CNA), highlights include:

<u>Behavioral Health System Structure and Funding</u>

The behavioral health system (including mental health and substance use) in RHP 9 differs from that of the rest of the state in that the majority of behavioral services for Medicaid and indigent patients are delivered through the NorthSTAR program instead of the traditional Local Mental Health Authority (LMHA) system. It is a managed behavioral healthcare carve-out program, administered by ValueOptions of Texas under a Medicaid 1915(b) waiver under the oversight of the North Texas Behavioral Health Authority (NTBHA), and it provides both mental health and substance use treatment to over 60,000 Medicaid enrollees and indigent uninsured annually.

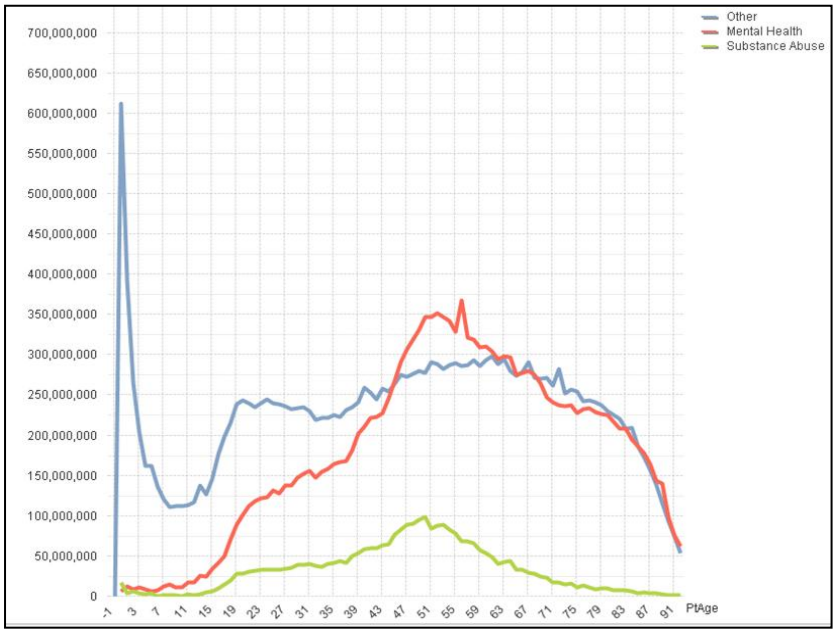
Over the past decade, the NorthSTAR program has greatly expanded access to care. However, this high level of access results in funding and infrastructure challenges. Since the program's inception, the growth in enrollment has outpaced funding such that the funding per person served is 30% less than when the program started in 1999 and is half that of the state average

for other LMHAs1. Given that Texas is 50th in mental health funding nationwide2, the funding per person served in RHP 9 is among the lowest in the nation.

Cost Trends in the Behavioral Health Population

The financial implications of caring for those with behavioral health conditions are substantial and impact resources within the healthcare institutions of RHP 9. Analysis of DFW Hospital Council Foundation data demonstrates that charges associated with the care of mental health patients more than doubles from $50,000,000 to over $100,000,000 between the ages of 17 through 21. Charges continue to rise through adulthood, and between the ages of 47-65, the estimated charges for mental health encounters are higher than those of all other conditions combined. When substance abuse encounters are included, this difference is even greater.3

Figure 5: Age and Charge Distribution by Mental Health and Substance Abuse Encounter (2010Q3-2011Q3)4



In RHP 9, the presence of a co-occurring behavioral health condition is associated with increased case severity of medical encounters and a 36% increase in the average charges per encounter. In RHP 9, 100% of the 10 most frequently admitted patients had a co-occurring behavioral health diagnosis depicted in Figure 5. These 10 individuals incurred a cost of more than $26 million between 2007 and 2011; however only 1/5 of their hospital emergency

[1] TriWest/Zia Partners. Assessment of the Community Behavioral Health Delivery System in Dallas County, 2010.
[2] National Alliance on Mental Illness. State Mental Health Cuts: The Continuing Crisis. March 2011.
[3] Dallas Fort Worth Hospital Council Foundation, Readmission Patterns by Mental Health & Substance Abuse, 2012
[4] DFWHC Foundation, Information and Quality Services Data Warehouse, 2012.

department visits were for a mental health or substance abuse issue. Sixty-one percent were uninsured (24% Medicaid, 12% Medicare, and 3% Insured).

Demand for Behavioral Health Services

Following the economic downturn in 2009, there was a 17% increase in 23-hour observation visits at Green Oaks Hospital, mostly accounted for by new enrollees to NorthSTAR. More recently, there has been a sharp spike in 23-hour observation utilization, with Feb 2012 visits 26% higher compared to Dec 2011 (and 25% higher compared to Feb 2011).5 This increase coincided with both regulatory oversight limiting the capacity of Parkland's Psychiatric ED by 50% and a reduction in funding for outpatient services in the NorthSTAR system.

In addition to hospital-type services, there is also a need for less-acute levels of behavioral care in order to prevent the need for these high-cost services. A sub-acute crisis residential level of care exists but there are only 21 beds for the entire NorthSTAR region. The Behavioral Health Leadership Team has identified the highest need for service development to be post-crisis "wraparound" services to reduce the 20% 30-day readmission rate to crisis services, and peer-driven services to engage clients early in order to prevent crisis episodes.

The goal of integrating primary and behavioral health services and more effectively meeting the needs of individuals with a combination of mental health, substance use conditions, and chronic health conditions whether seen in a primary care provider or specialty behavioral health setting is a focus at local, regional, and national levels. It requires using and possibly combining multiple theories of best practice to improve overall outcomes.

METHODS

Models of Success

Six Levels of Collaboration/Integration[6]

A common framework for integration implementation includes six levels of collaboration/integration. It includes three main categories – coordinated, co-located, and integrated care. Each main category is divided into dual levels which are designed to assist organizations with understanding what the next steps to take in order to reach the next level of integration. The core descriptions of the main categories and levels are seen below. This can be used to identify some of the specific change action items you may be able to use to further your project.

[5] ValueOptions of Texas

[6] Heath B, Wise Romero P, and Reynolds K.A. Review and Proposed Standard Framework for Levels of Integrated Healthcare, Washington, D.C. SAMSHA-HRSA Center for Integrated Health Solutions, March 2013.

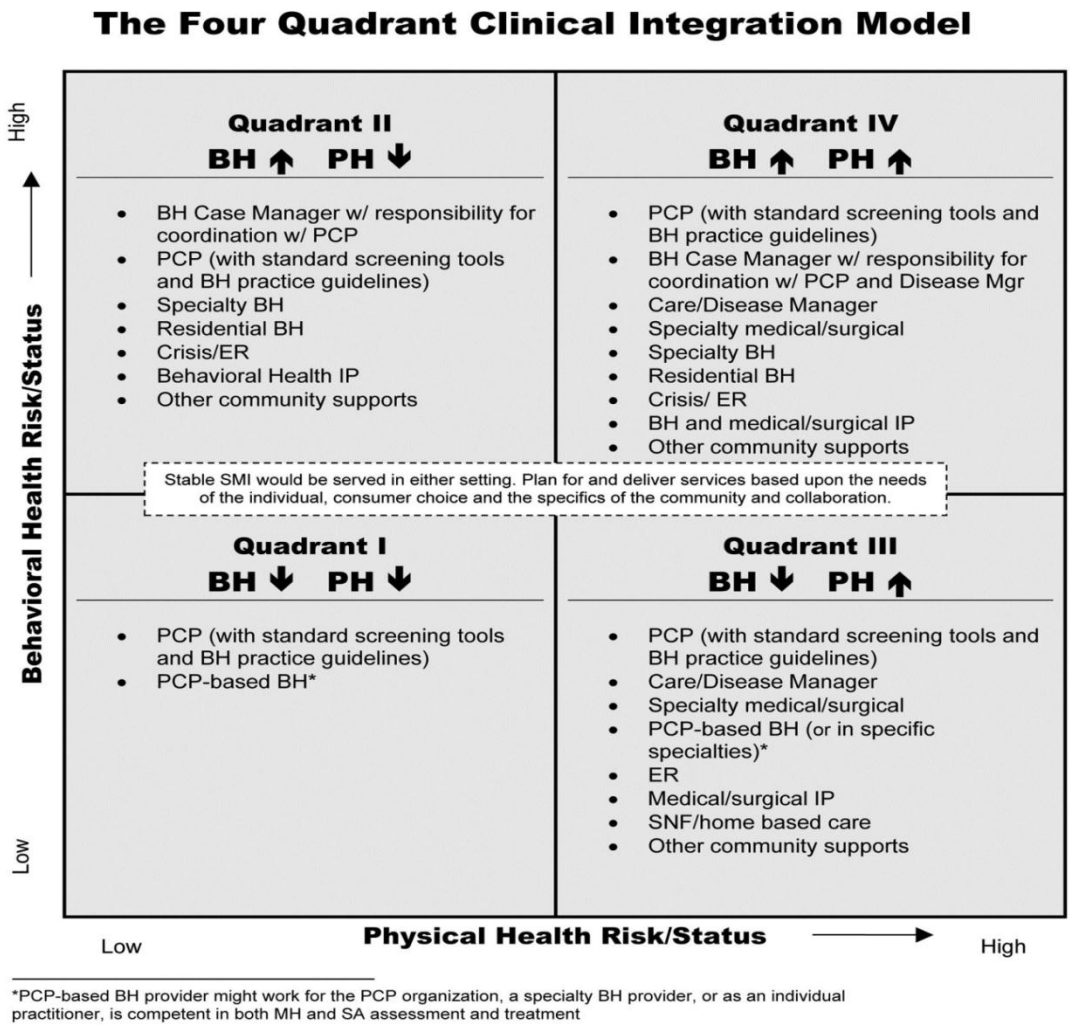
Table 1. Six Levels of Collaboration/Integration (Core Descriptions)

COORDINATED KEY ELEMENT: COMMUNICATION		CO-LOCATED KEY ELEMENT: PHYSICAL PROXIMITY		INTEGRATED KEY ELEMENT: PRACTICE CHANGE	
LEVEL 1 Minimal Collaboration	LEVEL 2 Basic Collaboration at a Distance	LEVEL 3 Basic Collaboration Onsite	LEVEL 4 Close Collaboration Onsite with Some System Integration	LEVEL 5 Close Collaboration Approaching an Integrated Practice	LEVEL 6 Full Collaboration in a Transformed/ Merged Integrated Practice
Behavioral health, primary care and other healthcare providers work:					
In separate facilities, where they:	In separate facilities, where they:	In same facility not necessarily same offices, where they:	In same space within the same facility, where they:	In same space within the same facility (some shared space), where they:	In same space within the same facility, sharing all practice space, where they:
▸▸ Have separate systems ▸▸ Communicate about cases only rarely and under compelling circumstances ▸▸ Communicate, driven by provider need ▸▸ May never meet in person ▸▸ Have limited understanding of each other's roles	▸▸ Have separate systems ▸▸ Communicate periodically about shared patients ▸▸ Communicate, driven by specific patient issues ▸▸ May meet as part of larger community ▸▸ Appreciate each other's roles as resources	▸▸ Have separate systems ▸▸ Communicate regularly about shared patients, by phone or e-mail ▸▸ Collaborate, driven by need for each other's services and more reliable referral ▸▸ Meet occasionally to discuss cases due to close proximity ▸▸ Feel part of a larger yet ill-defined team	▸▸ Share some systems, like scheduling or medical records ▸▸ Communicate in person as needed ▸▸ Collaborate, driven by need for consultation and coordinated plans for difficult patients ▸▸ Have regular face-to-face interactions about some patients ▸▸ Have a basic understanding of roles and culture	▸▸ Actively seek system solutions together or develop work-a-rounds ▸▸ Communicate frequently in person ▸▸ Collaborate, driven by desire to be a member of the care team ▸▸ Have regular team meetings to discuss overall patient care and specific patient issues ▸▸ Have an in-depth understanding of roles and culture	▸▸ Have resolved most or all system issues, functioning as one integrated system ▸▸ Communicate consistently at the system, team and individual levels ▸▸ Collaborate, driven by shared concept of team care ▸▸ Have formal and informal meetings to support integrated model of care ▸▸ Have roles and cultures that blur or blend

Heath B, Wise Romero P, and Reynolds K. A Review and Proposed Standard Framework for Levels of Integrated Healthcare. Washington, D.C.SAMHSA-HRSA Center for Integrated Health Solutions. March 2013

The Four Quadrant Clinician Integration Model[7]

While the six levels model focuses on what an implemented integrated behavioral and primary health system might look like overall, The Four Quadrant Clinical Integration model focuses on how to overcome the practice gap between professionals in the separate fields by outlining how and when primary health provider and behavioral health provider should provide services needed. This Four Quadrant Model, developed by the National Council for Community Behavioral Healthcare, segments the level of care a patient receives based on the level of severity of a patient's physical health (PH) and behavioral health (BH) needs.

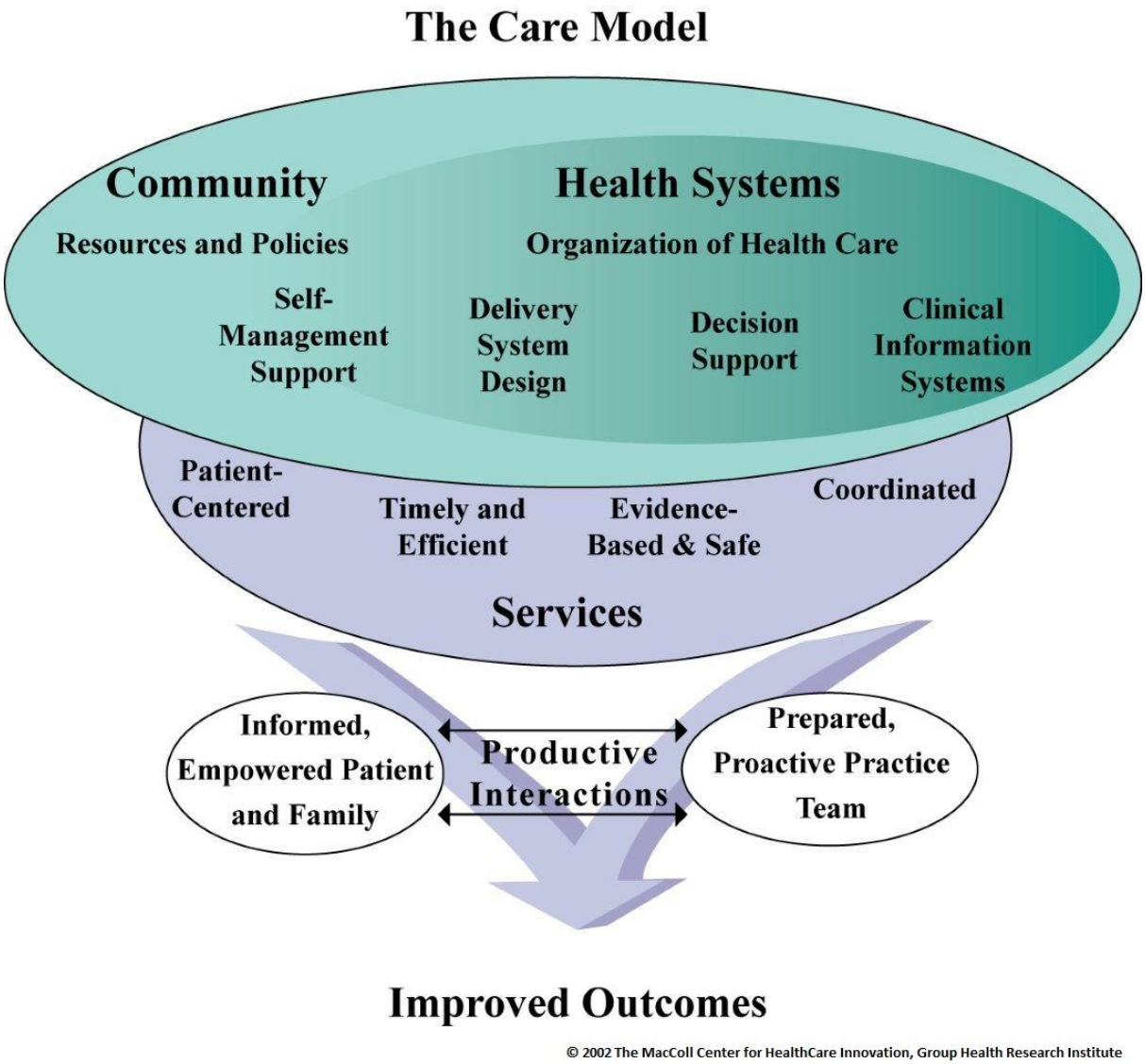


*PCP-based BH provider might work for the PCP organization, a specialty BH provider, or as an individual practitioner, is competent in both MH and SA assessment and treatment

[7] Behavioral health/primary Care Integration, The four Quadrant Model and Evidence Based Practices, Revised February 2006. National Council for Community Behavioral Healthcare. Prepared by B. Mauer, MCPP Healthcare Consulting

The Care Model[8]

The Care Model (aka Chronic Care Model) summarizes the basic elements for improving care in health systems at the community, organization, practice, and patient levels and was developed to speed the transformation of healthcare, from a system that is essentially reactive (responding mainly when a person is sick) to one that is proactive and focused on keeping a person as healthy as possible. It was developed by Ed Wagner and his colleagues under the Improving Chronic Illness Care Program. The principles of this model outline the items needed to provide the proactive care for all types of integrated health care and can be adapted for a variety of different types of care.



[8] The MacColl Center for HealthCare Innovation, Group Health Research Institute, 2002

Components of the Care Model

Health Care Organization

- Goals for chronic illnesses are a measurable part of the organization's annual business plan.
- Benefits that health plans provide are designed to promote good chronic illness care.
- Provider incentives are designed to improve chronic illness care.
- Improvement strategies that are known to be effective are used to achieve comprehensive system change.
- Senior leaders visibly support improvement in chronic illness care.

Community Resources and Policies

- Effective programs are identified and patients are encouraged to participate.
- Partnerships with community organizations are formed to develop evidence-based programs and health policies that support chronic care.
- Health plans coordinate chronic illness guidelines, measures and care resources throughout the community.

Self-management Support

- Providers emphasize the patient's active and central role in managing their illness.
- Standardized patient assessments include self-management knowledge, skills, confidence, supports, and barriers.
- Effective behavior change interventions and ongoing support with peers or professionals are provided.
- Collaborative care-planning and assistance with problem-solving are assured by the care team.

Decision Support

- Evidence based guidelines are embedded into daily clinical practice.
- Specialist expertise is integrated into primary care.
- Provider education modalities proven to change practice behavior are utilized.
- Patients are informed of guidelines pertinent to their care.

Delivery System Design

- Roles are defined and tasks delegated.
- Planned visits are used to provide care.
- Continuity is assured by the primary care team.
- Regular follow-up is ensured.

Clinical Information Systems

- There is a registry with clinically useful and timely information.
- Care reminders and feedback for providers and patients are built into the information system.
- Relevant patient subgroups can be identified for proactive care.
- Individual patient care planning is facilitated by the information system.

Wraparound Theory[9]

"What do the members of this family really need to have better lives? - Callejas and Mayo (2008) Raice/Promotoras Model

Wraparound Theory is a family centered, community oriented, strengths-based, highly individualized planning process aimed at helping people meet their unmet needs, both within and outside of normal human services systems, while they remain in their neighborhoods and homes, whenever possible. In recent years, wraparound has been most commonly conceived of as an ***intensive, individualized care planning and management process***. The wraparound *process* aims to achieve positive outcomes by providing a structured, creative and individualized team planning process that, compared to traditional treatment planning, results in plans that are more effective and more relevant to the patient/client. Originally started in efforts to help mental health children, youth, and their families, other behavioral health entities focused on adults have started incorporating this theory into their programs in attempt to reduce return to hospitalization or in cases of criminal activity re-incarceration. Wraparound is a family centered, community oriented, strengths-based, highly individualized planning process aimed at helping people meet their unmet needs, both within and outside of normal human services systems, while they remain in their neighborhoods and homes, whenever possible.

Ten Principles of Wraparound

1. **Family voice and choice.** Family and individual perspectives are intentionally elicited and prioritized during all phases of wraparound process. Planning is grounded in family members' perspectives, and the team strives to provide options and choices such that the plan reflects family values and preferences.
2. **Team based.** The wraparound team consists of individuals agreed upon by the family and committed to them through informal, formal, and community support and service relationships.
3. **Natural Supports.** The team actively seeks out and encourages the full participation of team members' networks of interpersonal and community relationships. The wraparound plan reflects activities and interventions that draw on sources of natural support.
4. **Collaboration.** Team members work cooperatively and share responsibility for developing, implementing, monitoring, and evaluating a single wraparound plan. The plan reflects a blending of team members' perspectives, mandates, and resources. The plan guides and coordinates each team member's work towards meeting the team's goals.
5. **Community based.** The wraparound team implements service and support strategies that take place in the most inclusive, most responsive, most accessible, and least restrictive settings possible; and that safely promote individual and family integration into home and community life.
6. **Culturally Competent.** The wraparound process demonstrates respect for and builds on the values, preferences, beliefs, culture, and identity of the individual and family, and their community.

[9] Bruns, E.J., Walker, J.S., Adams, J., Miles, P., Osher, T.W., Rast, J., VanDenberg, J.D. & National Wraparound Initiative Advisory (2004). *Ten principles of the wraparound process*. Portland.

7. **Individualized.** To achieve the goals laid out in the wraparound plan, the team develops and implements a customized set of strategies, supports, and services.
8. **Strengths based.** The wraparound process and the wraparound plan identify, build on, and enhance the capabilities, knowledge, skills, and assets of the individual and family, their community, and other team members.
9. **Persistence.** Despite challenges, the team persists in working toward the goals included in the wraparound plan until the team reaches agreement that a formal wraparound process is no longer required.
10. **Outcome based.** The team ties the goals and strategies of the wraparound plan to observable or measurable indicators of success, monitors progress in terms of these indicators, and revises the plan accordingly.

ENVISIONING THE CHANGE
(Change Package)

For the purpose of the Learning Collaborative and the Behavioral Health Improvement Collaborative, the RHP9 Behavioral Health projects have been consolidated into primary drivers and several associated secondary drivers that have been identified by various local and national experts to drive the changes that will impact our patient populations at both the local and regional level.

Driver Diagram

A driver diagram is an improvement tool used to organize theories and ideas in an improvement effort. It displays visually, our theory about why things are the way they are and/or potential areas we can leverage to change the status quo. The driver diagram is often used to guide the plan for reaching the aim.

The primary drivers for the Behavioral Health Improvement Collaborative were identified through pre-work learning collaborative sessions with the RHP9 providers. Building on these primary drivers, secondary drivers and change concepts were identified through previous best practice models and evidence based results.

- Develop Workforce
- Integrate Behavioral Health & Primary Care
- Provide Evidence Based Interventions / Specialized Programs for targeted populations

RHP9 Behavioral Health Cohort – Improvement Collaborative

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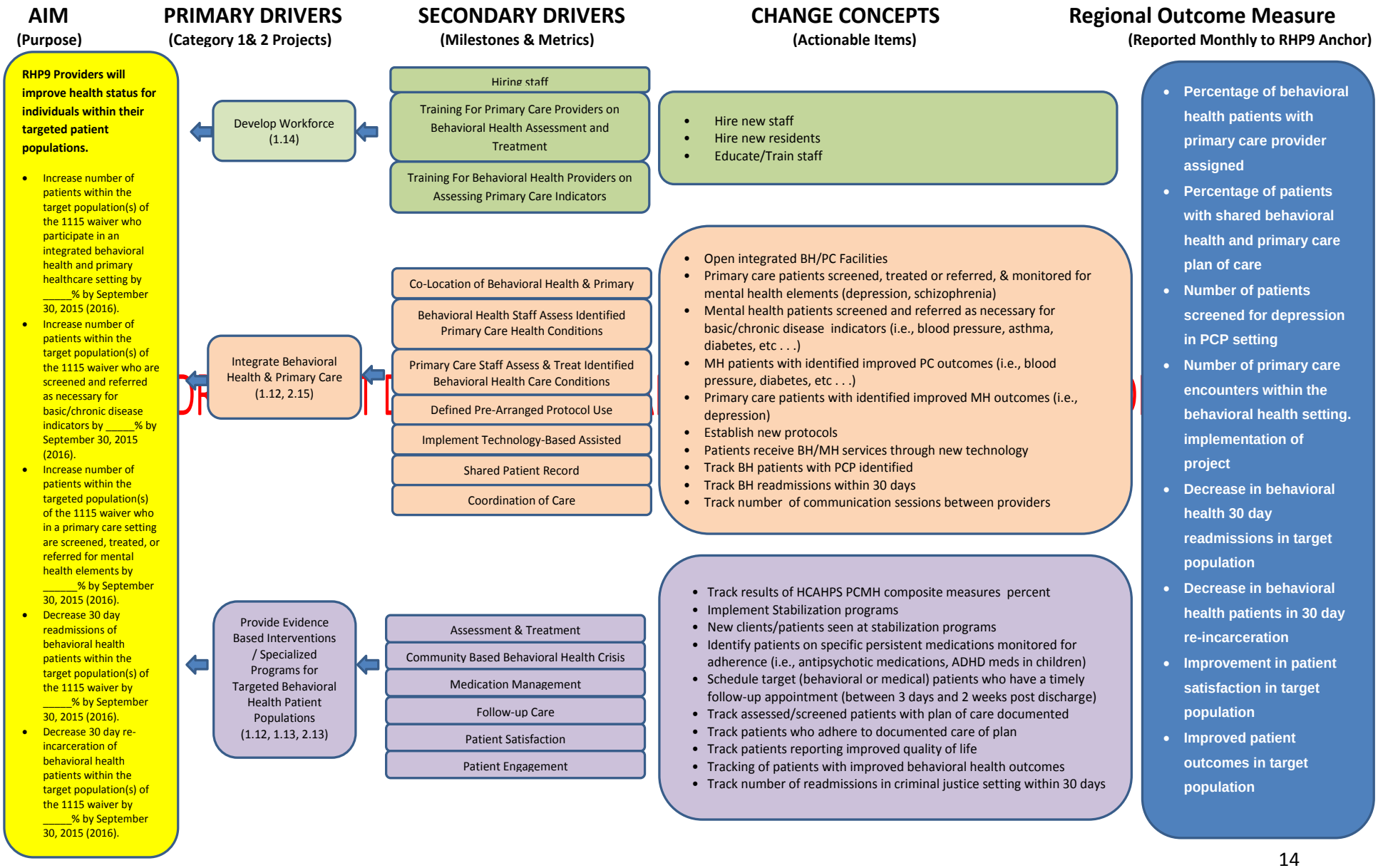


Primary Drivers:

- Major processes, operating rules, or structures that will contribute to moving towards the Aim.
- *Our Primary Drivers are the Category 1 & 2 projects.*

Secondary Drivers:

- Elements or portions of the primary drivers.
- The secondary drivers are system components necessary in order to impact primary drivers, and thus reach project aim.
- *Our Secondary Drivers for RHP9 are driven by our Milestones & Metrics*

Specific changes/change concepts: *(driven by steps needed to achieve Category 3 & 4 outcome measures)*:

- Specific changes: concrete actionable ideas to take to testing.
- Change concepts are broad concepts that are not yet specific enough to be actionable but which will be used to generate specific ideas for change.
- RHP9 providers are currently testing and implementing change concepts as part of their DSRIP projects.

Project Measures (Regional Reported Measures):

- How will we know we achieved our aim?
- *Combination of our outcome measures for Category 3 & 4*
- Not all outcome measures will apply to every project, but at minimum one will
- Each provider will report on a monthly basis on outcomes measures that apply to their project.
- Monthly outcome measures will be aggregated into a monthly RHP9 progress report.

CHANGE CONCEPTS

Develop Workforce		
Secondary Driver (Milestones & Metrics)	**Change Concepts**	**Specific Testable Ideas**
Hire Staff Educate/Train Primary Care Staff on Behavioral Health assessment and treatment Educate/Train Behavioral Health staff on short duration physical health assessment and treatment. Incentivize Staff	• Hire new staff • Hire new residents • Educate/Train staff	• Train primary care providers how to conduct behavioral health assessment and begin subsequent treatment • Train Behavioral health providers in short duration treatment and in physical health diagnosis, especially for common chronic conditions • Train staff about stigma that still surrounds behavioral health • Train staff in organizational culture management for the merging of these two different healthcare arenas. • Have leaders from mental health spend time showing primary care practitioners and vice versa so each can understand the others' organization and culture. • Develop mental health professional job descriptions and classifications that include physical health care monitoring and support • Develop primary care health professional job description and classifications that include

Integrate Behavioral Health & Primary Care		
Secondary Driver (Milestones & Metrics)	**Change Concepts**	**Specific Testable Ideas**
Co-location of Behavioral Health & Primary Care Behavioral Health Staff & Providers assessing & treating identified primary care physical health conditions Primary Care Staff & Providers assessing & treating identified Behavioral Health care conditions Defined pre-arranged protocol use Implement Technology-based assisted services to support or deliver care Shared patient record	• Open integrated BH/PC Facilities • Primary care patients screened, treated or referred, & monitored for mental health elements (depression, schizophrenia) • Mental health patients screened and referred as necessary for basic/chronic disease indicators (i.e., blood pressure, asthma, diabetes, etc . . .) • MH patients with identified improved PC outcomes (i.e., blood pressure, diabetes, etc . . .) • Primary care patients with identified improved MH outcomes (i.e., depression) • Establish new protocols • Patients receive BH/MH services through new technology • Track BH patients with PCP identified • Track BH readmissions within 30 days • Track number of communication sessions between providers	• Hold weekly meeting among integrated care teams to develop common goals, create feedback loops, etc. • Establish multi-disciplinary morning huddles to identify and discuss relevant cases • Use non-licensed staff to coordinate care & services for clients (i.e., Medical Assistants and peer supporters) • Develop methods to identify primary care clients requiring MH and mental health clients requiring PC • Standardize information that should accompany a client referral, such as the results of diagnostic tests • Allow MH to schedule PC visit and PC to schedule with MH • Adopt/adapt shared care plan • MH screen for diabetes, blood pressure, etc . . . • PC screen for depression

Provide Evidence Based Interventions / Specialized Programs for targeted patient populations		
Secondary Driver (Milestones & Metrics)	**Change Concepts**	**Specific Testable Ideas**
Assessment & Treatment Community Based Behavioral Health Crisis Stabilization Programs Medication Management Follow-Up Care Patient Satisfaction Patient Engagement	• Track results of HCAHPS PCMH composite measures percent • Implement Stabilization programs • New clients/patients seen at stabilization programs • Identify patients on specific persistent medications monitored for adherence (i.e., antipsychotic medications, ADHD meds in children) • Schedule target (behavioral or medical) patients who have a timely follow-up appointment (between 3 days and 2 weeks post discharge) • Track assessed/screened patients with plan of care documented • Track patients who adhere to documented care of plan • Track patients reporting improved quality of life • Tracking of patients with improved behavioral health outcomes • Track number of readmissions in criminal justice setting within 30 days	• Implement use of brief individual/and or group intervention therapies that have an evidence base for effectiveness in primary care setting (Consider Motivational Interviewing, CBT, Solution Focused) • Establish mechanisms to enroll MH clients in PC health education programs

MEASUREMENT

Regional Cohort Outcome Measures

- Increasing number of patients within the target population(s) of the 1115 waiver who participate in an integrated behavioral health and primary healthcare setting by _____% by September 30, 2015 (2016).
- Increasing number of patients within the target population(s) of the 1115 waiver who are screened and referred as necessary for basic/chronic disease indicators by _____% by September 30, 2015 (2016).
- Increasing number of patients within the targeted population(s) of the 1115 waiver who in a primary care setting are screened, treated, or referred for mental health elements by _____% by September 30, 2015 (2016).
- Decrease in 30 day readmissions of behavioral health patients within the target population(s) of the 1115 waiver by _____% by September 30, 2015 (2016).
- Decrease in 30 day re-incarceration of behavioral health patients within the target population(s) of the 1115 waiver by _____% by September 30, 2015 (2016).

All RHP9 providers will report on a minimum of one of the regional outcome measures that will aggregated to a monthly RHP9 progress report. Each provider will report on a monthly basis on outcomes measures that apply to their project.

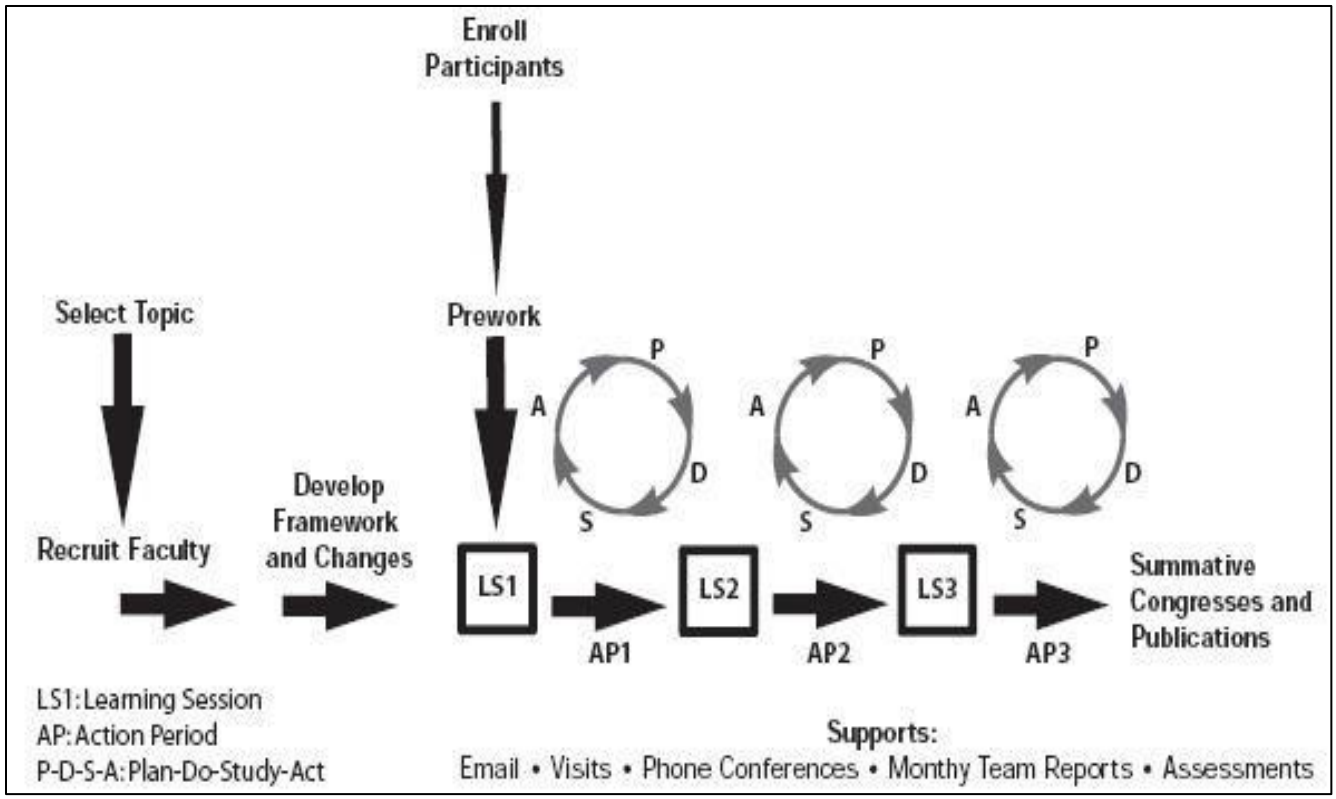
Team's Select a minimum of one Outcome Measure from below to report on a monthly basis to the Anchor:

- Percentage of behavioral health patient with primary care provider assigned
- Percentage of patients with shared behavioral health and primary care plan of care
- Number of patients screened for depression in PCP setting
- Number of primary care encounters within the behavioral health setting implementation of project
- Decrease in behavioral health 30 day readmission in target population
- Decrease in behavioral health patients in 30 day re-incarceration
- Improvement in patient satisfaction in target population
- Improved patient outcomes in target population

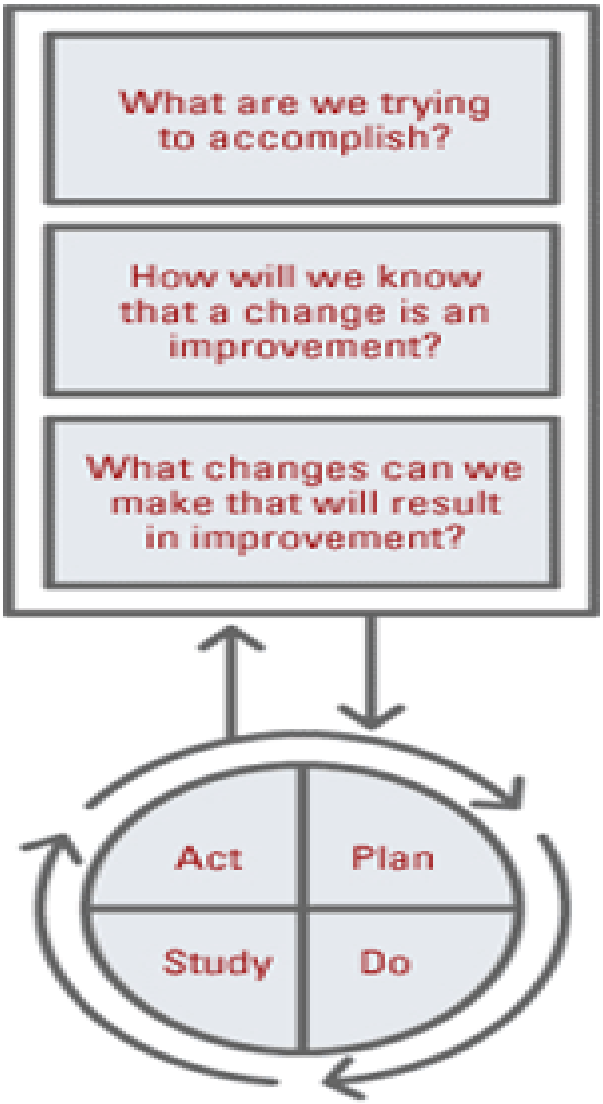
IMPROVEMENT MODEL

RHP9 is modifying the IHI Collaborative Model[10] for the learning/improvement collaborative. The Collaborative Model is designed to conduct rapid small test in order to prepare for large scale spread of those changes to show improvement reach the goal. It is typically introduced at the beginning of a collaborative, however due to the nature of the Texas waiver a modified version is being utilized for RHP9. This package includes best practices, change concepts, and an overview of the IHI Improvement Model. RHP9 providers are encourage to use the PDSA Cycle to conduct small tests of change concepts prior to full implementation of their projects in order to assess the impact those changes will have in advance of a large scale implementation. If you conduct a PDSA Cycle, please send documentation to the RHP9 Anchor office.

The Collaborative Model (also called the Breakthrough Series Model)



[10] *The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement.* IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003



Setting Aims

Improvement requires setting aims. The aim should be time-specific and measurable; it should also define the specific population of patients or other system that will be affected.

Establishing Measures

Teams use quantitative measures to determine if a specific change actually leads to an improvement.

Selecting Changes

Ideas for change may come from the insights of those who work in the system, from change concepts or other creative thinking techniques, or by borrowing from the experience of others who have successfully improved.

Testing Changes

The Plan-Do-Study-Act (PDSA) cycle is shorthand for testing a change in the real work setting — by planning it, trying it, observing the results, and acting on what is learned. This is the scientific method adapted for action-oriented learning.

Implementing Changes

After testing a change on a small scale, learning from each test, and refining the change through several PDSA cycles, the team may implement the change on a broader scale — for example, for an entire pilot population or on an entire unit.

Spreading Changes

After successful implementation of a change or package of changes for a pilot population or an entire unit, the team can spread the changes to other parts of the organization or in other organizations.

The Model for Improvement,* developed by Associates in Process Improvement, is a simple yet powerful tool for accelerating improvement. The model is not meant to replace change models that organizations may already be using, but rather to accelerate improvement. This model has been used very successfully by hundreds of health care organizations in many countries to improve many different health care processes and outcomes.

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

The PDSA Cycle

Making improvements requires changing things. Change can seem threatening or overwhelming for busy people doing demanding work. The PDSA method is a way to break down change into manageable chunks, and test each small part to make sure that things are improving and no effort is wasted.

What is it?

PDSA stands for Plan, Do, Study, Act. It's a model for testing ideas that you think may create an improvement. It can be used to test ideas for improvement quickly and easily based on existing ideas, research, feedback, theory, review, audit, etc or practical ideas that have been proven to work elsewhere. It uses simple measurements to monitor the effect of changes over time. It encourages starting with small changes, which can build into larger improvements in the service through successive quick cycles of change.

It is:

- A common sense of approach to change and improvement
- Quick and simple
- Doable

It is not:

- Complicated
- Difficult
- Gimmicky

Why is it useful?

It works! The PDSA cycle has been used for decades as an effective tool for improvement and it's still going strong! The method is well established and validated and is particularly suited to small, dynamic organizations like general practice. It's an extremely practical, common sense based approach that is easy to understand.

How do I do it? - The step-by-step guide to the PDSA cycle:

Step 1 PLAN

Identify what change you think will create improvement and then plan the test of the change. What is your objective in introducing the change? It is important to establish the scope of the change to be introduced, and how you are going to collect information about the differences that occur, how will you know whether the change made has 'worked' or not?

The change should bring about differences which are measurable in isolation. A major change could be broken down into smaller more manageable 'chunks'. Once the actual change to be introduced has been agreed, the following questions should be asked:

- What are we trying to do during this cycle?
- What exactly will you do?
- Who will be involved?

- Where will it take place?
- When will it take place?
- What do you predict will happen?
- What data/information will you need to collect?

Step 2 DO

Put the plan into practice - test change by collecting the data. This stage involves carrying out the plans agreed in step 1. It is important that the Do stage is kept short as possible. There may be changes that should only be measured over long periods. Record any unexpected events, problems and other observations. Start analyzing the data.

Step 3 STUDY

Review and reflect. Complete the analysis of the data. Has there been an improvement? Did your expectations match the reality of what happened? What could have been done differently?

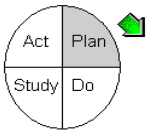
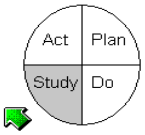
Step 4 ACT

Make further changes or amendments after you have decided what worked and what didn't and collect data again. Carry out an 'amended' version of what happened during the Do stage and measure any differences.

Handy Hints

- Keep it simple
- Keep it small and manageable to start - massive projects can be broken down into a number of small, quick PDSA cycles.
- Cycles should happen quickly - think in terms of a day or two not a month!
- There is no wrong answer, if you find something that works - use it!

PDSA Worksheet (Template I)

Cycle #1 **Meeting # - date**	**Start Date:** **End Date:**
Objective of Cycle	____Collect Data to Develop a Change____ Test a Change* ___Implement a Change** Short Objective of the Cycle:
Plan  	**Questions:** 1. ? a. Prediction: 2. ? a. Prediction: 3. ? a. Prediction: 4. ? a. Prediction:
Note: ***For Test reference p. 96 of *Improvement Guide* for Testing Checklist** ****For Implementation Cycle reference p. 136 of *Improvement Guide* for Implementation Checklist**	**Test/Implementation Plan:** What change will be tested or implemented? How will the change be tested or implementation be conducted (consider small scale early)? Who will run the test or implementation? Where: When will the test or implementation take place?
	Collect Data Plan (Usually required for all PDSA cycles): What information is important to collect? Why is it important? Who will collect the data? Who will analyze the data prior to Study? Where will data be collected? When will the collection of data take place? How will the data (measures or observations) be collected?
Do:  	**Observations:** Record observations not part of the plan: Did you need to modify the original Plan? If so, how? Begin analysis of data (graph of the data, picture)
Study  	**Questions:** (copy and paste Questions and Predictions from Plan above and add Results. Complete analysis of the data. Insert graphic analysis whenever possible.) 1. ? a. Prediction: b. Learning (Comparison of questions, predictions, & analysis of data.): 2. ? a. Prediction: b. Learning: New Issues: Summary:
 **Act**	Describe next PDSA Cycle; New Questions to Answer/Decisions made/Action to be taken 1.
Ad Hoc Contributors	Recognize subject matter experts and others who have contributed to the learning

Note: You do not have to answer every question on this sample PDSA template. They are there to provide you with guidance for thinking through the process.

PDSA Worksheet (Template II)

PDSA (plan-do-study-act) worksheet

Name of Organization
Date City
Selected improvement area (identify only one per worksheet)
Organizational Commitment____ Community ____ Residents and Families ____
Prevention Strategies ____ Treatment ____ Assessment and Monitoring ____

TOOL: STEP: CYCLE:

PLAN

We plan to:

We hope this produces:

Steps to execute:

DO

What did you observe?

STUDY

What did you learn? Did you meet your measurement goal?

ACT

What did you conclude from this cycle?

PDSA Multiple Cycles Template Completed Example

PDSA (plan-do-study-act) worksheet

Name of Organization
Date City
Selected improvement area (identify only one per worksheet)
Organizational Commitment____ Community ____ Residents and Families ____
Prevention Strategies ____ Treatment ____ Assessment and Monitoring __X__

TOOL: Patient Feedback **STEP:** Dissemination of surveys **CYCLE:** 1st Try

PLAN

I plan to: We are going to test a process of giving out satisfaction surveys and getting them filled out and back to us.

I hope this produces: We hope to get at least 25 completed surveys per week during this campaign.

Steps to execute:

1. We will display the surveys at the checkout desk.
2. The checkout attendant will encourage the patient to fill out a survey and put it in the box next to the surveys.
3. We will try this for 1 week.

DO

What did you observe?

- We noticed that patients often had other things to attend to at this time, like making an appointment or paying for services and did not feel they could take on another task at this time.
- The checkout area can get busy and backed up at times.
- The checkout attendant often remembered to ask the patient if they would like to fill out a survey.

STUDY

What did you learn? Did you meet your measurement goal?

We only had 8 surveys returned at the end of the week. This process did not work well.

ACT

What did you conclude from this cycle?

Patients did not want to stay to fill out the survey once their visit was over. We need to give patients a way to fill out the survey when they have time.

We will encourage them to fill it out when they get home and offer a stamped envelope to mail the survey back to us.

PDSA (plan-do-study-act) worksheet

TOOL: Patient Feedback **STEP:** Dissemination of surveys **CYCLE:** 2nd Try

PLAN

I plan to: We are going to test a process of giving out satisfaction surveys and getting them filled out and back to us.

I hope this produces: We hope to get at least 25 completed surveys per week during this campaign.

Steps to execute:

1. We will display the surveys at the checkout desk.
2. The checkout attendant will encourage the patient to take a survey and an envelope. They will be asked to fill the survey out at home and mail it back to us.
3. We will try this for 2 weeks.

DO

What did you observe?

- The checkout attendant successfully worked the request of the survey into the checkout procedure.
- We noticed that the patient had other papers to manage at this time as well.
- Per Checkout attendant only about 30% actually took a survey and envelope.

STUDY

What did you learn? Did you meet your measurement goal?

We only had 3 surveys returned at the end of 2 weeks. This process did not work well.

ACT

What did you conclude from this cycle?

Some patients did not want to be bothered at this point in the visit – they were more interested in getting checked out and on their way.

Once the patient steps out of the building they will likely not remember to do the survey.

We need to approach them at a different point in their visit when they are still with us – maybe at a point where they are waiting for the doctor and have nothing to do.

PDSA (plan-do-study-act) worksheet

TOOL: Patient Feedback **STEP:** Dissemination of surveys **CYCLE:** 3rd Try

PLAN

I plan to: We are going to test a process of giving out satisfaction surveys and getting them filled out and back to us.

I hope this produces: We hope to get at least 25 completed surveys per week during this campaign.

Steps to execute:

1. We will leave the surveys in the exam room next to a survey box with pens/pencils.
2. We will ask the nurse to point the surveys out/hand then out after vitals and suggest that while they are waiting they could fill out our survey and put it in box.
3. We will see after 1 week how many surveys we collected.

DO

What did you observe?

- Upon self report, most nurses reported they were good with pointing out or handing the patient the survey.
- Some patients may need help reading survey but nurses are too busy to help.
- On a few occasions the doctor came in while patient filling out survey so survey was not complete.

STUDY

What did you learn? Did you meet your measurement goal?

We had 24 surveys in the boxes at the end of 1 week. This process worked better.

ACT

What did you conclude from this cycle?

Approaching patients while they are still in the clinic was more successful.

Most patients had time while waiting for the doctor to fill out the survey.

We need to figure out how to help people who may need help reading the survey.

Aim Statement Worksheet

Team's Name: **Date:**

Developing an Aim

Improvement requires setting aims. The aim should be time-specific and measurable; it should also define the specific population of patients that will be affected. Agreeing on the aim is crucial; so is allocating the people and resources necessary to accomplish the aim.
Source: IHI.org How To Improve section - setting aims (adapted)

Sample Aim Statement:

The following aim statement demonstrates important characteristics of well-crafted aim statements:

Aim: Decrease patient appointment wait times in our clinic by 50%, on average, within 2 months.

- It is precise. It includes a numerical goal. "Decrease patient appointment wait times in our clinic by 50%..."
- It is feasible. The goal is set at a 50% decrease. This is more achievable than trying for something like "zero defects."
- It is measurable. The general outcome measure is clear: the average length of patient appointment wait times. However, the start time still needs to be precisely defined. Is it a) Time patient signs in? or b) Time patient enters the exam room? And what is the end time? c) Time clinician enters the exam room?
- It includes a time frame. The team wishes to achieve the change in 2 months.

1. What is your overall goal for this project?

2. Write your Aim:

3. How will you measure it?

Check yourself:

1. Is the aim stated clearly? _____ yes _____ no
2. Does the aim contain at least one numerical component? ___ yes ___ no
3. Does it include a time frame? ___ yes ___ no
4. Is it feasible? ___ yes ___ no
5. Will it be clear to the others when the aim is achieved? ___ yes ___ no

Aim statement material adapted from the ihi.org and improvementskills.org websites.

SCHEDULE

DY4 Improvement Collaborative

August 2014	**Learning Session I**
November 2014	**Learning Session II**
February 2015	**Learning Session III**
May 2015	**Support Session I**
August 2015	**Support Session II**
November 2015	**DY4 Improvement Collaborative Summary**
TBD	**Support Calls & Webinars**

DY 5 Improvement Collaborative will begin October 2015