Performance Improvement Projects (PIPs)

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Overview of PIPs

Purpose of a PIP:

➢ To make improvements in the overall quality of care provided to enrollees by assessing and improving processes or outcomes of care

➢ Provides an opportunity to have a potentially significant impact on enrollee health, functional status, or satisfaction

➢ Provides an opportunity to identify and measure clinical and non-clinical targeted areas

➢ Helps to develop a framework for future performance improvement projects

Qualis Health's Role

➢ DBHR and Qualis Health collaborate on review and approval of BHOs' PIP proposals.

➢ Qualis Health evaluates performance improvement project design and implementation using documents provided by the BHO and information received through BHO staff interviews, using a ten-step process outlined in "EQR Protocol 3: Validating Performance Improvement Projects, Version 2.0" developed by the Centers for Medicare & Medicaid Services (CMS).

➢ QH reviewers conduct an initial scoring of PIPs through desk audits and ask clarifying questions during the BHO onsite review.

➢ PIP validation is included in the individual BHO EQR reports.

➢ Identify best practices.

PIP Approval

➢ Once a topic has been selected, the BHO should complete and submit the Performance Improvement Project Study Topic Review form to Stephanie Endler at DBHR and cc Ricci Rimpau at Qualis Health.

➢ Timeliness is essential in having the topics approved before the BHO proceeds too far with the PIP process.

PIP Focus Areas

Clinical PIPs (focus on *outcomes* of services)

▶ Prevention and care of acute and chronic conditions

▶ High-volume services' effects on functioning

▶ High-risk services' effects on ensuing level of care needs

▶ Special healthcare needs

Non-Clinical PIPs (focus on *processes* of service delivery)

▶ Continuity or coordination of care

▶ Appeals or grievances

▶ Access to and availability of services

▶ Authorization of services

Validating PIPs

10 Protocol Steps
Select the study topic
Define the study question
Define the study population
Select the study indicator(s)
Use valid sampling techniques
Define data collection
Analyze data and interpret study results
Implement intervention and improvement strategies
Plan for "real" improvement
Achieve sustained improvement

PIP Steps

Select the study topic:

➤ Use data already collected to aid in the selection process.

➤ Is there something unique about the data that should be looked at further?

➤ This can be a starting point to look for answers and determine if an issue really exists.

Step 1

PIP Steps

Select the study topic:

➢ Involve stakeholders (individuals and families, BHAs, advisory boards, etc.) early on in identifying and selecting topics.

➢ Be prepared to work through challenges related to data availability, accuracy, and analysis.

➢ Example of clinical PIP focused on improving employment outcomes for Medicaid adults:

  ✓ Which data to use? Self-report of employment status in regional MIS or Social Security payroll data analyzed and reported by the State?

  ✓ How accurate, complete, and reliable are the data? Are all BHAs collecting the data in the same way? How much "missing" or "unknown" data is there? Are our MIS reports capturing the right data?

  ✓ Does the data lend itself to straightforward analysis, using available software? (Hint: Excel or similar spreadsheet programs are usually sufficient; if available, SPSS, SAS, R, etc. can be more efficient.)

PIP Steps

Define the study question:

➢ Make it obvious.

➢ Make it simple.

➢ Make it answerable.

➢ State it in a way that supports the BHO's ability to determine whether the chosen intervention has a measurable impact for the study population.

Step 2

PIP Steps

Define the study question:

Two current examples:

➤ [Clinical PIP] Does provision of ongoing training in the WISe service delivery model lead to a statistically significant increase in the percentage of Medicaid-eligible, WISe-enrolled youth (ages 0-20) whose actionable needs, as measured by the CANS, show a decrease of at least 25% after receiving services through the WISe program for at least three months, over the baseline rate of 40.3%?

➤ [Non-clinical PIP] Does provision of targeted technical assistance lead to a statistically significant increase in the percentage of Medicaid-enrolled children and youth who are reported to have received at least one evidence-based practice during a three-month period from the baseline rate of 3.63%?

PIP Steps

Define the study population:

➤ Use a representative and generalizable study population.

➤ The PIP must reflect the entire Medicaid-enrolled population to which the PIP study indicators apply.

➤ Is there inclusion or exclusion criteria?

Step 3

PIP Steps

Define the study population:

➢ Questions to consider about "who's in and who's out":

  ✓ Is Medicaid enrollment status clearly identified?

  ✓ Are any special demographic characteristics spelled out (age, gender, ethnicity, living situation, etc.)?

  ✓ Are length of stay criteria, if any, clearly defined?

  ✓ Are there minimum or maximum service mix or intensity (i.e., the "dosage" of services received) requirements that will need to be described and documented?

THE DEVIL'S IN THE DETAILS...

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PIP Steps

Select the study indicator(s):

➢ Can be a quantitative or qualitative characteristic reflecting a distinct event or continuous status to be measured

➢ Used to track performance and improvement over time

➢ Appropriate for the study topic

➢ Objectively, clearly, and unambiguously defined

Step 4

PIP Steps

Step 4 from the trenches

Select the study indicator(s):

➢ For many behavioral health topics, setting up the study indicator as a rate (a percentage of a "nominal" variable) is great. One example:

- o **Numerator** (what's being measured): The count of Medicaid-eligible, WISe-enrolled youth (ages 0-20) whose actionable needs, as measured by the CANS, show a decrease of at least 25% after 90 days of service.

- o **Denominator** (the study population): All Medicaid-eligible, WISe enrolled youth (ages 0-20) who have received services through the WISe program for at least 3 months and have an initial and 90-day (or discharge) completed CANS assessment.

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PIP Steps

Select the study indicator(s):

➢ For others, comparison of pre- and post-intervention mean scores on a standardized measure (aka a "continuous" variable) is appropriate.

  o Another potential WISe indicator: Individuals in the WISe program will receive an initial WISe CANS score at the start of treatment, as well as subsequent CANS scores, including a WISe program completion CANS score. **The pre-post calculation of the aggregate CANS scores** will be compared to show whether there is a statistically significant decrease in scores upon completion of the program.

  o A potential service satisfaction indicator: **Mean scores on the "Participation in Treatment" subscale of the Mental Health Statistics Improvement Project (MHSIP) survey** will show a statistically significant pre- to post-intervention increase for matched samples of Medicaid enrollees.

PIP Steps

Use valid sampling techniques:

➢ If sampling is used, the sampling techniques must be reliable and valid.

➢ Use of probability sampling.

➢ Use of non-probability sampling.

Step 5

PIP Steps

Use valid sampling techniques:

➤ Many potential PIP study topics and indicators will look at the whole (well-defined) population, so no sampling will be needed.

  o % of all individuals who are seen for a follow-up outpatient appointment within seven days of discharge from a psychiatric inpatient community hospital or evaluation and treatment center (follow-up, or lack of follow-up, will be measured for *all* individuals discharged from such a facility)

➤ If a sub-set of the population will be "tested," it's best to use a probability (random selection) approach; non-probability sampling (convenience, purposive, quota, or snowball) introduces room for accidental or intentional bias in selecting respondents. Sample size calculators are accessible online.

PIP Steps

Define data collection:

➤ Clearly identify data to be collected.

➤ Identify data sources and how/when the baseline and repeat indicator data will be collected.

➤ Specify who will collect the data and that they are qualified to collect the data.

➤ Identify the data collection instruments to be used.

Step 6

PIP Steps

Define data collection:

➢ Think through all the information you'll need to collect in order to:

  ✓ verify that you have the right people (address inclusion criteria)

  ✓ calculate the study indicator (this may involve synthesizing more than one piece of information)

  ✓ analyze the results meaningfully (add demographic or other data that can assist in interpreting results)

  ✓ establish the validity and reliability (measuring the right thing, in a replicable way) of the data

➢ For the employment PIP, our study population was defined as: *Adults 18-64 years of age who are Medicaid-enrolled at any time during the quarter under review and who have received at least one outpatient service following their initial intake appointment.*

PIP Steps

Define data collection:

➢ For the employment PIP, to collect this BHA-collected data, we developed an MIS query that pulled out (or could have pulled out):

Consumer ID	Employment status (full-time, part-time, or supported employment all counted as "employed")
Consumer birthdate and age at end of quarter under review	Intake date and service code
Financial class (Medicaid vs. Non-)	First post-intake service date and code
Authorization start date, end date (if applicable), and type	Primary ethnicity (not queried, but would have been good to do so)

PIP Steps

Analyze data and interpret study results:

➤ Analysis addresses the comparability of baseline and re-measurement data, including factors that impact validity.

➤ Results present numerical data that is accurate, clear, and easily understood.

Step 7

PIP Steps

Analyze data and interpret study results:

➢ Analysis plan should describe the schedule for data collection and analysis (a "task by timeline" format works well).

➢ It's important to specify your probability level (.05 is very common, but .10 could be defensible*) and choose an appropriate test of statistical significance for the type of data being measured.

➢ Interpretation involves looking at all the possible explanations for results and factors that may have affected them, not just assuming that the intervention itself was the only operative factor. Historical circumstances (like a major economic depression occurring during a PIP that aimed to increase employment) should be considered, too.

*The difference between saying "we have a 5% chance that what we found just occurred by chance" and "we have a 10% chance that that's the case."
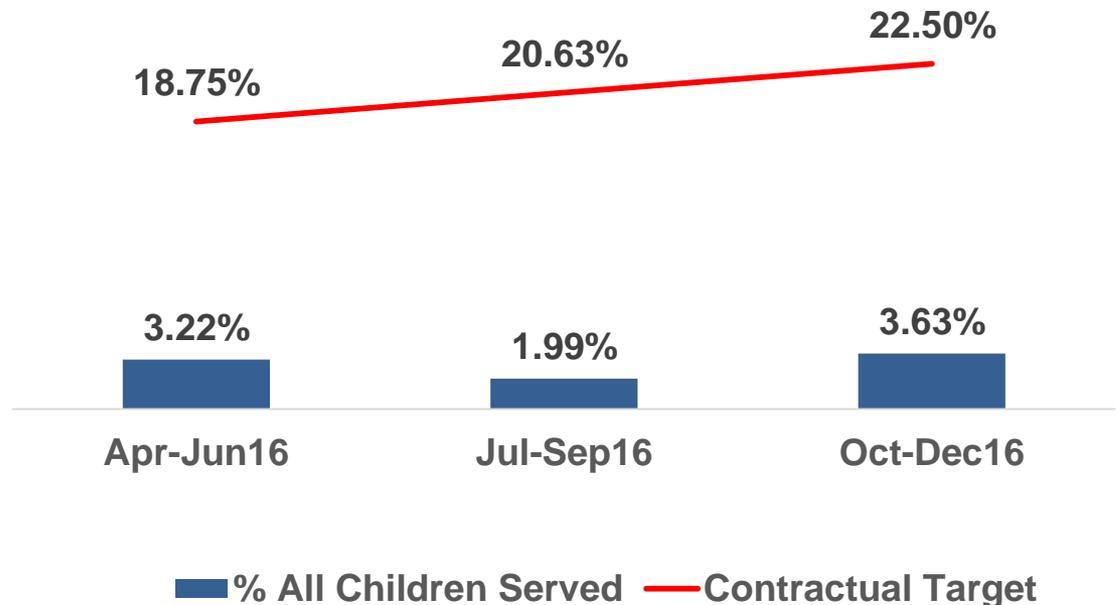
PIP Steps

Analyze data and interpret study results:

➢ Visual displays of data can facilitate analysis and communicate results efficiently and effectively. Here's an example from a recent Great Rivers PIP proposal that demon-strates the issue the PIP is meant to address (and that can be adapted to show post-intervention scores and results of statistical tests):

Figure 1: % of Children Receiving at Least One EBP April-December 2016

18.75%   20.63%   22.50%

3.22%   1.99%   3.63%

Apr-Jun16   Jul-Sep16   Oct-Dec16

■ % All Children Served   — Contractual Target

PIP Steps

Implement intervention and improvement strategies:

➢ Related to causes/barriers identified through data analysis and quality improvement (QI) processes

➢ System changes that are likely to induce permanent change

➢ Revised if original interventions are not successful

➢ Standardized and monitored if interventions are successful
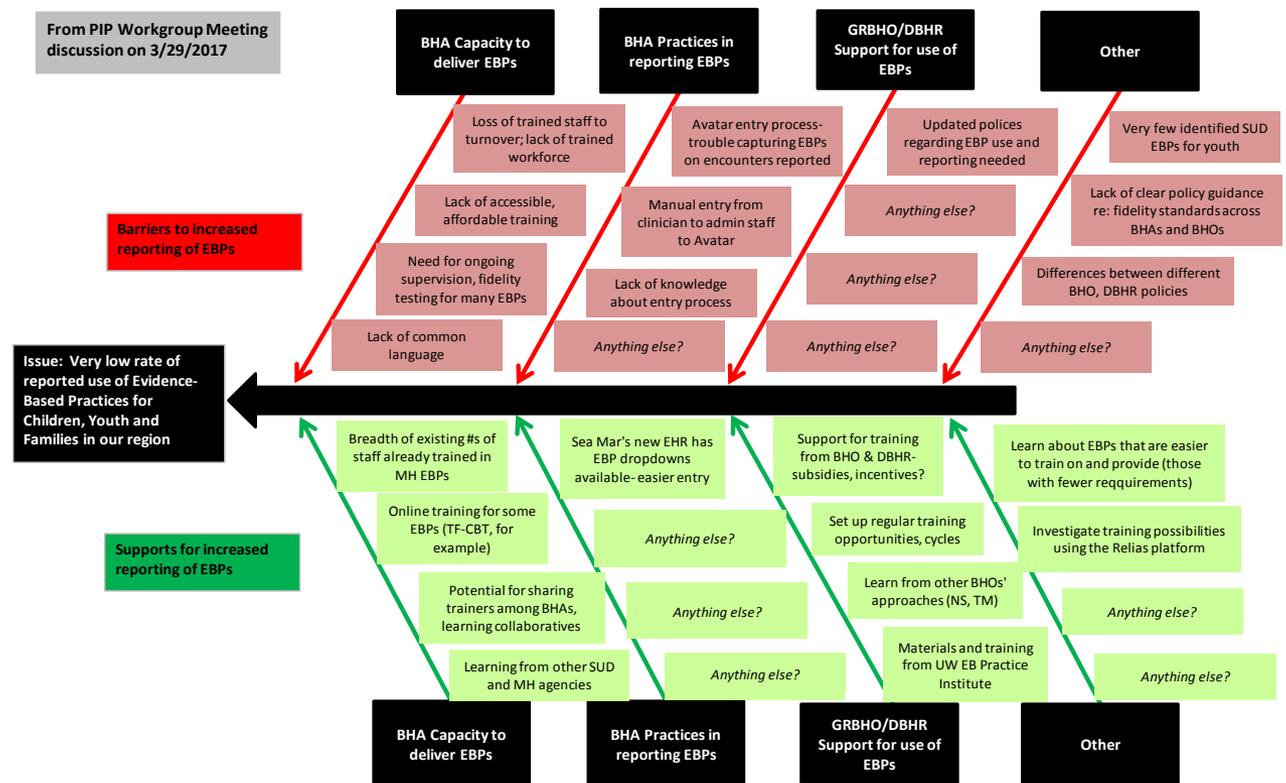
Step 8

PIP Steps

Implement intervention and improvement strategies:

➤ Involvement of stakeholders in PIP workgroups can work well in identifying causes, then designing, imple-menting, and evaluating interventions to address them.

Root Cause Analysis of Factors contributing to low rate of reported EBPs in the Great Rivers region: FishBone Diagram

From PIP Workgroup Meeting discussion on 3/29/2017

BHA Capacity to deliver EBPs

BHA Practices in reporting EBPs

GRBHO/DBHR Support for use of EBPs

Other

Barriers to increased reporting of EBPs

Loss of trained staff to turnover; lack of trained workforce

Avatar entry process- trouble capturing EBPs on encounters reported

Updated polices regarding EBP use and reporting needed

Very few identified SUD EBPs for youth

Lack of accessible, affordable training

Manual entry from clinician to admin staff to Avatar

Anything else?

Lack of clear policy guidance re: fidelity standards across BHAs and BHOs

Need for ongoing supervision, fidelity testing for many EBPs

Lack of knowledge about entry process

Anything else?

Differences between different BHO, DBHR policies

Lack of common language

Anything else?

Anything else?

Anything else?

Issue: Very low rate of reported use of Evidence-Based Practices for Children, Youth and Families in our region

Breadth of existing #s of staff already trained in MH EBPs

Sea Mar's new EHR has EBP dropdowns available- easier entry

Support for training from BHO & DBHR- subsidies, incentives?

Learn about EBPs that are easier to train on and provide (those with fewer reqquirements)

Online training for some EBPs (TF-CBT, for example)

Anything else?

Set up regular training opportunities, cycles

Investigate training possibilities using the Relias platform

Supports for increased reporting of EBPs

Potential for sharing trainers among BHAs, learning collaboratives

Anything else?

Learn from other BHOs' approaches (NS, TM)

Anything else?

Learning from other SUD and MH agencies

Anything else?

Materials and training from UW EB Practice Institute

Anything else?

BHA Capacity to deliver EBPs

BHA Practices in reporting EBPs

GRBHO/DBHR Support for use of EBPs

Other

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PIP Steps

Implement intervention and improvement strategies:

- ➢ Build in documentation that can address the question, "How will we know that we did what we said we'd do?"

- ➢ For the employment PIP, which relied on a "social marketing campaign" as the intervention, we kept records of PIP community- and agency-based activities, events and trainings, along with results of participant evaluations.

- ➢ Evaluation and adjustment of interventions is also "baked in."

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PIP Steps

Plan for "real" improvement:

➤ Results of the intervention must be statistically significant.

➤ When a change in performance occurs, it must be determined whether the change is real, attributable to an event unrelated to the intervention, or random chance.

Step 9

PIP Steps

Plan for "real" improvement:

➢ Employment PIP: Baseline to first re-measurement partial contingency table for chi-square calculation of statistical significance.

	Baseline	First re-measurement	Chi-square results
# Employed (any category)	129	167	The chi-square statistic is 0.9763. The *p*-value is .323123. This result is *not* significant at $p <$ .05
# Not employed	1,358	1,557	
Study population	1,487	1,724	

PIP Steps

Achieve sustained improvement:

➢ If real change has occurred, the PIP should be able to achieve sustained improvement.

➢ Sustained improvement is demonstrated through repeated measurements over time.

➢ A decline in improvement is not statistically significant.

Step 10

PIP Steps

Achieve sustained improvement:

➢ Employment PIP: Multiple re-measurements showed improvement, but not statistically (or clinically) significant improvement.

Employment Rate: 8.7%, 9.7%, 10.0%, 9.7%, 9.6%, 10.1%

Part Time: 6.8%, 7.5%, 7.7%, 7.2%, 7.4%, 7.9%

Full Time: 1.3%, 1.5%, 1.6%, 1.8%, 1.7%, 1.8%

Supported Employment: 0.7%, 0.8%, 0.7%, 0.7%, 0.4%, 0.4%

| Baseline (N = 1487) | Interv. Qtr. 1 (N = 1724) | Interv. Qtr. 2 (N = 1866) | Interv. Qtr. 3 (N = 1945) | Interv. Qtr. 4 (N = 2019) | Interv. Qtr. 5 (N = 2118) |

Legend:
- Supported Employment
- Full Time
- Part Time
- Employment Rate
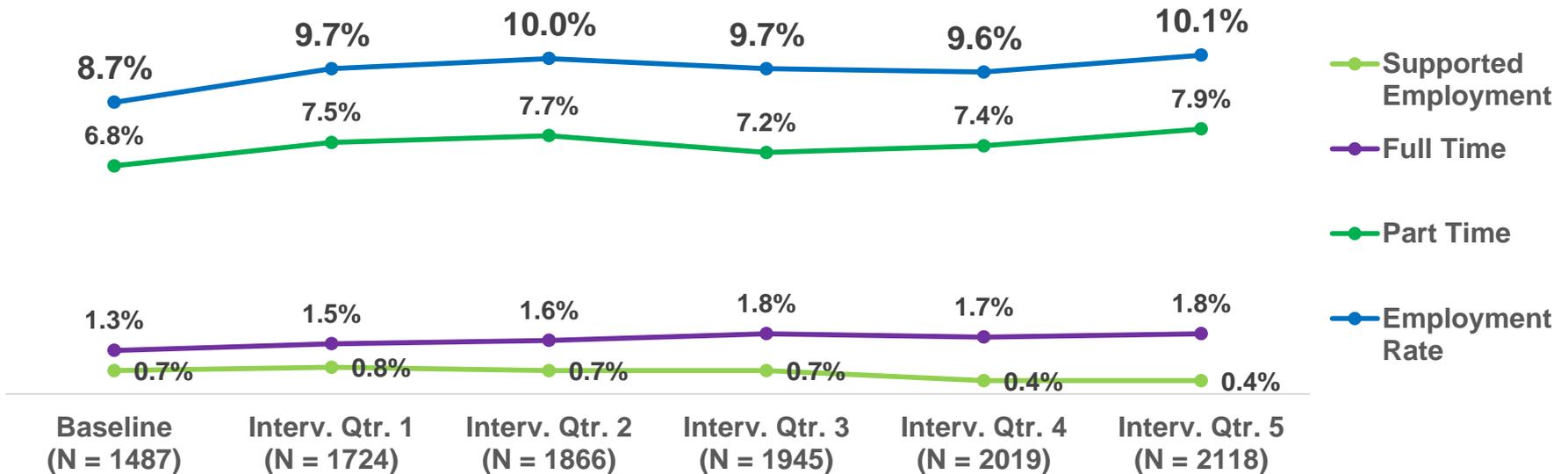
PIP Retirement????

➢ The PIP includes at least baseline and two re-measurement periods of data.

➢ The study indicator(s) have achieved statistically significant improvement over the baseline and sustained the improvement.

➢ The PIP has been in progress for several years and all ten activities have been completed.

➢ If rates are suboptimal, the BHO can continue its efforts for improvement internally.

Resources

- **Institute for Healthcare Improvement (IHI)**—An independent, not-for-profit organization helping to lead the improvement of healthcare throughout the world. www.ihi.org

- **National Guideline Clearinghouse (NGC)**—A public resource for evidence-based clinical practice guidelines. www.guidelines.gov

- **The National Committee for Quality Assurance**—a private, not-for-profit organization dedicated to improving healthcare quality. NCQA has been a central figure in driving improvement throughout the healthcare system, helping to elevate the issue of healthcare quality to the top of the national agenda. www.ncqa.org

Resources

- **Center for Healthcare Strategies**—A nonprofit health policy resource center dedicated to improving the quality and cost effectiveness of healthcare services for low-income populations and people with chronic illnesses and disabilities. www.chcs.org; www.chcs.org/usr_doc/ImprovingPreventiveCareServicesToolkit.pdf

- **Centers for Medicare & Medicaid Services (CMS)**—The U.S. Department of Health and Human Services agency responsible for administering the Medicare, Medicaid, Children's Health Insurance Program (CHIP), and several other health-related programs. www.cms.gov

www.qualishealth.org/healthcare-professionals/eqro-washington-medicaid/events