Identification of Project

Project Title:	**Strength-Based Intervention for High Cost, High Need Clients**	Clinical: __**X**__ Non-Clinical: ___
Project Leader:	**Amanda Fenn Greenberg, MPH**	Title: **MHSA Coordinator**
Initiation Date:	**December, 2016**	
Completion:	**Concept Stage**	Projected Study Period: **24 months**
PIP Description	**Implement strength-based approaches to treatment among high cost, high need clients in an effort to improve their mental health and life domain functioning.**	

Section 1: Select & Describe the Study Topic

1a. Describe the stakeholders who are involved in developing and implementing this PIP

Mono County Behavioral Health (MCBH) assembled a PIP committee comprised of the department's Director (Robin Roberts), Fiscal & Administrative Services Officer (Shirley Martin), Clinical Supervisor (Annie Linaweaver), Quality Assurance (QA) Coordinator (Julie Jones), Mental Health Services Act (MHSA) Coordinator (Amanda Fenn Greenberg), and Fiscal Technical Specialist (Laura Cruz). Throughout the process of developing and implementing this clinical PIP, several other key stakeholders, including therapists and case managers were asked to contribute feedback to the proposed strength-based approach.

Each of these stakeholders brought a critical viewpoint to the PIP development process. The members contributed an intimate knowledge of the department's inner workings and challenges, as well as insight into the strategic vision and direction of the department. The therapists and administrative staff provided further information about daily practices and the feasibility of the intervention, while the MHSA Coordinator – a new member of the team – brought an outsider's perspective.

1b. Define the problem by describing the data reviewed and relevant benchmarks. Explain why this is a problem priority for the MHP, how it is within the MHP's scope of influence, and what specific consumer population it affects.

The care of high cost, high need (HCHN) mental health clients is an issue of great concern across the country. Patients with complex health needs make up a disproportionate amount of spending in the healthcare industry. This includes complex behavioral health needs; moreover, complex needs are often exacerbated by unmet needs in the life functioning domains.[1]

These challenges also reach to remote Mono County, California. In brainstorming for this PIP, the Mono County Behavioral Health (MCBH) PIP Committee identified high cost, high need (HCHN) clients as a target population for this clinical PIP. These clients account for a disproportionate share of MCBH's resources yet their needs remain very high. These high needs are synonymous with poor clinical outcomes.

In order to further evaluate whether HCHN clients are actually a problem at MCBH, the MHSA Coordinator and Fiscal Services Officer analyzed YTD cost and service data among all MCBH clients. Among the 20 clients with the greatest cost and the most services received, the MHSA Coordinator then examined their PHQ-9 and GAD-7 scores to identify which of these clients had notably high mental health needs. Finally, the resulting list of clients was then reviewed by the MCBH Director and Clinical Supervisor, and confirmed whether or not the clients had high needs in the life functioning domains (housing, employment, etc.).

[1] Models of Care for High-Need, High-Cost Patients. Commonwealth Fund. http://www.commonwealthfund.org/publications/issue-briefs/2015/oct/care-high-need-high-cost-patients

The final client list consisted of nine clients, which is six percent of MCBH's client caseload. Given this rate, it was concluded that HCHN clients are a worthy study population for this PIP.

Although the target group – HCHN clients – makes up a small proportion of MCBH's caseload, the poor outcomes/high needs of these clients is a priority problem for the department. Because of its small size, MCBH's 14 staff members frequently collaborate to serve HCHN clients. When these clients experience a crisis or need stabilization, it is often an "all hands on deck" affair, diverting attention from other issues and lowering morale. Despite the positive work that is being done for other clients, it is the poor outcomes/high needs of the HCHN clients that dominate the conversation. This has been evidenced through observational studies conducted by the PIP Committee. During weekly clinical staff meetings, team members tend to focus on problems, rather than identifying strengths and thinking creatively about how to leverage those strengths to promote greater independence and stability. MCBH believes that improving the outcomes of these HCHN clients is within its scope of influence through targeted, strength-based planning and intervention.

MCBH is presently focusing on integrating strength-based approaches into multiple areas of practice. The staff has completed an in-service on the Real Colors assessment, which highlighted individual strengths for team-based work. Additionally, the director and clinical supervisor have implemented strength-based planning during client consults and the team will be attending an in-service on further strength-based approaches (Dr. Rick Goscha). Lastly, the department recently re-wrote its mission statement, which now reads:

> *Our mission is to encourage healing, growth, and personal development through whole person care and community connectedness. Our services are **strength based** and client centered; we strive to create a safe environment and serve all with dignity, respect, and compassion.*

With this emphasis on strength-based approaches, MCBH believes that it will be well-situated to implement a targeted strength-based intervention to improve outcomes for HCHN clients. The goal of this clinical PIP intervention will be to:

- Use strength-based approaches to decrease # of services needed per quarter by 5% among HCHN clients one year following intervention launch
- Use strength-based approaches to decrease scores on PHQ-9 by 5% among HCHN clients one year following intervention launch
- Use strength-based approaches to decrease scores on GAD-7 by 5% among HCHN clients one year following intervention launch

It is MCBH's hypothesis that a strength-based intervention for HCHN clients will impact their mental health and functional status in a way that decreases their needs and improves their clinical outcomes. Additional information about this intervention will be further outlined in the following sections.

Section 2: Define & Include the Study Question

- Three months following the launch of the strength-based intervention, have therapists and case managers recorded how they leveraged a HCHN client's strengths in 80% of the client's sessions?
- One year following the launch of the strength-based intervention among HCHN clients, will these clients experience improved clinical outcomes as measured by # of services needed, PHQ-9 scores, and GAD-7 scores?

Section 3: Identify Study Population

The study population for this intervention will be comprised of the MCBH clients who have been identified by the department as high cost, high need (HCHN) clients. In order to determine the study population once the PIP is active and ongoing, MCBH will use the same inclusion criteria/process as outlined above. It is estimated that the study population will comprise between five and ten percent of MCBH's caseload. Data on this population will be pulled from existing medical records collected by MCBH. Additional data needed will be collected from various assessments and chart reviews to be administered throughout the course of the intervention. Please note that this intervention will include all identified HCHN clients, not a sample of the identified clients.

Table 1 below will include information on age, gender, race, and payer for the clients included in the study population. Please note that this information is not provided on a client by client basis in order to help protect the confidentiality of the clients included in this PIP.

Table 1. Study Population Characteristics (To be completed upon PIP launch)

Gender	**Study Population Count**	**Study Population Percent**
Male		
Female		
Other		
Race/Ethnicity		
White		
Hispanic/Latino		
Other		
Age		
0-15		
16-25		
26-40		
41-59		
60+		
Payer		
Medicare		
Medi-Cal		
Private insurance		

Section 4: Select & Explain the Study Indicators

The study questions for this PIP are: "*One year following the launch of the strength-based intervention among HCHN clients, will these clients experience improved outcomes as measured by number of services needed, PHQ-9 scores, and GAD-7 scores?"* and *"Three months following the launch of the strength-based intervention, have therapists and case managers recorded how they leveraged a HCHN client's strengths in 80% of the client's sessions?"* The rationale for the first question is: ultimately, the goal of this PIP is to influence clinical client outcomes, therefore, it is critical to measure the change in client functioning. The rationale for the second question is to ensure that the intervention is actually being implemented by therapists and case managers among HCHN clients.

These outcomes will be quantifiably measured by a series of performance indicators, which are outlined in Table 2 below. Progress toward the majority of the performance indicators (follow-up) will be measured one year after the launch of the strength-based intervention and will be aggregated across all members of the study population.

Table 2. Study Performance Indicators

#	Performance Indicator	Numerator	Denominator	Baseline	Goal
1	Percent of sessions in which a client strength was leveraged	# sessions in which strength was leveraged	Total # of sessions	n/a	80%
2	Percent decrease in # of services needed	Aggregate difference between # services at baseline and # of services at follow-up	Aggregate # of services at baseline	TBA	5% Decrease
3	Percent decrease in PHQ-9 scores	Aggregate difference between PHQ-9 at baseline and PHQ-9 scores at follow-up	Aggregate PHQ-9 scores at baseline	TBA	5% Decrease
4	Percent decrease in GAD-7 scores	Aggregate difference between GAD-7 scores at baseline and GAD-7 scores at follow-up	Aggregate GAD-7 scores at baseline	TBA	5% Decrease

Section 5: Sampling Methods

Given the small size of this PIP's target population, MCBH will not be using a sampling method. The study population will include all HCHN clients who have been identified for inclusion in the PIP.

Section 6: Develop Study Design & Data Collection Procedures

The measures for this project were designed by the MHSA Coordinator, who is an MCBH employee. She will also be responsible for collecting and analyzing the data. The MHSA Coordinator holds a Master of Public Health with experience in survey development, evaluation plan development, and program planning. She is proficient in analyzing data in Excel and SPSS statistical software; however, given the small sample size of this PIP, data analysis will be conducted in Excel.

Please see Table 3 below for a summary of the data collection and analysis plan. The instruments used for data collection will provide consistent and accurate data over time because the tools used have been validated. Any data that is collected outside the validated tools (chart review, etc.) will be collected by one person: the MHSA Coordinator.

As a contingency for untoward results, MCBH plans to assess the implementation of the intervention at three months. If at three months, the percent of sessions in which therapists and case managers leverage a client's strengths is less than 80%, then the Director will lead a discussion at the next staff meeting to discuss potential avenues for improvement. If increases in client outcomes are not achieved, then a secondary level of analysis will be conducted to determine why the PIP was not successful. If the data collected at follow-up do show improvements, then the study will continue as planned.

See Table 3 on the following page for a summary of the data collection and analysis plan.

Table 3: Data Collection & Analysis				
Measure	Who	Timing	Data Collection	Analysis Steps
Percent of sessions in which a client strength was leveraged	MHSA Coordinator	Every 3 months post-intervention launch	Chart review	1. Count total # of sessions (denominator) 2. Count # of sessions in which clinical notes indicate a strength was leveraged (numerator) 3. Divide numerator by denominator and multiply by 100 4. Compare % to goal of 80%
Percent decrease in # of services needed	MHSA Coordinator	**Baseline:** Pre-intervention launch **Follow-Up:** Every 12 months post-launch	Chart Review	5. Calculate the aggregate difference between # of services at baseline and # of services at follow-up 6. Divide by difference by aggregate # of services at baseline 7. Multiply by 100 8. Compare % to goal of 5% decrease
Percent decrease in PHQ-9 scores	MHSA Coordinator Case Manager	**Baseline:** Pre-intervention launch **Follow-Up:** Every 12 months post-launch	PHQ-9 Assessment Chart Review	9. Calculate the aggregate difference between PHQ-9 scores at baseline and PHQ-9 scores at follow-up 10. Divide by difference by aggregate PHQ-9 scores at baseline 11. Multiply by 100 12. Compare % to goal of 5% decrease
Percent decrease in GAD-7 scores	MHSA Coordinator Case Manager	**Baseline:** Pre-intervention launch **Follow-Up:** Every 12 months post-launch	GAD-7 Assessment Chart Review	13. Calculate the aggregate difference between GAD-7 scores at baseline and GAD-7 scores at follow-up 14. Divide by difference by aggregate GAD-7 scores at baseline 15. Multiply by 100 16. Compare % to goal of 5% decrease

Section 7: Develop & Describe Study Interventions

Table 4. Intervention Summary

Intervention Name	Barriers/Causes Intervention Designed to Target	Corresponding Indicator	Date Applied
Strength-Based Stabilization	• Focus on HCHN client problems • Lack of independence among HCHN clients • Lack of functioning among HCHN clients • Lack of stability among HCHN clients	1-4	TBA

This intervention is designed to target the lack of stabilization, independence, and functioning among MCBH's HCHN clients. MCBH has identified a small but important population of HCHN clients who account for a disproportionate amount of the department's time and resources. Moreover, MCBH has recognized that working with these clients is very challenging for staff and can cause problems with staff morale. As a result, staff members have a tendency of focusing on clients' problems, which can potentially contribute to a long-term holding pattern of dependence and instability.

To address this series of problems and promote stability and independence among HCHN clients, MCBH wants to shift to a strengths-based approach. MCBH has already started launching an intervention on the staff side of the equation – including staff trainings and in-services. The next logical step is to extend the strengths-based mindset into a specific intervention that directly impacts the clinical outcomes of the county's HCHN clients. To implement this intervention, the treatment team (therapist, case manager, etc.) will meet with each of the HCHN clients specifically to identify the client's strengths. The session will then move into a planning phase in which the treatment plan is re-assessed, ensuring that the client's strengths are central to the treatment plan.

In daily practice, the intervention will be sustained through weekly focus on the client's strengths. In sessions, the client team will note how a client strength was leveraged to promote stability and independence among HCHN clients. It is MCBH's hypothesis that this shift in focus from problems to strengths will improve the study population's outcomes as measured by such indicators as the PHQ-9, GAD-7, and number of services needed.

Section 8: Data Analysis & Interpretation of Study Results

This PIP is in the concept stage, therefore the analysis of the baseline and follow-up data has not yet been completed. Please see Section 6 for the data analysis plan. Once the data has been analyzed, it will be reported in Table 5 below. The columns in this table that are highlighted in gold will be filled out once the intervention has been completed and the follow-up analysis has been run.

This data is expected to trigger further QI projects. If MCBH meets its targets at all data collection points, then MCBH will continue with the PIP as planned, and potentially expand the intervention to other clients with high needs who may not have met the initial HCHN criteria. If the data do not show that the department has met its goals, then the PIP Committee will return to the data to see what aspects of the intervention were less successful and develop additional trainings or services to address those shortcomings before moving on to future stages of the intervention. Furthermore, the PIP Committee will interview clients to further understand how the intervention could be improved.

Table 5: Summary of Performance Indicators & Measurement

Performance Indicator	Date of Baseline	Baseline Msmt	Date of Follow-Up	Follow-Up Msmt	Goal for Improve-ment	Results	Goal Met? (Y/N)
Percent of sessions in which a client strength was leveraged	n/a	n/a	Every 3 months post-intervention launch	To be collected	A client strength is leveraged in 80% of the client's sessions		
Percent decrease in # of services needed	Pre-intervention launch	To be collected	Every 12 months post-launch	To be collected	5% Decrease		
Percent decrease in PHQ-9 scores	Pre-intervention launch	To be collected	Every 12 months post-launch	To be collected	5% Decrease		
Percent decrease in GAD-7 scores	Pre-intervention launch	To be collected	Every 12 months post-launch	To be collected	5% Decrease		

Section 9: Assess Whether Improvement Is "Real" Improvement

This PIP is in the concept stage, therefore a thoughtful reflection on the results of the PIP is not possible at this time. However, given the small sample size of the provider and client populations at MCBH, we do not anticipate distinct challenges related to sampling, monitoring, or analysis in terms of studying the results of this PIP.

MCBH also does not anticipate challenges with the comparability of the initial and repeat measures for the client outcomes, given our small sample and the validated tools we have chosen as our indicators. The primary measures of improvement will be reported as percent change and MCBH will report whether the goal was met. At the conclusion of the PIP, MCBH will determine whether it would have been helpful to collect and monitor data more frequently. It is worth noting that the GAD-7 and PHQ-9 will be collected more frequently than every 12 months in order to assess progress on an individual basis; however, the follow-up and analysis for the purposes of this PIP will only be conducted every 12 months.

Statistical testing will not be used, as the study sample is small and we do not need to control for non-independent sampling. Furthermore, this study is not designed to be generalized across individuals, settings, and times, and is therefore not subject to threats to external validity. There is not a control group.

In the data analysis section, the MHSA Coordinator will report on whether the goal for each indicator was met. The PIP will be considered successful if the goals are met for three of the four indicators identified.

Although it may be challenging to attribute changes in the number of services needed, PHQ-9, and GAD-7 scores solely to the intervention, MCBH plans to continue measuring these clinical indicators going forward and hopes to observe change over longer periods of time that would point toward correlation. In addition to this follow-up activity, MCBH will use the data gathered to inform programming decisions and potentially expand the intervention to other high need clients.

The baseline data for the intervention will be collected from validated tools embedded in the EHR; the follow-up data will be collected the same way, thus validating the methodology. The MHSA Coordinator will also ensure that the baseline and follow-up data for the client outcomes is collected with consistency.

This PIP is in the concept stage. We look forward to reporting on any quantitative improvements in client outcomes after running the data analysis outlined in Section 6. Given the small sample size and the limited resources of this small department, statistical tests will not be performed to assess whether the improvement is "true improvement."

Although integration of strength-based approaches into behavioral health is a topic of interest state-wide, this is the first initiative in Mono County to directly integrate strength-based approaches with clients. Therefore, if the PIP is successful in ultimately affecting the study population's outcomes, it is likely that this intervention is the cause of this success (face validity).

Finally, with regard to sustained improvement, the focus on strength-based approaches among HCHN clients will continue at least until January, 2019 thanks to this PIP. Progress will be monitored according to the data collection and analysis plan, which will allow MCBH to measure whether the improvement is sustained over time.