Identification of Project

Project Title:	**Increasing Client Engagement in Case Management Services**	Clinical: __**X**__ Non-Clinical: ___
Project Leader:	**Amanda Fenn Greenberg, MPH**	Title: **MHSA Coordinator**
Initiation Date:	**January, 2019**	
Completion:	**Active and On-Going**	Projected Study Period: **30 months**
PIP Description	**Increase the percent of community-based case management visits in an effort to improve client engagement/retention in case management services.**	

Section 1: Select & Describe the Study Topic

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

For this PIP, Mono County Behavioral Health (MCBH) assembled a committee comprised of the department's Director (Robin Roberts), Clinical Supervisor (Annie Linaweaver), Mental Health Services Act (MHSA) Coordinator (Amanda Fenn Greenberg), Strengths Model Facilitator (Rick Goscha), and Strengths Model Department Champion (Salvador Montanez). Although Mono County does not have any peer employees, several of these committee members have lived experience and work directly with clients. 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 strengths-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.

1.2. What is the problem? How did it come to your attention? What data has been reviewed that suggests the issue is indeed a problem for the MHP? Describe any relevant benchmarks.

Since January 2018, MCBH has participated in a multi-county learning collaborative focused on implementing the Strengths Model (SM) within its system of care. The Strengths Model is an evidence-based approach that trains providers to focus on clients' strengths rather than their deficits. The model focuses primarily on case management and provides case managers with two key tools – the Strengths Assessment and the Personal Recovery Plan – that help identify clients' functional strengths, goals, and the steps needed to achieve those goals. When implemented with fidelity, the Strengths Model has been proven to impact such outcomes as education, employment, hospitalization, and incarceration.

"The purpose of the SM is to assist people to recover and reclaim their lives by helping them identify and secure needed resources and to achieve goals they have identified for themselves" (Rapp & Goscha, 2012). The six principles of the Strengths Model include: (1) the focus is on individual strengths rather than pathology, (2) the community is viewed as an oasis of resources, (3) interventions are based on client self-determination, (4) the case manager–client relationship is primary and essential, (5) aggressive

outreach is the preferred mode of intervention, and (6) people can learn, grow, and change (Rapp & Goscha, 2012). As part of these principles, the Strengths Model emphasizes the value of conducting case management visits/appointments in the community. Community-based visits are a key component of fidelity to the model and fidelity to the model has been proven to improve client engagement and improve client outcomes. Ten studies have tested the effectiveness of the Strengths Model with people with serious mental illnesses. Four of the studies employed experimental or quasi-experimental designs (Stanard, 1999; Macias et al., 1997; Macias et al., 1994; Modrcin et al., 1988), and six used non-experimental methods (Fukui et al 2012; Barry et al., 2003; Ryan, Sherman & Judd, 1994; Kisthardt, 1993; Rapp & Wintersteen, 1989; Rapp & Chamberlain, 1985). Collectively, these studies produced positive outcomes in the areas of psychiatric hospitalization, housing, employment, reduced symptoms, leisure time, community involvement, and enhanced quality of life.

In a review of the monthly outcomes forms that case managers fill out as part of the Strengths Model, MCBH and the Strengths Model facilitators discovered a lack of retention among clients receiving case management. This is a problem because when clients who need services are not receiving them, it can negatively impact client outcomes. In this way, lack of retention serves as a proxy for client outcomes.

In identifying this problem, MCBH also reviewed several scholarly articles, including "Disengagement from Care: Perspectives of Individuals with Serious Mental Illness and of Service Providers" (Smith et al 2013). This article states that among individuals with serious mental illness "Failure to receive care has been associated with repeated symptom exacerbations and with hospitalizations, homelessness, and incarceration." Moreover, the researchers found that "Both individuals (N=13, 23%) and providers (N=17, 68%) endorsed the importance of transportation assistance, and providers emphasized flexibility of scheduling, both in time and place (N=17, 68%)." Aligning with this research, the proposed community visit intervention provides clients with flexibility of scheduling in place.

Between July and December 2018, MCBH had 26 total clients enrolled in individual case management services. By December 2018, 16 clients had exited services; this is a retention rate of just 38 percent. Case managers reported that clients exited services for one of two reasons: "Person no longer available due to move, incarceration, or other circumstance" or "Treatment was completed from the client's perspective but not from the agency's perspective." There was only one instance of the latter reason; due to confidentiality concerns, this may be discussed and explored further during the in-person review. No case manager stated that a client was "completely discharged from program due to successful completion" or "person moved to another program to receive less intensive services." These data were pulled from the Strengths Model Monthly Outcomes form that case managers fill out for all clients receiving individual case management services.

Lack of retention in case management services is a priority problem for MCBH because it affects a very important specific consumer population. Individuals who are receiving case management at MCBH are often the clients with the highest levels of serious mental illness and are at the highest risk of adverse client outcomes. MCBH is committed to providing high quality service to all its clients, but its high-risk clients with SMI receive special care and attention. Moreover, this is a priority problem because none of the clients who left case management services were completely discharged due to successful completion. Thanks to prior research into community needs and perceptions of its services, MCBH knows that mental health stigma is one reason why individuals do not seek care or do not stay engaged with care (see MHSA

Three-Year Plan for this data; the community survey included clients, family members, MCBH staff, and other community members). Stigma is often associated with being seen at the MCBH offices in our small town. Therefore, offering individuals the option to meet in a community-based setting helps address this barrier: the failure to engage due to stigma.

MCBH believes that the lack of retention in case management services is within its scope of influence because the department is already participating in the Strengths Model Learning Collaborative, which includes strategies for improving client retention in case management. In the department's six-month fidelity review, Strengths Model facilitators discovered that only 18 percent of case management contacts occurred in the community. The Strengths Model fidelity benchmark for case management is that at least 75 percent of case management contacts occur in the community (University of Kansas School of Social Welfare: Strengths Model Fidelity Scale). The percent of case management visits that occur in the community will be tracked as one of the study indicators (see Table 4.1 below). The practice of this high rate of community-based case management visits contributes to the Strengths Model's success in impacting client outcomes.

This data point served as a starting point for further data collection, including a consumer focus group in which Strengths Model facilitators asked clients about the value of community-based visits. The focus group participants (n=3) said they would love to meet more with their case managers in the community, as this would make services more accessible and convenient.

Based upon these data points and the literature that supports fidelity to the Strengths Model, MCBH plans to employ the intervention of implementing community-based case management, including the use of the Personal Recover Plan and the Strengths Assessment; these are the two key tools from the evidence-based Strengths Model, which has also found that community-based case management is a best practice. Furthermore, MCBH plans to shift its strategy, philosophy, and tools around supervision of its Case Managers. Through this process, MCBH predicts that this will also help Case Managers maintain fidelity to the Strengths Model, including use of the PRP, SA, and Community-Based Visits, all of which will improve client retention in case management services. Case Managers and their supervisor will begin to use the Recovery Movement Indicator as a tool to track caseloads, discuss client engagement, and track each client's progress toward their own goals.

The overarching goal of this intervention is to improve client retention in case management services. As this PIP continues, MCBH expects to gain more insight into the barriers to services that clients experience and introduce additional interventions to address these needs.

Section 2: Define & Include the Study Question

During the study period, will increasing the percentage of community-based case management appointments (as measured by a review of progress notes) and will adding new tools for supervision (Recovery Movement Indicator), increase the percent of clients who remain engaged in case management services (as measured by Strengths Model monthly outcomes forms)?

Section 3: Identify Study Population

The study population for this PIP includes all clients who are receiving individual case management services. At MCBH, this is 26 people and includes individuals of all ages, genders, and ethnicities. Moreover, as stated above, individuals who are receiving case management at MCBH are often the clients with the highest levels of serious mental illness and are at the highest risk of adverse client outcomes.

Section 4: Select & Explain the Study Indicators

The study question for this PIP is "During the study period, will increasing the percentage of community-based case management appointments (as measured by a review of progress notes) and will adding new tools for supervision (Recovery Movement Indicator), increase the percent of clients who remain engaged in case management services (as measured by Strengths Model monthly outcomes forms)?" The rationale for this question is: the goal of this PIP is to improve client engagement/retention in case management services, which, as discussed previously, serves as a proxy for a variety of client outcomes. Furthermore, MCBH has added a new study indicator for 2020: "Percent of Clients Demonstrating Movement Toward Their Goals." This means there are three primary study indicators. These study indicators were chosen because they directly measure the study question.

Table 4.1. Study Performance Indicator

#	Performance Indicator	Numerator	Denominator	Baseline	Goal*
1.	Percent of clients engaged/retained in case management services	# of clients retained in case management Baseline: 10 Clients	Total # of clients receiving case management Baseline: 26 Clients	38%	46% after 6 months 54% after 12 months 62% after 30 months
2.	Percent of case management visits that occur in the community	# of community-based case management visits Baseline: 11 Visits	Total # of case management visits Baseline: 62 Visits	18%	35% after 6 months 50% after 12 months 75% after 30 months
3.	Percent of clients that demonstrate movement toward their goals	TBD**	TBD	TBD	TBD

*Although the goals outline the target progress in six-month intervals, the indicators will be measured every three months (quarterly) to ensure that the department is on track to meet the six month goals.

**Please note that due to COVID-19 MCBH has not been able to capture an accurate baseline and will create goals once a semblance of normalcy has been achieved.

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 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 and the Strengths Model facilitator/fidelity reviewer. Together, these two individuals will be responsible for collecting and analyzing the data. The MHSA Coordinator is a permanent employee of MCBH; the Strengths Model facilitator is an external consultant. In the event that the facilitator is unable to participate in the longer-term data collection points, the MHSA Coordinator will take on his role. The MHSA Coordinator has a Master of Public Health and experience in survey design and analysis. The Strengths Model facilitator has a PhD and serves as Senior Vice President of the Center for Integrated Behavioral Health Solutions (CIBHS).

Please see Table 6.1 below for a summary of the data collection and analysis plan. The data collection process and analysis will remain consistent over time in large part because it will be collected by two people: the MHSA Coordinator and the Strengths Model facilitator. For the first study indicator, the instrument used will be the Monthly Outcomes Form, which is completed each month by the case managers and turned into the MHSA Coordinator. It is then analyzed by the Strengths Model Facilitator. For the second indicator, the data is pulled from the electronic health record and analyzed by the facilitator.

As a contingency for untoward results, MCBH plans to assess the implementation of the intervention at every quarter. If at six months, there has been no progress toward either of the study indicators, then the PIP committee will reconvene and discuss alternate interventions.

Table 6.1

Data Collection and Analysis Plan		
Indicator	Data Collection & Analysis	Analysis Steps
1. Percent of clients engaged/ retained in case management services	MHSA Coordinator collects monthly outcomes forms from case managers on all clients receiving individual case management services and records retention data monthly in Excel Spreadsheet. MHSA Coordinator conducts analysis of clients retained in services every three months	1. Manually record retention data (total clients, clients retained, clients exited, reasons for exit) from the monthly outcomes forms 2. Every 3 months, calculate sum of total clients and clients retained (exclude clients successfully discharged) 3. Divide clients retained by total clients 4. Compare that percent to goal benchmarks
2. Percent of case management visits that occur in the community	Every three months, the MHSA Coordinator runs a query from the EHR to determine the total number of case management visits that occurred broken down by location.	1. Run Query 2. Calculate the sum all visits 3. Calculate the sum of all community-based visits 4. Divide community-based visits by total number of visits

		5. Compare that percent to goal benchmarks
3. Percent of clients demonstrating movement toward their own goals	Every three months, the MHSA Coordinator will review each Case Manager's Recovery Movement Indicator, which track progress toward goals over time	1. Calculate the sum of all clients 2. Calculate the sum of all clients who have made progress toward their goals (as indicated on Recovery Movement Indicator) 3. Divide the sum of the clients who have made progress by the sum of all clients 4. Compare that percent to goal benchmarks

Section 7: Develop & Describe Study Interventions

Table 7.1. Intervention Summary

Intervention Name	Barriers/Causes Intervention Designed to Target	Corresponding Indicator	Date Applied
Implementation of community-based case management, including use of the Personal Recovery Plan, the Strengths Assessment, and the Recovery Movement Indicator in Supervision*	• Ease of access, stigma, trust-/ relationship-building	1-2	January 2019

*The Personal Recovery Plan, Strengths Assessment, and Recovery Movement Indicator are key tools of the Strengths Model, an evidence-based practice that also includes community-based case management as one of its key components. By implementing community-base case management, MCBH also addresses the barriers of access to services and mental health stigma by meeting clients in the community. This flexibility in meeting place is also a best practice according to the literature cited above.

This intervention is designed to improve retention/engagement in case management services. The Strengths Model states that the primary setting for our work is in the community, and the Strengths Model is proven to impact key outcomes, especially among the highest risk clients. Given the department's low fidelity to the Strengths Model's community-based visit standard (18% vs. 75%), and the links between the Strengths Model and client retention in case management services, MCBH believes that the proposed intervention will directly impact the two corresponding study indicators. Until this point, case management visits have largely taken place in MCBH's office due to provider ease. If clients still wish to meet in the office, this is of course acceptable, but given the results of the client focus group, MCBH believes that most clients will be interested in community-based case management visits.

When increasing community-based case management visits, case managers will open a dialogue with clients about where they would like to meet. Community-based visits can take place in the home, at a

public meeting place like a library or coffee shop, outdoors, or while completing a task. Community-based case management visits make access to services easier and can help clients overcome mental health stigma by not requiring them to enter a government mental health office. Moreover, MCBH believes that community-based case management visits help build trust and stronger client-provider relationships, both of which directly impact retention in services.

Ten studies have tested the effectiveness of the Strengths Model with people with serious mental illnesses. Four of the studies employed experimental or quasi-experimental designs (Stanard, 1999; Macias et al., 1997; Macias et al., 1994; Modrcin et al., 1988), and six used non-experimental methods (Fukui et al 2012; Barry et al., 2003; Ryan, Sherman & Judd, 1994; Kisthardt, 1993; Rapp & Wintersteen, 1989; Rapp & Chamberlain, 1985). Collectively, these studies produced positive outcomes in the areas of psychiatric hospitalization, housing, employment, reduced symptoms, leisure time, community involvement, and enhanced quality of life.

Section 8: Data Analysis & Interpretation of Study Results

This PIP is active and on-going; however, improvement has not been shown. The collection and analysis of baseline data occurred as planned, as did the follow-up measurements for community-based visit data and a portion of the retention data. As noted below, unfortunately, the retention data for several of the last quarters is not available as these data are on paper and not retrievable due to COVID-19. As the study continues, the columns in this table that are highlighted in gold will be filled out once the follow-up analysis has been conducted.

As was expected, these data have triggered further QI projects since MCBH has not met its targets at all data collection points. MCBH originally state that if the data did 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 consider the inclusion of additional interventions. Indeed, MCBH has added to the existing intervention: addition of specific tools for supervision (Recovery Movement Indicator) and has ensured the Strengths Model has a supervisorial champion.

Table 8.1: Summary of Performance Indicators & Measurement

Performance Indicator	Date of Baseline	Baseline Msmt	Date of Follow-Up	Numerator/ Denominator	Results	Goal for Improve-ment	Goal Met? (Y/N)
1. Percent of clients engaged/ retained in case management services	January 1, 2019	38% Numerator: 10 Clients Denominator: 26 Clients	April 1, 2019	13/25	52%	46% after 6 months	Y
			July 1, 2019	11/25	44%		N
			October 1, 2019	14/27	52%	54% after 12 months	N
			January 1, 2020*				
			April 1, 2020			62% after 30 months	
			July 1, 2020				

2. Percent of case management visits that occur in the community	January 1, 2019	18% Numerator: 11 Visits Denominator: 62 Visits	April 1, 2019	51/287 total visits	18%	35% after 6 months 50% after 12 months 75% after 30 months	N
			July 1, 2019	85/478 total visits	18%		N
			October 1, 2019	47/379 total visits	12%		N
			January 1, 2020	53/273 total visits	19%		N
			April 1, 2020				
			July 1, 2020				
3. Percent of clients demonstrating movement	July 1, 2020	Baseline TBD June 1-July 1	October 1, 2020				
			January 1, 2020				
			April 1, 2020				

*Unfortunately these data are missing at the time of this PIP because they are in paper form and unable to be retrieved and analyzed due to COVID-19.

Section 9: Assess Whether Improvement Is "Real" Improvement

This PIP is active and ongoing, with a key change in the intervention about to be implemented. Since this PIP has not shown improvement in either the percent of clients retained or the percent of community-based visits, MCBH believes that adding another element to bolster the implementation of the Strengths Model may have a positive impact on the percent of clients retained in case management services. Furthermore, MCBH will be able to add a key indicator with its expansion of this PIP: percent of clients that demonstrate movement toward their goals (using the Recovery Movement Indicator). This tool will also be used by the new Director of Clinical Services to help ensure case managers are engaging effectively with clients, including the use of community-based visits.

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 small number of staff devoted to analyzing the data points. The study indicators will be reported as percentages and MCBH will report whether the goal was met. After six months, MCBH will determine whether it is necessary to collect and monitor data more frequently.

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. MCBH believes that this PIP has face validity: if the PIP is successful, one can attribute increased retention in case management services to the increased percentage of community-based visits.

MCBH looks forward to reporting on 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."

Finally, with regard to sustained improvement, MCBH plans to integrate community-based case management visits into its practice long-term. 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.

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