Identification of Project

Project Title:	**Improving Timeliness of Telepsychiatry Appointments**	Clinical: ____ Non-Clinical: _X__
Project Leader:	**Amanda Fenn Greenberg, MPH**	Title: **MHSA Coordinator**
Initiation Date:	**July, 2018**	
Completion:	**Active and On-Going**	Projected Study Period: 24 **months**
PIP Description	**Introduce non-clinical interventions to the telepsychiatry system in an effort to improve the timeliness of telepsychiatry appointments.**	

Section 1: Select & Describe the Study Topic

1.1. 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), Clinical Supervisor (Annie Linaweaver), Quality Assurance (QA) Coordinator (Julie Jones), Mental Health Services Act (MHSA) Coordinator (Amanda Fenn Greenberg), Fiscal Technical Specialist (Laura Cruz), and Telepsychiatry Coordinator (Bertha Jimenez). 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 telepsychiatry coordinator, especially, provided further information about daily practices and the feasibility of the interventions.

1.2.a. 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.

Psychiatry services are a critical component of any MHP's daily operations and MCBH is no exception. However, like many counties across the state of California and indeed across the country, Mono County has found it difficult to recruit and retain an in-person psychiatrist. Furthermore, MCBH does not have a need for a full-time psychiatrist. Over the years, the department has tried recruiting in-person psychiatrists in partnership with neighboring Inyo and Alpine Counties, but despite several promising candidates, MCBH remains without an in-person psychiatrist.

In order to provide psychiatry services, MCBH previously contracted with Kingsview, which specializes in telepsychiatry and now contracts with North American Mental Health Services (NAMHS). During the first 15 months of this PIP, MCBH has contracted with Kingsview to provide an average of 5.6 hours of telepsychiatry per week. The department worked with a child psychiatrist, an adult psychiatrist, and a geriatric psychiatrist. Beginning in October 2019, MCBH began contracting with NAMHS.

One full-time staff member devotes approximately 45-65 percent of their time to serving as MCBH's Telepsychiatry Coordinator. This involves weekly coordination with Kingsview, including the faxing of medical records and charts, assisting in medication support, completing telepsychiatry intake paperwork, and scheduling all telepsychiatry appointments, including appointment confirmations and rescheduling.

Since December 2015, when MCBH began contracting with Kingsview, the department has worked to streamline its telepsychiatry system, minimize no-shows, and maximize efficiency; this has involved trying and testing changes to many of the Telepsychiatry Coordinator's duties. At the beginning of this PIP, MCBH hypothesized that there was a problem around telepsychiatry no-shows (this hypothesis was based on qualitative data); however, based upon two months of data collection, this was ruled out as a problem. Although no-shows can impact the time between first requested appointment (FRA) and first actual appointment (FAA), MCBH found that it had very few no-shows and that the difference between FRA and FAA was not very different from the time between FRA and first offered appointment (FOA) or first scheduled appointment (FSA).

Instead, MCBH discovered through this data analysis that it had a problem related to primarily to timeliness. As will be further discussed and demonstrated in the narrative to follow, timeliness serves as a proxy for client outcomes. MCBH has continually found because our system is so small, (and thus our study population is so small) that it is nearly impossible to discover a true problem with client outcomes that can be traced back to an intervention that will have a meaningful impact. For example, MCBH had approximately 50 crisis calls in 2019 and less than 10 were determined a 5150. These individuals varied widely in age, cause of suicidality, and some don't even live in Mono County. As a result it's not possible to create a PIP that would address the outcome of hospitalizations. However, we can understand that when clients don't have timely access to psychiatry services then they are more likely to experience an array of adverse client outcomes, and that is the basis of this PIP.

Between July 1, 2018 and December 31, 2018, MCBH discovered that it had an average timeliness of 18.4 business days from FRA to FAA, 19.3 business days from FRA to FOA, and 16 business days from FRA to FSA (please see table and figure below). The relevant benchmark that MCBH is attempting to achieve in this PIP is the benchmark set by Medi-Cal:

> *Commencing July 1, 2018, Plans must comply with the network adequacy standards, as specified…below. In addition, effective July 1, 2018, Plans must comply with the requirements in Section 1300.67.2.2(c)(1-4), (7) of Title 28 of CCR. For psychiatry, the standards are as follows:*
>
> *Timely Access [as defined in W&I § 14197(d)(1); CCR Title 28, § 1300.67.2.2(c)(5)(D)]: Within 15 business days from request to appointment.*

Table 1.

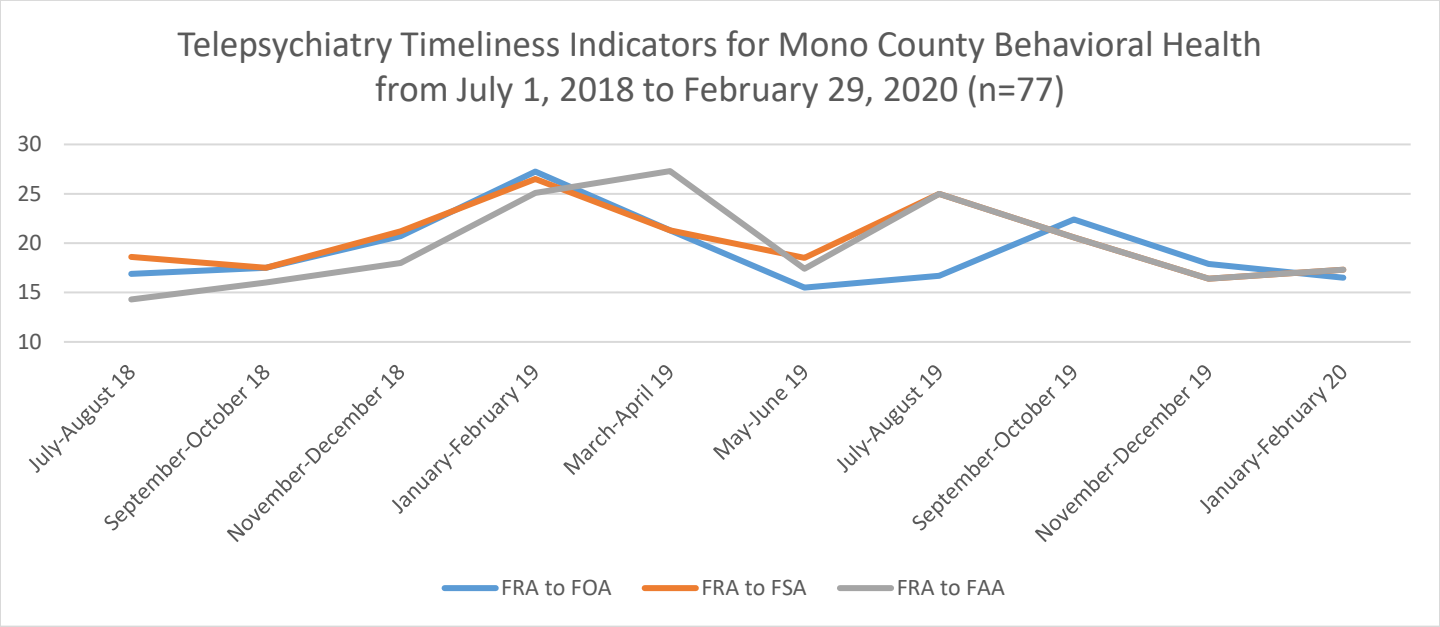
Telepsychiatry Timeliness Indicators for Mono County Behavioral Health from July 1, 2018 to December 31, 2018 (n=30 – excludes baseline)			
	Business Days from First Requested Appointment to First Offered Appt.	Business Days from First Requested Appointment to First Scheduled Appt.	Business Days from First Requested Appointment to First Actual Appt*
Acronym Used	*FRA to FOA*	*FRA to FSA*	*FRA to FAA*
Baseline: June 2018 (n=2)**	17.5	25	25.0
July – August 2018 (n=10)	16.9	18.6	14.3
September – October 2018 (n=8)	17.5	17.5	16.0
November – December 2018 (n=9)	20.7	21.2	17.5
January – February 2019 (n=12)	27.25	26.5	25.1
March – April 2019 (n=3)	21.3	21.3	27.3
May – June 2019 (n=10)	15.5	18.5	17.4
July – August 2019 (n=3)	16.7	25	25
September – October 2019 (n=5)	22.4	20.6	20.6
November – December 2019 (n=7)	17.9	16.4	16.4
January – February 2020 (n=6)	16.5	17.3	17.3
Six Month Total July 1 – December 31, 2018 (n=30)	18.4	19.3	16.0
Six Month Total January 1 – June 30, 2019 (n=25)	21.6	22.4	22.5

Six Month Total July 1 – December 31, 2019 (n=15)	19.1	19.5	19.5

**Data reflected in Time from First Requested Appointment to First Actual Appointment has been cleaned to exclude the individuals who never came to their first actual appointments. Clients typically do not appear for first actual appointments because they have moved out of the area, because they have been seen at Mammoth Hospital, or because MCBH has lost contact with them.*

***Data for all dates are disaggregated using the date of the First Scheduled Appointment.*

Figure 1.



1.2.b. What is the overarching goal of the PIP? How will the PIP be used to improve processes and outcomes of care provided by the MHP? How are the proposed interventions grounded in proven methods and critical to the study topic?

The overarching goal of this PIP is to meet the 15 business day benchmark for telepsychiatry timeliness because timeliness is a proxy for client outcomes. Meeting the 15 business day benchmark for telepsychiatry timeliness is a priority for MCBH not only because it is federally mandated, but also because it is a standard that ensures a high standard of care for clients with serious mental illness (SMI) and serious emotional disturbance (SED). This PIP has been used to improve processes of care around telepsychiatry timeliness through three interventions that are within MCBH's scope of influence:

1. **Increase assisted transportation**: in order to improve timeliness from FRA to FAA, MCBH tried offering gas gift cards to clients who live outside the Town of Mammoth Lakes to help them get to their appointments. The department also offered to pick up clients and bring them to their appointments. (Since this intervention began on July 1, 2018, all individuals living outside the Town of Mammoth Lakes (approximately 7% of all telepsychiatry patients, have been offered gas cards or pick up; 100% of clients have accepted this offer). This intervention is not offered to those in Mammoth because clients in Mammoth rarely, if ever, cite transportation as a barrier to accessing services.

2. **Train case managers on Kingsview intake procedures**: in order to improve overall telepsychiatry timeliness (time from FRA to FOA, FSA, and FAA), MCBH trained/re-trained all case managers on the correct procedure to complete the Kingsview intake paperwork. This ensures that no internal barriers related to paperwork will unnecessarily decrease telepsychiatry timeliness. This training took place in early September 2018.

3. **Offer text reminders to clients**: in order to improve time from FRA to FAA, MCBH implemented a text reminder system in addition to its existing voice call reminder system. This intervention launched on October 3, 2018. This intervention is offered to 100% of telepsychiatry clients and approximately 80% of clients have consented to text reminders. One appt reminder is sent to clients between 2-4 pm the day before their appt.

4. **Change telepsychiatry company and add targeted telepsychiatry hours**: in order to improve overall telepsychiatry timeliness, MCBH will determine the best day(s) of the month to add telepsychiatry hours in order to maximize its ability to meet clients' needs for telepsychiatry appointments (i.e. do not choose Monday, as many holidays fall on Mondays). In October, 2019, MCBH began working with NAMHS and increased its telepsychiatry hours from 5.6 hours to 10 hours per week. Appointments now take place on Tuesdays and Wednesdays. It is critical to note that in the first several months of the transition, the new NAMHS psychiatrist needed longer appointments with each client to assess them; therefore, MCBH does not anticipate seeing real improvement in the key indicators until 2020.

These four interventions were developed based on research into best practices, discussion around internal gaps in service, and informal barrier analyses with clients. The barrier analysis has taken place on a one-on-one level between the telepsychiatry coordinator and individual clients, with the telepsychiatry coordinator reporting this anecdotal evidence to the PIP Committee. This reliance on qualitative research is a critical part of how the MHP plans its PIPs.

1.2.c. How is the identified study topic relevant to the consumer population? How will addressing the problem impact a significant portion of MHP consumers? How will the interventions potentially impact the mental health, functional status, or satisfaction of consumers served?

Improving the MHP's telepsychiatry timeliness will impact a significant portion of its consumers. Indeed, there were 112 new intakes between July 1, 2018 and December 31, 2018; during the same period, there were 30 individuals who requested telepsychiatry. Although not all individuals who requested telepsychiatry were new intakes, this provides context around MCBH's client caseload. Timeliness in telepsychiatry appointments can be considered a proxy for a variety of client outcomes, including hospitalization, incarceration, housing, and employment. MCBH believes that achieving this timeliness benchmark would ensure improved access to services for many of its most vulnerable clients and those that struggle most with their SMI and SED.

Section 2: Define & Include the Study Question

Will the three interventions outlined above help Mono County Behavioral Health achieve the 15 business day benchmark for timely access to telepsychiatry during the course of the 12 month study period as reported in Mono County Behavioral Health's Telepsychiatry Timeliness Log?

Section 3: Identify Study Population

The study population for this intervention will be comprised of the clients who have their first scheduled appointment (FSA) for telepsychiatry during the study period of July 1, 2018 to July 1, 2019. Many, if not all, of these clients have either SMI or SED; their ages range from 11 to 67 years old; there is a mix of genders and races.

Section 4: Select & Explain the Study Indicators

The study question for this PIP is "Will a combination of the interventions outlined above help MCBH achieve the 15 business day benchmark for timely access to telepsychiatry during the course of the six month study period as reported in MCBH's Telepsychiatry Timeliness Log?" The rationale for this question is: the goal of this PIP is to influence timely access to telepsychiatry, which, as discussed previously, serves as a proxy for a variety of client outcomes. There are three primary study indicators:

- Average time in business days from first requested appointment (FRA) to first offered appointment (FOA)
  - Referred to throughout this PIP as "FRA to FOA"
- Average time in business days from FRA to first scheduled appointment (FSA)
  - Referred to throughout this PIP as "FRA to FSA"
- Average time in business days from FRA to first actual appointment (FAA)
  - Referred to throughout this PIP as "FRA to FAA"
- MCBH also captures qualitative data as needed, primarily for clients who do not come to their FAAs. This allows MCBH to provide some context when cleaning the data and to identify any trends among those who do not attend their FAA.

Table 2.

Study Performance Indicators					
#	Performance Indicator	Numerator	Denominator	Baseline	Goal
1.	FRA to FOA	Sum of days from FRA to FOA for all clients in study pop	# of clients in study pop	17.5 business days	15 business days
2.	FRA to FSA	Sum of days from FRA to FSA for all clients in study pop	# of clients in study pop	25 business days	15 business days
3.	FRA to FAA	Sum of days from FRA to FAA for all clients in study pop who came to FAA	# of clients in study pop who came to FAA	25 business days	15 business days

The indicators for this project were modeled on a document entitled *"BHC's Self-Assessment of Timely Access: FY 17-18 CalEQRO Site Reviews."* Using the items in Section 1.1, Amanda Greenberg, the MHSA Coordinator, created a Telepsychiatry Timeliness Log, which is housed in Microsoft Sharepoint. This is a readily accessible source.

First Requested Appointment to First Actual Appointment was selected because it clearly allows MCBH to measure the overarching goal of the PIP and report on the Medi-Cal benchmark of 15 business days. It is also a clear measure of performance. FRA to FOA and FRA to FSA were chosen because they provide additional context that can help MCBH interpret the FRA to FAA data and brainstorm potential future interventions. As stated above, these timeliness-related indicators are a proxy for consumer outcomes such as hospitalizations, incarcerations, etc.

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. As of January 1, 2019, the study population is n=30.

Section 6: Develop Study Design & Data Collection Procedures

As previously stated, the indicators for this project were modeled on a document entitled *"BHC's Self-Assessment of Timely Access: FY 17-18 CalEQRO Site Reviews."* Using the items in Section 1.1, Amanda Greenberg, the MHSA Coordinator, created a Telepsychiatry Timeliness Log, which is housed in Microsoft Sharepoint, which the MHP uses as a database tool. The data are not initially recorded in the EHR, but rather in this tool. The Telepsychiatry Coordinator, Bertha Jimenez, inputs the data for the study indicators on a weekly basis. Beginning August 1, 2019, this task was completed by the new Telepsychiatry Coordinator, Andres Villalpando, who received training from Bertha Jimenez on the specific steps of this task.

To accomplish this task, she opens the Sharepoint webpage, clicks "create new item" or "edit existing item" and fills out the blanks on the form every week. She then saves and closes the form. It is done the same way every time because she is the only person completing this task. In the event that she were to go on leave, the replacement telepsychiatry coordinator would be trained to complete this task in her stead by the MHSA Coordinator. The reports for analysis are exported from Sharepoint into Microsoft Excel by the MHSA Coordinator, who holds a Master of Public Health and studied statistics and evaluation. The data are reviewed and cleaned by the MHSA coordinator to ensure accuracy. When an anomalous data point is found, the MHSA Coordinator meets with the Telepsychiatry Coordinator to discuss that data point and clean the data.

The MHSA Coordinator completes this process every other month and provides updates to the PIP Committee for discussion and consideration (this also served as a contingency for untoward results). Once the data are in Excel, the MHSA Coordinator follows the analysis steps outlined in table 3: Calculate average time from FRA to FOA for two-month period and in aggregate; Calculate average time from FRA to FSA for two-month period and in aggregate; and Clean data by removing clients who did not attend FAA. Calculate average time from FRA to FAA for two-month period and in aggregate for clients who attended FAA. Because the number of clients included in the study is so small and there is no sampling, there is no statistical testing.

Please see Table 3 below for a summary of the data collection and analysis plan. The data collection process and analysis remained consistent over time in large part because it was completed by two people: the Telepsychiatry Coordinator (full-time MCBH employee) and the MHSA Coordinator (part-time MCBH employee). The data are representative of the study population because it includes all members of the study population.

Table 3.

Data Collection and Analysis Plan		
Indicator	Data Collection & Analysis	Analysis Steps
1. FRA to FOA	Data input weekly into Sharepoint by Telepsychiatry Coordinator Data exported from Sharepoint into Excel and analyzed every other month by MHSA Coordinator	Calculate average time from FRA to FOA for two-month period and in aggregate
2. FRA to FSA		Calculate average time from FRA to FSA for two-month period and in aggregate
3. FRA to FAA		Clean data by removing clients who did not attend FAA. Calculate average time from FRA to FAA for two-month period and in aggregate for clients who attended FAA

Section 7: Develop & Describe Study Interventions

Table 4.

Summary of Interventions			
Intervention Name	Barriers/Causes Intervention Designed to Target	Corresponding Indicator	Date Applied
Increase assisted transportation	**Barrier: Transportation**: If a client misses FAA due to lack of/cost of transportation, the time from FRA to FAA will increase.	1	July 1, 2018
Train case managers on intake	**Barrier: Paperwork:** Ensure no bureaucratic barriers regarding paperwork/systems process delay clients after first appointment is requested.	1-3	Early Sept. 2018
Offer text reminders	**Barrier: Forgotten Appointments**: If a client misses FAA due to forgotten appointment, the time from FRA to FAA will increase. If a client is reminded of appointment and they cannot make the appointment, they can cancel/ reschedule, allowing another client to have more timely access.	1	Oct. 3, 2018
Change telepsychiatry provider and add targeted telepsychiatry hours	**Barrier: Not Enough Hours:** Adding targeted hours will allow clients more flexibility in selecting appointments (reducing time differences between FOA and FSA). It will also provide more possible contact time for initial visits, reducing time from FRA to FAA.	1-3	October, 2019

1. **Increase assisted transportation**: in order to improve time from FRA to FAA, MCBH offers gas gift cards to clients who live outside the Town of Mammoth Lakes to help them get to their appointments. The department also offered to pick up clients and bring them to their appointments. (Since this intervention began July 1, 2018, two people have used gas cards and four people have been picked up by staff to attend appointments.)
2. **Train case managers on Kingsview intake procedures**: in order to improve overall telepsychiatry timeliness (time from FRA to FOA, FSA, and FAA), MCBH trained/re-trained all case managers on the correct procedure to complete the Kingsview intake paperwork. This ensures that no internal barriers related to paperwork will unnecessarily decrease telepsychiatry timeliness. This training took place in early September 2018.
3. **Offer text reminders to clients**: in order to improve time from FRA to FAA, MCBH implemented a text reminder system in addition to its existing voice call reminder system. This intervention launched on October 3, 2018.
4. **Change telepsychiatry company and add targeted telepsychiatry hours**: in order to improve overall telepsychiatry timeliness, MCBH will determine the best day(s) of the month to add telepsychiatry hours in order to maximize its ability to meet clients' needs for telepsychiatry appointments (i.e. do not choose Monday, as many holidays fall on Mondays). This intervention launched October 2019.

Section 8: Data Analysis & Interpretation of Study Results

At the time this draft was written for initial EQRO review, the PIP is active and ongoing. Following the collection of baseline data in June, MCBH has collected and analyzed data from three follow-up points: July-August, September-October, November-December. The MHSA Coordinator also calculated the total averages for the three study indicators. The data analysis occurred as planned based on the tables laid out in this document (as previously noted, this analysis does not include any statistical testing). Throughout the process of this PIP, the results have triggered discussion about possible modifications, additional interventions, and follow-up activities, including the addition of the fourth intervention, which will be discussed below. This is evident based on the timing outlined in the intervention descriptions above. As is discussed in each of the interpretative sections below, one factor that influences comparability of measures are individuals who did not actually attend their appointments. The data analysis plan states that individuals who do not attend their FAAs are removed from the FRA to FAA analysis, often making the FRA to FAA timeliness data lower than the FRA to FOA and FRA to FSA data. The implications of comparability are outlined below.

Below, this section provides context and discussion of the data for each performance indicator, broken down by follow-up point. The final paragraphs of this section provide an overall analysis and interpretation of the study results. Finally, Table 5 summarizes the data collected, the benchmark, and whether the benchmark was met.

Baseline Data:

MCBH acknowledges that the sample used for the baseline (n=2) is small; however, the department is certain that even if the sample were larger, it would still indicate a problem with timely access to telepsychiatry (more than 15 business days) across two if not all three of the study indicators.

July-August 2018 Data:

In July-August, the time from FRA to FOA was 16.9 business days and the time from FRA to FSA was 18.6 business days. This difference is indicative two clients who either could not make the first offered appointment or who opted for a later date. The time from FRA to FAA was 14.3 business days; this time period was the only follow-up point to meet the 15 business day benchmark.

The data set for July-August included 10 individuals; of these 10 individuals, 4 did not attend their FAAs and were thus removed as data points in the analysis of FRA to FAA. These individuals did not attend their FAAs because they moved out of the area or were seen at Sierra Park Clinic at an earlier date. Interestingly, this is the only follow-up point of the three in which MCBH met the benchmark of 15 business days from FRA to FAA; it is worth considering, however, that if the four individuals had attended their FAAs on the same dates as they were originally scheduled, then the time from FRA to FAA would have been 18.1 days, which does not meet the benchmark.

During this time period, MCBH applied the first intervention described above: increase transportation assistance. This intervention continued throughout the study period and was used by six individuals. It is worth noting that the Telepsychiatry Coordinator also works diligently to fill cancelled or rescheduled appointments whenever possible, which is clear based upon the differences between FSA and FAA.

September-October 2018 Data:

In September-October, the time from FRA to FOA was 17.5 business days and the time from FRA to FSA was 17.5 business days, meaning that all clients in the data set accepted the first appointment offered. The time from FRA to FAA was 16 business days, one day shy of the benchmark. The difference between FRA to FSA/FOA and FRA to FAA is due to one individual who was seen a week early and one individual who did not attend their FAA was thus removed from that analysis.

The data set for September-October included eight individuals, of which only one did not attend their FAA. Incidentally, this individual had the longest time from FRA to FSA in the data set: 23 days. On the other hand, one person in this data set was seen for their FAA a week earlier than they were originally scheduled.

During this time period, MCBH applied the second and third interventions described above: train case managers on intake procedures and offer text reminders. These interventions continued throughout the study period.

November-December 2018 Data:

In November-December, the time from FRA to FOA was 20.7 business days and the time from FRA to FSA was 21.2 business days, indicating that only one individual turned down the first offered appointment and accepted a later first scheduled appointment. The time from FRA to FAA was 17.5 business days, lower than both the FRA to FOA and the FRA to FSA times; however, not low enough to meet the 15 business day benchmark.

The data set for November-December included nine individuals, of which three did not attend their FAA. As a result, these three individuals were excluded from the FRA to FAA data measurement which is why the FRA to FAA time is lower than the FRA to FSA or FRA to FOA times.

In this time period, the three individuals who did not attend their FAAs also had the longest times from FRA to FSA. One reported that she was moving out of the area and MCBH was not able to contact the other two for appointment confirmation. It is possible that the longer wait times were one of the factors in losing contact with these clients.

During this time period, no interventions were introduced.

January-February 2019 Data:

In January-February, the time from FRA to FOA was 27.3 business days and the time from FRA to FSA was 26.5 business days, indicating that one individual ultimately accepted an appointment earlier than the first offered. The time from FRA to FAA was 25.1 business days, lower than both the FRA to FOA and the FRA to FSA times; however, not low enough to meet the 15 business day benchmark.

The data set for November-December included 12 individuals, of which three did not attend their FAA. As a result, these three individuals were excluded from the FRA to FAA data measurement which is why the FRA to FAA time is lower than the FRA to FSA or FRA to FOA times.

In this time period, the three individuals who did not attend their FAAs also had the longest times from FRA to FSA. MCBH lost contact with these three clients.

During this time period, no interventions were introduced.

March-April 2019 Data:

In March to April 2019, the time from FRA to FOA was 21.3 business days and the time from FRA to FSA was 21.3 business days; the time from FRA to FAA was 27.3 business days, indicating that one individual had an actual appointment that was 9 days later than the accepted appointment.

The data set for March-April included four individuals, all of whom attended their FAA.

During this time period, no interventions were introduced.

May-June 2019 Data:

In May-June, the time from FRA to FOA was 15.5 business days and the time from FRA to FSA was 18.5 business days, indicating that two individuals turned down the first offered appointment and accepted a later first scheduled appointment. The time from FRA to FAA was 17.4 business days, lower than both the FRA to FSA time; however, not low enough to meet the 15 business day benchmark.

The data set for May-June included ten individuals, of which three did not attend their FAA. As a result, these three individuals were excluded from the FRA to FAA data measurement which may be part of why the FRA to FAA time is lower than the FRA to FOA times.

During this time period, no interventions were introduced; however, at the conclusion of this time period, it was decided to change telepsychiatry companies and to add additional targeted telepsychiatry hours.

July-August 2019 Data:

In July-August, the time from FRA to FOA was 16.7 business days and the time from FRA to FSA was 25 business days. This difference is indicative two clients who either could not make the first offered appointment or who opted for a later date. The time from FRA to FAA was 25 business days.

The data set for July-August included 3 individuals and all 3 attended their FAA.

During this time period, MCBH began searching in earnest for a new telepsychiatry company.

September-October 2019 Data:

In September-October, the time from FRA to FOA was 22.4 business days and the time from FRA to FSA was 20.6 business days. The time from FRA to FAA was also 20.6 business days. The difference between FRA to FSA/FOA and FRA to FAA is due to one individual who was seen a week early.

The data set for September-October included five individuals and all five attended their FAA.

During this time period, MCBH executed a contract with North American Mental Health Services and applied the fourth intervention: adding targeted telepsychiatry hours. In the time since this intervention was launched, the Telepsychiatry Coordinator has received only position feedback about the change in doctors and the additional appointment times/days available.

November-December 2019 Data:

In November-December, the time from FRA to FOA was 17.9 business days and the time from FRA to FSA was 16.4 business days, indicating that one person later accepted and attended an earlier appointment. The time from FRA to FAA was 16.4 business days, closer to the 15 business day benchmark than MCBH had been in over a year.

The data set for November-December included seven individuals, and all attended their FAA.

During this time period, no additional interventions were introduced.

January-February 2020 Data:

In January-February, the time from FRA to FOA was 16.5 business days and the time from FRA to FSA was 17.3 business days, indicating that one person accepted an appointment one week later than the one first offered. The time from FRA to FAA was 17.3 business days, approximately one day longer than the previous two months' data set.

During this time period, no additional interventions were introduced.

Overall Analysis:

Despite the department's best efforts in applying three distinct interventions to address telepsychiatry timeliness, MCBH has been unable to consistently meet the benchmark of 15 business days from first requested appointment (FRA) to first actual appointment (FAA). It has also failed to meet this benchmark for time from FRA to FOA and time from FRA to FSA. This finding is clearly displayed in Figure 1. (line graph in Section 1.2).

MCBH believes that the three interventions have made a small impact on its telepsychiatry timeliness. However, while these interventions have helped improve the telepsychiatry intake system, represent best practices in the industry, and are appreciated by clients, these changes have not allowed the department to meet its mandated benchmark at this point in this ongoing PIP. In reviewing these data, the PIP Committee agreed that significant learning and process improvement

has taken place, and that despite this learning, further intervention is likely needed in order to meet the 15 business day benchmark.

Based on the fact that MCBH has consistently failed to meet its benchmark of 15 business days through the first 12 months of this PIP, the Department has determined the need to add targeted telepsychiatry hours and to change its telepsychiatry company. Based on this information, MCBH began initiating contract negotiations in July and began receiving services from North American Mental Health Services (NAMHS) in October, 2019. Beginning in November-December 2019, MCBH nearly achieved the benchmark 15 business days (16.4 days from First Requested Appointment to First Actual Appointment). MCBH had not come this close to achieving the 15 day benchmark for over a year. MCBH hopes to see continued improvement despite the disruption of COVID 19 and will continue to assess the effectiveness of the added hours in the fourth intervention. MCBH understands that timeliness for telepsychiatry is a key proxy for client outcomes, so is keen to measure the ongoing improvements toward its goal benchmarks with the introduction of this intervention.

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	Goal Met? (Y/N)
FRA to FOA	June 30, 2018	17.5 business days	September 1, 2018	16.9	15 business days	No
			November 1, 2018	17.5		No
			January 1, 2019	20.7		No
			March 1, 2019	27.25		No
			May 1, 2019	21.3		No
			July 1, 2019	15.5		No
			September 1, 2019	16.7		No
			November 1, 2019	22.4		No
			January 1, 2020	17.9		No
			March 1, 2020	16.5		No
FRA to FSA	June 30, 2018	25 business days	September 1, 2018	18.6	15 business days	No
			November 1, 2018	17.5		No
			January 1, 2019	21.2		No
			March 1, 2019	26.5		No
			May 1, 2019	21.3		No
			July 1, 2019	18.5		No
			September 1, 2019	25		No
			November 1, 2019	20.6		No
			January 1, 2020	16.4		No
			March 1, 2020	17.3		No

FRA to FAA	June 30, 2018	25 business days	September 1, 2018	14.3	15 business days	Yes
			November 1, 2018	16		No
			January 1, 2019	17.5		No
			March 1, 2019	25.1		No
			May 1, 2019	27.3		No
			July 1, 2019	17.4		No
			September 1, 2019	25		No
			November 1, 2019	20.6		No
			January 1, 2020	16.4		No
			March 1, 2020	17.3		No

Section 9: Assess Whether Improvement Is "Real" Improvement

As discussed in the previous section, the data analysis occurred as planned on a clearly identified data cycle with an appropriate frequency of monitoring. Statistical testing was not used, as the study sample is small and MCBH did 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. Comparability of measures was discussed above.

MCBH does not assert that the four interventions introduced during the course of this PIP have yet produced consistent, lasting change. The department met the 15 business day benchmark during only one of the three follow-up periods, and in the time since the department met that goal, the time from FRA to FAA had been slowly increasing again until the addition of the fourth intervention (added targeted telepsychiatry hours). At the end of the study period, MCBH will determine whether or it considers this PIP to be successful. In the interim, plans for follow-up activities include continuing data collection (quantitative and qualitative) and considering possible future interventions.

Given the small size of the study population, MCBH did not encounter distinct challenges related to sampling, monitoring, or analysis in terms of studying the results of this PIP. MCBH certifies that the same methodology was used when each measurement was repeated, given the small sample and the two staff devoted to entering and analyzing the data.