Performance Improvement Project Implementation & Submission Tool

PLANNING TEMPLATE

INTRODUCTION & INSTRUCTION

This tool provides a structure for development and submission of Performance Improvement Projects (PIPs). It is based on EQR Protocol 3: Validating Performance Improvement Projects (PIPs), as a mandatory protocol delivered by the Centers for Medicare & Medicaid Services (CMS) in September of 2012.

The use of this format for PIP submission will assure that the MHP addresses all of the required elements of a PIP. If the MHP uses another format, they must ensure that all of the required elements of the PIP are addressed and included in their submission.

- The PIP should target improvement in either a clinical or non-clinical service delivered by the MHP.
- The PIP process is not used to evaluate the effectiveness of a specific program operated by the MHP. If a specific program is experiencing identified problems, changes and interventions can be studied using the PIP process. This can be done to create improvements in the program and should be included in the narrative.
- The narrative should explain how addressing the study issue will also address a broad spectrum of consumer care and services over time. If the PIP addresses a high-impact or high risk condition, it may involve a smaller portion of the MHP consumer population, so the importance of addressing this type of issue must be detailed in the study narrative.
- Each year a PIP is evaluated is separate and specific. Although topic selection and explanation may cover more the one PIP year, every section should be reviewed and updated, as needed, to ensure continued relevance and to address on-going and new interventions or changes to the study.
- If sampling methods are used the documentation presented must include the appropriateness and validity of the sampling method, the type of sampling method used and why, and what statistical subset of the consumer population was used.
- General information about the use of sampling methods and the types of sampling methods to use to obtain valid and reliable information can be found in Appendix II of the EQR Protocols.[1]

[1] EQR Protocol: Appendix II: Sampling Approaches, Sept. 2012, DHHS, Centers for Medicare & Medicaid Services (CMS), OMB Approval No. 0938-0786

IDENTIFICATION OF PLAN/PROJECT

Plan Name: **Fresno County Mental Health Plan (Department of Behavioral Health)**

Project Title: **Care Coordination Collaborative (CCC)** Clinical: **X** Non-Clinical: _____

Project Leader: **Chao Xiong** Title: **Sr. Staff Analyst** Role: **Coordinate and develop testing and implementation of change ideas. Provide data analysis, reporting and support.**

Initiation Date: **November 2013**

Completion : **January 2015**

SECTION 1: SELECT & DESCRIBE THE STUDY TOPIC

- The PIP Study Topic selection narrative should include a description of stakeholders involved in developing and implementing the PIP. MHPs are encouraged to seek input from consumers and all stakeholders who are users of, or are concerned with specific areas of service.
  - ➢ Assemble a multi-functional team.
  - ➢ Describe the stakeholders who are involved in developing and implementation of this PIP, and how they were selected to participate.

The Care Coordination Collaborative (CCC) is a quality improvement initiative sponsored by the California Institute for Behavioral Health Solutions (CIBHS) and is focused on testing, implementation and spreading key organization changes that are needed to improve the quality of care and health outcomes of the population served, at the same time reducing costs. The Fresno County CCC Partnership team consists of several multidisciplinary agencies as required by CIBHS for this collaborative and are further described below.

Behavioral Health/Substance Use Disorder Services Provider:

- Fresno County Mental Health Plan is a provider of mental health and substance use disorder services to individuals with serious mental illness and is the convening organization in this collaborative.

Primary Care Providers:

- Community Regional Medical Center – Ambulatory Care Center is the largest and most comprehensive locally-owned, not-for-profit hospital system in the San Joaquin Valley. The Ambulatory Care Center (ACC) is the Medically Indigent Service Program (MISP) clinic for Fresno County and serves 25,000 unduplicated patients and approximately 126,000 patient visits per year. The ACC also serves as the academic training site for UC San Francisco.
- Clinica Sierra Vista Medical Centers is a multidimensional, multidisciplinary comprehensive non-profit Federally Qualified Health Center (FQHC), serving the primarily medical, dental and behavioral health needs of a geographically dispersed, low-moderate-fixed income, ethnically diverse, frontier-rural-urban-migrant-homeless patient population.

Managed Care Plan:

- CalViva Health is the local a Medi-Cal Managed Care Program serving Medi-Cal members within Fresno, Kings and Madera counties.

Participants of the collaborative partnership are listed below:

NAME	TITLE	DIVISION / AGENCY
Dr. Rob Oldham	Former Medical Director (through Sep 2014)	Fresno County MHP
Dr. Patricia Santy	Interim Medical Director (as of Oct 2014)	Fresno County MHP
Dr. Laila Akhbarati	Psychiatrist, Clozaril Clinic	Fresno County MHP
Marty Blazevich	Licensed Vocational Nurse, Clozaril Clinic	Fresno County MHP
Heather Mann	Peer Support Specialist, Clozaril Clinic (as of Oct 2014)	Fresno County MHP
Clara Padron	Office Assistant	Fresno County MHP
Chao Xiong	Senior Staff Analyst, Quality Improvement	Fresno County MHP
Dr. Shawn Hersevoort	Psychiatrist	CRMC – Ambulatory Care Center (ACC)
Marcelia Black	DBH Mental Health Clinician co-located at ACC	CRMC – Ambulatory Care Center (ACC)
Kevin Hamilton	Chief Program Officer – Fresno Division	Clinica Sierra Vista (CSV)
Naomi Sosa	Behavioral Health Clinic Manager	Clinica Sierra Vista (CSV)
Amy Schneider	Director of Medical Management	CalViva Health

- Define the problem.
  - The problem to be addressed should be clearly stated with narrative explanation including what brought the problem to the attention of the MHP.
    - What is the problem?

Individuals with chronic medical conditions and complex psychological and/or substance use disorders experience services that are poorly coordinated, fragmented and not appropriately matched to their current level of care. This results in siloed care plans and treatment, higher mortality, hospitalizations, incarcerations, medical complications and consequences such as long term detrimental effects to their psycho-social well-being and recovery. Behavioral Health and physical health care's coordination has, thus far, been driven by individual providers rather than system change. The MHP feels as though long-term change must be driven by the systems rather than pushed forward by a few practitioners.

    - How did it come to your attention?

Clients who are prescribed the atypical antipsychotic drug Clozaril (Clozapine) are generally an extremely high-needs population who have been diagnosed with treatment-resistant, severe schizophrenia or another psychotic disorder. Due to their mental health medication, they are at higher risk of metabolic syndromes and other medical conditions. These individuals frequently have barriers related to treatment adherence as wells barriers related to seeing their family doctors and taking their medications. Until 2013, most individuals being seen in the MHP's Clozaril Clinic were considered "meds-only", or receiving services from a psychiatrist only, as conventional therapy was found to be ineffective due to the severity of their illness. Based on the level of need of this population and the medical implications associated with their mental health medication, the MHP realized that better care coordination was needed to improve the mental and physical health and well-being of these individuals.

- What data have you reviewed that suggests the issue is indeed a problem for the MHP? Describe any relevant benchmarks.
- What literature and/or research have been reviewed that explain the issue's relevance to the MHP's consumers?

Improving coordination of mental health and physical health care is essential to improving quality of care for and health outcomes of individuals suffering from mental illness and/or substance use disorders. These individuals receive care that is often fragmented and have difficulty obtaining the needed care unless well-developed processes are in place to link these individuals between mental health and primary care providers. Individuals suffering from mental health illness are also at higher risk for medical disorders and those with medical conditions can lead to mental health disorders (Druss & Walker, 2011). Between 2001 and 2003, over 68% of individuals across the nation suffering from a mental health disorder had a medical disorder, and 29% of individuals with a medical disorder reported having a comorbid mental health condition. Evidence also suggests that having each type of disorder (psychological/medical) is a risk factor for developing the other (Alegria, et al, 2003, & Kessler et al, 2004).

These findings are relevant to clients being served at the MHP's Clozaril clinic. These individuals are inherently at greater risk of developing metabolic disorders, such as increased cholesterol levels, high blood sugar and weight gain, which can lead to other serious medical issues. Due to the heightened health risks associated with the psychotropic medications, this group of individuals especially, need better access to health care. Despite this being case, the MHP has found that many in this population did not utilize primary care services. Based on CalViva/Healthnet data for the period of March 2012 through April 2013, of the ninety-four (94) clients in the target population at the time the data was gathered, 43% were CalViva patients. Of those, 74% were diagnosed with a comorbid medical condition including diabetes, heart disorders, metabolic disorders, and respiratory diseases. The data also showed that 37% utilized emergency services and had multiple visits to the ER. Another 42% saw a primary care provider but 25% of the time it was due to a visit to the emergency room. The data supports the MHPs assumption that these clients were not being linked to needed routine medical care. The focus of this PIP is to develop the infrastructure and clinical processes that support better care coordination for clients in this target population.

Clinical approaches to improving quality of care can be bolstered through a variety of organizational relationships including a facilitated referral approach where clients are assisted by one clinic to coordinate care that take place at various multiple clinics. (Leatherman et all, 2003, & Mauskopf et all, 2007). The MHP's care coordination partnership will test improvement ideas around having designated care coordinators at each of the MHP and primary care partner clinics to coordinate and facilitate referrals to see a PMD. They will also serve as the contact point for sharing of treatment information and care goals.

- The study topic narrative will address:
  - What is the overarching goal of the PIP?

Over a period of 12 months, the Fresno County Care Coordination Partnership Team will make changes to improve the health status of adult individuals by coordinating services for the clients with the most serious mental illnesses and substance use disorders. The partnership will work towards establishing effective interagency communication and improving the referral processes, shared treatment information and medication reconciliation for adult individuals on Clozaril.

  - How will the PIP be used to improve processes and outcomes of care provided by the MHP?

This PIP will provide the framework and guidance for testing, implementation and spread of change ideas using the Plan Do Study Act (PDSA) Model for Improvement aimed at improving system processes to better facilitate care coordination between the MHP and the primary care partners, and clinical processes that will result in improved overall health outcomes and client satisfaction.

- How any proposed interventions are grounded in proven methods and critical to the study topic?

The proposed interventions in this CCC initiative were introduced and guided by the CIBHS, which also provided access to national and state experts on proven and emerging best practices in care coordination, demonstrated effective quality improvement methods such as PDSA cycles to test change ideas, and provided reference materials to support the effectiveness of the proposed interventions. The proposed interventions will cover improvements in system processes, clinical processes, client satisfaction and client outcomes.

- The study topic narrative will clearly demonstrate:
  - How the identified study topic is relevant to the consumer population

The individuals in the selected target population are at higher risk for chronic medical conditions associated with their mental health diagnoses and resulting from the side-effects of the antipsychotic medication as mentioned previously, and therefore, would benefit greatly from coordinated care. This population often faces barriers related to seeking and following through with medical care. Many of them are low-functioning and need the help of others to navigate the mental health system. Due to the lack of variety of mental health services currently available to them and that are effective in treating their mental illness, even basic client self-care activities can be equally daunting an experience for these individuals as navigating from one clinic to another or remembering to take their medication.

  - How addressing the problem will impact a significant portion of MHP consumer population

Although the level of severity may vary, the correlation between mental health and physical health conditions are applicable to all individuals across the MHP's system. Addressing the problem with individuals with some of the higher levels of need and at lower levels of functioning would make it easier to modify and/or spread the changes to lower levels of care. The MHP serves severely mentally ill clients and anticipates that many, if not all, of the proposed interventions would benefit a significant portion of the clients served by the MHP.

  - How the interventions have the potential to impact the mental health, functional status, or satisfaction of consumers served.

The interventions are aimed at establishing a seamless system of coordinated care for clients with comorbid conditions. This requires well-established internal and interagency processes, including clinical practices and systemic processes, as well as staff who are trained and educated in care coordination. Addressing clients' physical and psychological conditions through sharing of treatment information and goals has the potential to positively impact a client's overall health and improve client satisfaction with care. The proposed interventions:

SECTION 2: DEFINE & INCLUDE THE STUDY QUESTION

The study question must be stated in a clear, concise and answerable format. It should identify the focus of the PIP. The study question establishes a framework for the goals, measurement, and evaluation of the study.

Will coordination of mental and physical health care for adult clients on the Clozaril caseload through the development of a bi-directional referral process, sharing of treatment information, and conducting regular clinical case review consultations improve overall health and client satisfaction?

SECTION 3: IDENTIFY STUDY POPULATION

Clearly identify the consumer population included in the study. An explanation about how the study will address the entire consumer population, or a specific sample of that population. If the study pertains to an identified sector of the MHP consumer population, how inclusion of all members will occur is required. The documentation must include data on the MHPs enrolled consumers, as well as the number of consumers relevant to the study topic.

This section may include:

- Demographic information;
- Utilization and outcome data or information available; and
- Other study sources (such as pharmacy data) that may be utilized to identify all consumers who are to be included in the study.

The target client population consists of all Fresno County adult clients age 18 years and older on the Clozaril caseload (prescribed the antipsychotic medication Clozaril or Clozapine) as identified through caseload information generated from the MHP's Electronic Health Records system (Avatar).

All clients taking Clozaril are added to the caseloads of the Clozaril Team consisting of an LVN, a psychiatrist and newly added peer support proivder. Data will be manually collected and stored on an Excel spreadsheet as well as in Avatar for all individuals assigned to this caseload, and will be collected on a monthly basis by the LVN and in some cases by support staff. This caseload can consist of 85-105 clients during any given month, which satisfies the recommended target population size for this collaborative (~100-300).

SECTION 4: SELECT & EXPLAIN THE STUDY INDICATORS

"A study indicator is a measurable characteristic, quality, trait, or attribute of a particular individual, object, or situation to be studied."[2] Each PIP must include one or more measurable indicators to track performance and improvement over a specific period of time. Indicators should be:

- Objective;
- Clearly defined;
- Based on current clinical knowledge or health service research; and
- A valid indicator of consumer outcomes.

The indicators will be evaluated based on:

- Why they were selected;
- How they measure performance;
- How they measure change a mental health status, functional status, beneficiary satisfaction; and/or
- Have outcomes improved that are strongly associated with a process of care;

[2] EQR Protocol 3, Validation of Performance Improvement Project, Sept. 2012, DHHS, Centers for Medicare & Medicaid Services (CMS), OMB Approval No. 0938-0786

- Do they use data available through administrative, medical records, or another readily accessible source; and
- Relevance to the study question.

The measures can be based on current clinical practice guidelines or health services research. The MHP must document the basis for adopting the specific indicator.

In reporting on the chosen indicators include:

- A description of the indicator;
- The numerator and denominator;
- The baseline for each performance indicator; and
- The performance goal.

Specify the performance indicators in a Table.

#	Describe Performance Indicator	Performance Indicator Selection Rationale	Numerator	Denominator	Baseline for Performance Indicator	Goal
1	Number of clients with information releases (ROIs) among CCC partners (MHP, PCPs and MCPs)	This is a necessary step in the care coordination process which requires sharing of client information between agencies providing services to shared clients and is an indicator of effectiveness of system process	0: number of Clozaril clients with ROIs among CCC partners (MHP, PCPs and MCPs)	87: total number of clients on the Clozaril caseload	0/87 = 0%	100%
2	Number of referrals made of shared/CalViva clients to primary care partner clinics	This number reflects the linkage of clients from MH to medical care	0: number of shared clients between the MHP and PC or clients who have CalViva who are referred to primary care clinics	20: number of shared clients in the target population between the MHP and PC or MHP and clients who have CalViva whose assigned PMD is with ACC or CSV or client has no assigned PMD	0/20 = 0%	90%
3	Number of clients in the target population whose care objectives are shared between MHP and PC providers	Sharing of care goals between agencies servicing shared clients is essential to improving and direct impacts clients overall health and well-being	0: number of clients in the target population whose care objectives have been shared between MHP and PC	20: total number of shared clients between the MHP and PCPs	0/20 = 0%	100%
4	Number of clients who report agree or strongly agree on the statement regarding client satisfaction with care coordination	This measures client satisfaction with care coordination efforts and services	19 : Number of clients in the target population who responded agree or strongly agree to the question "My providers are aware of the important information about my health and wellness needs"	23: Number of clients in the target population who completed a client survey during the reporting period and answered this question survey during the reporting and responded to this question	19/23 = 83%	90%

5	Number of clients whose Body Mass (BMI) is greater than 30	Clozaril clients are at higher risk of metabolic conditions including weight gain. BMI is a good indicator of weight status	42: Number of clients with known BMI whose BMI is greater than 30	77: Total number of clients whose BMI was measured during the reporting month	42/77 = 55%	35%
6	Number of clients whose BP is greater than 140/90	Clozaril clients are at higher risk of metabolic conditions including high blood pressure. BP is the indicator of hypertension.	15: Number of clients with known BP whose BP is greater than 140/90 (either systolic or diastolic)	74: Total number of clients whose blood pressure was measured during the reporting month	15/74 = 20%	10%

SECTION 5: DEVELOP & DESCRIBE STUDY INTERVENTIONS

The MHP must develop reasonable interventions that address causes/barriers identified through data analysis and QI processes. Summarize interventions in a table that:

- Describes each intervention;
- Identifies the specific barriers/causes each intervention is designed to address;
- Identifies the corresponding indicator that measures the performance of the intervention; and
- Maintains the integrity/measurability of each intervention.

Number of Intervention	List each Specific Intervention	Barriers/Causes Intervention Designed to Target	Corresponding Indicator	Date Applied
1	Implement a routine process at the Clozaril Clinic to obtain and maintain Releases of Information (ROIs) from clients for all care coordination partners, including the two PC clinics and the local MCPs (CalViva, Healthnet and Anthem).	No standard process in place to easily share clinical/ treatment information between the MHP and primary care providers/health plans is a barrier to coordinating care	Number of clients (MHP, PCPs and MCPs) with information releases (ROIs) among CCC partners	April 2014
2	Develop a referral process between the MHP and primary care (PC) partners (ACC and CSV) to link clients on Clozaril to needed PC or MH services	Clozaril clients are not getting the primary care services they need	Number of referrals made of shared/CalViva clients to primary care clinics	Mar 2014
3	Conduct regular clinical case review consultations with the PC clinics to address mental health and physical health concerns for all shared clients.	Clinical information and treatment goals are not being shared between MH and primary PC providers which is necessary to improve client overall health	Number of clients in the target population whose care objectives are shared between MHP and PC providers	Oct 2014
4	Conduct monthly client satisfaction surveys to gauge client satisfaction with care coordination efforts.	Routine client satisfaction information is not being collected	Number of clients who report agree or strongly agree on the statement regarding client satisfaction with care coordination	Mar 2014
5	Screen and track Body Mass (BMI) of clients in the target population on a monthly basis when	Clozaril clients are at higher risk of metabolic conditions including weight gain.	Number of clients whose Body Mass (BMI) is greater than 30	Mar 2014

	clients come in for services at the Clozaril clinic and refer those are at risk to nutrition group therapy			
6	Screen and track blood pressure (BP) levels of clients in the target population on a monthly basis when clients come in for services at the Clozaril clinic	Clozaril clients are at higher risk of metabolic conditions including hypertension.	Number of clients whose BP is greater than 140/90	Apr 2014

SECTION 6: DEVELOP STUDY DESIGN & DATA COLLECTION PROCEDURES

A study design must be developed that will show the impact of all planned interventions. Include the information describing the following:

- Describe the data to be collected.
- Describe the methods of data collection and sources of the data. How do these factors produce valid and reliable data representing the entire consumer population to which the study indicators apply?
- Describe the instruments for data collection, and how they provided for consistent and accurate data collection over time.
- Describe the prospective data analysis plan. Include contingencies for untoward results.
- Identify the staff that will be collecting data, and their qualifications. Include contractual, temporary, or consultative personnel.

Performance Measure 1: Obtaining ROIs

- Office assistant supporting the Clozaril team obtain ROIs for clients referred to Clozaril caseload by psychiatrist.
- ROIs will be entered into the electronic form. One can be completed for multiple agencies per client and is valid for one year. It is stored in the MHP's EHR and the information is easily accessible. OA checks ROI status regularly when clients come in for services.
- A report from HER, created by a Systems & Procedures Analyst in the Department's IT unit, is run by data analysis (quality improvement analyst) that shows the number of clients with necessary/valid ROIs in place and entered into the CCC performance measures spreadsheet. This report is inclusive of all clients who have ROIs with all partner agencies in the CCC. The OA also documents expiration dates onto a care coordination spreadsheet where data for other measures are also stored.
- ROIs are confirmed prior to referral being submitted to PCP.

Performance Measure 2: Referrals to PCP

- Care coordinator prepares referral form for clients recommended by psychiatrist for medical services and/or lab work. The Care Coordinator is the LVN serving this population for over 16 years and has built rapport and trust with these clients.
- The referrals are sent directly to the designated care coordinators at each primary care site. Reserved days/times have been established at both clinics to see mental health clients.
- Referrals are logged and tracked on the care coordination spreadsheet by the LVN and psychiatrist. It includes referral date, receiving clinic, and referral status/disposition. Referrals made by the MHP are monitored to ensure clients are receiving the medical care needed and provide additional supports where applicable. This is a system process that is not specific to a particular client population and can potentially be spread system-wide.
- All referred clients that are seen by the primary care provider will have their cases reviewed during a MH-PC clinical case consultation session.

Performance Measure 3: Shared Care Objectives:

- Clinical case reviews of all referred clients who have seen a primary care physician are reviewed at monthly case consultations by the attending psychiatrists and care coordinators and residents
- The MHP's psychiatrist and care coordinator document the reviews on the care coordination log that stores client referral information
- Case reviews can be conducted for shared clients between mental health practitioners and primary care personnel across all levels of care in the MHP.
- Some notes are documented in the care coordination Excel spreadsheet for tracking purposes and treatment notes are documented as progress notes (Dr's notes) in the client's e-chart.

Performance Measure 4: Client Satisfaction

- Clients are asked to complete a three question client survey each month. The care coordinator (LVN) helps clients complete the survey. The surveys are collected by the OA and delivered to data analyst for analyzing. The results are entered into the CCC performance measures spreadsheet that is submitted monthly to the CCC faculty team. The question of client's satisfaction with care coordination is tracked as an indicator of care coordination effectiveness.
- This survey was provided by the CCC and the questions were developed through research. It is short and easy to administer.

Performance Measure 5-6: Vitals (BMI and BP)

- The care coordinator (LVN) routinely takes these and other vitals of all clients on Clozaril. These individuals require close monitoring due to health risks related to their mental health medications. The results are logged into the MHP's EHR and CCC performance measures spreadsheet
- These tests can be recommended for any client who is determined by the psychiatrist to be at risk of potential medical conditions that these tests might be an indicator of.

Section 7: Data Analysis & Interpretation of Study Results

Data analysis begins with examining the performance of each intervention, based on the defined indicators. (For detailed guidance, follow the criteria outlined in Protocol 3, Activity 1, Step 8.)

- Describe the data analysis process. Did it occur as planned?
- Did results trigger modifications to the project or its interventions?
- Did analysis trigger other QI projects?
- Review results in adherence to the statistical analysis techniques defined in the data analysis plan.
- Does the analysis identify factors that influence the comparability of initial and repeat measurements?

The analysis of the study data must include an interpretation of the extent to which the PIP is successful and any follow-up activities planned.
Present objective data analysis results for each performance indicator. A Table can be included (see example), and attach all supporting data, tables, charts, or graphs as appropriate.

Performance Measure 1: Obtaining ROIs

- The baseline was based on ROIs obtained as of April 2014. ROIs that counted had to include the primary care partner clinics and CalViva.
- The intervention re-measurement occurred in January 2015 for ROIs obtained as of December 2014.
- The PDSA cycle planned for obtaining ROIs was to be carried out by the case managers and LVN for all of the Clozaril clients over a one month timeframe. The predictions were that clients would not be opposed to signing ROIs for sharing their information with their primary care providers and health plans, ROIs could be obtained for 100% of the target population, and clients might be surprised that coordination of their care was not already being done.
- The findings were that clients did not object to the releasing information as predicted but the team faced barriers related to obtaining the ROIs during the timeframe specified due to several factors. The definition of the target population was changing. It included clients taking Clozaril who are on Conservatorship as well as those assigned to the ACT (Assertive Community Treatment) team in addition to those just on the Clozaril team. This made access to the clients more difficult, especially with the Conservatees who are assigned a conservator outside of the care coordination collaborative with whom the collaborative needed to facilitate processes through. The result was that the target population was modified to include only those on the caseload of the Clozaril LVN. The process by which to the ROIs would be obtained was also revised to include the office assistant supporting the Clozaril team to address access barriers.

- The outcome was 100% improvement from the baseline measurement
- At 89% improvement from zero, this process is considered to be successful. it was built into the daily work flow and additional resources, although helpful, were not needed/sought.

Performance Measure 2: Referrals to PCP

- Baseline measurement taken in March 2014 when data tool was completed and prior to implementation of referral process
- Re-measurement done in January 2015 for total referrals made by the end of December 2014
- The PDSA cycles started with developing a referral form based on recommendations made by all parties involved of only pertinent information. It would be a fillable Word form that was to be faxed or emailed to the PC care coordinator. The predictions and findings were aligned in that the form and process were effective and efficient in facilitating referrals between the MH and PC designated care coordinators. There were some changes in the designated care coordinators which required the MH care coordinator to be diligent in closing the loop on all referrals made.
- At 29% improvement from zero, this intervention was considered to be successful.

Performance Measure 3: Shared Care Objectives:

- The baseline measurement was taken in September 2014 prior to the first clinical case review session.
- The re-measurement occurred in January 2015 for case reviews conducted by the end of December 2014
- The PDSA cycles started by having the MH team that consisted of the Medical Director, Clozaril psychiatrist, LVN and OA travel to the PC clinic to conduct the case reviews using an SBAR-inspired form to document findings. The SBAR tool was found to be too time-consuming and lead to utilization of the care coordination spreadsheet where referrals were being tracked for documenting the reviews. Having the entire Clozaril team take part in the review became a burden on other staff who had to provide coverage and these consultations were limited to the psychiatrist and LVN form the MH side. The scheduled monthly consultations were also needed to be modified to a time where medical residents were more available to attend.
- The clinical case reviews are still occurring on a monthly basis with the ACC for clients who were referred and seen by a physician at the ACC.
- At 86% improvement from zero, this intervention is considered successful.

Performance Measure 4: Client Satisfaction with Care Coordination

- The baseline measurement was taken in March 2014 prior to the administration of the client survey.
- The re-measurement was taken in January 2015 for surveys collected during the month of December 2014.
- The PDSA testing began with having the clients complete a survey during each visit to the Clozaril clinic. The predictions were that the clients would not oppose to answering the questions but due to their mental illness some would likely need the LVN to assist them.
- The findings were that initially they were pleased to be able to express their level of satisfaction with services but it became repetitive for many who are scheduled to come in more than one time per month to monitor for any possible side effects associated with taking Clozaril. This was modified to one per month and to those who wanted to provide feedback.
- The level of client satisfaction improved marginally over the data collection period. This was attributed primarily to the previously established relationship /rapport between the clients and the Clozaril nurse who has served this population for over 16 years and partially to successful care coordination

Performance Measure 5-6: Vitals (BMI and BP)

- The baseline data was taken March 2014 for blood pressure levels and in April 2014 for blood pressure levels
- The re-measurement data was taken in late December 2015 for both indicators
- These are two of several sets of vitals tracked for Clozaril clients. Blood pressure (BP) and body mass index (BMI) are part of the routine screening the

nurse conducts on all Clozaril clients. Although this information was being collected, it was not being tracked. Those whose BMI levels were considered to be at risk not only were being referred to primary care but also to a nutrition group therapy lead by a peer provider who supports the clients in the target population. The testing was done to gauge effectiveness of tracking these indicators for referral to other supportive services.

- The percent improvement was minimal and insignificant at 1%. Tables A and B (and associated graphs) below show that these measurements have remained fairly steady throughout the reporting period.

Performance Indicator	Date of Baseline Measure-ment	Baseline Measurement (numerator/ denominator)	Goal for % Improve-ment	Intervention Applied & Date	Date of Re-measurement	Results (numerator/ denominator	% Improve-ment Achieved
Number of clients (MHP, PCPs and MCPs) with information releases (ROIs) among CCC partners	Mar 2014	0/87 = 0%	100%	-Develop & implement referral process between the MHP and PC partners -Applied Mar 2014	Dec 2014	91/102 = 89%	89%
Number of referrals made of shared/CalViva clients to primary care clinics	Apr 2014	0/22 = 0%	90%	-Implement routine process at the Clozaril Clinic to obtain/ maintain ROIs from clients for all care coordination partners -Applied Mar 2014	Dec 2014	14/48 = 29%	29%
Number of clients in the target population whose care objectives are shared between MHP and PC providers	Sep 2014	0/6 = 0%	100%	-Conduct regular clinical case review consultations with PC clinics for all referred clients. -Applied Oct 2014	Dec 2014	12/14 = 86%	86%
Number of clients who report agree or strongly agree on the statement regarding client satisfaction with care coordination	Mar 2014	19/23 = 83%	90%	-Conduct monthly client satisfaction surveys -Applied Mar 2014	Dec 2014	64/69 = 93%	12%
Number of clients whose Body Mass (BMI) is greater than 30	Mar 2014	42/77 = 55%	35%	-Track Body Mass (BMI) of clients in the target population on a monthly basis and refer to group therapy sessions around nutrition -Applied Mar 2014	Dec 2014	52/99 =53%	1%
Number of clients whose BP is greater than 140/90	Apr 2014	15/74 = 20%	10%	-Track blood pressure of clients in the target population on a monthly basis -Applied Apr 2014	Dec 2014	19/99 = 19%	1%

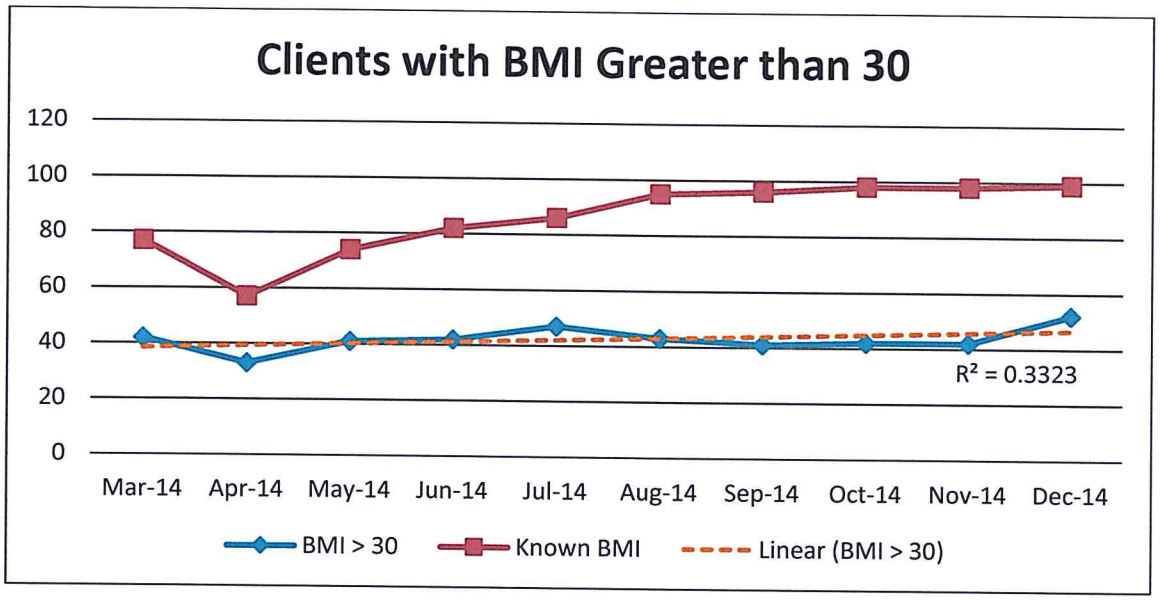

TABLE A

Month	BMI > 30	Known BMI	%
Mar-14	42	77	55%
Apr-14	33	57	58%
May-14	41	74	55%
Jun-14	42	82	51%
Jul-14	47	86	55%
Aug-14	43	95	45%
Sep-14	41	96	43%
Oct-14	42	98	43%
Nov-14	42	98	43%
Dec-14	52	99	53%

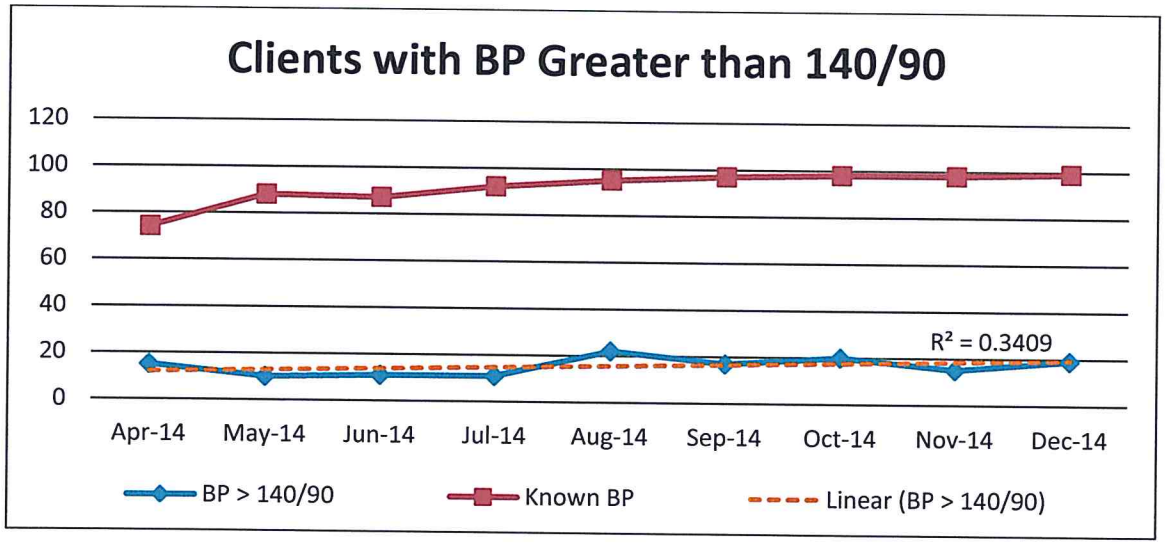

TABLE B

Month	BP > 140/90	Known BP	%
Apr-14	15	74	20%
May-14	10	88	11%
Jun-14	11	87	13%
Jul-14	11	92	12%
Aug-14	22	95	23%
Sep-14	17	97	18%
Oct-14	20	98	20%
Nov-14	15	98	15%
Dec-14	19	99	19%

Real and sustained improvement are the result of a continuous cycle of measuring and analyzing performance, thoroughly analyzing results, and ensuring implementation of appropriate solutions. To analyze the results of the PIP the MPH must document the following steps:

- Describe issues associated with data analysis –
  - Did data cycles clearly identify when measurements occurred? Should monitoring have occurred more frequently?
  - Results of statistical significance testing.
  - What factors influenced comparability of the initial and repeat measures?
  - What, in any, factors threatened the internal or external validity of the outcomes?
- To what extent was the PIP successful and how did the interventions applied contribute to this success?
- Are there plans for follow-up activities?
- Does the data analysis demonstrate an improvement in processes or consumer outcomes?

There were several issues related to data collection, sharing and analysis that the care coordination PIP team faced.

- The first being the ability to easily share client information between agencies who are providing services to shared clients due to HIPAA regulations This was evident in the low denominator figures for the indicators that rely on inter-agency coordination such as referrals made to PCP (0/22 = 0%). The MHP experienced technological issues with sharing PHI through a secure server and consequently had to use low-tech solutions such fax.
- There were no additional resources allocated to data collection/analysis processes and so these tasks were competing with the regular workloads of individuals tasked to collect and/or analyze data.
- Without formal data collection plan/process, it became more difficult to maintain and was dependent upon the reliability of the person assigned to the task.
- On the most part, the data collection was being done by the Clozaril nurse and data compilation/analysis was completed by the data analyst so the initial and repeat measures are comparable in terms of method and process.

The first two performance measures dealt with process development and implementation that serves as a systematic foundation for care coordination -going from zero to 89% of clients with complete ROIs in place and from zero to 29% of shared clients referred for primary care services. The measure around conducting multi-agency clinical case reviews deals directly with care coordination where 86% of the clients referred and seen by a PCP have had his/her case reviewed during one of the monthly case consultation sessions. Client satisfaction with care coordination showed improvement of 12% from 83% to 93%. Both client outcome measures remained unchanged, which for this target population is not necessarily an indicator of failure. Real improvements in the implemented processes are a large factor to sustaining care coordination for this population. The client outcome measures may be able to show more significant improvements if the data period is extended further out as it can take time to improve health outcomes particularly for this population.

Care coordination efforts have continued after the formal collaborative effectively ended in mid-January 2015. The case reviews are still being conducted on a monthly basis with the Ambulatory Care Center and the process is still being developed with other primary care sites. The Clozaril nurse is working closely with the Clinica Sierra Vista designated care coordinator to connect with other sister clinics in the Fresno area to facilitate referrals for this population. Another activity that is on the horizon is the expansion of the referral form to be online and used to facilitate referrals between MHP in-house programs as well as outside MH and PC providers. This will enable easier tracking out care coordination efforts.

SECTION 9: PLAN FOR "REAL" IMPROVEMENT

It is essential to determine if the reported change is "real" change, or the result of an environmental or unintended consequence, or random chance. The following questions should be answered in the documentation:

- How did you validate that the same methodology was used when each measurement was repeated?
- Was there documented quantitative improvement in process or outcomes of care?
- Describe the "face validity," or how the improvements appear to be the results of the PIP interventions.
- Describe the statistical evidence supporting that the improvement is true improvement.
- Was the improvement sustained through repeated measurements over comparable time periods? (If this is a new PIP, what is the plan for monitoring and sustaining improvement?)

Processes were put in place for data collection/analysis. The data collection was being done by the Clozaril nurse and data compilation/analysis was completed by the data analyst. The data collection process established for the nurse was built into the clients' routine sessions. Each month's data was gathered and/or updated by the last day of the month for data analysis. These processes ensured that the initial and repeat measures were comparable in terms of methodology.

All improvements related to this PIP have been discussed and reviewed by the Medical Director, who supervises the Clozaril team and the Division Manager over adult services. The Quality Improvement Division oversees activities of all PIPs. Process improvements and outcomes have been shared with the Quality Improvement Council (QIC) on a regular basis. The QIC's membership and attendance includes Department of Behavioral Health leadership and program staff, contracted providers, consumer and family representatives, and family advocates.

The improvements are evident in the outcomes of the system processes that were implemented. These processes have been incorporated into the normal work flow to ensure that sustainability is not dependent upon having the right personalities at the table. While the health outcome results were not statistically significant at re-measurement, the gains are still notable. As previously mentioned, the small measures of improvement in the health outcome indicators can potentially see greater results over a longer period of time than was measured.

Recommendations for sustaining and spreading improvements: To create change in the organization, it is essential to consider sustainability and infrastructure so that changes become standard practice.

- Standardized ROI that is specifically designed for the PMD so that practitioners are clear that this is an additional ROI that is necessary
- Continue conducting case review consultations with the Ambulatory Care Center on a monthly and continue to work with other Clinica Sierra Vista clinics to establish clinical case reviews of shared clients. Consider conducting these sessions via different venues (phone / web / video-conferencing). Develop an accessible tool for documenting treatment notes and recommendations.
- Continue to reach out to Clinica Sierra Vista sites in the Fresno area as well as other primary providers/ FQHCs to facilitate referrals for this population.
- Expand the referral form to be used to facilitate referrals between MHP in-house programs as well as to outside MH and PC providers. This will enable easier tracking out care coordination efforts.
- Incorporate a checks and balance system for collaboration with PMD
- Provide care coordination education and training to other individuals/teams in the MHP serving clients who would benefit from care coordination