



## 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. **PLEASE fully complete each section and answer ALL questions.**

- ❖ 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 than 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.<sup>1</sup>

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

## IDENTIFICATION OF PLAN/PROJECT

MHP Name: **Mendocino County Behavioral Health and Recovery Services**

Project Title: **Appropriate Engagement for Homeless SMH clients in Ukiah** Check One: Clinical Non-Clinical **X**

Project Leader: **Cliff Landis** Title: QA/QI Clinician 2 Role: PIP Lead

Start Date (MM/DD/YY): **July 1, 2018**

Completion Date (MM/DD/YY): **June 30, 2020** Projected Study Period (# of months): **24 months**

Brief Description of PIP:  
(Please include the GOAL of the PIP and what the PIP is attempting to accomplish.)

**The Goal of this PIP is to increase access to, and participation in, specialty mental health services for homeless individuals with qualifying diagnoses. Specifically, the PIP aims to increase access and participation of homeless persons with serious mental illness (SMI) by initiating a protocol of a "warm handoff" between homeless individuals with SMI and ongoing service providers. The "warm handoff" will consist of an in person meeting involving the consumer, a staff person from the agency providing specialty mental health services, and where applicable, a third that has an established relationship with the consumer. This PIP will track consumer engagement in services post-hospitalization, including timeliness to services, number of services received, number of consumers who do not start/engage with any services, and the number who drop out and terminate services. The PIP aims to determine if this "warm handoff" care coordination, 1) increases the number of homeless persons who continue with specialty mental health services, 2) reduces time from warm handoff to first specialty mental health service, 3) increases the number of services received by those who do continue in outpatient SMH services.**

**The homeless with serious mental health diagnoses struggle to maintain consistent communications and appointments, have transportation problems, and frequently face other disruptive conditions negatively impacting engagement in services. The "warm handoff" provides a personal contact for follow-up and support for the homeless person who might benefit from specialty mental health services, while facing substantial barriers to engagement in these services.**

## STEP 1: SELECT & DESCRIBE THE STUDY TOPIC

1. 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, family members, and all stakeholders who are users of, or are concerned with specific areas of service.
  - Assemble a multi-functional team (e.g. clinical staff, consumers/family members, contract providers as appropriate).
  - Describe the stakeholders who are involved in developing and implementation of this PIP. Be sure to include CFM group representation.
  - Describe the stakeholders' role(s) in the PIP and how they were selected to participate.

The Adult provider stakeholders are listed below:

| Name                           | Role                                                              | Organization/Title                                     |
|--------------------------------|-------------------------------------------------------------------|--------------------------------------------------------|
| Jenine Miller                  | Director                                                          | Mendocino County BHRS                                  |
| Will Riley                     | QA/QI Supervisor                                                  | Mendocino County BHRS                                  |
| Karen Lovato                   | Acting Deputy Director                                            | Mendocino County BHRS                                  |
| Cliff Landis                   | QA/QI Clinician                                                   | Mendocino County BHRS                                  |
| Tim Schraeder                  | RQMC Director                                                     | Redwood Quality Management Company                     |
| Dan Anderson                   | Chief Operations Officer                                          | Redwood Quality Management Company                     |
| Lois LaDelle-Daly              | RQMC Compliance Officer                                           | Redwood Quality Management Company                     |
| Susan Wynd Novotny             | Director, Family Member                                           | Manzanita Services, Inc.                               |
| Libby Guthrie                  | Director, Therapist                                               | Mendocino County AIDS/Viral Hepatitis Network (MCAVHN) |
| Sage Wolf                      | Program Manager for Housing & Homelessness                        | Redwood Community Services                             |
| Sarah Livingston (or delegate) | Program Director of Crisis, Fort Bragg, Adult & Homeless Services | Redwood Community Crisis Center                        |
| Mariah Hunt                    | Program Specialist                                                | Redwood Community Crisis Center                        |
| Crystal                        | Consumer Advocate                                                 | Manzanita                                              |
| John                           | Consumer Advocate                                                 | Manzanita                                              |

2. 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.

**Mendocino County has a substantial and persistent homeless population. Behavioral Health and Recovery Services (BHRS) was aware that the rates of homelessness were high in Mendocino County, but the County Board of Supervisors commissioned a formal report in 2018. The Marbut report provided solid data to begin addressing the problem; it noted that Mendocino County has a relatively high level of long-term (1-5 years) street-level homeless persons. This study also noted a markedly high level of those homeless for 1-3 years at risk of "chronic or super-chronic" homeless status. The report noted that this could reflect the fact that Ukiah lost its year round homeless shelter, the Buddy Eller Center, in 2014. Marbut also asserted that services for the homeless in our county have tended to focus on addressing symptoms (food, clothing, shelter, etc.) and less on causal factors, stating "The root triggers and causes of homelessness are almost all behavioral health in nature," noting that Behavioral Health and Recovery Services has transitioned between three adult mental health provider agencies in four years.**

**Given the evident need in our county, and the unique capacity of BHRS to address behavioral health challenges of homeless persons, we decided to focus our non-clinical PIP on increasing engagement in SMH services by those persons with serious mental health diagnoses who are also homeless. We convened a team that includes mental health services providers who work with the homeless, as well as consumer advocates that are or have been homeless.**

**Mendocino County has a high rate of homelessness per capita, with limited infrastructure (no permanent shelter, limited transportation) for supporting the homeless. The team posed the question: Can Mendocino County BHRS improve access and appropriate utilization of specialty mental health services among those with who are homeless with SMI in the Ukiah Valley?**

**Our team reviewed data from November and December 2018 of utilization of the Ukiah Temporary Homeless Shelter to capture a view of how some of the local homeless individuals were using specialty mental health services. We found 37 persons present at the shelter during this time frame had engaged with mental health services in the previous year. We further reviewed their utilization of SMH services in the prior year and found that 19 of them had used crisis services in the previous year and 18 had used only specialty mental health services. 13 of those using crisis, were also enrolled in specialty mental health services, while 6 individuals had used crisis only services. 52% of those using mental health services had had at least one crisis encounter. Of the 19 persons using crisis services in the previous 12 months, 7 had 3-5 crisis episodes opened, and 4 had 6+ crisis episodes opened. Among all 37 of the homeless persons in this data set, 10 (27%) had services disrupted and ended, or never fully started, due to no show episodes. This data indicated that crisis services were being heavily relied on by the homeless population for mental health service, and that a significant segment of the homeless population was having difficulty engaging with supportive ongoing services that might reduce need for crisis services.**

**A study of all the clients (10,340) treated in San Diego County, the sixth largest county in the U.S. at the time of the study (Folsom et al, 2005), found that homeless clients were 2.5x as likely to be hospitalized as not-homeless clients. They were 7.3x as likely to use crisis residential treatment, and 3.6x as likely to use the emergency psychiatric unit, while only 0.77x as likely to use outpatient treatment services.**

**We began to look for interventions that would increase access, enrollment, and appropriate engagement in specialty mental health services for SMI homeless and reduce the use of emergency and crisis services. We decided the use of the existing post crisis exit interview to build more connection and engagement with services was an efficient place to begin. Establishing a “warm handoff” intervention builds a human connection, and increased linkage that can foster client aspiration to navigate appointments, overcome barriers, and engage in mental health services. Those with the most complex needs often have the most difficult time engaging and have the highest levels and costs of services. The “warm handoff” aims to address this situation. Improved access to appropriate utilization of services will create more stability in the experiences of homeless SMI clients. Reducing crisis episodes will create less disruption in their lives, including medications, connections for housing, social supports, and ongoing services. There will be less stigma, and decreased sense of “failure” associated with crisis episodes.**

## **STEP 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.

**Can increased connection through a “warm handoff” improve the following among homeless clients with SMI:**

- 1. Decreased amount of time from “warm handoff”/Crisis contact to first outpatient contact (increased access to services)**
- 2. Increase the number of outpatient services utilized (increased engagement)?**

### STEP 3: IDENTIFY STUDY POPULATION

Clearly identify the consumer population included in the study. Include an explanation of 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 MHP's enrolled consumers, as well as the number of consumers relevant to the study topic.

This Step 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.

**This study will include all adult (18+) homeless persons with either Mendocino Medi-Cal, or with "indigent" status, who are accessing SMH services in some format. We will attempt to increase timeliness of access and engagement in services through the use of "warm handoff" linkage services. The study population will not be limited by demographic information. The study will be initiated within the Ukiah service providers, with intent to expand to Fort Bragg service providers if interventions are successful.**

**Our review of Ukiah Winter Shelter data from November and December 2018 found that 35% (37 of 104) of those staying at the shelter during this time had open SMH episodes. This is percentage likely under-represents the homeless SMI population, as some homeless stay in encampments or on the street. Interventions we plan to introduce during the second year of this PIP will increase outreach and connection to those with SMI.**

### STEP 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."<sup>2</sup> 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 in mental health status, functional status, beneficiary satisfaction; and/or

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

- Have outcomes improved that are strongly associated with a process of care;
- 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.

**This PIP aims to increase access, timeliness to access, and participation in specialty mental health services by homeless persons with a SMH diagnosis. The intervention of the “warm handoff” involves outreach to the homeless person, establishing in-person contact, meeting the individual “where they are at right now” with an in person, respectful, and committed assistant who can help navigate connections to the specialty mental health service provider.**

**The first performance indicator (#1) is the rate of increase/decrease in those individuals continuing with specialty mental health services following their “warm handoff” intervention. This should show us whether interventions are improving access to services. This indicator will be especially relevant for individuals whose primary or only contacts with SMH services are through crisis/emergency services.**

**The second performance indicator (#2) is the rate of increase/decrease in the number of individuals who meet a target of 7 days to first specialty mental health service following the “warm handoff”. Mendocino County BHRS offers “exit interviews” to all MHP clients coming out of inpatient psychiatric hospitalization, to support community reintegration and to link with services. This indicator will build of the successes of prior successful strategies to support individuals in engaging with services in a timely interval.**

**The third performance indicator (#3) is the increase/decrease in individuals meeting the target of two specialty mental health services per week average, in the 60 days following the “warm handoff.” This indicator will help us identify interventions that are building engagement in services.**

**The fourth performance indicator (#4) is the number of months in services following the “warm handoff.” The average number of months in service for those that accept the “warm handoff” compared to those that don’t accept the “warm handoff” and compared to the average number of months in service for**

**Specify the performance indicators in a Table.**

| # | Describe Performance Indicator                                                                                                               | Numerator                                                                                                                      | Denominator                                                                                                      | Baseline for Performance Indicator (number)                                                                                               | Goal (number)                                                                                          |
|---|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1 | Percentage of individuals receiving a "warm handoff" who continue w/ mental health services                                                  | Individuals receiving "warm handoff" who continue with mental health services.                                                 | Homeless individuals returning from psychiatric hospital who receive a "warm handoff"                            | Homeless individuals returning from psychiatric hospital who continue with mental health services (59%)                                   | 75% of "warm handoff" clients continuing with SMH Services                                             |
| 2 | Percentage of individuals receiving a "warm handoff" who attend first provider appointment within 7 days                                     | Individuals receiving "warm handoff" who attend first provider appointment within 7 days                                       | Individuals receiving "warm handoff" who continue with mental health services                                    | Homeless individual returning from psychiatric hospital, continues with mental health services, receives first service within 7 days (60) | 75% of "warm handoff" clients keeping a provider appointment within 7 days                             |
| 3 | Percentage of individuals receiving "warm handoff" who continue with services and average 2 services per week in 60 days post "warm handoff" | Individuals receiving "warm handoff" who continue with services and average 2 services per week in 60 days post "warm handoff" | Homeless individuals returning from psychiatric hospital who receive a "warm handoff" and continue with services | Homeless individuals returning from psychiatric hospital, continue with mental health services, and average 2 services per week           | 50% of "warm handoff" clients will engage in an average of 2 services within 60 days of "warm handoff" |

|   |                                                                                                         |                                                                      |                                                         |                                                                                    |                                                                                    |
|---|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|   |                                                                                                         |                                                                      |                                                         | post exit<br>interview<br>(38%)                                                    |                                                                                    |
| 4 | Average number of months in service for Individuals receiving "warm handoff" who continue with services | Number of months in service for individuals receiving "warm handoff" | Number of homeless individuals receiving "warm handoff" | Baseline number of months in service for all SMH clients that identify as homeless | Individuals with "warm handoff" will have 15% more months in service than Baseline |

#### STEP 5: SAMPLING METHODS (IF APPLICABLE)

The MHP must provide the study description and methodology.

- Identify the following:
  - Calculate the required sample size?
  - Consider and specify the true or estimated frequency of the event?
  - Identify the confidence level to be used?
  - Identify an acceptable margin of error?

Describe the valid sampling techniques used?

\_\_\_\_\_ N of enrollees in sampling frame  
 \_\_\_\_\_ N of sample  
 \_\_\_\_\_ N of participants (i.e. – return rate)

**This PIP uses Total Population Sampling, a subset of the Selective Sampling method. The PIP study sample currently includes all adult homeless persons with Medi-Cal or Indigent status who are utilizing SMH services.**

**At the end of Fiscal Year 18/19 the population with which we have utilized intervention #1 is a subset of the whole sample. The first intervention was utilized with MHP clients that were discharged from a psychiatric hospital and returned to Mendocino county for an exit interview at Redwood Community Crisis Center during the fiscal year July 1 2018 to June 30 2019. At this time, the sample includes 76 individuals.**

## STEP 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.

**This PIP will include all adult homeless persons with Medi-Cal or Indigent status who are accessing SMH services. Interventions will target the use of “warm handoff” interventions to connect homeless individuals with SMH to the primary outpatient service provider they will work with. Following interventions, data will be collected regarding the number of contacts and the timeliness of contacts post intervention. Data will come from documentation in the Electronic Health Record “EHR.” Data will be reviewed periodically to determine if the intervention is having an effect. Successful interventions will trigger expansion and testing of additional interventions. Unsuccessful interventions will trigger adaptations and retesting to determine if success can be consistently obtained. Data will be collected by Specialty Mental Health Service Providers through Mendocino County’s contractors Redwood Quality Management Company (RQMC) and the direct service providers and will be shared with the PIP team for review and accuracy.**

**Data for this PIP was gathered primarily by Mariah Hunt, program specialist with Redwood Community Crisis Center, using data from the Electronic Health Record, EXYM. Clifford Landis gathered data from EXYM in his review of mental health and crisis services usage by homeless persons residing the Ukiah Temporary shelter in November and December 2018.**

## STEP 7: 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.
- Describe how the interventions will impact the indicators and help to answer the study question.

| Number of Intervention | List each Specific Intervention                                                                                                                                         | Barriers/Causes Intervention Designed to Target                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Corresponding Indicator | Date Applied                  |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------|
| 1                      | A "warm handoff" to specialty mental health service provider at crisis exit interview, for homeless individuals returning to Mendocino County from psychiatric hospital | The homeless with serious mental health diagnoses struggle to maintain consistent communications and appointments, have transportation problems, and frequently face stigma and other disruptive conditions negatively impacting engagement in services. The "warm handoff" provides a personal contact for follow-up, navigation assistance, and support for the homeless person who might benefit from specialty mental health services, while facing substantial barriers to engagement in these services. | 1,2,3                   | April 1, 2019                 |
| 2                      | Outreach to Homeless Day Shelter to schedule appointments and engage for SMH services                                                                                   | Transportation, communication, priority of immediate needs, stigma                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1,2,3                   | Target: September 2019        |
| 3                      | Outreach to Winter Shelter to schedule appointments and engage for SMH services                                                                                         | Transportation, communication, priority of immediate needs, stigma                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1,2,3                   | Target: October/November 2019 |
| 4                      | Outreach to street level encampments to schedule appointments and engage for SMH services                                                                               | Transportation, communication, priority of immediate needs, stigma                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1,2,3                   | Target: January/February 2019 |
| 5                      | Expand "warm handoff" to RCS crisis unit in Ft. Bragg                                                                                                                   | Transportation, communication, priority of immediate needs, stigma                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1,2,3,                  | Target: Spring 2020           |

**This PIP intended to begin with an initial intervention targeting the temporary homeless shelter. Our team was working to develop interventions and performance indicators with persons using the Ukiah temporary (seasonal) homeless shelter, and utilized Technical Assistance consult sessions with EQRO representative Ewurama Shaw-Taylor to develop the PIP. However, with the shelter's limited operational period, it was determined to utilize interventions that could be tested for longer periods than the shelter would be open. In February 2019, the PIP team decided to start with interventions with homeless persons returning from psychiatric hospitalization.**

**At the end of the first year (July 1, 2018 to June 30 2019) of this PIP, the first intervention pertains only to homeless individuals that were discharged from a psychiatric hospitalization and returned to Mendocino County for an exit interview at Redwood Community Crisis Center. Starting April 1, 2019, all homeless MHP clients returning from the psychiatric hospital were given a "warm handoff" (a staff person from the specialty mental health service provider client is referred to meets with client at their crisis exit interview with crisis staff). Data was gathered detailing whether clients continue with specialty mental health services, how many days from exit interview until their first service, and how many specialty mental health services (non-crisis they participated in during the 60 days following the "warm handoff." From July 1, 2018 until March 31, 2019, the "warm handoff" intervention was not used, and baseline data on enrollment, timeliness, and participation was gathered as a baseline in this study.**

#### **STEP 8: 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 any follow-up activities?
- Review results in adherence to the statistical analysis techniques defined in the data analysis plan.
- Describe the data analysis process. Did it occur as planned?
- Did results trigger modifications to the project or its interventions?
- Did analysis trigger any follow-up activities?
- Review results in adherence to the statistical analysis techniques defined in the data analysis plan.
- Describe the data analysis process. Did it occur as planned?
- 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.

**At the end of the first year (July 1, 2018 to June 30 2019) of this PIP, only one intervention has been tested. A planned intervention that provided "warm handoff" interventions with those utilizing the temporary homeless shelter and day center were postponed, due to the limited remaining time the winter shelter would be open and delays in opening the Ukiah homeless Day Center. This postponement was to allow for a more substantial period of testing in hopes of determining significant improvement.**

**The intervention was tested on homeless MHP qualifying individuals that were psychiatrically hospitalized and discharged to Mendocino County. Hospital discharge information is not available to BHRS for those that are not MHP qualifying individuals so those individuals were not included in the intervention. MHP qualifying homeless individuals returning from acute psychiatric**

hospitalization were provided a crisis exit interview as is practice in Mendocino County. During the exit interview, the first intervention was coordinated to provide a "warm handoff with the ongoing SMH outpatient provider. The sample to date includes 76 individuals (fiscal year July 1, 2018 to June 30, 2019) that have received a "warm handoff" during post hospital exit interview over the course of three months. This period of time is still too small for us to consider any improvements significant or sustainable.

Performance indicator #1 analyzes the rate at which homeless individuals who receive crisis services, and return from a psychiatric hospitalization continue with specialty mental health services. This indicator was contrasted the rate of continuing with services for those receiving the "warm handoff" and those who did not receive the "warm handoff" prior to the implementation of the intervention. Those individuals receiving the "warm handoff" connected to services at a rate of 62% (8 of 13) while those not receiving the "warm handoff" continue at a rate of 59% (38 of 64). These rates are very close and do not appear to show much significance. The population of the baseline group not receiving the intervention is much larger, and in year two of this PIP we can analyze a larger study group of individuals receiving the "warm handoff" intervention.

Performance indicator #2 analyzes timeliness to services. We looked at the percentage of homeless individuals who upon returning from psychiatric hospitalization continued with specialty mental health services, as evidenced by attending at least one specialty mental health service within 7 days of their exit interview. The rates of those receiving the "warm handoff" intervention were contrasted with those not receiving the intervention (prior to implementation). All of the individuals receiving the "warm handoff" attended their first provider appointment within 7 days (8 of 8 – 100%) during the period reviewed thus far. Those not receiving the "warm handoff" (baseline data) achieved the 7 day marker at a rate of 60% (23 of 38).

Performance indicator #3 analyzes the number of services in the 60 days post-exit interview for homeless individuals returning from psychiatric hospitalization. We compared the rates at which the two groups ("warm handoff" vs. baseline) met the goal of an average of 2 services per week during the 60 day period. Those receiving the "warm handoff" met the goal of 2 services per week average at a 75% standard (6 of 8). Those not receiving the "warm handoff" (baseline) met the 2 services per week standard at a rate of 32% (12 of 38). While there is a dramatic improvement, because of the small sample size and brief intervention period, we are not prepared to consider it significant.

The results for performance indicators #2 and #3 are a positive trend. All of the individuals (100%) receiving the "warm handoff" made it to their first appointment within 7 days, and 75% of them met the standard of getting an average of 2 services per week for the first 60 days after the "warm handoff" exit interview. These individuals enrolled in and continued with services, building connections and resources to cope with serious challenges. The rates for indicators #2 and #3 are much better for those receiving the "warm handoff," although the sample is quite small. More time to develop a larger sample will likely clarify the role of the "warm handoff" in achieving these results.

Another factor complicates these results. Multiple agencies were working to address the overall Mendocino County homeless challenges following the release of the Marbut report. A medical and crisis respite house opened about two months before the "warm handoff" intervention began April 1, 2019. The aim of the respite is to provide temporary housing for the homeless with complex care needs, including those who use crisis services. All of the individuals in the current sample who received the "warm handoff" also used the respite facility for some period of time. While we believe the "warm handoff" is important in connecting the homeless individual to a specialty mental health provider who will deliver ongoing services, the availability of respite housing certainly increases the ease with which the service providers can make follow up contact with the homeless individuals, and allows resources for the homeless

individual to address some of the barriers to contact with providers such as addressing immediate needs. We can't determine definitively at this time which impacted the improvements we've seen. As the PIP continues we expect to collect data on those that receive one service but not the other, and will then be able to analyze and adjust the interventions accordingly.

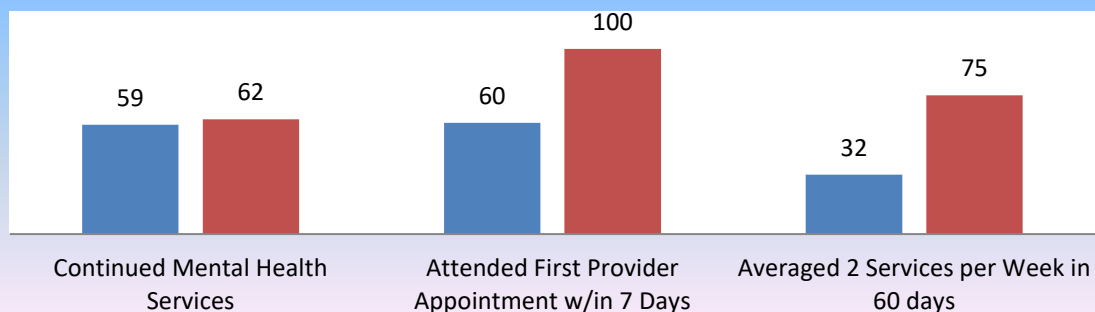
We do believe the "warm handoff" can also reduce the impact of immediate needs that might prevent the individual from responding to SMH services as the connection with ongoing mental health providers should also support the individual in addressing immediate needs challenges (shelter, food, hygiene). Further data collection, and developing a larger sample size, should clarify the separate roles played by each of these important supportive factors introduced to support the homeless who use crisis services.

| Performance Indicator                                                                                                             | Date of Baseline Measurement | Baseline Measurement<br>(numerator/denominator)   | Goal for % Improvement | Intervention Applied & Date      | Date of Re-measurement | Results<br>(numerator/denominator) | % Improvement Achieved |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------|------------------------|----------------------------------|------------------------|------------------------------------|------------------------|
| 1. Percentage of individuals receiving a "warm handoff" who continue w/ mental health services                                    | April 1, 2019                | 38 of 64 – 59%<br>(July 1, 2018 – March, 31 2019) | 75%                    | Intervention1:<br>April 1, 2019  | July 1, 2019           | 8 of 13 – 62%                      | 3%                     |
| 2. Percentage of individuals receiving a "warm handoff" who attend first provider appointment within 7 days                       | April 1, 2019                | 23 of 38 – 60%<br>(July 1, 2018 – March, 31 2019) | 75%                    | Intervention 1:<br>April 1, 2019 | July 1, 2019           | 8 of 8 – 100%                      | 40%                    |
| 3. Individuals receiving "warm handoff" who continue with services and average 2 services per week in 60 days post exit interview | April 1, 2019                | 12 of 38 – 32%<br>(July 1, 2018 – March, 31 2019) | 50%                    | Intervention 1:<br>April 1, 2019 | July 1, 2019           | 6 of 8 – 75%                       | 43%                    |

## Implementation of Warm Handoff Practice for Homeless Individuals

■ Percent of clients prior to Implementation of "Warm Handoff"

■ Percent of clients after Implementation of Warm Handoff



## STEP 9: ASSESS WHETHER IMPROVEMENT IS “REAL” IMPROVEMENT

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, if 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?

**It is too early to determine the true effectiveness of the “warm handoff” intervention. We expected confounding variables due to multiple changes to homeless services in the local community. The intervention of the “warm handoff” used in this PIP to connect the homeless with SMI to specialty mental health services was started on April 1, 2019. Data on homeless crisis service consumers was gathered from July 1, 2018. This data was compiled and analyzed at the end of the fiscal year, June 30, 2019. A larger data sample will help determine the significance of results for the performance indicators. We expect additional data collected in year two of this PIP will provide this clarification. We plan to add interventions to increase testing of the “warm handoff” connection and outreach to homeless individuals with SMI. Further measurement and testing of performance indicators will help establish whether improvement is real and sustainable or if we need to adapt the interventions.**

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