WORKSHEET 1: DRAFTING THE PIP TOPIC

MHP/DMC-ODS Name	Glenn County Behavioral Health
Project Leader/Manager/Coordinator	Joe Hallett, LCSW
Contact email address	jhallett@countyofglenn.net
Performance Improvement Title	Impact of Wellness Recovery Action Plans (WRAP) on Crisis and Psychiatric Inpatient Utilization
Type of PIP	☒ Clinical ☐ Non-clinical
PIP period (# months):	Start 07/2020 to End 06/2021 (12 months)
Additional Information or comments	

Briefly describe the aim of the PIP and the improvement strategy(ies). (What is the problem that the PIP seeks to address?)

During the last fiscal year, we re-organized our crisis team into a consistent daytime team with a goal of providing improved wraparound crisis services, follow-up after a hospitalization, and prevention. As this fiscal year has progressed, we have instead seen an increase in psychiatric inpatient admissions, bed days, length of stays, and re-hospitalizations.

What MHP/DMC-ODS data have been reviewed that suggest the issue is a problem?

We review psychiatric inpatient utilization data each month, which shows the number of admissions, bed days, associated claims, and re-hospitalizations. We also have a single Point of Authorization, who is also the PIP Project Leader who reviews and authorizes each inpatient stay. We reviewed the inpatient and outpatient service utilization of persons who received crisis services from our daytime crisis team and discussed options for helping reduce crisis and inpatient services. The goal is to determine if providing more individualized case management services at the time of crisis, and as a follow-up after the crisis, will help reduce additional crisis and inpatient hospitalizations in the future.

What are the barrier(s) that the data analysis has determined to be the cause of the problem?

It is difficult to engage clients, such as those experiencing homelessness or those who refuse follow-up and/or preventative services, following a crisis and/or hospitalization. Also, the team has found that it is difficult to engage clients with co-occurring mental health and substance use disorders.

Who was involved in identifying the problem? (Roles, such as providers or enrollees, are sufficient; proper names are not needed.) Were beneficiaries or stakeholders who are affected by the issue concerned with the issue/topic included?

Providers, managers, and administrative staff identified the problem. Concerns have been presented at management meetings; program planning meetings; and monthly System Improvement and Quality Improvement Committees (SIC and QIC).

Are there relevant benchmarks related to the problem? If so, what are they?

The changes to the crisis team were implemented last fiscal year, to enhance crisis response during business hours. Since then, the team has been reviewing various data while continuing to plan the new program. No other significant benchmarks have occurred other than noticing a steady increase each month in both crisis and inpatient hospitalizations. It was also noted that preventative services were not systematically occurring with high-risk clients.

WORKSHEET 2: DRAFTING THE AIM STATEMENT

What is the Aim Statement of this PIP? (The Aim statement should be concise, answerable, measurable and time bound.) Will engaging previously hospitalized clients, providing supportive case management services, and teaching them how to write a Wellness Recovery Action Plan (WRAP), decrease crisis and inpatient utilization?
Briefly state the improvement strategy that this PIP will use. (Additional information regarding the improvement strategy/intervention should be supplied in Step 7.) Begin utilizing the Crisis Response and Community Connections (CRCC) team to provide immediate, individualized, case management services to persons utilizing crisis and/or being discharged from psychiatric inpatient services and help engage and enroll them in a WRAP group. This strategy was selected to identify an evidence-based tool to help support individuals to develop a WRAP plan; systematically identify both triggers for needing crisis services and practices that will help them manage their behaviors prior to help prevent a crisis in the future.
Who is the population on which this PIP focuses? Provide information on the study population such as age, length of enrollment, diagnosis, and other relevant characteristics of the affected population. This PIP includes all clients experiencing a mental health crisis or who have recently been discharged from a psychiatric inpatient facility.
What is the timeframe for this PIP, from concept development to completion? This PIP is active from July 2020 to June 2021.
Additional Information or comments

WORKSHEET 3: IDENTIFYING THE PIP POPULATION

Who is the population on which this PIP focuses? Provide information on the study population such as age, length of enrollment, diagnosis, and other relevant characteristics of the affected population. Please include data, sources of information and dates of sources. This PIP includes all clients experiencing a mental health crisis or who have recently been discharged from a psychiatric inpatient facility. All of these clients are opened to specific subunits within our Electronic Health Record (EHR), so the PIP population is tracked using service utilization reports within those subunits, as well as inpatient logs.
Will all enrollees be included in the PIP? ☒ Yes ☐ No
If no, who will be included? How will the sample be selected?
N/A
Additional Information or comments

WORKSHEET 4: DESCRIBING THE SAMPLING PLAN

If the entire population is being included in the PIP, skip Step 4.

If the entire population is NOT being included in the PIP, complete the following:

Describe the sampling frame for the PIP. Not applicable.
Specify the true or estimated frequency of the event. Not applicable.
Determine the required sample size to ensure that there are a sufficient number of enrollees taking into account non-response, dropout, etc. Not applicable.
State the confidence level to be used. Not applicable.
State the margin of error. Not applicable.
Additional Information or comments

WORKSHEET 5: SELECTING PIP VARIABLES AND PERFORMANCE MEASURES

The questions below can be answered generally. Please complete the tables below for specific details.

What are the PIP variables? How will they answer the PIP question? The independent variables include the use of the CRCC team to provide individualized case management services, as well as referring clients to attend WRAP groups, after a crisis and/or inpatient hospitalization. The WRAP groups assist clients to develop and complete a WRAP to provide them with the skills they need to identify and resolve their symptoms to avoid future crisis and/or inpatient hospitalization, whenever possible.
What are the performance measures? Describe how the Performance Measures assess an important aspect of care that will make a difference to beneficiary health or functional status? The performance measures include the number of psychiatric inpatient admissions, number of bed days, number of persons re-hospitalized, and the number of crisis events / services. Reducing psychiatric inpatient hospitalizations help clients remain stable in the community and work toward achieving their treatment goals.
What is the availability of the required data? Data is available in the EHR and psychiatric inpatient logs.
Additional Information or comments

TABLE 5.1 VARIABLE(S) AND INTERVENTION(S)

Goal	(Independent) Variable	Intervention	Performance Measure (Dependent Variable)
Decrease psychiatric inpatient admissions	Use of CRCC team to provide individualized case management services	Increase case management services delivered by CRCC	Number of psychiatric inpatient admissions
Decrease psychiatric inpatient days	Use of CRCC team to provide individualized case management services	Increase case management services delivered by CRCC	Number of psychiatric inpatient bed days
Decrease psychiatric inpatient re-hospitalizations	Development of WRAP	Enroll clients in WRAP group after crisis and/or inpatient discharge	Number of re-hospitalizations for clients who **have** a WRAP
Decrease psychiatric inpatient re-hospitalizations	Development of WRAP	Enroll clients in WRAP group after crisis and/or inpatient discharge	Number of re-hospitalizations for clients who do **not** attend a WRAP group or have a WRAP
Decrease use of crisis services	Development of WRAP	Enroll clients in WRAP group after crisis and/or inpatient discharge	Number of clients who **have** a WRAP who received crisis service(s)
Decrease use of crisis services	Development of WRAP	Enroll clients in WRAP group after crisis and/or inpatient discharge	Number of clients who do **not** attend a WRAP group or have a WRAP who received crisis service(s)

TABLE 5.2 VARIABLE DESCRIPTIONS

	Variable	Source of Data	Availability of Data
1	Use of CRCC team to provide individualized case management services	Services in EHR	Services are entered into EHR at least monthly
2	Development of WRAP	WRAP completed	Completed WRAPs are tracked on the WRAP Group Sign-in sheets
3	Use of WRAP group	WRAP group sign-in sheets	Sign-in sheets are completed at each WRAP group

TABLE 5.3 PERFORMANCE MEASURE (PM) DESCRIPTIONS

	Performance Measure	Source of Data	Aspect of care that PM addresses
1	Number of psychiatric inpatient admissions	Psychiatric inpatient logs	Reduce psychiatric inpatient utilization
2	Number of psychiatric inpatient bed days	Psychiatric inpatient logs	Reduce psychiatric inpatient utilization
3	Number of re-hospitalizations for clients who **have** a WRAP	Psychiatric inpatient logs	Reduce psychiatric inpatient utilization
4	Number of re-hospitalizations for clients who do **not** attend a WRAP group or have a WRAP	Psychiatric inpatient logs	Reduce psychiatric inpatient utilization
5	Number of clients who **have** a WRAP who received crisis service(s)	Services in EHR.	Reduce clients going into crisis
6	Number of clients who do **not** attend a WRAP group or have a WRAP who received crisis service(s)	Services in EHR.	Reduce clients going into crisis

WORKSHEET 6: DESCRIBE IMPROVEMENT STRATEGY (INTERVENTION) AND IMPLEMENTATION PLAN

Answer the general questions below. Then provide details in the table below.

Describe the improvement strategy/intervention. Individualized case management services as well as attendance at WRAP groups to develop their own WRAPs, will help support clients to reduce the use of future crisis services and/or inpatient hospitalizations.
What was the evidence (published or unpublished) suggesting that the strategy would likely lead to improvement in processes or outcomes? Wellness and Recover Action Plans are listed in SAMHSA's National Registry of evidence-based programs and practices. The benefits of WRAP for people with a serious mental illness has been documented in the literature (Copeland, Cook, etc. 2011; 2012, etc.). WRAP supports hope and recovery. It is clearly understood that people get well, stay well for longer periods of time, and do things they want to do with their lives, when they develop and utilize a WRAP. WRAP promotes self-determination, personal responsibility, empowerment, and self-advocacy. (Copeland: https://mentalhealthrecovery.com/info-center/wrapa-values-and-ethics/).
How was the improvement strategy designed? How it is expected to address root causes or barriers identified? When clients complete a WRAP, they develop the skills they need to identify and resolve their symptoms to avoid future crisis. The WRAP groups were developed so clients can come together and support each other each week and share their progress in completing the WRAP. Individualized case management services by the CRCC team will add another level of support to persons with acute needs, to support clients to find a stable living situation, manage their medications, participate in social activities, and manage their health.
How does the improvement strategy address cultural and linguistic needs? WRAP plans are designed by the individual, for the individual, and creating a step-by-step plan that meets each person's unique needs. The WRAP is developed with consideration of the person's age, race, ethnicity, language, and other cultural strengths, to develop a plan for each person to use when they are experiencing symptoms. All components of the WRAP are designed and developed by the individual, to meet their needs. It is a fluid and flexible document and can be modified and changed, as the person uses it and as their life circumstances change.

When and how often is the intervention applied? WRAP groups are held weekly, and clients can attend when they choose. Individualized case management services are available to clients as often as they need that extra level of support.
Who is involved in applying the intervention? Individualized case management services are delivered by the CRCC team. WRAP groups are led by Behavioral Health staff who have been trained to support clients to develop their WRAP. These individuals have been trained to work with different groups, including Transitional Age Youth, adults, and older adults.
How is competency/ability in applying the intervention verified? The CRCC team is trained in specialty mental health services and have degrees and licenses/waivers in LCSW and LMFT. The WRAP group leaders are trained to support clients to develop their WRAP and have been trained to deliver this evidence-based program.
How is the MHP/DMC-ODS ensuring consistency and/or fidelity during implementation of the intervention (i.e., what are the process indicators)? The Behavioral Health staff who have been trained to support people to develop their WRAP work closely together to ensure consistency of the program and follow the fidelity of this evidence-based program.
Additional Information or comments

Complete this table and add (or attach) other tables/figures/charts as appropriate.

TABLE 6.1 IMPROVEMENT STRATEGY SUMMARY

	Intervention	Intervention Target Population	Date intervention Began	Frequency of Intervention Application	Corresponding Process Indicator(s)
1	Increase case management services delivered by CRCC	All clients who have received a crisis service	July 2020	Ongoing case management services to help resolve the immediate crisis	1, 2, 5, 6
2	Enroll clients in WRAP group after crisis and/or inpatient discharge	All clients who are being discharged from inpatient	November 2020	Weekly ongoing WRAP groups	1, 2, 3, 4, 5, 6, 7
3	Development of a WRAP {Plan} in WRAP group	All clients after discharge from inpatient	November 2020	One WRAP developed per client; updated as needed	1, 2, 3, 4, 5, 6, 7

WORKSHEET 7: DESCRIBING THE DATA COLLECTION PROCEDURES

Describe the methods for collecting valid and reliable data. Data was collected using actual claims data submitted. This can be verified for validity and reliability through inpatient hospitalization treatment authorizations, as well as through EHR claims. EHR claims include error checks before submitting them monthly. The data is also valid because it shows results for the exact performance measures as written, requiring no other reporting, sourcing, or manipulation other than the claims data as reported in our EHR. EHR data is final, and any changes or corrections can be tracked.
What are the data sources being used? We used claims data within our EHR, which can be cross referenced with other inpatient logs in Microsoft Access and Excel.
What are the data elements being collected? We collected data on the number of psychiatric inpatient admissions, number of bed days, number of persons re-hospitalized, and crisis services.
What is the frequency of data collection (daily, weekly, monthly, annually, etc.)? All claims data and associated logs are collected at least monthly when they are finalized for the billing process.
Who will be collecting the data? The data is based on claims occurring during service provision but is collected and reported by the project leader and other Quality Improvement staff.
What data collection instruments are being used? Please note if the MHP/DMC-ODS has created any instruments for this PIP. Services data is entered directly into the EHR. No additional data collection instruments were needed.
Additional Information or comments

WORKSHEET 8: DATA ANALYSIS AND INTERPRETATION OF PIP RESULTS

After carrying out the PIP, collecting, analyzing and interpreting the data, answer the following questions *with respect to the original aim of the PIP*:

What are the results of the study?

The baseline data shows that in FY 2019-20, there were a total of 82 psychiatric inpatient admissions for 842 total days. Of those 82 inpatient admissions, 20 had a re-admission (24.4%). After the interventions and WRAP groups were held, the data was analyzed again. The number of clients with a WRAP who had an inpatient re-admission was then compared to clients who had a re-admission and did not have a WRAP. During July 2020 – May 2021, for clients who developed a WRAP, one (1) had a re-admission during the re-measurement period. For clients without a WRAP, 10 had re-admissions.

The total number of inpatient admissions at baseline (82) reduced to 55 in FY 2020-21 (through May). The total bed days was also reduced from 842 at baseline to 565 for FY 2020-21 (through May).

In FY 2019-20, there were 981 total mental health clients and 201 (20.5%) who received crisis intervention service(s) at baseline. This data was then compared across clients with or without a WRAP in FY 2020-21. The two groups were then compared, and data was analyzed to determine if those clients with a WRAP were less likely to receive crisis services, compared to those without a WRAP. In FY 2020-21 (through May), 13 clients who had a WRAP received crisis intervention service(s), compared to 160 clients who did not have a WRAP.

How often were the data analyzed?

Baseline data was analyzed for FY 2019-20 for psychiatric inpatient admissions and crisis services. Re-measurements were analyzed each quarter in FY 2020-21 and added across each quarter to show cumulative results for the year (through May 2021).

Who conducted the data analysis, and how are they qualified to do so?

The data was analyzed by our Evaluator, I.D.E.A. Consulting, and our QI team

How was change/improvement assessed?

We assessed the improvement of the PIP by comparing the FY 2019-20 baseline measurement to the cumulative quarterly re-measurements over FY 2020-21. We analyzed the total number of inpatient admissions and bed days, as well as compared the number of clients who had a re-admission for those with a WRAP or without a

WRAP. We also reviewed the difference in clients who received crisis intervention service(s) across those with a WRAP or without a WRAP.
To what extent was the data collection plan adhered to—were complete and sufficient data available for analysis? All data was collected and analyzed as planned.
Were any statistical analyses conducted? If so, which ones? Provide level of significance. We did not use statistical significance.
Were factors considered that could threaten the internal or external validity of the findings examined? We found no factors that threatened the internal or external validity of the data.
Additional Information or comments

Present the objective results at each interval of data collection. Complete this table and add (or attach) other tables/figures/charts as appropriate.

TABLE 8.1 PIP RESULTS SUMMARY

Performance Measures	Baseline Measurement	Re-measurement 1	Re-measurement 2	Re-measurement 3	Dates of Baseline and Re-measurements	FINAL Measurement
Number of psychiatric inpatient admissions	82	17	28	43	*Baseline*: FY 19/20 *Re-measurements*: 1. 7/1/20-9/30/20 2. 7/1/20-12/31/20 3. 7/1/20-3/31/21 4. 7/1/20-5/31/21	55
Number of psychiatric inpatient bed days	842	167	332	474	*Baseline*: FY 19/20 *Re-measurements*: 1. 7/1/20-9/30/20 2. 7/1/20-12/31/20 3. 7/1/20-3/31/21 4. 7/1/20-5/31/21	565
Number of re-hospitalizations for clients who **have** a WRAP	N/A	0	0	1	*Baseline*: FY 19/20 *Re-measurements*: 1. 7/1/20-9/30/20 2. 7/1/20-12/31/20 3. 7/1/20-3/31/21 4. 7/1/20-5/31/21	1
Number of re-hospitalizations for clients who do **not** attend a WRAP group or have a WRAP	20 / 82 = 24.4%	3	8	10	*Baseline*: FY 19/20 *Re-measurements*: 1. 7/1/20-9/30/20 2. 7/1/20-12/31/20 3. 7/1/20-3/31/21 4. 7/1/20-5/31/21	10
Number of clients who **have** a WRAP who received crisis service(s)	N/A	0	6	13	*Baseline*: FY 19/20 *Re-measurements*: 1. 7/1/20-9/30/20 2. 7/1/20-12/31/20 3. 7/1/20-3/31/21 4. 7/1/20-5/31/21	13
Number of clients who do **not** attend a WRAP group or have a WRAP who received crisis service(s)	201 / 981 = 20.5%	61	92	124	*Baseline*: FY 19/20 *Re-measurements*: 1. 7/1/20-9/30/20 2. 7/1/20-12/31/20 3. 7/1/20-3/31/21 4. 7/1/20-5/31/21	160

WORKSHEET 9: LIKELIHOOD OF SIGNIFICANT AND SUSTAINED IMPROVEMENT THROUGH THE PIP

What is the conclusion of the PIP? The total number of inpatient admissions decreased from 82 at baseline to 55 in FY 2020-21 (through May). The total bed days was also reduced from 842 at baseline to 565 for FY 2020-21 (through May). The number of clients with psychiatric inpatient re-hospitalizations for those with a WRAP was one (1) compared to 10 for those without a WRAP. We also see a difference in the number of clients who received crisis intervention service(s) when comparing clients with a WRAP (13) versus those without a WRAP (160). The development of a WRAP, with the support of additional individualized case management services, has shown to help reduce the number of inpatient re-hospitalizations and crisis intervention services.
Do improvements appear to be the results of the PIP interventions? Explain. After reviewing the re-measurement data for FY 2020-21, we believe the improvements are due to the WRAPs being developed and clients receiving case management services from the CRCC team.
Does statistical evidence support that the improvement is true improvement? We do not use statistical evidence to analyze the data to determine if it is a true improvement.
Did any factors affect the methodology of the study or the validity of the results? If so, what were they? There were no factors that affected the validity of this PIP, and we analyzed all performance measures with the same methodology at re-measurement.
What, if any, factors threatened the internal or external validity of the outcomes? There were no factors that threatened the internal or external validity of the PIP.

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?)

We analyzed the re-measurement data each quarter for FY 2020-21 and saw continued improvements in each performance measure. The PIP team monitored crisis services and inpatient admissions monthly and adjusted any interventions as needed.

Were there limitations to the study? How were untoward results addressed?

There were difficulties implementing this PIP. During a crisis, some clients were not able to determine if they wanted to attend a WRAP group and develop a WRAP plan. After clients were discharged from psychiatric inpatient hospitals, it was sometimes difficult to engage clients to attend a WRAP group. The services provided by the CRCC team are often short-term and intensive, so often the team referred clients back to their primary outpatient provider before a WRAP plan could have been completed.

Staff who were interested in supporting clients to develop WRAP plans needed to be trained and certified to conduct WRAP groups. The training was not always available at times when the staff were available. In addition, it was difficult to schedule a WRAP group at a time that was convenient to both clients and trained staff.

What is the MHP/DMC-ODS's plan for continuation or follow-up?

We plan to continue to review the crisis and inpatient data monthly. Individual clients who have high crisis or inpatient utilization will be discussed with the team. WRAP groups will continue to be offered to persons receiving outpatient services. The WRAP groups will continue to be offered at Harmony House, where clients can drop in and attend the groups at a regularly scheduled time.

Additional Information or comments