

**Improving Discharge Follow-up Post-Hospitalization via Nurse Led Interventions at a Certified  
Community Behavioral Health Clinic (CCBHC)**

Miranda Dennis and Victoria Randle

Oregon Health & Science University School of Nursing

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**Author's Note**

All authors contributed equally to the conception and design of the study, data collection, analysis and interpretation, and writing of this study.

This paper is submitted in partial fulfillment of the requirements for the Doctor of Nursing Practice degree.

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## Abstract

**Background:** Psychiatric hospitalization discharge is a high-risk period for suicide, self-injury, substance use, and readmission, particularly within the first month. Follow-up (F/U) care within seven days decreases suicide risk and is required for Certified Community Behavioral Health Centers (CCBHCs). A rural Oregon CCBHC reported a 47% seven-day F/U rate and 67% 30-day readmission rate between January 2024 and January 2025, highlighting a gap in post-discharge continuity.

**Methods:** This quality improvement project used the Institute for Healthcare Improvement's Model for Improvement and Plan-Do-Study-Act cycles to implement and evaluate a nurse-led follow-up protocol. Outcomes were tracked through Epic electronic health record and Collective Medical alerts. A mixed-methods evaluation assessed implementation fidelity, process outcomes, and stakeholder feedback. Primary measures were seven-day follow-up completion and 30-day readmission rates.

**Interventions:** When psychiatric provider appointments were unavailable within 72 hours post-discharge, patients were scheduled for a structured nurse-led appointment within seven days. Thirty- to forty-five minute sessions included medication reconciliation, safety planning, and care coordination, delivered via in-person or telephone with standardized Epic documentation and appropriate billing compliance.

**Results:** Between November 24, 2025, and January 27, 2026, four unique patients accounted for six eligible hospitalization events. Four of six events (67%) resulted in a seven-day follow-up rate, an improvement from the 47% baseline though short of the 75% target. One nurse-led visit was completed and two patients saw psychiatric providers within seven days. Two 30-day readmissions occurred with a single high-acuity patient amid workflow, billing, and staffing barriers.

**Conclusion:** A nurse-led model improved seven-day follow-up and offers a scalable strategy to strengthen post-discharge continuity and support federal quality benchmarks in rural CCBHCs. Sustainability requires stable staffing, workflows, and clarified reimbursement pathways.

## Introduction

### Problem Description

Discharge from an inpatient psychiatric hospitalization is associated with elevated risks for suicide, non-suicidal self injurious behavior, substance use, and other adverse outcomes (Walter, 2019). Research highlights the risk of suicide is elevated in the first week and first month following discharge, especially for patients with histories of suicide, depression, psychotic illnesses, and personality disorders (Bojanić et al., 2020; Madsen et al, 2021). Studies show timely seven day outpatient follow-up (F/U) care lowers the risk of suicide among psychiatrically hospitalized patients (Che et al., 2023). In order to address adverse outcomes associated with recent psychiatric hospitalization discharge, best practice guidelines recommend following-up with patients by at least 7 days (National Action Alliance for Suicide Prevention, 2019). Following guidelines, the Substance Abuse and Mental Health Services Administration (SAMHSA) requires Certified Community Behavioral Health Centers (CCBHCs) to track timely F/U appointments within 7 days and 30 days once a patient is discharged from a behavioral health hospitalization or emergency department (ED), as well as acute readmissions and ED visits. (National Committee for Quality Assurance [NCQA], 2019; SAMHSA, 2024).

A CCBHC in a small Northwest town of approximately 13,000 residents met the 7-day F/U benchmark only 47% of the time and the 30-day F/U benchmark 67% of the time between January 2024 and January 2025. With only six psychiatric providers working mostly part-time, the facility searched for ways to increase the number of F/Us for its estimated 6,000 clients to meet SAMHSA certification criteria. A nurse-led intervention to increase the number of timely F/Us was identified by Reis (2025); however, numerous barriers made implementation at the CCBHC unattainable, including staff turnover, changes to the electronic health record, and time limitations.

### Available Knowledge

Adults hospitalized for psychiatric conditions face a high risk of adverse outcomes and readmission after discharge. Post-discharge suicide rates are about 100 times higher than the global

average in the first 3 months, and 200 times higher for patients originally admitted with suicidal ideation (Hermer et al., 2021). Roughly 20% of discharged psychiatric patients are readmitted within 30 days (Hermer et al., 2021). Cognitive impairments and co-occurring substance use disorders have been identified as significant predictors of psychiatric readmission, along with failure to adhere to treatment plans and medication non-adherence after discharge (Portela et al., 2022, Zwide et al., 2025). Patients who received an outpatient mental health visit within 7 days of psychiatric discharge had significantly lower subsequent suicide risk compared to those with no follow-up in the first month (Che et al., 2023). Quality standards emphasize follow-up within 7–30 days as a benchmark for good psychiatric care (Hermer et al., 2021). Beyond suicide prevention, prompt aftercare promotes medication adherence, continuity of treatment, and early problem-solving for post-discharge challenges (Hermer et al., 2021).

Evidence indicates that nurse-led interventions can offer symptoms assessments, ensure medication understanding, facilitate outpatient referrals, and promptly address any warning signs, thereby preventing lapses in care that often lead to readmission or crisis (Sakashita et al., 2025). Such interventions include telephone check-ins, home visits, and care coordination to reinforce discharge plans (Vernon et al., 2019; Woods et al., 2019). Research is limited in mental health populations, though a small sample pilot project featuring a nurse telephone follow-up within 48–72 hours of discharge reported zero readmissions within 30 days (Adams et al., 2020).

CCBHCs are federally designed comprehensive clinics aimed at enhancing behavioral health care through timely post-discharge follow-up, crisis intervention, and integrated support services for all patients. CCBHCs are required to report annually on specific quality measures, particularly tracking rapid follow-up after hospitalization, with funding tied directly to performance outcomes (SAMHSA, 2024). This accountability model incentivizes continuous quality improvement, fostering interventions such as nurse-led follow-up to enhance patient outcomes and ensure sustained financial support.

## **Rationale**

The Model for Improvement (MFI) developed by the Institute for Healthcare Improvement (IHI) served as the guiding framework for this quality improvement project, utilizing Plan-Do-Study-Act (PDSA) cycles to systematically implement and evaluate change (Institute for Healthcare Improvement, 2017). This framework demonstrated effectiveness across diverse healthcare settings and showed strong evidence for success in quality improvement initiatives (Langley et al., 2009). The MFI's emphasis on small-scale testing and ongoing refinement was particularly useful for the CCBHC environment, where patient populations were complex and organizational constraints required adaptive interventions.

Building upon Reis' foundational work (2025), this project addressed the critical gap between psychiatric hospital discharge and outpatient follow-up care through a nurse-led intervention model. The theoretical foundation was based on care transition theory, which emphasized the importance of bridging services during vulnerable periods when patients moved between levels of care (Vernon et al., 2019). Recent evidence suggested that nurse-led interventions significantly improved patient outcomes during care transitions, particularly in vulnerable populations served by CCBHCs (Sakashita et al., 2025).

The intervention design was informed by SAMHSA's CCBHC certification requirements, which mandated tracking of 7-day follow-up rates and 30-day readmission metrics for improvement purposes. The nurse-led approach fit existing clinical infrastructure while addressing the primary barrier identified in Reis' analysis—limited provider availability for urgent post-discharge appointments. By utilizing registered nurses to conduct structured follow-up appointments, the intervention created a sustainable link that maintained continuity of care without overwhelming limited psychiatric provider schedules. The billing code exploration initiated by Reis's work informed the identification of a variable reimbursement direction which is necessary for long-term implementation, while the standardized documentation template ensured consistent, billable services rendered.

### **Specific Aims**

By January 31, 2026, this nurse-led intervention aimed to increase the rate of 7-day post-hospitalization follow-up appointments from a baseline of 47% to 75% for patients discharged after psychiatric hospitalization or emergency department visits. Concurrently, the intervention aimed to

reduce 30-day readmission rates from 67% to 40% through nurse-led follow-up appointments targeting medication reconciliation, safety planning, and care coordination during the critical post-discharge period.

## **Methods**

### **Context**

This project was implemented at the same rural Oregon CCBHC serving approximately 53,000 county residents and built directly upon the infrastructure and baseline data established by Reis (2025). The facility operated within a challenging rural healthcare environment, where the nearest alternative behavioral health service providers were located over 60 miles away, making the CCBHC a critical access point for services. The organization maintained status as a federally designated CCBHC, requiring adherence to SAMHSA quality metrics and providing an accountability framework for the intervention.

Since Reis' initial project, several contextual factors have evolved to support implementation. The facility completed its transition from Credible to Epic as the electronic health record (EHR) system in June 2025, eliminating the technological barrier that previously hindered progress. A new registered nurse with prior mental health experience was hired in March 2025, providing the clinical capacity necessary for intervention delivery. However, this RN resigned in September 2025 prior to the start of implementation, and a replacement RN was hired in October 2025 and quickly onboarded to deliver the intervention. Additionally, the billing department explored billing code options for the nurse-led service within the new EHR and the documentation template was successfully integrated as a "dot phrase" for streamlined use.

Patient population characteristics remained consistent with Reis' analysis, with Medicaid and Medicare representing primary insurance coverage for patients requiring post-hospitalization follow-up. The facility continued to utilize Collective Medical software for real-time notification of patient hospitalizations across Oregon and Washington, providing the trigger mechanism for intervention initiation. Organizational leadership strongly supported the project, recognizing its alignment with SAMHSA requirements and its potential to improve patient outcomes and performance metrics.

Current staffing included a reduction from six to four psychiatric providers, although provider schedules were optimized to improve availability. Medical assistant staff responsible for appointment coordination received additional training on the new EHR system. However, during the implementation it became apparent that the added follow-up coordination responsibilities exceeded medical assistants' workload capacity, and these duties were subsequently reassigned to the registered nurse.

### **Interventions**

The nurse-led post-hospitalization follow-up intervention built upon Reis's framework while incorporating knowledge gained from implementation barriers encountered during the initial project. When the CCBHC received notification through Collective Medical software that a patient had been hospitalized or evaluated in an emergency department for mental health or substance use concerns, the protocol originally designated medical assistants to contact the patient within 24 hours to schedule appointments. As noted, this responsibility was reassigned to the registered nurse during implementation due to medical assistant workload constraints.

If a psychiatric provider could not accommodate an appointment within 72 hours of discharge, the patient was to be scheduled for a nurse-led appointment within seven days and a provider appointment as soon as possible, with a target of no later than 14 days post-discharge. The registered nurse conducted an approximately 30–45 minute appointment using the standardized template developed by Reis and refined through stakeholder feedback. The appointment addressed discharge instructions, medication reconciliation, patient education, safety plan reinforcement, barrier assessment for engagement, and care coordination for additional services.

The intervention utilized a hybrid delivery model, offering telephone and in-person appointments based on patient preference and clinical need. Appointments were documented using the integrated Epic "dot phrase" template to ensure standardized documentation and billing compliance. The registered nurse completed chart reviews of hospitalization records, discharge summaries, and current medication lists prior to appointments, utilizing Epic's Care Everywhere feature to access external facility documentation.

For patients who could not be reached for initial scheduling, the registered nurse attempted contact three times within 72 hours, followed by additional outreach at one week and two weeks post-discharge. All contact attempts were aimed to be documented in Epic with specific reasons for unsuccessful connection. The registered nurse collaborated with the medical director to ensure accurate tracking of SAMHSA-required metrics, including 7-day follow-up rates, 30-day readmission rates, and patient engagement outcomes.

Quality assurance was aimed to be maintained through weekly case review meetings among the registered nurse, medical assistants, and psychiatric providers to discuss complex cases, identify system barriers, and refine intervention protocols. Monthly data review sessions with organizational leadership aimed to monitor progress toward specific aims and identified opportunities for enhancement. Clear escalation procedures were established for patients presenting with acute safety concerns or complex medical needs requiring immediate provider consultation or emergency services.

### **Study of the Interventions**

A mixed-methods approach evaluated implementation fidelity and effectiveness. Daily Collective Medical reports alerted the CCBHC to patient hospitalizations and emergency department visits. The medical director tracked patient contacts, scheduling, completion of nurse-led appointments, and provider follow-up. Process measures assessed appointment completion, missed appointments, and successful transitions to provider care.

Fidelity was evaluated through documentation review of completed nurse-led appointments to ensure adherence to the standardized template, including medication reconciliation, safety planning, and barrier assessment. Due to limited patient volume during the implementation period, fidelity was based on the single completed nurse-led appointment, with the registered nurse documenting engagement, clinical findings, and escalation needs. Data were collected throughout implementation and analyzed monthly to track progress toward aims. Intervention modifications were documented using PDSA methodology, and stakeholder feedback was obtained through structured discussions with the medical director and registered nurse on behalf of the medical assistants and psychiatric providers to identify implementation barriers.

## Measures

Primary outcome measures included the percentage of patients completing a follow-up appointment (nurse-led or provider-led) within seven days of psychiatric hospitalization or emergency department discharge, and the percentage of patients experiencing readmission or emergency department return visits within 30 days of discharge. Baseline data established by Reis (2025) indicated performance at 47% for 7-day follow-up and 67% for 30-day readmissions.

Process measures tracked the number of completed nurse-led appointments, patients lost to follow-up despite multiple contact attempts, average number of contact attempts required for scheduling, time from hospital notification to first patient contact, successful transition rates to provider care, and compliance with billing documentation requirements.

Balancing measures assessed potential unintended consequences, including staff workload burden for medical assistants, registered nurse time allocation, and patient satisfaction with nurse-led care. Staff wellbeing was monitored through regular check-ins and team feedback, with increased stress or turnover considered indicators requiring protocol adjustment. Resistance from medical assistants to expand coordination duties prompted reassignment of scheduling and outreach duties to the registered nurse.

Planned secondary measures included medication adherence, safety plan utilization, and linkage to community resources, though assessment of these measures was contingent on a higher patient volume during the implementation period.

## Analysis

Quantitative data on primary outcomes were analyzed using basic descriptive statistics, including frequencies and percentages, to compare pre- and post-intervention 7-day follow-up and 30-day readmission rates. Given the small sample size during the implementation period, inferential statistical testing was neither appropriate nor performed during this analysis. Process measures, including number of completed nurse-led appointments, contact attempts, and patients lost to follow-up were summarized using frequencies. Qualitative data from stakeholder discussions, including case review meetings and nurse appointment logs were analyzed descriptively to identify implementation barriers and

recommendations for protocol refinement. This mixed-method approach, though limited in scope by the small patient volume, provided a preliminary understanding of intervention feasibility within the rural CCBHC setting.

### **Ethical Considerations**

This quality improvement project was reviewed by OHSU's Institutional Review Board and confirmed as non-research activity (Project ID STUDY00029157). CCBHC leadership provided a letter of support confirming organizational commitment and data-sharing agreements. Patient health information was handled in accordance with HIPAA requirements, with data de-identified prior to use and stored in password-protected, encrypted files accessible only to designated team members. All staff involved completed HIPAA training.

Patient autonomy was preserved through informed consent for nurse-led appointments, with clarification that services supplemented rather than replaced provider care, and could be declined. A trauma-informed approach was used to address patient vulnerability. Quality assurance ensured nurse-led appointments maintained appropriate clinical boundaries and included escalation procedures for acute safety concerns. The registered nurse maintained direct access to psychiatric provider consultation and emergency protocols to ensure patient safety. To minimize staff distress from increased workload, implementation included regular check-ins with the registered nurse to assess stress and provide support.

### **Results**

Implementation of the nurse-led follow-up intervention began on November 24th, 2025, following completion of the Epic EHR transition, onboarding and training of a new registered nurse, and integration of the documentation dot phrase template. Between November 24th, 2025 and January 27th, 2026, four unique patients experienced a total of seven hospitalization events for mental health or substance use concerns and met criteria for the intervention (see Table 1; Appendix A).

### **Table 1**

*Post-Intervention Patient Outcomes (November 24th, 2025 - January 27th, 2026)*

Client	Admit	Discharge	Visit Type	1st Billable	7-day F/U	30-Day ReAdmit	RN Appt
34501	11/16/25	11/16/25	Emergency	11/18/25	Yes	Yes	-
34501	12/15/25	12/15/25	Emergency	12/18/25	Yes	Yes	Yes
34501	12/21/25	12/22/25	Transfer	-	-	-	-
34501	12/22/25	1/19/26	Inpatient	-	No	Pending <sup>1</sup>	-
34670	11/28/25	11/28/25	Emergency	12/2/25	Yes	No	-
34854	11/30/25	12/02/25	Emergency	12/3/25	Yes	Unknown <sup>2</sup>	-
34990	12/26/25	12/27/25	Emergency	-	No	No	-

*Note:* Client Identifiers are represented by internal ID numbers for confidentiality. Dashes indicate not applicable due to transfer or ongoing hospitalizations. RN Appt = nurse-led follow-up appointment. <sup>1</sup>The 30-day observation window was not yet closed at the time of reporting. <sup>2</sup>Readmission status not yet confirmed.

When analyzed by hospital event, consistent with the methodology used by Reis (2025), four of six countable events (67%) resulted in 7-day follow-up, excluding one transfer event. This represents an improvement from the baseline of 47% (January 2024-2025), though it falls short of the 75% specific aim. When analyzed by unique patient experience, three of four patients (75%) achieved at least one follow-up within 7 days, meeting the specific aim at the patient level. Two patients (34670 and 34854) were successfully scheduled with their psychiatric providers within 7 days without requiring the nurse-led appointment, which reflects improved scheduling capacity during this implementation period. One patient (34990) was unable to be reached for follow-up within 7 days.

One nurse-led appointment was scheduled and completed on December 18th, 2025, for patient 34501, which addressed medication reconciliation, medication education, safety planning, and review of hospital records. Despite the intervention, this patient presented with high medical and psychiatric acuity, and was rehospitalized within 6 days of the nurse encounter. Regarding 30-day readmission, patient 34501 accounted for both confirmed readmissions during the implementation period. A significant barrier occurred when the team discovered that billing behavioral health codes as an RN required QMHA credentialing, shifting the billing direction from code H2010 towards case management. Additional

challenges included manual Collective Medical notifications workflow limitations, the RN's EHR learning curve, and the consolidation of both coordination and clinical duties onto the single RN after medical assistants' workload constraints required reassignment. Notably, all patient care was delivered regardless of current billing status. Due to limited patient volume and workflow disruptions during implementation, several process and balancing measures could not be systematically captured, including average number of contact attempts per patient, time from hospital notification to first contact, and patient satisfaction with nurse-led care. Planned secondary measures such as medication adherence, safety plan utilization, and linkage to community resources were not assessed, which is consistent with the contingency noted in the original project design. The registered nurse leading the delivery of the intervention resigned during the intervention period, representing the third registered nurse to depart the CCBHC since the project began under Reis (2025), further limiting the number of nurse-led appointments that could be completed.

## **Discussion**

### **Summary**

This quality improvement project addressed a critical safety gap in post-psychiatric hospitalization transitions at a rural CCBHC using the Model for Improvement and PDSA cycles. The nurse-led intervention aimed to increase 7-day follow-up rates from 47% to 75% and reduce 30-day readmissions from 67% to 40% by January 2026. During the implementation period, four unique patients accounted for six eligible hospitalization events, 67% of which resulted in 7-day follow-up, reflecting improvement from baseline. At the patient level, 75% achieved at least one 7-day follow-up, meeting the specific aim. Although only one nurse-led appointment was completed, improved scheduling workflows allowed two patients to see psychiatric providers within 7 days. Despite operational barriers, including billing, EHR workflow challenges, and RN turnover, findings support usefulness and potential for strengthening post-discharge continuity of care.

### **Interpretation**

The findings suggest that implementation of a structured post-discharge workflow may improve timely follow-up rates in a rural CCBHC setting. Seven-day follow-up rates improved from 47% to 67% at the hospitalization-event level, suggesting that workflow refinement and structured discharge tracking can strengthen access to care during high-risk transitions (see Appendix B). Considering concurrent system improvements occurred (EHR integration and scheduling optimization), the observed improvement cannot be attributed solely to the nurse-led encounter but rather broader implementation of structured post-discharge workflow. Compared to national statistics, the CCBHC had higher rates of follow-up compared to the national average for patients with Medicaid (42.6%) (NCQA, 2024).

These results align with existing literature emphasizing the importance of rapid outpatient follow-up after psychiatric discharge. Prior studies demonstrate that visits within 7 days reduce suicide risk and improve continuity of care (Che et al., 2023). While this project was unable to detect changes in suicide or patient outcomes, the observed improvements are consistent with evidence supporting structured transitional care interventions to reduce fragmentation and enhance engagement.

The single completed nurse-led appointment highlighted the clinical complexity of the population served. Despite thorough medication reconciliation, safety planning, and care coordination, the patient was rehospitalized within six days due to high psychiatric and medical acuity. This emphasizes that timely follow-up, although protective, does not eliminate risk in high-acuity individuals and that readmissions are influenced by multifactorial drivers such as illness severity, substance use, and social instability.

Contextual factors significantly shaped implementation. Billing barriers requiring QMHA credentialing, manual hospitalization notification workflows, and adaptation to a new EHR system limited intervention reach. Sustainability was challenged by the RN's resignation on the final day of the implementation period, marking the third RN to resign since the project was started by Reis (2025). Unanticipated staffing losses highlight the vulnerability of role-dependent interventions in rural healthcare settings. Although limited patient volume restricted outcome detection, the implementation period revealed critical operational requirements necessary for long-term feasibility. While the project

strengthened accountability and clarified post-discharge workflows, it also increased workload for a single RN and introduced temporary inefficiencies. Despite these trade-offs, the intervention clarified operational gaps and established a reproducible workflow foundation, with organizational leadership committing to automating hospitalization notification workflows within Epic and continued refinement for future PDSA cycles.

### **Limitations**

Several limitations restrict interpretation and generalizability of these findings. The brief implementation period and small sample size limited statistical inference and confidence in sustainability trends. Concurrent system changes, including EHR transition and turnover of three registered nurses, reduced intervention fidelity and continuity. Billing requirements for QMHA credentialing created reimbursement uncertainty that may affect long-term feasibility. Manual notification workflows, EHR learning curves, and the rural setting with limited providers further constrained implementation, while unmeasured social determinants may have influenced outcomes. Although standardized documentation, case reviews, and workflow adjustments mitigated barriers, staffing instability remained beyond the project team's control.

### **Conclusions**

This quality improvement initiative demonstrated that a nurse-led post-hospitalization follow-up model is feasible in a rural CCBHC and may improve follow-up rates when integrated into broader workflow redesign. Although the seven-day follow-up target of 75% was not reached, patient-level performance met the specific aim and overall follow-up improved from baseline. The project highlights that transitional care improvements may result from both direct nurse-led encounters and indirect system improvements. Future cycles should focus on finding clear reimbursement pathways, addressing RN retention as a precondition for intervention sustainability, automating hospitalization alerts, and expanding data collection to include patient-reported outcomes. Stable infrastructure and staffing may support the nurse-led intervention in improving post-discharge safety, and support sustained compliance with SAMHSA CCBHC quality standards.

## References

- Adams, H. S., Staten, R. R., & Coty, M. B. (2020). Initiating telephone follow up after hospital discharge from an inpatient psychiatric setting to reduce recidivism. *Journal of psychosocial nursing and mental health services*, 58(5), 25–31. <https://doi.org/10.3928/02793695-20200221-01>
- Bojanić, L., Hunt, I. M., Baird, A., Kapur, N., Appleby, L., & Turnbull, P. (2020). Early post-discharge suicide in mental health patients: Findings from a national clinical survey. *Frontiers in psychiatry*, 11, 502. <https://doi.org/10.3389/fpsy.2020.00502>
- Che, S. E., Gwon, Y. G., & Kim, K. H. (2023). Follow-up timing after discharge and suicide risk among patients hospitalized with psychiatric illness. *JAMA network open*, 6(10), e2336767-e2336767. <https://doi.org/10.1001/jamanetworkopen.2023.36767>
- Hermer, L., Nephew, T., & Southwell, K. (2022). Follow-up psychiatric care and risk of readmission in patients with serious mental illness in state funded or operated facilities. *Psychiatric Quarterly*, 93(2), 499-511. <https://doi.org/10.1007/s11126-021-09957-0>
- Institute for Healthcare Improvement (IHI). (2017). *How to improve: Model for improvement*. Retrieved July 1, 2025, from <https://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementHowtoImprove.aspx>
- Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. (2009) *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (2nd Edition). Jossey-Bass Publishers.
- Madsen, T., Egilsdottir, E., Damgaard, C., Erlangsen, A., & Nordentoft, M. (2021). Assessment of suicide risks during the first week immediately after discharge from psychiatric inpatient facility. *Frontiers in psychiatry*, 12, 643303. <https://doi.org/10.3389/fpsy.2021.643303>
- National Action Alliance for Suicide Prevention. (2019). *Best practices in care transitions for*

- individuals with suicide risk: Inpatient care to outpatient care*. Education Development Center, Inc. [https://theactionalliance.org/sites/default/files/report\\_-\\_best\\_practices\\_in\\_care\\_transitions\\_final.pdf](https://theactionalliance.org/sites/default/files/report_-_best_practices_in_care_transitions_final.pdf)
- National Committee for Quality Assurance (NCQA). (2024). Follow-up after hospitalization for mental illness: HEDIS measures and technical resources. Accessed May 2, 2025  
<https://www.ncqa.org/hedis/measures/follow-up-after-hospitalization-for-mental-illness/>
- Portela, R., Wainberg, M. L., Castel, S., de Oliveira, H. N., & Ruas, C. M. (2022). Risk factors associated with readmissions of patients with severe mental disorders under treatment with antipsychotics. *BMC psychiatry*, 22(1), 189. <https://doi.org/10.1186/s12888-022-03794-6>
- Reis, S. (2025). Improving discharge follow-up post-hospitalization for mental health or substance use at a certified community behavioral health center (CCBHC). *Oregon Health and Science University*. <https://doi.org/10.6083/bpxhc44446>
- Sakashita, C., Endo, E., Ota, E. et al. (2025). Effectiveness of nurse-led transitional care interventions for adult patients discharged from acute care hospitals: a systematic review and meta-analysis. *BMC Nurs*, 24, 379 (2025). <https://doi.org/10.1186/s12912-025-03040-w>
- Substance Abuse and Mental Health Services Administration. (2023) Certified community behavioral health center certification criteria. Accessed May 2, 2025 from  
<https://www.samhsa.gov/sites/default/files/ccbhc-criteria-2023.pdf>
- Walter, F., Carr, M. J., Mok, P. L., Antonsen, S., Pedersen, C. B., Appleby, L., Fazel, S., Shaw, J., & Webb, R. T. (2019). Multiple adverse outcomes following first discharge from inpatient psychiatric care: a national cohort study. *The Lancet Psychiatry*, 6(7), 582-589.  
[https://doi.org/10.1016/S2215-0366\(19\)30180-4](https://doi.org/10.1016/S2215-0366(19)30180-4)
- Vernon, D., Brown, J. E., Griffiths, E., Nevill, A. M., & Pinkney, M. (2019). Reducing readmission rates through a discharge follow-up service. *Future healthcare journal*, 6(2), 114-117. <https://doi.org/10.4102/sajpsychiatry.v31i0.2345>

- Woods, C. E., Jones, R., O'Shea, E., Grist, E., Wiggers, J., & Usher, K. (2019). Nurse-led postdischarge telephone follow-up calls: A mixed study systematic review. *Journal of clinical nursing*, 28(19-20), 3386–3399. <https://doi.org/10.1111/jocn.14951>
- Zwide, G. E., Dewet, Z. T., & Sokudela, F. B. (2025). Medication non-adherence in re-admitted patients at a psychiatry hospital: A qualitative study. *South African Journal of Psychiatry*, 31, 2345. <https://doi.org/10.4102/sajpsychiatry.v31i0.2345>

## Appendix A: QI Project Timeline in PDSA Format

### PDSA Cycle 1: Reis (2025)

<p><b>Plan:</b> Identified gap in 7-day follow-up; Designed nurse-led intervention; Explored billing codes; Created appointment documentation template for EHR.</p>	<p><b>Do:</b> Delayed: Only RN resigned Nov. 2024; Pending EHR transition; Hiring constrained by rural area.</p>
<p><b>Study:</b> Baseline: 45.9% FY2023 -&gt; 51.2% (Sept 2024). 7-day follow-up 79.1%. 30-day readmission; H2010 code identified.</p>	<p><b>Act:</b> Handed off project design, template, billing code, and baseline data to Dennis &amp; Randle.</p>

### PDSA Cycle 2: Dennis & Randle (2025-2026)

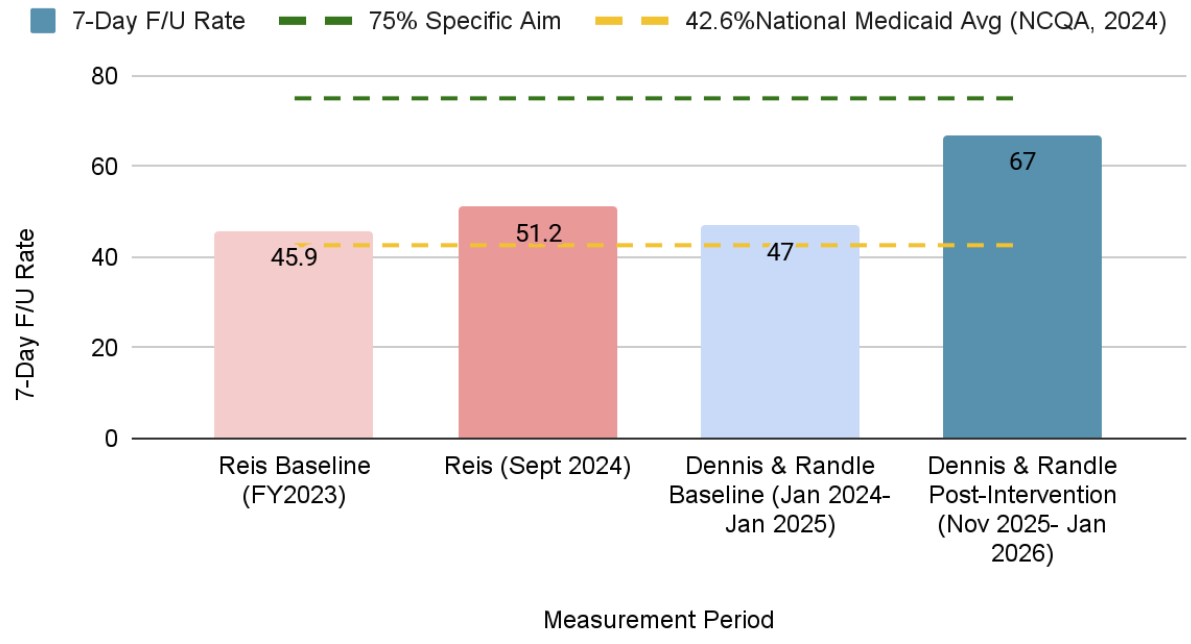
<p><b>Plan:</b> Epic transition complete June 2025; RN #1 hired in Mar, resigned in Sept; RN #2 hired in Oct; Dot phrase built into EHR; Billing code H2010 explored for viability.</p>	<p><b>Do:</b> Nov 2025 - Jan 2026: MA duties reassigned to RN; 1 nurse led appointment completed (12/18/25); 2 Patients seen by providers; RN #2 resigns.</p>
<p><b>Study:</b> 67% event-based 7-day follow up (Nov 2025 - Jan 2026) an increase from 47% (Jan 2024-Jan 2025); billing shifted from H2010 to case management; QMHA barrier identified.</p>	<p><b>Act:</b> Sustain protocol; Automate Epic workflows &amp; work assignments; address RN retention; standardize credentialing; Continue PDSA cycles.</p>

### Project Timeline (2024 - 2026)

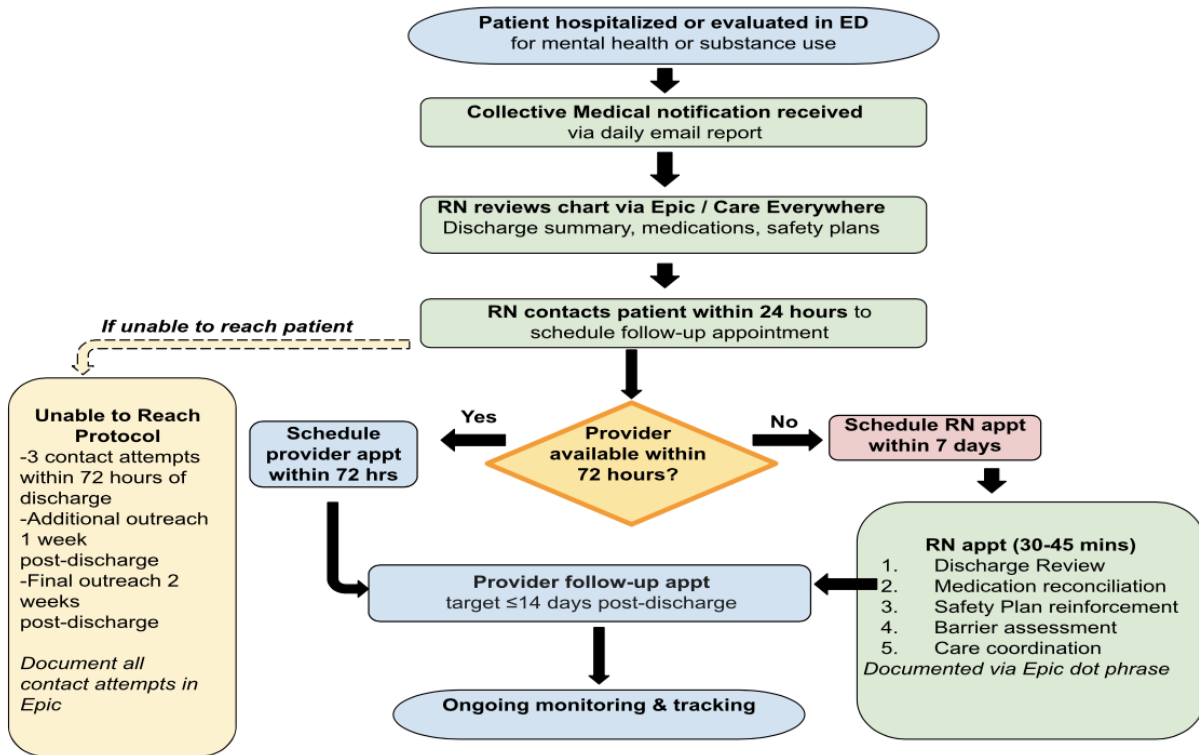
Sept 2024 - Reis Baseline data collected → Jan 2025 - Reis project concludes; design handed off to Dennis & Randle → Mar 2025 - RN #1 hired → June 2025 - Epic EHR goes live at the CCBHC (transitions from Credible) → Sept 2025 - RN #1 resigns → Oct 2025 - RN #2 hired and onboarded → Nov 2025 - Implementation begins; MA coordination duties reassigned to RN → Dec 18th, 2025 - First nurse-led follow-up appointment completed → Jan 27th, 2026 - Data collection ends

**Appendix B: 7-Day Follow-Up Rates Across Project Phases**

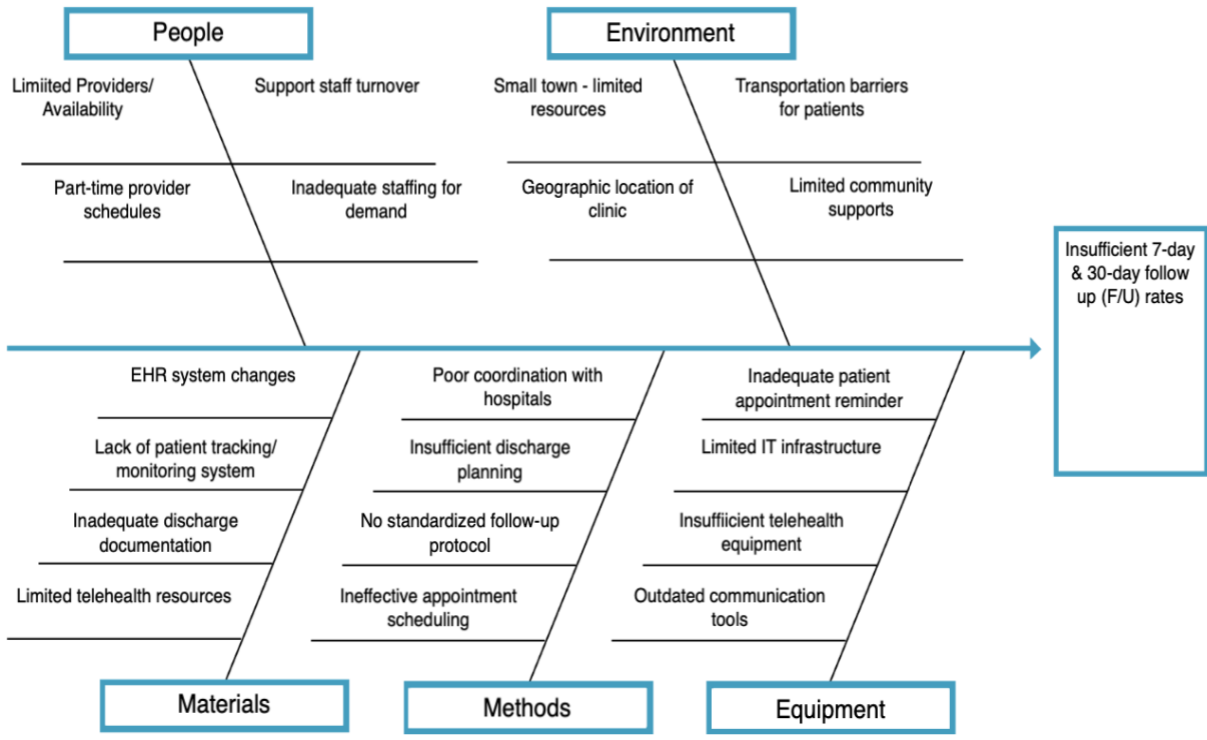
**7-Day F/U Rate vs Measurement Period**



### Appendix C: Nurse-Led Post-Hospitalization Follow-Up Process Map



### Appendix D: Cause & Effect Diagram



## Appendix E: RN Follow-Up Protocol and Appointment Guide

### Before Appointment

Chart Review via Epic and Care Everywhere (discharge summary, medications, safety plans)  
 Note urgent clinical concerns for any immediate escalation  
 Open Epic dot phrase template for appointment documentation

### During Appointment (30-45 minutes) - 5 Required Elements:

**Discharge Instruction Review** - Verify patient understanding of discharge plan; clarify questions; document comprehension.

**Medication Reconciliation & Education** - Review all current medications; discuss purpose, side effects, and any adherence barriers; demonstrate administration if applicable; provide written materials if applicable.

**Safety Plan Reinforcement** - Review and update existing safety plan; provide crisis information; confirm emergency contacts.

**Barrier Assessment** - Assess barriers including transportation, financial, housing, and any other obstacles to attending follow-up visits with provider; problem-solve solutions collaboratively.

**Care Coordination** - Confirm upcoming appointment with provider and remind patient to attend; facilitate reminder of any additional referrals as needed (therapy, case management); document follow-up plan.

### Escalation Criteria - Contact Provider Immediately

- ! Active suicidal ideation with plan or intent
- ! Acute psychotic symptoms requiring intervention
- ! Serious medication side effects
- ! Any Acute safety concerns

### After Appointment

Complete Epic documentation same day using dot phrase template and billing code  
 Log appointment in tracking spreadsheet (completion, duration, engagement level, any concerns)

Alert provider of any clinical concerns relevant to their follow-up

### Weekly

Participate in case review meeting with team to discuss complex cases, barriers, and protocol improvements

**Appendix F: Service Note Template (Reis, 2025)**

The patient is seen for a nursing follow up post-hospitalization to address discharge instructions, changes to medication regimens, safety, and patient education. They were discharged from X facility on X/X/202X after hospitalization for X (suicide attempt, self-harm, suicidal ideation, substance use, etc).

The patient was hospitalized for the following dates:

Changes to medical history:

Changes to psychiatric history (new diagnoses, suicide attempt, self harm, etc):

Changes to social or legal history:

Data reviewed:

- Chart notes from X facility
- After visit summary
- Labs

Current medications:

Medications that require lab monitoring, if applicable:

Lab results:

Next labs due:

Medication education:

- Discussed potential side effects, purpose, dosing, and timing for the following prescribed medications:
- Demonstration of proper administration of injectable medication provided for the following prescribed medication, if applicable:
- Written materials or visual aids provided, if applicable:

Patient questions and concerns that were addressed outside of med adherence:

Follow-up appointments scheduled with provider:

Safety plan: Provided facility crisis line information. Discussed follow-up with therapist and/or referral was provided (include date appointment scheduled if applicable).

## Appendix G: IRB Determination Letter



# IRB MEMO

Research Integrity Office

3181 SW Sam Jackson Park Road - L106RI  
Portland, OR 97239-3098  
(503)494-7887 irb@ohsu.edu

## NOT HUMAN RESEARCH

September 22, 2025

Dear Investigator:

On 9/22/2025, the IRB reviewed the following submission:

Title of Study:	Improving Discharge Follow-up Post-Hospitalization via Nurse Led Interventions at a Certified Community Behavioral Health Clinic (CCBHC)
Investigator:	<a href="#">Molly Goddard</a>
IRB ID:	STUDY00029157
Funding:	None

The IRB determined that the proposed activity is not research involving human subjects. IRB review and approval is not required.

Certain changes to the research plan may affect this determination. Contact the IRB Office if your project changes and you have questions regarding the need for IRB oversight.

If this project involves the collection, use, or disclosure of Protected Health Information (PHI), you must comply with all applicable requirements under HIPAA. See the [HIPAA and Research website](#) and the [Information Privacy and Security website](#) for more information.

Sincerely,

The OHSU IRB Office

## Appendix H: Letter of Support from CCBHC Site

Date: July 14<sup>th</sup>, 2025

Dear *Miranda Dennis and Victoria Randle*,

This letter confirms that I, [Redacted name] allow *Miranda Dennis and Victoria Randle* (OHSU Doctor of Nursing Practice Students) access to complete his/her DNP Final Project at our clinical site. The project will take place from approximately *June 2025 to January 2026*.

This letter summarizes the core elements of the project proposal, already reviewed by the DNP Project Preceptor and clinical liaison (if applicable):

- Project Site(s): [Redacted clinical site]
- Project Plan: Use the following guidance to describe your project in a brief paragraph. This quality improvement project addresses the critical issue of low follow-up rates after psychiatric hospitalization at a rural Certified Community Behavioral Health Clinic (CCBHC), where only 47% of patients received follow-up within 7 days. Given the significantly elevated suicide and readmission risks during the post-discharge period, the project implements a nurse-led intervention grounded in the Institute for Healthcare Improvement's Model for Improvement and care transition theory. The aims are to increase 7-day follow-up rates to 75% and reduce 30-day readmission rates from 67% to 40% by January 2026. The intervention involves structured nurse-led follow-up visits within 7 days of discharge, with contact protocols and documentation integrated into the Epic EHR. Data collected—including follow-up completion, readmission rates, and patient engagement—will be de-identified and stored securely in a password-protected system. The site supports the project through clinical staffing, EHR integration, access to hospitalization alerts, and administrative backing. Additional agreements include the use of CPT code H2010 for billing and the integration of a standardized documentation template.

During the project implementation and evaluation, *Miranda Dennis and Victoria Randle* will provide regular updates and communicate any necessary changes to the DNP Project Preceptor.

Our organization looks forward to working with this student to complete their DNP project. If we have any concerns related to this project, we will contact *Miranda Dennis and Victoria Randle* and *Molly Goddard* (student's DNP Project Chairperson).

Regards,

[Redacted name and contact information]

\_\_\_7/22/25\_\_\_ Date Signed