Bucks-County-Connect-Assess-Refer-Engage-Support (B-CARES) Program Evaluation

Final Report 2018

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RESEARCH & EVALUATION GROUP at PHMC

Executive Summary

In 2017, Bucks County initiated the Bucks-County-Connect-Assess-Refer-Engage-Support (B-CARES) Program. The B-CARES program is a collaboration between three treatment agencies [The Council of Southeast PA (CSEPA), Gaudenzia Lower Bucks (GLB), and Penn Foundation, Inc. (PF)] and six Bucks County Hospitals, five of which were included in the evaluation [St. Mary Medical Center (SMMC), Jefferson Bucks Hospital (JBH), Doylestown Hospital (DH), Lower Bucks Hospital (LBH), and Grand View Hospital (GVH)]. See the table below for a summary of the networks of treatment agencies and hospitals. The goal of the B-CARES program is to provide a "warm handoff" to substance use disorder treatment for opioid overdose survivors. Specifically, Certified Recovery Specialists (CRSs) work with overdose survivors to identify their treatment needs, connect them to an appropriate level of care, and link them to community resources that will support their recovery. A secondary goal of the program is to train medical professionals who interact with overdose survivors in the ED on opioid use disorder and treatment with the goal of reducing addiction-related stigma and correcting associated misperceptions.

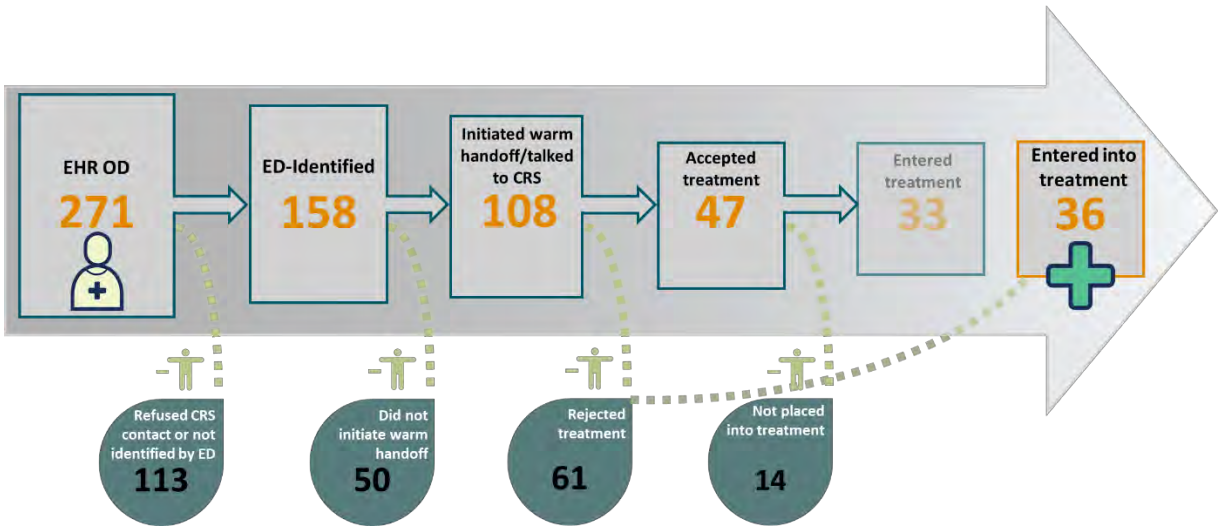
Treatment Agency that Provided CRS Coverage	Affiliated Hospital(s) that Received CRS Coverage	Co-Located?
CSEPA	JBH, DH, SMMC	No
GLB	LBH	Yes
PF	GVH	Yes

This evaluation used a mixed-methods approach that combines both quantitative and qualitative research methods to identify the process and outcomes associated with the B-CARES initiative: (1) the warm handoff patient data, (2) the process evaluation of protocols, education, and leadership communication, and (3) provider knowledge and attitudes related to opioid use disorder. The evaluation spanned the period from August 2017 through February 2018 and was designed to answer the following questions: (1) How effective is the B-CARES program in initiating warm handoffs and getting patients into SUD treatment? and (2) What are best practices for warm handoff protocols and associated supports?

How Effective is The B-CARES Program as a Whole?

Findings on Patient Outcomes

During the course of the evaluation, 36 patients entered into SUD treatment through the B-CARES program. The largest "leak" in the warm handoff occurs at the first stage of the process; a comparison between EHR data and warm handoffs offered indicates a gap of 163 patients (60%). More than half of those offered a warm handoff rejected treatment (56%) and a portion of those who accepted treatment were not placed into care (23%).



ED staff offered warm handoffs at equal rates to patients of all demographics (age, gender, family involvement). However, overdose patients were less likely to be offered a warm handoff during the overnight shift; this may be due to lower ED staff awareness of the warm handoff protocol if there is a designated overnight team of providers who are less informed or engaged, or it may be because CRSs are not on-call during that time.

Having a family member in the ED predicted that a patient was more likely to accept the warm handoff (with no difference in rates of later entering into treatment). This shows the importance of support networks in early stages of recovery and suggests that CRSs' involvement of family members in the warm handoff (e.g., giving family members information about SUD, treatment, and recovery) may be helpful. Because individuals who have experienced an opioid overdose are at high risk of having a subsequent overdose, it has been recommended that overdose patients and/or their families should receive naloxone kits prior to discharge from the ED (Substance Abuse and Mental Health Services Administration, 2013). **Although BCDAC funds or provides naloxone for distribution, very few kits were distributed during the evaluation, which represents a gap in patient outcomes.**

Findings on ED Provider Knowledge and Attitudes

At the end of the evaluation, **ED staff had higher knowledge of opioid use disorder than non-ED staff**, though **non-ED staff had more positive attitudes towards and greater regard for working with individuals who have substance use disorders.** We were unable to determine whether these ratings changed over time during the evaluation, but these results point to continued need for ED staff education focusing on attitudes about patients with SUD.

B-CARES effectiveness differed by hospital, which allowed us to identify best practices.

What are Best Practices for Warm Handoff Protocols and Associated Supports?

Protocol Best Practices. The process data gathered describe the warm handoff protocols in each hospital and define the substantial variability in the warm handoff protocols across the five hospital networks.

We triangulated warm handoff protocols and warm handoff patient data by hospital to make recommendations about best practice protocols. It should be noted that most hospitals had successful warm handoffs over the course of the evaluation. EHR-automated triggers for warm handoff, the absence of patient consent requirements, and co-location of treatment agency were present in the hospital that had the highest rate of success. These factors may be crucial to maximizing the number of patients getting SUD treatment. **We recommend integrating EHR-automated triggers for a warm handoff and obviating the need for patient consent to speak with a CRS wherever possible.** Colocation has the benefit of providing extended availability of a warm handoff or direct access to a treatment facility when CRSs are not available. **We recommend expanding CRS availability, especially on-site hours, for hospitals that do not have a co-located treatment agency.** Expanding the CRS's role to supporting other hospital units, or sharing a CRS across multiple hospitals for on-call hours, may provide avenues for increasing hours of availability.

Additional variability in protocols did not lead to distinct best practice recommendations. For example, within four of the five hospitals, the responsibility for initiating the warm handoff (i.e., calling the CRS or alerting the administrative staff to call the CRS) is diffused across several members of the ED team. Although it is clear that a protocol should specify who initiates the warm handoff and under what circumstances, it is not clear if the designee(s) needs to be standardized across all hospitals. For example, in LBH, the protocol currently states that the nurse, physician, physician assistant (PA), or clerk may initiate the warm handoff. A more specific protocol that would likely result in fewer leaks might specify that the clerk initiates the warm handoff when the board specifies overdose, and it is the PA or physician's responsibility to alert the clerk to an overdose that is not reflected on the board (e.g., chief complaint was respiratory failure). In two hospitals, crisis workers may be involved in the care of opioid overdose patients with varying roles in B-CARES. There are advantages and disadvantages to involving crisis workers in the warm handoff protocol; ideally, perhaps, in hospitals where crisis workers are involved, these referrals would work side-by-side rather than as an extra step in the warm handoff protocol. Regardless, it is critical that everyone involved in the warm handoff is aware of each person's role and responsibility regarding implementation of the protocol.

Communication and Education Best Practices. Bucks County Health Improvement Partnership (BCHIP) and Bucks County Drug and Alcohol Commission, Inc. (BCDAC), as organizing agencies of B-CARES, had substantial communication with treatment agencies, EDs, and hospital leadership related to shoring up holes in the B-CARES protocol and improving implementation. In particular, BCHIP intervened for some hospitals where warm handoffs were not occurring despite EHR data showing opioid overdoses (ODs). BCHIP might consider increasing communication activities through meetings and phone calls rather than

relying heavily on e-mail, which may help EDs to prioritize B-CARES. BCDAC held regular conference calls to discuss protocol implementation with treatment agencies. Direct one-to-one contact between treatment agencies and their ED(s), and/or meetings or conference calls that involve ED champions or leadership would likely prove useful to B-CARES going forward to increase ED commitment to B-CARES and address protocol implementation challenges at the source. **As another strategy for increasing ED engagement, we recommend that the BCHIP Board increase the extent to which they are visible champions for B-CARES to ED leadership and ED providers**; it is the BCHIP board members' leadership within their hospitals and collectively that could distinguish the B-CARES warm handoff program from those developed in other counties.

We learned from stakeholders that some patients are reluctant to accept a warm handoff given past SUD treatment experiences, a pattern that could potentially increasing with the ongoing implementation of B-CARES. Identifying similar patterns that emerge over the course of the program could be one valuable goal for regular stakeholder meetings. CRSs, crisis workers, and ED staff may need to proactively address this barrier with patients to maintain the success of B-CARES.

Sharing B-CARES data with nurses, physicians, PAs, ED leadership, and treatment agency leadership by hospital and in aggregate for the county could be a helpful way to show stakeholders the impact of the program that they are implementing. In addition, sharing data across all hospitals could lead to productive conversations about improving B-CARES implementation or developing changes to protocols. It could also affect providers' attitudes by demonstrating how many patients enter SUD treatment; some stakeholders significantly underestimated this proportion of patients.

Finally, B-CARES training has not yet been institutionalized, resulting in some providers not knowing about B-CARES. Additionally, ED staff show room for improvement in attitudes towards patients with SUD. **We recommend integrating B-CARES trainings into new providers' orientation and reminders posted in the ED to decrease the impact of provider turnover on the success of the program. We also recommend integrating booster B-CARES training and SUD and/or SBIRT education into other education venues such as grand rounds and huddles.**

Conclusion

Overall, B-CARES shows promise, having successfully shepherded 36 overdose patients to SUD treatment over the course of the seven month evaluation period. As at the early stages of any initiative, there is room for improvement in B-CARES, the largest targets and levers of which we have identified in this report. The aim of this report is to aid B-CARES leadership in targeting levers of improvement through our recommendations to achieve improved outcomes. This report also may be beneficial to other counties, hospitals, and treatment agencies seeking to implement a warm handoff program. For that audience, this report should show that, as in Bucks County, a warm handoff program is not just a protocol, but also a system of communication and education that supports continuous quality improvement by involving all stakeholders in implementation and outcome improvement.