

Hospital Opioid Treatment and Response (HOTR) Learning Collaborative and Demonstration Project Evaluation Report

Conducted for the Illinois Public Health Institute

FEBRUARY 2020

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was funded through the generous support of the Otho S. A. Sprague Institute.

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Executive Summary

Background

Illinois hospitals, like most hospitals around the country, are struggling with the delivery of evidence-based services for people who use opioids and have opioid use disorders (OUD). Specifically, clinical and policy experts recommend an increased focus on ensuring that individuals with OUD seen in emergency department and hospital settings are (1) able to initiate medications for opioid use disorder (MOUD) while in that setting, (2) linked to ongoing treatment in the community, and (3) offered overdose prevention education and naloxone before discharge. The Illinois Public Health Institute (IPHI) facilitates the Alliance for Health Equity (AHE), a collaborative of 36 hospitals across suburban Cook County and Chicago working to improve health equity, wellness, and quality of life. IPHI received funding from the Otho S. A. Sprague Memorial Institute to develop a hospital learning collaborative and hospital demonstration site project that would focus on moving toward initiation of MOUD services, linkage to community-based treatment, and naloxone distribution.

Description of Learning Collaborative and Demonstration Site Pilots

The goal of the Hospital Opioid Treatment and Response (HOTR) Learning Collaborative was to facilitate peer-to-peer learning and support hospitals in moving toward initiation of MOUD, naloxone prescribing/distribution, and/or linkage to community-based addiction treatment from emergency department and inpatient hospital settings. IPHI engaged AIR to provide clinical content expertise and facilitation of the HOTR Learning Collaborative. In February 2019, IPHI invited member AHE hospitals to join the HOTR Learning Collaborative, which took place from March through December 2019. Hospitals that opted to participate in the HOTR Learning Collaborative agreed that they would actively participate with a leadership and clinical team in each of the six meetings held during the 9-month learning collaborative and that they would provide pre- and post-collaborative data. Nine of 36 hospitals from the AHE (25%) opted in to participate in the HOTR Learning Collaborative. Hospitals that agreed to participate in the learning collaborative received \$2,500 to support staff time to participate.

Hospitals that opted to participate in the learning collaborative were also eligible to apply for demonstration site project awards to support infrastructure building for initiation of MOUD, naloxone prescribing/distribution, and/or linkage to community-based addiction treatment. Three \$50,000 demonstration site awards were available. The intent of the demonstration project grants was to provide seed funding to support the initiation of MOUD, linkage to community-based addiction treatment, and naloxone prescribing/dispensing from emergency department and hospital settings. Of the nine hospitals that chose to participate in the learning

collaborative, six applied for three available demonstration project awards of \$50,000 that IPHI administered.

Learning Collaborative Participating Hospitals

- | | |
|---|---|
| • Advocate Aurora Health Christ Medical Center | • Norwegian American Hospital |
| • Cook County Health | • Roseland Community Hospital |
| • Holy Cross Hospital, Sinai Health System* | • Rush University Medical Center |
| • MacNeal Hospital, Loyola University Health System | • University of Illinois Hospital and Health Sciences System* |
| • Northwestern Memorial Hospital* | |

*denotes a demonstration site

Methods

AIR evaluated progress toward meeting the HOTR Learning Collaborative goals through participant evaluations of individual meetings and comparison of data collected in pre-assessment and post-collaborative surveys. Hospitals self-reported status of naloxone dispensing, MOUD initiation, and linkage to community-based addiction treatment before and after the learning collaborative. Additionally, the post-collaborative survey also included questions about the overall value of the learning collaborative and additional resources needed to continue to implement and scale hospital opioid treatment and response services.

Three hospitals received demonstration site pilot grants (Holy Cross Hospital, Northwestern Memorial Hospital, and University of Illinois Hospital and Health Sciences System [UI Health]). The sample size (3) was too small to be able to draw comparisons across sites that did and did not receive the demonstration site grants. The hospital demonstration site evaluation includes a descriptive analysis illustrating how the funding was used and whether it helped each hospital meet its self-identified goals. The descriptive analysis is based on data collected through the hospitals' submitted work plans, mid-point reviews, and final reports.

Results

Learning collaborative results:

- Eight of the nine participating hospitals sent representatives to all six in-person learning collaborative meetings.
- Individual learning collaborative meetings were well-received, with individuals reporting the content was relevant to their work, that the meetings improved their understanding of the next steps, and that they would recommend the meetings to others. Six hospitals reported that they “strongly agreed” and three hospitals reported that they “agreed” that the learning collaborative was worthwhile for their organization.

- The learning collaborative met its goal of supporting participating hospitals in developing and implementing hospital opioid treatment and response services.
 - All nine participating hospitals reported that the HOTR Learning Collaborative was helpful in planning for, implementing, or expanding buprenorphine initiation (buprenorphine is one form of MOUD) in the emergency department and a majority felt it was helpful in the areas of naloxone distribution and linkage to community-based MOUD treatment.
 - All nine participating hospitals reported at least one naloxone access-related activity they had initiated over the course of the learning collaborative. The number of emergency departments that reported dispensing naloxone increased from four to five over the 9-month learning collaborative.
 - All nine hospitals reported at least one activity that they had initiated to work toward the goal of increasing MOUD initiation. Eight of nine hospitals reported progress on at least two of the activities we asked about with respect to buprenorphine initiation, including training emergency department providers on buprenorphine initiation ($n=7$) and the development of new workflows specific to buprenorphine initiation ($n=7$). The number of hospitals that reported initiating buprenorphine in the emergency department increased from three to six over the course of the learning collaborative.
 - Although all nine hospitals reported that they had established partnerships for MOUD continuity of care at the beginning of the learning collaborative, seven hospitals reported new linkage agreements had been put into place and six hospitals reported they had trained additional staff on linkage facilitation over the course of the learning collaborative.

Demonstration site results:

- The demonstration site grants met the goal of supporting hospitals in developing and implementing hospital opioid treatment and response services.
- All three of the hospital demonstration sites were able to successfully complete all self-identified work plan goals, and each of them surpassed expectations or completed additional goals throughout the course of the 9-month grant period.
- All three of the hospitals that received demonstration site grants used at least a portion of the funds to buy-out clinical champion time to allow those individuals to focus on development, implementation, and training.

Key Findings

- Each of the hospitals that participated in the learning collaborative came with varying levels of existing opioid response and treatment infrastructure, in-house addiction medicine expertise, and existing relationships with external addiction treatment providers.
- The content areas (naloxone dispensing, MOUD initiation, and linkage to addiction treatment providers) were new for many learning collaborative participants.
- Hospitals reported value in hearing from and problem-solving with other members of the learning collaborative.
- All hospitals reported significant training needs for clinical staff, especially related to identifying opioid use disorder, prescribing/dispensing of naloxone, initiating medications for opioid use disorder, linking to community-based treatment, and reducing stigma against people with substance use disorders.
- Creating and implementing new workflows in large hospital systems is complex and requires significant leadership buy-in and time allocation from clinical champions.
- Hospitals recognized that social determinants of health, including housing, have significant effects on people's ability to access and maintain MOUD.
- A variety of legal, regulatory, and reimbursement challenges were identified throughout the course of the learning collaborative. These are described in greater detail in Appendix H, but overarching themes are:
 - Hospitals do not typically dispense medications. Direct dispensing of naloxone is recommended because patients may not go to a pharmacy to fill a naloxone prescription. Concerns were raised about whether dispensing naloxone is allowable under the Illinois Administrative Code Section 1330.530: Onsite Institutional Pharmacy Services, subsections (b)(1-3), (c)(3), (e)(4), as well as how to store and label the naloxone to be in compliance with the Illinois Pharmacy Practice Act.
 - The lack of reimbursement for naloxone dispensed from hospital settings was raised as a barrier to direct dispensing from the emergency department and hospital settings.
 - Staff training needs were high across all hospitals (including but not limited to buprenorphine waiver training), and the costs associated with training large numbers of clinical staff are often prohibitive.
 - Limited reimbursement for emergency department and inpatient initiation of medications for addiction treatment serves as a barrier for many hospitals.

- Challenges exist with being able to ensure timely linkage to community-based MOUD treatment, particularly during nights and weekends.
- When hospitals were asked about future support needed to continue opioid treatment and response work, the most common response was about the need for opportunities for grant funding (reported by eight out of nine participating hospitals).

Recommendations and Next Steps

Overall, the Hospital Opioid Treatment and Response Learning Collaborative and Demonstration Project model was effective in supporting knowledge transfer and implementation progress. Based on these findings and feedback received from hospitals, recommendations for future educational activities include the following:

- Offer more seed grant opportunities to support hospitals in development, implementation, and scaling of naloxone dispensing, MOUD, and linkage to treatment.
- Continue a similar learning collaborative model that is expanded to a broader number of hospitals to maintain further expansion of services across the City and County.
- Host additional convenings (could happen on a less frequent basis) to support continued peer-to-peer sharing of challenges and successes.
- Provide access to legal experts to assist hospitals in understanding existing rules and regulations.
- Offer hospitals more one-on-one support in the form of individualized technical assistance and clinician training support.

A variety of legal, regulatory, and reimbursement challenges and potential solutions were identified throughout the course of the learning collaborative. These are described in further detail in Appendix H. High-level recommendations include:

- Identify financially sustainable mechanisms to support naloxone distribution from hospital settings (government central purchasing with a grant-based/donation program; legislation that would allow for alternative billing mechanisms, such as the use of J codes or a voucher program similar to what was created to allow hospitals to give “sexual assault post-exposure prophylaxis kits”).
- Work with regulatory bodies to increase clarity around rules and regulations specific to dispensing naloxone from emergency department and inpatient settings (specific to Illinois Administrative Code and Illinois Pharmacy Practice Act).

- Provide expert training and technical assistance to interested hospitals while simultaneously providing financial support (through grants to buy out staff time) to hospitals to offset the cost of training clinicians.
- Work with Illinois Medicaid to restructure reimbursement to provide incentives for screening for OUD (and all substance misuse), initiating/providing MOUD treatment in the hospital setting, and linking to ongoing care. The ability to bill for recovery coach/peer support specialists is another critical component of reimbursement models, as these roles are increasingly being used in emergency department and hospital settings.
- Support the creation of City- or County-based “bridge clinics” that would allow for follow-up from any hospital setting. The goal of these clinics would be to provide an intake assessment, continue medication treatment, and work with the individual to determine where they could go for ongoing care—ideally allowing for walk-in visits so people could come at any time of day and be seen.

Background

As opioid-related overdose rates have continued to increase in the United States, there has been an increased focus on identifying individuals who are at risk for overdose, initiating evidence-based treatment, and distributing naloxone, the opioid overdose antidote. Hospitals have a critical role to play in responding to the opioid overdose crisis because individuals with opioid use disorder (OUD) and those who are at risk for opioid-related overdose commonly receive services in emergency departments and hospital inpatient settings. Estimates suggest that 17% of hospitalized patients have some form of a substance use disorder, and hospitalization rates for opioid-related morbidities are increasing nationally, often because of injection-related infections.^{1,2}

Hospitals offer an important setting where medications for opioid use disorder (MOUD) can be initiated. Buprenorphine and methadone are two medications that are approved for the treatment of OUD. Both medication treatments have been shown to reduce illicit opioid use, increase retention in treatment, reduce HIV risk behaviors, reduce opioid overdose mortality, and reduce all-cause mortality.^{3,4,5,6} Initiation of buprenorphine treatment in the emergency department or of buprenorphine or methadone treatment in the inpatient setting has been shown to reduce substance use, facilitate linkage to outpatient treatment, reduce emergency utilization of services, and increase completion of medical treatments for the condition that prompted the use of hospital services.^{7,8,9,10} Hospital addiction consult services (teams that are able to offer specialized addiction assessment and treatment initiation) have been shown to reduce length of stay and reduce provider burnout and distress related to providing care for individuals with substance use disorders.^{11,12}

Naloxone is the opioid overdose antidote medication that can be administered at the time of an opioid overdose to save someone's life. Naloxone has been used in medical settings for several decades, and over the past 5 to 10 years has been increasingly available for community-based distribution so that laypeople can be trained to identify and administer naloxone in the case of an opioid overdose. Community-based naloxone distribution programs have been shown to be cost-effective¹³ and to reduce overdose death at the community level.¹⁴ Moreover, these programs have not been associated with increases in opioid use.¹⁵ The Centers for Disease Control and Prevention (CDC) Guidelines for Prescribing Opioids for Chronic Pain suggest that individuals at risk for opioid overdose, including those with a history of opioid overdose, should be prescribed naloxone.¹⁶ The U.S. Surgeon General, Dr. Jerome Adams, put out an advisory suggesting that all individuals with OUD and those leaving an emergency department after an opioid overdose should be offered naloxone.¹⁷ A recent study in Chicago found that among individuals who were prescribed naloxone in the emergency department, only 25% took the prescription to the pharmacy, and only 18% actually received the medication.¹⁸ For this reason,

there has been an increased focus on not simply prescribing naloxone from the emergency department, but actually dispensing naloxone to ensure that a patient leaves the emergency department with naloxone in hand.¹⁹

Illinois hospitals, like most hospitals around the country, are struggling with the delivery of evidence-based services for people who use opioids and have OUD. Specifically, clinical and policy experts recommend an increased focus on ensuring that individuals with OUD seen in emergency department and hospital settings are (1) able to initiate medications for opioid use disorder (MOUD) while in that setting, (2) linked to ongoing treatment in the community, and (3) offered overdose prevention education and naloxone before discharge. The Illinois Public Health Institute (IPHI) facilitates the Alliance for Health Equity (AHE), which works with 36 hospitals in Chicago and suburban Cook County to improve health equity, wellness, and quality of life through collaboration and capacity-building. Mental health and substance use disorders were identified as priority areas for the AHE, and a Mental Health and Substance Use Disorders Committee supported the initiation of this work.

IPHI received funding from the Otho S. A. Sprague Memorial Institute to develop a hospital learning collaborative and hospital demonstration site project that would focus on ensuring or increasing access to MOUD services, linkage to community-based treatment, and naloxone dispensing. IPHI contracted with the American Institutes for Research (AIR) to assist in two separate roles. First, AIR provided technical support and clinical expertise to IPHI, the Chicago Department of Public Health, and the Cook County Department of Public Health in the development and implementation of the Hospital Opioid Treatment and Response (HOTR) Learning Collaborative and the hospital demonstration pilot projects. The learning collaborative and hospital demonstration projects focused on the delivery of services for people with OUD or who may be at risk for opioid overdose and provided technical assistance and facilitation of peer-to-peer learning among participating hospitals. The demonstration site pilot projects offered seed grants to three hospitals working to improve and increase OUD treatment initiation, linkage to ongoing treatment services, and naloxone access.

AIR's second role was to conduct an evaluation of the learning collaborative and demonstration site projects. The evaluation consisted of respondent feedback on the learning collaborative process; results of hospital-reported progress over the course of the 9-month learning collaborative; identified challenges and possible solutions to support further expansion; and a descriptive analysis of the progress made with the three demonstration site grants. This report includes a description of the learning collaborative and demonstration site processes, evaluation methods, results, key findings, and recommendations for future work in this area.

Description of Learning Collaborative and Demonstration Site Project Awards

In February 2019, IPHI invited 36 AHE member hospitals to join the HOTR Learning Collaborative, which took place from March through December 2019. Hospitals that opted to participate in the HOTR Learning Collaborative agreed that they would actively participate with a leadership and clinical team in each of the six meetings held during the 9-month collaborative and that they would provide pre-assessment and post-collaborative data. Hospitals that opted to participate in the learning collaborative were also eligible to apply for demonstration site project awards to support expansion of naloxone and MOUD access. Three \$50,000 demonstration site awards were available.

Nine of 36 hospitals from the AHE (25%) opted to participate in the HOTR Learning Collaborative. Hospitals that agreed to participate in the learning collaborative received \$2,500 to support staff time to participate. Of the nine hospitals that chose to participate in the learning collaborative, six applied for the three available \$50,000 demonstration project awards administered by IPHI. The process for selection is described below.

Learning Collaborative Participating Hospitals

- | | |
|---|---|
| • Advocate Aurora Health Christ Medical Center | • Norwegian American Hospital |
| • Cook County Health | • Roseland Community Hospital |
| • Holy Cross Hospital, Sinai Health System* | • Rush University Medical Center |
| • MacNeal Hospital, Loyola University Health System | • University of Illinois Hospital and Health Sciences System* |
| • Northwestern Memorial Hospital* | |

*denotes a demonstration site

Learning Collaborative Goal

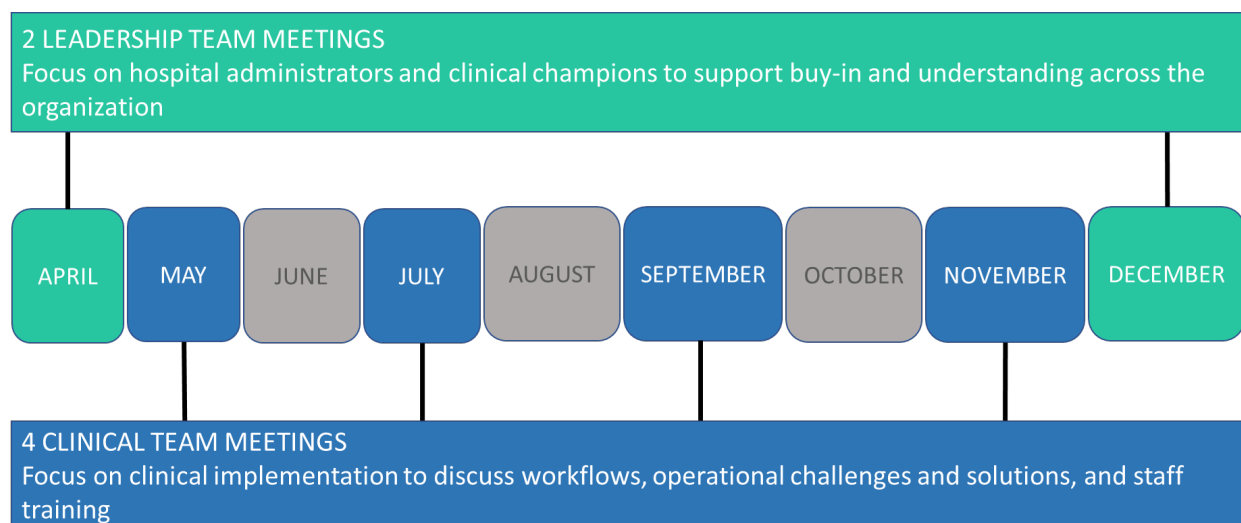
The goal of the HOTR Learning Collaborative was to support all participating hospitals to move toward initiation of MOUD, naloxone prescribing/distribution, and/or linkage to community-based addiction treatment. The learning collaborative sessions offered hospitals across Chicago and suburban Cook County the opportunity to come together to support and facilitate conversations about best practices, implementation, and quality improvement as they relate to caring for people with OUD and/or those who are at risk for opioid overdose.

Learning Collaborative Timeline

The HOTR Learning Collaborative brought hospitals together six times over a 9-month period to support and facilitate conversations about best practices, implementation, and quality improvement in relation to caring for people with OUD. Two of the meetings (the opening meeting and the closing meeting) invited broader audiences including hospital leadership to

introduce the learning collaborative and then to share the progress made over the course of the 9-month learning collaborative, respectively. The remaining four meetings were clinically oriented and set up as working meetings, where hospital teams shared experiences, challenges, and solutions and offered feedback to one another. Exhibit 1 shows the learning collaborative timeline and meeting schedule.

Exhibit 1. Timeline of Learning Collaborative Sessions



Learning Collaborative Meeting Structure

The intended audience for the two **leadership meetings** included both clinical teams and hospital administration, whose support would be needed to initiate or expand services. The leadership meetings were held as the first and last learning collaborative sessions. The first was held in April and served as an introduction to the learning collaborative; and the final meeting, held in December, provided an opportunity for hospitals to share progress made over the course of the learning collaborative and to discuss next steps. In addition, state partners and funders, including the Otho S. A. Sprague Memorial Institute, which funded this work through a grant to IPHI, also attended the December meeting.

The intended audience for the four **clinical team meetings** included pharmacists, emergency medicine clinicians, hospitalists, behavioral health staff, and any managers who were integral to workflow development and management approvals. These meetings were held every other month. The focus of these meetings was to foster collaboration among hospital teams and to discuss challenges and solutions related to the specific content area being discussed on that date.

Learning Collaborative Meeting Content

To ensure that each learning collaborative meeting best met the needs of participating hospitals and the project, IPHI and AIR staff conducted brief needs assessments to direct the content for each meeting.

- The purposes of the needs assessments were to assess challenges and needs hospitals faced; understand hospitals' OUD-related services; identify areas of need for discussion during meetings; acknowledge local champions who could share their successes; and develop materials for each learning collaborative meeting.
- Each hospital completed a pre-assessment prior to the first learning collaborative meeting, which included questions about the level of interest in a variety of topics, as well as specific content they would like to discuss at meetings (Pre-assessment can be found in Appendix C, questions 32–33 focus on topic selection). Using data collected from the pre-assessment responses, IPHI worked with AIR to develop a schedule of topics for the learning collaborative meetings.
- Once the broader topics were selected, a more specific needs assessment questionnaire went to each participating hospital approximately 4 weeks before each meeting. Hospitals were given 2 weeks to complete the assessment. IPHI worked with AIR to compile all responses and to develop meeting content and materials based on responses. During each of the learning collaborative meetings, Dr. Salisbury-Afshar reported the aggregate needs assessment responses to all hospitals.

The topic of each meeting is listed in Exhibit 2. Individual meeting agendas can be found in Appendix B.

Exhibit 2. Learning Collaborative Meeting Topics

Month	Meeting type	Topic(s)
April 2019	Leadership	Welcome and introductory meeting for learning collaborative participants in addition to hospital leadership
May 2019	Clinical team	Overdose prevention education and naloxone dispensing
July 2019	Clinical team	MOUD initiation
September 2019	Clinical team	Staff training and gaining leadership buy-in
November 2019	Clinical team	Linkage to community-based continuity treatment
December 2019	Leadership	Closing meeting for hospital leadership, local and state officials, and Otho S. A. Sprague Memorial Institute to learn about the progress made over the course of the grant, the challenges identified, and solutions proposed

Demonstration Site Project Goal

The intent of the demonstration project was to advance hospital engagement and partnerships to support the initiation of naloxone prescribing/dispensing, initiation of MOUD, and linkage to community-based addiction treatment from hospital settings. Seed grants supported process and workflow development. Full implementation of MOUD initiation, naloxone dispensing, and linkage to community-based care was not an expectation over the course of the 9-month project period. Applicants could propose work in any or all of the three content areas (naloxone distribution, initiation of MOUD, or linkage to community-based addiction treatment) and could focus on service delivery in emergency departments (EDs) and/or inpatient units.

Demonstration Site Project Selection

In February 2019, IPHI disseminated a request for applications (RFA) to be a demonstration site to all AHE hospitals, with applications due in March 2019. Hospital applicants described their current progress toward implementation of naloxone dispensing and MOUD initiation, how they would use the additional funds if selected, and also submitted a budget. The RFA stated that any hospital selected as a demonstration site was expected to have full participation in the learning collaborative. Six hospitals applied, and IPHI led a competitive review process. IPHI convened an advisory committee to develop the RFA and review the applications. Reviewers used a predetermined scoring system developed by IPHI with input from AIR and the Chicago and Cook County Departments of Health. Each application was reviewed and scored by three separate reviewers. Reviewers represented IPHI, the Chicago Department of Public Health, the Cook County Department of Public Health, the Illinois Department of Public Health, the Illinois Department of Human Services, the Public Health Institute of Metropolitan Chicago, and AIR. The reviewers met in person to review the strengths of each application. Three demonstration sites were selected—Northwestern Memorial Hospital, University of Illinois Hospital and Health Sciences System (UI Health), and Holy Cross Hospital. IPHI notified the three hospitals of their selection as demonstration sites before the HOTR Learning Collaborative kickoff meeting in April 2019. (The RFA is included in Appendix A.)

Methods

This evaluation has two main components, as follows:

- The learning collaborative evaluation ($n=9$ hospitals)
 - Individual meeting evaluations were completed at the close of each of the six in-person meetings. All individuals who attended meetings were asked to complete an evaluation.
 - Pre-assessment and post-collaborative data were collected so that a pre-post comparison could be presented to show progress made over the course of the learning collaborative.

- Demonstration site pilot evaluation ($n=3$ hospitals)
 - Initial work plans, mid-point site visits, and final reports were collected from each of the three demonstration site pilots.

Learning Collaborative Evaluation Methods

AIR evaluated progress toward meeting the HOTR Learning Collaborative goals through participant evaluations of individual meetings and comparison of data collected through pre-assessment and post-collaborative assessment surveys. As part of the assessment, hospitals self-reported their status related to naloxone dispensing, MOUD initiation, and linkage to community-based addiction treatment before and after the learning collaborative. Additionally, the post-collaborative survey also included questions about the overall value of the learning collaborative and additional resources needed to continue to implement and scale hospital opioid treatment and response services.

Individual Meetings

- IPHI and AIR developed a meeting evaluation form that participants completed in person at the end of each collaborative meeting. The evaluation forms can be found in Appendices E–G.
- The feedback collected in each evaluation form was used to evaluate the individual meeting, improve the delivery of subsequent learning collaborative meetings, and plan content and speakers for subsequent meetings.
- Staff from AIR (Dr. Clayman and/or Ms. DePatie) attended each meeting and took notes that focused on the facilitators, barriers, and challenges identified by hospitals when discussing implementing these services. Key discussion points from each meeting are listed in the individual meeting results section.

Pre-Assessment

In March 2019, AIR developed an online pre-assessment survey, which IPHI required each participating hospital to complete prior to the first learning collaborative session. The survey questions included (1) where hospitals were in the process of implementing naloxone dispensing, MOUD initiation, and linkage to community-based addiction treatment; and (2) which content areas were of greatest interest for focus during each of the clinical team meetings. (See Appendix C). Data collected on areas of greatest interest were used primarily for developing the schedule, content, and resources for the learning collaborative clinical meetings, as described above.

Post-Collaborative Survey

In November 2019, AIR disseminated a post-collaborative survey asking hospitals to describe (1) where hospitals were in the process of implementing naloxone dispensing, MOUD initiation, and linkage to community-based treatment; (2) progress made since March 2019; (3) overall experience with the Learning Collaborative; and (4) areas of continued need to initiate or scale services (see Appendix D). Where possible, the exact questions from the pre-assessment were used in identical form to collect comparable objective information on progress made.

Comparison of Pre-Assessment and Post-Collaborative Survey Data

AIR compared pre-assessment and post-collaborative survey data at the hospital level ($n=9$) to assess progress related to naloxone dispensing, MOUD initiation, and linkage to community-based addiction treatment services. Data measures gathered in the pre-assessment and post-collaborative surveys are detailed in Exhibit 3. Hospital progress is reported in aggregate, and hospitals were informed that their individual information would remain anonymous.

The pre-assessment and post-collaborative survey included a variety of questions about processes in place relating to naloxone prescribing (the act of writing a prescription that someone would fill in a pharmacy) and naloxone dispensing (the act of physically handing someone a naloxone kit at the bedside). Additionally, the survey included questions about these processes and workflows in the emergency department separate from questions about processes and workflows on the hospital inpatient units. This approach was used because of differences in emergency departments and inpatient units related to staffing, amount of time for discharge planning, and ability to use other resources such as outpatient pharmacies that may be able to deliver medications to patients in a hospital inpatient unit during normal business hours but not during off-hours or in an emergency department.

The pre-assessment and post-collaborative survey asked several general questions about addiction medicine expertise and access to buprenorphine, naloxone, and methadone. Again, questions about internal workflows and processes for the emergency department and the inpatient floors were asked separately because of differences in staffing, the amount of time available to initiate medication, different needs related to staff trainings, and amount of time available for discharge planning. Similarly, separate questions were asked about initiating buprenorphine and methadone. Because of the pharmacology and strict federal regulations around dispensing methadone, methadone is typically not initiated in emergency department settings. For this reason, buprenorphine is typically the only form of MOUD initiated in emergency department settings. Methadone and buprenorphine can be initiated from inpatient settings (depending on clinical circumstances), so separate questions about workflows and processes related to initiation of buprenorphine and methadone in inpatient settings are included.

Exhibit 3 presents the data measures collected in the pre-assessment and the post-collaborative surveys that hospitals completed. The final column shows which measures were identical in each of the surveys and used for assessing progress.

Exhibit 3. Pre-Assessment and Post-Collaborative Survey Data Measures

Measure	Pre-assessment	Post-Collaborative	Pre/Post comparison
Content areas of interest for learning collaborative meetings	●		
Naloxone implementation and processes	●	●	●
MOUD implementation and processes	●	●	●
Linkage agreements to support community-based addiction treatment	●	●	●
Steps taken to increase access to naloxone over course of learning collaborative		●	
Steps taken to increase access to MOUD initiation over course of learning collaborative		●	
Steps taken to improve linkage to care over course of learning collaborative		●	
Need for future support related to naloxone dispensing, MOUD initiation, and linkage to care		●	

Demonstration Site Evaluation Methods

As described above, three hospitals received demonstration site pilot grants (Holy Cross Hospital, Northwestern Memorial Hospital, and University of Illinois Hospital and Health Sciences System [UI Health]). The sample size (3) was too small to be able to draw direct comparisons across sites that did and did not receive the demonstration site grants. The hospital demonstration site evaluation includes a descriptive analysis illustrating how the funding was used and whether it helped each hospital meet its self-identified goals. The descriptive analysis is based on data collected through the hospitals' submitted work plans, midterm reviews, and final reports.

Submitted Work Plans

As part of the request for applications, each hospital's application included a work plan with self-identified specific, measurable, achievable, relevant, and time-based (SMART) goals and a description of how the budget would be used to support their work.

Mid-Point Reviews

Each demonstration site provided a mid-point update at approximately 4.5 months into the grant period. Site visits were conducted by a representative from IPHI and AIR, and the mid-point reports were reviewed in person with hospital representatives. The updates consisted of

a written report describing progress made on each SMART goal outlined in each hospital's original proposal. The mid-point reviews provided an opportunity for demonstration site hospitals to explain any challenges and request additional technical assistance as needed.

Final Reports

Each hospital demonstration site submitted a final report, describing progress made over the 9-month grant period, the status of all SMART goals, an explanation of why any goals were not met (as applicable), a description of how the budget was spent, and a list of areas of need to continue this work moving forward.

Results

The learning collaborative results are presented in two main sections. First, the six individual meeting evaluations are described. For each meeting, a one-page summary is provided that describes the topic, the number of hospitals that attended, the number of individual attendees, key discussion points from the meeting, and the average rating for post-meeting evaluation items. Second, the pre-assessment and post-collaborative survey data was compiled from the nine hospitals. The post-collaborative measures include process measures, such as having initiated or completed new workflows related to naloxone dispensing, MOUD initiation, or increases in community linkage to treatment.

Following the learning collaborative evaluation results is the descriptive analysis of the progress made by each of the three hospital demonstration sites.

Individual Learning Collaborative Meetings

1. Initial Leadership Meeting—April 15, 2019

- **Topic:** Introduction to the learning collaborative (scope of problem, goals of learning collaborative, local hospitals shared initiatives under way, planning for future meetings)
- Number of hospitals represented: 8 of 9
- Number of individual attendees: 29
- Key discussion points:
 - » City and County Health Department officials shared local opioid-related morbidity and mortality data and explained that hospital identification, treatment, and response were key components of the broader City and County opioid overdose reduction efforts.
 - » Three area hospitals shared their experiences with developing an inpatient addiction consult team, improving opioid use disorder services in the emergency department, and implementing a naloxone dispensing program.
- **Evaluation:** Twenty-one of 29 participants (72%) completed the evaluation. Participants were asked to rate the level of agreement with various statements (1=Strongly Agree, 5=Strongly Disagree). Most of the comments on open-ended questions reported gratitude and excitement for the collaborative.

Exhibit 4. Initial Leadership Meeting Evaluation Results

Question	Average response (n=21)
Communication: To what extent was the communication clear?	1.1
Effectiveness: Overall how effective was the group in meeting its objectives?	1.2
Value: How valuable was this meeting for success of the overall learning collaborative?	1.1
Satisfaction: Overall, how satisfied were you with today's meeting?	1.1

2. Clinical Team Meeting—May 13, 2019

- **Topic:** Overdose education and naloxone prescribing/distribution (best practices, regulatory and legal challenges, workflows).
- Number of hospitals represented: 9 of 9
- Number of individual attendees: 21
- Key discussion points:
 - » Hospitals are not set up to dispense medications directly to patients. Usually, the patient receives a prescription and then retrieves it from an outpatient pharmacy. Experience and available research indicate that the majority of patients do not go to an outpatient pharmacy to pick up naloxone prescribed from the emergency department.
 - » Medications dispensed from the hospital (as opposed to those that are administered) are not able to be billed to insurance. This financial disincentive was a major barrier for many hospitals. Several hospitals identified ways to pay for the medication, but sustainability was discussed as a concern.
- **Evaluation:** Twenty of 21 participants (95%) completed the evaluation. Participants were asked to rate their level of agreement with various statements (1=Strongly Agree, 5=Strongly Disagree). Overall, feedback was positive. Many participants reported that it was helpful to have the opportunity to hear experiences from other institutions.

Exhibit 5. Clinical Team Meeting #1 Evaluation Results

Question	Average response (n=20)
The content was relevant.	1.4
I have a good understanding of the steps I need to take to expand OUD-related services at my institution.	2.0
I would recommend this meeting to someone at my institution or someone in a similar position at another institution.	1.4

3. Clinical Team Meeting—July 15, 2019

- **Topic:** Medication for opioid use disorder (MOUD) initiation in emergency department and hospital settings
- Number of hospitals represented: 9 of 9
- Number of individual attendees: 31
- Key discussion points:
 - » Medical providers receive little training on addiction management during clinical training and those without additional training are generally not comfortable managing opioid withdrawal symptoms or initiating MOUD. Training was needed for staff of all clinical backgrounds (nursing, medical, social work, etc.).
 - » In order to effectively initiate MOUD, some hospitals developed addiction consult teams, which is an established model in hospital settings. The challenge is that these consult teams offer services that are often not revenue-producing, meaning that developing consult teams requires hospital investment, grant funding, or willingness to focus on a longer-term return on investment through reduced readmissions and length of stay.
- **Evaluation:** Seventeen of 31 participants (55%) completed the evaluation. Participants were asked to rate their level of agreement with various statements (1=Strongly Agree, 5=Strongly Disagree).

Exhibit 6. Clinical Team Meeting #2 Evaluation Results

Question	Average response (n=17)
The content was relevant.	1.3
I have a good understanding of the steps I need to take to expand OUD-related services at my institution.	1.7
I would recommend this meeting to someone at my institution or someone in a similar position at another institution.	1.4

4. Clinical Team Meeting—September 9, 2019

- **Topic:** Initiating and supporting culture change for OUD services and staff training
- Number of hospitals represented: 9 of 9
- Number of individual attendees: 19
- Key discussion points:
 - » Some hospitals reported continued legal and logistical challenges related to inpatient pharmacy dispensing and naloxone labeling. Discussions focused on the legal requirements in the pharmacy practice regulations related to labeling and documenting dispensed medications.
 - » Most hospitals reported challenges with regard to getting more providers to complete the waiver training. Even though the waiver training is now free of charge, hospitals are not requiring people to complete this training, and the cost of pulling providers from clinical services to complete training was prohibitive in most institutions.
 - » Many hospitals expressed interest in the idea of addiction consult services, and staffing models were discussed. Again, the issue of reimbursement for services was discussed as a barrier in many institutions.
- **Evaluation:** Eighteen of 19 participants (95%) completed the evaluation. Participants were asked to rate their level of agreement with various statements (1=Strongly Agree, 5=Strongly Disagree). Participants reported that they found the small group work and presentations from other institutions most useful.

Exhibit 7. Clinical Team Meeting #3 Evaluation Results

Question	Average (n=18)
The content was relevant.	1.2
I have a good understanding of the steps I need to take to expand OUD-related services at my institution.	1.3
I would recommend this meeting to someone at my institution or someone in a similar position at another institution.	1.4

5. Clinical Team Meeting—November 18, 2019

- **Topic:** Linkage to community-based addiction treatment services
- Number of hospitals represented: 8 of 9
- Number of individual attendees: 24
- Key discussion points:
 - » Most hospitals reported that the greatest challenge with linkage to care relates to the inability to confirm timely follow-up (within a few days for buprenorphine or the next day for methadone). Particularly in the emergency department when there is very limited time for discharge planning, providers reported a lack of confidence in the ability of a patient to receive follow-up care. Therefore, they were hesitant to start a medication, particularly during off-hours when the community agencies are not answering phones/making appointments.
 - » Hospitals that have internal bridge clinics and/or are affiliated with federally qualified health centers reported increased access because of the ability to directly refer and schedule appointments in these systems.
 - » Some hospitals reported insufficient community partnerships as one barrier to ensuring linkage for ongoing care post-discharge. Hospitals also reported challenges related to limitations around data sharing, coordination of care, and hours of operation among available community treatment providers.
- **Evaluation:** Eighteen of 24 participants (75%) completed the evaluation. Participants were asked to rate their level of agreement with various statements (1=Strongly Agree, 5=Strongly Disagree). Participants reported that they found the small group work and presentations from other institutions most useful.

Exhibit 8. Clinical Team Meeting #4 Evaluation Results

Question	Average (n=18)
The content was relevant.	1.2
I have a good understanding of the steps I need to take to expand OUD-related services at my institution.	1.3
I would recommend this meeting to someone at my institution or someone in a similar position at another institution.	1.4

6. Closing Leadership Meeting—December 16, 2019

- **Topic:** Closing meeting/overview of progress made over course of learning collaborative
- Number of hospitals represented: 8 of 9
- Number of individual attendees: 62
- Key discussion points:
 - » Each hospital was given the opportunity to share progress made over the course of the Learning Collaborative.
 - » Challenges related to naloxone distribution and MOUD initiation identified over the course of the learning collaborative were reviewed, followed by potential solutions that would help support delivery of these services. The document shared at the meeting can be found in Appendix H.
- Evaluation: Twenty-six of 62 participants (42%) completed the evaluation. Participants were asked to rate their level of agreement with various statements (1=Strongly Agree, 5=Strongly Disagree). Many participants expressed that they hope to see this work continue along with new grant opportunities for similar work.

Exhibit 9. Closing Leadership Meeting Evaluation Results

Question	Average response (n=26)
Communication: To what extent was the communication clear?	1.1
Informative: To what extent did I learn about the key findings of the learning collaborative?	1.0
Effectiveness: Overall, how effective was the group in meeting its objectives?	1.2
Value: How valuable was this meeting for success of the overall learning collaborative?	1.1
Follow-up: To what extent am I clear on next step priorities to advance this work in my institution and/or as a public health system?	1.5
Satisfaction: Overall, how satisfied were you with today's meeting?	1.2

Pre-Assessment and Post-Collaborative Results and Comparison

Naloxone Distribution

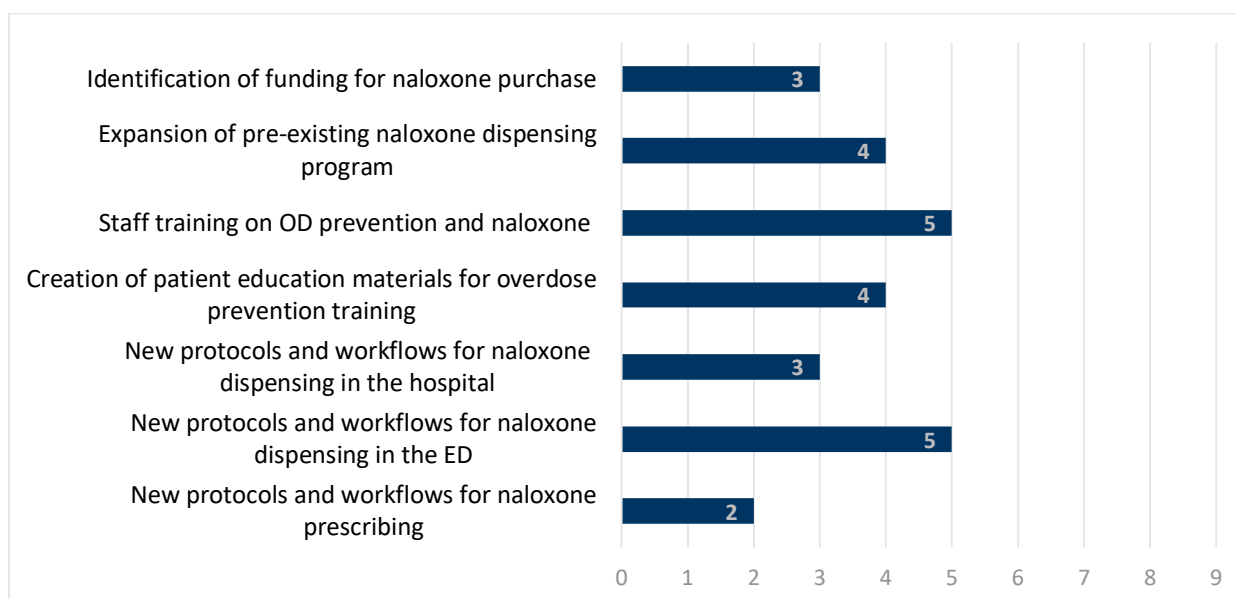
Overall, hospitals reported progress toward distribution of naloxone, with increases in the numbers of hospitals that have completed or are in the process of developing workflows to prescribe naloxone; the dispensing of kits in both emergency and inpatient settings; and certification as Drug Overdose Prevention Programs (DOPPs). Exhibit 10 shows hospital-reported process and outcome metrics related to naloxone distribution before and after the learning collaborative.

Exhibit 10. Pre-Assessment and Post-Collaborative Results for Distribution of Naloxone

Naloxone Distribution	Response	Pre	Post
Does your hospital currently have workflows in place to provide clinical decision support around prescribing of naloxone?	Yes	1	2
	No	8	5
	In process	0	2
Does your emergency department currently dispense naloxone kits to patients who may be at risk for opioid-related overdose?	Yes	3	4
	No	6	5
Is your hospital currently an identified Drug Overdose Prevention Program (DOPP)?	Yes	2	3
	No	7	6
Do your hospital inpatient services currently dispense naloxone kits to patients who may be at risk for opioid-related overdose?	Yes	2	5
	No	7	4

As part of the post-collaborative survey, each hospital was asked, “What progress has your hospital/ED made toward increasing access to naloxone since April 2019?” Hospitals could select as many activities as applicable. Exhibit 11 shows the hospital-reported activities that took place over the course of the learning collaborative. Although not all hospitals reported that they were actively dispensing naloxone from emergency department or inpatient settings, each participating hospital reported at least one activity that they had initiated to work toward the goal of increasing access to naloxone.

Exhibit 11. Hospital-Reported Progress to Support Increasing Access to Naloxone (n=9)



MOUD Initiation

Overall, hospitals reported progress in almost all aspects of MOUD initiation assessed. Specifically, the number of hospitals that reported buprenorphine initiation in emergency department settings and methadone initiation in inpatient settings increased. Only two areas related to MOUD initiation did not show progress over the course of the learning collaborative. First, the number of hospitals that reported initiating buprenorphine on inpatient floors remained constant at five out of nine hospitals. Second, the number of hospitals that reported having addiction medicine physicians on staff decreased over the course of the learning collaborative from eight to six out of nine hospitals. Follow-up questions were asked to the two hospitals that reported this change, and both reported that a board-certified addiction specialist had left their institutions and no one had been hired to fill the positions. Exhibit 12 shows the pre-assessment and post-collaborative data reported by each of the nine hospitals.

Exhibit 12. Pre-Assessment and Post-Collaborative Results for MOUD Initiation

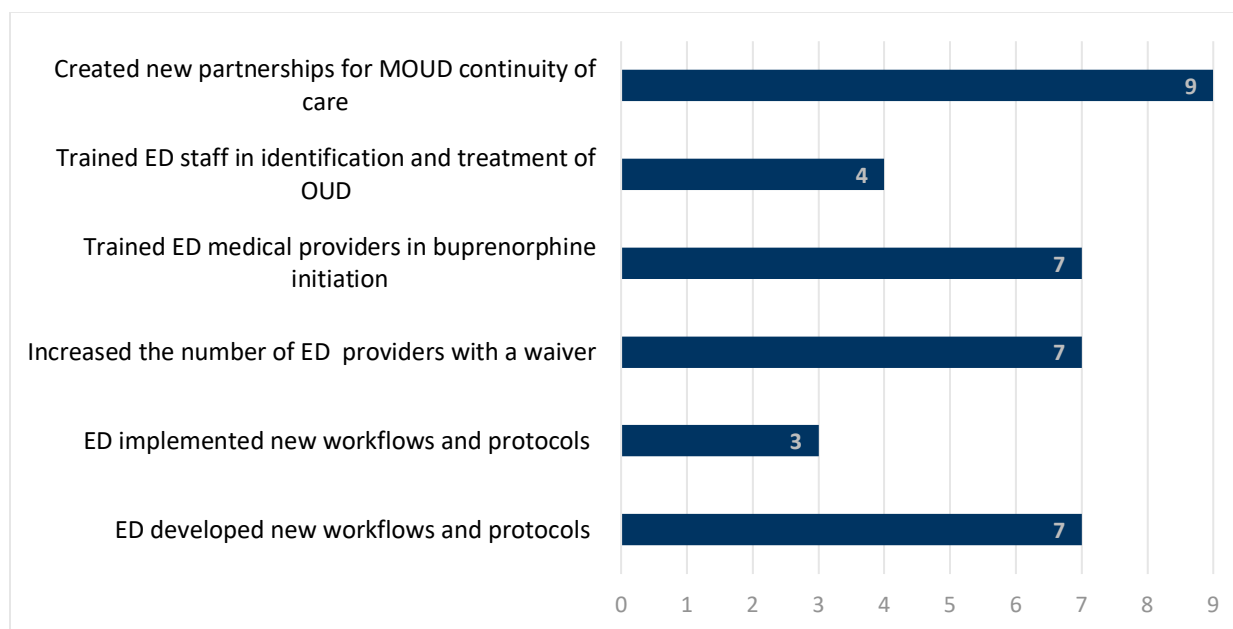
MOUD Initiation (Buprenorphine and Methadone)	Response	Pre	Post
Is methadone on hospital formulary?	Yes	9	--
	No	0	--
Is buprenorphine on hospital formulary?	Yes	7	8
	No	2	1
Is Buprenorphine in the Pyxis in the emergency department?	Yes	4	6
	No	5	3
Does your hospital have waived providers?	Yes	8	9
	No	0	0
	Unsure	1	0
Does your hospital have any physicians who are board certified in addiction medicine on staff?	Yes	8	6
	No	1	2
	Unsure	0	1
Does your emergency department currently have a workflow in place for initiating buprenorphine?	Yes	2	4
	No	3	2
	In Process	4	3
Does your emergency department currently initiate buprenorphine?	Yes	3	6
	No	6	3
Do your inpatient floors currently have a workflow in place for initiating buprenorphine?	Yes	3	4
	No	2	3
	In Process	4	2
Do your inpatient floors currently initiate buprenorphine?	Yes	5	5
	No	4	4
Do your inpatient floors currently have a workflow in place for initiating methadone for patients identified as having opioid use disorder?	Yes	4	6
	No	4	3
	In Process	1	0
Do your inpatient floors currently initiate methadone for opioid use disorder?	Yes	5	6
	No	4	3

Buprenorphine Initiation in the Emergency Department

In March 2019, three of the nine hospitals reported in the pre-assessment that they were initiating buprenorphine in the emergency department. By November 2019, six of the nine hospitals were initiating buprenorphine in these settings.

As part of the post-collaborative survey, each hospital was asked, “What steps has your emergency department taken toward initiating buprenorphine in the emergency department since April 2019?” Hospitals were able to select all applicable activities. Exhibit 13 shows the hospital-reported activities that took place over the course of the learning collaborative. Although not all hospitals reported that they were actively initiating buprenorphine in the emergency department, each hospital reported at least one activity that they had initiated to work toward the goal of increasing MOUD initiation. Eight of the nine hospitals reported progress on at least two of these activities.

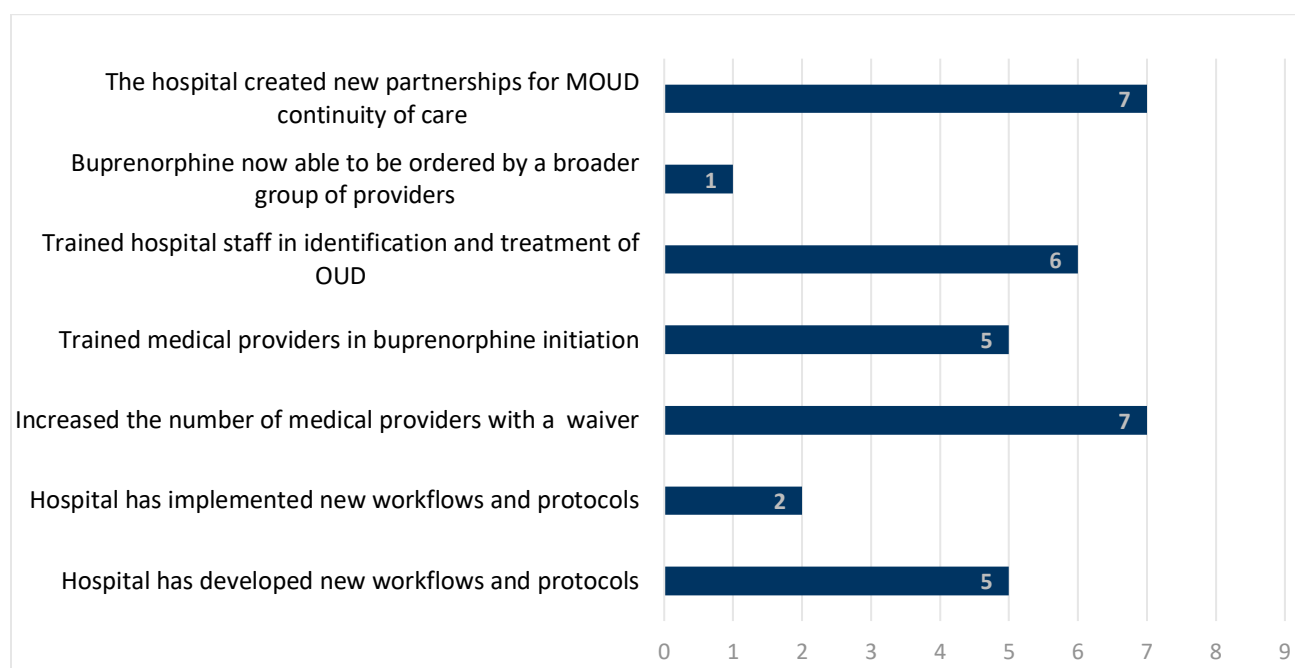
Exhibit 13. Hospital-Reported Progress to Support Buprenorphine Initiation in Emergency Departments (n=9)



Buprenorphine Initiation in Hospital Inpatient Settings

The number of hospitals that reported initiating buprenorphine on inpatient settings remained stable at five out nine hospitals. The post-collaborative survey asked each hospital, “What progress has your hospital made toward initiating buprenorphine (for maintenance, not detox) in the hospital inpatient setting since April 2019?” All applicable responses could be selected. Exhibit 14 shows the hospital-reported activities that took place over the course of the learning collaborative relative to initiation of buprenorphine on inpatient settings. Eight of the nine hospitals reported at least one activity related to buprenorphine initiation in inpatient settings.

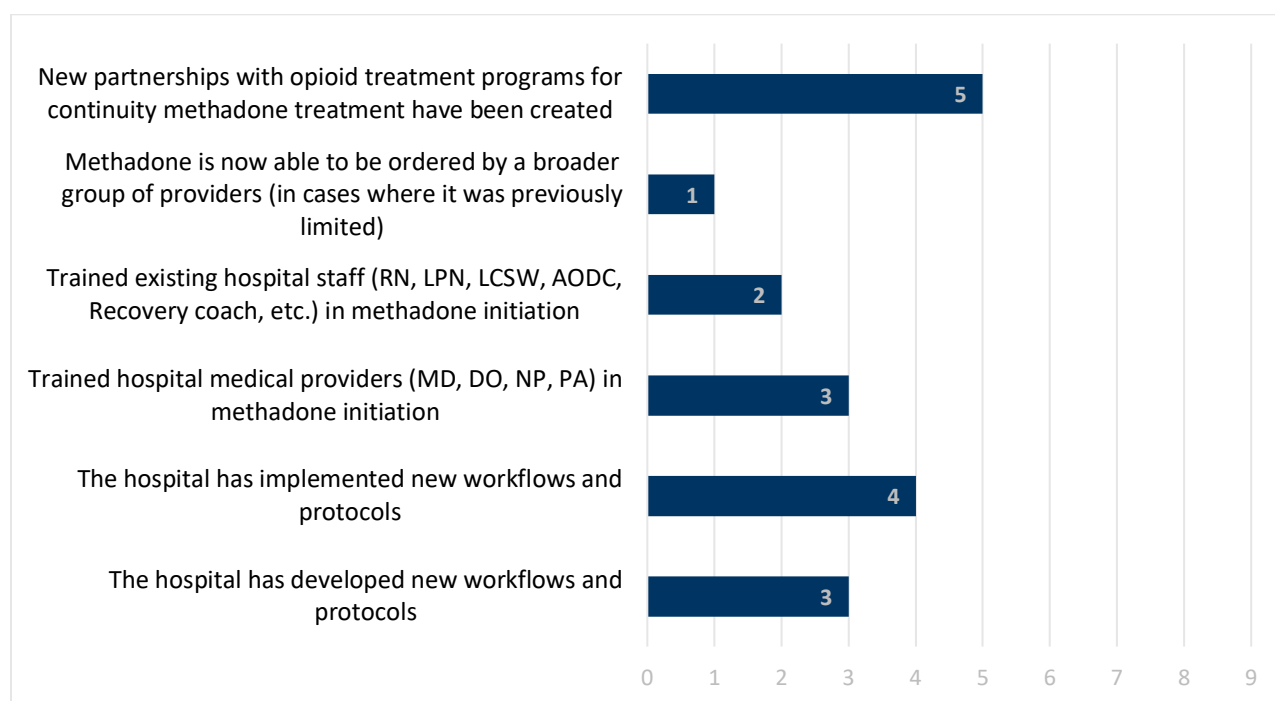
Exhibit 14. Hospital-Reported Progress to Support Buprenorphine Initiation in Hospital Inpatient Settings (n=9)



Methadone Initiation in Hospital Inpatient Settings

In March 2019, five out of nine hospitals reported that they initiated methadone in the inpatient setting and by November 2019, one additional hospital reported offering this service. The post-collaborative survey asked each hospital, “What progress has your hospital made toward initiating methadone (for maintenance, not detox) in the hospital inpatient setting since April 2019?” Hospitals were able to select all applicable activities. Six of the nine hospitals reported progress in at least one activity related to methadone initiation. Exhibit 15 shows the hospital-reported activities that took place over the course of the learning collaborative.

Exhibit 15. Hospital Progress With Initiating Methadone in Hospital Inpatient Settings (n=9)

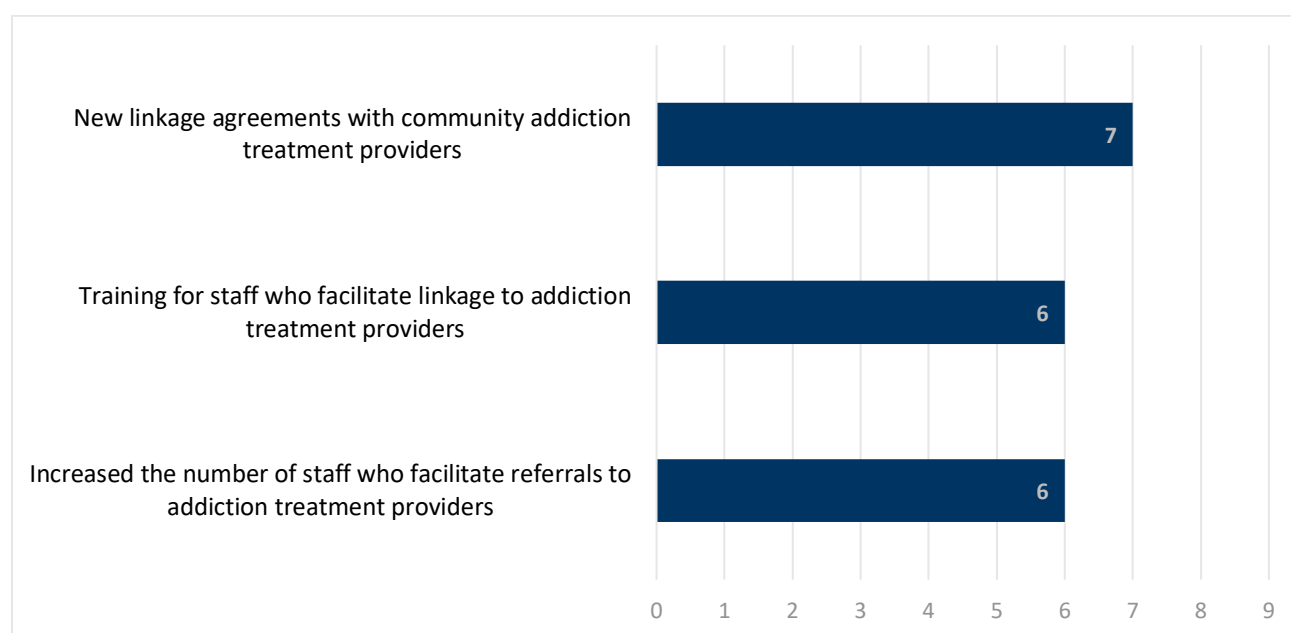


Linkage to Continuity of Care

Once MOUD is initiated in an emergency department or inpatient setting, timely linkage to ongoing care is critical. In March of 2019, all nine hospitals reported that they had established relationships/partnerships with at least one external addiction treatment agency to support linkage to ongoing services. Because all nine hospitals reported having agreements in place in March 2019, the identical question was not asked again in November 2019.

Instead, the post-collaborative survey questions related to linkage to care focused on assessing any hospital activities that occurred throughout the course of the learning collaborative that improved or increased linkage to addiction treatment providers. Again, hospitals were able to select as many activities as appropriate and their responses can be found in Exhibit 16.

Exhibit 16. Hospital-Reported Progress in Improving Support Linkage to Community-Based Treatment (n=9)



Hospital-Reported Experiences With Learning Collaborative and Next Steps

The post-collaborative survey asked each hospital if [they] “feel that participating in the HOTR Learning Collaborative was worthwhile for [their] organization.” Response options ranged from “strongly disagree” to “strongly agree.” Six hospitals reported that they “strongly agreed” and three hospitals reported that they “agreed” with this statement.

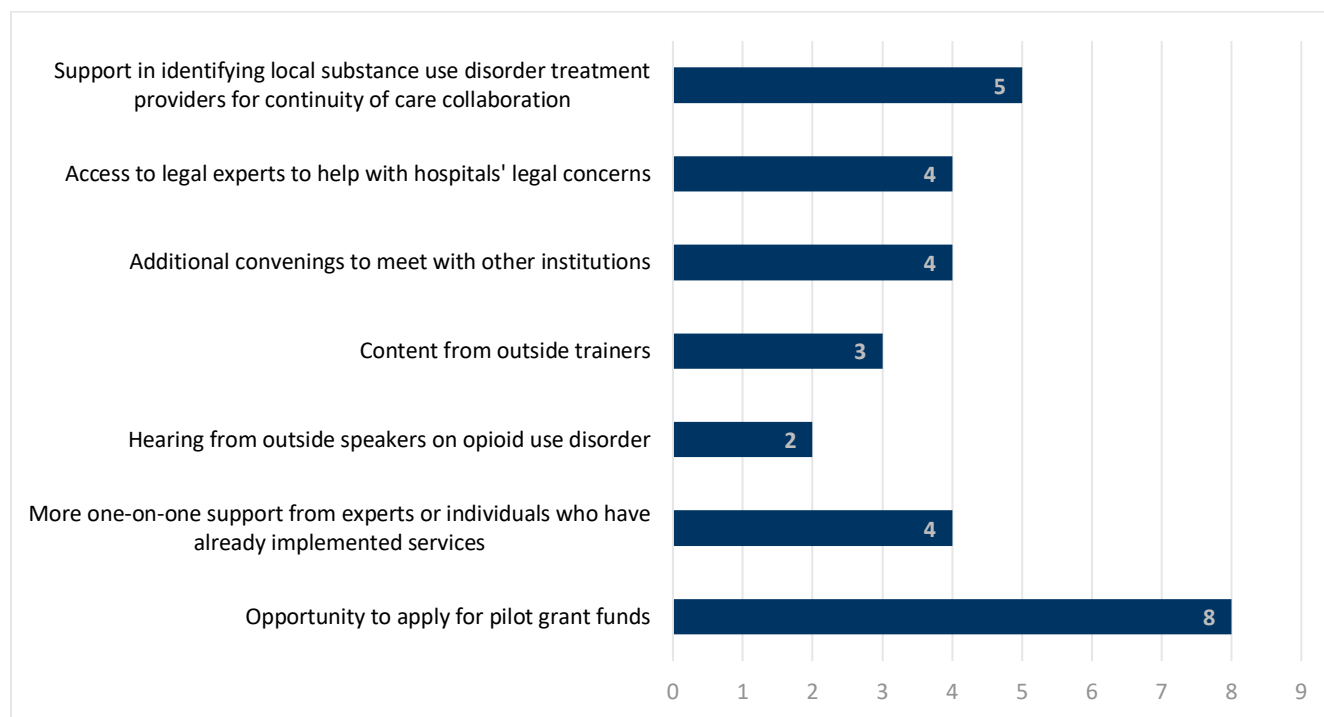
The post-collaborative survey also asked each hospital to “describe the extent to which [they] feel the HOTR Learning Collaborative was helpful to [their] hospital in planning for, implementing, or expanding,” various initiatives for opioid treatment and response. Each hospital was asked to select if the HOTR Learning Collaborative was not helpful in this area, helpful in this area, or had already implemented in this area, so no additional assistance was needed. All nine participating hospitals reported that the HOTR Learning Collaborative was helpful in initiating buprenorphine in the emergency department, and a majority felt it was helpful in other activities. Hospital responses are shown in Exhibit 17.

Exhibit 17. Post-Collaborative Responses to Effectiveness of the Learning Collaborative (n=9)

Content area	HOTR was not helpful	HOTR was helpful	Had already implemented
Standardizing/automating naloxone prescribing under certain clinical circumstances	0	6	3
Distributing naloxone kits from the emergency department	1	6	2
Distributing naloxone kits from areas of the hospital outside of the emergency department	1	5	3
Initiating buprenorphine in the emergency department	0	9	0
Initiating buprenorphine or methadone maintenance in the hospital inpatient setting	0	7	2

The post-collaborative survey also asked hospitals, “If IPHI were to continue a learning collaborative around these topics in 2020, what support would be helpful for your institution?” Each hospital ($n=9$) was able to select up to four supports that would be helpful for their institution. Hospitals selected the responses detailed in Exhibit 18.

Exhibit 18. Hospital-Reported Topics for Future Support



Demonstration Site Results

Information from the initial work plan submitted as part of the application, the mid-point review, and the final report was used to provide a descriptive analysis of the progress made by each of the three hospital demonstration sites. Summary information synthesizing similarities and differences across each of the three hospitals is presented first, followed by individual hospital-level detail on progress made over the course of the grant period, budgetary information, and next steps.

Summary of Demonstration Sites' Areas of Focus

As part of the hospital demonstration site application process, hospitals were asked to focus efforts in at least one of the three key areas: naloxone distribution, MOUD initiation, and/or linkage to ongoing addiction treatment. The areas of focus presented in each hospital's application are shown in Exhibit 19.

Exhibit 19. Areas of Focus for Hospital Demonstration Site Proposed Activities

Content area	Holy Cross Hospital	Northwestern Memorial Hospital	UI Health
Naloxone prescribing	●		●
Naloxone dispensing	●		
Buprenorphine Initiation in the emergency department		●	●
Buprenorphine or methadone initiation from inpatient units	●		
DATA 2000 waiver training		●	●
Linkage to ongoing addiction treatment services	●	●	●

More detailed information about each hospital's work plan can be found under the individual hospital subheadings.

Summary of Demonstration Sites' Budget Utilization

All three demonstration site hospitals used a portion of the \$50,000 seed grants to support buy-out of small amounts of clinical champion time, which allowed these hospitals to have dedicated administrative time to focus on development, implementation, quality improvement, purchase of medications, and training activities.

Summary of Demonstration Sites' Work Plan Progress

All three of the hospitals completed all of the self-identified goals outlined in their initial applications. Each of the three hospitals either surpassed one of their initial goals or completed additional activities to work toward further expansion efforts not initially described in their work plans. For example,

- Northwestern Memorial Hospital set out to provide the DATA 2000 buprenorphine waiver training to 30% of its emergency department and bridge clinic medical staff and was able to train 63% of the staff over the period of the grant.
- Although not in its original work plan, Holy Cross Hospital reported that 20 additional providers across their health system completed the DATA 2000 waiver training over the course of the grant.
- UI Health initiated a naloxone dispensing program from the emergency department even though this activity was not in its original work plan.

Summary of Demonstration Sites' Self-Report of the Value of the Grants and Learning Collaborative

The final report included questions about how the demonstration site funding and learning collaborative participation supported the completion of work plan goals. Two of the three demonstration sites noted that the funding allowed clinical champions who would have otherwise been busy with clinical duties to have administrative time to focus on the development of workflows, processes, and trainings for staff. The third hospital noted that the additional clinical staffing supported by this grant helped expand coverage for identification and linkage to treatment.

Each of the three hospitals indicated that the learning collaborative provided value through bringing peers together and giving them a space to share challenges, successes, and resources. Similarly, each hospital described their appreciation for the opportunity to share specific challenges they were facing and to receive feedback from the broader group.

Individual Hospital Demonstration Site Activities and Progress

Holy Cross Hospital

Work Plan Focus

Holy Cross Hospital's work plan focused on developing workflows in the inpatient setting and creating better linkages to outside partners. Holy Cross Hospital was highly successful in meeting its goals over the learning collaborative period. Holy Cross Hospital had five overall objectives, all of which were met:

1. Develop internal workflows for MOUD initiation and naloxone prescribing or dispensing.
2. Establish external referral protocols for patients with opioid use disorder.
3. Collaborate with internal and external partners and ensure inpatient/outpatient provision of services through collaborative care.
4. Screen at least 50 OUD patients on inpatient floors and in the emergency department with MOUD initiation completed, where appropriate (*52 patients screened over grant period*).
5. Provide warm handoff to outpatient MOUD partner for at least 30 patients who initiated MOUD (*32 patients were referred to community-based addiction treatment providers over the grant period*).

In addition to the originally outlined objectives, Holy Cross Hospital increased the number of providers with DATA 2000 waivers and submitted their application (which was approved in December 2019) to become a Drug Overdose Prevention Program (DOPP).

Summary of Accomplishments

Holy Cross Hospital met its objectives, including developing, testing, and getting approval for workflows related to MOUD and naloxone dispensing; identifying and collaborating with new external partners, including signing several new MOUs (memoranda of understanding) with external partners; and implementing new screening and referral processes.

Next Steps

As a newly approved DOPP, Holy Cross Hospital plans to distribute naloxone kits to patients who receive treatment in the emergency department and/or the inpatient floors. It also hopes to expand staffing to increase coverage during nights and weekends to help identify and engage patients with OUD. Holy Cross Hospital is also considering eventually becoming a licensed addiction treatment provider.

Northwestern Memorial Hospital

Work Plan Focus

Northwestern Memorial Hospital had already implemented naloxone dispensing from the emergency department prior to the learning collaborative. Therefore, its work plan focused on the emergency department (ED) and the bridge clinic, Transitional Care Medicine (TCM), with an eye toward expansion to inpatient floors in the future. The work plan included training medical providers and creating and testing a workflow for identifying patients with opioid use disorder, initiating buprenorphine, and referring patients with OUD for ongoing care. Northwestern Memorial Hospital had five self-identified goals, and they were successful in meeting all of them.

1. Train at least 30% of ED and TCM providers to receive buprenorphine waiver (*63% trained*).
2. Create a clinical pathway for emergency department (including identification of eligible patients, buprenorphine dose, and social worker referral to short-term and long-term follow-up).
3. Field test ED buprenorphine pathway in 20 patients (*field tested with 23 patients*).
4. Establish a fund to help patients obtain buprenorphine and naloxone prescriptions.
5. Provide in-service presentations on buprenorphine to emergency department providers (*five in-service trainings completed*).

Summary of Accomplishments

In addition to having met their goals, the team from Northwestern Memorial Hospital was able to greatly exceed their goal of training 30% of ED attendings. They provided the DATA 2000-waiver training to 70% of ED attendings, more than half of ED residents, and all ($n=3$) TCM attending providers. Further, they found that they could, and did, apply for and use existing

charity care funds to help patients pay for buprenorphine and naloxone. This allowed them to reallocate grant funds toward more training.

Next Steps

Northwestern Memorial Hospital plans to expand its ED buprenorphine and naloxone program to the inpatient setting. It also plans to conduct additional DATA 2000 waiver trainings for the remaining untrained ED physicians in early 2020. To facilitate expansion to inpatient units, inpatient physicians will be invited to the waiver trainings.

University of Illinois Hospital and Health Sciences System (UI Health)

Work Plan Focus

UI Health's work plan focused on training clinicians, developing workflows, and increasing warm handoffs to addiction treatment providers. UI Health was successful in meeting all of its goals.

The five overall goals for UI Health were:

1. Provide clinician education on best practices for naloxone prescribing.
2. Adapt and implement emergency department protocols for buprenorphine initiation.
3. Create standardized treatment referral guidelines for emergency department social work and patient navigators for all patients who request treatment or are referred for OUD evaluation by ED providers.
4. Create a workflow for warm handoff to Mile Square Health Center (MSHC) for outpatient MOUD and other community-based recovery supports.
5. Hold at least two DATA 2000 waiver trainings to increase clinician capacity for buprenorphine prescribing (*Two trainings completed over course of grant period with 28 individuals trained*).

Summary of Accomplishments

UI Health was able to complete all its goals but were not able to provide exact numbers of referrals and warm handoffs made because of challenges with the electronic health record (EHR) capturing this information. Although the current EHR makes it difficult to accurately measure the number of patients who are seen in Mile Square as a result of the referral and warm handoff, UI Health reported that providers are much more likely to refer now because of trainings that took place as part of this grant, and because of an increased awareness of the MOUD treatment services offered at Mile Square Health Center. Additionally, UI Health was able to develop and implement a naloxone dispensing program from its emergency department, which was not a specific goal for this grant period because UI Health did not think this would be possible in the time frame. UI Health viewed this as a major success of the project.

Next Steps

UI Health has several plans for future work in this area. The most proximal plans are to receive approval for its hospital guidelines on MOUD initiation based on its experiences in the ED; continued and increased education and waiver trainings for medical students, residents, and attendings; and increased linkage to community services.

Limitations

There are several limitations to the evaluation findings in this report. First, the learning collaborative was an opt-in learning opportunity and participation was limited to hospitals in Chicago and Cook County that are members of the Alliance for Health Equity. Only hospitals that were members of the Alliance for Health Equity and participating in the learning collaborative were able to apply for demonstration site funding. Therefore, the experience of these hospitals may not be generalizable to other hospitals in Illinois.

A second limitation is that the data collection instruments for the pre-assessment and post-collaborative surveys seemed to be difficult for some hospitals to complete. This could have been caused by misunderstanding the questions due to initial lack of understanding of content, the person responding not having the correct information, or the information not being readily available at that institution. It is important to note that for both pre-assessment and post-collaborative data, AIR contacted some hospitals to clarify their responses, particularly when the data between the assessments and the learning collaborative meetings conflicted with one another. Hence, the data that appear in the results section may not be entirely reliable, as they are not typically gathered and reported in the course of normal hospital operations. For example, when asking about the number of people who had MOUD initiated in the prior 3 months, some hospitals reported estimated ranges rather than actual numbers and others stated that they did not know or did not have a way to obtain the data. Therefore, our ability to measure the scale of the intervention after implementation was limited.

A third limitation is that one individual from each hospital completed the pre-assessment and post-collaborative surveys. It is possible that this person did not have the correct information or did not ask the correct people in order to obtain it.

With respect to the demonstration site evaluation, the data sources are reports from the demonstration sites themselves to IPHI, the funding agency. Therefore, it is possible that their reporting would differ if the sites were doing so anonymously or to an agency that was not funding their current work.

Finally, AIR was involved in all aspects of this learning collaborative, including planning the learning collaborative meetings and conducting the assessments. This could have resulted in unintentional bias in how the data were collected and reported.

Key Findings

- Each of the hospitals that participated in the learning collaborative came with varying levels of existing opioid response and treatment infrastructure, in-house addiction medicine expertise, and existing relationships with external addiction treatment providers.
- The content areas (naloxone dispensing, MOUD initiation, and linkage to addiction treatment providers) were new for many learning collaborative participants.
- Hospitals reported value in hearing from and problem-solving with other members of the collaborative.
- All hospitals reported significant training needs for clinical staff, especially related to identifying opioid use disorder, prescribing/dispensing of naloxone, initiating medications for opioid use disorder, linking to community-based treatment, and reducing stigma against people with substance use disorders.
- Creating and implementing new workflows in large hospital systems is complex and requires significant leadership buy-in and time allocation from clinical champions.
- Hospitals recognized that social determinants of health, including housing, have significant effects on people's ability to access and maintain MOUD.
- A variety of legal, regulatory, and reimbursement challenges were identified throughout the course of the learning collaborative. These are described in greater detail in Appendix H, but overarching themes are:
 - Hospitals do not typically dispense medications. Direct dispensing of naloxone is recommended because patients may not go to a pharmacy to fill a naloxone prescription. Concerns were raised about whether dispensing naloxone is allowable under the Illinois Administrative Code Section 1330.530: Onsite Institutional Pharmacy Services, subsections (b)(1-3), (c)(3), (e)(4), as well as how to store and label the naloxone to be in compliance with the Illinois Pharmacy Practice Act.
 - The lack of reimbursement for naloxone dispensed from hospital settings was raised as a barrier to direct dispensing from the emergency department and hospital settings.
 - Staff training needs were high across all hospitals (including but not limited to buprenorphine waiver training), and the costs associated with training large numbers of clinical staff are often prohibitive.

- Limited reimbursement for emergency department and inpatient initiation of medications for addiction treatment serves as a barrier for many hospitals.
- Challenges exist with being able to ensure timely linkage to community-based MOUD treatment, particularly during nights and weekends.
- When hospitals were asked about future support needed to continue opioid treatment and response work, the most common response was about the need for opportunities for grant funding (reported by eight out of nine participating hospitals).

Learning Collaborative Evaluation Key Findings

- Eight of the nine participating hospitals sent representatives to all six in-person learning collaborative meetings.
- Individual learning collaborative meetings were well-received, with individuals reporting the content was relevant to their work, that the meetings improved their understanding of the next steps, and that they would recommend the meetings to others. Six hospitals reported that they “strongly agreed” and three hospitals reported that they “agreed” that the learning collaborative was worthwhile for their organization.
- The learning collaborative met its goal of supporting participating hospitals in developing and implementing hospital opioid treatment and response services.
 - All nine participating hospitals reported that the HOTR Learning Collaborative was helpful in planning for, implementing, or expanding buprenorphine initiation in the emergency department and a majority felt it was helpful in the areas of naloxone distribution and linkage to community-based MOUD treatment.
 - All nine participating hospitals reported at least one naloxone access-related activity they had initiated over the course of the learning collaborative. The number of emergency departments that reported dispensing naloxone increased from four to five over the 9-month learning collaborative.
 - All nine hospitals reported at least one activity that they had initiated to work toward the goal of increasing MOUD initiation. Eight of nine hospitals reported progress on at least two of the activities we asked about with respect to buprenorphine initiation, including training emergency department providers on buprenorphine initiation ($n=7$) and the development of new workflows specific to buprenorphine initiation ($n=7$). The number of hospitals that reported initiating buprenorphine in the emergency department increased from three to six over the course of the learning collaborative.
 - Although all nine hospitals reported that they had established partnerships for MOUD continuity of care at the beginning of the learning collaborative, seven hospitals

reported new linkage agreements had been put into place and six hospitals reported they had trained additional staff on linkage facilitation over the course of the learning collaborative.

Hospital Demonstration Site Grant Evaluation Key Findings

- The demonstration site grants met the goal of supporting hospitals in developing and implementing hospital opioid treatment and response services.
- All three of the hospital demonstration sites were able to successfully complete all self-identified work plan goals, and each of them surpassed expectations or completed additional goals throughout the course of the 9-month grant period.
- All three of the hospitals that received demonstration site grants used at least a portion of the funds to buy-out clinical champion time to allow those individuals to focus on development, implementation, and training.

Recommendations and Next Steps

Overall, the Hospital Opioid Treatment and Response Learning Collaborative and Demonstration Project model was effective in supporting knowledge transfer and implementation progress. Based on these findings and feedback received from hospitals, recommendations for future educational activities include the following:

- Offer more seed grant opportunities to support hospitals in development, implementation, and scaling of naloxone dispensing, MOUD, and linkage to treatment.
- Continue a similar learning collaborative model that is expanded to a broader number of hospitals to maintain further expansion of services across the City and County.
- Host additional convenings (could happen on a less frequent basis) to support continued peer-to-peer sharing of challenges and successes.
- Provide access to legal experts to assist hospitals in understanding existing rules and regulations.
- Offer hospitals more one-on-one support in the form of individualized technical assistance and clinician training support.

A variety of legal, regulatory, and reimbursement challenges and potential solutions were identified throughout the course of the Learning Collaborative. These are described in further detail in Appendix H, but high-level recommendations include:

- Identify financially sustainable mechanisms to support naloxone distribution from hospital settings (government central purchasing with a grant-based/donation program; legislation that would allow for alternative billing mechanisms, such as the use of J codes or a voucher program similar to what was created to allow hospitals to give “sexual assault post-exposure prophylaxis kits”).
- Work with regulatory bodies to increase clarity around rules and regulations specific to dispensing naloxone from emergency department and inpatient settings (specific to Illinois Administrative Code and Illinois Pharmacy Practice Act).
- Provide expert training and technical assistance to interested hospitals while simultaneously providing financial support (through grants to buy out staff time) to hospitals to offset the cost of training clinicians.
- Work with Illinois Medicaid to restructure reimbursement to provide incentives for screening for OUD (and all substance misuse), initiating/providing MOUD treatment in the hospital setting, and linking to ongoing care. The ability to bill for recovery coach/peer support specialists is another critical component of reimbursement models, as these roles are increasingly being used in emergency department and hospital settings.
- Support the creation of City- or County-based “bridge clinics” that would allow for follow-up from any hospital setting. The goal of these clinics would be to provide an intake assessment, continue medication treatment, and work with the individual to determine where they could go for ongoing addiction care—ideally allowing for walk-in visits so people could come at any time of day and be seen.

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Appendices

Appendix A. Request for Application

REQUEST FOR APPLICATIONS (RFA)

HOSPITAL DEMONSTRATION PROJECT

MEDICATION ASSISTED TREATMENT (MAT) AND NALOXONE INTRODUCTION

A. Introduction

The Illinois Public Health Institute (IPHI) is seeking applications from Alliance for Health Equity (AHE) [member hospitals](#) to participate in a medication assisted treatment (MAT)/naloxone demonstration project. The intent of the demonstration project is to advance hospital engagement and partnerships to initiate MAT and naloxone prescribing/distribution in hospital settings in the city of Chicago and suburban Cook County. Applicants may apply for projects to support adoption in emergency departments (EDs) and/or inpatient units.

IPHI, as the backbone organization for AHE, is coordinating the selection of three demonstration sites through this RFA. IPHI will also issue a separate invitation to hospitals in Chicago and suburban Cook County to participate in an associated learning collaborative at a later date. Funding support for both initiatives is provided by the Otho S.A. Sprague Memorial Institute.

B. Hospital Demonstration Project Overview

In the 2016 Community Health Needs Assessment (CHNA), the AHE identified mental health and substance use disorders as key priorities that require collective action. Data from the 2019 CHNA currently underway continues to support this as a priority. The Hospital Demonstration Project is designed to implement goals set by the AHE Mental Health and Substance Use Disorders Committee to systematically address the opioid epidemic.

Demonstration projects will focus on building infrastructure and creating an environment within hospital emergency departments and/or inpatient units to support the following:

1. Initiation of medication assisted treatment (MAT) for opioid use disorder
2. Naloxone prescribing and/or distribution
3. Care transitions to outpatient settings through warm handoffs, bridge programs, and/or community partnerships

The demonstration projects will explore various models to support these goals. The demonstration projects may feature different program designs that might include components such as: inpatient or ED initiation of MAT and linkage to continuing community-based care; development of bridge clinics to support follow-up from discharge; standardization of naloxone prescribing or distribution; and others.

C. Learning Collaborative Overview

Hospitals selected for the Hospital Demonstration Project will be expected to participate in the concurrent Hospital Opioid Treatment and Response Learning Collaborative. The HOTR Learning Collaborative will bring hospitals from across Chicago and Cook County together to support and facilitate conversation around best practices, implementation, and quality improvement as it relates to caring for people with opioid use disorder and/or those who are at risk for opioid overdose. The goal of the HOTR Learning Collaborative is for all participating hospitals to move toward initiation of MAT with linkage to care and/or naloxone prescribing/distribution over the course of the nine-month collaborative. Hospitals not funded under this RFA are both eligible, and encouraged, to participate in the HOTR Learning Collaborative.

There will be a total of six meetings over a nine-month period (April-December 2019). The HOTR Learning Collaborative will be open to additional AHE hospitals, and those that choose to participate are expected to engage in all six meetings. The three demonstration sites are required to attend all six meetings and fully engage in the HOTR Learning Collaborative.

2 meetings (April, December) focus on hospital administrators to ensure appropriate buy-in and investment on behalf of the hospital. Suggested attendees for these meetings: Chief Medical Officer, Chief Financial Officer, Director of Pharmacy, Emergency Medicine Department Chair, any other clinical champions.

4 meetings (May, July, September, November) will focus on clinical implementation and will discuss workflows, operational challenges and solutions, and staff training. Suggested attendees: Emergency Medicine Department Chair, Emergency Department Nursing Director/Clinical Director, Internal Medicine, Family Medicine or Psychiatry Department Chair (depending on which service would be managing on the inpatient side); Pharmacy Director; Supervisor of any behavioral health staff (social workers, etc.) in the emergency department, and Clinical Supervisor/Manager of hospital-based substance use disorder treatment services (where applicable).

D. Funds Available and Uses

A total of \$150,000 is available to fund demonstration project sites at three hospitals. Each hospital is eligible for up to \$50,000 in support from April 1, 2019 - December 31, 2019.

Funding may be used to support staff time for planning, workflow development, quality improvement projects related to MAT initiation and/or naloxone distribution, change management activities to build internal support, partnership development and integration activities, training, and other infrastructure and capacity building efforts.

E. Eligibility

The following eligibility criteria must be met to be deemed eligible for funding under this RFA:

- AHE member hospital. The full list can be found at <http://allhealthequity.org/our-partners/>.
- Commitment of leadership and clinical champions, as well as hospital team members, to participate in associated HOTR Learning Collaborative, including the kickoff meeting on April 15, 2019, 2:00-4:00 p.m.
- Letter of support from a community-based MAT provider who may serve as a referral site.
- If the hospital is applying for funding for an emergency department-focused project and ED medical services are provided by an outside contractor, a letter of support and commitment from the ED physician group, including commitment that one ED physician will participate in the learning collaborative.

F. Submission of Application

Submit applications via email to: Hospital Demonstration Project
Illinois Public Health Institute
Email: MATDemo@iphionline.org

Application deadline: Friday, March 15, 2019
5:00 p.m. Central Standard Time

Applications must be submitted via email only to MATDemo@iphionline.org. Hard copies of applications will not be accepted. Applications received after the above deadline may not be considered.

G. Timeline

IPHI intends to follow the timeline below for review and awarding of funds under this RFA:

RFA released	February 15, 2019
Application deadline	March 15, 2019, 5:00 p.m. CST
Site Selection Committee review of applications	March 20 - 26, 2019
Sites notified of results	March 27, 2019
Kickoff Meeting @ CDPH Training Center, 1642 N. Besly Ct., Chicago	April 15, 2019, 2:00-4:00 p.m.
Funding period	April 1, 2019 - December 31, 2019

The above timeline is subject to change to best meet programmatic needs and funder requirements, as applicable.

H. Application Review

IPHI has convened a Hospital Opioid Treatment and Response Planning Committee to provide expert guidance for planning and implementation of project deliverables, and to coordinate and align with other local resources and efforts. The committee will review complete and timely applications submitted in response to this RFA.

The committee intends to select a cohort with the greatest potential to inform practice and respond to the epidemic. The following criteria will be used to evaluate applications for the demonstration project cohort:

- Volume of patients with opioid-related ED and hospital admissions
- Description of staff who will deliver services
- Description of existing behavioral health staff to support the project
- Description of existing relationships with community-based providers who prescribe buprenorphine
- Presence of residency program(s) or other clinical training site(s)
- Proposed use of funds, including leveraging of existing resources
- Description of existing activities that relate to naloxone prescribing or dispensing, and initiation of MAT for treatment of opioid use disorder in the emergency department or inpatient setting
- Anticipated project impact
- Organizational capacity, internal champions, and supportive environment
- Agreement to participate in the HOTR Learning Collaborative, which will be held concurrent with the hospital demonstration projects
- Agreement to complete the site baseline assessment, and participate in evaluation activities

I. Questions

All questions pertaining to this RFA must be submitted via email to MATDemo@iphionline.org.

Potential applicants are encouraged to submit any questions at least a week in advance of the application deadline to ensure resolution. If applicable, IPHI will issue an amendment to this RFA with responses to all questions received, including any applicable adjustments to the RFA requirements.

HOSPITAL DEMONSTRATION PROJECT GRANT APPLICATION

Applicant Information				
Healthcare Organization Legal Name				
Street Address				
City, State, Zip Code				
Primary Contact for the Application (one of the individuals identified below)	Name: Title: Email: Phone:			
Applicant Representatives				
Clinical Champion (Individual leading the implementation)	Name: Title: Email: Phone:			
Leadership Champion (Individual with leadership and decision making authority for hospital)	Name: Title: Email: Phone:			
Authorized Signatory (Individual authorized to sign on behalf of the hospital)	Name: Title: Email: Phone:			
Contract Representative (Individual responsible for agreement processing and negotiations)	Name: Title: Email: Phone:			
Hospital Information			YES	NO
Does your hospital sponsor a residency program(s) that will be impacted by this project? If yes, identify the residency type: _____				
Are emergency department medical services provided through a contracted entity?				
If medical (physician and mid-level provider) ED services are provided through a contracted entity, please provide the name of the entity:				
If the proposed intervention is in the inpatient setting, describe medical staffing model and describe who would offer MAT initiation:				
What electronic health record does the hospital use?				

I. Project Rationale

1. In 1-2 sentences, describe why your hospital is interested in the demonstration project. Identify if the project will focus on emergency department and/or inpatient units.

II. Patient Characteristics

1. Briefly describe (1 paragraph) the patient population served by the hospital and their needs related to opioid use/opioid use disorder. Discuss any unique populations this work may impact.
2. What is the payor mix in the hospital?
3. Provide the following information about the volume of opioid-related cases (Please see appendix for description of how to calculate and report these).
 - a. Number of ED visits for opioid-related diagnoses (Calendar Year 2018):

 - b. Number of opioid-related overdoses presented in ED (Calendar Year 2018):

 - c. Number of opioid-related hospital admissions (Calendar Year 2018):

III. Readiness Assessment and Evaluation

Please provide information about your hospital's state of readiness. Because funding under this RFA is intended to address infrastructure needs, there is not an expectation that hospitals have all of the following elements in place to apply. Responses will be considered as described in Section E "Application Review" in the RFA announcement.

	YES	NO
Is your hospital currently using SBIRT (Screening, Brief Intervention, and Referral to Treatment) for substance use disorders in the ED?		
Is buprenorphine on the formulary?		
Is buprenorphine in Pyxis?		
Are there hospital providers with a buprenorphine waiver? If yes, how many? _____		
Is methadone on the formulary?		
Is your emergency department currently dispensing naloxone?		

Readiness Assessment and Evaluation (continued)

	YES	NO
Do you currently have systems in place to support naloxone prescribing or co-prescribing (for example, clinical decision support in EHR)?		
Is your hospital a state-certified drug overdose prevention program (DOPP)?		
Do you currently have any staff in the ED who help with care navigation? This could include community health workers, peer health workers, care coordinators, etc.		
Do you currently have any staff in the hospital who help with care navigation? This could include community health workers, peer health workers, care coordinators, etc.		
Do you have existing relationships with external buprenorphine providers in community who will accept all payment types? (e.g. federally qualified health centers)		
Do you have existing relationships with opioid treatment programs (OTPs- licensed methadone providers)?		
Do you agree to complete a baseline assessment for your site with a tool provided by the Hospital Opioid Treatment and Response Planning Committee, and participate in cross-site evaluation activities?		
AHE is continuing to develop resources for this initiative. If additional funding becomes available to the duration of this project, would you be prepared to expand the scope of your proposed project (e.g., moving from planning to implementation?)		

IV. Project Description

Please provide brief responses (1 paragraph) to each of the questions in the narrative sections A-E below.

A. Hospital Team

1. Who will be involved in the planning process? In a table below, list team member names and roles. In addition to the clinical and leadership champions identified above, the team must include, at minimum, a prescriber from the emergency department and/or inpatient unit (depending on where intervention is being proposed), a staff member who focuses on ED/inpatient operations, and a pharmacist. Other members may include, IT, behavioral health providers, quality improvement and other staff.
2. What is the commitment of the team to the overall goals of the project? Describe the team's readiness and/or willingness to lead efforts to increase access to MAT and/or naloxone for patients with opioid use disorders. Describe possible barriers to engaging colleagues in this effort.

3. How are you including diverse voices and broader perspectives to inform your project?

Learning Collaboration Participation	YES	NO
Have the clinical champion(s) <u>and</u> clinical team members committed to attending the four Clinical meetings of the learning collaborative?		
Have the leadership champion(s) <u>and</u> leadership team members committed to attending the two Leadership meetings of the learning collaborative?		
If you are <u>not</u> selected for funding as a hospital demonstration project, do you wish to be considered for participation in the learning collaborative?		

B. Approach

1. Describe your overall strategy and plan for accomplishing the goal of the project.

2. Describe SMART (specific, measurable, achievable, relevant, and timebound) objectives that you will accomplish over the nine-month project. How do these build on any activities currently underway?

C. Work Plan

1. Provide a work plan, including key steps and timeline, to achieve your SMART objectives.

D. Partnerships and Continuity Plan

1. Describe your continuity plan. For example, does the hospital have an existing outpatient partner, or does it plan to establish a relationship with a community-based MAT provider? Does the hospital have an interest in establishing a bridge clinic, and if so, what work has been completed to date? How will the hospital link patients to community providers to continue MAT after discharge?

2. How did you develop this approach?

E. Resources and Sustainability

1. How does the hospital propose to use the \$50,000 available for the hospital demonstration project? Please note eligible uses of funds in the RFA announcement under Section D “Funds Available and Uses.”

2. What resources (if any) do you currently have to fund this work? If an investment is currently underway, how will \$50,000 supplement existing investment/funds?

V. Required attachments

1. Letter of support from a community-based MAT provider who may serve as a referral site.
2. If the hospital is applying for funding for an emergency department-focused project and ED medical services are provided by an outside contractor, a letter of support and commitment from the ED physician group, including commitment that one ED physician will participate in the Learning Collaborative.

VI. Signatory Page

I certify that to the best of my knowledge that the information included in this application is complete and accurate.

Authorized Signatory	
Signature:	
Name and title:	Date:
Leadership Champion	
Signature:	
Name and title:	Date:
Clinical Champion	
Signature:	
Name and title:	Date:

Appendix B. Meeting Agendas



Hospitals and Communities
Improving Health Across
Chicago and Cook County

Hospital Opioid Treatment and Response Learning Collaborative Kickoff Meeting

Chicago Department of Public Health Training Center
1642 N. Besly Ct Chicago, IL 60642

April 15, 2019, 2-4PM

Agenda

- | | | |
|------|---|-----------|
| I. | Welcome and Introductions | 2:00-2:10 |
| II. | Scope of the Problem Locally
<i>Allison Arwady MD, MPH, Chicago Department of Public Health and Kiran Joshi MD, MPH, Cook County Department of Public Health</i> | 2:10-2:30 |
| III. | Goals and Rationale of the Learning Collaborative
<i>Elizabeth Salisbury-Afshar MD, MPH, American Institutes for Research</i> | 2:30-2:50 |
| IV. | Examples from Area Hospitals | 2:50-3:40 |
| | a. Rush University Medical Center
<i>Henry Swoboda, MD and Kathryn Perticone, APN</i> | |
| | b. Cook County Health
<i>Juleigh Nowinski-Konchak, MD, MPH and Sarah Elder, LCSW, CADC</i> | |
| | c. Advocate Aurora Christ Medical Center
<i>Diana C. Bottari, DO</i> | |
| V. | Questions and Wrap Up | 3:40-4:00 |



Hospitals and Communities
Improving Health Across
Chicago and Cook County

Hospital Opioid Treatment and Response Learning Collaborative Session #2

Chicago Department of Public Health Training Center

1642 N. Besly Ct Chicago, IL 60642

May 13, 2019, 1-4 PM

Agenda

- | | | |
|------|--|-----------|
| I. | Introductions | 1:00-1:15 |
| II. | Background Information, Hospital Data Presentation, Resources
<i>Elizabeth Salisbury-Afshar MD, MPH, American Institutes for Research</i> | 1:15-1:45 |
| III. | Goals and Rationale of the Learning Collaborative
<i>MacNeal Hospital, Rush University Medical Center, Northwestern Memorial Hospital</i> | 1:45-2:30 |
| | Q&A | |
| IV. | Break | 2:30-2:45 |
| V. | Group Work | 2:45-3:45 |
| VI. | Evaluation | 3:45-4:00 |



Hospitals and Communities
Improving Health Across
Chicago and Cook County

Hospital Opioid Treatment and Response Learning Collaborative Session #3

Chicago Department of Public Health Training Center

1642 N. Besly Ct Chicago, IL 60642

July 15, 2019, 1-4 PM

Agenda

- | | | |
|------|---|-----------|
| I. | Introductions | 1:00-1:20 |
| II. | Presentation: Self-reported hospital data around MAT initiation
<i>Elizabeth Salisbury-Afshar MD, MPH, American Institutes for Research</i> | 1:20-1:40 |
| III. | Presentation: Evidence base of initiating MAT in hospital settings
<i>Katy Perticone, APN, Rush University Medical Center</i> | 1:40-2:10 |
| | Q&A | |
| IV. | Individual hospital presentations
<i>Sukhi Bains, MD, University of Illinois Health and Hospital Systems</i>
<i>Steve Aks, MD, Cook County Health</i>
<i>Katy Perticone, APN, Rush University Medical Center</i> | 2:10-2:55 |
| V. | Small Group Work | 2:55-3:30 |
| VI. | Hospital Report-back to Large Group | 3:30-3:50 |
| VII. | Evaluations and Session 4 Date Discussion | 3:50-4:00 |



Hospitals and Communities
Improving Health Across
Chicago and Cook County

Hospital Opioid Treatment and Response Learning Collaborative Session #4

Chicago Department of Public Health Training Center
1642 N. Besly Ct Chicago, IL 60642
September 9, 2019, 1-4 PM
Agenda

- | | | |
|------|---|-------------|
| I. | Introductions & Report-Back on MAT progress | 1:00 - 1:30 |
| II. | Presentation: Self-reported hospital data around training and organizational buy-in | 1:30 - 1:40 |
| III. | Presentation of 3 questions to the group- full group | 1:40 – 3:00 |
| | a. Inpatient pharmacy dispensing of naloxone (UIH) | |
| | b. MAT training for large staff sizes (multiple) | |
| | c. Staffing/off-hours (Holy Cross) | |
| IV. | Small Group Work | 3:00 - 3:30 |
| V. | November & December meeting discussions | 3:30 - 3:50 |
| VI. | Evaluations | 3:50 - 4:00 |



Hospitals and Communities
Improving Health Across
Chicago and Cook County

Hospital Opioid Treatment and Response Learning Collaborative Session #5

Chicago Department of Public Health Training Center

1642 N. Besly Court - Chicago, IL 60642

November 18, 2019, 1-4 PM

Agenda

- | | | |
|------|---|-------------|
| I. | Meeting Overview and Report of Summary Data from Participating Hospitals | 1:05 - 1:20 |
| II. | Introductions and Hospital Progress Updates | 1:20 - 1:35 |
| III. | Transitions of Care from ED or Inpatient Setting to External Treatment Provider | 1:35-3:00 |
| | - Holy Cross Hospital & Esperanza Health Center
<i>Jessica Butcher and Daifeny Arias</i> | |
| | - Cook County Health Ambulatory
<i>Sarah Elder</i> | |
| | - Miles Square Health Center
<i>Christine Neeb, Phil Maes, Sukhi Bains</i> | |
| | - Healthcare Alternative Systems (HAS)
<i>Mairena Sneed</i> | |
| | - Family Guidance Centers
<i>Kimberly Killy</i> | |
| IV. | Planning and Preparation for the December Meeting | 3:00 – 3:40 |
| | a. Review: Plan for December meeting | |
| | b. Expectations: What will each participating hospital need to do? | |
| | c. Discussion: What messages do we want to convey to leadership? | |
| | d. Feedback: Barriers and Solutions document | |
| V. | Post-assessment Data Collection | 3:40 - 3:50 |
| VII. | Meeting Evaluation | 3:50 - 4:00 |



**ALLIANCE
for
HEALTH
EQUITY**

Hospitals and Communities
Improving Health Across
Chicago and Cook County

Hospital Opioid Treatment and Response Learning Collaborative

Final Session - Agenda

December 16, 2019 | 12:30 PM – 3:00 PM

National Louis University
122 S. Michigan Ave., Chicago

- | | |
|-----------------|---|
| 12:30 – 1:00 PM | Networking Lunch |
| 1:00 – 1:05 PM | Welcome <ul style="list-style-type: none">- Elissa Bassler, IPHI |
| 1:05 – 1:15 PM | The Opioid Epidemic in Chicago and Cook County <ul style="list-style-type: none">- Dr. Allison Arwady, CDPH- Dr. Kiran Joshi, CCDPH |
| 1:15 – 1:25 PM | The Hospital Opioid Treatment and Response Model: The evidence-base of naloxone distribution, MOUD and warm handoffs for continuity of care <ul style="list-style-type: none">- Dr. Elizabeth Salisbury-Afshar, AIR |
| 1:25 – 1:35 PM | Patient/Client Perspectives <ul style="list-style-type: none">- Juan- Shirley |
| 1:35 – 1:45 PM | Preliminary HOTR Learning Collaborative Progress: The aggregate of pre/post results <ul style="list-style-type: none">- Dr. Elizabeth Salisbury-Afshar, AIR |
| 1:45 – 2:30 PM | Individual Hospital Progress Reports (* denotes a demonstration site) <ul style="list-style-type: none">- Advocate Aurora Christ Medical Center- Cook County Health- Holy Cross Hospital*- MacNeal Hospital- Northwestern Memorial Hospital*- Norwegian American Hospital- Roseland Community Hospital- Rush University Medical Center- UI Health* |
| 2:30 – 2:55 PM | Implementation Challenges and Potential Solutions <ul style="list-style-type: none">- Dr. Elizabeth Salisbury-Afshar, AIR |
| 2:55 – 3:00 PM | Next Steps <ul style="list-style-type: none">- Elissa Bassler, IPHI |

The Hospital Opioid Treatment and Response Learning Collaborative and the 3 demonstration sites were funded by the Otho S.A. Sprague Memorial Institute.

Appendix C. Pre-Assessment Questionnaire

1. Name of Hospital: _____
2. Point of Contact for Learning Collaborative
Name: _____
Title: _____
Email: _____
Phone: _____
3. Is buprenorphine on hospital formulary?
☐ Yes
☐ No
4. If yes, is the ability to order buprenorphine to be administered in the ER or inpatient setting restricted to certain providers? (For example, limited to only a particular consult team or to waived providers)
☐ Yes
☐ No
If yes, who can order buprenorphine? _____
5. Is methadone on hospital formulary?
☐ Yes
☐ No
6. If yes, is the ability to order methadone to be administered in the ER or inpatient setting restricted to certain providers?
☐ Yes
☐ No
If yes, who can order methadone? _____
7. Is buprenorphine in the pyxis in the Emergency Department?
☐ Yes
☐ No

8. To be able to prescribe buprenorphine, a medical provider (MD, DO, NP, PA) must have a DATA 2000 waiver through the DEA. Does your hospital have any waived providers on staff?

☐ Yes

☐ No

☐ Unsure

If yes, how many? _____

9. Does your hospital have any physicians who are board certified in addiction medicine on staff?

☐ Yes

☐ No

☐ Unsure

10. If yes, do they consult in the Emergency Department setting?

☐ Yes

☐ No

11. If yes, do they consult in the inpatient setting?

☐ Yes

☐ No

12. Does your Emergency Department currently have a workflow in place for initiating buprenorphine for patients identified as having opioid use disorder?

☐ Yes

☐ In process

☐ No

13. Does your Emergency Department currently initiate buprenorphine for opioid use disorder?

☐ Yes

☐ No

If yes, how many patients have been initiated on buprenorphine in the ED the past 3 months? _____

14. Do your inpatient floors currently have a workflow in place for initiating buprenorphine for patients identified as having opioid use disorder?

☐ Yes

☐ In process

☐ No

15. Do your inpatient floors currently initiate buprenorphine for opioid use disorder?

☐ Yes

☐ No

If yes, how many patients have been initiated on buprenorphine in the inpatient setting the past 3 months? _____

16. Do your inpatient floors currently have a workflow in place for initiating methadone for patients identified as having opioid use disorder?

☐ Yes

☐ In process

☐ No

17. Do your inpatient floors currently initiate methadone for opioid use disorder?

☐ Yes

☐ No

If yes, how many patients have been initiated on methadone in the inpatient setting in the past 3 months? _____

18. Does your hospital have staff identified to support linkage to community addiction treatment providers? (Examples might be peer health navigators, social workers, etc.)

☐ Yes

☐ No

19. If yes, please describe the staff who facilitate referrals to addiction treatment providers:

What are the staff titles (recovery coach, social worker, etc.)? _____

What departments are they in (ED, inpatient floors, consult team)? _____

Total FTE: _____

20. Does your hospital currently have formal relationships with community addiction treatment providers for linkage to ongoing care?

☐ Yes

☐ In process

☐ No

If yes or in process, please describe: _____

21. Is your hospital currently an identified Drug Overdose Prevention Program (DOPP) – information about this program can be found [here](#)?

☐ Yes

☐ In process

☐ No

If yes, please include additional information on what department/division maintains the DOPP _____ status? _____

22. Does your Emergency Department have a system to allow for naloxone dispensing (meaning patients who are at risk for overdose leave the ED with naloxone in-hand)?

☐ Yes

☐ In process

☐ No

23. If yes, please explain the process: _____

24. Does your hospital currently have workflows in place to provide clinical decision support around prescribing of naloxone (examples might include EHR-initiated reminders to co-prescribe naloxone with opioid prescriptions or when a diagnosis of opioid overdose is entered)?

☐ Yes

☐ No

25. Does your hospital have an outpatient pharmacy?

☐ Yes

☐ No

26. If yes, does your outpatient pharmacy have a standing order in place to allow for naloxone dispensing without a prescription?

☐ Yes

☐ No

☐ Unsure

27. Is there a uniform protocol around giving overdose prevention education materials that can be given to patients explaining naloxone availability and how to use it? (Examples can be found [here](#))

☐ Yes

☐ No

If yes, please explain the protocol and materials used: _____

28. How many naloxone prescriptions have been written from the Emergency Department in the past 3 months? _____

29. Does your Emergency Department currently dispense naloxone kits to patients who may be at risk for opioid-related overdose (meaning actually give the patient a naloxone kit before leaving)?

☐ Yes

☐ No

If yes, please explain that process here: _____

30. How many naloxone prescriptions have been written from the hospital inpatient units in the past 3 months? _____

31. Do your hospital inpatient services currently dispense naloxone kits to patients who may be at risk for opioid-related overdose (meaning actually give the patient a naloxone kit before leaving)?

☐ Yes

☐ No

If yes, please explain that process here: _____

Areas of Interest for Learning Collaborative

We will use your responses below to build the curriculum for the upcoming Learning Collaborative meetings. Your responses will determine the topics covered at the meetings.

32. Please describe your hospital's degree of progress with regard to implementing each of the following initiatives:

	We have not had an introductory conversation on this topic	We have a few interested individuals, but no work has been done yet	Planning has started but services are not yet being delivered	We have already implemented but will focus on scaling or improving
Offering medication assisted treatment (buprenorphine or methadone) in the Emergency Department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Offering medication assisted treatment in the hospital (inpatient)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distributing naloxone kits from the Emergency Department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standardizing/automating naloxone prescribing under certain clinical circumstances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distributing naloxone kits from areas of the hospital outside of the Emergency Department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. Which of the following topics would your hospital like to discuss or focus on during the learning collaborative? Select up to 4.

- ☐ Gaining organization buy-in to implement any of these services
- ☐ Developing workflows for buprenorphine induction
- ☐ Developing workflows for methadone induction
- ☐ Developing workflows for naloxone distribution

- ☐ Best practices in opioid use disorder (OUD) management in hospital and ED settings
- ☐ Best practices in overdose prevention education and naloxone distribution
- ☐ Becoming a DOPP (specific to naloxone)
- ☐ Regulatory and legal challenges to buprenorphine, methadone and naloxone
- ☐ Training existing staff on offering care related to OUD/overdose prevention
- ☐ Hiring staff for OUD/overdose prevention related programs (what backgrounds, how to train, etc.)
- ☐ Developing linkages with community partners for ongoing OUD treatment
- ☐ Other:

34. The Learning Collaborative model is meant to build on existing expertise across the participating hospitals. Would you or someone at your hospital be willing to share experiences on how your hospital has approached any of the topics listed in the question above? If so, please let us know which topic and the point of contact at your hospital.

Topic:

Name of contact: _____

Title:

Email:

Phone:

Appendix D. Post-Collaborative Assessment Questionnaire

1. Name of Hospital: _____
2. Person who is completing this post-collaborative assessment
Name: _____
Title: _____
Email: _____
Phone: _____
3. Did you personally complete the pre-assessment for your hospital?
☐ Yes
☐ No

Medications for Opioid Use Disorder (MOUD) Access

4. Is buprenorphine on hospital formulary?
☐ Yes
☐ No
5. If yes, is the ability to order buprenorphine to be administered in either the Emergency Department or inpatient setting restricted to certain providers? (For example, limited to only a particular consult team or to waived providers)
☐ Yes
☐ No
5a. If yes, who can order buprenorphine? _____
6. Is the ability to order methadone to be administered in either the Emergency Department or inpatient setting restricted to certain providers?
☐ Yes
☐ No
6a. If yes, who can order methadone? _____
7. Is buprenorphine in the pyxis in the Emergency Department?
☐ Yes
☐ No

8. To be able to prescribe buprenorphine, a medical provider (MD, DO, NP, PA) must have a DATA 2000 waiver through the DEA. Does your hospital have any waived providers on staff?

☐ Yes

☐ No

☐ Unsure

8a. If yes, how many? _____

9. Does your hospital have any physicians who are board-certified in addiction medicine on staff?

☐ Yes

☐ No

☐ Unsure

10. If yes, do they consult in the Emergency Department setting? (This means that the ED provider can request a consult and someone with addiction medicine expertise will come to see the patient and give recommendations)

☐ Yes

☐ No

11. If yes, do they consult in the inpatient setting? (This means that the hospitalist can request a consult and someone with addiction medicine expertise will come to see the patient and give recommendations)

☐ Yes

☐ No

12. Does your Emergency Department currently have a workflow in place for initiating buprenorphine for patients identified as having opioid use disorder? (This means that a policy or workflow for the emergency department exists to start buprenorphine for patients who did not come in on it, with a goal of supporting the patient to continue buprenorphine upon discharge. We are not referring to buprenorphine being used solely for medically managed withdrawal/detoxification)

☐ Yes

☐ In process

☐ No

13. Does your Emergency Department currently initiate buprenorphine for opioid use disorder? (This means that the emergency department provider will actually start buprenorphine for a patient not already on it, with a goal of supporting the patient to continue buprenorphine upon discharge)
- ☐ Yes
- ☐ No
- 13a. If yes, how many patients have been initiated on buprenorphine in the ED in the past 3 months? _____
14. What steps has your emergency department taken toward initiating buprenorphine in the emergency department since April 2019? (Select all that apply):
- ☐ The ED developed new workflows and protocols specific to initiation of buprenorphine
- ☐ The ED implemented new workflows and protocols initiation of buprenorphine
- ☐ Increased the number of ED medical providers with a buprenorphine waiver
- ☐ Trained ED medical providers (physician, NP, PA) in buprenorphine initiation (separate from waiver training)
- ☐ Trained ED staff (other than medical providers such as RN, LPN, etc.) in identification and treatment of OUD
- ☐ The ED (or hospital) created new partnerships for MOUD continuity of care
- ☐ Other: _____
- ☐ None of the above
15. Do your inpatient floors currently have a workflow in place for initiating buprenorphine for patients identified as having opioid use disorder? (This means that a policy or workflow for inpatient settings exists to start buprenorphine for patients who did not come in on it, with a goal of supporting the patient to continue buprenorphine upon discharge. We are not referring to buprenorphine being used solely for medically managed withdrawal/detoxification)
- ☐ Yes
- ☐ In process
- ☐ No

16. Do your inpatient floors currently initiate buprenorphine for opioid use disorder? (This means that patients in an inpatient setting who have not been on buprenorphine at time of admission are actually being started on buprenorphine, with a goal of supporting the patient to continue buprenorphine upon discharge)
- ☐ Yes
- ☐ No
- 16a. If yes, how many patients have been initiated on buprenorphine in the inpatient setting in the past 3 months? _____
17. What progress has your hospital made toward initiating buprenorphine (for maintenance, not detox) in the hospital inpatient setting since April 2019? (Select all that apply):
- ☐ The hospital has developed new workflows and protocols
- ☐ The hospital has implemented new workflows and protocols
- ☐ Increased the number of hospital medical providers (physician, NP, PA) with a buprenorphine waiver
- ☐ Trained hospital medical providers (physician, NP, PA) in buprenorphine initiation
- ☐ Trained hospital staff (other than medical providers such as RN, LPN, LCSW, AODC, Recovery coaches, etc.) in identification and treatment of OUD
- ☐ Buprenorphine is now able to be ordered by a broader group of providers (in cases where it was previously limited)
- ☐ The hospital created new partnerships for MOUD continuity of care
- ☐ Other: _____
- ☐ None of the above
18. Do your inpatient floors currently have a workflow in place for initiating methadone for patients identified as having opioid use disorder? (This means that a policy or workflow for inpatient settings exists to start methadone for patients who did not come in on it, with a goal of supporting the patient to continue methadone maintenance upon discharge. We are not referring to methadone being used solely for medically managed withdrawal/detoxification)
- ☐ Yes
- ☐ In process
- ☐ No

19. Do your inpatient floors currently initiate methadone for opioid use disorder? (This means that patients in an inpatient setting who have not been on methadone at time of admission are actually being started on methadone, with a goal of supporting the patient to continue methadone maintenance upon discharge)
- ☐ Yes
- ☐ No
- 19a. If yes, how many patients have been initiated on methadone in the inpatient in the past 3 months? _____
20. What progress has your hospital made toward initiating methadone (for maintenance, not detox) in the hospital inpatient setting since April 2019? (Select all that apply):
- ☐ The hospital has developed new workflows and protocols
- ☐ The hospital has implemented new workflows and protocols
- ☐ Trained hospital medical providers (MD, DO, NP, PA) in methadone initiation
- ☐ Trained existing hospital staff (RN, LPN, LCSW, AODC, Recovery coach, etc.) in methadone initiation
- ☐ Methadone is now able to be ordered by a broader group of providers (in cases where it was previously limited)
- ☐ New partnerships with opioid treatment programs for continuity methadone treatment have been created
- ☐ Other: _____
- ☐ None of the above
21. Has your hospital improved systems to support linkage to community-based treatment since April 2019? (Select all that apply):
- ☐ Increased the number of staff who facilitate referrals to addiction treatment providers
- ☐ Provided additional training to staff who facilitate linkage to addiction treatment providers
- ☐ Developed new linkage agreements/MOUs with community addiction treatment providers
- ☐ Other
- ☐ None of the above

Naloxone Access

22. Describe the total FTE staff who facilitate referrals to addiction treatment providers:

What are the staff titles (recovery coach, social worker, etc.)? _____

What departments are they in (ED, inpatient floors, consult team)? _____

Total FTE who facilitate referrals to addiction treatment providers: _____

23. Is your hospital currently an identified Drug Overdose Prevention Program (DOPP)? Information about this program can be found [here](#).

☐ Yes

☐ In process

☐ No

23a. If yes, name the department/division that maintains the DOPP status: _____

24. Does your hospital have an outpatient pharmacy?

☐ Yes

☐ No

25. If yes, does the outpatient pharmacy have a standing order in place to allow for naloxone dispensing without a prescription?

☐ Yes

☐ No

☐ Unsure

26. Does your hospital currently have workflows in place to provide clinical decision support around prescribing of naloxone? (Examples might include EHR-initiated reminders to co-prescribe naloxone with opioid prescriptions or when a diagnosis of opioid overdose is entered)

☐ Yes

☐ In process

☐ No

27. How many naloxone prescriptions have been written from the Emergency Department in the past 3 months? _____

28. Does your Emergency Department have a system to allow for naloxone dispensing? (This means a system allowing the ED to give the patient a medication that is not administered onsite)

☐ Yes

☐ In process

☐ No

29. Does your Emergency Department currently dispense naloxone kits to patients who may be at risk for opioid-related overdose? (This means the patient leaves with a naloxone kit in-hand at discharge)

☐ Yes

☐ No

29a. If yes, how many have been dispensed in the past 3 months? _____

30. How many naloxone prescriptions have been written from the hospital inpatient units in the past 3 months? _____

31. Do your hospital inpatient services currently dispense naloxone kits to patients who may be at risk for opioid-related overdose? (this means actually giving the patient a naloxone kit before leaving)?

☐ Yes

☐ No

31a. If yes, how many have been dispensed in the past 3 months? _____

32. What progress has your hospital/ED made toward increasing access to naloxone since April 2019? (Select all that apply):

☐ Development of new protocols and workflows to encourage naloxone prescribing

☐ Development of new protocols and workflows to allow for naloxone dispensing in the ED (giving naloxone to patient at bedside)

☐ Development of new protocols and workflows to allow for naloxone dispensing in the hospital (giving naloxone to patient at bedside)

☐ Creation/identification and approval of patient education materials to be used for overdose prevention training

☐ Completion of staff training on overdose prevention education and naloxone dispensing

☐ Expansion of pre-existing naloxone dispensing program (meaning more kits being dispensed per month)

- ☐ Identification of funding to support purchase of naloxone
- ☐ Other: _____
- ☐ None of the above

Experience with HOTR Learning Collaborative

33. I feel that participating in the HOTR learning collaborative was worthwhile for my organization

- ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

34. Please describe **the extent to which you feel the HOTR LC was helpful to** your hospital in planning for, implementing, or expanding each of the following initiatives:

	The HOTR LC was not helpful in this area.	The HOTR LC was helpful in this area.	We had implemented this prior to the initiation of the HOTR LC and didn't need additional support.
Initiating buprenorphine in the Emergency Department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiating buprenorphine or methadone maintenance in the hospital inpatient setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standardizing/automating naloxone prescribing under certain clinical circumstances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distributing naloxone kits from the Emergency Department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distributing naloxone kits from areas of the hospital outside of the Emergency Department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. What tangible benefits or progress do you think resulted from your organization's participation in the learning collaborative?
36. If IPHI were to continue a learning collaborative around these topics in 2020, what support would be helpful for your institution? Select up to 4.
- ☐ Opportunity to apply for pilot grant funds
 - ☐ More one-on-one support from experts or individuals who have already implemented services (could include helping with developing/reviewing workflows or meeting with clinical leaders in your hospital)
 - ☐ Hearing from outside speakers on opioid use disorder (examples could include grand rounds presentations on why this is important)
 - ☐ Content from outside trainers (examples could include waiver trainings; etc.)
 - ☐ Additional convenings to meet with other institutions to discuss challenges and solutions that relate to implementation of OUD-related services
 - ☐ Access to legal experts to help with hospitals' legal concerns
 - ☐ Support in identifying local substance use disorder treatment providers for continuity of care collaboration
 - ☐ Other:
37. Please feel free to provide any additional comments about the HOTR Learning Collaborative you'd like to share:

Appendix E. Kickoff Meeting Evaluation Form

Meeting Objectives:

1. Provide an overview of the scope of the local Chicago and Cook County opioid problem.
2. Describe the HOTR Learning Collaborative.
3. Provide examples of clinical best practices as they relate to working with people with opioid use disorder in hospital and ED settings.

Meeting Effectiveness		5= To a Great Extent				
		1	2	3	4	5
Communication	To what extent was the communication clear?					
Discussion	To what extent was the discussion open?					
Participation	To what extent did I say or contribute what I thought was important to achieving our objectives for this meeting?					
Effectiveness	Overall, how effective was the group in meeting its objectives during this meeting?					
Value	How valuable was this meeting for success of the overall Learning Collaborative?					
Satisfaction	Overall, how satisfied were you with today's meeting?					

Additional Comments or Needs

Appendix F. Clinical Team Meeting Evaluation Forms

Please rate your level of agreement with the following statements:

	Strongly Agree 1	Agree 2	Neither agree or disagree 3	Disagree 4	Strongly disagree 5	Not applicable
1. The content was relevant.						
2. The information was presented at an appropriate level.						
3. The handouts were useful.						
4. I have an increased understanding of how to implement changes at my institution based on today's meeting.						
5. The meeting provided new information.						
6. The information presented will affect delivery of OUD treatment and/or overdose prevention services in my hospital in some way.						
7. I have a good understanding of the steps I need to take to expand OUD-related services at my institution.						
8. There was enough time to talk to people from other clinics/systems.						
9. I would recommend this meeting to someone at my institution or someone in a similar position at another institution.						
10. The meeting met the objectives.						
Answer the following Questions						
11. My ability to implement or scale the services discussed today will likely be limited by:						
12. What did you find most useful about the collaborative meeting?						
13. What did you find least useful about the collaborative meeting?						
14. What information do you wish would have been covered that was not presented?						

Additional Questions: May Clinical Team Meeting

Based on the pre-assessment responses, **in July we will be discussing delivery of MAT** (buprenorphine, methadone) in ED and hospital settings. Specifically, we will talk about:

- a. Best practices in OUD management in ED and hospital settings
- b. Developing workflows for buprenorphine initiation (induction)
- c. Regulatory and legal challenges to dispensing/prescribing buprenorphine and/or methadone in hospital/ED.

- 15. Are there specific areas within this category that you specifically would like to cover?
- 16. Are you (or is anyone else in your institution) interested in presenting specifically on one of these topics? If so, you can either list your name and the topic below, or you can email us separately (hdepatie@air.org) to keep this evaluation anonymous.

Additional Questions: July Clinical Team Meeting

- 15. Are there specific areas within this category that you specifically would like to cover (whether they are those listed or something else)?
- 16. Are you (or is anyone else in your institution) interested in presenting specifically on one of these topics?

Additional Questions: September Clinical Team Meeting

- 15. What specific topics would you like to cover at the final working group meeting?
- 16. Please describe whether you think it would be helpful to have time to discuss as a group the existing system-level barriers (payment structures, stigma, etc.) that will make implementing and sustaining this work challenging. The outcomes of this conversation could be presented back to the full group (including hospital leadership and state leadership) during the closing meeting on December 16th.
- 17. What can we do to help you encourage senior-level leadership from your hospital to attend the December 16 meeting? Our hope is that by attending and having each of you share successes, this will help to continue to build momentum across Chicago-based institutions.

Additional Questions: November Clinical Team Meeting

- 15. What can IPHI do to increase the participation of hospital leadership at the December 16 meeting?
- 16. Given that hospital leadership and external partners will be attending, is there anything in addition to what was discussed today that you feel should be included in that meeting?

Appendix G. Closing Meeting Evaluation Form

Meeting Objectives:

1. Describe the opioid crisis locally and how hospital-based care is part of the solution
2. Describe evidence-based services that can be delivered in hospital settings that reduce opioid-related risks
3. Learn about the progress of participating hospitals
4. Discuss identified barriers and possible solutions

Meeting Effectiveness (1 = To a Great Extent)		1	2	3	4	5
Communication	To what extent was the communication clear?					
Discussion	To what extent was the discussion open?					
Informative	To what extent did I learn about the key findings of the learning collaborative? ?					
Effectiveness	Overall, how effective was the group in meeting its objectives during this meeting?					
Value	How valuable was this meeting for describing the success of the overall Learning Collaborative?					
Follow-up	To what extent am I clear on next step priorities to advance this work in my institution and/or as a public health system?					
Satisfaction	Overall, how satisfied were you with today's meeting?					

Additional Comments or Needs

Appendix H. Challenges and Potential Solutions



Hospital Opioid Treatment and Response Learning Collaborative Challenges and Potential Solutions

Over the course of five learning collaborative sessions in 2019, members of the Hospital Opioid Treatment and Response Learning Collaborative have discussed barriers and challenges they have encountered while implementing initiatives related to naloxone dispensing and initiation of medication for opioid use disorder (MOUD). This document includes a summary of the challenges and proposes potential solutions based off the conversations during the learning collaborative.

Naloxone Dispensing from Emergency Department and Inpatient Settings

Naloxone saves lives. Individuals who have survived an overdose or are at risk for overdose should receive education on overdose prevention and naloxone. Because many individuals who are at risk for overdose do not go to the pharmacy to fill a prescription (estimates from a local study found less than 20% go to the pharmacy to pick up the medication), we recognize that dispensing naloxone at the bedside should be standard of care. Two primary concerns have been raised with regard to dispensing naloxone from hospital settings.

Reimbursement for services

Identified challenges:

- The greatest challenge noted by participating hospitals was the inability to bill for medications that are dispensed, as opposed to medications that are administered. Hospitals have worked to identify creative solutions to this challenge- often including securing donated medication, utilizing charity care programming, or utilizing outpatient pharmacies that are on-site. These individual solutions are hard to scale and may not be sustainable, depending on the hospital structure.
- One challenge raised is that there is no reimbursement mechanism to pay for the staff time dedicated to providing overdose prevention education or the cost of the medication itself. Many providers feel that they don't have the bandwidth to provide the overdose identification and response education that is recommended when dispensing naloxone. Provision of these services require time from a team member (could be a nurse or social worker), but since none of the services are reimbursable, this can be a challenging service to consistently deliver.

Possible Solutions:

- Illinois could offer central purchasing with a grant-based/donation program to hospitals that are willing to dispense naloxone to individuals at risk for overdose. New York City has taken this approach, utilizing public funds to purchase the medication.
- Consider Illinois legislation that would allow for alternative billing mechanisms, similar to the voucher program that was created to allow hospitals to give "sexual assault post-exposure prophylaxis kits," which provide emergency medications to prevent infection transmission after rape.

Legal concerns with regard to dispensing medication

Identified Challenges

- Some hospital legal departments have been unclear as to whether they are allowed to dispense any medication, and how to do so under Illinois Administrative Code Section 1330.530: Onsite Institutional Pharmacy Services, subsections (b)(1-3), (c)(3), (e)(4). This subsection lists specific medications that can be dispensed from the emergency department during hours when an outpatient institutional pharmacy is not available and includes: “inhalers, ophthalmic, otics, etc.”
- Multiple challenges have been identified with regard to storage of medication, labeling requirements, and record-keeping requirements for dispensed medications per Illinois Pharmacy Practice Act.

Potential Solutions

- Illinois Administrative Code Section 1330.530: Onsite Institutional Pharmacy Services, subsections (b)(1-3), (c)(3), (e)(4) could be updated to also include “overdose antidote” or other specific mention of naloxone.
- Illinois Pharmacy Practice Act could review and provide guidance to hospitals on allowable ways to store, label, and keep records for medications being dispensed.

Initiation of Medication for Opioid Use Disorder (MOUD) from Emergency Department and Inpatient Settings

Although offering medication for treatment of opioid use disorder is increasingly becoming standard of care, delivering these services in hospital settings is a relatively new practice, and one in which a very small proportion of providers in health systems are familiar. There are significant training needs, ranging from stigma reduction across all clinicians in hospitals to more technical training on how these medications work and how to coordinate services upon discharge. Training clinicians in a hospital at this scale requires substantial investment on behalf of the institution.

Many hospitals across the country are addressing this need through the development of consult teams, but there is concern about whether existing reimbursement mechanisms will adequately support such consult teams.

Finally, initiation of treatment in an emergency department or inpatient setting should include linkage to community-based treatment, which has been challenging for many health systems to navigate.

Staff Training

Identified Challenges:

- Because most health professionals received little if any training on addiction or addiction treatment during their education, there are significant training needs for all professional staff in hospital settings. Nurses, social workers, physicians, nurse practitioners, and physician assistants should all receive some training in stigma reduction, addiction and addiction treatment in preparation for rolling out workflows and processes around initiation of MOUD. Training this many staff is challenging and removing people from clinical duties to complete trainings is a significant cost to institutions.
- Additionally, to be able to prescribe buprenorphine via prescription, physicians have to complete a mandatory 8-hour training (NPs and PAs have to complete an additional 24 hours), which serves as an additional cost for hospitals that are supporting providers to complete this training. Training plans include both the cost of the trainers' time, in addition to the costs associated with having clinicians complete the trainings. This upfront cost is one that not all hospitals have been able to absorb.

Potential Solution

- Provide expert training and technical assistance to interested hospitals, and simultaneously provide financial support (through grants) to hospitals to offset the cost of sending clinicians to trainings.

Reimbursement for the delivery of MOUD initiation and Linkage

Identified challenge:

- Hospitals then must identify ways to deliver these services in a financially sustainable way. Some hospitals have made the decision to invest in consult teams- teams that can be called upon to provide expert consultation, initiate MOUD, and support linkage to ongoing care. The challenge is this model is that the reimbursement directly related to these services is typically not sufficient to support the cost of the team. Multiple institutions around the country have looked at downstream cost savings through reduced readmissions, etc. but there is not clear consensus at this time as to how these teams can be made cost neutral. Additionally, the payer base at any given institution will directly impact reimbursement and any cost saving opportunities. Not all health systems are able to provide the up-front investment in these teams, or to ensure that they could maintain the ongoing cost of supporting such a team.

Potential Solution:

- Long-term solutions to this challenge should include Medicaid reimbursement restructuring to provide incentives for screening for OUD (and all substance misuse), initiating/providing MOUD treatment in the hospital setting, and linkage to ongoing care. The ability to bill for recovery coach/peer support specialists is another critical component of reimbursement models, as these roles are increasingly being used in emergency department and hospital settings.

Timely and Efficient Linkage to community MOUD

Identified Challenge:

- Once individuals have been initiated on MOUD from the emergency department or the inpatient setting, they should be offered the opportunity to continue treatment upon discharge. While there are community-based programs that have some capacity, most only make appointments during regular business hours, and few programs have the ability to guarantee they will see someone any day of the week at any time to be able to continue MOUD treatment. Since many patients in the emergency department are there outside of regular business hours, this leaves little time for discharge planning and linkage to care. Emergency departments in particular have shared that what they would like/need is a single place to be able to refer any patient (regardless of insurance status) where they know that the provider would see the individual and continue MOUD treatment services if the patient comes in.

Potential Solution:

- Hospitals identify several community-based programs that could serve as “bridge clinics” and allow for follow up from any hospital setting. The goal of these clinics would be to provide an intake assessment, continue medication treatment, and work with the individual to determine where they could go for ongoing care- ideally allowing for walk in access so people could come at any time of day and be seen. Ideally, these clinics could serve as broader “drug user health clinics” that could provide a variety of social and medical services to reduce emergency department utilization and improve linkage to community-based programs.

Housing Access

Although not the focus of this Learning Collaborative¹, housing instability has continually come up as an exacerbating factor that relates to increasing risk for individuals who use opioids, challenges related to hospital discharge, and linkage to ongoing services. Many recovery homes in Chicago continue to prohibit individuals who use medications for opioid use disorder from receiving recovery home services. Similarly, there is a need for more “housing first” programs that provide housing to individuals who are actively using substances. There is a need for more flexible housing first models, in addition to increased access to recovery homes that will support people who are using medication as part of their recovery.

¹ Housing is a priority of the Alliance for Health Equity, and IPHI staff will work with hospitals and other partners to support connections between the AHE housing workgroup and the Hospital Opioid Treatment and Response Learning Collaborative.



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