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The work conducted under the Hospital Discharge Innovations to Improve Care Transitions (HDIICT) grant was made possible with funding from the District of Columbia Department of Health Care Finance (Grant #DHCF-Hospital Discharge-2018-A). This report reflects the interpretation of the information collected over the last six months through the project and does not necessarily represent the official views of the Department of Health Care Finance.

We greatly appreciate the time and substantive contributions of our grant partners, who answered our questions about their work and provided a richer contextual understanding of the utility of the discharge planning and care coordination process. We want to thank the following organizations and individuals for their contributions to the grant.

**Department of Health Care Finance**
- Dr. Erin Holve, Ph.D., MPH, MPP, Director, Health Care Reform and Innovation Administration
- Joe Weissfeld, Senior Project Manager, Health Care Reform and Innovation Administration
- Noah Smith, MPH, EMT, Program Manager, Health Information Technology & Exchange

**District of Columbia Hospital Association**
- Care Coordination Workgroup

**HDIICT Grant Partners**
- BridgePoint Healthcare
- careMESH
- DCHA Program Services Company, Inc.
- District of Columbia Primary Care Association
- The George Washington University Hospital
- McClendon Center
- Zane Networks
Executive Summary

The Hospital Discharge Innovations to Improve Care Transition (HDIICT) grant sought to assess and address the complex and challenging aspects of the discharge planning process in hospitals that provide acute care, emergency care, long-term acute care, and other core services in the District of Columbia. The goal was to improve the quality, timely availability of discharge data and completeness of discharge summary for care coordination.

STAKEHOLDER ENGAGEMENT

Through engagement of stakeholders we learned that there is a lack of communication among health care providers across facilities in both the discharge planning and coordination of care process. Additionally, those who were interviewed or responded to surveys reported considerable variation in the type of data shared, depending on the mode of transmission and the facility that patients visited. For example, a facility may send discharge summaries, but the receiver may not receive the record as expected.

EMERGENCY DEPARTMENT NAVIGATOR PILOT

As part of the grant, an emergency department (ED) Liaison was integrated into the GWUH emergency department to work with all patients presenting for low acuity and non-emergent (LANE) visits. The ED Liaison’s focus is on discharge planning, transition of care, and patient education; providing all patients presenting for LANE ED visits with education on appropriate ED use. Also, the ED Liaison in conjunction with GWUH Case Management and Social Work teams, employ the use of evidence-based practice to provide discharge options to patients, identify and create plan of care for managing high utilizers of ED services, and improve patient outcomes by ensuring safe transitions to post-acute care facilities or home health.

TECHNICAL ISSUES IDENTIFIED

A goal of this grant was to improve the timeliness of electronic data being available to ambulatory providers after discharge from an emergency department or the District’s LTAC. To accomplish this goal, the team performed an analysis of the technical capabilities of UMC, GWUH, and Bridgepoint to understand technical deficiencies or other challenges preventing the timely exchange of electronic summaries of care. Not surprisingly, we found that the technical issues preventing quick exchange varied. The report highlights technical challenges that need to be addressed in future work.
OPPORTUNITIES FOR FUTURE PLANNING

- **Organizations Should Thoughtfully Consider All of Their Interoperability Options.** While it is clear from the grant that there is no single technical workflow that can be applied to all healthcare organizations, it is also clear that there are multiple solutions on the market that will more easily enable the sharing of electronic data between EHRs. Healthcare organizations have many options when it comes to data exchange and should thoroughly explore their options before committing to a specific interoperability method.

- **Policies That Slow Down Electronic Sharing of Discharge Data Should be Re-Evaluated.** Healthcare organizations must consider how they can facilitate electronic data exchange directly with the next provider of care - where data is not shared into a general HIE portal but is still available to a provider for care coordination purposes. Since this data is already being shared, it is not a significant policy change to share data with a provider in addition to the patient. One of the reasons for the delay in electronic data being shared with CRISP and the next point of care is that providers have 30 days to finalize and sign encounter notes. Hospitals are understandably concerned about potential patient harm that could occur by sharing unfinalized data with the next provider of care. New ways to deliver this information must be identified.

- **Development of a standardized Care Coordination Data Set.** The development of a standard data set is critical to the transmission of the necessary medical information needed by a receiving provider. Further, the next in-depth review will revolve around the completeness and variability of the data received/sent to the HIE to inform the work of the HIE Policy Board.
Introduction

The HDIICT grant sought to assess and address the complex and challenging aspects of the discharge planning process to assist in reducing preventable utilization of services, improve patient experience, and quality of care.

DCHA Program Services Company, Inc. was tasked with proposing innovations that would:

- Improve the quality and timeliness of discharge summaries and structured clinical and encounter data such as continuity of care documents (CCD) and ensure the timely receipt of discharge information by providers assuming care for the patient;
- Utilize new technology effectively, including health information exchange (HIE) tools, such as the CRISP Patient Care Snapshot; and
- Advance team-based care models that focus on integrating new discharge planning and care transition protocols in the hospital setting and coordinate with external provider networks and existing initiatives such as My Health GPS.

During the grant period, we found that care coordination necessitates a robust discharge planning process and team-based care supported by an efficient technology process. This collaboration can help in the timely transmission of health information and can assist in the mitigation of low acuity emergency room visits, preventable admissions, and 30-day hospital readmissions. This effort should be considered a start, and by no means a complete solution. Over the last six months, the grant team completed workflow analyses, group meetings, site visits, and conducted online surveys to understand the discharge process as well as the flow of information. Throughout the process, we discovered unexpected challenges that will help inform the work of grants that follow this one, especially the connectivity funding.

Review of care transitions from hospitals to other facilities revealed a perceived lack of communication, data inconsistency, and the absence of a followed plan for appointments. Some of the technical difficulties that presented were not surprising; however, there were challenges in varying complexity among facilities that were not anticipated and resulted in delays.

This final report summarizes what we learned through our work, specifically, three of our discoveries and recommendations for the future. This includes timeliness, the transmission of discharge information and education of providers regarding the procurement of an EHR.
For this project, a mixed-methods approach was adopted to dive deeper into the issues and gaps in the discharge process as well as technical challenges. This entailed an active process that involved key partners – DCHA Program Services Company, Inc. (DCHA), The George Washington University Hospital (GW), Zane Networks, McClendon Center, DC Primary Care Association, BridgePoint Healthcare, and careMESH. The research methods used for this grant included SurveyMonkey, group discussions, workflow reviews, and discharge summaries to comprehend the level of adjustments in technology and human workflows.

The pre-pilot survey was an active process that involved several individuals – the discharge team, IT, and other healthcare staff. Our design was based on the understanding that hospital discharge is a process that begins once a patient is admitted to the hospital and carries on throughout their stay and after being discharged. Our survey was co-produced through engagements with hospital staff, DHCF, and grant partners in creating the study design. Members of the care coordination workgroup, including managed care organizations (MCOs), federally qualified health centers (FQHCs), hospital senior staff, and discharge planners. The survey was divided into hospitals and non-hospitals/ambulatory settings and asked a total of 57 questions, including 11 open-ended and 42 multiple choice questions grouped into five categories:

- Demographics
- Discharge planning
- Communication
- Technology (notification and follow-up)
- Care Coordination

Regarding the post-pilot evaluation, the survey was designed to evaluate the pilot phase of the discharge planning of participating health care facilities in the District. The essential areas were the emergency room, outpatient services including primary care and community health centers, skilled nursing facility (SNF), and long-term care (LTAC). The process for this survey involved key individuals – discharge team, IT and other health care staff. The survey methods used included SurveyMonkey, group discussions, workflow analysis, and discharge summaries to highlight progress towards efficiency, quality, timeliness, and completeness of discharge summary data. Our design was mainly based on the findings from the initial survey and opportunities for change and improvements. The survey was created from the metrics that were endorsed by our partners, including the DC Primary Care Association (DCPCA), hospital senior staff, and discharge planners representing DC hospitals and grant partners through weekly meetings. Members of the care coordination workgroup, including managed care organizations (MCOs), federally qualified health centers (FQHCs), hospital senior staff, and discharge planners that represent DC hospitals.
Additionally, the workflow analysis and emergency department pilot were informed by:

- Face-to-face meetings and conference calls with GWUH (IT, Case Management, Nursing, Leadership and ED Liaison) – 31;
- Health Center meetings and site-visits (24 meetings and 11 site visits) – 35;
- Meetings with McClendon Center – 4;
- Meetings with CRISP – 2;
- Meetings with Healthcelerate – 2;
- Group discussions with partners via weekly meetings;
- Three special meetings with 13 DCHA Care Coordination workgroup members; and
- Review of regulatory requirements for discharge summary elements.
Learning & Insights

Stakeholder Engagement

As discussed above, DCPSCI conducted a pre-grant survey to better understand the flow of information and barriers to streamline care transitions. This investigation helped inform the questions considered during the grant as well as identify issues for improvement. Of the issues identified by respondents, it was clear that communication was an issue everyone had an interest in improving. Key findings of the survey included:

- Lack of communication among health care providers across facilities in both the discharge planning and coordination of care process.
- Discharge planning is highly personalized (including both patients and family members).
- Great variation in the type of data shared depending on the mode of transmission and the facility that the patient visited. For example, a facility may send discharge summaries, but the receiver may not receive the record as expected.
- Inconsistency in the information. Even with extensive coordination and communication before admission, there are times when some of the information preceding admission do not make it to the necessary care providers.
- Barriers that hospitals experience include lack of an emergency care plan for the patient (e.g. telephone number the patient should call first and lack of information that helps patient/family coordinate needed services).
- Confusing or contradictory written discharge instructions that are not tailored to a patient’s level of health literacy or current health status.
- Commercial insurance payers not involved with post-acute discharge planning while patient is in the hospital setting to facilitate care coordination.
Learning & Insights (Cont.)

**Stakeholder Engagement**

**Hospitals: What type of data is being sent during the transition of care to the follow-up provider?**

- **Reason for hospitalization, including information on disease/condition**: 44%
- **Medications to be taken post-discharge, including, as appropriate, resumption of pre-admission medications**: 44%
- **Self-care activities such as diet, activity level or limitations, weight monitoring**: 33%
- **Identify DME/supplies that patient will need for care**: 33%
- **Coordination for follow-up of test and studies for which confirmed results are not available at the time of discharge**: 33%
- **Community resources patient with utilize, such as home health care, Meals on Wheels, adult day care, PT, OT, ST, SDOH**: 22%
- **All of the above**: 33%
- **Don’t know**: 33%
- **Other**: 22%
Non-Hospitals: Regarding the discharge summary data, what type of data do you receive?

- Reason for hospitalization, including information on disease/condition: 73%
- Medications to be taken post-discharge, including, as appropriate, resumption of pre-admission medications: 67%
- Self-care activities such as diet, activity level or limitations, weight monitoring: 20%
- Identify DME/supplies that patient will need for care: 13%
- Symptom recognition and management – What to do if the patient has a question or a problem: 20%
- Coordination and planning for follow-up appointments: 40%
- Coordination for follow-up of test and studies for which confirmed results are not available at the time of discharge: 7%
- All of the above: 7%
- Don’t know: 0%
- Other: 40%
GWUH’s commitment to, as part of the grant, integrate an ED Case Manager and Case Manager Assistant to assist in the coordination and warm hand-off of the patient to follow-up care, led to a partnership with DCPCA/DCCCN. DCPCA worked with GWUH to develop workflows and solidify processes for the placement of an ED Liaison role for purposes of improving discharge planning and transitions of care. Significant outcomes are as follows.

**Integration of ED Liaison into GWUH**

An emergency department (ED) Liaison has been integrated into GWUH emergency department to work with all patients presenting for low acuity and non-emergent (LANE) visits that are attributed to one of the seven (7) FQHCs in the city. The ED Liaison’s focus is on discharge planning, transition of care, and patient education; providing all patients presenting for LANE ED visits with education on appropriate ED use. Also, the ED Liaison in conjunction with GWUH Case Management and Social Work teams, employ the use of evidence-based practice to provide discharge options to patients, identify and create plan of care for managing high utilizers of ED services, and improve patient outcomes by ensuring safe transitions to post-acute care facilities or home health (see workflow on the next two pages).
Emergency Department Navigator Pilot

**Hospital Based Team**

**FQHC Based Team**

**ED Liaison/TOC Lead:**
- Identify target patient
- Engage patient during bedside visit:
  - Patient contact information
  - Brief TOC barrier assessment
- Serve as information source to inpatient team

**ED Liaison/TOC Lead:**
- Med/Reconciliation
- Addresses identified TOC barriers
- Schedules PCP appointment
- Transmits TOC information to PCP
- Increase awareness of community based services

**ED Liaison TOC Lead:**
- Telephone TOC review within 2 days of hospital discharge

**PCP Team:**
-Clinic visit within 7 days of discharge

**PCP Team:**
- Communicates w/patient re: Home Health, Rx, etc. as determined by PCP Team

**PCP Team:**
-Continues Case Management

**Hospitalization**
**Discharge**
**7 Day Post Discharge**
**30 Day Readmission Period & Beyond**
Emergency Department Navigator Pilot

ED Liaison Workflows at GWUH

NURSE & CARE MANAGEMENT

- START
- Access Points:
  - CRISP
  - Meditech

Registration by front desk staff and triage by Nurse
Primary intake by Nurse in treatment space (includes initial nurse & SDCH assessment)
Screening to determine appropriateness for admission

Provider assigned to evaluate patient
Diagnostic tests (lab, x-ray, etc.) ordered

Inpatient treatment warranted?

Yes
Admit to general medical ward or ICU

No
Provider/Nurse gives care plan, patient education, FQHC resources to patient.

Clinical Care team collaborates to finalize care plan (same,next day appt., home health, etc.)

ED Liaison discusses TOC care plan, IDOH resources and scheduled appts.

END

ED QUALITY

Access Points:
- CareWorks

If initial screening determines no IP treatment warranted, ED Liaison engaged.

Collaborates with FQHC to verify PCP and determine access for F/U care

ED Liaison works with Program Manager to acquire & share Of patient data

SOCIAL WORK & PSYCH

Access Points:
- Center

Social Work or Psych engaged (ad hoc) following assessment triggers
Further assessments completed and sent to provider

TCC needs, e.g., psych consult, housing needs, etc. communicated to clinical care team & ED Liaison

CONFIRM

Access Points:
- CRISP
- Meditech

ED Liaison works with Program Manager to acquire & share Of patient data

Collaborates with ED Liaison to verify PCP and determine access for F/U care

ED Liaison discusses TOC care plan, IDOH resources and scheduled appts.

END

Documents in Care & CRISP?
Documents in eClinicalWorks?
Learning & Insights (Cont.)

Emergency Department Navigator Pilot & Technical Issues

Direct messaging for sharing discharge plan

GWUH implemented the use of Direct messaging for sharing a discharge plan with the attributed provider upon discharge. The ED Liaison has read-only access to Cerner and access to eCW for scheduling follow-up appointments with Health Centers in Network. The use of Direct messaging will be critical to ensuring that discharge information is shared as close to discharge as possible. A discharge plan will be uploaded to CRISP when provider notes are complete.

Streamlining scheduling processes with health centers

One of the recommendations from the preliminary survey for this project was the need for a point of contact (POC) and established relationships at other facilities. DCPCA identified a key POC at each Health Center for the purposes of scheduling follow-up appointments for patients presenting in the ED for LANE. While the ED Liaison does have access to the Health Center’s eCW for scheduling and capability to document telephonic encounters, there is a concerted effort to develop the relationship between hospital staff and the Health Centers to ensure warm hand-offs and a smooth discharge planning process is achieved.

Technical Issues

A goal of this grant was to improve the timeliness of electronic data being available to ambulatory providers after discharge from an emergency department or the District’s LTAC. The primary focus was on exchanging Consolidated Clinical Data Architecture (C-CDA) documents (discharge summaries or continuity of care documents (CCDs) with ambulatory providers to enable data to be easily imported into a patient’s chart. To accomplish this goal, the team performed an analysis of the technical capabilities of UMC, GWUH, and Bridgepoint to understand where there may be technical deficiencies or other challenges preventing the timely exchange of electronic summaries of care. Not surprisingly, the technical issues preventing quick exchange varied across organizations due to variations in their technical vendors and policies related to the use of their technology. Below, we have highlighted technical challenges for each of the three primary discharging organizations.
**Technical Issues**

**The George Washington University Hospital – Discharge Feed**

GWUH is currently using Cerner’s 2015 Edition[1] EHR and has an HL7 connection with CRISP which sends CRISP ADTs (upon discharge), lab results (when available), radiology results (when available), and a discharge summary (when the encounter is finalized/signed by an attending). Note that this discharge summary is not the C-CDA; it is an HL7 message which makes the data available in the CRISP portal but does not allow for it to be easily added to an ambulatory provider’s EHR. While some of GWUH’s departments are sending C-CDAs to CRISP to be shared via the portal and the Encounter Notification System (ENS), the ED is not sending these documents.

GWUH does generate two copies of the C-CDA; one that is printed and given to patients upon discharge for them to hand-deliver to their next provider of care, and the second a more clinical document that is provided to the patient to share with their clinician. That C-CDA is in the patient chart, but the data has not been finalized, meaning that the provider has not signed the encounter to indicate that all information is final and accurate. As a teaching hospital, GWUH often has residents entering data into the patient chart that must be reviewed by an attending to verify accuracy. This process may take up to 30 days, making a final C-CDA unavailable upon discharge. GWUH does not electronically share this unfinalized C-CDA with CRISP.

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[1] 2015 Edition refers to ONC’s certification program for health IT modules. 2015 is the current Edition that all providers and health systems are required to use by CMS in 2019 to participate in the Promoting Interoperability program.
### Technical Issues

#### The George Washington University Hospital – Radiology Image Study

As part of the Discharge Grant, GWUH agreed to evaluate the feasibility of transmitting radiology images via CRISP instead of just the written reports currently sent. This project overlapped with work CRISP and GWUH were already preparing to undertake. The preliminary work was completed in September, and additional work has been conducted through October. The team assessed current GWUH IT Infrastructure to determine the ability to host designated servers and completed multiple system build questionnaires and discussed technical key points. After reviewing the proposed system design and discussed recommendations, the simulation/demo of the future state of image data transmission occurred at the end of the month. GWUH intends to commence building the configuration and release the service in November.

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**Diagram:**

- **PACS**
- **DICOM**
- **eHealth Gateway**
- **EHR/ RIS**
- **VPN**
- **Other Imaging Provider Locations**

**Text:**

- **Deploying Image Sharing For George Washington University Hospital**
- **HIE User Community**
- **Share, View, Compare & Transfer Diagnostic Quality Medical Images**
- **eHealth® Connect Image Exchange Components Shown in Gold**
Learning & Insights (Cont.)

Technical Issues
United Medical Center

United Medical Center (UMC) is using Meditech and has upgraded to the 2015 Edition version. Currently, UMC sends ADTs to CRISP when a patient is discharged. They also send a C-CDA to CRISP using Direct when a patient is discharged. This is automatically triggered when a discharge nurse clicks the discharge button. It is currently unclear how consistently discharge nurses are clicking this button in coordination with the patient leaving the ED.

Current Unknowns

1. It is unclear if the discharge button is being clicked consistently when the patient leaves.
2. It is unclear what data is included in the ADT message.
3. It is unclear what data is included in the C-CDA.
Technical Issues

BridgePoint Healthcare

The initial plan for BridgePoint’s LTACH and SNF facilities to CRISP in order to send and receive patient data from CRISP. careMESH identified that the best options were through the HCS and PointClickCare (PCC) EHRs used at BridgePoint’s LTACH and SNF facilities. However, because neither of the BridgePoint EHRs are 2014/15 Certified EHR technology, the connection to CRISP had to be completed through an interface rather than a simple record export.

To facilitate data exchange of both ADTs and C-CDAs, Bridgepoint engaged Kno2. Kno2 is an interoperability vendor that has a partnership with HCS, as well as several other EHR vendors from the LTACH and behavioral health space. Kno2 enables ADT messages to be sent from HCS to CRISP when an encounter is closed. Additionally, via Kno2, C-CDAs will be available via the Carequality network. Since CRISP participates in Carequality, any provider who queries CRISP for a C-CDA for a patient who was at Bridgepoint will be able to obtain a C-CDA in real-time. The C-CDA connection to Carequality is currently being built and will be available in the first quarter of 2020.

Additionally, this work will be transitioned over to the DC HIE Connectivity grant to continue the integration of Bridgepoint’s Skilled Nursing Facilities via their Point Click Care EHR to CRISP. The discharge grant supported the subscription and fees for the PCC/BridgePoint connection. The transitioned work will create a comprehensive, integrated network that fosters care transitions post-discharge to a secondary acute or post-acute care facility. CRISP currently has an active interface with PPC’s hub that would hasten the connectivity of LTC facilities to the core HIE grantee, and Kno2 also has an active interface with PPC and with CRISP. The hospital discharge grant provided several connectivity pathways for healthcare provider organizations to connect and leverage the HIE investments made by DHCF.

McClendon Center

McClendon Center is responsible for helping patients transition from the inpatient psychiatric hospital to the community and follow-up care as a Core Service Agency in the District. For purposes of this grant, the goal was for McClendon to more easily receive discharge information electronically to help them better coordinate the care of their patients. Currently, McClendon does receive ADT notifications via CRISP and utilize an EHR from Credible. Credible is certified to the 2015 Edition, but McClendon has not used the interoperability components of the software up to this point. Currently, the connection of their EHR is too costly to connect to CRISP; instead, the grant supported the activation of Direct messaging in their platform, which will allow them to receive discharge summaries through the tool. The connectivity grant is slated to continue the work with McClendon Center and other CSA’s as they evaluate the best options for connecting behavioral health providers to CRISP.
Discharge Data Elements

Part of the grant deliverables was the identification of variables that should be transmitted to providers to assist in the patient’s transitions of care. For this grant, we will refer to this set of variables as the transitions of care dataset. Throughout the grant we surveyed providers and convened stakeholders to determine a recommended dataset. Incorporating provider feedback as well as regulatory requirements, the lists below constitute the recommended transitions of care dataset. We’ll discuss the recently released CMS Discharge Regulations below in Opportunities for Future Planning.

Definitions
1. CREU: CRISP Response and Engagement Unit responds to patient in real time with the goal to meet them in ER while client is still there.
2. ERIP: Emergency Room Intervention Plan describes what patient will do to prevent ER visits in the future.
### Technical Issues & Transitions of Care Data Elements

<table>
<thead>
<tr>
<th>Comparison Info</th>
<th>The Joint Commission</th>
<th>CMS COP &amp; Proposed</th>
<th>National Quality Forum</th>
<th>Discharge Planning Survey/Most Useful Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hospitals</td>
<td>Non-Hospitals</td>
<td></td>
</tr>
<tr>
<td>Past medical history (i.e., known allergies including to medications, demographics, immunizations, smoking status, vital signs, functional status, behavioral health)</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Current treatment plan (i.e., goals, treatment preferences)</td>
<td>*X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Post-discharge needs</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Medications (i.e., Reconciliation, medications sent home and what pharmacy was used)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Provisions for follow up care (i.e., Plans for care, Rehab notes including initial assessment that reviews patient prior living status)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>Follow-up appointments (i.e., discharge appointments made prior to discharge, specialists, contact information of the practitioner responsible for the care of the patient)</td>
<td>*X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Who to contact with questions/concerns post hospitalization before follow-up with PCP</td>
<td></td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>Education/Information given to patient (i.e., special instructions or precautions, social supports, community resources or referrals made, information provided to the patient and family)</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Reason for hospitalization (including reason, diagnosis)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Lab tests and results of pertinent laboratory and other diagnostic testing (including new dialysis, pre/post dialysis labs for first treatments, consult results)</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Brief summary of hospitalization (i.e., procedures performed; care, treatment &amp; services provided)(History/Physical of all consults - Last three days of progress note)</td>
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<td>X</td>
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<tr>
<td>The patient’s condition and disposition at discharge (include physical and psychosocial status)</td>
<td>X</td>
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<tr>
<td>The patient's progress towards goals</td>
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<tr>
<td>Advance directive information</td>
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<td>Unique device identifier(s) for a patient's implantable device(s), if any (**CMS proposed only)</td>
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</tr>
</tbody>
</table>

*For hospitals that use TJC accreditation for deemed status purposes and have swing beds
Opportunities for Future Planning

The work conducted over this grant has led to some insights and recommendations for the future. In this section we will highlight what we learned and how it can inform future work of the District as well as providers. The goal of the future work will need to include a thoughtful consideration of opportunities to improve interoperability among providers and helping providers to re-evaluate policies that may slow down electronic sharing of discharge data. Most importantly, the District will need to coalesce around an established expectations for a standardized care coordination data set. This will assist in improving the coordination of care outcomes. Finally, it will be important to continually evaluate the interventions being implemented in our emergency departments to ensure that communication between providers is occurring and that we are continuing to see positive outcomes.

Organizations Should Thoughtfully Consider All of Their Interoperability Options

While it is clear from the grant that there is no single technical workflow that can be applied to all healthcare organizations, it is also clear that there are multiple solutions on the market that will more easily enable the sharing of electronic data between EHRs. Healthcare organizations have many options when it comes to data exchange and should thoroughly explore their options before committing to a specific interoperability method. The interoperability methods found during the grant included:

- Implementing of Direct Messaging from EHR vendor or a third-party vendor
- Developing a connection directly to CRISP from EHR vendor via 1) HL7 interfaces or 2) Direct messaging
- Evaluating a connection to CRISP via a third-party interoperability vendor that partners with the EHR vendor
- Utilization of a national network (Commonwell or Carequality) via the EHR vendor
- Connecting to a national network via a third-party interoperability vendor that partners with the EHR vendor

Each of these options comes with a different price point for healthcare organizations and different levels of integration into providers’ and users’ workflows. Consequently, organizations must evaluate both the price of each option and the usability of each option for their workforce before they engage with a vendor.

Finally, with meaningful use requirements expanding to more care settings, it is going to be critical for facilities and providers to understand the potential cost and ramifications for purchasing an EHR product that is not certified. An essential part of future work should be a systematic provider outreach and education initiative on the technical aspects of purchasing an EHR. Failure will increase technical costs to providers and create unnecessary barriers to the exchange of health information.
Policies That Slow Down Electronic Sharing of Discharge Data Should be Re-Evaluated

As discussed earlier, one of the reasons for the delay in electronic data being shared with CRISP and the next point of care is that providers have 30 days to finalize and sign encounter notes. Hospitals are understandably concerned about potential patient harm that could occur by sharing unfinalized data with the next provider of care. However, patients are often given this unfinalized data electronically via a patient portal and/or with paper discharge instructions.

Currently, there is a reluctance of providers to share the unfinalized data due to care concerns but recently released CMS rulemaking included guidance on this issue. “We note here that neither the current CoPs nor the revisions finalized in this rule prohibit hospitals and CAHs from sending an interim discharge or transfer summary document that would include the required necessary medical information to the appropriate post-acute care service providers and suppliers, facilities, agencies, and other outpatient service providers and practitioners responsible for the patient’s follow-up or ancillary care so that such information can be shared timely, so that the discharge and/or transfer is not further delayed, and so that those facilities and practitioners responsible for the patient’s follow-up or ancillary care are provided sufficient and necessary information and time to prepare to receive the patient.” (Federal Register Vol. 84, No. 189 p. 51859)

Under the Promoting Interoperability program, CMS requires that patient encounter data be made available via a portal or API to patients within two business days of discharge. Patients can share this data with any provider they would like. Consequently, unfinalized data is already being shared with providers, though it is typically done via the patient and likely not as consistently as everyone would like.

Healthcare organizations must consider how they can facilitate electronic data exchange directly with the next provider of care where data is not shared into a general HIE portal but is still available to a provider for care coordination purposes. Since this data is already being shared, it is not a significant policy change to share it with a provider in addition to the patient. As part of this grant, there are three options identified to increase the timeliness of the discharge information. The first requires a change of practice for doctors within hospitals to promote the closure of the notes as soon as possible. This would likely require the modification of hospital policies as well medical staff bylaws.

The second option is the transmission of interim discharge summaries to CRISP. Currently, CRISP policies do not allow for the transmission of discharge summaries that are not final. Any change would first require policy changes with CRISP and then require hospitals to retool the IT and human workflows to allow for the transmission of interim reports.
The final option is to push the care coordination document to follow-up providers through Direct messaging. This requires follow-up providers to have access to Direct as well for the sending institution to have Direct messages turned on. Such option would likely require some IT support and workflow changes to ensure providers know how to search the direct directory in CRISP and locate the appropriate provider to push the information.

We know the average time from discharge to the finalization of the discharge summary is five days, but there are many outliers within that data set. Currently, both the Mayor’s Commission on Healthcare Transformation and the HIE Policy Board are formulating recommendations related to the timely transmission of discharge information. Because of the workflow and policy changes, as well as the education programs necessary, we recommend the District look at a phased approach first targeting a reduction of the median number of days from discharge to transmission and then tackling the outliers. After these initial steps, we can focus on encouraging process changes to reduce further the time between discharge and the information being transmitted to providers.

**Standardized Care Coordination Data Set**

As mentioned above, CMS has recently finalized an updated rule for Discharge Planning for Hospitals. The updated rule will require that when a patient is transferred to another facility, the necessary medical information be sent to the receiving facility at the time of transfer. These provisions are aligned with the recommendations above. The necessary medical information should include:

- Demographic information, including, but not limited to, name, sex, date of birth, race, ethnicity, and preferred language;
- Contact information for the practitioner responsible for the care of the patient as described at paragraph (b)(4) of this section and the patient’s caregiver/support person(s);
- Advance directives, if applicable;
- Course of illness/treatment;
- Procedures and diagnoses;
- Laboratory tests and the results of pertinent laboratory and other diagnostic testing;
- Consultation results;
- Functional status assessment;
- Psychosocial assessment, including cognitive status;
- Social supports;
- Behavioral health issues;
- Reconciliation of all discharge medications with the patient’s pre-hospital admission/registration medications (both prescribed and over the counter);
- All known allergies; including medication allergies;
- Immunizations;
- Smoking status;
- Vital signs;
Opportunities for Future Planning, (Cont.)

• Unique device identifier(s) for a patient’s implantable device(s), if any;
• All special instructions or precautions for ongoing care; as appropriate;
• Patient’s goals and treatment preferences; and
• All other necessary information, and documentation as applicable, including a copy of the patient’s discharge instructions, the discharge summary, and such information and documentation pertaining to current diagnoses, course of illness/treatment, laboratory results, procedures, functional status, and the patient’s goals of care and treatment preferences, to ensure a safe and effective transition of care that supports the post-discharge goals for the patient.

Further, the next in-depth review will revolve around the completeness and variability of the data received/sent to the HIE to inform the work of the HIE Policy Board.

ED Navigator Sustainability

During the first month of operation, the ED-based navigator pilot showed promising results. Continued evaluation of this model is recommended for effectiveness and sustainability. DCPCA/DCCCN has agreed to continue the pilot with private funds for the foreseeable future, and we are committed to updating this report as appropriate.
Conclusion

Throughout this grant process, we have learned a great deal from our partners and other stakeholders. The main takeaway is that communication, both electronic and humans, is going to be vital to ensuring that discharge information is complete and moves in a timelier manner. What we found was not a resistance to change or improvements to the current process, but quite the contrary; we saw teams of committed individuals working together to solve problems. Through regular convenings and open lines of communication, we believe improved care coordination is achievable.