This document is designed to provide our integration partners with information on the technical specifications, standards, and test/production platforms used by Foothold Technology.

ASSUMPTIONS

- The AWARDS EHR via the Foothold Integration Hub has the ability to produce a standard HL7 ADT message, which includes a value for RHIO consent. The contents and format of the ADT message will be consistent across all Stakeholder facilities.

- The Patient is registered to the RHIO via ADT. Foothold transmits the following event messages via ADT:

  - A01: Admission
  - A03: Discharge
  - A04: Registration
  - A08: Demographics Update
  - A40: Merge

- The AWARDS EHR via the Foothold Integration Hub has the ability to export a standard C-CDA document that is consistent across all Stakeholder facilities. The C-CDA represents the longitudinal record for a patient.

- The ADT messages contain the agency identified in MSH 4.1 segment, with an associated OID in the MSH 4.2 segment.

SCOPE

In Scope – C-CDA

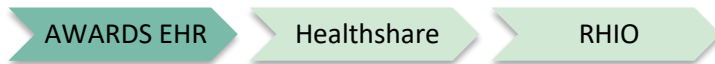| Items	Testing/Demonstration Method	Acceptance Criteria

Send care coordination info from EHR to RHIO. Data feeds from EHR to RHIO will include patient registration; patient consent status; and clinical data. (Please note that not every patient has every data element populated.) Data elements will include:
1. Name
2. Sex
3. DOB
4. Race
5. Ethnicity
6. Preferred Language
7. Smoking Status
8. Problems
   SNOMED-CT, ICD-10
9. Encounter Diagnosis
   SNOMED-CT, ICD-10
10. Medications
    RxNorm
11. Medication Allergies
    RxNorm
12. Labs (tests)
    LOINC, SNOMED-CT
	Demonstrate workflow and transmission of care coordination information from provider's EHR to RHIO.	Actual patient information from the AWARDS/Foothold production environment is received in the RHIO production environment. Accuracy confirmed via the RHIO portal.

13. Lab Results *LOINC, SNOMED-CT* 14. Vitals *Height, Weight BMI,, Blood Pressure, LOINC* 15. Care Plan Fields 16. Procedures *CPT, SNOMED-CT* 17. Encounters *CPT, SNOMED-CT* 18. Care Team Members 19. Immunizations *CVX* 20. Functional and Cognitive Status 21. Discharge Instructions	

Out of Scope

Items
Note: AWARDS can send Encounters data, but agency must be using Encounters feature.

ENVIRONMENT AND SYSTEM OVERVIEW

▪ Each stakeholder's instance of AWARDS EHR will connect to Foothold HealthShare, which will then connect to RHIO, sending the necessary clinical data.

AWARDS EHR ➤ Healthshare ➤ RHIO

▪ Development/test and production environments will mirror those constructs noted above.

▪ There are no significant differences between the production and test environments that will have an impact on milestones. It should be noted that secure transmission is not used in test, while it is utilized in the production environment.

USER INTERFACE / DATA ENTRY / REPORTING

An important piece of information that will be sent from AWARDS to RHIO is the patient consent status. Staff at the provider's facility will be trained to distribute educational fact sheets and to collect patient consent on the state-approved RHIO Consent Form within AWARDS. Likewise, staff will be trained to utilize the RHIO Withdrawal of Consent Form (if available), within AWARDS, in the event a patient wishes to reverse a previously indicated consent status. Consent training is the responsibility of the RHIO.

▪ Consent values are as follows. They are transmitted in the ADT > PD1 segment.

- Y – Patient Gives Consent

- N – Patient Denies Consent

- Null – Patient has not decided

▪ The consent value indicated by the patient on such form(s) will be noted in AWARDS. The AWARDS EHR includes a user-interface for logging the RHIO consent value. The consent value is captured at the time of registration or updated on-demand via the Interoperability Center or face sheet. The filed consent form will be available to users via the Interoperability Center or face sheet. Users will be able to view a report to determine the consent status of a patient.

- Data entered within AWARDS will be transmitted to RHIO via triggers in AWARDS. Users will have the ability to generate an on-demand as well, via the Interoperability Center. The triggers are registration, merge, consent addition/modification and discharge/termination of a patient in AWARDS.

- Data sent from AWARDS to RHIO will be available in the RHIO portal.

1. The patient is registered in AWARDS.
2. AWARDS registers the patient to RHIO by sending an ADT message with demographics to RHIO.
3. The patient's consent status is logged within AWARDS.
4. AWARDS registers the patient's consent status to RHIO by sending an ADT message to RHIO.
5. Clinical data is entered by provider into AWARDS.
6. AWARDS transmits clinical data to RHIO via C-CDA (provide and register).
7. AWARDS can update demographics by sending an updated ADT message with demographics to RHIO.
8. Any updates/changes in patient's consent status are logged within AWARDS.
9. AWARDS sends any updates/changes in the patient's consent status to RHIO by sending an updated ADT message to RHIO.
10. Clinical data updates/changes are entered by provider into AWARDS.
11. AWARDS transmits updated clinical data to RHIO via C-CDA (provide and register).
12. AWARDS merges patient records when duplicate patients are combined.
13. AWARDS notifies RHIO of merges when patient records are combined within AWARDS.
14. Patient is discharged in AWARDS, indicating a termination in a patient's episode of care.
15. AWARDS notifies RHIO of discharges/terminations via an ADT message that is sent to RHIO.
16. AWARDS transmits clinical data to RHIO via C-CDA.

TECHNICAL FLOW DIAGRAM

Outbound:

1. ADT Registration and Consent

A. Foothold sends an ADT registration or clinical message to RHIO.

B. RHIO validates and consumes the message storing the info in the ECR and HealthShare Patient Registry.

    C.   RHIO processes the consent segment and stores the patient consent in the HealthShare Consent Registry.
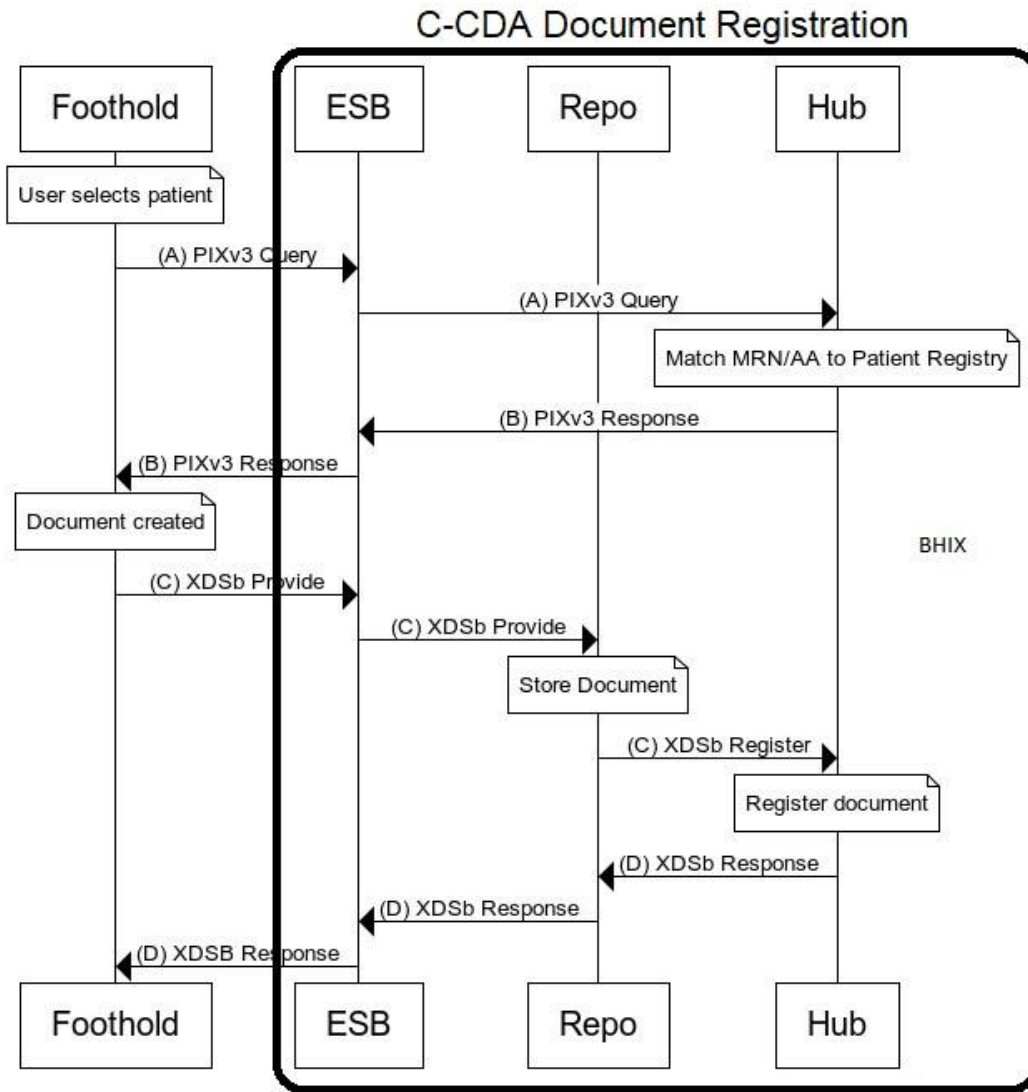
    D.   RHIO returns an acknowledgement to Foothold.

2. C-CDA Document Registration

    A.   Foothold sends a PIX Query to RHIO PIX manager endpoint containing local identifier (MRN).

- RHIO ESB receives the query and passes it to the Hub for lookup
- Search for MRN/AA in HealthShare Patient Registry, returns the EID or "No Patient Found"

    B.   RHIO responds back with EID for patient.

- The Hub sends a PIXv3 Response back to the ESB
- ESB sends the response back to Foothold

    C.   Foothold sends valid XDSb Provide and Register Document Set transaction to RHIO XDS repository end point.

- Foothold generates the XDSb document
- XDSb PNR is sent to the RHIO ESB
- ESB sends a XDSb Provide to the Repo
- Repo sends a XDSb Register to the Hub
- Hub Registers the document

    D.   RHIO responds back with success or failure to Foothold

- XDSb Response is sent from the Hub to Foothold via the Repo and ESB

Retrieval:

Foothold supports on-demand document retrieval from and HIE in the following manner.

1. XDS.b RSQ request message is sent to HIE from AWARDS. With an on demand object type indicated.

2. XDS.b RSQ Response message is returned with the existing document(s) ID's to AWARDS from the HIE..

3. XDS.b Retrieve Doc Request based on listing returned from AWARDS to HIE.

4. XDS.b Retrieve Doc Response - with the doc included from HIE.

C-CDA Document Registration

SOURCE / TARGET LAYOUT

Identify message Type Tree and sample for each new message being developed or implemented.

Message	Source (Foothold)	Target (RHIO)	Sample
Patient Registration & Consent (ADT)	ADT HL7 v2.5	ADT HL7 v2.5	NA
Clinical Summary Document (C-CDA)	C-CDA v2.1	C-CDA v2.1	NA

BUSINESS RULES / VALIDATIONS

- Data sent to RHIO from AWARDS will need to be in the specified format and of the data quality expected for the data transmission.

- Consent Management:

  - AWARDS accepts consents for both minors and adults. When a consumer reaches their 18th birthday, AWARDS will clear their consent value back to "unset" and a new consent must be recorded. AWARDS has

the ability to disallow consents for minors by configuration request for those jurisdictions that do not allow consent for minors.

- RHIO business rules allow sending/uploading of data to RHIO regardless of patient's consent status because RHIO follows the "Consent to Access" rules for consent.

- RHIO business rules are programmed to only send data to Foothold when there is an appropriate valid consent in place or Break the Glass for emergencies (if applicable).

APPLICATION CONNECTIONS

System	RHIO	Foothold
Development		
Test (Stage)		
Production		

REFERENCES

For additional technical details related to the XDS transaction profiles including supported metadata please refer to the IHE_ITI_TF_Rev7-0_Vol3_FT_2010-08-10.pdf