



**NC HEALTHCONNEX | NC Health Information Exchange Authority**

**Onboarding & Technical Specifications**

Participant Background Information

1. Please provide the Participant Organization National Provider Identifier (NPI): \_\_\_\_\_

2. Please provide the Participant's Employer Identification Number (EIN): \_\_\_\_\_

3. Name of EHR/EHR Vendor and Product: \_\_\_\_\_

4. EHR Point of Contact

Name: \_\_\_\_\_

Email Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

5. Is your practice part of a larger health system or regional HIE?  Yes  No

If yes, please list the health system or regional HIE: \_\_\_\_\_

6. Number of practice locations: \_\_\_\_\_

7. Estimated number of Authorized Users in all locations: \_\_\_\_\_

8. Do you currently have access to encrypted Direct Secure Messaging (secure email)?

Yes  No

If yes, please list HISP or secure email provider: \_\_\_\_\_

If no, would your practice be interested in having DSM provided by NC HIEA?

Yes  No

\_\_\_\_\_



### High Level Overview of Onboarding Process

This summary presents a high level overview of the process to connect your organization to the HIE Network, now called NC HealthConnex. These steps are subject to change based on your organization's technical resources and capabilities, your EHR vendor, and available resources at NC HIEA and SAS.

1. NC HIEA will notify SAS of the receipt of your organization's fully executed Participation Agreement and of the contact information you provided in Attachment 3.
2. SAS will contact your technical services contact person to verify the technical information requested above and to gather contact information for other technical partners your organization may have.
3. NC HIEA will contact your organization to discuss training needs and materials your practice will need for education and utilization of NC HealthConnex.
4. Simultaneously, your technical connection will begin. The charts on the following pages outline the steps that will occur when building your VPN or SFTP connection to the NC HealthConnex.
5. Once your connection is established and you have access to NC HealthConnex, any technical issues your Authorized Users encounter should be directed to the SAS helpdesk at HIESupport@SAS.com.

### Technical Specifications for Onboarding and Targeted Data Standards

1. **EHR Product.** Any ONC-certified EHR Product can support the connection to NC HealthConnex. Other EHR Products may also be used if the product is capable of sending HL7 messages, version 2 and higher. The timeline for connecting your organization will depend on various factors, including the technical resources and capabilities of your EHR vendor, any work already undertaken by NC HIEA, SAS Institute ("SAS," our technology partner and subcontractor), and your EHR vendor to connect other participants, and resources available at your organization, NC HIEA, and SAS.
2. **Targeted Data Standards.**
  - a. **HL7 Submission to NC HIEA.** Participants shall submit the following message types to the extent possible, at a minimum, for all data pertaining to Medicaid, State Health Plan, and State-funded health services provided by Participant as required by Applicable Law.
    - i. HL7 Version 2.x:
      1. ADT
        - a. Required Segments - MSH, EVN, PID
        - b. Optional – PD1, NK1, PV1, PV2 (preferred), AL1 (preferred), DG1 (preferred), PR1 (preferred)
      2. ORU
        - a. Required Segments – MSH, EVN, PID, PV1, ORC, OBR, OBR NTE, OBX, OBX NTE
        - b. Optional – PV1, ORC, OBR NTE, OBX (preferred), OBX NTE (preferred)
      3. Medication
        - a. OMP-O09 – Pharmacy / Treatment Order
        - b. RDE-O11 - Pharmacy / Treatment Encoded Order
        - c. RDS-O13 - Pharmacy / Treatment Dispense
        - d. RAS-O17 – Pharmacy / Treatment Administration



- b. **CCD/CCDA Submission and Exchange.** Participants with ONC certified EHR Products that are Meaningful Use Stage 2 Certified shall submit the following data elements to NC HealthConnex to the extent possible for all data pertaining to Medicaid, State Health Plan, and State-funded health services provided by Participant as required by Applicable Law.
- i. Meaningful Use Data Elements within the Clinical Summary MU2 Summary Type, delivered via CCD within the CCDA.
    1. Person Information
    2. Information Source
    3. Allergies
    4. Medications
    5. Problem List
    6. Procedures (surgeries and history of procedures)
    7. Diagnostic Results (lab and diagnostic)
    8. Encounters
    9. Immunizations
    10. Plan of Care
    11. Social History
    12. Vital Signs
  - ii. Inbound and Outbound from NC HealthConnex:
    1. Inbound Feed to NC HealthConnex
      - a. ADT Feed – Establish identity with the NC HIEA
        - i. Format can be most any ADT message with a PID segment and may vary with each approved participant
      - b. ITI-41 – Provide and register document set
        - i. CCDA is the preferred method, but NC HIEA will allow CCD c32 as an alternative
    2. Query Interface from NC HealthConnex
      - a. ITI-9 – PIX Query
      - b. ITI-18 – Registry Stored Query
      - c. ITI-43 – Retrieve Document Set
        - i. The response could include CCD, CCDA documents, or both
- c. If Participant chooses to submit additional data related to non-State funded health care services in addition to what is required by law, Participant should also submit the aforementioned data elements to the extent possible. Participant may also submit data beyond the Targeted Data Standards for State-funded and non-State funded health care services.



#### NC HealthConnex Process and Timeline for a VPN Connection

1. Your organization must complete a VPN connection document.
2. SAS and your technical resources will build a VPN tunnel to your EHR and will coordinate testing with your organization.
3. Data will be sent to the test/stage environment and your organization must validate data in the NC HealthConnex Clinical Portal. Any issues will be documented and resolved.
4. Prior to sending data to the production environment, you will be required to provide User Acceptance Approval.
5. Data will be sent to the production environment and your organization must validate data in the NC HealthConnex Clinical Portal. Any issues will be documented and resolved.
6. NC HIEA will notify your organization that you have been successfully connected to NC HealthConnex and your Participant Account Administrator will be provided user credentials for the NC HealthConnex Clinical Portal. Training and education materials will be made available to your organization as well.

#### NC HealthConnex Process and Timeline for a Secure File Transport Protocol (SFTP) Connection

1. Your organization will be assigned to a SAS data connector, who will work directly with your organization to build connection to NC HealthConnex. This will require installing software on your EHR system.
2. SAS will implement a daily secure transfer of data.
3. The data connector will test file transfers from your EHR to NC HealthConnex.
4. Data will be sent to the test/stage environment and your organization must validate data in the NC HealthConnex Clinical Portal. Any issues will be troubleshooted.
5. Prior to sending data to the production environment, you will be required to provide User Acceptance Approval.
6. Data will be sent to the production environment and your organization must validate data in the NC HealthConnex Clinical Portal. Any issues will be troubleshooted.
7. NC HIEA will notify your organization that you have been successfully connected to NC HealthConnex and your Participant Account Administrator will be provided user credentials for the Clinical Portal. Training and education materials will be made available to your organization as well.



Please refer to the table below for an approximate timeline for your VPN Connection

| Step | Description   | Weeks |
|------|---|-------|
| 1    | <b>Technical Discovery</b> , Discussion of configurations, identification of capability. Provider will be responsible for completing Business Requirements & Interface Planning Form  | 2     |
| 2    | <b>Build VPN/SFTP Set-up</b> , SAS will build a VPN tunnel to your organization or set up an SFTP pull and will coordinate testing, verifying the ability to pass a test message.   | 2     |
| 3    | <b>Build ADT/PIX &amp; CCD P&amp;R ITI-41 (Interface Build)</b> , build Interfaces to transmit HL7/PIX messages and CCD(A) documents using and IHE Provide & Register transaction. These interfaces allow NC HealthConnex to be updated with data from the health care organization's EHR system.                           | 2     |
| 4    | <b>Build PIX/PDQ, Registry Stored Query &amp; Retrieve Dataset Interfaces</b> -Establishing the ability to pull data from NC HealthConnex back into the EHR system. Data will be sent to the Production Environment and your organization must validate data in the NC HealthConnex portal. Any issues will be troubleshot. | 3     |
| 5    | <b>HIE Platform Configuration/Facility Load</b> -Configure the HIE backend systems with sending facility IDs & OIDs to prepare for production.  | 3     |
| 6    | <b>Migrate test interfaces to production server(s)</b> Once development and unity testing is complete, SAS will migrate test interfaces to staging and production servers in preparation for enabling live interfaces.  | 1     |
| 7    | <b>Validation Testing</b> of live interfaces with live production messages. Ensures that configurations and live EHR & HIE interfaces are prepared to process live data.  | 1     |
| 8    | <b>Production- Go-Live</b> , Enable live interfaces between participant and NC HealthConnex. Monitor & validate. Distribute, complete and return User Acceptance Document.  | 1     |

For connections built through hubs or interfaces to the NC HealthConnex environment by your EHR vendor, the Onboarding process will depend on your EHR vendor's system and capabilities, along with any previous work completed by NC HIEA and SAS with your EHR vendor.

Similarly, if your organization will have HIE Data integrated into your EHR Product, you may not require credentials to access the NC HealthConnex Clinical Portal. Further steps will need to be taken to build and test a bidirectional data connection to your EHR Product. You and your EHR vendor must collaborate with SAS to accomplish integration of HIE Data into your EHR Product. This will require your organization to sign off after the integration is tested prior to production data flowing to your EHR Product.

Once your connection is established and you have access to NC HealthConnex, any technical issues your Authorized Users encounter should be directed to the SAS Help Desk at [HIESupport@SAS.com](mailto:HIESupport@SAS.com).