NORTH CAROLINA HEALTH INFORMATION EXCHANGE AUTHORITY

ADVISORY BOARD MEETING

JANUARY 13, 2022
NC HIEA Operations Update

• Welcome New Staff
• Closeout of HITECH / Roadmap 2021 Accomplishments
• Strategic Planning for Roadmap 2025
• Use Case Updates
• Research Request Work Group
• Metrics Update
HITECH Closeout
Roadmap 2021 Accomplishments
NC HealthConnex Activities Funded via HITECH

- Federal Financial Participation Funds Drawn Down from Centers for Medicare and Medicaid Services via NC Medicaid - Date Range for Approved Funding June 2017-September 2021

<table>
<thead>
<tr>
<th>HITECH Expenditures – FEDERAL (90%)</th>
<th>State Match (10%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendors</td>
<td>AHEC</td>
</tr>
<tr>
<td>$17,619,483.00</td>
<td>$1,042,284.96</td>
</tr>
<tr>
<td><strong>TOTAL</strong> (inclusive of federal and state dollars)</td>
<td></td>
</tr>
</tbody>
</table>

- 2017 efforts included outreach/education activities; technical integrations for Medicaid providers, including electronic public health reporting (NCIR/ELR).
- 2019 efforts included continued Medicaid provider onboarding; support of PDMP/CSRS; support of the Medicaid Transformation Program with enhanced notifications and the AHEC training program; as well as continued focus on supporting the Promoting Interoperability program.
- 2020 update included enhancements to NC*Notify to support Medicaid Transformation efforts, revised data connection strategy and data quality enhancements that included FHIR resources and USCDI engagement with hospitals.
Medicaid Facility Participation in NC HealthConnex

<table>
<thead>
<tr>
<th>Connection Type for HIE Onboarding</th>
<th>Q1 FFY 19-Q4 FFY 21 Totals (October 1, 2018, to September 30, 2021)</th>
<th>Total Live Connections as of September 30, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td></td>
<td>130 hospitals</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>6 HIEs</td>
</tr>
<tr>
<td>Total Number of ambulatory facilities: Cloud Based</td>
<td>666</td>
<td>6,006 ambulatory facilities</td>
</tr>
<tr>
<td>Total Number of ambulatory facilities: On Prem</td>
<td>219</td>
<td></td>
</tr>
</tbody>
</table>

Medicaid provider organizations in onboarding as of September 30, 2021: 2,602
NC HIEA & NC AHEC Trainings

NC HIEA Outreach Team: 355
Program Trainings during 2018-2021 time period

NC AHEC Coaches: 191
Program Trainings during 2019-2021 time period

Virtual Trainings: 345
During 2020-2021 time period

Date Range October 2018-September 2021
Roadmap 2021 Accomplishments

Vision: Modernize the health information exchange platform, provide enhanced capabilities and improve the user interface

- Maintain and build upon a strong HIE foundation to support health care providers, Medicaid and other health plans, public health and North Carolina patients.
- Broaden exchange capabilities and pathways to include nationwide networks and more than 95 percent of North Carolina health care providers, ensuring high utility for users.
- Advance notification services to make HIE data actionable, digestible, and strategically designed to fit the health care community’s changing needs and workflows.
- Expand on and refine population health and analytics applications for better health care management at the individual, community and state public health levels.
- Embrace the NC HIEA’s role as a facilitator of patient-centered, value-based care by promoting universal use of health information exchange statewide.

Links:
Strategic Roadmap | NC HIEA
Roadmap 2021
https://vimeo.com/662346726/5cddfadb9b2
Strategic Planning Roadmap 2025

Anticipated April/May 2022

Guiding Principles

• Build upon a strong HIE foundation to support data quality and emerging data standards.
• Broaden exchange capabilities to promote data democratization and innovation to support patient-centric whole person care.
• Cultivate value and financial stability by providing a health data utility to support value-based care.
• Support population and public health priorities through surveillance and analytics as a service.
Use Case Updates
Statewide Disease Surveillance

**Use Case:** Expanding NC DETECT data sources to ensure more complete coverage of the state

**Stakeholders:** NC Department of Public Health

**Timeline:** Live In Production

Extracts provided from the HIE on a recurring basis including key data:

- Encounters
- Diagnosis
- Procedures
- Observations
- Medications
- Immunizations

Data is used to track Covid Like Illness (CLI) data across the state.

**Previous data feeds monitored**

- Emergency department
- Poison control
- Emergency Medical Services (EMS)
- Urgent Care (limited)

https://ncdetect.org/

**NC HealthConnex additions**

- Ambulatory/Outpatient Clinics
- Local Health Department/FQHC
- Hospital/Health System (non-emergency)
- Urgent Care
- Specialists
Overall CLI% showing decrease in inpatient HIE trends.
Increase observed in outpatient trends.
Data till Week Ending 12/04/2021:
- Primary age groups showing inpatient rise and decline: Middle age, Seniors and Young Adults.
- Very low Inpatient CLI% for younger age groups.

Data till Week Ending 12/04/2021:
- Increase in all age groups except Preschool.
- Stabilization/ Slight increase among senior age group.
Medicaid/HIE Partnership

Delivered in 2021
- Network Adequacy Dashboard
- Medicaid COVID Dashboard Enhancements
- Phase 1 Data Extracts for Hybrid Quality Measures
- Adhoc Demographic Data Extracts

In Process 2021-2022
- Phase 2 Data Extracts for Hybrid Quality Measures
- Priority Data Elements for Medicaid and PHPs

Planned for 2022
- Data Quality Dashboard focused on Priority Data Elements
- NCQA Data Aggregator Validation Program (DAV)
Use Case Work Group

Colorectal Cancer (CRC)
- UNC & Community Health Centers
- Identification of patients due for CRC screening
- Targeting operational by end of Q1

Lincoln Project
- Improve understanding of community-occurring deaths in Eastern North Carolina
- Targeting unmet social and clinical needs in communities with a historically high prevalence of Out-of-Hospital Premature Natural Death (OHPND)
- Targeting operational by end of Q1

Stroke Registry
- Stroke Registry will utilize hospital stroke patient demographic and clinical data received by NC HealthConnex to identify patients at risk of stroke to facilitate:
  - Division of Public Health (DPH)-led improvements in the quality and continuum of stroke care, and
  - Identification and elimination of disparities in stroke care.
- The project is planned to be completed in June 2022
Proposed Research Request Review Framework: Implementation

- Advisory Board research agenda (*September AB meeting begin discussion*)

- Resource allocation / budget; fees (*HIEA team to provide update at next subcommittee meeting*)

- Governance: policy updates, formal documents, internal protocols

- Use Case Work Group
  - Membership, protocols

- Create operative documents
  - Data request application; application schedule; review rubric
  - Data use agreements
  - IRB and compliance review documents
Key Metrics:

Data Connections:
- 599 (2021 total)
- Florida HIE (EHX)

NC*Notify:
- 160 live in production
- 579 participants enrolled and monitoring patients
- 4.2 million alerts generated in November 2021

NCIR:
- 129 practices live
- 8 EHRs working toward technical readiness

CVMS:
- 119 live in production
- 32 ready for production
- 27 enrolled

ELR-
- 16 full ELR feeds live; 8 COVID-only live
Clinical Data Volumes

- Patients with documents: 10,520,512
- Total CCDs: 168,328,205
- CCDs Per Patient (Avg): 16

Encounters: 324M
- 17M ED
- 7M Inpatient
- 300M Outpatient

Diagnosis: 697M

Medications: 358M

Lab Results: 278M

Immunizations: 69M

Allergy: 20M

Procedures: 204M

Vitals: 497M

Daily inbound messages: 1.5M
- 420k CCDs
- 1.3M HL7
Questions?
Recommendations Per NCSL 2021-26

Overview of Topics

- NCSL 2021-26 Review, Work Group Process
- Barriers to Compliance/Focus Group Feedback
- Report Goals
- Analytics Overview/Findings
- Outreach, Recommendations, and Report Outline
- Group Discussion
“On or before March 1, 2022, the NC HIE Advisory Board shall submit to the Joint Legislative Oversight Committee on Health and Human Services recommendations regarding appropriate features or actions to support enforcement of the Statewide Health Information Exchange Act contained in Article 29B of Chapter 90 of the General Statutes and the results of the outreach efforts in subsection (b) of this section.”

“The HIE Authority shall contact each entity or provider identified and ascertain the status of the entity's or provider's effort to connect to the HIE. The HIE Authority shall share information with each provider or entity about the Statewide Health Information Exchange Act and how to connect to the HIE Network.”
NCSL 2021-26 Work Group Makeup

Carolyn Spence, Subcommittee Chair – Chief Information Officer, Alexander Youth Network
Christy Revels, Subcommittee Lead NC HIEA Staff – Strategic Solutions, NC HIEA
Joe Bastante – Chief Technology Officer, Blue Cross and Blue Shield of North Carolina
Gerald Belton – Business Intelligence Developer, State Health Plan
Kendall Bourdon – Assistant General Counsel, State Health Plan
Jennifer Braley – Manager, Projects, State Health Plan
Christie Burris – Executive Director, NC HIEA
Melanie Bush – Chief Administration Officer, NC Medicaid
Kelly Crosbie – Chief Quality Officer, NC Medicaid
Barry Hillman – Director of eSolutions, Blue Cross and Blue Shield of North Carolina
Leigh Jackson – Legislative Director, NC Department of Information Technology
Dr. Aaron Leininger – Network Medical Director, Triangle East, UNC Health
Eric Myers – Principal Consultant and Lead HIE Strategic Consultant, SAS
Michelle Ries – Associate Director, NC Institute of Medicine
Layne Roberts – Data Analytics Manager, State Health Plan
Eric Snider – Deputy General Counsel, NC Department of Information Technology and NC HIEA Legal Counsel
Dr. Bill Way – Chief Medical Officer, Wake Radiology
Chris Weathington – Director, NC Area Health Education Centers (NC AHEC) Practice Support
Goals and Objectives of the NCSL 2021-26 Work Group

- Summarize the unconnected’s barriers to connection; examine available mitigation strategies.
- Consider opportunities/consequences for providers/entities who fail to comply with the HIE Act.
- Produce recommendations to the NC HIEA Advisory Board by January and a comprehensive report to the General Assembly by March 1, 2022, that details:
  1. NC providers/entities to whom the mandate applies, and who remain unconnected to date, including high-level metrics by provider and payer type;
  2. Targeted outreach conducted with all unconnected providers, and their engagement statuses;
  3. Considerations and recommendations for incentives, penalties and other consequences for failing to comply; and,
  4. Other recommendations to support provider/entity compliance with the HIE Act and boost HIE utility and usability.
NCSL 2021-26 Work Group Process

1. Collected provider feedback and examined relevant resources, including:
   - Survey and focus group data on unconnected providers’ barriers to connection,
   - Incentive/penalty approaches and payer-HIE relationships in other states,
   - Innovative models like All Payer Claims Databases and Health Data Utilities, and
   - Recent data quality initiatives with NC DHHS/DHB (Medicaid).

2. Coalesced on three major areas to explore further and focus the report/recommendations:
   a) Adjusting the HIE Act to Support its Enforcement
   b) Pursuing an Aligned HIE Strategy Across Payers
   c) Enhancing and Promoting Statewide HIE as a Tool
3. **Considered (and re-considered) the analytics results**: state of connectivity, data trends and opportunities.

4. **Formed four recommendations for the General Assembly’s consideration** with the goal to clarify the connection requirement, support compliance, and advance the original purposes of the HIE Act while protecting patient access/network adequacy.
NCSL 2021-26 Response: Timeline of Activities

8/17 Work Group kickoff
9/1 Begin analytics
9/22 Initial briefing to NC HIEA Board
10/6 Work Group work session 1
10/6 Work Group work session 1
11/22 Work Group work session 2
11/22 Work Group extended work session on recommendations
11/19 Interim analytics distributed
11/30 Final analytics distributed
12/10 Draft report delivered to Work Group and Advisory Board for feedback
1/13 Report Overview to NC HIEA Advisory Board
1/13 Report Overview to NC HIEA Advisory Board
1/13 Report Overview to NC HIEA Advisory Board
~1/24 Additional review and approval by Advisory Board, then state agencies for review
~Mid-Feb. Additional review and approval by Advisory Board, then state agencies for review
3/1/2022 Final report delivered to General Assembly
Barriers to Compliance for Unconnected Entities and Providers

Providers say barriers are largely financial/resource and training-related, and have been exacerbated by the effects of COVID

- Two-thirds of EHR vendors surveyed charge for one-time integration, and two-thirds charge ongoing maintenance fees for the HIE connection

- For smaller practices, interface costs typically range $2,000-$5,000, and in some cases may exceed $10,000; ongoing maintenance costs can total several hundred/month

- Of 291 DHHS/Medicaid primary care survey respondents, only 8.9% of those not yet connected to the HIE noted no need for additional resources (funding, training, staff) in order to participate

- 2,800+ providers/entities pending “activation” of completed connection

Sources: survey data from DHHS and NC HIEA over the past 36 months, NC AHEC
October 2021 Focus Group Feedback

• **Takeaways:**
  1. Main barriers remain cost and capacity/resources/training
  2. More communication is needed
  3. Widespread concern about creating network adequacy issues/reducing access to care
  4. Concerns persist about use of data, patient privacy and unintended consequences
  5. HIE users want easier access, more workflow training
  6. Alternatives exist in the marketplace

• **Highlight on Dental:**
  • Confusion about why dentists were included in the law; concern that they weren’t consulted
  • Dental data may not be relevant or useful for a patient’s other care providers
  • Concern about exodus of dental providers from state-funded programs
Work Group Report Goal 1: Adjust the HIE Act to Support its Enforcement

As written, the HIE Act’s enforcement provision and focus on individual providers:

- does not align with the reality that entities—not individual practitioners—maintain patient health records and connect to the HIE,
- includes providers and practice areas whose patient data is, at present, less vital to the health care ecosystem and the State,
- renders enforcement unnecessarily costly and administratively burdensome for the State and providers, and
- could negatively impact network adequacy and resource-limited practices hard-hit by COVID.

Certain changes to the HIE Act are necessary to:

- more efficiently target high-value data connections,
- clarify and enable its “enforcement,” and
- protect patient access to state-funded health care.
Work Group Report Goal 2:
Pursue Aligned HIE Strategy Across Payers

Increased payer engagement, support, and aligned utilization is critical to fulfilling the aims of the HIE Act. Specifically:

- payer support is needed to improve provider engagement, connectivity, and data quality,
- payers’ unified voice can inform direction/utilization of HIE services for managed care, and
- payers are enabled to use HIE as a resource to improve clinical outcomes for patients.
Work Group Report Goal 3: Enhance and Promote the HIE as a Tool

To achieve full statewide connectivity and put the HIE to work for patients, the NC HIEA must place renewed focus on increasing awareness, utilization, ease of use through efforts to:

- promote awareness of the HIE and its capabilities together with partner organizations,
- encourage utilization of the HIE as a tool for value-based care workflows,
- improve workflow tools and trainings,
- target practice areas with low connection rates and high-value data for adoption,
- expand offerings to support value-based care, and
- further streamline and automate public health reporting.
Analytics Summary

• Goals of the analysis:
  • Providers and entities who are required to connect to the HIE as a condition of receiving State funds;
  • Providers and entities who have connected to the HIE; and
  • Providers and entities who have not connected to the HIE.

• Data Sources
  • JIRA - onboarding tracking for HIE at the organization level.
  • SHP Provider information
  • Dataset from DHHS to HIE of all active Medicaid Providers and Organizations with an “HIE indicator” to identify connected status.
  • DHHS Provider Enrollment File

• Data sources combined using NPI. Reporting will be at NPI level.
Summary of Connection Denominator

TOTAL INDIVIDUALS AND ENTITIES IN NC (unique NPI) = 123,723

Total Individuals: 94,464 / Total Organizations: 29,259

TOTAL INDIVIDUALS AND ENTITIES SUBJECT TO HIE ACT OR ACTIVE PARTICIPANTS = 85,865
*Includes some voluntary connected entities

Total Subject Individuals: 67,668 / Total Subject Organizations: 18,197
Additional Considerations

• **No single source of truth**
  • Denominators are based on information provided by multiple external sources (SHP and DHB).
  • Provider affiliations are fluid and require continuous improvement of the data and logic.

• **Supplemental address matching**
  • Initial analysis was constrained by NPI matching.
  • Individual and practice addresses were then compared to find additional Providers within compliance.

• **Expansion of voluntary group**
  • VA and DoD facilities were moved to voluntary
    • If connected, they remained in the counts
    • If unconnected, they are removed from the mandated group
  • Individual Pharmacists moved to voluntary
A total of 86k individuals and entities are in scope for connecting.
- 58k have completed connections
- A majority of the unconnected have not engaged with the HIE

Patients with HIE Records
- 82% of Medicaid Patients
- 95% of State Health Plan Patients
Engagement with Unconnected Entities

- Unconnected entities are comprised of those NPIs still in onboarding and unknown to the HIE
- The unconnected entities are heavily concentrated in a few key provider type categories.
- Based on this analysis, they are mostly (68%) made up of entities who have not engaged with the HIE.
Key Unconnected Provider Types

1. Behavioral Health
2. Dentists / Orthodontists
3. Chiropractors
4. Residential Facilities
5. Pharmacies
Behavioral Health

- Overall, only 40% of the individuals and organizations classified as Behavioral Health are connected.
- There are nearly 7,500 SHP-only behavioral health entities still needing to connect.
- An overwhelming share of the unconnected behavioral health organizations have < 5 providers.
Dental and Chiropractors

• These groups are both connected at rates below 25%
• Dental focus groups questioned value of their participation in the HIE as data contributors
• Chiropractors are assumed to be a group with small practices and low technology rates

Key Takeaways of the Focus Groups:
• Not integrated with physical health ecosystem (financial and data)
• Use cases focused on data access
• Financial and resource barriers
• Network adequacy challenges are a risk as only 2,900 NC Dentists/Ortho serve Medicaid
Residential Facilities and Pharmacy

- 481 Residential Facilities are mandated to connect
- This group is made up almost completely of SNF
- 266 SNFs in NC use Point Click Care EHR and is currently engaged with the HIE onboarding team

- 765 pharmacies are mandated to connect and send claims data.
- Pharmacy workgroup has established standards for connections in concert with NCPDP
- Engaged with many pharmacies through CVMS; heavy consolidation to intermediary vendors.
Outreach Initiative

- **Audience:** ~27,000* unconnected providers and entities subject to connection/submission requirement, and related stakeholder communications

- **Timeline and Methods:**
  - Early-Mid January:
    - Email to stakeholders outlining NCSL 2021-26 direction and outreach campaign
    - Coordinated communications from health plans to provider members encouraged
  - Late January:
    - Official letters by U.S. Mail to ~12,000 entities and ~3,000 individuals (those with no email on file)
    - Official emails to ~12,000 individuals
    - Communications directed to Individual Provider/Office Administrator
  - Early/Mid-February: possible follow-up email communication

*After additional analysis using street address to identify additional affiliations*
Outreach Initiative, Cont’d

• **Messaging:**

  • Tailored to those in-progress v. those who’ve not begun (i.e., no agreement in place)

  • Letters/emails to those without an agreement provide additional overview of the NC HIEA, NC HealthConnex, and related enclosures

  • Both communications:

    • inform about the HIE Act and the revised deadline of January 1, 2023;
    • note high volume of connections in progress/expected and convey urgency to engage in the process;
    • explain the relationship between organizations and the NC HIEA, and urge individuals to discuss connection with their employer;
    • pose concrete next steps with web links to resources (training, FAQs, etc.);
    • include infographic enclosure, “What to Expect” detailing 8 steps to connection; and
    • highlight NC HIEA contact information for questions or assistance.
WHAT TO EXPECT
Navigating through the NC HealthConnex connection process

STEP 1
Submit Participation Agreement
Our team will process your agreement and place your organization in the queue for connection. Find detailed instructions for completing the participation agreement.

STEP 2
Executed Participation Agreement & Welcome Packet
Our team will return your organization's executed participation agreement along with the NC HealthConnex Welcome Packet to begin the onboarding process.

STEP 3
Suite of Services Enabled
Full participants can request access to the NC HealthConnex clinical portal by contacting the NC HealthConnex SAS Help Desk at HIESupport@sas.com. For any other services, please contact the NC HIEA at HIEA@nc.gov.

STEP 4
Training and Patient Education
The NC HIEA offers multiple training opportunities, either virtually or on-site, as well as free patient education brochures. To request training, please submit the Training Request Form.

STEP 5
SAS Technical Discussions
Our team members, including our technical partners at SAS will reach out to you to start a technical kick-off. SAS will work directly with your EHR vendor throughout development to connect your organization.

STEP 6
Keep In Touch
Throughout onboarding, it's vital that your organization's point of contact maintain consistent communication with our technical team. This will be imperative to ensure your connection is completed successfully.

STEP 7
Go Live
Once your organization's technical connection is complete, you will receive an email announcing your connection to NC HealthConnex is live, and providers will begin to see your organization's data in the clinical portal.

STEP 8
Ongoing Support
We and our partners at SAS are here to help. Throughout the entire lifecycle of your connection, including post-connection, we can assist your health care organization in using this tool for improved patient care. Reach out to the NC HealthConnex provider relations team at HIEA@nc.gov or the SAS Help Desk at HIESupport@sas.com for assistance.

Have questions? The NC HIEA has answered some of the most frequently asked questions about participation in NC HealthConnex and how to connect. Visit our website to find answers to these questions and what it means to participate in the state health information exchange.
Recommendation 1:

Establish Clear Enforcement Articles of the HIE Act and Assign Enforcement Authority to the NC HIEA, whereby subject health care entities that manage patient health records and that remain unconnected to NC HealthConnex as of the January 1, 2023 deadline may:

a. have a NC HIEA Participation Agreement on file and demonstrate an ongoing “good faith effort” in the connection process;

b. claim an “exception” on an annual basis through attestation to the NC HIEA of meeting one or more defined exception criteria; or,

c. remit an annual State Health Data Assessment (payment) to the NC HIEA rather than pursue HIE connection.
Recommendation 2:

*Adjust Voluntary Designation for Some Providers*, adding voluntary designation for dental and chiropractic providers.

- Use cases for data sharing tilt largely in the direction of dental and chiropractic providers accessing patient history, rather than sharing it with other physical health providers.

- Provider and payer concerns around creating network adequacy issues, particularly with rural Medicaid dentists.
Recommendation 3:

Direct the Creation of a HIE Payer/Provider Council and Development of an Aligned Statewide HIE Payer Strategy to inform HIE development and incent broader connection and improved data quality submission among health care providers.

• By aligning on specific clinical data needs, goals, and measures, payers will help to shape HIE services development to better respond to the health needs of North Carolinians, while improving the sustainability of statewide HIE infrastructure.

• Payers should define their role in incentivizing connection and improving data quality.

• The resulting strategy document—a collaborative effort among Medicaid PHPs, SHP, private payers, and providers—should be submitted to the NC HIEA Advisory Board by December 31, 2022.

• A representative of the HIE Payer/Provider Council could hold a newly created seat on the NC HIEA Advisory Board.
Recommendation 4:

Require Entities that Provide State-Funded Health Care to Submit the Same Clinical and Demographic or Claims Data for All Patients, Regardless of Payer.

- This adjustment would simplify reporting, reduce costs associated with filtering data, better inform care decisions by health care providers, align with the 21st Century Cures Act information blocking rule, and support public health surveillance and population health initiatives.

- Studies show that patients overwhelmingly expect their health care information is being shared among their care team for their benefit, and this measure was unanimously supported and acknowledged as “doing right” by the patient.
Report Outline

• Opening Letter from Advisory Board
• Executive Summary
• Part I: Introduction, Background and Landscape
• Part II: State of Connectivity and Engagement
• Part III: Discussion of Policy Considerations
• Part IV: Recommendations
• Conclusion
• Appendices