

TRANSFORMATION
TODAY & TOMORROW

Integrating Care with HIE Event Notification

NC HealthConnex NC*Notify Service



CENTER *for*
INTEGRATIVE
HEALTH

insight to innovation

North Carolina Health Information Exchange Authority

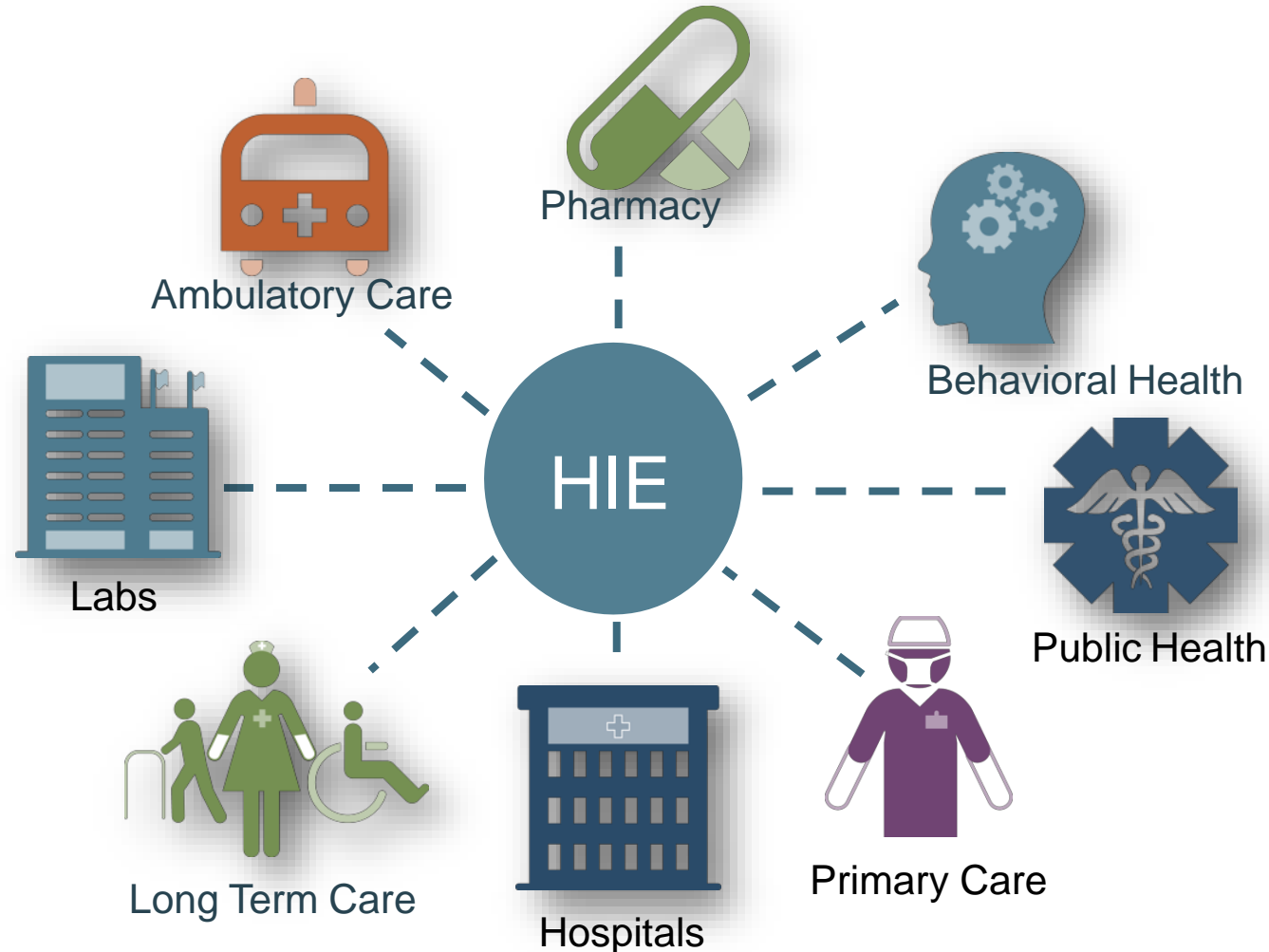
Overview of Topics



- Overview of HIE and HIEA
- HIE Mandate
- House Bill 70 (HB70)
- Participation Agreement / Compliance
- Behavioral Health Data Target
- Clinical Portal Overview
- NC*Notify Overview

What is Health Information Exchange (HIE)?

A Health Information Exchange (HIE) is a secure, electronic network that gives authorized health care providers the ability to access and share health-related information across a statewide information highway.



How Does Health Information Exchange Work?



1

Elements Available

Current data elements available in NC HealthConnex include: Demographics, Allergies, Encounters, Medications, Problems, Procedures, Results, Immunizations, Vitals, Discharge Summaries, etc...

2

Security in Place

All data is protected, stored and accessed only for purposes permissible under federal and state law.

Who Are We?

We connect health care providers to safely and securely share health information through a trusted network to improve health care quality and outcomes for North Carolinians.



STATE DESIGNATED



SECURE



PARTNERSHIP

NC HealthConnex, By the Numbers:

- Over 55,000 providers with contributed records
- 4,700 plus health care facilities live submitting data, including 98 hospitals
- 7,500 plus health care facilities in onboarding
- 52 million+ continuity of care documents (CCDs) exchanged
- 8M+ unique patient records
- Over 225 unique EHRs engaged
- 5 border and intra-state HIEs connected

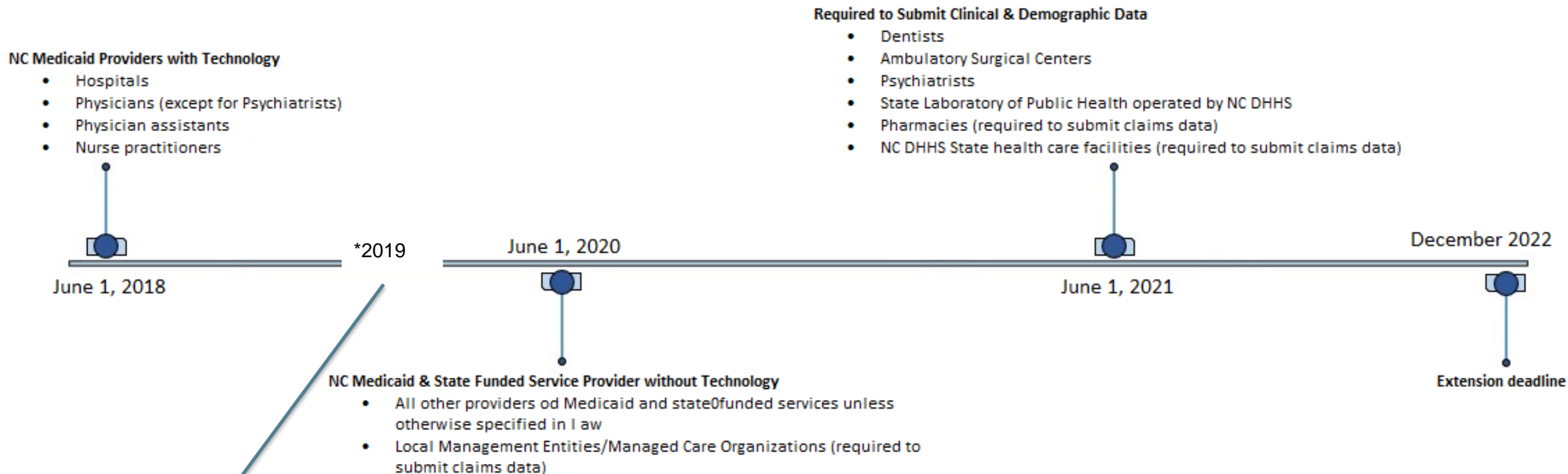
What Does the Law Mandate?

Hospitals as defined by G.S. 131E-176(3), doctors (licensed to practice under Article 1 of Chapter 90 of the General Statutes), and mid-level practitioners who provide Medicaid services and who have an electronic health record were required to connect by June 1, 2018.

All other providers of Medicaid and state-funded services shall connect by June 1, 2020, except;

- Dentists, Psychiatrists, ambulatory surgical centers and the North Carolina State Lab are required to submit clinical and demographic data by June 1, 2021
- Pharmacies are required to submit claims data pertaining to State services once per day by June 1, 2021 using pharmacy industry standardized formats
- State health care facilities operated under the jurisdiction of the Secretary of the Department of Health and Human Services, including State psychiatric hospitals, developmental centers, alcohol and drug treatment centers, neuro-medical treatment centers, and residential programs for children such as the Wright School and the Whitaker Psychiatric Residential Treatment Facility are required to submit claims data by June 1, 2021
- Prepaid Health Plans, as defined in S.L. 2015-245, by the commencement date of a capitated contract with the Division of Health Benefits for the delivery of Medicaid and NC Health Choice services as specified in S.L. 2015-245. and Local management entities/managed care organizations, as defined in G.S. 122C-3, shall submit encounter and claims data by June 1, 2020.

What Does the Law Mandate?



*Prepaid health plans must connect by the start of their capitated contracts entered into with the NC Division of Health Benefits

Sensitive Data

- 42 C.F.R. Part 2 **prohibits** certain health care providers from disclosing data that would identify a patient as having a substance use disorder without patient consent
- HIPAA covered entities are **prohibited** from sharing a patient's psychotherapy notes (See 42 C.F.R. 164.508)

*See C.F.R. 2.12(b) and consult with your legal counsel to determine if you are covered by this regulation.

Participants are prohibited from submitting psychotherapy notes or SUD data covered by 42 C.F.R. Part 2

House Bill 70 – PASSED and Signed Into Law (06/06/19)

- Only requires health care providers licensed in the State of NC to connect. Providers in other States can connect voluntarily.
- Provides an additional year for providers previously falling under the June 1, 2019, timeline. Moving the required **connectivity date to June 1, 2020**.
- Extends the final deadline (i.e. the “end” date) **for all entities to connect to 2022**, which allows providers more time to comply and aligns with deadline updates made to the HIE Act in 2018 for pharmacies, dentists, and ambulatory surgical centers.
- Clarifies that data that passes to or through NC HealthConnex is **not public record**.

House Bill 70 – PASSED 6/06/19

Voluntary Participation for Certain Providers – *these providers no longer required to submit data to the HIE Network but may still participate on a voluntary basis.*

- Community-based long-term services and supports providers, including personal care services, private duty nursing, home health, and hospice care providers.
- Intellectual and developmental disability services and supports providers, such as day supports and supported living providers.
- Community Alternatives Program waiver services (including CAP/DA, 21 CAP/C, and Innovations) providers.
- Eye and vision services providers.
- Speech, language, and hearing services providers.
- Occupational and physical therapy providers.
- Durable medical equipment providers.
- Non-emergency medical transportation service providers.
- Ambulance (emergency medical transportation service) providers.
- Local education agencies and school-based health providers.

NC HealthConnex Participation Agreement

The contract governing data sharing between the NC HIEA and Health Care Organization

Log on to:

[nchealthconnex.gov/how-to connect](https://nchealthconnex.gov/how-to-connect)

✓ Complete the Participation Agreement

- The [Full Participation Agreement](#), which is aligned with the eHealth Exchange the Data Use and Reciprocal Support Agreement or DURSA, will allow providers full use of current and future NC HealthConnex value-added features and satisfies the State requirement to submit clinical and demographic data. Organizations with a Full Participation Agreement may send all patient data to support whole person care or may choose to send only state-required data. Full participants with a uni-directional connection can access patient data using the NC HealthConnex clinical portal. Note: A bi-directional interface is not required with this agreement.
- The [Submission Only Participation Agreement](#), will enable a provider to submit the clinical and demographic data required by law in a uni-directional technical connection in order to be in compliance with the HIE Act. However, this agreement will prohibit all other data exchange services, including HIE data query and response, clinical or event notifications, and public health registries. Participants with a Submission Only Agreement should consult with legal counsel prior to sending data that does not pertain to health care services paid for with State funds pursuant to the HIE Act. Being able to only submit State funded data will also depend on the technical capability of your EHR vendor to implement data filtering.

✓ Submit to hiea@nc.gov

What Data Elements Will You Need to Submit?

The NC HealthConnex Data Target

We aim to collect all Meaningful Use Data Elements

| | | | | | | |
|--|--------------------|----------------------------------|--|----------------------|-------------------------|--------|
| Patient ID | Name | Date of Birth | Address/ Phone | Language | Race/ Ethnicity | Gender |
| Date of Visit | Visit Number | Reason for Visit | Level of Care | Visit Location | Care Team Members | |
| Vital signs (height, weight, BP, BMI) | Immunization | Referrals | Care plan field(s), including goals and instructions | Problems | Medication Allergies | |
| Medications | Laboratory Test(s) | Laboratory Value(s)/Result(s) | Smoking Status | Discharge Summary | Procedures | |

Required Elements for BH and IDD Providers

The NC HealthConnex Data Target

We aim to collect all Meaningful Use Data Elements

| | | | | | | |
|--|--------------------|----------------------------------|--|----------------------|-------------------------|--------|
| Patient ID | Name | Date of Birth | Address/ Phone | Language | Race/ Ethnicity | Gender |
| Date of Visit | Visit Number | Reason for Visit | Level of Care | Visit Location | Care Team Members | |
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| Medications | Laboratory Test(s) | Laboratory Value(s)/Result(s) | Smoking Status | Discharge Summary | Procedures | |

Outbound Services

Clinical Viewer

Clinical Viewer

- Web-based clinician portal accessible at <https://portal.nchealthconnex.net>
- Longitudinal patient records with data from all participating entities
- Direct Secure Messaging (DSM) for HIPAA-compliant sharing of records

Clinical Viewer

Notice:

The NC Health Information Exchange Clinical Portal and Direct Secure Messaging (Web Communicate) will experience regularly-scheduled, routine maintenance every third weekend. The outage is planned to begin at 7:00 AM EST on Saturday. We apologize for any inconvenience this may cause.



Login

NC HIEA DEMO ENVIRONMENT

The North Carolina Health Information Exchange Authority (NC HIEA) operates North Carolina's statewide health information exchange, NC HealthConnex. This secure, standardized electronic system promotes the access, exchange, and analysis of health information.

Login Agreement

Please note that every time you login, you are agreeing to the terms signed by your organization, that provided you with a unique User ID, including (but not limited to) the following:



Clinical Viewer

Patient Search

Messages (0)

Clinician Tools

My Account

Logout

EMR Id

Assigned By

Last Name

First Name

Middle Name

Date of Birth

MM-DD-YYYY

Search

DISCLAIMER

Please read the following information. It will be updated on an ongoing basis. By using this application, you consent and agree to abide by all applicable federal and state law and the NC Health Information Exchange Authority (NC HIEA) Participation Agreement.

Confidentiality Notice for Alcohol and Drug Abuse Information
Confidentiality of Alcohol and Drug Abuse Patient Records Regulations: (42 C.F.R. Part 2). The federal regulations prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 C.F.R. Part 2. A general authorization for the release of medical or other information is not sufficient for this purpose.

Confidentiality Notice for Psychotherapy Information
Confidentiality of psychotherapy notes: (45 C.F.R. 164.501). This information has been disclosed to you from records whose confidentiality is protected by the HIPAA Privacy and Security Rule. You are prohibited from making any further disclosure of it without the specific written consent of the person to whom it pertains, or as otherwise permitted by the HIPAA Privacy & Security Rule. A general authorization for the release of medical or other information is not sufficient for this purpose.

Physician Responsibility
All or some of a particular patient's information may not always be available through the HIE network. You, as the patient's physician or health care provider, have the ultimate responsibility for obtaining your patient's complete medical history. When treating your patients, always consult them about prior treatments, diagnoses and medications prescribed. You also have the responsibility to collect and retain a patient's written authorization to disclose certain protected health information to other health care providers in compliance with federal law and regulations, where applicable.

Disagree

Agree

Clinical Viewer

Patient Search

Messages (0)

Clinician Tools

My Account

Logout

EMR Id

Assigned By

Last Name

First Name

Middle Name


Date of Birth

MM-DD-YYYY

Search

Recent Patient Searches

| Last, First | Sex | DOB |
|--------------|-----|------------|
| CARLSON,CARL | M | 2002-07-01 |
| JONES,EMMA M | F | 1932-03-29 |
| SMITH,JANE | F | 1972-12-02 |

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20



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Powering Health Care Outcomes

Clinical Viewer

Back to Viewer

View As: Patient Summary (HTML)

Report: Patient Summary Report

Send...

Patient Summary Report for John Smith, M 1930-10-19

Patient Demographics

| Name | Date Of Birth | Gender | Identification Number | Phone | Address |
|------------|---------------|--------|--|-------|--|
| John Smith | 1930-10-19 | M | MRN: LN572046 MRN: LAB572046 MRN: LD572046 MRN: S2345 XX: C9876 DL: S45008787 | | 1 Memorial Drive Cambridge MA 02142 |

Allergies

| Onset Date | Inactive Date | Allergen | Category | Last Updated At |
|------------|---------------|-----------|----------|-----------------|
| 2011-07-27 | | Chocolate | Food | HC6 |

Medications

| Date | Medication | Form | Strength | Duration | Source |
|------------|-------------------------|------|----------|----------|--------|
| 2018-05-24 | Panadeine Forte Tablets | | 100 | | CGH |
| 2018-05-17 | Amoxil Oral Capsules | | 500 mg | 7 Days | GP1 |

Encounters

| Start Date | End Date | Type | Facility | Reason | Clinician | Admission Type |
|------------|------------|------|----------|--------|-----------|----------------|
| 2018-05-24 | 2018-05-26 | I | CGH | | | |
| 2018-05-17 | 2018-05-17 | O | HC6 | | | |
| 2018-05-08 | 2018-05-08 | O | HC6 | | | |
| 2018-05-05 | 2018-05-05 | O | PHLS | | | |
| 2018-05-05 | 2018-05-05 | O | PHLS | | | |

Diagnoses

| Date | Description | Code | Type | Source |
|------------|---------------------------------|------|------|--------|
| 2018-05-17 | Type 2 diabetes mellitus | T2D | T2D | HC6 |
| 2018-05-17 | Dementia in Alzheimer's disease | DA | DA | HC6 |

Laboratory Results

| Test | Date | Result | Source | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|--|-----------------|--------|--------------|-----------------|------|--------------|------------------------|-----|---------|----------|--------|--|----------------------|------|---------|---------|------|--|------------|------|------|-----------|--------|--|------------|------|---------|-----------|--------|--|------------------|----|----|--------|--------|--|----------------------|------|----|-------|--------|--|--|
| | | <table><thead><tr><th>Test Item</th><th>Value</th><th>Units</th><th>Reference Range</th><th>Flag</th><th>Message Flag</th></tr></thead><tbody><tr><td>WHITE BLOOD CELL COUNT</td><td>8.1</td><td>10(9)/L</td><td>4.0-10.6</td><td>Normal</td><td></td></tr><tr><td>RED BLOOD CELL COUNT</td><td>6.99</td><td>10x12/L</td><td>4.5-5.9</td><td>High</td><td></td></tr><tr><td>HEMOGLOBIN</td><td>13.6</td><td>g/dL</td><td>12.0-16.0</td><td>Normal</td><td></td></tr><tr><td>HEMATOCRIT</td><td>41.6</td><td>Percent</td><td>36.0-46.0</td><td>Normal</td><td></td></tr><tr><td>MEAN CELL VOLUME</td><td>85</td><td>fL</td><td>80-100</td><td>Normal</td><td></td></tr><tr><td>MEAN CELL HEMOGLOBIN</td><td>27.3</td><td>pg</td><td>26-34</td><td>Normal</td><td></td></tr></tbody></table> | Test Item | Value | Units | Reference Range | Flag | Message Flag | WHITE BLOOD CELL COUNT | 8.1 | 10(9)/L | 4.0-10.6 | Normal | | RED BLOOD CELL COUNT | 6.99 | 10x12/L | 4.5-5.9 | High | | HEMOGLOBIN | 13.6 | g/dL | 12.0-16.0 | Normal | | HEMATOCRIT | 41.6 | Percent | 36.0-46.0 | Normal | | MEAN CELL VOLUME | 85 | fL | 80-100 | Normal | | MEAN CELL HEMOGLOBIN | 27.3 | pg | 26-34 | Normal | | |
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Clinical Portal: User Testimonials

“I was able to confirm that a patient of mine who had **several outstanding referrals** to different care organizations had not rescheduled her appointments as planned – this saved time for me and the medical records staff from having to log into three separate Epic systems to get the same information.”

Independent Physician’s Office

“I use the portal to look up labs, test results, consult notes from other providers for quality reporting. This data is provided to insurance companies and other agencies. I also use it to see if the patient has changed practices or has seen specialists. **It provides an accurate picture of where the patient has been in their health care journey, while saving valuable time and research.**”

FQHC Case Manager

“At the Open Door Clinic, we see many **patients that have visited the ED and have been hospitalized for chronic medical conditions**. The documents we receive directly from NC HealthConnex allow us to have all of the information we need at our fingertips. **There is no interruption of workflow to request records, rescheduling patients until we have all of the information we need, or even having to track down specialist referral notes.**

Those providers are in the system and are sending the data that we need via NC HealthConnex! The other side to this is the **ED and hospital providers have access to the information we are sharing since our doctors are not on call at all hours**. The continuity of care is incredible! We Love it!”

Mandy Horner, RN, BSN – Clinical Director for the Open Door Clinic
dba Urban Ministries of Wake County



NC*Notify

Addressing Challenges

- Knowing where their patients receive care outside of their Organization or EHR
- Limited patient search capabilities in the clinical portal -- Finding events in the HIE requires the Provider explicitly search for a Patient
- Ensuring and supporting successful transitions of care if they are **not** notified of events in a timely manner

NC*Notify - Event Notifications Service

- Subscription based “push” alerting for clinical events
- Extends care team’s view of patient movement across state and nationally
- Provides notification to providers for timely follow-ups to meet federal requirements
- Closes transitions-in-care gaps

NC*Notify Overview

Step 1

Participant Submits Patient File for NC HealthConnex to Monitor

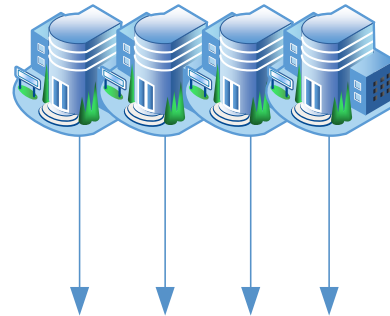
Technical Details

- Flat file with patient demographics
- Sent via sFTP/DSM



Step 2

Other Participants Submit Admission & Discharge Messages (ADT)



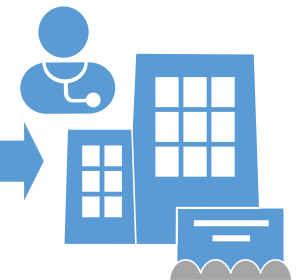
NC HealthConnex
Powering Health Care Outcomes

Step 3

Participant Receives Notification File

Technical Details

- Flat file with patient Demographics and visit details
- Sent via sFTP/DSM
- Participant defines delivery schedule



NC*Notify Current State

| Patient Panel |
|------------------------|
| Organization |
| Patient ID (MRN) |
| Patient Name |
| Date of Birth |
| Gender |
| Address |
| Phone |
| SSN |
| Drivers License # |
| Primary Care Physician |
| Custom Fields |

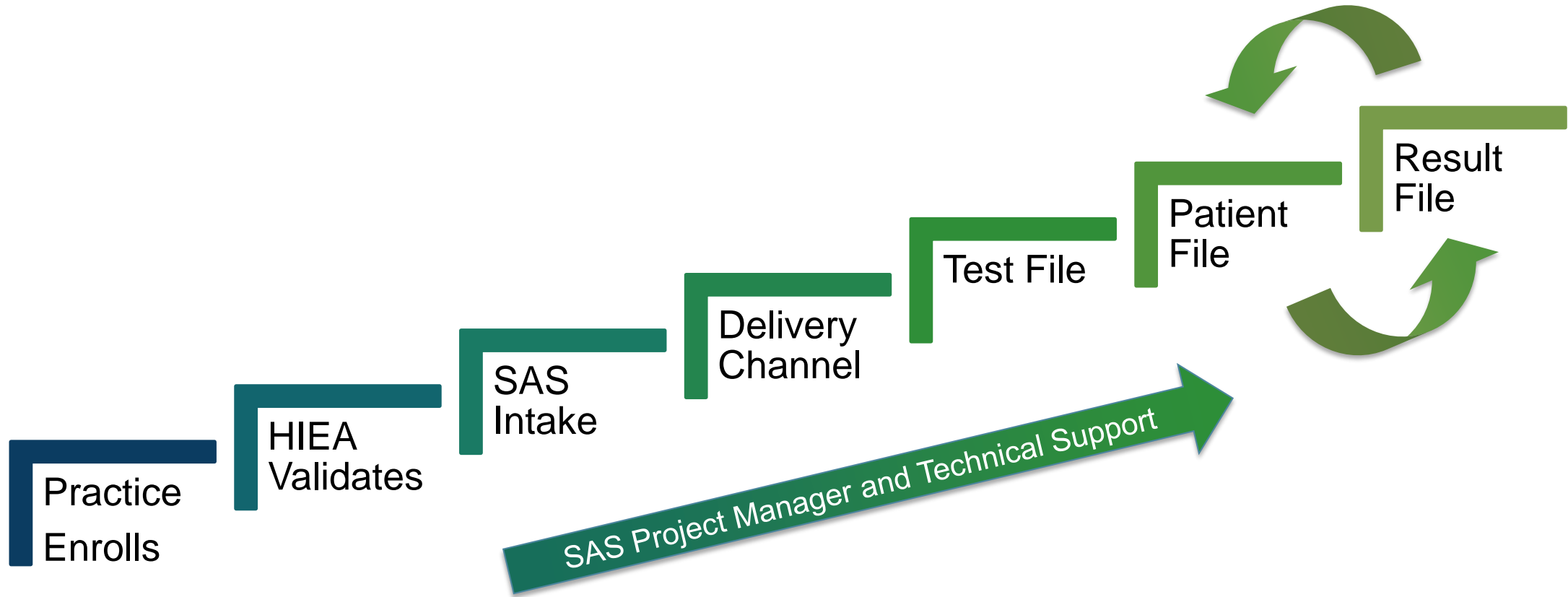
Current Metrics

- ✓ 1.4M Patients Tracked
- ✓ 49 Participants live
- ✓ Most receiving daily files
- ✓ Most updating panels weekly

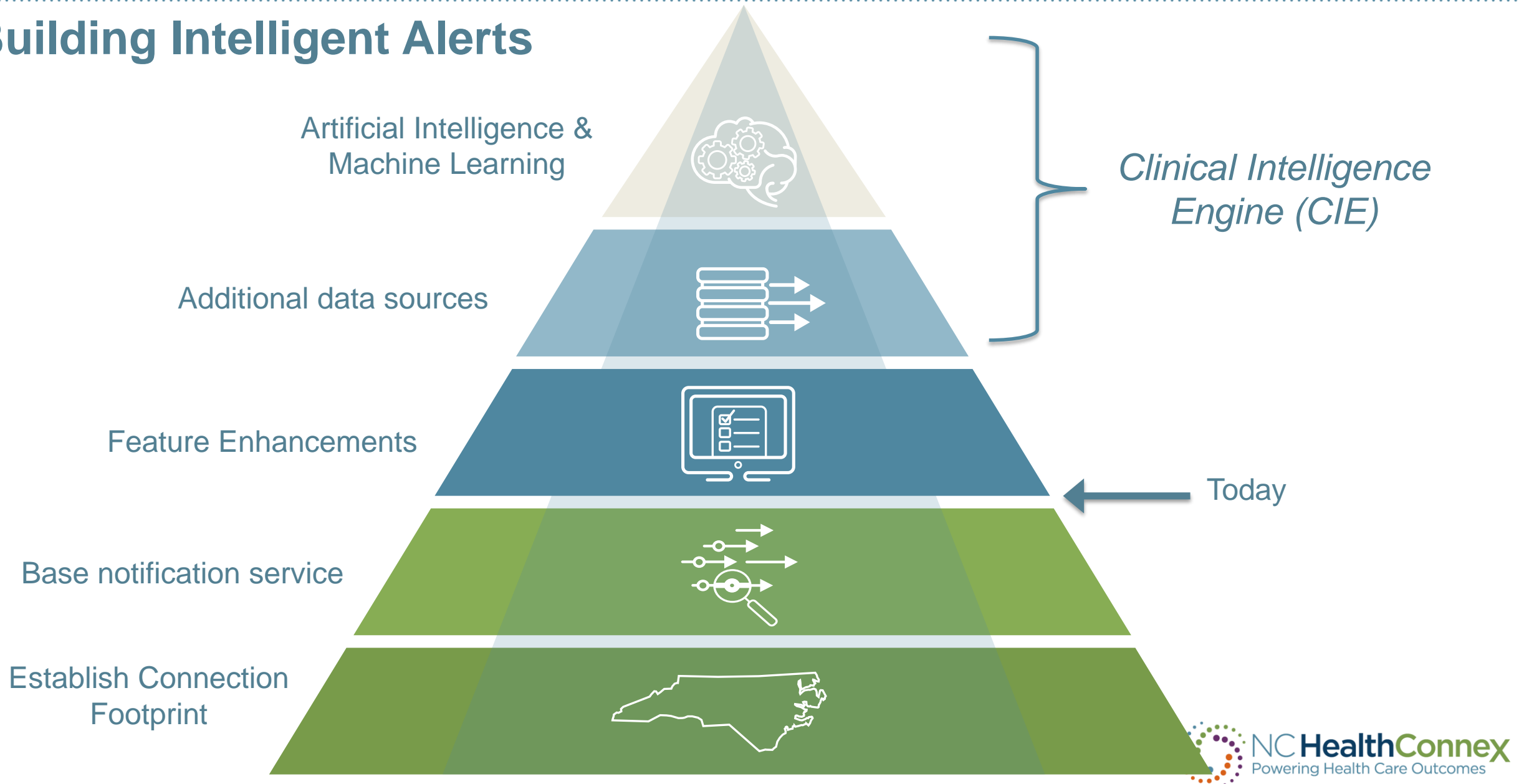
| Notification Content |
|------------------------|
| Patient Info |
| Event Date |
| Date Received |
| Event Type |
| Patient Class |
| Participant Feed |
| Facility |
| Diagnosis |
| Visit Number |
| Discharge Disposition |
| Discharged To Location |
| Death Indicator |
| Date of Death |

NC*Notify

Onboarding Steps



Building Intelligent Alerts



Use Case Reports

The emergency ADT feed from NC Notify I reviewed yesterday was timely and when I went into HealthConnex to pull the CCD I was able to get some valuable information regarding the physical condition of the client which could then be shared with the direct care staff in the program as the **guardian failed to let us know when she dropped the child off for treatment.**

-Behavioral Health Agency

“With services like NC*Notify – the entire care team can have much-needed information to keep patients safe during the riskiest times: when they **transition between one care entity and another.**”

- FQHC Participant

A large hospital system is utilizing NC*Notify to gain insights into other facilities **in their system** that are not on the same EHR as well as for feeding of **downstream care management dashboards.**

Questions?

For more information visit,

www.nchealthconnex.gov

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Appendix