Why a Health Information Exchange (HIE)?

Compared to other developed nations, the United States spends two to three times as much per person on health care – but lags behind them in life expectancy, infant mortality, obesity and avoidable deaths.

A confluence of forces...
► MARKET ► GOVERNMENT MANDATES ► TECHNOLOGY ► CONSUMERISM

...is forcing different parts of our health care system to work in concert more closely than ever before.

The glue in these new relationships – the currency in this new health economy – is instant, accurate, useful information.

Setting the Strategic Agenda – NC HIE Mission

NC HIE will provide a set of secure, scalable information services that
- Promotes the access, exchange and analysis of health care information
- Enables participating organizations to:
  - Improve medical decision-making and coordination of care
  - Improve health outcomes
  - Control health care costs
NC HIE Overview and Governance

- Nonprofit organization established as a Statewide Designated Entity (SDE) in April 2010
- Board of directors: 25 CEOs and health care leaders in the North Carolina community
- Four workgroups: strategy and policy experts on
  - Clinical and technical operations
  - Governance
  - Finance
  - Legal and policy

Organizational Approach – NC HIE’s Choice

<table>
<thead>
<tr>
<th>Statewide HIE is the market</th>
<th>Regional HIEs</th>
<th>Statewide network of diverse qualified organizations</th>
<th>Market determines structure</th>
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<tr>
<td>• Statewide HIE builds infrastructure • NC HIE’s focus on local adoption/governance</td>
<td>• Divides NC into territories • Statewide HIE provides governance, manages monopolies</td>
<td>• Range of “QOs” make up core structure • Statewide HIE provides policy guidance, core services and interoperability • Value-added services benefitting the range of participants</td>
<td>• No core services • Private market addresses interoperability • Focuses on education and policy guidance</td>
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Characteristics of Qualified Organizations

- Community
- Business Model
- Governance
- Technology
NC HIE is the fabric that bridges divides among existing structures with open collaboration, core technology and valuable services.

Participation is voluntary but requires application, selection and a binding agreement that includes privacy and security provisions.

**Elaboration:**

**Commercial:** These organizations have large policy and technical capabilities of their own, as well as a care community to build around. They will connect to NC HIE as a conduit for services.

**Virtual:** These orgs have a basis in a community but lack the technical ability to mount HIEs of their own. For them, NC HIE is a subcontractor delivering needed tech components along with value services.

"Safety net": These “disenfranchised” groups don’t fit either of the other two categories. Example: free clinics. Subsidies will support HIE participation.

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1. Be organized as a non-profit or for-profit business entity who has filed with the North Carolina Department of the Secretary of State (or that has a certificate of good standing if organized in a state other than North Carolina).

2. Agree to comply with NC HIE’s Statewide Policy Guidance (including technical specification and privacy and security requirements) and ensure that QO participants comply with them.

3. Agree to comply with, and ensure that its participants comply with, NC HIE’s Fair Information Policy Principles

4. Provide to NC HIE a list of current participants, updated on a regular basis in compliance with a process to be established by NC HIE and a plan for adding more participants.

5. Submit and annually update a Program Plan that describes specific activities in which the QO will engage, including:
   - Marketing the HIE and recruiting participants
   - Enrolling and billing participants for QO and HIE services
   - Collecting and maintaining agreements with their QO participants
   - Maintaining a customer support process to field participant questions
   - Creating and maintaining a fair grievance process
   - Allocating resources for participation in statewide HIE collaborative process
   - Overseeing, auditing, and reporting QO participants’ compliance with the Statewide Policy Guidance and any other applicable requirements

6. Demonstrate financial viability:
   (a) On an annual basis:
      - Submit a detailed business plan, including a three-year projection of expenses and income and other sources of future revenues.
      - Submit a rate plan outlining fee structures for HIE service for participants in the QO.
      - Submit results of annual independent financial audit.
   (b) Demonstrate adequate liability coverage relevant to the exchange of individually identifiable health information (e.g., directors’ and officers’ liability, data theft, data mismanagement, data generation errors, data breach, etc.), in accordance with such standards as may be required by the NC HIE board of directors.
Why a NC Health Information Exchange?

Four focus areas for NC HIE initiatives:

**Core Services**
The technologies that make up the NC HIE platform – the engine for everything else

**Participant Services**
This is where NC HIE adds new services and value in addition to its coordinating role. Think of it like an “app store” for participating organizations, where they can find analytics, consultative help and other offerings that improve specific aspects of the health care ecosystems (i.e., Medication Management).

**Connectivity Services**
Clinician access to information from other State, Regional or Federal databases. This is where NC HIE lets participants talk outside their own communities.

**Qualified Organization Enablement and Enrichment**
Helping to develop local programs and services
NC HIE Core Services Overview

- Initial Implementation of HIE Platform
  - Web-based access to the longitudinal patient record (Clinical Portal).
  - Connectivity with participating systems: CCD, HL7, SSD, Web Services (Rhapsody™).
  - Storage of clinical information (CDR).
  - EMR.
  - Data normalization.
  - Public health reporting.
  - User subscribed notifications.
  - Direct secure messaging.
  - Privacy and consent

- QO Integration
  - Define/build interfaces to existing networks to promote exchange of clinical messages (CCD or HL7)

- Implementation of common NHIN gateway for VA connectivity
  - Define/implement NCHICA/NCHIE gateway that will expose VA data to all QO’s

Timeline

Phase IA
- Medication management
- Immunization registry
- Practice analytics
- Lab results

Phase IB and Beyond
- Lab ordering
- Pharmacy
- Procedural results
- Pharmacy
- Consumer portal
- Payer gateway
- Medical imaging
- Population health analytics
- Public health reporting
- Referrals
- Senior care
- Disaster preparedness
- Advanced devices
- Health IT infrastructure

Benefits to the Health Ecosystem

North Carolina has an inbound move rate of 55.4%. According to Forbes, Raleigh and Charlotte remain two of the most popular cities for relocation.

There are almost 304,866 deaths a year from preventable medical errors, partly because this information is not readily available to specialists and emergency rooms.

By reducing their dependence on paper records, a practice serving 5,000 patients annually could save $24,866.

At this highest level of health IT adoption, only 0.001% of prescriptions would require a phone call between a pharmacist and physician.

Across all insurance types, EHR sites were associated with significantly higher achievement of care and outcome standards and greater improvement in diabetes care.

American patients have seen an average of 16.7 different doctors during their lives.

Only 6.3% of physicians use a fully-functional electronic health record system in their practice.

Emergency Departments with connectivity to an HIE have improved productivity by more than 20%.
What's in it for everyone?

Providing NC with better, safer, more affordable care

- Integration
- Communication
- Insight
- Agility
- Custom

Integration
Information from multiple health care entities reduces medical errors and helps avoid duplication of services

Communication
Better coordination during transitional care events

Insight
Turns information into insights, enabling rapid advancements and better decisions

Agility
Streamlining operations, accelerating the pace of innovation and ensuring compliance

Custom
Uniquely designed for the NC health care system – not just an off-the-shelf solution

“The future is not so hard to predict. It’s already here, it’s just unevenly distributed.”

William Gibson, Science fiction writer
NC HIE Board of Directors

Executive Committee
- Lanier Cansler – Co-Chair
  NC Department of Health and Human Services
- Charles Sanders, MD – Co-Chair
  North Carolina Hospital Association
- Bill Atkinson, PhD – Past Co-Chair
  North Carolina Medical Society
- Allen Culler, MD – Treasurer
  Community Care of North Carolina
- Jeff Kilroy – Chief Executive Officer
  George Southerland, MD – Director at Large
  North Carolina Medical Board
- Sharron Wilson – Secretary
  Blue Cross Blue Shield of NC

Ex-Officio
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  NC DHHS/State HIT Coordinator
- Jerry Fralick
  CIO, State of NC
- Cragan Gray, MD
  State Medicaid Director

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  Area Health Education Centers
- Glenda Fields, MD
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  Laboratory Interests
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  Nurses Association
- Sam Money
  NC Hospital Healthcare Centers Association
- Warner Newton
  NC Healthcare Quality Alliance
- John Rector
  Making Home Infirmary
- Bill Roper, MD
  Advocacy Medical Centers
- Sam Spicer, MD
  NHCHA
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  NC, State Senator
- Steve Taylor, MD
  American Academy of Pediatrics
- Speaker Thom Tillis
  NC, State Representative

Patient Record