The Roadmap to Value-Driven Health: Benchmarking Study Results and Implications for North Carolina

April 2018
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About This Report

In 2016, the North Carolina Chamber Foundation asked Benfield, a division of Gallagher Benefit Services, to help the Foundation define a Roadmap to Value-Driven Health. The end goal of the Roadmap is for North Carolina to become a top 10 state for health and health care value—a key component of the Chamber’s Vision 2030 goals to make the state a leading place to do business.

In the fall of 2017, the Foundation asked Benfield-Gallagher to assist with the next phase of the planning process. Specifically, the Foundation asked us to conduct two benchmarking studies of initiatives in other states that could serve as models for efforts in North Carolina to drive implementation of the Roadmap. These benchmarking studies included:

- An analysis of two Regional Health Improvement Collaboratives (RHICs)
- A review of Health Information Exchanges (HIEs) in several states

The purpose of both studies was to gain insight into: the benefits of an RHIC or HIE; the range of approaches that the benchmarked organizations have pursued; key challenges they have faced; critical success factors; and other lessons from their experience.
Together, the two major sections of this report explore the question:

**Should employers in North Carolina become engaged in the development of an RHIC and/or an HIE as part of the infrastructure required to achieve health and health care leadership?**

To answer this question, the report strives to:

- Demonstrate the need for North Carolina to have a robust and strategic RHIC and HIE as requirements for any serious ambition to achieve top 10 status;

- Identify the importance of employer stakeholder engagement in driving not only the development of the RHIC and HIE, but in leveraging the RHIC and HIE to enable transformational, value-focused change in health and health care in the state; and

- Outline fundamental mechanisms through which the NC Chamber and employers can engage in ways that will accelerate RHIC and HIE development and their impact on health and health care value.

This report explicitly does not attempt to try to make readers experts in RHICs or HIEs. Instead, it hopes to frame a serious discussion about how employers can play a leadership role—collaborating with health plans, providers and other purchasers in using information along with new payment models and other solutions to improve health and health care quality while reducing waste and costs.
Key Terms and Acronyms

- **All-Payer Claims Database (APCD):** A large-scale database that systematically collects health care claims data from a variety of sources. More information on pages 30-35.

- **Accountable Health Communities:** Addresses a critical gap between clinical care and community services in the current health care delivery system by testing whether systematically identifying and addressing the health-related social needs of Medicare and Medicaid beneficiaries’ through screening, referral, and community navigation services will impact health care costs and reduce health care utilization. More information here.

- **Centers for Medicare and Medicaid Services (CMS):** A federal agency within the United States Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program, and health insurance portability standards. More information here.

- **The Center for Medicare & Medicaid Innovation (CMMI):** CMS Innovation Center that supports the development and testing of innovative health care payment and service delivery models. More information here.

- **Comprehensive Primary Care Plus (CPC+):** A national advanced primary care medical home initiative sponsored by CMMI that aims to strengthen primary care through regionally-based multi-payer payment reform and care delivery transformation. More information here.
• **Health Information Exchange (HIE):** Provides the capability to electronically move clinical information among disparate health care information systems to support patient care and population health management. More information on pages 92-97.

• **Merit-Based Incentive Payment System (MIPS):** MIPS adjusts payment to providers based on performance in four performance categories: quality, cost, advancing care information and improvement activities. More information [here](#).

• **Network for Regional Healthcare Improvement (NRHI):** Represents more than 30 RHICs and state-affiliated partners, all working toward the goals of better health, better care, and lower costs. More information [here](#).

• **Pharmacy Benefit Manager (PBM):** A third-party administrator of prescription drug programs for employee health benefit plans, Medicare Part D plans, etc.

• **Qualified Clinical Data Registry (QCDR):** A CMS-approved entity (such as a registry, certification board, collaborative, etc.) that collects medical and/or clinical data for the purpose of patient and disease tracking to foster improvement in the quality of care provided to patients. More information [here](#).

• **Regional Health Improvement Collaborative (RHIC):** A not-for-profit organization dedicated to improving the quality and value of health care in a particular state or region. More information on pages 23-24.

• **Triple Aim Goals:** A framework developed by the Institute for Healthcare Improvement (IHI) that describes an approach to optimizing health system performance by: improving the patient experience of care (including quality and satisfaction); improving the health of populations; and reducing the per capita cost of health care. More information [here](#).
Executive Summary
Background
Roadmap to Value-Driven Health – Essential to Vision 2030 for North Carolina

Ensuring North Carolina’s position as a leading state for doing business includes the bold ambition of making dramatic improvements in health and health care value.

**Goal:** North Carolina will be a top 10 state for health and health care value by 2030.

**Benefits of Becoming a Top 10 State***

- Healthier, more productive workforce and population
- Lower, more predictable health care costs
- Easier access to high-quality care for all residents
- Better quality of life
- More attractive destination for employers and for families

* Consensus of participants in the April 2016 Stakeholder Roundtable Meeting hosted by the NC Chamber
Five Principles of the Roadmap to Value-Driven Health

1. **The approach is employer-driven and collaborative:** The primary focus of the initiative is to align action among the various stakeholders on the health care supply chain to shift the health care market’s attention toward greater quality and value.

2. **The NC Chamber serves as a key convener:** The NC Chamber is a natural owner of an employer-driven, multi-stakeholder process that is state-wide but sensitive to regional variations.
3. **Strategic supply chain management drives the framework:** Employers must act collectively to set clear and consistent expectations for value, in alignment with the value-based purchasing strategies of CMS and other major purchasers. They must also work collaboratively with other stakeholders to align incentives and create sustainable, value-focused models.

**The Health Benefits Supply Chain**

<table>
<thead>
<tr>
<th>Tier 3</th>
<th>Tier 2</th>
<th>Tier 1</th>
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</thead>
<tbody>
<tr>
<td><strong>Manufacturers</strong>&lt;br&gt;- Prescription Drugs&lt;br&gt;- Consumer Products&lt;br&gt;- Devices&lt;br&gt;- Diagnostics</td>
<td><strong>Providers</strong>&lt;br&gt;- Primary Care&lt;br&gt;- Specialists&lt;br&gt;- Systems of Care&lt;br&gt;- Retail Pharmacies&lt;br&gt;- Etc.</td>
<td><strong>Intermediaries</strong>&lt;br&gt;- Health Plans&lt;br&gt;- PBMs&lt;br&gt;- Specialty Drug Managers</td>
</tr>
</tbody>
</table>

**Employers**

Employees, Dependents & Retirees

Source: https://www.bridgingthevaluegap.com/
4. The Roadmap addresses all elements of the “Bridge” model for improving health and health care value: The elements include: patient/consumer accountability; physician/provider accountability; measurement and reporting of quality and cost data; aligned incentives among all stakeholders; and information technology infrastructure.

Source: https://www.bridgingthevaluegap.com/
5. **The approach leverages the experiences of leading state and regional initiatives:** Conduct systematic studies of leading initiatives in other states to educate North Carolina stakeholders and strengthen the design of the Roadmap.

Consistent with principle #5, this report presents the results of two closely-related benchmarking studies on Regional Health Improvement Collaboratives (RHICs) and Health Information Exchanges (HIEs) that are directly relevant to the Roadmap.

The balance of this Executive Summary presents a synthesis of implications from the two benchmarking reports. These implications should inform employers’ strategies for making North Carolina a top 10 state for health and health care value.
Implications of the Benchmarking Research
To be “Top 10 in Health and Health Care Value,” North Carolina needs to move quickly, turbocharged by employer leadership.

NC trails other states that have RHICs, and is behind many regions and states that have much more mature and strategic HIEs.

NC has a chance to accelerate rapidly with engaged employers – a turbocharging force that all benchmark interviewees agree can have a major impact on progress.

Key roles for employers

- Power to convene other stakeholders
- Supply chain leaders that keep the focus on value
- Ability to drive incentive alignment
- Can ensure accountability over time

State Chamber/Employer leadership in NC bodes well – starting on the right foot to accelerate past other states.
Benchmarks studied are unique, proving the point that every initiative must find its own path.

In North Carolina, a number of unique forces and factors will need to be considered in determining how best to proceed:

<table>
<thead>
<tr>
<th>NC State HIE Authority</th>
<th>Pending All Payer Claims Database</th>
<th>A dominant health plan</th>
<th>Powerful health care providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>has potential to support transformational goals, but may be constrained by political realities from moving far enough/fast enough</td>
<td>if passed and then used to improve quality and value, would accelerate progress to goals</td>
<td>that could help accelerate adoption of value-based payment models (if it chooses to)</td>
<td>that have resources and know-how to use information to compete on quality, but may resist sharing information outside their systems</td>
</tr>
</tbody>
</table>

Benchmarks show that none of these are impenetrable barriers, and all can be assets. It will take strong leadership and employer engagement to navigate challenges with a focus on driving top-ten-generating transformation.
Information infrastructure is the place to start -- credible data, managed by a trusted third party, is critical for other “bridge” elements to function.

**A Strategic Health Information Exchange (HIE)**
- Connections among health systems improve quality, and reduce redundancy and waste.
- Establishment and broad adoption of value-focused payment models.
- Implementation of population health initiatives, including targeted efforts (e.g., opioids) and broader health improvement priorities.

**A Robust All-Payer Claims Database (APCD)**
- Transparency of health care quality, utilization, pricing and total cost data.
- Information empowers all stakeholders, and enables alignment on payment models that focus on lower costs and higher quality.
Benchmark initiatives promote collaborative efforts to build new health care delivery, payment and benefit design models.

Incentives need to be aligned among key stakeholders, including physicians and patients, for successful health care transformation to occur.

New value-based solutions are emerging for health care delivery, payment and benefit design in benchmark states, through a combination of:

- Formal multi-stakeholder initiatives to design and pilot common approaches
- Direct collaboration among leading employers, health plans and provider organizations to implement specific solutions that meet their needs

Both approaches benefit from the neutral forums provided by the benchmark organizations and from the knowledge, mutual understanding and relationships built there over time among the stakeholders.
Transformation accelerates when employers, Medicare and Medicaid align goals to send clear and consistent signals to health care providers regarding value.

A common success factor among benchmark organizations is to not reinvent the wheel, but to align demands and payment models with Medicare and Medicaid.

The impact on providers is profound because it enables them to focus improvement activities on outcomes that will be consistently rewarded, reducing waste and enabling them to transition from fee-for-service models.

Employers can collaborate with Plans in driving adoption of plan designs that reward quality and value.

This is how supply chains function best, because it creates an environment where value creators prosper most.
Successful organizations all take a customer-focused product development approach to create products and services that enable customers to participate in and profit from transformation to value-based models.

Numerous revenue streams are available to support the growth and expansion of transformation organizations:

- Subscriptions for data feeds and services
- Fees for data products and consulting/support services
- Grants and service fees from governments and foundations
Benchmarking Regional Health Improvement Collaboratives – Key Findings and Implications for the North Carolina Business Community
## Contents of this Section

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- Overview of the Benchmarking Targets 36
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- Implications for North Carolina and Possible Next Steps 84
About Regional Health Improvement Collaboratives (RHICs)

For this report, we studied the experience of two Regional Health Improvement Collaboratives (RHICs) that have been operating for several years in other states.

The purpose of the research was to help inform the direction that the North Carolina business community will take in developing and refining a Roadmap to Value-Driven Health for North Carolina.

RHICs are not-for-profit 501(c)3 organizations dedicated to improving the quality and value of health care in their region. Unlike most other health care organizations, RHICs are “multi-stakeholder,” meaning they are governed by representatives of the four key health care stakeholder groups (purchasers, providers, payers and patients), and they address quality and cost issues across a broad range of patients and providers.

In order to address the complex challenge of solving multiple, interdependent pieces of the health care improvement puzzle, they also tend to pursue initiatives focused on four key levers of health care transformation:

1. Performance measurement
2. Performance improvement
3. Payment and delivery reform
4. Patient education and engagement

Adapted from: [http://www.nrhi.org](http://www.nrhi.org)
It is important to note that there is no one single model for success, and certainly no one model that perfectly fits the situation in North Carolina in 2018.

There are more than 30 RHICs that are members of the Network for Regional Healthcare Improvement (NRHI).

Each initiative has followed a unique pathway that reflects the needs, opportunities and constraints of its state or regional market, as well as the evolving national environment and lessons they have learned along the way.

Nevertheless, the findings from our benchmarking research have validated the expectation that investigating the experiences of selected RHICs can provide valuable insights to the North Carolina business community as it identifies pathways to achieve the goal of becoming a top 10 state for health and health care value.

Source: http://www.nrhi.org
Research Methodology
Research Methodology: Selection Process

We investigated more than 15 Regional Health Improvement Collaboratives (RHICs) as part of a selection process to identify the two benchmarking targets.

Most of these RHICs were members of the Network for Regional Healthcare Improvement (NRHI), a national organization of RHICs (see the map).

We applied several criteria to prioritize the targets:

- **Maturity** (number of years in operation, plus growth and impact)
- **Focus on health care value** (both quality and cost)
- **Size of the organization**
- **Stakeholder Leadership** Role of employers, health plans and provider organizations in governance
- **Geographic scope** (statewide vs. regional)
- **Reputation for effectiveness**

We also excluded the Health Collaborative of Greater Cincinnati because we have previously featured them in our work for the NC Chamber.

We identified the top 5 RHICs based on these criteria and successfully recruited 2 of the top 3 to participate in the research:

**The Washington Health Alliance** and **The Center for Improving Value in Health Care (CIVHC)**.

Benchmarking Targets Selected From Among the Members of NRHI

- **Washington Health Alliance**
  - Seattle, Washington

- **Center for Improving Value in Health Care (CIVHC)**
  - Denver, Colorado
Research Methodology: Benchmarking Information

The Executive Directors of both the Alliance and CIVHC were extremely helpful in providing us access to documents and key individuals for our research.

- For both benchmarking studies, we reviewed reports, communications materials and other publicly available documents.
- We also conducted confidential interviews with the Executive Director and a senior staff member, as well as current and former board members representing a range of stakeholders, including employers, government health care purchasers, providers and health plans.
- We invested somewhat more time and effort in investigating the Alliance (12 interviews with 9 individuals) than CIVHC (8 interviews with 7 individuals). In particular, we interviewed additional founding board members and a past executive director. The Alliance has been operating for 14 years compared to less than 10 years for CIVHC, so it was necessary to interview more people to understand the pathway the Alliance has followed since its inception.
- In researching the Alliance, we also attended, via webinar, a meeting that the Alliance recently hosted to release its latest report on health care costs.
Stakeholder Interviews

We conducted confidential interviews with current and former board members and executives of the two benchmarked organizations.

**Washington Health Alliance**

- Nancy Giunto – Executive Director of the Alliance
- Ron Sims – Former King County Executive and Deputy Director of HUD; founder of the Alliance and current Board member
- Greg Marchand – Director, Benefits Policy and Integration, The Boeing Company; current Board member
- Pete McGough, MD – Medical Director for UW Neighborhood Clinics; past chair of the Alliance Quality Improvement Committee and past Board member
- Tim Lieb – President, Regence BlueShield; current Board member
- Dorothy Teeter – former Director of the Washington State Health Care Authority; key staff leader in creating the Alliance
- Larry McNutt – Senior VP, Corporate Administration and Pension, Northwest Administrators; past Board Chair and current Board member
- Susie Dade – Deputy Director of the Alliance
- Mary McWilliams – former Executive Director of the Alliance

**Center for Improving Value in Health Care**

- Ana English – President and CEO of CIVHC
- Dick Thompson – Executive Director and CEO, Quality Health Network; current Board Chair
- Jay Want, MD – Executive Director, Peterson Center on Healthcare; former Chief Medical Officer of CIVHC
- Mike Houtari – VP of Legal and Governmental Affairs, Rocky Mountain Health Plans; past Board Chair and current Board member
- Donna Marshall – former Executive Director, Colorado Business Group on Health; current Board member
- Bob Smith – Executive Director, Colorado Business Group on Health
- Kristin Paulson – VP, Research and Innovation, CIVHC
A Primer on All-Payer Claims Databases (APCDs)
A Primer on APCDs: Introduction

A core functionality of many Regional Health Improvement Collaboratives is the management of an All-Payer Claims Database (APCD).

APCDs are large-scale databases that systematically collect health care claims data from a variety of sources. APCD managers analyze the data and publish reports on health care quality, utilization and cost, as well as disease prevalence, in order to support stakeholder efforts to improve health care value.

Most APCDs are not truly “all-payer”, since they typically have some participation gaps, but they capture claims data for a substantial majority of the health care delivered in the state or region where they operate.

In this section, we provide a brief overview of APCDs, including:

Data sources and types
Data uses and benefits to stakeholders
Adoption of APCDs in the 50 states
Limitations of APCDs

We also provide a summary of the key recommendations in the North Carolina Institute of Medicine APCD Task Force Report.

The Task Force met starting in August 2016 and published its report in April 2017.

We will not comment directly on the Task Force Report, which is outside the scope of this research project. Nevertheless, the key findings in this report will provide the North Carolina business community some helpful context for evaluating the Task Force’s recommendations.
# APCD Data Sources and Types

All-Payer Claims Databases (APCDs) systematically collect health care claims data from a variety of sources.

## Data Sources
- Self-insured employers
- Health insurers and third party administrators
- Medicare/Medicaid
- Medicare Advantage plans
- Pharmacy benefit managers
- Dental plans

## Types of Data Collected

<table>
<thead>
<tr>
<th>Information Typically Collected in an APCD</th>
<th>Data Elements Typically Not Included in an APCD</th>
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<tbody>
<tr>
<td>Diagnosis, procedure, and National Drug Codes</td>
<td>Administrative Fees</td>
</tr>
<tr>
<td>Information on service provider</td>
<td>Back end settlement amounts</td>
</tr>
<tr>
<td>Prescribing physician</td>
<td>Referrals</td>
</tr>
<tr>
<td>Health plan payments</td>
<td>Test results from lab work, imaging, etc.</td>
</tr>
<tr>
<td>Member payment responsibility</td>
<td>Provider networks</td>
</tr>
<tr>
<td>Type and date of bill paid</td>
<td></td>
</tr>
<tr>
<td>Facility type</td>
<td></td>
</tr>
<tr>
<td>Revenue codes</td>
<td></td>
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<tr>
<td>Service dates</td>
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Source: [https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2014/rwjf409988](https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2014/rwjf409988)
APCD Data Uses and Benefits

Data from APCDs support efforts to improve quality and contain costs.

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<tr>
<th>Common Uses of APCD Data</th>
<th>Benefits to Key Stakeholders</th>
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| • Publicly report performance results for medical groups and counties:  
  – Quality of care (based on provider adherence to standards of care)  
  – Utilization rates (including wasteful spending on low-value services)  
  – Prices of services (allowed costs)  
  – Total costs of care (per patient or per episode of care)  
• Develop private reports for individual stakeholders (e.g., for employers on their own employee populations)  
• Conduct in-depth analyses of health/health care issues (e.g., the opioid epidemic) | • Gives health care providers a single set of performance measures to manage against (vs. separate measures for each health plan)  
• Raises awareness among employers, purchasers and consumers about the wide variation in quality and cost among health care providers  
• Motivates employers and purchasers to demand greater value from providers and motivates providers to improve performance  
• Enables providers to track their performance against their peers and identify where to focus their performance improvement initiatives  
• Helps health plans, employers and purchasers identify high-performing providers to select for narrow/tiered network offerings to their members/employees—and helps patients select providers based on value |
Limitations of APCDs

Despite their important value, APCDs have some limitations that need to be recognized.

• Initial reporting efforts typically uncover significant coding or payer submission errors in the data that must be “cleaned” in order to produce accurate measures.

• An APCD database does not support clinical outcome measures.
  – Although outcome measures from APCDs have been extensively validated, they are “proxies” based on inference from subsequent care received by the patient, such as hospital admissions.
  – This gap can be addressed if the claims data is supplemented by clinical data such as patient medical test results from a Health Information Exchange (HIE).

• Data are based on claims submissions, so the measures are typically delayed 60-90 days and don’t support real-time care decisions for patients.

• Claims data depend on payment models that reimburse providers for specific services rendered to a patient, including fee-for-service or bundled payments.
  – Some APCDs are beginning to collect data for alternative payment models (APMs), including capitation, per member per month (PMPM), quality payments, etc.
Adoption of APCDs in the U.S.

Most states either have an existing APCD, are currently in the implementation stage or have demonstrated strong interest in establishing one.

APCDs may be either mandated by state law or depend on voluntary data collection efforts.

Status of APCD Development

- Washington: Existing voluntary APCD (Washington Health Alliance) and a separate state-mandated APCD in implementation
- Colorado: Existing state-mandated APCD (CIVHC)
- North Carolina: “Strong interest” in an APCD

Source: https://www.apcdcouncil.org/state/map
The NCIOM APCD Task Force Report

The Task Force recommended a state-mandated APCD for North Carolina.

• A Task Force managed by the North Carolina Institute of Medicine (NCIOM), in collaboration with state government, was tasked with assessing the value of an APCD for NC.

• The NCIOM All-Payer Claims Database Task Force was funded by The Duke Endowment with the overarching goal of creating a set of recommendations for improving the sharing, dissemination, and use of health care claims data in North Carolina. The Task Force met five times between August 2016 and January 2017.

• In April 2017, the Task Force issued a report with its recommendations, including the following four key recommendations:

  – **Recommendation 1:** The North Carolina General Assembly should establish an All-Payer Claims Database (APCD).

  – **Recommendation 2:** The North Carolina General Assembly should create an APCD governing or advisory board that includes health care stakeholders.

  – **Recommendation 3:** Where legally permissible, the North Carolina General Assembly should require payers who cover 1,000 or more individuals in North Carolina to contribute claims data to the APCD.

  – **Recommendation 4:** The North Carolina General Assembly should appropriate recurring funding to support the North Carolina APCD. The North Carolina General Assembly and the North Carolina APCD governing board should explore supplemental funding from Medicaid funds, philanthropy, HITECH, and data use fees.

Source: [http://nciom.org/task-force-on-all-payer-claims-database/](http://nciom.org/task-force-on-all-payer-claims-database/)
Overview of the Benchmarking Targets
About the Washington Health Alliance: Regional to Statewide Initiative

The Alliance was initially focused on 5 key counties before expanding statewide in 2013

Puget Sound Health Alliance (2004-2013)

- Five (5) counties with about 60% of the state population:
  1. * King (Seattle)
  2. Pierce (Tacoma)
  3. Snohomish (Everett)
  4. Thurston (Olympia)
  5. Kitsap (Bremerton)

Washington Health Alliance (2013-present)

- 39 counties with 100% of the state population, including:
  1. * Spokane (Spokane)
  2. Clark (Vancouver, WA)
  3. Yakima (Yakima)
  4. Whatcom (Bellingham)

*Numbers indicate the county’s ranking by population.

The 5 counties originally included in the Puget Sound Health Alliance constitute the economic, population and political hub of the state.
About the Alliance: In Its Own Words

On its website, the Alliance describes its mission, strategic goals and areas of focus.

“The Washington Health Alliance is the one place where those who give, get and pay for health care come together to collaborate on improving the quality and value of care for the people of Washington state. The Alliance serves an invaluable role as a convener of all the stakeholders in the health care system. We are leading health system improvement by focusing on three high-priority strategic goals and four areas of focus.”

**Strategic Goals**

**Reducing Price**
High cost and unwarranted variation in pricing make our current health care system unsustainable.

**Reducing Underuse of Effective Care**
When patients receive the evidence-based care at the right time for the right reason, it increases the likelihood that disease will be identified early and managed and reduces the potential for avoidable complications and financial burden.

**Reducing Overuse**
More care isn’t always better care. Unnecessary tests and procedures contribute to waste in the system and increase the risk to patients.
Areas of Focus

1. **Improving transparency of the health care system** through performance measurement and reporting on quality, utilization and price.

2. **Strengthening purchaser and consumer engagement** to leverage buying power and shape demand.

3. **Aligning payment to providers** with the desired outcome of higher quality at a lower price.

4. **Supporting performance improvement** in collaboration with other organizations.
About CIVHC: Mission Statement

The Center for Improving Value in Health Care (CIVHC)

Mission Statement

“CIVHC strives to empower individuals, communities, and organizations through collaborative support services and health care information to advance the Triple Aim of better health, better care, and lower costs.”

We identify opportunities to support innovative approaches to improving the health and well-being of Coloradans.

By design, our activities support Change Agents in four ways:

• **Serve** – We engage, support and collaborate with others to collectively advance the Triple Aim for a healthier Colorado. Everything we do is for the success and health of the communities we serve.

• **Engage** – All voices are necessary to reshape our health care system and CIVHC is committed to meaningful collaboration with individuals, communities, and organizations.

• **Educate** – We help educate communities on resources, partnerships, data literacy, and innovations to accelerate the pace of change.

• **Amplify** – CIVHC promotes the successes and innovations of Change Agents; highlighting accomplishments and progress both locally and nationally.
CIVHC’s Core Values and Strategic Initiatives

Strategic Initiatives (FY2016-2018)

CIVHC Core Values

<table>
<thead>
<tr>
<th>Triple Aim Driven</th>
<th>Service-Focused</th>
<th>Trusted &amp; Objective</th>
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<tbody>
<tr>
<td>Our work is grounded in our mission to advance the Triple Aim for Colorado.</td>
<td>We engage, support and collaborate with others to collectively advance the Triple Aim for a healthier Colorado. Everything we do is for the success and health of the communities we serve.</td>
<td>We exist to inform the work of those we serve. Our work is high-quality, objective, and trustworthy.</td>
</tr>
</tbody>
</table>

We are driven by the value we provide to those we serve

Strategic Initiatives

- High Performing Organization
  - Strengthen Data Quality and Credibility
  - Improve Customer Service
  - Improve Organizational Efficiency
  - Increase Staff Satisfaction
  - Secure Funding for CIVHC & CO APCD

- New Data Sets
  - Self-Funded Employers into CO APCD
  - Non-Claims Data Integration
  - Social Determinants
  - Quality Metrics

- Actionable Data & Analytics
  - Increase Use of Public Data
  - Expand Public Reporting
  - New Product Development
  - Increase Use of Non-Public Data

- Integral to Colorado
  - Participate in State-Level Discussions and Collective Projects

- National Impact
  - National Grant Participation
  - National Initiative Participation
  - Participate on National Advisory Committees
Why These Two Benchmarking Targets?

The Alliance and CIVHC share important attributes, as well as one key difference, that make them relevant to North Carolina’s business community.

- Both the Alliance and CIVHC operate in states that are relevant to North Carolina’s Roadmap to Value-Driven Health:
  - Despite cultural and political differences, Washington and Colorado share significant geographic and economic attributes with North Carolina
  - They have embraced goals to become top-tier states in health and health care value, and they are pursuing a wide-ranging set of strategies to achieve those goals

- Both organizations have developed national reputations for operational effectiveness and the quality of their work.

- The two RHICs also represent two alternative models—one employer-driven and the other government-driven—that have impacted the way they have developed.
State Geography and Population Distribution

Despite significant political and cultural differences, Washington State and Colorado share some important fundamental attributes with North Carolina.

- Both Washington State and Colorado are geographically and economically diverse states with:
  - A dynamic central region that serves as the economic, population and political hub of the state and attracts talent from other states
  - Extensive rural regions with more limited access to health care along with lower-value care
- The regional contrasts within these two states are even more extreme than in North Carolina, as the population density maps below help to illustrate.

Source: US Census Bureau
2010 Census Summary File 1
Population by Census Tract
Aspirations to Be Top-Tier in Health and Health Care Value

According to U.S. News, Washington State and Colorado are already among the top 10 best states for health care—though the criteria don’t emphasize cost. Cost is included, but only as a contributing factor in the assessment of “Health Care Access.”

<table>
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<tr>
<th>Rank</th>
<th>State</th>
<th>Health Care Access</th>
<th>Health Care Quality</th>
<th>Public Health</th>
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<tr>
<td>#1</td>
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<td>2</td>
<td>1</td>
<td>2</td>
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<tr>
<td>#2</td>
<td>Washington</td>
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<td>#3</td>
<td>Iowa</td>
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<td>#4</td>
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<td>3</td>
<td>20</td>
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<td>#5</td>
<td>Massachusetts</td>
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<td>#6</td>
<td>Vermont</td>
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<td>6</td>
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<td>#8</td>
<td>Rhode Island</td>
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<td>13</td>
<td>16</td>
</tr>
<tr>
<td>#9</td>
<td>Colorado</td>
<td>26</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>#10</td>
<td>Utah</td>
<td>29</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

Colorado began the journey with a Blue Ribbon Commission on Health Care Reform in 2006 and adopted a comprehensive strategy in 2013 to become the “healthiest state.”

“The State of Health” (2013): Colorado’s Commitment to Become the Healthiest State in the Country Embraces the Triple Aim Goals

• Colorado adopted the Triple Aim goals:
  – Best health
  – Best care
  – Best value

• Four focus areas include health care quality and value:
  – Promoting prevention and wellness
  – Expanding coverage, access and capacity
  – Enhancing value and strengthening sustainability*
  – Improving health system integration** and quality

• Measuring progress and tracking results across 18 core initiatives and 15 metrics & targets

*I.e., the financial sustainability of the health care system
**I.e., better care coordination, and integrating physical and mental health care

Source: The State of Health
Washington State does not have a similarly comprehensive set of goals, but the Washington Health Alliance has set a top 5 goal for the state. The Alliance’s explicit goal is to be in the top 10% nationally for health care quality and cost.

The Alliance’s goal is that providers in the state are in the top ten percent of performance nationally.

-Introduction to the 2017 Community Checkup Report
Key Differences Between the Two Benchmarking Targets

The Alliance and CIVHC represent two very distinct models of development.

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Washington Health Alliance</th>
<th>Colorado Center for Improving Value in Health Care (CIVHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founding Impetus</td>
<td>Founded by large employers to control costs and improve quality of care for employees</td>
<td>Recommendation of the state’s Blue Ribbon Commission on Health Care Reform</td>
</tr>
<tr>
<td>Role of the State</td>
<td>The state Health Care Authority* joined as an activist, value-driven employer/purchaser</td>
<td>General Assembly mandated an all-payer claims database (APCD) and the state designated CIVHC as the manager</td>
</tr>
<tr>
<td>Geographic Scope</td>
<td>Began as a regional initiative in 5 counties and expanded statewide 10 years later</td>
<td>Statewide from the beginning</td>
</tr>
</tbody>
</table>

*The Washington State Health Care Authority is responsible for purchasing health care for all state employees and Medicaid recipients statewide.
## A Brief Timeline for the Two Initiatives

The Alliance was launched a few years before CIVHC, but both organizations have developed robust capabilities that impacted health care improvement.

<table>
<thead>
<tr>
<th>Washington Health Alliance</th>
<th>Colorado Center for Improving Value in Health Care (CIVHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2003:</strong> The King County Executive convenes a Task Force to address rising employee health care costs; he recruits major employers (e.g., Boeing and Starbucks), providers and health plans to participate</td>
<td><strong>2006:</strong> Colorado General Assembly creates a Blue Ribbon Commission for Health Care Reform to address issues of access, quality and cost of care</td>
</tr>
<tr>
<td><strong>2004:</strong> Puget Sound Health Alliance is established as a 501(c)3 organization, operating in a 5-county region</td>
<td><strong>2008:</strong> The Blue Ribbon Commission recommends creating an “Improving Value in Heath Care Authority”</td>
</tr>
<tr>
<td><strong>2006:</strong> The Robert Wood Johnson Foundation (RWJF) selects the Alliance to participate in the national Aligning Forces for Quality (AF4Q) initiative</td>
<td><strong>2010:</strong> Statute passed authorizing the establishment of a state-mandated APCD</td>
</tr>
<tr>
<td><strong>2008:</strong> The Alliance releases the first “Community Checkup” report showing provider Quality results</td>
<td><strong>2011:</strong> CIVHC established as a 501(c)3 organization, operating as a statewide organization</td>
</tr>
<tr>
<td><strong>2013:</strong> The Alliance issues its first statewide “Community Checkup” (Quality) report</td>
<td><strong>2012:</strong> Public reporting website goes live with statewide quality, pricing and cost data</td>
</tr>
<tr>
<td><strong>2014:</strong> The Alliance publishes “Hospital Sticker Shock: a Report on Hospital Price Variation” using CMS data</td>
<td><strong>2012:</strong> CIVHC is central to Colorado’s selection to participate in CMMI’s State Innovation Model (SIM), an initiative to develop multi-payer health care payment and delivery system reform models</td>
</tr>
<tr>
<td><strong>Feb. 2018:</strong> The Alliance releases “First, Do No Harm:” the first of three reports in 2018 that use commercial pricing data to analyze health care cost drivers</td>
<td><strong>Feb. 2018:</strong> CIVHC releases its “Getting to Affordability: Untangling Cost Drivers” report based on the Total Cost of Care project funded by RWJF</td>
</tr>
</tbody>
</table>
Key Findings
Overview of Key Findings

The key findings of the benchmarking research include important insights about Regional Health Improvement Collaboratives (RHICs), as well as insights about the roles of key stakeholder groups.

Insights About RHICs

1. Well-managed RHICs can play a critical set of roles helping to drive health care improvement in their states despite their small size and modest budgets.

2. Transparent health care value data from an APCD is a powerful lever for health care improvement, but an APCD is also challenging to implement effectively, and it is insufficient by itself to drive change.

3. Redesigning the way health care is consumed, delivered and paid for is the most important work, and it requires the active collaboration of the key stakeholder groups.

4. Building and sustaining trust among stakeholders has been the most critical success factor for these organizations and has been achieved through leadership, governance and operating principles.

5. Funding is an on-going challenge and rate-limiter for these organizations, even though their budgets are tiny compared with health care costs in their states. They especially need financial support during the start-up phase.
## Overview of Key Findings

### Insights About Stakeholder Groups

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td><strong>Health plans</strong> tend to be somewhat reluctant participants in RHICs, but gaining their active participation is essential to success.</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Patient engagement</strong> is ultimately a key success factor, but most patients need strong guidance to operate as effective health care consumers.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Employers</strong> play a critical role in driving and supporting the transformation agenda, but it has not been easy to engage the majority of employers.</td>
</tr>
<tr>
<td>9.</td>
<td><strong>The state government</strong> can play a key role as a major health care purchaser. The state can also use its legislative power to accelerate the process, but doing so involves trade-offs and potential risks for employers that need to be managed.</td>
</tr>
<tr>
<td>10.</td>
<td><strong>Provider organizations</strong> are generally supportive. Large integrated delivery networks and multi-specialty medical groups tend to be very active participants in RHICs as well as leaders in adapting to a value-based market environment, helping drive transformation but also raising concerns about accelerating health system consolidation.</td>
</tr>
</tbody>
</table>
Key Finding #1

Well-managed RHICs can play a critical set of roles helping to drive health care improvement in their states, despite their small size and modest budgets.

Both the Alliance and CIVHC play similar roles leading change in their states. Compared with the Alliance, CIVHC has placed greater emphasis on data and analytics, but is expanding its other roles.

**Roles of the Alliance and CIVHC in Driving Health Care Improvement**

1. A trusted source of transparent data and analysis on quality, patient experience and cost

2. A safe, effective forum for stakeholder engagement and collaboration*

3. A focal point spearheading the agenda in pursuit of aggressive goals

Source: Background image from Washington Health Alliance.

*Both within and across the key stakeholder groups
The Alliance and CIVHC are both small organizations focused mostly on data analytics, though CIVHC has more than double the number of professional staff (24 vs. 11 for the Alliance).

**Key Finding #1**

**Washington Health Alliance**

2016 Expenses ($3.13M)

- Salaries and related: 24%
- Occupancy and corporate business: 1%
- Meeting and travel: 1%
- Data mgt. services & software development: 22%
- Depreciation: 1%

**Center for Improving Value in Health Care**

2016 Expenses ($5.11M)

- Salaries and related: 60%
- Occupancy and corporate business: 25%
- Meeting and travel: 11%
- Data mgt. services & software development: 2%
- Depreciation: 2%


Source: IRS Form 990: Return of Organization Exempt from Income Tax. 2016 Submission of Center for Improving Value in Health Care,
Key Finding #1

The Alliance and CIVHC achieve an outsized influence by engaging stakeholder volunteers in their committees and initiatives, pursuing effective PR/communications, and collaborating with other local health care-related not-for-profit associations and organizations.

Selected Collaboration Partners

Washington Health Alliance

- Washington Roundtable
- Washington State Medical Association
- Healthplanfinder

Center for Improving Value in Health Care

- Colorado Business Group on Health
- Colorado Hospital Association
- Colorado Health Institute
- Connect Health Colorado
- Colorado Medical Society
Key Finding #2

Transparent health care value data from an APCD is a powerful lever for health care improvement, but an APCD is also challenging to implement effectively, and it is insufficient by itself to drive change.

Both the Alliance and CIVHC have produced multiple reports that provide credible, actionable information on health care value. These reports have gained the attention of health care providers, health plans, employers and other purchasers.

Main Types of Reports

- Health Care Quality Measures
- Health Care Pricing
- Total Cost of Care
- Utilization of Low-Value Health Care Services
- Other Reports
  - Reports for individual provider groups, employers and health plans on their own patient/employee/member populations
  - Analyses of specific issues (e.g., the opioid epidemic)

Shining a Light on Value Gaps

- The reports have gained attention by highlighting the very high degree of:
  - Variation in quality and cost from one hospital or medical group to another—and one county to another
  - Wasteful spending on low-value health care services
- The reports also help identify key drivers of the value gaps.
- Leading provider organizations have embraced these reports as guideposts to improvement.
- Leading employers, purchasers and health plans have embraced them as tools to pursue value-based purchasing solutions.
Key Finding #2

The Alliance has published annual provider quality reports since 2008. The summary chart from the 2017 report below ranks 145 medical groups serving commercially-insured* patients based on the number of **Below Average**, **Average** and **Above Average** results they achieved.


- The report is based on over 100 nationally-vetted quality performance measures
- Results reported for each medical group
- Website permits searching for medical groups’ results for each measure
- Report also compares statewide results with national benchmarks for selected measures

*Separate results presented for providers serving Medicaid patients
Key Finding #2

The *Community Checkup* report provides value to all key stakeholder groups by documenting the variation in care delivered in Washington State.

**Value to Health Care Providers**
- Identify areas in which to focus quality improvement efforts
- Provide validated evidence of quality for marketing to purchasers and consumers
- Gain a consistent set of quality metrics for value-based reimbursement contracts

**Value to Employers/Purchasers and Health Plans**
- See the extent of variation in health care quality—and that all providers, regardless of brand, have areas of strength and weakness
- Help identify preferred providers for tiered networks or centers of excellence
- Use quality metrics for performance goals in purchasing contracts
- Educate employees about variation in health care quality

Source: 2017 Community Checkup Report
Key Finding #2

CIVHC has produced reports since 2012 that provide comparative pricing information for provider organizations based on actual allowed costs paid by health plans and patients (not “list prices”) as in this example showing median charges for hip replacements at 9 hospitals.

Comparing Hip Replacement Costs At Various Colorado Medical Centers

Source: CIVHC.org
Key Finding #2

CIVHC reports also show the pricing gap between commercial and Medicare patients.

Comparing Hip Replacement Costs By Region and Payer

Sources: CIVHC.org

Analysis based on fiscal year 2013 Fee-For-Service Medicare claims and commercial payer claims in the Colorado All Payer Claims Database (CO APCD). Prices have been rounded to the nearest thousand and reflect average paid "episode" amounts (initial procedure payments AND 90 day post-acute payments), using calculations similar to the Centers for Medicare & Medicaid (CMS) Comprehensive Care for Joint Replacement (CJR) methodology [https://innovation.cms.gov/initiatives/cjr]
CIVHC and the Alliance are helping to develop standardized data analyses to measure the **Total Cost of Care** per patient that can be compared directly across states.

- CIVHC was one of 5 pilot RHICs and the Alliance is one of 13 additional RHICs participating in the NRHI/Robert Wood Johnson Foundation initiative.
- The total cost of care per patient is a function of:
  - The utilization rate: the quantity of all services (professional, outpatient, emergency department, inpatient and pharmacy) provided to patients, adjusted for patient risk factors
  - Prices actually paid to provider organizations for those services
- The diagram to the right shows wide variability among 102 adult primary care practices in Colorado in the total health care costs for their patients.
  - On average, patients of the practices in the lower left quadrant received fewer health care services than the statewide median and paid below-average prices for their care
- Participating practices received detailed reports providing insight into the impact of their decisions, including referrals and prescriptions.

**Comparing Colorado Primary Care Practices Based on Average Total Health Care Costs of Their Patients**

The Alliance recently released a report that places a price tag on wasteful spending on low-value health care services in Washington State.

First, Do No Harm: Calculating Health Care Waste in Washington State (February 2018)

- The analysis applied the Milliman Health Waste Calculator to pricing and utilization data from insurance claims in the APCD
- The methodology is based on the “Choosing Wisely” criteria from the Institute of Medicine

From the Overview: “First, do no harm” is one of the principal rules for ethics taught in medical school….Low-value health care, also called overuse or waste, refers to medical tests and procedures that have been shown to provide little benefit in particular clinical scenarios and in many cases have the potential to cause physical, emotional, or financial harm to patients. While harm is not intentional, it is particularly troublesome when it results from tests, procedures, and treatments that were unnecessary.

Key Findings From the Report

- More than 45% of the health care services examined were determined to be of low value.
- Approximately 1.3 million individuals received one of these 47 services; among these individuals, 47.9% received a low-value service.
- 36% of spending on the health care services examined went to low-value treatments and procedures. This amounts to an estimated $282 million in unnecessary spending.
- Excessive use of preoperative lab studies, annual cardiac screening (EKGs, etc.) and imaging for eye disease generated $160 million of that total.
Key Finding #2

Both the Alliance and CIVHC have had to work through multiple challenges to produce accurate, actionable reports based on claims data.

- **Gaining access to the data**: The health plans and self-funded employers that own their claims data are extremely protective of the data. When the submissions are voluntary, gaining participation of these stakeholders can be a challenge. For the Alliance, gaining access to pricing data from health plans was the biggest challenge, which took many years to overcome. For CIVHC, the on-going challenge is to increase the participation of ERISA self-insured employers who are not subject to the state mandate.

- **Protecting the data**: Because the data is so sensitive, cybersecurity is a significant concern. To our knowledge, neither the Alliance nor CIVHC has suffered any breaches, but it would be a serious (and possibly catastrophic) problem for them if it happens.

- **“Cleaning” the data**: Claims data was designed to support the reimbursement process, not to report on quality and cost. As both the Alliance and CIVHC discovered, there are significant coding errors in the data that must be identified and corrected. Otherwise, the reports will contain errors that undermine their credibility. CIVHC in particular faced some early issues it has overcome.

- **Analyzing the data correctly**: It can be difficult to account appropriately for differences in the patient populations served. For example, CIVHC’s initial report on orthopedic surgery showed results were typically worse for facilities based in the Rocky Mountains. However, when these providers pointed out that their surgeries were typically emergency operations due to skiing accidents, CIVHC had to devise an appropriate methodology to account for the differences.

- **Producing reports that help drive action**: Both the Alliance and CIVHC are focused on producing reports that lead to improvements in health care value. So they take very seriously the need to present results that are easy to understand and directly relevant to provider selection, care delivery and payment decisions. They also have begun recommending action steps that stakeholders can take.
Key Finding #3

Redesigning the way health care is consumed, delivered and paid for is the most important work, and it requires the active collaboration of the key stakeholder groups.

Both the Alliance and CIVHC play a key role in this process by helping to structure and facilitate collaboration within and among stakeholder groups to address the key challenges.

They have served as the lead organization for a number of formal, multi-stakeholder programs funded by national foundations or the federal government.

They have created a “safe space” for stakeholders to work together, which has led to a number of direct arrangements among leading stakeholders.
Both the Alliance and CIVHC have served as the primary forum for multi-stakeholder collaboration on a number of formal initiatives, many of them funded by national foundations or the Federal Government.

### Examples of Formal Multi-Stakeholder Initiatives

**Washington Health Alliance**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aligning Forces for Quality</td>
<td>Develop quality data transparency for primary care &amp; support quality improvement</td>
</tr>
<tr>
<td>Clinical Performance Improvement Network</td>
<td>Assist physician practices’ efforts on quality improvement</td>
</tr>
<tr>
<td>Multi-Payer Medical Home Reimbursement</td>
<td>Pilot new payment models for medical homes</td>
</tr>
<tr>
<td>Choosing Wisely</td>
<td>Evaluate the frequency and cost of low-value care.</td>
</tr>
</tbody>
</table>

**Center for Improving Value in Health Care**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Innovation Model</td>
<td>Utilize state policy and regulatory levers to accelerate health system transformation</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>Improve the delivery of palliative care</td>
</tr>
<tr>
<td>Episodes of Care</td>
<td>Develop bundled payment models</td>
</tr>
<tr>
<td>Healthy Transitions Colorado</td>
<td>Reduce hospital readmissions through better care coordination</td>
</tr>
</tbody>
</table>
Key Finding #3

By providing a neutral forum—or “safe space”—for stakeholders to work together in pursuit of common objectives, the Alliance and CIVHC have also facilitated the development of relationships that have led to direct collaboration efforts among leading stakeholders.

Early Examples of Direct Multi-Stakeholder Collaborations

**Washington Health Alliance**

2014: What the new Boeing health care deals means for employees, UW and Providence/Swedish*

“Boeing announced new deals Friday with UW Medicine and Providence Health & Services/Swedish that are designed to give employees a new health care option and save the company and workers money.

“The new ‘preferred networks’ will be available to nonunion employees and some union-represented employees and to retirees…”

“Boeing is creating incentives for employees to participate in the money-saving endeavor…”

Source: Puget Sound Business Journal

*Providence and Swedish are no longer part of the arrangement with Boeing, and other provider organizations have replaced them.

**Center for Improving Value in Health**

2015: Colorado PERA now offers new hip and knee replacement benefit option for retirees in pre-Medicare program

“Colorado Public Employees' Retirement Association (PERA) announced it will now offer its retirees…a new hip and knee replacement benefit option called PERACare Select. With more than 10,000 retirees eligible for this program, Colorado PERA is partnering with skilled practitioners at high-quality care centers to provide a fixed price for surgery and medical services…from intake to discharge….For most pre-Medicare retirees enrolled in an Anthem plan, there will be no out-of-pocket cost or co-pays….”

Source: PRNewswire
Key Finding #4

Building and sustaining trust among stakeholders has been the most critical success factor for these organizations—and has been achieved through governance and leadership-driven operating principles.

Both the Alliance and CIVHC recognize that it is critical to earn the trust of all stakeholders if they want them to stay engaged roles in support of improving health care value.

- Stakeholders must trust that the Alliance and CIVHC will:
  - Protect their confidential information
  - Publish reports that are accurate and fair
  - Give them appropriate opportunities to provide input in order to influence the direction of initiatives
  - Support their improvement efforts and avoid causing them unnecessary embarrassment

- Trust is especially important because health plans and provider organizations:
  - Participate in industries that are highly competitive
  - Have historically operated in “zero sum” environments that bred mutual distrust between plans and providers
  - Face unprecedented challenges to their traditional business models

“We have to earn trust every day.”
- Executive Director of the Washington Health Alliance
Key Finding #4

Both the Alliance and CIVHC have multi-stakeholder governance structures that ensure the key stakeholder groups are well-represented. The Alliance’s Board structure is explicitly designed to balance stakeholder interests, while giving employers and other purchasers the strongest voice in governance.

Membership Requirements of the Alliance Board

The Alliance is governed by a multi-stakeholder board with strict membership rules:

- **The chairman** must be from a **purchaser** (employer, union or government)
- At least 50% of the board members must be **purchasers**
- At least two board members must represent **consumers/patients**
- **Providers** and **health plans** must have an equal number of members
- **Core stakeholders only**: No representation at the Board level for other stakeholders (consultants, pharma, etc.), though they can serve on committees
The Alliance has also established a set of standing committees that provide important vehicles for stakeholder engagement. In contrast, CIVHC establishes multi-stakeholder committees for each key initiative they pursue.

### Four Standing Committees of the Alliance

1. **Quality Improvement Committee (QIC)**
   - **Members**: Medical directors and chief medical officers representing:
     - Medical groups and integrated delivery networks (15)
     - Health plans, purchasers and other (10)
   - “The QIC provides clinical expertise and advice to the Board on quality improvement issues and strategies and is responsible for maintaining adherence to the Alliance’s overall vision and direction. The committee works in concert with the Alliance staff to ensure the Alliance’s quality improvement work and strategy are coordinated and moving forward.”

2. **Purchaser Affinity Group (PAG)**
   - **Members**: Senior HR and benefits leaders for 35+ private- and public-sector employers and labor trusts
   - “The Purchaser Affinity Group was formed to give employers and labor trusts the opportunity to meet regularly to discuss value-based benefit design and other ways to reduce the medical cost trend. Among the group’s areas of interest are: sharing best practices regarding communication and engagement of consumers about their health decisions; learning about value-based benefit design;…[and] working together to give a consistent message to health plans regarding expectations for improving efficiencies in the market…”
Four Standing Committees of the Alliance

3. **Health Economics Committee (HEC)**

**Members:** Senior executives representing 24 health plans, purchasers and providers

“The focus of the HEC is on (1) improving transparency of utilization and price variation to reduce unwarranted variation and the overall cost trend, and (2) promoting value-based benefit design, contracting, payment reform and other levers designed to improve the value of health care delivery.”

4. **Consumer Education Committee (CEC)**

**Members:** Representatives of 15 stakeholder organizations, including benefits consultants, purchasers, providers and consumer advocates

“The purpose of the CEC is to develop strategies to empower individuals to more actively manage their health and health care through consumer education initiatives; to help implement consumer-related strategies that position the Alliance and the state as a leader in best practices in consumer education; and to provide expertise and advice to the Board on promoting patient-centered and culturally competent health care while educating consumers, improving patient-provider communication and addressing disparities in care.”
Key Finding #4

Given its history as an employer-driven RHIC, the Washington Health Alliance established a set of trust-building operating principles from the very beginning and has followed them consistently. Although CIVHC’s history is different, it has followed similar operating principles in practice.

### Operating Principles As Described by Leaders of the Alliance

<table>
<thead>
<tr>
<th>Stated Principles</th>
<th>Intent</th>
<th>Aligned Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>“No enemies”</td>
<td>Follow a collaborative approach with all stakeholder groups rather than point fingers at any of them</td>
<td>Engage stakeholders directly, treat issues as symptoms of a dysfunctional system (not a particular stakeholder group) and pursue solutions jointly</td>
</tr>
<tr>
<td>“The only safe table in town”</td>
<td>Create an inclusive environment where stakeholders are comfortable working together to address difficult problems</td>
<td>“We have never refused anyone who wanted to be at the table.” – Exec. Director of the Alliance “We always ask who is missing that we should have invited.” – Exec. Director of CIVHC</td>
</tr>
<tr>
<td>“Improvement, not punishment”</td>
<td>Use the reports on quality and value to help low-performing providers improve, not to embarrass them</td>
<td>For new reports, share the first year’s results privately—to give the hospitals and medical groups an opportunity to make improvements before issuing public reports in year two</td>
</tr>
<tr>
<td>“Seek feedback, not approval”</td>
<td>Give stakeholders ample opportunity to comment without giving them veto power</td>
<td>See the Report Development Process on the following page</td>
</tr>
<tr>
<td>“Do what we said we would do”</td>
<td>Consistently deliver as promised</td>
<td>Ensure that final reports are 100% consistent with the original expectations set with stakeholders</td>
</tr>
</tbody>
</table>
Both the Alliance and CIVHC follow similar, highly-disciplined processes to gain stakeholder support for the reports they produce. Here is the process as described by the Alliance.

The Alliance’s Development Process for Health Care Value Reports

1. Develop a Plan for the Report
   - Define what data will be collected and how it will be analyzed and reported

2. Review the Plan with Stakeholders
   - Gain the understanding and support of key stakeholder leaders
   - Ask the leaders to identify work group participants

3. Engage a Work Group to Refine the Methodology
   - Take in a detailed proposal
   - Follow a well-facilitated process with firm guardrails

4. Share Preliminary Results with Stakeholders

5. Complete Report Consistent with the Agreed Approach

6. Controlled Release to Stakeholders Before the Public
   - Conduct separate preview meetings for key stakeholder groups
Key Finding #4

Finally, the Alliance and CIVHC have pursued strategic roadmaps that have enabled them to build trust over time as they have taken on increasingly challenging assignments.

- In particular, because the Alliance was managing a voluntary APCD, they began with reports on health care quality, focusing on primary care.
- These were important topics to focus on from an overall value perspective, but they were also lower-risk topics for collaboration with providers and health plans.
- In contrast, employers and other purchasers tend to pay greater attention to specialty care and cost—in part because they are easier for laypersons to understand.
- Recognizing these trade-offs, the Alliance has moved aggressively since 2016 to access pricing data from health plans and has begun producing reports on provider costs and pricing. It has also begun placing greater attention in its reports on hospitals and on specialty care.
Key Finding #5

Funding is an on-going challenge and rate-limiter for these organizations, even though their budgets are tiny compared with health care costs in their states. They especially need financial support during the start-up phase.

Both the Alliance and CIVHC relied heavily on local foundation grants during the first 2-3 years. Then their funding/business models diverged, with the Alliance relying very heavily on membership dues and CIVHC relying more on report revenues and program grants.

**Washington Health Alliance**

2016 Funding Sources

- Purchasers: 36%
- Plans, TPA, Networks: 34%
- Providers: 7%
- Grants and contracts: 3%
- Miscellaneous: 1%

Total funds received: $3.85M

**Center for Improving Value in Health Care**

2016 Funding Sources

- Government grants: 62%
- APCD data report revenues: 33%
- Program service revenues: 3%
- Other grants: 0%
- Investment Income and Miscellaneous: 0%

Total funds received: $5.37M


Health plans tend to be somewhat reluctant participants in RHICs, but gaining their active participation is essential to success.

Operating a voluntary APCD without a state mandate, the Alliance has taken many years to build the trust necessary to gain access to health plans’ most sensitive data.

**Health plans are key participants in RHICs. For example:**

- The Alliance is dependent on health plans to make voluntary submissions of claims data to the APCD.
- The Alliance and CIVHC also rely on health plans’ expertise to help ensure they are analyzing the data correctly.
- Health plans are also central to developing value-based purchasing solutions that align the interests of employers and providers.

**Health plans face important challenges in supporting RHICs:**

- Health insurance is a highly competitive industry, and health plans consider their claims data—especially their pricing contracts with provider organizations—to be highly-sensitive intellectual property.
- Health plans operating in multiple states also try to minimize operational variation, which makes participation in different state initiatives problematic.

**Health plans frustrated the Alliance’s efforts to gain access to pricing data for 10 years.**

In negotiating access to pricing data, the Alliance insisted that all the largest commercial health plans in the market contribute their pricing data to the APCD, starting with the first semi-annual claims data submission in April 2017. This approach reduced the “free rider” risk of allowing non-participants to gain access to the reports without contributing their own data.

As the Executive Director of the Alliance put it, “Either everyone is in or no one is in.”
Key Finding #7

Patient engagement is ultimately a key success factor, but most patients need strong guidance to operate as effective health care consumers.

Like many RHICs, the Alliance and CIVHC were launched in the 2000s, when many health care policy-makers believed that patients would become effective health care consumers if given the right incentives and information. However, their experience has shown the limitations of these expectations.

Trouble Ahead For High Deductible Health Plans?

“Benefit plans with high cost-sharing do much more than simply shift costs from employers and health plans. Conventional wisdom suggests that they help lower overall medical expenses by making patients more selective and cost-conscious consumers. However, studies are beginning to ask if high deductibles could actually result in adverse consequences in the long run due to avoidance of necessary care in the short run.” (emphasis added)

-Health Affairs Blog, 10/7/2015

The main focus of “health care consumerism” was on aligning patient incentives through high-deductible plans and providing them access to comparative quality and pricing data on health care providers.

Consistent with this expectation, both the Alliance and CIVHC have designed websites for patients to use in “shopping” for health care providers.

The experience of the Alliance and CIVHC has matched the experience in other markets nationally: so far, health care consumerism has not been effective in controlling costs.

- Most patients do not make use of the websites to select providers.
- High-deductible plans create perverse incentives: Patients with these plans are more likely to forego higher-value health care services, such as preventive care and early interventions for disease.

The conclusion reached by the Alliance, CIVHC and other organizations is that patients need strong guidance—e.g., from their employer-sponsored health plan—to select high-performing providers and make appropriate choices on utilization of health care.

- As a result, they recognize the importance of working through employers to influence patient decision-making.
Key Finding #8

Employers play a critical role in driving and supporting the health care transformation agenda, but it has not been easy to engage the majority of employers.

Both the Alliance and CIVHC recognize that employers play a uniquely important role as health care purchasers on behalf of their employees. As the stakeholders that ultimately pay for care, they can:

• **Set clear expectations** for health care providers and health plans about the need to improve value.
  
  – *“We needed providers and health plans to understand that employers are not cash machines.”*
  
  – Ron Sims, Founding Chairman of the Board, Washington Health Alliance

• **Convene those other stakeholders** to work collaboratively to improve health care value.

• **Participate in health care purchasing solutions** (either through their health plans or directly with provider organizations) that reward those providers that deliver greater value and punish those that don’t.

• **Implement benefit designs** that align with those purchasing solutions. For example, employers can create tiered networks that incentivize employees to use provider organizations that deliver greater value.

• **Educate their employees** about value-based health care, the variation in quality among provider organizations, and the extent of wasteful spending on low-value care that can actually be harmful to them.
Key Finding #8

Both the Alliance and CIVHC have identified employer engagement as a critical gap in their initiatives, and they are both placing a major emphasis on engaging more employers more deeply.

**Washington Health Alliance**

- Early and sustained leadership of key employers, including King County, Boeing and Washington State, has been critical to the Alliance’s founding and on-going success.
- However, the Alliance’s effectiveness in engaging a broader set of employers has been limited to date—which has slowed market adoption of value-based purchasing and aligned benefit design solutions.
- The Alliance has instituted several actions to address the gap in employer engagement:
  - Begin reporting on the cost and pricing side of the value equation to get employers’ attention
  - Pursue a stronger relationship with the Washington Roundtable.
  - Host a National Employer Summit meeting in Seattle (March 7, 2018)
  - Work with regional brokers to educate large and midsize self-funded employers on value-based purchasing

**Center for Improving Value in Health Care**

- Due to the state mandate, CIVHC could make rapid progress on the APCD with limited employer engagement—though the Colorado Business Group on Health (CBGH) actively participated in the development of CIVHC and its leader serves on the Board.
- However, as CIVHC works to expand the impact of their reports and initiatives, they have determined that employer engagement is a critical success factor that they need to address.
- CIVHC has begun taking actions in pursuit of greater employer engagement:
  - Co-host forums for employers and brokers
  - Deliver presentation at the National Employer Summit meeting in Seattle (March 7, 2018)
- The Denver Metro Chamber has now named health care as their members’ #1 priority issue (previously not in top 5).
Key Finding #9

The state government can play a key role as a major health care purchaser. The state can also use its legislative power to accelerate the process, but doing so involves trade-offs and potential risks for employers that need to be managed.

The state governments of both Washington and Colorado have been active participants in the Alliance and CIVHC as employers, health care purchasers and policymakers.

State Government Representatives Serving on the Alliance and CIVHC Boards

**Washington Health Alliance**  
(Voting Board Members)
- Interim Director, Washington State Health Care Authority
- Chief Executive Officer, Washington Health Benefit Exchange

**Center for Improving Value in Health Care**  
(Ex-Officio Board Members)
- Finance Office Director and Chief Financial Officer, Dept. of Health Care Policy and Financing
- Deputy Insurance Commissioner for Consumer Affairs, Colorado Division of Insurance
- Deputy Policy Advisor, Colorado Department of Public Health and Environment
- Director of Data and Evaluation, Office of Behavioral Health
## Key Finding #9

The two models represented by the Alliance and CIVHC illustrate some of the main trade-offs.

<table>
<thead>
<tr>
<th>Advantages for Employers</th>
<th>Washington Health Alliance</th>
<th>Colorado Center for Improving Value in Health Care (CIVHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Places a central focus on the needs of employers in gaining greater value for their health care spending</td>
<td>• Provides rapid access to statewide data from all state-regulated health plans because data submissions are mandatory</td>
<td></td>
</tr>
<tr>
<td>• Voluntary participation increases the likelihood that stakeholders will use the data to take action</td>
<td>• Requires less need for employers to exert leadership</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Disadvantages for Employers</th>
<th>Washington Health Alliance</th>
<th>Colorado Center for Improving Value in Health Care (CIVHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Takes more time to gain stakeholder collaboration—especially for gaining access to proprietary health plan data</td>
<td>• Data from ERISA or Federal Government employers is not included, unless voluntarily submitted</td>
<td></td>
</tr>
<tr>
<td>• Depends on the state legislature and state administration to make decisions that meet the needs of employers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Success Factors</th>
<th>Washington Health Alliance</th>
<th>Colorado Center for Improving Value in Health Care (CIVHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Joint purchasing power of employers (both private-sector and public-sector) helped bring other stakeholders to the table</td>
<td>• The state used a Blue Ribbon Commission to build bipartisan and multi-stakeholder consensus at the beginning*</td>
<td></td>
</tr>
<tr>
<td>• Employers pursued a highly collaborative, trust-based approach with other stakeholders</td>
<td>• The state established budgetary and management independence for CIVHC, and made its mission and governance truly multi-stakeholder</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Consensus may be harder for states to achieve since health care reform became highly politicized in 2009.
Key Finding #9

In addition, the experience of the two states in pursuing an APCD demonstrates the potential legislative and administrative risks for employers and other stakeholders when the state becomes involved at this level.

A Cautionary Experience (Washington State):

In 2014, the legislature passed legislation creating a separate state-mandated APCD, even though the Alliance’s APCD already existed and the state was an active participant.

The Alliance initially supported the effort, actively engaged in consulting with the state and expected to be designated as the APCD manager—which could have been a win-win solution.

However, responsibility was handed to the Office for Financial Management, which designated the Center for Health Systems Effectiveness (CHSE) at Oregon Health & Science University as the lead organization responsible for the implementation and operation of the APCD.

The consequence of the decision has been duplicative investment which will likely lead to two competing sets of measures with different results, adding complexity and confusion to the market.

A Positive Experience (Colorado):

The General Assembly and state administration exercised an astute approach in creating the state-mandated APCD.

Even though there was no existing APCD, they established CIVHC as an independent agency with a multi-stakeholder governance structure. (Key Colorado administrative departments are represented on the board in an ex-officio capacity.)

Funding sources do not depend on an annual state budget allocation.
Key Finding #10

Provider organizations are generally supportive. Large integrated delivery networks (IDNs) and multi-specialty medical groups (MSMGs) tend to be very active participants in RHICs as well as leaders in adapting to a value-based market environment, helping drive transformation but also raising concerns about accelerating health system consolidation.

Both the Alliance and CIVHC report that it has been relatively easy for them to engage provider organizations as active and supportive participants in the process.

- Quality data transparency at the medical group level has been a central focus of both the Alliance and CIVHC. Since no provider scores well on all measures, there was potential for resistance.
- Nevertheless, other stakeholders report that the level of support from provider organizations has been very strong.
- Even provider organizations that have experienced relatively poor results have generally responded by focusing on their need for improvement, rather than complaining about the reports.
- Currently, there is some concern among Alliance stakeholders that pricing transparency will be difficult for providers, given the dramatic range of prices currently operating in the market for many services. However, providers in Colorado have adapted to transparent pricing information.
Key Finding #10

Large, sophisticated IDNs and MSMGs have demonstrated the ability to thrive in market environments with increasing data transparency in both Washington and Colorado.

- Even though a diverse mix of provider organizations are active in both the Alliance and CIVHC, the most active organizations tend to be large, sophisticated IDNs and MSMGs.
- These IDNs and MSMGs can more readily put the information systems, process disciplines and provider reward structures in place to help ensure they (a) deliver care consistently in alignment with their practice guidelines, (b) measure their results and (c) update the guidelines as needed to improve quality and reduce waste.
- As a result, if they make the commitment to pursue better health outcomes, improve the patient experience and control costs, they are typically well-positioned to achieve strong results—even if they begin with significant quality gaps and/or a higher cost structure than their peers.
- The provider results published by the Alliance and CIVHC are consistent with these observations:
  - Provider organizations with the strongest brands are not necessarily the high performers, and most organizations are not strong in all services and measures.
  - However, over time, most of the high performers for quality tend to be among the largest IDNs and MSMGs, and high performers for quality tend to also be lower cost than their peers.
Key Finding #10

If leading provider organizations continue to achieve superior performance, it may reinforce trends toward greater health care market consolidation.

• Some leading employers (such as Boeing) are adopting tiered benefit designs to incentivize employees to use preferred provider networks. Often the preferred providers are leading health systems that have demonstrated superior results for quality and cost.

• Health plans in Washington are developing similar tiered network plans with selected provider organizations.

• As more employers steer their employee populations to leading provider organizations, those organizations will grow at the expense of other providers.

• There is concern among some observers that these trends will exacerbate stratification of the market into the “haves”—those with the resources to invest in systems and processes to improve value—and the “have nots.”

• Given broader trends of market consolidation, these trends could lead to excessive market concentration and associated market power of the leading provider organizations.
Implications for North Carolina and Possible Next Steps
Implications for North Carolina

1. **By spearheading the development of a Regional Health Improvement Collaborative (RHIC) for North Carolina, the business community can achieve a major impact in support of the Roadmap to Value-Driven Health at a very modest cost to stakeholders and other funders.**

   • The North Carolina RHIC should include an All-Payer Claims Database (APCD) with a mission to make transparent health care quality, utilization, pricing and total cost data readily available in the state. This information will provide a positive disruption that empowers all stakeholders and helps to focus them on improving value, adding an essential building block for a health care system that delivers better health outcomes at lower cost.

   • The RHIC should also pursue a range of initiatives with key stakeholder groups to redesign approaches to benefit design, care delivery and payment models in the state.

   • The RHIC should adopt a sustainable funding/business model that includes a mix of foundation grants, membership dues and service revenues—and the business community should support a level of funding that recognizes the outsized value that the RHIC will deliver to all stakeholder groups.

2. **In pursuing the RHIC strategy, North Carolina has an opportunity to close the gap with leading states as part of its quest to become a top 10 state for health and health care value.**

   • CIVHC demonstrates the opportunity to accelerate the development of key capabilities like the APCD, while the Alliance demonstrates the sustained impact of building a culture of collaboration among stakeholders that is based on trust and focused on improvement.

   • If North Carolina can effectively combine the best of both of these benchmark examples, the state can achieve change that is both rapid and far-reaching.
Implications for North Carolina

3. **Strong, active leadership by employers in particular can provide a significant source of competitive advantage for North Carolina.**
   - Employers can provide the key impetus behind convening the other major stakeholders to accelerate development of the RHIC and its various initiatives.
   - Equally important, a critical mass of employers can directly impact the market if they bring the mindset of strategic supply chain management to health care purchasing, implement value-based purchasing solutions, and engage their employees in the solutions through benefit design, employee education and other support.
   - As a statewide organization representing the business community, including employers and other key health care stakeholders, the NC Chamber is in an excellent position to help engage employers, educate them about the opportunity and advance a leading role for them in the initiative, while also promoting multi-stakeholder collaboration.

4. **Like other state governments, the North Carolina state government is another key stakeholder that can help accelerate the impact of an RHIC, but it can also be a disruptive influence if the legislative and administrative agendas are not aligned with the Roadmap to Value-Driven Health.**
   - The business community should recognize the need to engage the state government—especially in its role as a major health care purchaser—as an active supporter of the RHIC and in adopting value-based purchasing solutions.
   - The business community should also work closely with the General Assembly and state agencies to ensure that any other actions they take related to health care are aligned with the Roadmap.
   - For example, if the state decides to establish a state-mandated APCD, then the focus should be on designating an independent North Carolina RHIC as manager—similar to CIVHC’s role in Colorado.
5. **Managing relationships with the other major stakeholder groups will be another key success factor.**

- The business community should work closely with the leading health plans to ensure their full support for all aspects of the RHIC and its initiatives—especially submitting their claims data to the APCD—while also taking steps to address their legitimate concerns.

- Through their health care purchasing decisions, businesses should reward health care provider organizations that achieve superior performance in delivering quality care while reducing costs. At the same time, the business community will need to be vigilant in supporting efforts to maintain competitive health care markets by preventing excessive market concentration by the leading providers.
Possible Next Steps

1. Assemble a core working group of interested stakeholder representatives.

2. Review highlighted reports of the Alliance and CIVHC, available on their websites.

3. Consider site visits to the Alliance and CIVHC (as well as the Health Collaborative of Greater Cincinnati) to gain additional insight into their operations and collaborative cultures.

4. Identify key elements that North Carolina may want to emulate.

5. Develop the central strategies for building a robust RHIC in North Carolina.
Health Information Exchange Benchmarking – Key Findings and Implications for Employer Engagement in HIE Development
Contents of This Section

- Health Information Exchanges – A Primer  91
- HIE Benchmarking – Snapshots  98
- The Case for HIEs  113
- Lessons Learned from Benchmark Research  116
- Implications for North Carolina and Possible Next Steps  127
HIEs – A Primer
An HIE Is…

**Defined:** An HIE provides the capability to electronically move clinical information among disparate health care information systems, and maintain the meaning of the information being exchanged.¹

**Simple Schematic**

![Diagram of health information exchange network](http://www.himss.org/library/health-information-exchange/FAQ)

Courtesy Michigan Health Information Network – [https://mihin.org/who-we-are-3/](https://mihin.org/who-we-are-3/)

¹ Source: [http://www.himss.org/library/health-information-exchange/FAQ](http://www.himss.org/library/health-information-exchange/FAQ)
## HIEs – A Brief History

<table>
<thead>
<tr>
<th>1990s</th>
<th>1999</th>
<th>2000s</th>
<th>2009</th>
<th>2010 to Present</th>
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<tbody>
<tr>
<td>Various regional efforts to share health information for purposes of improving quality and efficiency.</td>
<td>Institute of Medicine report “To Err is Human” highlights threat of medical errors/spurs federal efforts to address issues.</td>
<td>Largely bipartisan initiatives, including formation of the Office of the National Coordinator for Health IT (ONC). AHRQ awarded $5 million grants to six states for regional HIE demonstration projects to generate best practices for HIEs. Medicare Modernization Act of 2003 awards $6 million grants to five states to test standards for e-prescribing, impacting future eRx standards development. Notable “organic” HIE initiatives emerged, including HealthBridge in Cincinnati.</td>
<td>ONC’s State HIE Cooperative Agreement Program awards $564 million to 50 states and 6 territories to assist states in developing a framework to facilitate health information exchange.</td>
<td>HIE’s evolve under a range of models, based on leadership, governance, stakeholder engagement and other factors. Some HIEs have moved more swiftly than others, resulting in a spectrum of HIE successes at this time.</td>
</tr>
</tbody>
</table>

**Source:** [https://www.healthit.gov/sites/default/files/pdf/state-health-info-exchange-program-evolution.pdf](https://www.healthit.gov/sites/default/files/pdf/state-health-info-exchange-program-evolution.pdf)
Types of HIEs

- **Statewide:** Run by the governments of their respective states, or may be the State's Designated Entity (SDE).

- **Private/Proprietary:** Concentrate on a single community or network, often based within a single organization (e.g., a hospital or health system), which controls management, finance and governance. Some software vendors have also established an HIE network for their clients across the U.S.

- **Regional/Community:** Inter-organizational and depend on a variety of funding sources. Most are not-for-profit.

- **Hybrid:** Collaborations between organizations, such as an Accountable Care Organization (ACO) and a vendor network, within a state or region.

Types of Architecture

- **Centralized**: Patient data are collected and stored in a centralized repository/data warehouse. The HIE has full control over the data, including the ability to authenticate, authorize and record transactions among participants.

- **Federated**: Interconnected but independent HIEs/ databases allow for data sharing and exchange, and grant users access to the information only when needed.

- **Hybrid**: Incorporates variations of federated and centralized architectures to harness the advantages of both.

### Types of Data in an HIE

<table>
<thead>
<tr>
<th>Common</th>
<th>Less Common</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Clinical Data – from the electronic medical records of participating providers</td>
<td>• Medical Claims</td>
</tr>
<tr>
<td>• Laboratory Data</td>
<td>• Pharmacy Claims</td>
</tr>
<tr>
<td>• Imaging Data</td>
<td>• Mental Health (often segmented off)</td>
</tr>
<tr>
<td>• Patient Relationship Data – which providers does a patient have a relationship with?</td>
<td>• Public Health</td>
</tr>
<tr>
<td>• Immunization Data – including from retail pharmacies</td>
<td>• Long Term Care and Skilled Nursing Facilities</td>
</tr>
</tbody>
</table>

Patients are given the opportunity to opt out of having their data shared in the HIE.
Evolution of Value Creation through an HIE

Formative/Establish Core HIE Infrastructure
- Focus on governance, enrolling providers to share data, meeting requirements of enabling legislation
- Many issues to work through, including patient opt in/out, minor consent, HIPAA business associate agreements, how to handle sensitive data (mental health, STDs), etc.

Deliver on Basic/Core Value Propositions
- Better coordination of care leading to improved quality & safety, and less waste
- Access to the right information at the right time for providers, patients & other stakeholders
- Better efficiency & reliability by reducing paperwork and providing patient support tools.
- Improve quality and safety by reducing medical & Rx errors.

Enable Incentive Alignment to Improve Health Care Value
- Trusted resource for comparative quality and/or cost data
- Trusted third party for administration of payer incentives based on clinical and/or claims data
- Enabler of new payment models
- Enabler of value-focused clinical approaches, such as ACOs and CPC/CPC+

Provide Insights & Enable Interventions to Improve Population Health
- HIE for real-time surveillance of immunizations and outbreaks
- Data insights and connectivity to address opioid crisis
- Enabler of systems to connect/coordinate health care with social services e.g., CMS’ Community Health Improvement Collaborative
Benchmarked HIEs - Snapshots
Methodology

• **Goal:** To identify and benchmark successful Health Information Exchange organizations that could provide examples of a range of strategies and approaches for consideration by the NC Chamber/NC employers.

• **Targeting of Benchmark HIEs**
  – Focus on established HIEs that had enabled health and health care improvements in their region/state
  – Targeting based on expert interviews and referrals from initial benchmark organizations

• **Issues Discussed**
  – Current status of HIE
    • Business model elements (governance/stakeholder leadership, structure, funding model)
    • Data inputs
    • Customer mix and related product/service offering
    • Impacts/evidence: health, costs, value-based purchasing approaches
    • Employer engagement
  – Journey
    • When/how started
    • Inflection points/important events
    • Key stakeholders/roles (emphasis on employer role)
  – Future plans/outlook
Benchmarked Organizations

**Wisconsin State Health Information Network**
Joe Kachelski, CEO
Madison, WI

**Michigan Health Information Network**
Dr. Timothy Pletcher, Executive Director
East Lansing, MI

**Rochester Health Information Organization**
Larry Becker, Board Chair, Rochester RHIO
Rochester, NY

**Pennsylvania Chamber***
Gene Barr, President & CEO
Harrisburg, PA

**North Carolina Health Information Exchange Authority**
Informal interviews
Raleigh, NC

**MyHealth Access Network**
David Kendrick, MD MPH, CEO
Tulsa, OK

**The Health Collaborative**
Craig Brammer, CEO (and others)
Cincinnati, OH

* PA Chamber interviewed in follow-up on information about possible involvement in an HIE in PA. Chamber is not involved. See summary of interview in Appendix.
## Benchmarked Organizations – Evolutionary Status

<table>
<thead>
<tr>
<th></th>
<th>Formative/Establish Core HIE Infrastructure</th>
<th>Deliver on Basic/Core Value Propositions</th>
<th>Enable Incentive Alignment to Improve Health Care Value</th>
<th>Provide Insights &amp; Enable Interventions to Improve Population Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIHIN</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Rochester RHIO</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>The Health Collaborative</td>
<td>●</td>
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<td>MyHealth Access Network</td>
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<td>WISHIN</td>
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**Key**  
● = Highly Developed  
○ = Somewhat Developed  
○ = Early Stage
## Michigan Health Information Network

### Fast Facts

- Established in 2010.
- A public and private non-profit collaboration, formally designated as Michigan’s Statewide Health Information Network (HIN).
- Multi-stakeholder, including the state’s Health Information Technology (HIT) commission, Medicaid, public health, physicians, health plans, and health systems.
- A federated model – not an HIE itself, but a network of multiple (currently 13) regional HIEs in MI that link to the MIHIN backbone.
- Primary funding sources include the state, payments from risk-bearing entities (plans, ACOs), the sale of information services and grant funding.

### Relevant Highlights

- Like NC, MI has a dominant health plan (BCBS of MI), and that has shaped their approach. Of note:
  - Key funding from fees paid by risk-bearing entities (esp. BCBS) for role as trusted third party for quality data used in pay-for-performance incentives. At least 15% of incentives tied to performance as measured by MIHIN data on care/gaps.
  - MI unlikely to have an All-Claims Payer Database (due to power of BCBS), but in next generation, plans will feed into system any high risk/cost “flags” assigned to patient records so that information will be visible to providers to help guide care decisions.
- Operate a “Use Case Factory,” which focuses on developing applications to help solve specific challenges. The product design focus has resulted in high utilization of MIHIN services by a range of stakeholders.
- Have launched Velatura, a revenue-generating consulting arm to help other states learn from MI’s experience and overcome challenges of interoperability.
### Notable Outcomes

- **Active Care Relationship Service:** Identifies providers who are actively caring for a patient, enabling better-coordinated transitions of care because physicians/care management teams receive notifications when there are updates to a patient’s status. In 2017, ACRS use more than doubled to 22 million linkages tracked each month.

- **Simplifying Clinical Quality Measure Reporting:** Through MIHIN, providers and health plans are working together to establish a “report once” capability, allowing providers to electronically send one quality measure file that can be used for multiple plans and multiple reporting programs. **Use case eliminates redundancy, paperwork and frustration, saving time and money, and improves quality by focusing all stakeholders on closing gaps in care.**

- **Reducing Opioid Risk:** MIHIN able to filter patient data for prescribed Opioids and “triple threat” for respiratory depression (opioid + muscle relaxant + benzodiazepine), and to then send a Direct Secure Message to alert providers to the risk.

### Employer Role

- Key function of employers has been to support/pay for implementation of pay for performance incentives by BCBS and other health plans. Having 15% of incentives tied to use of MIHIN data was a critical lever early on to engage providers in submitting data to their regional/local HIE and using MIHIN services.

- Other employer input has been sporadic.

- No employer board members.

### Links

- Website: [www.MIHIN.org](http://www.MIHIN.org)
# MyHealth Access Network – Oklahoma

## Fast Facts
- Identifies itself as a non-profit public health care utility, but is not part of OK state government.
- Only HIE in OK.
- Multi-stakeholder board, including patients, doctors, health systems, community clinics, medical schools, tribal health, health insurers, allied health, and employers.
- Funding from grants, SoonerCare (OK Medicaid) and health care stakeholders for data services related to specific programs (see right).

## Relevant Highlights
- MyHealth chosen as convening organization for CMS’ Comprehensive Primary Care (CPC) initiative in 2012 (Tulsa Region), and OK went statewide with CPC+ in 2016. CPC programs provided framework for funding by providers and health plans (to support care continuity requirements and reporting tied to incentives).
- MyHealth serves as a Qualified Clinical Data Registry (QCDR) for CMS for administration of Merit-Based Incentive Payment System (source of revenue).
- Data collected as recommended by medical professionals includes: provider information, diagnoses, current medications prescribed, lab and x-ray results, past procedures, known allergies, immunizations, hospital discharge records and basic personal information.
- MyHealth working with health plans to combine clinical and claims data, enabling a “trusted third party” assessment of provider quality that is based only on the plan’s patients being actively managed by the provider.
- MyHealth one of 32 organizations to pilot the CMS Accountable Health Communities Model ($4.5MM grant).
## Notable Outcomes

- **Penetration:** MyHealth currently has 450 organizations participating - data is available in real-time with only a few seconds lag. It includes hospitals, clinics, optometrists, state health and pharmacies. No state mandates for participation.

- **Savings from CPC:**
  - Tulsa region CPC doctors delivered a savings of 7% (compared to peer practices) to CMS in year one, and a 4.7% savings in year two. Six other regions joined in testing the CPC model, generating net savings of $10.8 million and earning more than $500,000 in shared savings payments to practices.
  - A participating Medicare Advantage Plan saved nearly 15% over two years.
  - Commercial Blues also achieved significant savings, with payments for providers supported by employers (see right).
  - Health plans reported significantly improved utilization of preventive care services and each participating payer reported improvement in several quality indicators.

## Employer Role

- Employer on Board has made key contributions.
- Employer support for CPC incentive payments; some now using $0 copays to drive employees to use CPC+ providers. Employers share in program savings.
- Recently, employers inquiring about ability to contribute absence and disability data for analysis, demonstrating growing interest.
- Currently trying to get employers to help pressure big pharmacies to contribute data.

## Links

- **Website:** [www.myhealthaccess.net](http://www.myhealthaccess.net)
- **Accountable Health Community:** [Accountable Health Community Story](#)
The Health Collaborative – Greater Cincinnati

Fast Facts

• Result of 2015 merger of the Health Collaborative (Multi-stakeholder), Greater Cincinnati Health Council (Hospitals), and HealthBridge (HIE)
• Not-for-profit 501(c)(3)
• Regional focus (Greater Cincinnati); multi-stakeholder board includes employers
• Centralized data model with longitudinal patient data
• Feeds data to Ohio state HIE which is early in evolution cycle
• Funding has transitioned from philanthropy to a sustainable business model funded through memberships, subscription fees, services and grants
• HIE services branded hb/suite

Relevant Highlights

• **Most complete model benchmarked:** HIE is an integral part of a broader strategy…HIE as a verb, not a noun. The Health Collaborative brings together technical, finance and staffing for interoperability and accountability under common governance, enabling more efficient and effective progress on health and health care value.
• Vision and mission:
  – Greater Cincinnati is healthy by design, and everyone is connected to quality, affordable health care.
  – To lead data-driven improvement that results in healthier people, better care and lower costs.
• Have branded strategy as “GEN-H,” which includes a focus on engaging employers community-wide in health improvement via a Step Up Challenge.
• HIE has evolved from connectivity to message delivery, to event notification, and now to analytics being used in data-driven decision making.
• HIE has enabled proliferation of CPC+ program, and practices pay for related data services.
# The Health Collaborative – Greater Cincinnati

## Notable Outcomes

- **The best-studied**/most measured of benchmarked entities studied.

- Select findings from hb/analytics claims data co-op, 2013 to 2016 calculated a **9% reduction in total costs** as a result of improvements like the following:
  - 94% of patients received primary care follow-up within 72 hrs of hospital discharge, and 82% within a week of an ED visit
  - 45% drop in primary care treatable conditions (540 fewer congestive heart failure visits, 460 fewer COPD visits)
  - 17% drop in ED visits
  - 24% fewer specialist visits

- **Results of CPC practices** from Q4 2013 through Q4 2016 found a dramatic reduction in hospital admissions for primary care treatable conditions. The admission rate dropped from 21/1,000 patients to 11.6/1000 patients

## Employer Role

- Employers played a critical role in early stage formation of the Greater Cincinnati Health Council, and ongoing energy and support to help drive expansion, influence and integration into The Health Collaborative.

- Employer support of new payment models (e.g., CPC+) key to driving and growing participation by provider community.

- Employers now targeted in health improvement through collaborative programs, like the Step Up Challenge.

## Links

- Website: [http://healthcollab.org/](http://healthcollab.org/)
- Press release on Step Up Challenge
### Fast Facts

- Started in 2006 (before ARRA funding) with support from employers, health systems and state matching grant.
- Not-for-profit regional health information organization (RHIO) tied into NY’s Statewide Health Information Network (SHIN-NY).
- Federated data model, feeding data to SHIN-NY (also Federated).
- Board representation from providers, employers, public health, insurers, long-term care.
- Funding from state to cover basic services to providers. Launched a for-profit subsidiary to develop and sell data services to stakeholders in the Rochester RHIO and beyond.

### Relevant Highlights

- Rochester was a first-mover in HIE effort because of strong business (employers and health care) community. They had built trust needed to invest in infrastructure and to then find ways to use the data to improve quality and reduce waste and other cost drivers.
- State eventually caught up and now pays Rochester (and other RHIOs in the state) to provide basic services to providers.
- RHIO enabling Medicaid payment redesign.
- Data includes clinical data, mental health data (with special safeguards), Rx data available to physicians (no feed from pharmacies), imaging, lab, public health, and long-term care data. No claims data due to resistance from plans.
- Early resistance from health systems to participating in HIE based on desire to keep patients in their network. Data analytics demonstrated 38% “leakage” among systems, and thus the need to share information among providers.
- Now systems/ACOs value the Rochester RHIO because it helps them manage patient care and costs – key for success in new payment models.
### Rochester Health Information Organization (RHIO)

#### Notable Outcomes

- **Penetration:** 90% of providers participate/feed data, and 89% use services. 97% of patients consent to share data, leading to 142 million clinical documents in system.

- **Research:** Studies published in peer-reviewed journals conclude the following (see “Links” below for links to studies)
  - Accessing patient information in the HIE within the 30 days after hospital discharge was associated with a 57% lower adjusted odds of readmission
  - HIE access during an emergency department visit reduced the odds of a hospital admission 30%
  - HIE access reduced likelihood of having a repeat imaging study within 90 days of an initial study by 25%

- **Long-Term Care:** Participation by LTC providers helps drive down readmissions by facilitating care through LTC facilities.

- **Emergency Departments:** Improved ED efficiencies, because EMTs are in the system and can send patient info before arrival at ED, and can even send images while in route.

#### Employer Role

- Local employers provided convening power and $1.9 million to help match $4.8 million state grant to start RHIO.
- Employers represented on the board. Of note: Chair and Vice Chair have always been independent (of health care stakeholders), providing objective leadership for the organization.
- Interpersonal employer pressure key to gaining health system participation early on.

### Links

- **Website:** [https://rochesterrhio.org/](https://rochesterrhio.org/)
- **Studies:** See links under “Supporting Research” [here](https://rochesterrhio.org/)

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### Wisconsin State Health Information Network (WISHN)

<table>
<thead>
<tr>
<th>Fast Facts</th>
<th>Relevant Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Wisconsin’s State Designated Entity, formed as a result of ARRA-funded HIE strategic plan in 2010</td>
<td>• Four founding organizations – WI Hospital Association, Medical Society, Collaborative for Health Care Quality, &amp; Health Information Organization (included insurers, employers and public agencies)</td>
</tr>
<tr>
<td>• Not-for-profit organization, operating under WI DHS oversight.</td>
<td>• Operated through 2/7/14 with funding from original Cooperative Agreement Program (CAP) Grant</td>
</tr>
<tr>
<td>• Use a Federated model for real-time access to patient data from multiple electronic health records</td>
<td>• “See ourselves as a utility…to connect all points of care in the spectrum, who benefit from the exchange. Even small, and less-sophisticated organizations can benefit from participation.</td>
</tr>
<tr>
<td>• Focus on enabling the automated, prospective sharing of clinical information that can follow patients wherever they seek care</td>
<td>• Key – not to duplicate what EMRs or others are doing – build use cases around gaps in information/connection. Not about mandates.</td>
</tr>
<tr>
<td>• Funding via flat-fee base subscription model that scales to size (per doc for clinics, per revenue for hospitals); additional services also sold by subscription model</td>
<td>• Have most health systems in the state engaged in the system, but still some holdouts.</td>
</tr>
</tbody>
</table>
# Wisconsin State Health Information Network (WISHN)

## Notable Outcomes

- Have not done formal studies
- A study done in Milwaukee early on demonstrated $29/ED visit savings under predecessor organization
- Early in enabling value-based models, but have an example in Anthem/Aurora (health system) collaboration. They jointly own an insurance product, and make wide use of WISHIN patient activity reports to manage risks and costs. Others are watching.

## Employer Role

- Statutes require that employers as a stakeholder group be represented on WISHIN board.
- The Alliance (an employer group in South-Central WI) is a current board member.
- Employers supportive early on/had voice via Wisconsin Health Information Organization.
- Expect as risk models like Anthem/Aurora take hold (left), employer participation in payment models may be important.

## Links

- Website: [http://wishin.org/Home.aspx](http://wishin.org/Home.aspx)
- List of solutions: [http://wishin.org/Solutions.aspx](http://wishin.org/Solutions.aspx)
Interview with Pennsylvania Chamber

Interview conducted with Gene Barr, President and CEO of PA Chamber to follow up on possible involvement in an HIE in PA. Found the Chamber is not involved/not aware of an HIE in PA. However, did gather information about the Chamber’s involvement in health care in the state as follows:

- PA Chamber involvement in health/health care improvement is through the Health Care Cost Containment Council (HC4), a quasi-governmental entity that arose from efforts by the Chamber and AFL-CIO in PA about 20 to 25 years ago.

- Focus of HC4 is on reporting of cost and quality measures for hospitals in the state. A quick look at their reports page shows they do good work on useful issues, like heart surgery, back surgery, sepsis rates, etc. Apparently, HC4’s reports are nationally-recognized.

- Vision of the organization is that cost and quality reports will be used by consumers in making decisions about where to get procedures; however, they have not seen consumer adoption of the information. Comment: this is not a PA problem…it is common.

- Gene did offer to explore idea of using the analysis and reporting structure of HC4 to support something similar in NC if there is interest.

- Gene also mentioned that there was a movement in the state to create an all-payer claims database. Notably, the Chamber was among those opposing the move. Did not get into rationale for opposition. Speculate it is due to membership of health care organizations.
The Case for HIEs
The Case for HIEs Should Consider Two Types of Value Creation – Type 1

- Direct Value from HIE-Based Products and Services
  - Lower hospital admissions and readmissions (Rochester)
  - Reductions in redundant imaging (Rochester)
  - CPC+ enablement (MyHealth and Health Collaborative), resulting in lower ED visits, specialist use and hospitalizations for primary care treatable conditions
  - Enabling provider incentives based on objective quality measures with shared savings back to employer purchasers (MyHealth)
  - 9% lower overall health care spending (Health Collaborative)
  - Using HIE data and infrastructure to attack opioid abuse (MIHIN)
The Case for HIEs Should Consider Two Types of Value Creation – Type 2

- HIE’s are critical infrastructure for achieving health and health care value improvement.
  - Regions/states with robust and strategic HIEs are leading the way in movement toward value-based care and payment models, which will be essential for improving health care value.
  - The most advanced HIEs are enabling their regions/states to more holistically address population health crises, integrate community resources into care pathways, and efficiently identify and address health improvement challenges.
Lessons Learned from Benchmark Organizations
If you’ve seen one HIE, you’ve seen one HIE

Benchmarked HIEs – all of them strong and mature – were surprisingly different. But how they developed was a reflection of their markets, stakeholders and cultural context. For instance:

<table>
<thead>
<tr>
<th>✓ A state-designated entity</th>
<th>✓ Created by health systems in Tulsa, has grown to state-wide coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ No database, but a network/federation of other HIEs</td>
<td>✓ Centralized data</td>
</tr>
<tr>
<td>✓ Plans don’t provide claims data, but tie 15% of incentive payments to quality measures enabled by HIE</td>
<td>✓ Works with plans that voluntarily provide data for use in assessing provider quality/value and administering incentives</td>
</tr>
<tr>
<td>✓ Key funding source = CPC+ providers who benefit from HIE-related services</td>
<td>✓ Key funding source = risk-bearing entities who use HIE data for quality-based incentive pmts</td>
</tr>
<tr>
<td>✓ No formal/board involvement by employers, but approach (e.g., Use Case Factory) reflective of state’s manufacturing culture</td>
<td>✓ Employer influence via board and by supporting payment models</td>
</tr>
</tbody>
</table>
To fully mature, HIE leadership needs to navigate through the natural self interests of stakeholders

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Self Interests</th>
<th>Key Considerations</th>
<th>Solutions/ Approaches</th>
</tr>
</thead>
</table>
| Health Insurers/ Plans                   | Do not want to share claims data for risk of revealing pricing agreements and other proprietary information | • Claims data can be valuable for care management  
• Claims data helps to assess and compare provider value (quality/cost) | • Demand participation in All Claims Payer Database (none of our benchmarks do this)  
• Restricted use of voluntarily submitted claims data to assess quality of only plan’s patients in physician practices (MyHealth)  
• Plans feed information about member/patient flags into HIE for use in patient care (MIHIN) |
| Health Care Providers (especially Health Systems) | Do not want to share clinical data outside their system. Prefer provincial HIE only. | • Patients not monogamous. About 4 in 10 seek care outside systems (Rochester and MyHealth data)  
• EMRs don’t “talk” to each other – need translator  
• Employers need flexibility in designing benefits (e.g., Centers of Excellence in multiple systems) | • Payer mandates to submit data (NC HIE Authority)  
• Develop compelling “use cases” that make participation worth benefits returned in terms of efficiencies, etc. (All Benchmarks)  
• Provide clear and consistent signals of march toward payment models that will require HIE participation (The Health Alliance, MIHIN, MyHealth) |
| Employers/ Purchasers                    | To not participate because of technical nature and lack of perceived influence | • Employers as purchasers bring their perspective to the supply chain  
• Employers have unique convening power | • Engage at least one employer voice on HIE board (MyHealth, The Health Alliance)  
• Engage employer support for incentives and payment models that rely on HIE participation (MyHealth, MIHIN, The Health Alliance) |
Opportunity Favors the Prepared HIE (or) Leaders are Rewarded for Leading!

- Robust HIEs attract grant and other funding opportunities when in alignment with the organization’s mission and stakeholder interests. For instance:
  - MyHealth and The Health Collaborative each received Beacon Community grants.
  - MyHealth and The Health Collaborative are each among 32 organizations to receive Community Health Improvement Collaborative grants.
  - MyHealth was able to capitalize on CPC/CPC+ programs, enabling funding by supporting participating physician practices in implementing new care models.
  - The Health Collaborative’s 2017 budget was $12 million, including $3 million in grant funding.
  - MyHealth providing support for University of OK $15 million grant to implement CMS Million Hearts program.
HIEs and Consumers – trust (consent), quality and convenience are the focus of messaging

• Patients must consent to have information included in HIEs. Rates of participation tend to be high (Rochester RHIO reports that 99.6% of patients opt into the HIE).

• Efforts by some HIEs to have patient involvement on boards, but challenge to get “a patient perspective” when needs/wants are so diverse.

• All benchmarked HIE websites have tabs dedicated to patients – explaining rights, discussing consent, etc.

• HIE’s tend to promote the benefit to patients of having providers being able to access health information, improving quality and reducing inefficiencies, time and cost (to the patient).

• Less focus (though there is some) on using information to empower better patient decision-making. May be happening, but appears not to be a core HIE function.
Providers need to be deeply involved decisions about how data will be used

• Provider organizations have much at stake in decisions about how HIEs will use and report data. HIEs need to involve provider organizations (e.g. medical societies) in establishing quality standards.

• The process of implementing HIE-based reporting and incentive payments for provider performance will likely be incremental, allowing time not only for operational changes but for building of trust among stakeholders.

• Once established, HIEs use customer/product development approach to engage providers in helping to design solutions to help improve quality, reduce waste or lower costs.
Employer engagement is essential to accelerating HIE development and evolution

• Employers are uniquely positioned to turbocharge HIE evolution.
• Employers have a unique power as purchasers to convene other stakeholders.
• Employers bring a unique and highly pragmatic perspective to the multi-stakeholder table. As noted in the MyHealth interview: “We were debating something about diagnostic tests, and the employer said ‘I’m paying for that. I don’t want to pay twice.’” In the Rochester RHIO, a well-known local CEO personally pressured a major health system to participate in the HIE.
• Employer support of value-based payment models (based on HIE data) helps drive provider participation and practice transformation.
Customer focus and product development mindsets are key to growth and sustainability

- HIEs become sustainable by delivering meaningful value, and that goal is achieved by focusing on end-users of information, and taking a product-development approach. For instance:
  - MIHIN’s “Use Case Factory” bills itself as “a lean manufacturing-oriented approach to build the tools needed to share health information electronically.”
  - Rochester RHIO launched HealthVantics as a for-profit venture to develop and sell information products and services beyond the basic HIE functions funded by the state to support stakeholder needs in the region.
  - MyHealth worked with providers and health plans to develop an approach to quality measurement based on clinical and claims data for only those patients in a practice who are members of the plan.
  - The Health Collaborative’s structure and business model is built to meet the needs of different members (customers) through information and various support services.
State-run HIEs – advantages and disadvantages (perspectives of interviewees)

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Can leverage authority and covered lives to drive provider participation and use of data in value-based payment models</td>
<td>• Strategy subject to politics – makes it hard for stakeholders to commit to action plans</td>
</tr>
<tr>
<td></td>
<td>• State-based HIEs can stunt competition and innovative product and service development</td>
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</tbody>
</table>
Health care is local, and the stakeholders that need to be most engaged in HIE governance, negotiation and decision-making are also local, with local connections and interests. As such, HIEs are most likely to strengthen and mature quickly if they are local. Consider:

- MyHealth started as a regional HIE in Tulsa
- The Health Collaborative is focused on Greater Cincinnati
- MIHIN and WISHIN are networks that link data from regional and private HIEs in their respective states
- Rochester RHIO started before federal funds were available and has had significant impact on quality and cost in the market
North Carolina’s HIE Authority – A rocky start, but poised to improve/potential to help create value

- We conducted informal interviews with various stakeholders with insights and perspectives to share about the situation in North Carolina relative to HIEs and the use of HIEs to help achieve better health and health care value. Key take-aways:
  - NC HIE had a rocky start, but with new leadership, talent and energy, is poised for improvement.
  - Nested in the state government, the NC HIE will struggle to evolve quickly past basic functions – will need a political push and/or market pull (value-based purchasing) to drive uptake of “Value Add” services that will be made available by late 2018.
  - New leadership at the state’s dominant health plan could be game-changing, with background in HIEs and Medicare innovations, including payment reform and CPC+. 
Implications for North Carolina and Possible Next Steps
Implications of Benchmark Research

1. A robust and strategic HIE is critical infrastructure for North Carolina to achieve the goal of being a top 10 state in health and health care value.

2. North Carolina is behind other states. Catching up will require decisive action across the supply chain. Employer leadership will be essential to drive action through the supply chain. Employers must leverage their collective power to:
   a) Convene key stakeholders
   b) Align incentives toward value-creating activities
   c) Hold stakeholders accountable for timely fulfillment of action plans

3. Working with the existing state HIE Authority should be explored, but that is not the only option. Examples exist/resources are available to enable employers to lead development of a private HIE (or Health Information Network/HIN) that will promote and support rapid progress to value-based health care in North Carolina.
Possible Next Steps

1. Focused discussions with key in-state stakeholders, including the NC State HIE Authority, major health plans and provider organizations.

2. Consider site visits to benchmark HIEs, including:
   a) MIHIN to evaluate “Network” model, “use case factory” approach and relationship with dominant BCBS plan.
   b) MyHealth Access Network to see state-wide, centralized model that also happens to be separate from the state.
   c) The Health Alliance to see a robust regional approach that could serve as a model for establishing, growing and connecting robust regional approaches.

3. Develop primary and contingency strategies for developing a robust and strategic HIE, including state-based and private options.
APCDs and HIEs – How They Compare and Opportunities for Use in Combination
## APCDs and HIEs – Compared

<table>
<thead>
<tr>
<th>Issue</th>
<th>All Payer Claims Database</th>
<th>Health Information Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Sources</strong></td>
<td>Commercial health plans, self-insured employers, Medicaid and Medicare. Can also include prescription claims from PBMs.</td>
<td>Physicians, hospitals, laboratories, long-term care providers, public health, pharmacies and patients</td>
</tr>
<tr>
<td><strong>Key Data Elements</strong></td>
<td>Claim data, such as diagnosis, procedure and drug codes, service dates, service provider, prescribing physician, health plan payments, member payments, and facility type</td>
<td>Clinical data, such as clinical data from an electronic health record, laboratory and imaging data, patient-provider relationships, and immunization data</td>
</tr>
<tr>
<td><strong>Core Functions</strong></td>
<td>• Publicly report information about provider quality, utilization rates, prices and total costs.&lt;br&gt;• Private reports (e.g., employers)&lt;br&gt;• Conduct in-depth analysis on issues such as opioids</td>
<td>• Improved care coordination to improve quality and safety and reduce efficiency/waste.&lt;br&gt;• Data to support quality assessment and enable new payment models&lt;br&gt;• Real-time surveillance of public health issues (e.g., opioids, epidemic)</td>
</tr>
<tr>
<td><strong>Timeframe</strong></td>
<td>Historic claims data used for evaluation and reporting</td>
<td>Historic clinical data used real-time to impact health care decisions</td>
</tr>
</tbody>
</table>
### APCDs and HIEs – Compared

<table>
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<th>Issue</th>
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<th>Health Information Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder Benefits</td>
<td>• Providers have a single set of performance measures (vs. separate measures for each plan)</td>
<td>• Improves workflow efficiency and accuracy for providers.</td>
</tr>
<tr>
<td></td>
<td>• Makes variations in provider quality and cost visible</td>
<td>• Enables providers to provide better quality and reduce waste – particularly important when they are implementing care models like CPC+ and ACOs, and are under value-based payment models</td>
</tr>
<tr>
<td></td>
<td>• Motivates/enables employers consumers to demand greater value</td>
<td>• Enables health plans (and employers) to implement value-based payment models based on clinical quality and efficiency</td>
</tr>
<tr>
<td></td>
<td>• Provides benchmarks to inform providers on performance improvement.</td>
<td>• Enables stakeholders to collaborate on identifying and addressing public health challenges and opportunities</td>
</tr>
<tr>
<td></td>
<td>• Facilitates development of value-based networks based on quality and cost.</td>
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</table>
Combining APCDs and HIEs Can Yield Benefits, but as of Now, Significant Barriers Exist

Potential Benefits: HIEs could enhance existing APCDs with clinical information for quality and outcomes reporting, enabling comparative effectiveness research, population health applications, improved risk adjustment, clinical studies, and outcomes research.

Barriers: Barriers to linking HIEs and APCDs

1. Technical
   a) Critical points of linkage between APCDs and HIEs occur with member/patient identification, and rendering provider identification
   b) APCDs typically don’t include data on all people receiving care in a geographic area, impacting analysis of combined data
   c) Distributed (or “Federated”) HIEs/HINs (Networks) are difficult if not impossible to integrate because data exists in multiple regional or private/provider HIEs

2. Legal:
   a) Many states have laws that prohibit linking personal identifying information with APCD data, reinforcing Technical barrier 1.a.
   b) HIEs formed to pass data among providers in a system or to share with providers outside a system. Would need governing bodies of HIEs to approve other uses of data

Oklahoma – A Practical Example of HIE and Payer Data Integration

1. Plans can voluntarily contribute claims data to MyHealth Access Network
2. MyHealth Access Network combines with patient-matched clinical data from HIE
3. Combined clinical/claims data used to provide a more comprehensive evaluation of provider quality, and used in determining quality/value incentive payments for providers