



**AGENCY FOR HEALTH CARE ADMINISTRATION**

**STATE OF FLORIDA**

*AS IS ASSESSMENT*

*HEALTH INFORMATION EXCHANGE (HIE) STUDY*

**northhighland®**

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## Table of Contents

Executive Summary .....	6
1. Approach Overview .....	6
2. Key Findings .....	7
SECTION 1 INTRODUCTION .....	9
A. Background .....	9
B. Purpose of this Document .....	9
C. Detailed Approach .....	10
1. Information Gathering and Research .....	10
2. Working Group Sessions .....	11
3. Strategic Visioning Sessions .....	11
4. Stakeholder Identification & Grouping .....	12
5. Methods .....	15
a. Electronic Survey .....	16
b. Stakeholder Interviews .....	21
c. Environmental Scan .....	23
SECTION 2 DEFINING HEALTH INFORMATION EXCHANGE (HIE) .....	23
A. Types of HIE Organizations .....	24
B. HIE Exchange Models .....	24
C. HIE Architecture Models .....	25
SECTION 3 AS IS ASSESSMENT FINDINGS .....	25
A. EHR Adoption .....	26
1. Florida's Medicaid EHR Incentive Program .....	26
a. Participation Levels .....	27
b. CEHRT Vendor Penetration .....	27
2. Survey Findings .....	28
a. EHR Adoption .....	28
b. EHR Vendor Penetration .....	29
3. Observations from Stakeholders .....	30
B. HIE Adoption .....	32
1. Survey Findings .....	32
a. HIE Adoption .....	32

b.	Perceived Benefits and Barriers to HIE Adoption.....	34
2.	Observations from Stakeholders.....	39
a.	Education and Engagement.....	39
b.	Cost and Resources.....	40
c.	Cultural Considerations .....	41
d.	Value Proposition Alignment and Demonstration .....	42
C.	HIE Utilization.....	44
1.	Survey Findings .....	45
a.	Utilization of HIE Solutions .....	45
b.	HIE Utilization and Workflow Integration.....	45
2.	Observations from Stakeholders.....	48
D.	Information Management.....	49
1.	Statewide Master Patient Index.....	51
a.	Survey Findings Regarding MPI .....	51
b.	Observations from Stakeholders Regarding Statewide MPI.....	52
SECTION 4	STATE & FEDERAL ROLES IN HIE .....	52
A.	Florida Health and Human Services Agencies .....	52
1.	Public Health Reporting.....	53
a.	Prescription Drug Monitoring Program .....	55
2.	Eligibility and Public Assistance Program Enrollment .....	56
3.	HIE in Support of Florida Medicaid .....	58
a.	State Policy Levers .....	58
b.	State HIE Governance & Services.....	59
c.	Public Assistance Eligibility Determination via ACCESS.....	60
d.	Substance Abuse and Mental Health Information System .....	61
e.	Medical Needs Assessments for Medicaid Long-Term Care Program .....	61
f.	Medicaid Waiver Programs for Persons with Disabilities .....	62
4.	Observations from Stakeholders.....	62
a.	Integration and Communication of State Services and Data.....	62
b.	Intra- and Inter-Agency Health Information Exchange .....	62
B.	Federal Regulatory Environment .....	63

SECTION 5	SUMMARY OF GAPS, BARRIERS, AND CONTINUANCES .....	66
A.	Summary Details .....	66
1.	CATEGORIES: Gaps, Barriers, and Continuances .....	66
2.	THEMES: People, Process, and Technology.....	67
B.	Summary of Gaps, Barriers, and Continuances.....	68
SECTION 6	CONCLUSION .....	74
SECTION 7	APPENDIX.....	74
A.	Survey Questions and Results .....	74

## Table of Exhibits

Exhibit 1-1: HIE Study Overview .....	10
Exhibit 1-3: HIE Study Stakeholder Groupings.....	12
Exhibit 1-4: As Is Assessment Methods.....	16
Exhibit 1-5: Outpatient Survey Respondents.....	19
Exhibit 1-6: Inpatient Survey Respondents.....	20
Exhibit 1-7: Payer Survey Respondents .....	21
Exhibit 2-1: Continuum of HIE Architecture Models .....	25
Exhibit 3-1: EHR Adoption among Survey Respondents .....	29
Exhibit 3-2: Age of Current EHR System .....	29
Exhibit 3-3: HIE Adoption among Outpatient Respondents .....	33
Exhibit 3-4: HIE Adoption among Inpatient Respondents .....	34
Exhibit 3-5: Top Reasons for Not Participating in HIE .....	35
Exhibit 3-6: Perceived HIE Benefits among Outpatient Respondents.....	36
Exhibit 3-7: Perceived HIE Benefits among Inpatient Respondents.....	37
Exhibit 3-8: Perceived HIE Barriers among Outpatient Respondents .....	38
Exhibit 3-9: Perceived HIE Barriers among Inpatient Respondents .....	38
Exhibit 3-10: Exchange Methods among Outpatient Respondents .....	46
Exhibit 3-11: Exchange Methods among Inpatient Respondents .....	47
Exhibit 3-12: Method of Receipt by Payer Respondents .....	48
Exhibit 3-13: Interest in a Statewide MPI among Inpatient Respondents .....	51
Exhibit 3-14: Methods of Exchange with Public Health Agencies among Outpatient Respondents .....	54
Exhibit 3-15: Exchange with Public Health Agencies among Inpatient Respondents .....	54
Exhibit 3-16: Use of E-FORSCE among Outpatient Respondents .....	55
Exhibit 3-17: Methods of Checking Patient Health Insurance Coverage Status .....	57
Exhibit 3-18: Methods of Exchange – 3008 Forms.....	58

Exhibit 4-1: Summary of Improve Culture Gaps, Barriers, and Continuances .....	69
Exhibit 4-2: Summary of Employ Interoperability Gaps, Barriers, and Continuances .....	71
Exhibit 4-3: Summary of Increase Access Gaps, Barriers, and Continuances .....	72
Exhibit 4-4: Summary of Decrease Cost & Complexity Gaps, Barriers, and Continuances .....	73

## Table of Tables

Table 1: Stakeholders Engaged for the As Is Assessment.....	17
Table 2: Associations Distributing Electronic Survey.....	20
Table 3: 1-on-1 Interviews Participants.....	25
Table 4: Top 10 CEHRT Vendors among Eligible Professionals.....	30
Table 5: Top 5 CEHRT Vendors among Eligible Hospitals.....	30
Table 6: Top 5 EHR Vendors among Outpatient Respondents.....	32
Table 7: Top 5 EHR Vendors among Inpatient Respondents.....	32

## EXECUTIVE SUMMARY

The Agency for Health Care Administration (AHCA) contracted with the North Highland Company (North Highland) to conduct an assessment of the health information exchange (HIE) landscape throughout Florida. As part of the HIE Study, North Highland is conducting “As Is” and “To Be” assessments, along with developing a roadmap detailing the critical steps to achieving the desired future state of HIE in Florida. This document details North Highland’s assessment of the “As Is”, or current state, of HIE in Florida. This Assessment addresses the areas of interest as defined in AHCA RFQ No. 002-17/18.

- Electronic health record (EHR) adoption
- HIE adoption and utilization
- HIE information management
- State and federal roles in HIE

HIE facilitates access to, and retrieval of, patient health information and clinical data to provide safer, more timely, efficient, effective, and patient-centered care. HIE provides the capability to electronically move clinical information among disparate healthcare information systems, and still maintain the meaning of the information being exchanged. HIE is also used by public health authorities to assist in the analysis of the health of populations.

### 1. Approach Overview

North Highland developed a number of strategies to complete the Assessment identifying a variety of stakeholders and approaches for gathering information. The Assessment engaged as many stakeholders as possible from Florida’s health care community to gain insight on the current HIE landscape from varied perspectives. Six HIE stakeholder groupings were



established: *Associations, Health Care Facilities, Vendors, Providers, Payers, and Government Agencies* with the primary focus centered on *Patients*. Information was collected through an electronic survey, stakeholder interviews, and via an environmental scan.

Key observations from stakeholders related to HIE adoption and utilization included:

- **Education and engagement** is needed to help close knowledge gaps relating to HIE, including available technology and exchange partners.
- **Cost and resources** are primary barriers to HIE adoption, with different challenges based on organization type and size.
- **Cultural considerations** influence HIE adoption and can be addressed to find solutions that work within existing health care environments. Integration of existing HIE

implementations into current workflows, as well as management of security and trust relating to exchange, is necessary to support everyday HIE utilization among providers.

- **Value proposition** alignment is necessary to demonstrate clear and specific use cases and establish broader understanding of the positive returns on investment which can be achieved through HIE adoption and utilization.

## 2. Key Findings

Key findings from the As Is Assessment as they relate to specific strategic objectives for HIE advancement include:

- EHR adoption is widespread in Florida among facilities, community health centers, and Federally Qualified Health Centers (FQHC) that are eligible for Medicaid EHR Incentive Program payments, and to a large extent, providers such as behavioral health centers and long-term care facilities that are not eligible for these incentives. As of December 31, 2017, a total of 8,901 unique Eligible Professionals (EP), and a total of 182 unique Eligible Hospitals (EH), have received Medicaid EHR incentive payments in Florida.
- HIE adoption in the state of Florida exists, but is not widespread. The need for communication of a strong value proposition was identified as vital to the promotion of HIE adoption, along with management of cultural concerns regarding data sharing, and pursuit of additional education and engagement regarding fundamental HIE concepts, capabilities, and benefits. Survey results found that half (51%) of outpatient respondents had the capability to electronically exchange patient health information with providers outside their practice. A slightly larger share (60%) of inpatient respondents reported having HIE capabilities.
- Even among HIE Adopters, the use of paper-based methods to exchange patient health information is still prominent across all types of health care providers and facilities. The causes for limited HIE utilization are varied, including insufficient partners with which to electronically exchange; misaligned incentives leading to a 'minimum necessary' attitude among some adopters; and, technical solutions that do not yet seamlessly integrate with existing platforms.
- There is a strong desire among the healthcare community that new technologies and platforms should work to seamlessly integrate into existing technology. The use of HIE platforms, like the Florida HIE's Encounter Notification Service (ENS), are favorably viewed by stakeholders.
- Key findings related to information and data management governance issues, such as the privacy, security, and ownership of patient health information are detailed in this Assessment. Of note were the potential for a statewide Master Patient Index and concerns surrounding Information Blocking.
- There is a strong desire across the continuum of stakeholders for improved integration and communication among health and human services agencies. There is also a strong desire to have better integration of HHS agencies' services and data into stakeholders' EHR and HIE platforms. Although there are individual electronic systems within Florida's

health and human services agencies, there is currently limited interoperability among them, creating an area ripe with opportunities to improve intra- and inter-agency coordination and efficiencies.

- Recent legislative changes at the federal level, such as the 21<sup>st</sup> Century Cures Act and the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), will impact the HIE industry going forward. An environmental scan found that states can play a variety of roles in promoting and advancing health information exchange.

This As Is Assessment will be leveraged to create a Future State roadmap that will lay the strategic foundation to close gaps, remove barriers, and realize benefits of health information exchange in Florida.

## SECTION 1 INTRODUCTION

### A. BACKGROUND

Signed into law in 2009, Section 4201 of the American Recovery and Reinvestment Act (ARRA) provides funding support for the adoption and use of certified EHRs through the U.S. Department of Health and Human Services. The Health Information Technology for Economic and Clinical Health (HITECH) Act was enacted as part of the ARRA in 2009 to promote the adoption and Meaningful Use of health information technology (HIT) through the Medicare and Medicaid EHR Incentive Programs.

AHCA is authorized by the Florida Legislature to promote and foster HIT systems through the administration of the Medicaid EHR Incentive Program. This statutory authority has allowed AHCA to develop a statewide health information network, known as the Florida HIE, and to promote a variety of health information technology and exchange initiatives among Florida's providers and hospitals. While AHCA currently operates the Florida HIE, this assessment encompasses the entire HIE landscape throughout Florida, including but not limited to the Florida HIE.

In order to qualify for the Medicaid EHR Incentive Program funding, each state developed and periodically updates a State Medicaid Health Information Technology Plan (SMHP). The SMHP includes an assessment of the level of HIT and HIE activities in the state, a description of the readiness of the healthcare community to use HIT meaningfully, and a strategic and operational plan to implement the Medicaid EHR Incentive Program. As part of the 2010 assessment of HIT/HIE activities, the State of Florida contracted with Well-Florida Council, Inc., to conduct an environmental assessment that surveyed the readiness of hospitals and providers in Florida to participate in the Medicaid EHR Incentive Program. This document updates the 2010 assessment and evaluates the As Is, or current state, of HIE activities in Florida.

As a result of AHCA RFQ No. 002-17/18, the North Highland Company (North Highland) has been contracted pursuant to State Term Contract No. 973-000-14-01, to conduct a study of the HIE environment throughout Florida (HIE Study) in order to update the environmental assessment section of the SMHP and to inform future roadmaps for HIE in the State of Florida. The findings and recommendations from the HIE Study will ultimately inform future development of public and private HIE, HIT, and interoperability initiatives in the State of Florida.

### B. PURPOSE OF THIS DOCUMENT

For the HIE Study, North Highland was asked to assess the As Is State, define the Ideal State, and create a roadmap of initiatives that lead to the ideal state of HIE in Florida. This document details North Highland's assessment of the As Is State, also known as the current state, of HIE in Florida. Specifically, this Assessment addresses and documents the current state findings for the following topics:

1. EHR adoption and use by health care providers and facilities across the health care spectrum and product penetration by vendor;
2. The adoption and utilization of HIE capabilities by health care providers and facilities across the health care spectrum and vendor solutions;
3. The perceived benefits, outcomes, and limitations of existing HIE services and infrastructure;
4. HIE between health care providers/facilities and payers; and,
5. HIE among and between government agencies and health care providers/facilities, including public health reporting and the availability of real time access to eligibility information.

## C. DETAILED APPROACH

North Highland’s approach took into consideration the time and activities required to deliver a comprehensive HIE Study, inclusive of insight from stakeholders across Florida’s health care community, while also meeting an aggressive timeline for study completion with inter-dependent work streams. An overview of the approach and timeline for the HIE Study is shown in **Exhibits 1-1** and **1-2** below.

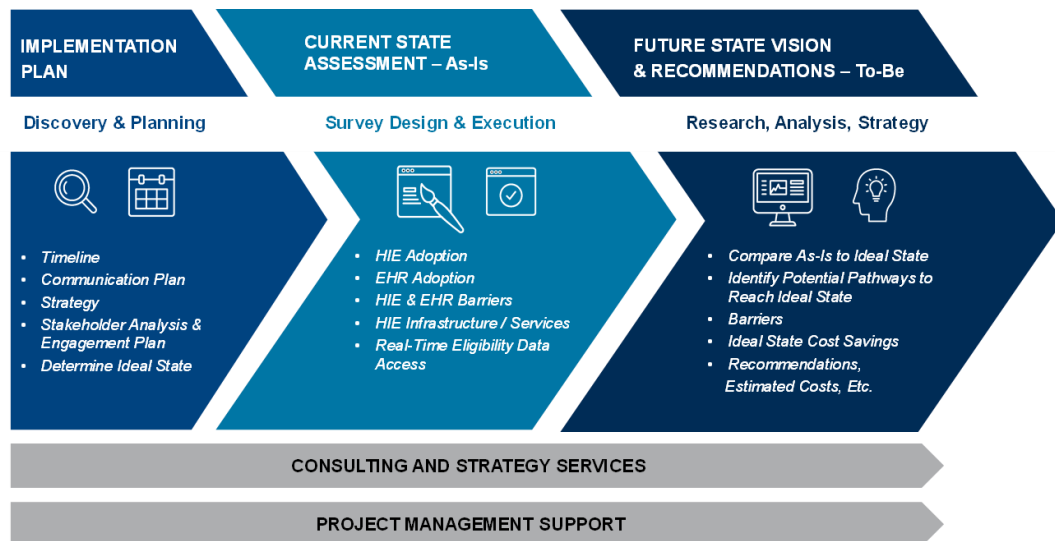


Exhibit 1-1: HIE Study Overview

### 1. Information Gathering and Research

North Highland worked with AHCA to identify a list of necessary documentation, key stakeholders, and a representative grouping of contacts across multiple stakeholder groups. Relevant policies, procedures, processes, and documentation from varying entities were also gathered, including:

- AHCA’s 2015 SMHP Assessment<sup>1</sup>

<sup>1</sup> Florida Agency for Health Care Administration, “Florida State Medicaid Health Information Technology Plan (SMHP, Inclusive of Updates through 12/31/15, v. 5.0”, December 2015.

- The Office of the National Coordinator for Health Information Technology (ONC) draft Trusted Exchange Framework and Common Agreement (TEFCA)<sup>2</sup>
- ONC's Interoperability Roadmap<sup>3</sup>
- ONC's Strategic Health IT Plan<sup>4</sup>
- Florida Strategic and Operational Plan for State Health Information Exchange Cooperative Agreement Program<sup>5</sup>
- State Consumer Health Information and Policy Advisory Council documentation<sup>6</sup>
- Health Information Exchange Coordinating Committee (HIECC) documentation<sup>7</sup>
- HIE Legal Work Group documentation<sup>8</sup>

This material was leveraged to supplement the data collected from internal and external one-on-one interviews, visioning sessions, working group sessions, and electronic surveys.

## 2. Working Group Sessions

Upon contract execution, North Highland held a kick-off meeting with AHCA team members to discuss project logistics, identify key stakeholders, and assess HIE barriers and opportunities. North Highland held ongoing, collaborative working group sessions and workshops with AHCA project sponsors and stakeholders throughout the development of the As Is Assessment.

## 3. Strategic Visioning Sessions

North Highland conducted two strategic visioning sessions – one with internal AHCA and Florida Department of Health (DOH) stakeholders, and the second with members of the HIECC and other key HIE stakeholders. These sessions were used to begin defining the strategic vision, goals, objectives, and key initiatives for HIE across Florida over the next five years. Establishing this long-term vision with input across stakeholder groups at the onset of the project allowed North Highland and AHCA to define the current understanding of a desired future state. This understanding led to more informed stakeholder engagement and established a baseline for identifying gaps, barriers, and opportunities.

Key elements discussed in the Strategic Visioning Sessions included:

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<sup>2</sup> The Office of the National Coordinator for Health Information Technology (ONC), Office of the Secretary, United States Department of Health and Human Services, "Draft Trusted Exchange Framework and Common Agreement (TEFCA)", January 2018. Available at: <https://beta.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement>

<sup>3</sup> The Office of the National Coordinator for Health Information Technology (ONC), Office of the Secretary, United States Department of Health and Human Services, "Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap, Version 1.0", October 2015.

<sup>4</sup> The Office of the National Coordinator for Health Information Technology (ONC), Office of the Secretary, United States Department of Health and Human Services, "Federal Health IT Strategic Plan 2015-2020", September 2015.

<sup>5</sup> The Office of the National Coordinator for Health Information Technology (ONC), Office of the Secretary, United States Department of Health and Human Services, "State Health Information Exchange Cooperative Agreement Program: Florida Health Information Exchange Strategic and Operational Plan Profile"; Florida Center for Health Information and Transparency, 2016 Annual Report.

<sup>6</sup> State Consumer Health Information and Policy Advisory Council documentation available at: <http://www.fdhc.state.fl.us/SCHS/CommitteesCouncils/chis.shtml>.

<sup>7</sup> Health Information Exchange Coordinating Committee (HIECC) documentation available at: <http://www.fhin.net/committeesAndCouncils/hiecc.shtml>

<sup>8</sup> HIE Legal Work Group documentation available at: <http://www.fhin.net/committeesAndCouncils/lwg.shtml>

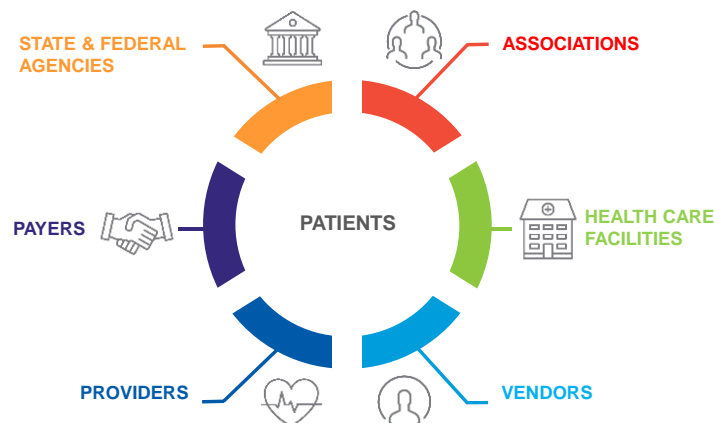
- **Vision:** The easily understood and communicated core purpose used to inspire change, but possibly never fully realized.
- **Goals:** Items that must be achieved to successfully realize the Vision.
- **Strategic Objectives:** Specific outcomes associated with the Goals, expressed in measurable terms.
- **Strategic Initiatives:** Planned actions or steps that must be taken to achieve Goals and Strategic Objectives.

North Highland documented the output from these Strategic Visioning Sessions in a Strategy Articulation Map which served as key input for the Ideal State component of the HIE Study. Findings from these sessions will also inform the Strategic Roadmap.

#### 4. Stakeholder Identification & Grouping

The successful outcome of any project relies on engaging the right people, at the right time, and providing them with the right information. Because the HIE Study is stakeholder-driven, during the Discovery & Planning Phase of the project, as shown in **Exhibit 1-1**, the North Highland and AHCA project teams spent time carefully identifying key stakeholder groups and a listing of stakeholders within those groups, as shown below in **Table 1**. The goal of stakeholder identification and analysis was to determine the best approach for engagement, the most impactful groupings, and how stakeholders would best provide input for the HIE Study with their unique perspectives.

Given the timeline and geographical constraints of the project, interviewing every entity within Florida’s health care community was not feasible. The North Highland and AHCA project teams worked together to categorize the community into six stakeholder groupings, as shown below in **Exhibit 1-3**, with **Patients** centered as the primary stakeholder.



**Exhibit 1-2: HIE Study Stakeholder Groupings**

The following definitions describe each stakeholder grouping as they pertain to this study:

**Associations:** Organizations representing a segment of the health care community and promote the views, beliefs, and policies benefiting that constituency.

**Health Care Facilities:** Facilities providing direct, multi-disciplinary health care services, such as Hospitals and Hospital Systems, Long-term Post-Acute Care facilities, Behavioral Health Centers, and Community Health Centers, among others.

**Payers:** Public and private health insurance companies and health plans.

**Providers:** A licensed health care professional who provides physical or behavioral health care in a medical setting, such as physicians, nurse practitioners, physician assistants, and other licensed health care practitioners.

**State & Federal Agencies:** Government entities at the state and federal level including AHCA and other state agencies as well as federal agencies, such as the Centers for Medicaid and Medicare Services (CMS).

**Vendors:** A person or company who develops and offers specific technical solutions for purchase by a health care provider or facility, especially as it relates to EHR and HIE technology, software, and support services.

For the purposes of this assessment, stakeholders were further divided into two sub-groups based on the type of medical setting they primarily worked within:

- **Inpatient:** Physicians, health care practitioners, and administrators in Ambulatory Inpatient and all other Non-Ambulatory Care settings, such as Hospitals, Behavioral Health Centers, etc.<sup>9</sup>
- **Outpatient:** Physicians, health care practitioners, and administrators in ambulatory outpatient settings, such as Primary Care Providers (PCPs), County Health Departments, Community Health Centers, etc.<sup>10</sup>

**Table 1** below lists the stakeholders which were engaged as part of the As Is Assessment, broken down by stakeholder grouping.

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<sup>9</sup> Non-Ambulatory Inpatient: Inpatient care is the care of patients whose condition requires admission to a hospital.

<sup>10</sup> Ambulatory Outpatient: Ambulatory care or outpatient care is medical care provided on an *outpatient* basis, including diagnosis, observation, consultation, treatment, intervention, and rehabilitation services. This care can include advanced medical technology and procedures even when provided outside of hospitals.

State & Federal Agencies	Associations	Providers	Health Care Facilities	Payers	Vendors
Agency for Health Care Administration (AHCA)	American Association of Retired Persons (AARP)	Community Health Centers Alliance	Baptist Health System	Florida Blue	Audacious Inquiry
Centers for Medicare and Medicaid Services (CMS)	American College of Osteopathic Family Physicians	County Health Departments	BayCare Health System	Molina Healthcare	Availity
Florida Department of Children and Families (DCF)	Florida Academy of Family Physicians (FAFP)	Health Choice Network	DaVita	Palm Beach Accountable Care Organization	Community HealthIT
Florida Department of Corrections (FCD)	Florida Alcohol and Drug Abuse Association (FADAA)	Meridiana Behavioral Health Center	Florida Hospital – Adventist Health Systems	Sunshine State Health Plan	Florida Accountable Care Services (FACS)
Florida Department of Health (DOH)	Florida Assisted Living Association (FALA)	Pediatric Associates	HCA Healthcare	Wellcare	HIE Networks
Office of the National Coordinator for Health Information Technology (ONC)	Florida Association of Accountable Care Organizations (FLAACOs)	Tampa Vein Treatment	Martin Health System		Reunion Care
	Florida Association of Community Health Centers (FACHC)		Memorial Healthcare System		Strategic Health Intelligence (SHI)
	Florida Association of Health Plans (FAHP)		Nemours		SureScripts
	Florida College of Emergency Physicians (FCEP)		Orlando Health		Tampa Bay Regional Health Information Organization
	Florida Council for Community Mental Health (FCCMH)		Sarasota Memorial Hospital		The Sequoia project (eHealth Exchange and Carequality)

State & Federal Agencies	Associations	Providers	Health Care Facilities	Payers	Vendors
	Florida Health Care Association (FHCA)  Florida Hospital Association (FHA)  Florida Pharmacy Association (FPA)  Florida Rural Health Association (FRHA)  LeadingAge Florida  Florida Medical Association (FMA)  Florida Osteopathic Medical Association (FOMA)				

**Table 1: Stakeholders Engaged for the As Is Assessment**

## 5. Methods

North Highland and AHCA collaborated to determine the best strategy and methods to engage the stakeholders identified in each of the groupings. The primary methods of engagement and information collection were: electronic survey, one-on-one interviews, and an environmental scan. **Exhibit 1-4** provides an overview of the primary methods used to complete the As Is component of the HIE Study.

	ELECTRONIC SURVEY	INTERVIEWS	ENVIRONMENTAL SCAN
WHAT?	<ul style="list-style-type: none"> <li>• Questions to identify user preferences, attitudes, and opinions</li> <li>• Qualitative or quantitative</li> <li>• Representative of larger samples</li> </ul>	<ul style="list-style-type: none"> <li>• In depth conversation in person or over the phone</li> <li>• Qualitative</li> <li>• Insight into behaviors and thoughts</li> </ul>	<ul style="list-style-type: none"> <li>• Request for Info (RFI) and a review of literature and federal guidelines</li> <li>• Qualitative and Quantitative</li> <li>• Description of service offerings</li> </ul>
WHEN?	<ul style="list-style-type: none"> <li>• Feedback on satisfaction with a product, service, or experience</li> <li>• High level understanding of users</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of user needs, pain points, behaviors, and attitudes</li> <li>• Participants or topic is more sensitive in nature</li> </ul>	<ul style="list-style-type: none"> <li>• Wide span of audiences and possible respondents</li> <li>• Tighter timeframe and budget than other qualitative methods</li> </ul>
PROS?	<ul style="list-style-type: none"> <li>• High-level, baseline information, quickly and at a low cost</li> <li>• Quicker analysis, providing statistics</li> <li>• Findings are representative of a large sample – less risky decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• More in depth conversation with users</li> <li>• Open ended questions – can get to the Why behind thoughts and actions</li> </ul>	<ul style="list-style-type: none"> <li>• Feedback from a larger, possibly undefined sample than interviews</li> <li>• Open ended questions/conversations</li> <li>• Allows gaps in knowledge to become apparent</li> </ul>
CONS?	<ul style="list-style-type: none"> <li>• Limited depth of information - no understanding of the why behind preferences, attitudes, or opinions</li> <li>• Survey design and sampled population can influence results</li> </ul>	<ul style="list-style-type: none"> <li>• Typically more time intensive and costly than electronic surveys</li> <li>• Smaller sample size – recruiting the right participants is key</li> <li>• Output not statistical or numbers based</li> </ul>	<ul style="list-style-type: none"> <li>• Can be time consuming and costly</li> <li>• Can raise information not pertinent to study</li> </ul>

Exhibit 1-3: As Is Assessment Methods

a. Electronic Survey

North Highland developed and distributed an electronic survey to health care providers, facilities, and payers to help capture quantitative insight on the current landscape of HIE in Florida. The survey proved to be a core tool in gathering insight on the current state by examining the practice of electronically exchanging health information among different provider, facility, and payer types in Florida.

**Development of Stakeholder Surveys:** The electronic survey was developed by North Highland subject matter experts, in coordination with the AHCA project team. The survey focused on assessment of the electronic exchange of patient health information occurring among and between health care practitioners, payers, and health care facilities in outpatient and inpatient health care settings. Within the survey, 'exchange' was defined and referred to as electronically sending, receiving, or finding patient health information, with 'electronic exchange' excluding transmissions by (unsecured) email, eFax, or billing record systems.

The survey was developed to gather insights from the following three (3) population segments within the health care landscape:

- **Outpatient Providers and Facilities:** Physicians, health care practitioners, and administrators in Ambulatory Outpatient settings, including PCPs, County Health Departments, Community Health Centers, etc. [For the remainder of this assessment, this segment will be referred to as 'Outpatient'.]
- **Inpatient Providers and Facilities:** Physicians, health care practitioners, and administrators in Ambulatory Inpatient and all other Non-Ambulatory Care settings, which includes

Hospitals, Behavioral Health Centers, etc. [For the remainder of this assessment, this segment will be referred to as ‘Inpatient’.]

- **Payers:** Public and private health care payers, which include health plans, health insurance companies, etc. [For the remainder of this assessment, this segment will be referred to as ‘Payers’.]

Three versions of the survey were developed to appropriately address these three segments of the health care population. Questions were developed by North Highland with input and review by AHCA. The survey was also pilot tested in near-final draft format before distribution to help improve the content and clarity of the survey. Each version of the electronic survey asked questions pertaining to the following topics:

- EHR adoption and product penetration
- HIE adoption and product penetration
- HIE utilization and workflow integration
- The perceived benefits and barriers of HIE
- Information exchange with government agencies

It is important to note that the goal of this survey was to capture informed insights from a larger number of stakeholders than would have otherwise been possible given time constraints. The survey results presented in this assessment should not be interpreted as being statistically representative of these populations as whole. The survey was not distributed to all potential Inpatient, Outpatient, or Payers in Florida, nor was it distributed in a manner as to capture a representative sample of these population segments.

**Distribute Stakeholder Survey:** The survey instruments were hosted on SurveyMonkey, an online electronic survey tool, and distributed electronically. Primary distribution of the survey was through membership and trade associations across the state. The associations introduced and shared the survey with their memberships via email blasts, newsletters, and other related communication tools, directing their members to have the survey completed by the most relevant resource within their organization. The full list of distributing associations is presented in **Table 2** below. The DOH provided distribution to County Health Departments and the Florida Department of Corrections provided the survey to their health services vendor. The electronic survey was open for responses from November 30, 2017 to December 22, 2017. During this time, associations sent reminders to their memberships to promote participation in the survey. AHCA also promoted survey participation with a “Florida Medicaid Health Care Alert” sent to select Medicaid providers on December 6, 2017.<sup>11</sup>

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<sup>11</sup> The Florida Medicaid program has an email alert system to supplement the present method of receiving Provider Alerts information and to notify registered providers or interested parties of health care information. The Florida Medicaid Health Care Alert was sent to the following types of Medicaid Providers: Ambulatory Health Care Facility, Audiologist, Community Behavioral Health Services, Dentist, Dialysis Center, FQHC, General Hospital, Home Health Services, Hospital-Based Skilled Nursing Facility, Licensed Midwife, Nurse Practitioner (ARNP), Optometrist, Physician (D.O.), Physician (M.D.), Physician Assistant, Residential and Freestanding Psych, Rural Hospital Swing Bed Facility, Skilled Nursing Facility, Therapist (PT,OT,ST,RT). [Provider Type(s): 01, 05, 06, 09, 10, 13, 16, 25, 26, 29, 30, 34, 35, 60, 62, 65, 68, 83, 89]

Association Name	Population
Florida Academy of Family Physicians (FAFP)	Physicians, PCPs
Florida Assisted Living Association (FALA)	Long-Term and Post-Acute Care Organizations
Florida Association of Accountable Care Organizations (FLAACOs)	Accountable Care Organizations (ACOs)
Florida Association of Community Health Centers (FACHC)	Community Health Centers
Florida Association of Health Plans (FAHP)	Payers
Florida Behavioral Health Association	Behavioral Health Providers
Florida College of Emergency Physicians (FCEP)	Physicians, Emergency Medicine Physicians
Florida Council for Community Mental Health (FCCMH)	Behavioral Health Providers
Florida Health Care Association (FHCA)	Long-Term and Post-Acute Care Organizations
Florida Hospital Association (FHA)	Hospital and Integrated Delivery Systems
Florida Medical Association (FMA)	Physicians
Florida Osteopathic Medical Association (FOMA)	Physicians
Florida Pharmacy Association (FPA)	Pharmacists
Florida Rural Health Association (FRHA)	Community Health Centers
Leading Age Florida	Long-Term and Post-Acute Care Organizations

**Table 2: Associations Distributing Electronic Survey**

**Survey Analysis:** The survey collected a total of 272 unique responses. Respondents who did not respond to any questions regarding electronic exchange of patient health information were removed from analysis.<sup>12</sup> Respondents who were not associated with any of the stakeholder groupings and unaffiliated with health care were also removed from analysis. Applying these filters, a total of 202 unique survey responses were included in the survey analysis.

**Survey Respondents:** Survey respondents included Behavioral Health Centers, Community Health Centers, hospitals, Long-term and Post-Acute Care facilities, PCPs, Health Maintenance Organizations (HMOs), Accountable Care Organizations (ACOs), and state health and human services agencies.

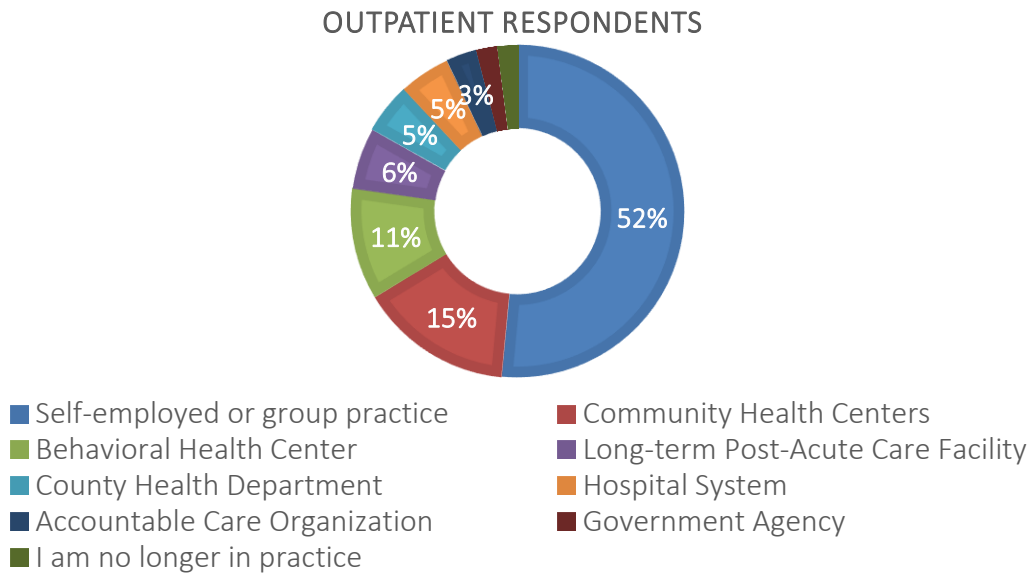
<sup>12</sup> This was defined as a non-response to Q11, Q44, or Q77 in the survey. See Section 7 Appendix for more information.

In the survey, respondents were directed to one of three versions, depending on their response to Question 1, which asked them to select which health care setting best described their role in health care.

1. Which of the following best describes your role in health care?
  - a. Physician, health care practitioner, administrator – Ambulatory Outpatient setting
  - b. Physician, health care practitioner, administrator – Ambulatory Inpatient and all Non-Ambulatory Care settings (e.g., hospital, behavioral health center)
  - c. Payer (e.g., health plan, health insurance company)

The following details the characteristics of survey respondents based on their response to Question 1:

**Outpatient Respondents:** Those who selected “Physician, health care practitioner, administrator - Ambulatory Outpatient settings” in Question 1 are referred to as ‘Outpatient’ respondents. There were 108 unique survey responses from Outpatient respondents.<sup>13</sup> A breakdown of Outpatient respondents by organizational affiliation is detailed in **Exhibit 1-5** below:

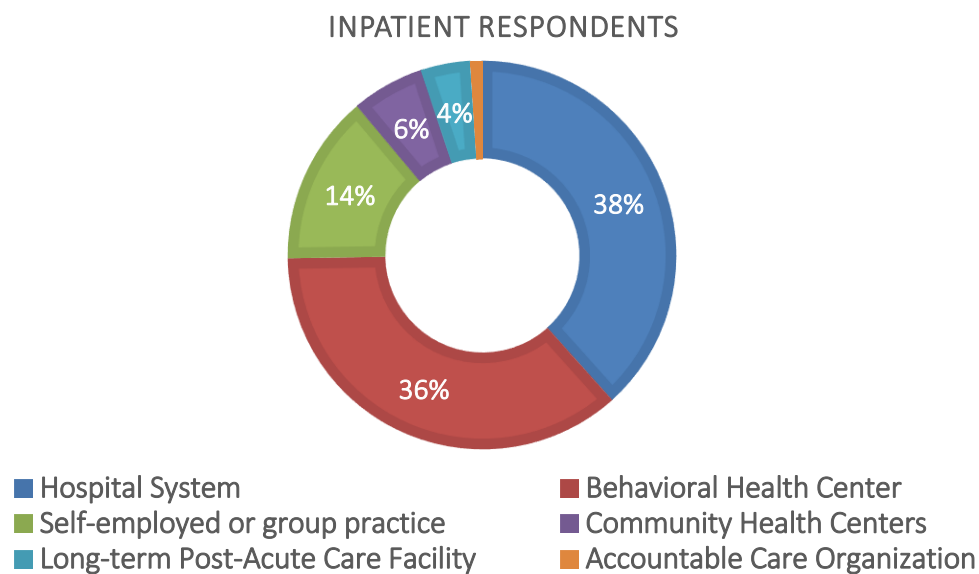


**Exhibit 1-4: Outpatient Survey Respondents**

**Inpatient Respondents:** Those who selected “Physician, health care practitioner, administrator - Ambulatory Inpatient and all Non-Ambulatory Care settings (e.g., hospital, behavioral health center)” in Question 1 are referred to as ‘Inpatient’ respondents. There were 77 unique survey

<sup>13</sup> Outpatient respondents were primarily located in the South Florida (26%), Orlando/Central Florida (16%), and Tampa Bay (15%) regions. A majority (60%) were affiliated with practices that have 10 or fewer licensed health care providers working at the practice. Roughly one-third participated in a Pay-for-Performance (35%) arrangement and/or an Accountable Care Organization (ACO) (27%). Most respondents (70%) accepted Medicaid.

responses from Inpatient respondents.<sup>14</sup> A breakdown of Inpatient respondents by organizational affiliation is detailed in **Exhibit 1-6** below:



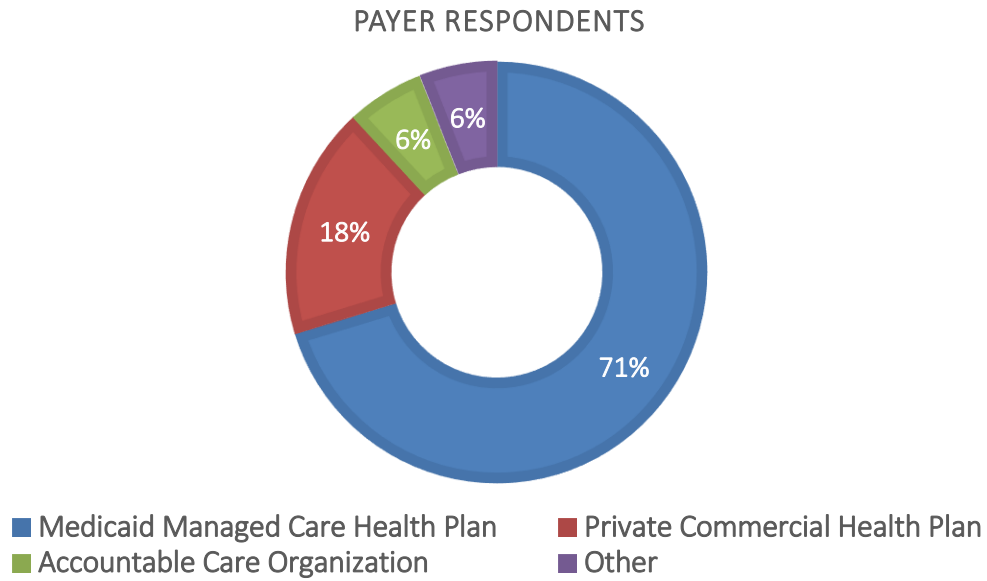
**Exhibit 1-5: Inpatient Survey Respondents**

**Payer Respondents:** Those who selected “Payer (e.g., health plan, Health Insurance Company)” in Question 1 are referred to as ‘Payer’ respondents. There were 25 unique survey responses from Payer respondents.<sup>15</sup> A breakdown of Payer respondents by organizational affiliation is detailed in **Exhibit 1-7** below:

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<sup>14</sup> Inpatient respondents were primarily located in the Orlando/ Central Florida (24%), South Florida (16%), and Northeast Florida (15%) regions. A majority (58%) had 15+ years of experience working in that type of health care facility. Most respondents (84%) accepted Medicaid.

<sup>15</sup> Payer respondents were primarily located in the South Florida (53%) and Tampa Bay (33%) areas. A majority (65%) currently subscribe to the Florida HIE Encounter Notification Service (ENS).



**Exhibit 1-6: Payer Survey Respondents**

**b. Stakeholder Interviews**

North Highland conducted one-on-one interviews with key internal and external stakeholders identified in partnership with AHCA project sponsors. Interviews were conducted in two ways: in-person and telephone interviews.

Interviews consisted of a one-hour discussion with an agenda customized to each participant and their perspective and engagement level with HIE technologies and services. Stakeholders were encouraged to be open and honest and the discussion often evolved past the initial topics. Below is a sample of interview questions.

- Describe your role and interaction with HIE? How do you fit into the HIE landscape in Florida today?
- What are you currently doing in the HIE space in Florida? Barriers? Challenges? Barriers that you had to overcome when implementing your HIE?
- If applicable, what type of HIE technology do you use?
- If applicable, what type of data are you exchanging?
- What do you think the current state of HIE is in Florida, in terms of the level of adoption/utilization?
- Do you feel that your partners/peers understand what HIE is?
- What hesitations, if any, are you hearing from your partners about sharing information with each other and/or other providers, hospitals, or payers?
- What is your view on a Master Patient Index?
- How would HIE help to combat the Opioid Epidemic currently being seen in Florida?
- What are your thoughts around a central data repository? Data aggregation?
- In your opinion, are there policy/regulatory barriers that exist which inhibit electronic health information exchange?

- Are you aware of any best practices in other states?
- What was the value proposition for you to join/implement HIE services?
- What is AHCA’s role in the HIE landscape?
- What do you think is currently working well about the HIE landscape in Florida?
- In your opinion, what would help move HIE forward?

The list of one-on-one interviews conducted is detailed in **Table 3** below.

Date	Stakeholder Grouping	Stakeholder Detail	Topics Discussed
1/12/2018	Association	American Association of Retired Persons (AARP)	For Topics Discussed with Associations, see <b>Section 1.C.5.b.</b>
12/7/2017	Association	Florida Academy of Family Physicians (FAFP)	
12/12/2017	Association	Florida Alcohol and Drug Abuse Association	
12/14/2017	Association	Florida Assisted Living Association (FALA)	
12/14/2017	Association	Florida Association of Community Health Centers (FACHC)	
12/12/2017	Association	Florida Council for Community Mental Health (FCCMH)	
12/12/2017	Association	Florida Health Care Association (FHCA)	
12/14/2017	Association	Florida Pharmacy Association (FPA)	
12/7/2017	Association	Florida Rural Health Association (FRHA)	
12/7/2017	Association	Leading Age Florida	
1/3/2018	Health Care Facility	Baptist Health System	For Topics Discussed with Health Care Facilities, see <b>Section 1.C.5.b.</b>
1/16/2018	Health Care Facility	BayCare Health System	
1/2/2018	Health Care Facility	Florida Hospital – Adventist	
12/20/2017	Health Care Facility	Martin Health System	
12/15/2017	Health Care Facility	Memorial Healthcare System	
12/14/2017	Health Care Facility	Nemours	
12/15/2017	Health Care Facility	Orlando Health	
12/13/2017	Health Care Facility	Sarasota Memorial Hospital	
12/12/2017	Payer	Florida Blue	For Topics Discussed with Payers, <b>Section 1.C.5.b.</b>
12/8/2017	Payer	Molina Healthcare	
12/21/2017	Payer	Palm Beach Accountable Care Organization	
12/13/2017	Payer	Sunshine State Health Plan	
12/15/2017	Payer	Wellcare	
12/6/2017	Provider	Community Health Centers Alliance	For Topics Discussed with Providers, see <b>Section 1.C.5.b..</b>
12/13/2017	Provider	Health Choice Network	
12/8/2017	Provider	Meridiana Behavioral Health Center	
12/15/2017	Provider	Pediatric Associates	
12/8/2017	Provider	Community Health IT	
1/9/2018	State & Federal Agencies	Agency for Health Care Administration (AHCA)	For Topics Discussed with State & Federal

Date	Stakeholder Grouping	Stakeholder Detail	Topics Discussed
1/9/2018	State & Federal Agencies	Centers for Medicare and Medicaid Services (CMS)	Agencies, see <b>Section 1.C.5.b.</b>
1/10/2018	State & Federal Agencies	Florida Department of Children and Families (DCF)	
12/6/2017	State & Federal Agencies	Florida Department of Health (DOH)	
1/9/2018	State & Federal Agencies	Office of the National Coordinator for Health Information Technology (ONC)	
12/20/2017	Vendor	Availity	For Topics Discussed with Vendors, see <b>Section 1.C.5.b.</b>
12/11/2017	Vendor	Florida Accountable Care Services (FACS)	
12/6/2017	Vendor	HIE Networks	
1/12/2018	Vendor	Reunion Care	
1/3/2018	Vendor	Strategic Health Intelligence	
12/14/2017	Vendor	SureScripts	
12/11/2017	Vendor	Tampa Bay Regional Health Information Organization	
12/20/2017	Vendor	The Sequoia Project (eHealth Exchange and Carequality)	

**Table 3: 1-on-1 Interview Participants**

### c. Environmental Scan

North Highland complemented the electronic survey and stakeholder interviews with a review of the HIE landscape nationally and in other states. This research took several forms including:

- Market Scan:** The market scan took the form of a Request for Information (RFI). RFIs are commonly used by state agencies to gather information and input from vendors in the marketplace. AHCA issued a Request for Information (RFI) on December 12, 2017 tailored towards the HIE vendor community. The RFI included questions to assess current and potentially available HIE solution offerings and services, implementation considerations, and input on an environmental scan of emerging trends. This RFI allowed for a Q&A response and was live for 25 days to allow respondents adequate time to submit their responses.<sup>16</sup>
- Literature Review:** A review and analysis of existing academic, government, and industry publications on the topics of HIE adoption and utilization, and best practices in other states was conducted to supplement the observations and information gathered in the electronic survey and stakeholder interviews.

## SECTION 2 DEFINING HEALTH INFORMATION EXCHANGE (HIE)

The term “HIE” can be used to describe electronic data exchange and as a reference to a type of organization which facilitates electronic health data exchange. An HIE can be an entity, or

<sup>16</sup> AHCA RFI 005 17/18: Health Information Exchange Study, published and publicly posted on the Vendor Bid System, was open for responses between December 12, 2017 and January 5, 2018. Available at:

[http://www.myflorida.com/apps/vbs/vbs\\_www.ad\\_r2.view\\_ad?advertisement\\_key\\_num=137258](http://www.myflorida.com/apps/vbs/vbs_www.ad_r2.view_ad?advertisement_key_num=137258).

organization of entities, electronically exchanging health information, including private exchanges, statewide exchanges, and Regional Health Information Organizations (RHIOs)<sup>17</sup> or the exchange of electronic health information between any two or more organizations.

## A. TYPES OF HIE ORGANIZATIONS

This section provides a brief overview of the different types of Health Information Exchange Organizations (“HIEs”) currently being used in the United States.<sup>18</sup>

- **State-wide HIEs** are managed by the governments of their respective states, or the State’s Designated HIE Entity (SDE). Some state-wide (and regional) HIEs use an umbrella approach and serve as the aggregator for disparate private HIEs.
- **Private/Proprietary HIEs** concentrate on a single community or network, often based within a single organization. Examples may include hospital integrated delivery networks, payer-based HIEs, and disease-specific HIEs.
- **Hybrid HIEs** are often collaborations between organizations, such as an ACO and a vendor network, within a state or region.
- **Regional/ National/ Community Health Information Organizations (HIOs)** are inter-organizational and depend on a variety of funding sources. Most are not-for-profit. HIOs are organizations that oversee and govern the exchange of health-related information among organizations according to nationally recognized standards. The purpose of an HIO is to perform oversight and governance functions for HIEs.

## B. HIE EXCHANGE MODELS

There are two primary models of HIE Exchange, known as Directed Exchange (‘push’) and Query Exchange (‘pull’).<sup>19</sup>

- **Query, or “pull,” Exchange** refers providers’ ability to find and/or request patient information from other authorized users. In a query-based model, users actively search for available data for a given patient, either manually or through an automated platform.
- **Directed, or “push,” Exchange** refers to providers’ and individuals’ ability to send and receive secure information electronically from an authorized user. In contrast to a query model, this approach does not require health professionals to seek out data; however, the value of the data is limited because it is directed to specific users. This can be done

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<sup>17</sup> Healthcare Information and Management Systems Society (HIMSS) Dictionary of Healthcare Information Technology Terms, Acronyms and Organizations. Third Edition. The Office of the National Coordinator for Health Information Technology (ONC), Definition of Health Information Exchange (HIE). Available at: <https://www.healthit.gov/providers-professionals/health-information-exchange/what-hie>

<sup>18</sup> HIMSS. A HIMSS Guide to Participating in a Health Information Exchange, 2009.; HIMSS FAQ: Healthcare Information Exchange (HIE), 2014.; Pan E, Byrne C, Damico D, Crimmins M. Guide to Evaluating Health Information Exchange Projects. (Prepared for the Agency for Healthcare Research and Quality under Contract No. 290200900023-I.) AHRQ Publication No. 14-0015-EF. Rockville, MD: Agency for Healthcare Research and Quality. September 2014.

<sup>19</sup> *Ibid.*

via manual push from one health care entity to another (e.g. secure messaging) or can be an automated transmission of data (e.g. an alerting service).

## C. HIE ARCHITECTURE MODELS

HIEs are structured using one of the following types of architectural models:<sup>20</sup>

- **Centralized:** Patient data is collected and stored in a centralized repository, data warehouse, or other database, as shown in **Exhibit 2-1**. The HIE has full control over the data, including the ability to authenticate, authorize and record transactions among participants.
- **Decentralized (Federated):** Interconnected independent databases allow for data sharing and exchange, and grant users access to the information only when needed, as shown in **Exhibit 2-2**.
- **Hybrid-Federated:** Incorporates variations of federated and centralized architectures to harness the advantages of both.

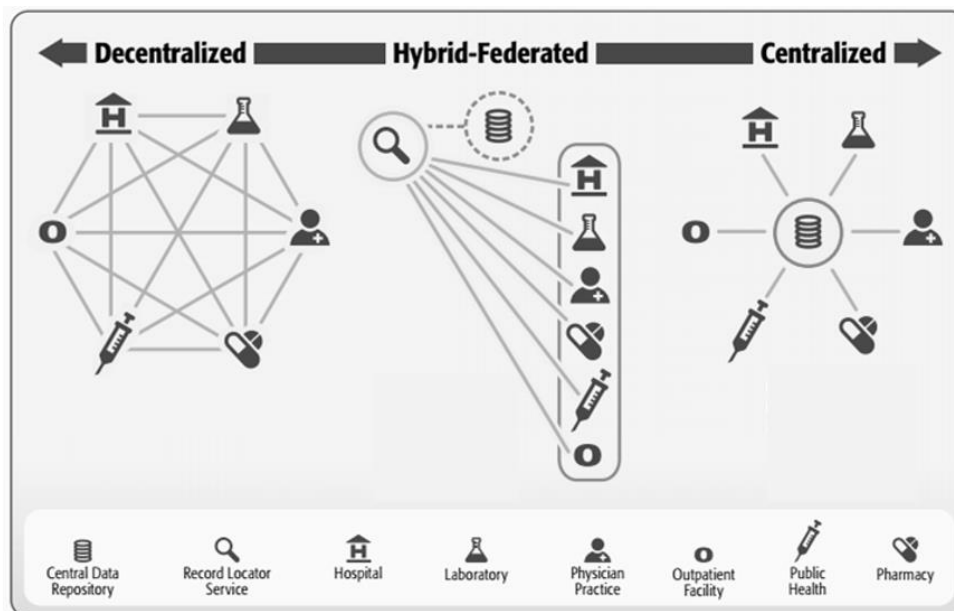


Exhibit 2-1: Continuum of HIE Architecture Models<sup>21</sup>

## SECTION 3 AS IS ASSESSMENT FINDINGS

Using qualitative and quantitative inputs from the information gathering and research strategies described in **Section 1.C.5**, the electronic survey, and one-on-one interviews, and an environmental scan, North Highland performed an As Is Assessment of the current state of HIE in Florida. As detailed in **Section 2**, for the purposes of this assessment, the term HIE refers to the practice of electronically exchanging patient health information with other providers, facilities, and entities in the health care community across disparate systems and geographies.

<sup>20</sup> *Ibid.*

<sup>21</sup> Image Source: Academy Health. Available at: <https://healthitanalytics.com/news/how-health-information-exchange-models-impact-data-analytics>.

The following pages present the As Is Assessment's findings and observations on the current state of HIE in Florida correlating back to the areas of focus defined in **Section 1.B** as listed below:

- Electronic Health Record (EHR) Adoption
- HIE Adoption
- HIE Utilization
- HIE Services and Infrastructure
- HIE in Health and Human Services

The observations and comments presented in this assessment are the views, perspectives, and qualitative feedback which emerged across a majority of the study's stakeholder interviews. Not all comments represent the feelings and opinions of all stakeholders. These observations are not representative of the singular position of AHCA or the Florida State Government, and sometimes do not reflect state policies and procedures accurately. Examining the experiences, perceptions, and perspectives of the health care community is the first step to better understanding the needs of stakeholders, and outlining potential approaches for a more integrated health care system.

## A. EHR ADOPTION

When considering HIE adoption and utilization, it is important to note that EHR adoption is a required building block for electronic exchange. The analysis contained in **Section 3.A** looks at the overall adoption of EHR systems throughout the State of Florida, across all stakeholder groupings. The initial push for the adoption of EHR systems in Florida stems from the American Recovery and Reinvestment Act (ARRA), signed into law in 2009. Via ARRA, funding was made available in 2011 through the Medicaid EHR Incentive Program, as defined in 42 CFR §495.332, and issued by CMS. This funding is targeted towards Eligible Professionals (EP) and Eligible Hospitals (EH) to adopt, implement, upgrade, and demonstrate Meaningful Use of Certified Electronic Health Record Technology (CEHRT).

### 1. Florida's Medicaid EHR Incentive Program

AHCA is authorized by the Florida Legislature to promote HIE and to foster the adoption of CEHRT systems and is responsible for administering the Medicaid EHR Incentive Program. This statutory authority has allowed the Agency to develop a statewide health information network and to pay close attention to the diffusion of HIT among Florida's providers and hospitals.

As part of this, the Agency collects longitudinal CEHRT adoption, or participation data from EPs and EHs participating in the state's Medicaid EHR Incentive Program. This data, collected by the Agency since 2011, serves as the best representation of current CEHRT adoption and use across Florida.

**a. Participation Levels**

Participation data shows an upward trend in CEHRT adoption and use by providers and hospitals in Florida since 2011. As of December 31, 2017, a total of 8,901 unique EPs, which include physicians, nurse practitioners, certified nurse-midwives, and dentists have participated in the Medicaid EHR Incentive Program (i.e., have received Medicaid EHR incentive payments). A total of 182 unique EHs, which include acute care, critical access, and children’s hospitals have received Medicaid EHR incentive payments in Florida.

The highest participation levels among EPs have been physicians and pediatricians (a combined 67% of all EP participants), followed by advanced registered nurse practitioners and certified nurse-midwives (combined 25% of EP participants).

**b. CEHRT Vendor Penetration**

**Table 4** shows the most widely-used vendors for CEHRT systems among **Eligible Professionals (EP)** in the Medicaid EHR Incentive program.<sup>22</sup> Collectively, the top 10 vendors make up nearly 70% of the vendor market among EP participants.

Vendor Market	Percentage of Use
Epic Systems Corporation	18%
eClinicalWorks	8%
Allscripts	8%
The Florida Department of Health	7%
Greenway Health	6%
Practice Fusion	5%
Cerner Corporation	4%
Vitera Healthcare Solutions	4%
athenahealth	4%
NextGEn Healthcare	4%
<b>Top 10 Vendors’ Market Share</b>	<b>68%</b>

**Table 4: Top 10 CEHRT Vendors among Eligible Professionals**

**Table 5** shows the most widely-used vendors for CEHRT systems among **Eligible Hospitals (EH)** in the Medicaid EHR Incentive program by facility and the number of hospital beds.<sup>23</sup> Collectively, the top 5 vendors represent 70% of the vendor market among facilities and 75% among the total number of beds.

Market Share by Number of Hospitals	Market Share by Number of Beds
<hr/>	

<sup>22</sup> As of December 31, 2017.

<sup>23</sup> As of December 31, 2017.

Vendor Market	Percentage of Use	Vendor Market	Percentage of Use
Medical Information Technology (MEDITECH)	24%	Medical Information Technology (MEDITECH)	22%
Cerner Corporation	19%	Cerner Corporation	21%
McKesson	10%	Epic Systems Corporation	14%
Epic Systems Corporation	9%	FairWarning® Technologies, Inc.	9%
Midas+ Solutions	8%	McKesson	9%
<b>Top 5 Vendors' Market Share by Number of Hospitals</b>	<b>70%</b>	<b>Top 5 Vendors' Market Share by Number of Beds</b>	<b>75%</b>

Table 5: Top 5 CEHRT Vendors among Eligible Hospitals

## 2. Survey Findings

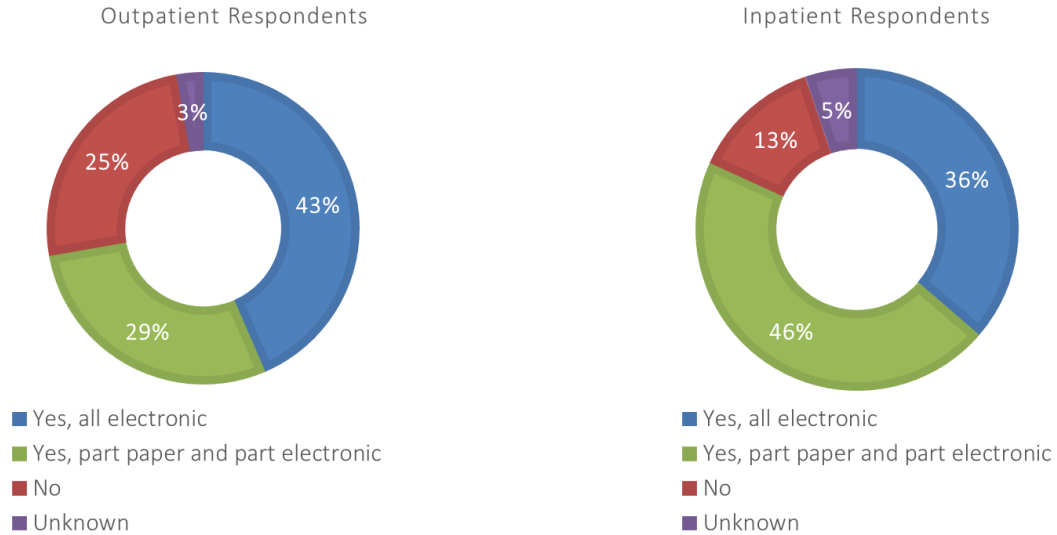
To supplement the Florida Medicaid EHR Incentive Program participation data, the electronic survey included a series of questions related to respondents' adoption and use of EHR systems. The analysis below details the current state as it relates to the following questions addressed in the electronic survey.

1. Do you use an electronic health record (EHR) system to electronically exchange patient health information? Do not include systems used solely for billing purposes.
2. What is the name of your current EHR system? If you use a modular system, what are the names of the products/vendors that make up your Modular EHR System?
3. Approximately when was your current EHR system installed?
4. What do you like best about your current EHR system? What could be improved?

### a. EHR Adoption

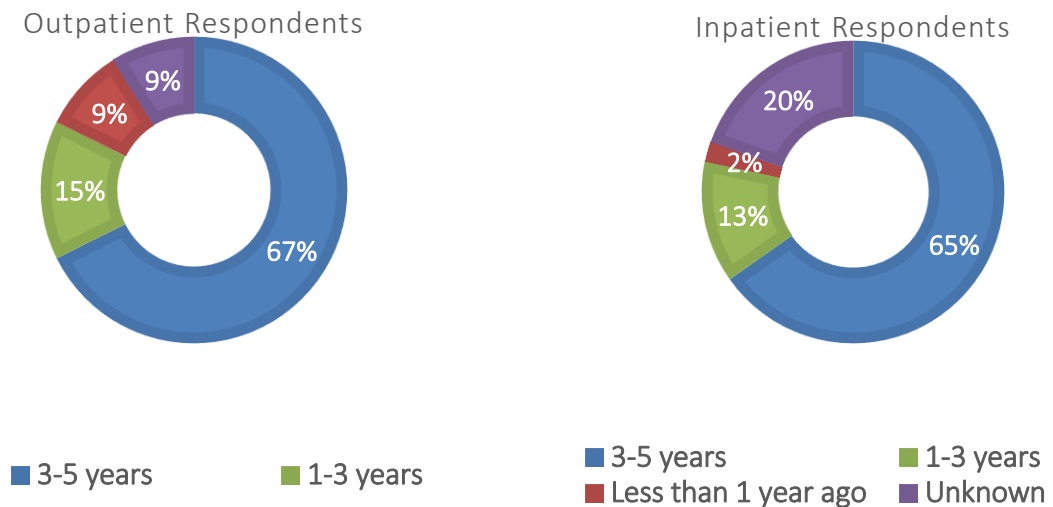
When asked, most survey respondents reported that they currently use an EHR to electronically exchange patient health information.<sup>24</sup> Collectively, 54% of **outpatient** respondents and 82% of **inpatient** respondents said they currently use an EHR to electronically exchange patient health information, as shown in **Exhibit 3-1**. Outpatient respondents had a higher rate of non-adoption (25%) than inpatient survey respondents (13%).

<sup>24</sup> Do you use an electronic health record (EHR) system to electronically exchange patient health information? Do not include systems used solely for billing purposes.



**Exhibit 3-1: EHR Adoption among Survey Respondents**

Of those with an EHR, most reported that their current system was installed 3 to 5 years ago<sup>25</sup>, as shown in Exhibit 3-2.



**Exhibit 3-2: Age of Current EHR System**

**b. EHR Vendor Penetration**

The survey also asked those with an EHR to identify their current EHR vendor(s). Tables 6 and 7 show the top 5 EHR vendors mentioned by outpatient and inpatient survey respondents.

Vendor	Percentage of Use
Greenway Health LLC	15%
eClinicalWorks LLC	11%
Athena	10%

<sup>25</sup> Approximately when was your current EHR system installed?

Florida Department of Health (HIMMS)	8%
Epic Systems Corporation	5%
Practice Fusion	5%
<b>Top 5 Vendors' Market Share</b>	<b>54%</b>

**Table 6: Top 5 EHR Vendors among Outpatient Respondents**

Vendor	Percentage of Use
Cerner Corporation	21%
Netsmart	15%
Epic Systems Corporation	10%
CoCentrix	8%
HCA/MEDITECH	6%
Credible	6%
<b>Top 5 Vendors' Market Share</b>	<b>67%</b>

**Table 7: Top 5 EHR Vendors among Inpatient Respondents**

### 3. Observations from Stakeholders

#### Common Themes from Stakeholders

1. EHR adoption is widespread in Florida, amongst community health centers, Federally Qualified Health Centers, and to a large extent, non-incentivized providers such as behavioral health centers and long-term care facilities.
2. Internet connectivity was not considered to be a significant issue regarding EHR adoption and utilization.
3. Some early adopters have older EHR technology with dated functionalities compared to more recent adopters. Some stakeholders are reluctant to change or replace their current EHRs due to the cost and disruption associated with the implementation of a new system.

When asked **what they liked best** about their current EHR system, survey respondents most often mentioned the following themes:

- User-friendliness
- Ease and efficiency of documentation
- Paperwork reduction and streamlined processes
- Improved legibility
- Electronic interfaces with pharmacy and labs
- Ability to access and extract data as well as track clinical measures
- Clinical and public health tracking capabilities
- Designed to meet unique needs, customizable
- Functionalities that encompasses all aspects of daily operations

When asked **what could be improved** about their current EHR system, survey respondents mentioned the following themes most often.

- More Interoperability
- Compatibility with multiple systems, more communication with other EHRs
- Health information exchange, better ability to electronically share information for inbound or outbound referrals
- Workflow optimization and training
- Less clicks and screens
- High cost of system and upgrades
- Patient portal, patient outreach
- Reporting

Survey respondents also noted the following areas which **could be improved** about their current EHR system:

- *“Automatic data transfer between organizations at an affordable price.”*
- *“Better facilitated practices to learn system setup to meet value-based quality care.”*
- *“Could be geared more towards speech therapy providers.”; “Current EHR could be more specific to Pediatrics. Most of the system is geared towards adult care.”*
- *“Slow upload of scanned documents, cumbersome scrolling.”; “Only allows one area to be opened at a time so you have to close it and go to another screen to check on related information.”*
- *“The fee schedule implementation, HITECH security issue unresolved, better reporting ability, ability to copy user rights for new users, ability to assign user rights to view or modify, reporting ability (yes...I said it twice!).”*
- *“It needs to be burned and then totally redesigned by people who actually care for patients.”*
- *“Having other facilities use the same nomenclature so we can share more information.”*
- *“The ability to interface with community provider offices.”*
- *“Streamline the steps. Sometimes the charting time takes too long because of all the different steps and clicks it takes to complete.”*
- *“The improvements needed are on the back end. We spend a lot of time working on manual spreadsheets and exporting data because the system doesn't give us the information we need.”*
- *“They have very little that could be considered ‘complete.’ Almost every aspect has to be manually configured, and there seems to be no standard for best practices with their system. Navigation in the system is also needlessly convoluted and redundant.”*
- *“Integration with billing aware editing, better workflows, more intuitive and less time consuming.”*
- *“Reduce multiple locations for charting same information.”*

Overall, the need for improved interoperability and information exchange with other systems and providers was a predominant theme, and frequently expressed by both inpatient and outpatient respondents in the survey.

## B. HIE ADOPTION

Due in large part to funding made available through the Health Information Technology for Economic and Clinical Health (HITECH) and American Recovery and Reinvestment (ARRA) Acts, Florida now has widespread adoption of EHRs. This assessment has identified, there is not yet widespread electronic exchange of health information (HIE) across all areas of the health care landscape.

This section presents North Highland's assessment of HIE adoption levels among health care providers and facilities in outpatient ambulatory settings, inpatient ambulatory settings, and other non-ambulatory settings, such as acute care settings, across Florida.

For the purposes of this study, HIE was defined as a physician, health care practitioner, or health care facility having the capability to electronically exchange patient protected health information (PHI) with other health care providers outside of their own practice or facility.<sup>26</sup> This definition measures the extent to which providers can send and/or receive electronic health information across disparate technologies (e.g., EHRs) and geographies. By expanding the scope of the definition of HIE beyond the AHCA governed Florida HIE, or any other specific type of HIE, this study seeks to understand the entire landscape of health information sharing throughout Florida.

The below analysis contained in **Section 3.B** details the current state as it relates to the following questions (addressed in the electronic survey, and qualitative analysis captured in stakeholder interviews).

1. Do you have the capability to electronically exchange patient health information with entities outside of your practice or facility?
2. What are your plans over the next 18 months, as it relates to HIE technology and services?
3. What do you consider to be the benefits of HIE?
4. What barriers currently exist to HIE adoption?

### 1. Survey Findings

#### a. HIE Adoption

North Highland used the electronic survey as part of its assessment of HIE adoption levels in Florida. The survey asked respondents if they currently have the capability to electronically exchange patient health information with other providers outside of their practice or facility.<sup>27</sup>

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<sup>26</sup> 'Electronic exchange' refers to electronically sending, receiving, or finding patient health information and does not include transmissions by email, eFax, or billing record systems.

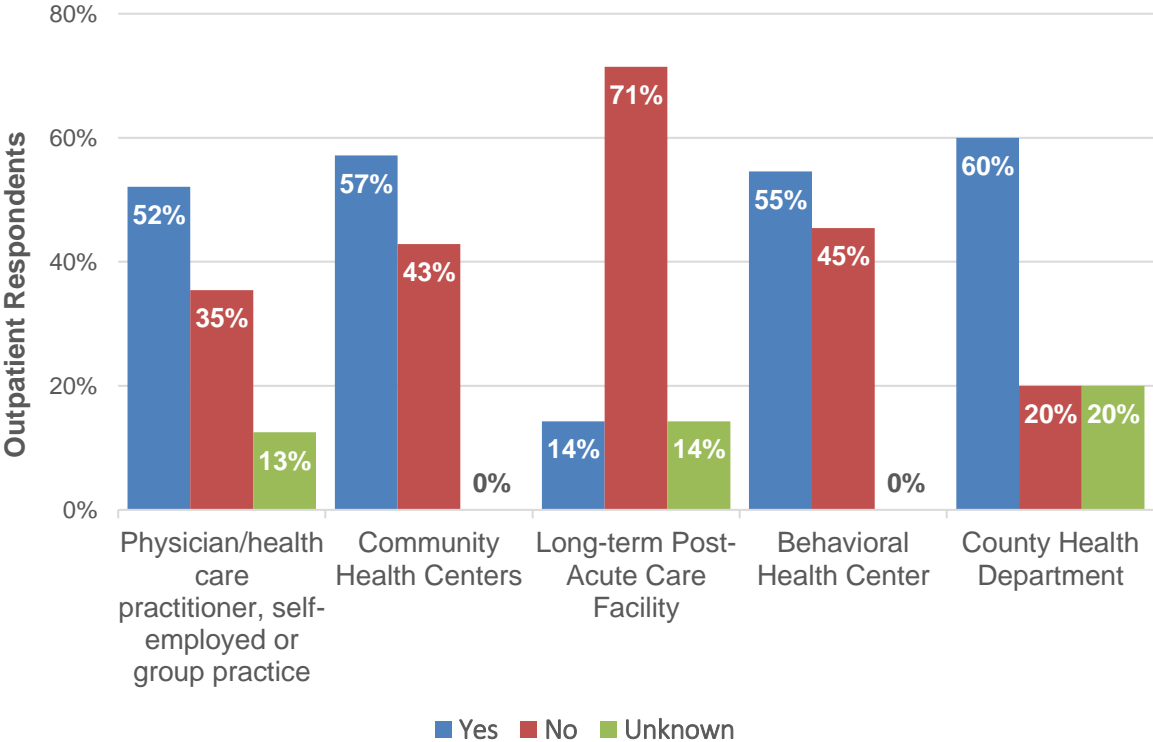
<sup>27</sup> Do you have the capability to electronically exchange patient health information with providers outside of your practice? 'Exchange' refers to electronically sending, receiving, or finding patient health information. 'Electronic exchange' does not include transmission by email, eFax, or billing record systems.

Survey results found that a majority of respondents had HIE capabilities: Half (51%) of **outpatient** respondents reported having the capability to electronically exchange patient health information with providers outside their practice, and a slightly larger share (60%) of **inpatient** respondents reported having HIE capabilities.

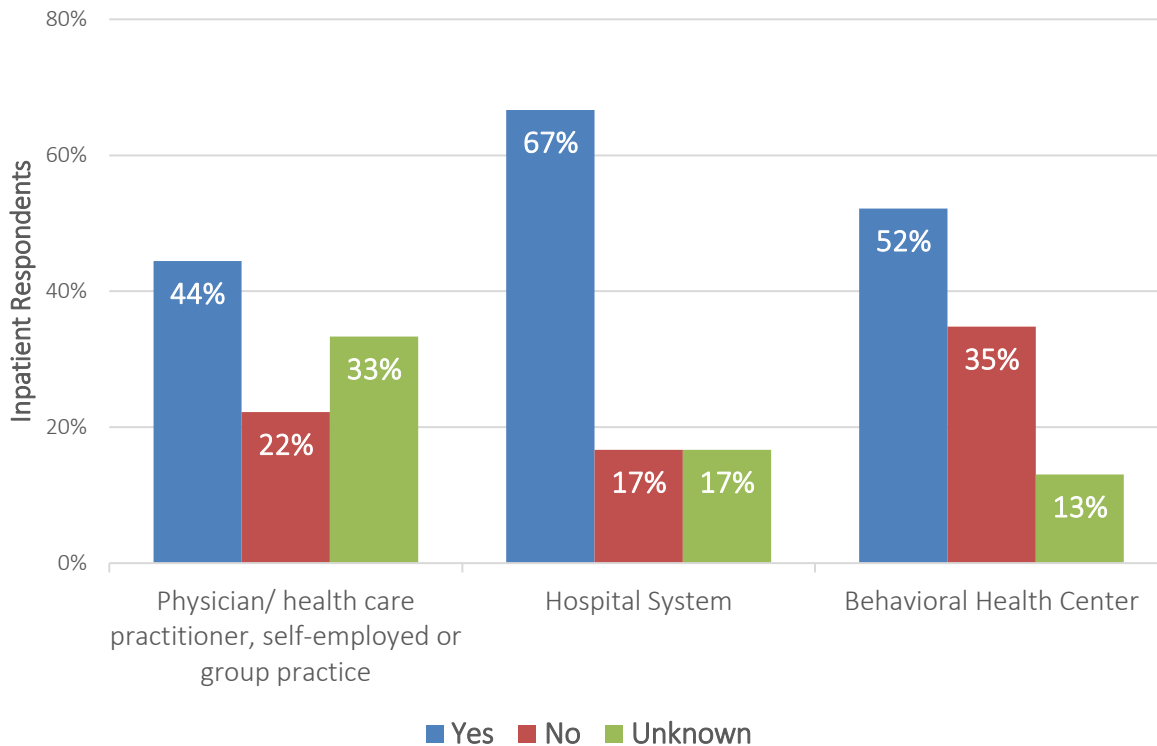
Looking at HIE adoption among different types of health care organizations, the survey found that the level of HIE adoption varied depending on the organizational affiliation of the respondent. As shown in **Exhibits 3-3** and **3-4**, the survey found that HIE adoption among respondents in **outpatient** and **inpatient** settings varied slightly when broken down by organization type.

Incentivized providers, defined as those eligible to participate in the EHR Incentive Program, were found to be more likely to have the capability to electronically exchange PHI with other providers than non-incentivized providers not included in EHR Incentive Programs, such as Long-Term and Post-Acute Care Facilities.

As shown in **Exhibits 3-3**, the survey found that Long-Term and Post-Acute Care Facilities were least likely to have the capability to exchange electronic PHI with providers outside their facilities. Respondents affiliated with a hospital system reported the highest levels of HIE adoption across all organizational types, which provides an example of disparities. These differences might be linked to incentive programs that supported specific providers' adoption and use of health information technology.



**Exhibit 3-3: HIE Adoption among Outpatient Respondents**



**Exhibit 3-4: HIE Adoption among Inpatient Respondents**

**b. Perceived Benefits and Barriers to HIE Adoption**

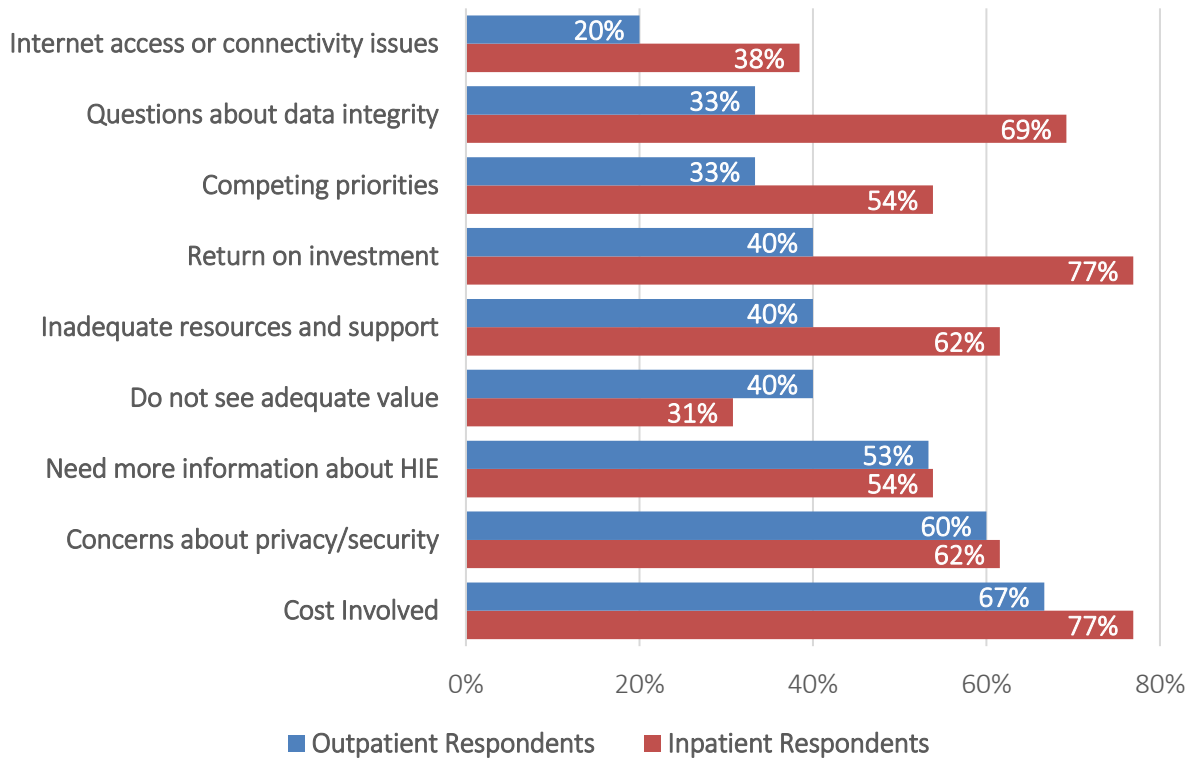
The As Is Assessment found there are myriad factors influencing health care providers’ willingness and ability to adopt and participate in the electronic exchange of patient health information. To help identify and better understand what factors are most impactful and influential in the decision to adopt HIE, North Highland conducted a targeted assessment of HIE non-adopters, or those health care providers and facilities without the capability to electronically exchange patient health information with providers outside their practice or facility. Both the electronic survey and stakeholder interviews were used to better understand the current barriers to HIE adoption (actual and perceived).

In the survey, respondents *without* HIE were asked if they were considering participation in HIE in the future.<sup>28</sup> Fewer than 20% said they were actively considering HIE with the majority responding that they were either undecided or not considering participation in HIE in the future.

As shown in **Exhibit 3-5**, those *without* HIE were also asked about their reasons for not participating in HIE.<sup>29</sup> These respondents most often cited the following reasons as being ‘fairly’ to ‘very’ important in their decision to not adopt: (1) Cost involved; (2) Return on investment; and (3) Concerns about privacy/security.

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<sup>28</sup> Are you considering participating in health information exchange (HIE)?



**Exhibit 3-5: Top Reasons for Not Participating in HIE**

These same non-adopters were also found to be less likely to agree with statements about the benefits of HIE than those who have already adopted HIE. As shown in **Exhibit 3-6** and **3-7**, the survey found that a significant share of respondents ‘strongly’ agreed with beneficial statements about HIE; however, when accounting for HIE adoption, the survey found that respondents *without* HIE (“HIE Non-Adopters”) were less likely to ‘strongly agree’ with beneficial statements about HIE than those *with* HIE capabilities (“HIE Adopters”).<sup>30</sup>

<sup>30</sup> To what extent do you agree or disagree with the following statements about electronic health information exchange? “Electronically exchanging clinical patient health information with other sources outside my facility \_\_\_\_.”

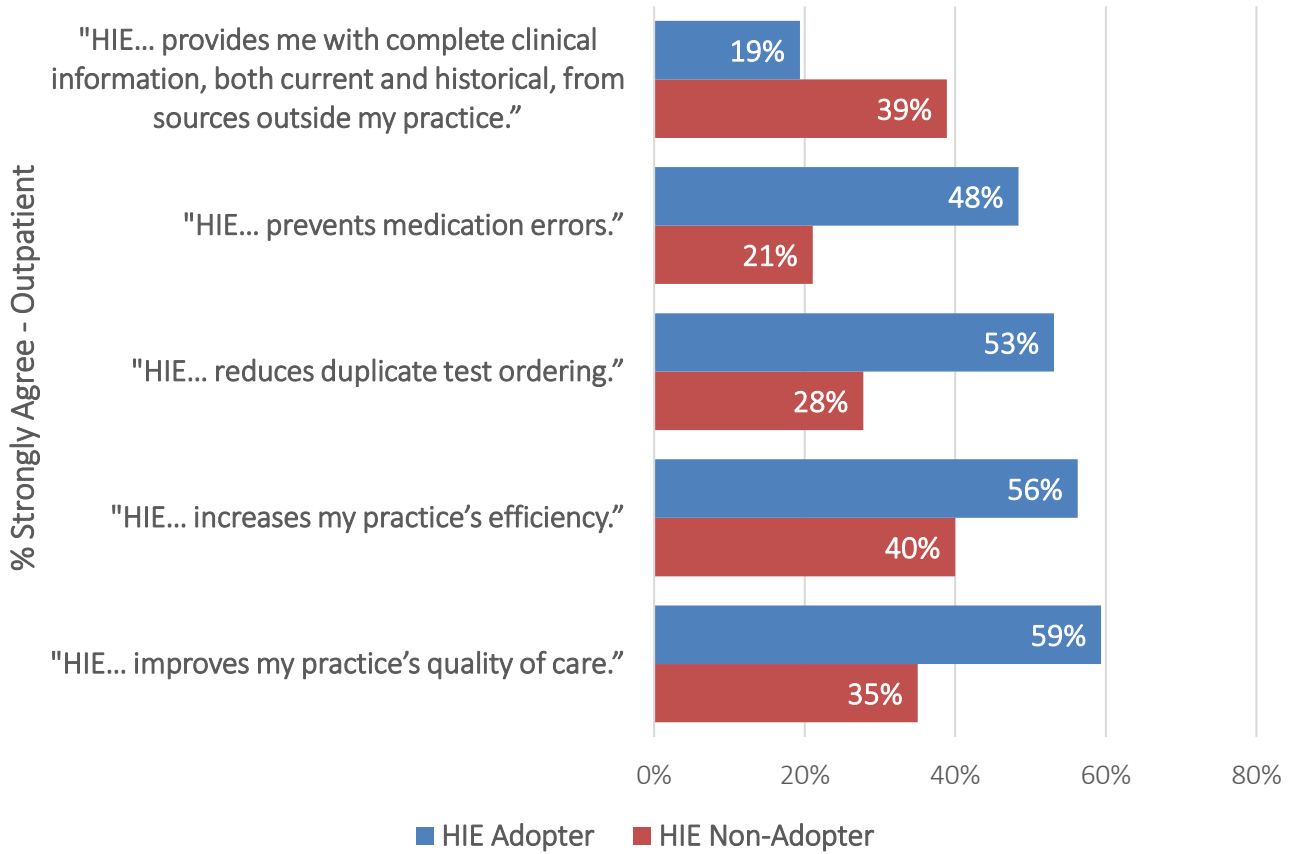
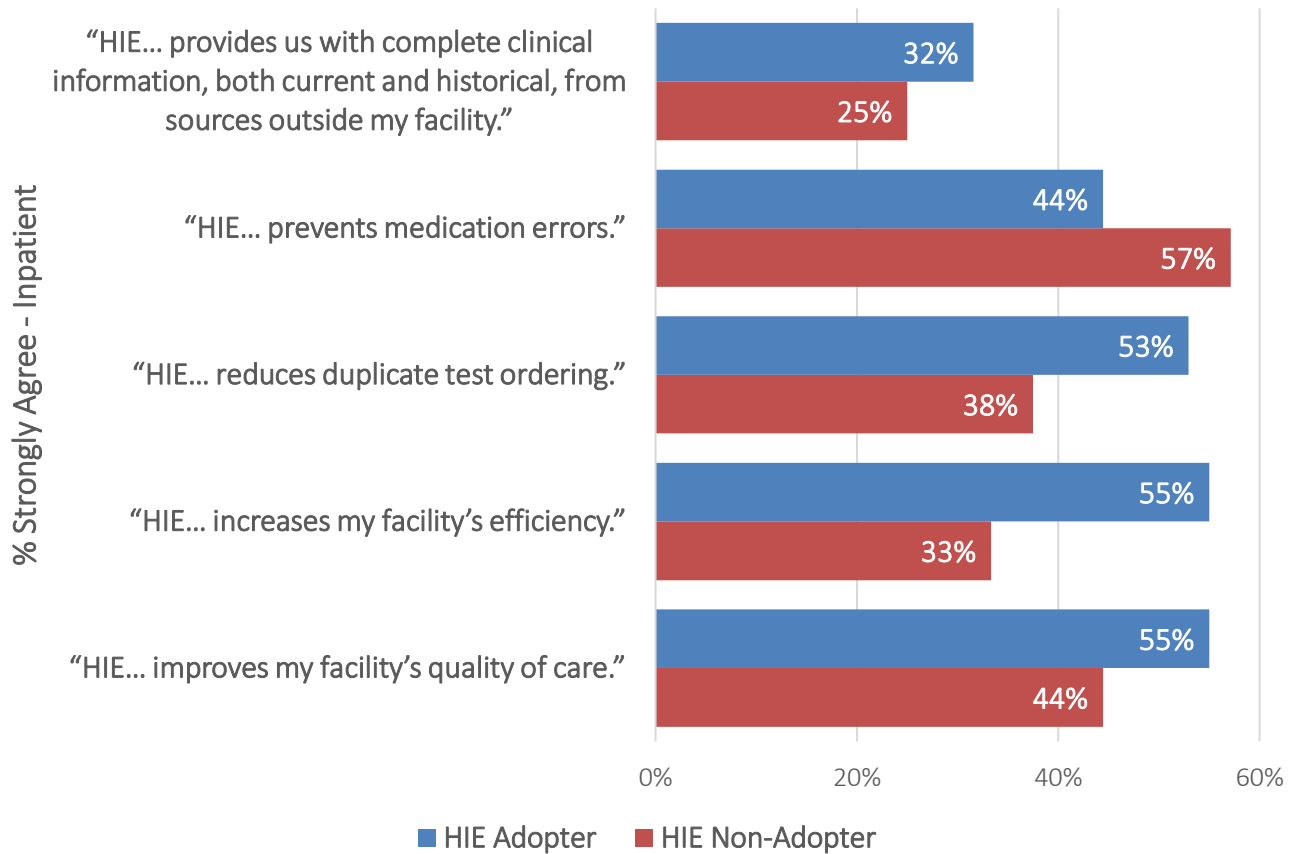


Exhibit 3-6: Perceived HIE Benefits among Outpatient Respondents



**Exhibit 3-7: Perceived HIE Benefits among Inpatient Respondents**

Survey respondents were then asked to identify and rank the barriers they currently experience, or perceive to exist, as they pertain to HIE.<sup>31</sup> As shown in **Exhibit 3-8** and **3-9**, when HIE adoption is considered, the survey found that those *without* HIE ("HIE Non-Adopters") were more likely to cite differing technology systems and privacy concerns as limitations to HIE than those *with* HIE ("HIE Adopters"). In addition, the survey found:

- **Outpatient respondents** *without* HIE were more likely to 'strongly agree' with statements that EHR issues and privacy concerns are limiting HIE than outpatient respondents *with* HIE.
- **Inpatient respondents** *without* HIE were more likely to 'strongly agree' with statements that differing technology systems and the inability of other providers to electronically exchange PHI were limiting HIE than inpatient respondents *with* HIE.

<sup>31</sup>To what extent do you agree or disagree with the following statements about electronic health information exchange? "Electronically exchanging clinical patient health information with other sources outside my facility \_\_\_\_."

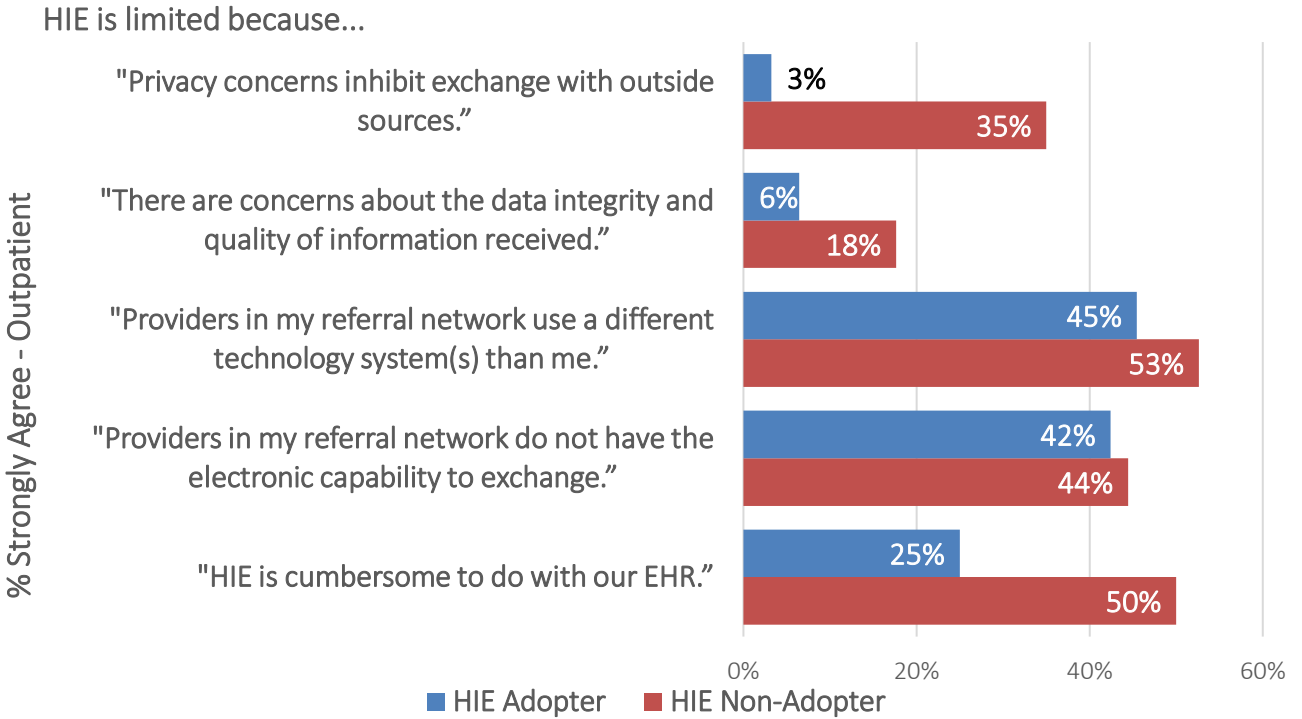


Exhibit 3-8: Perceived HIE Barriers among Outpatient Respondents

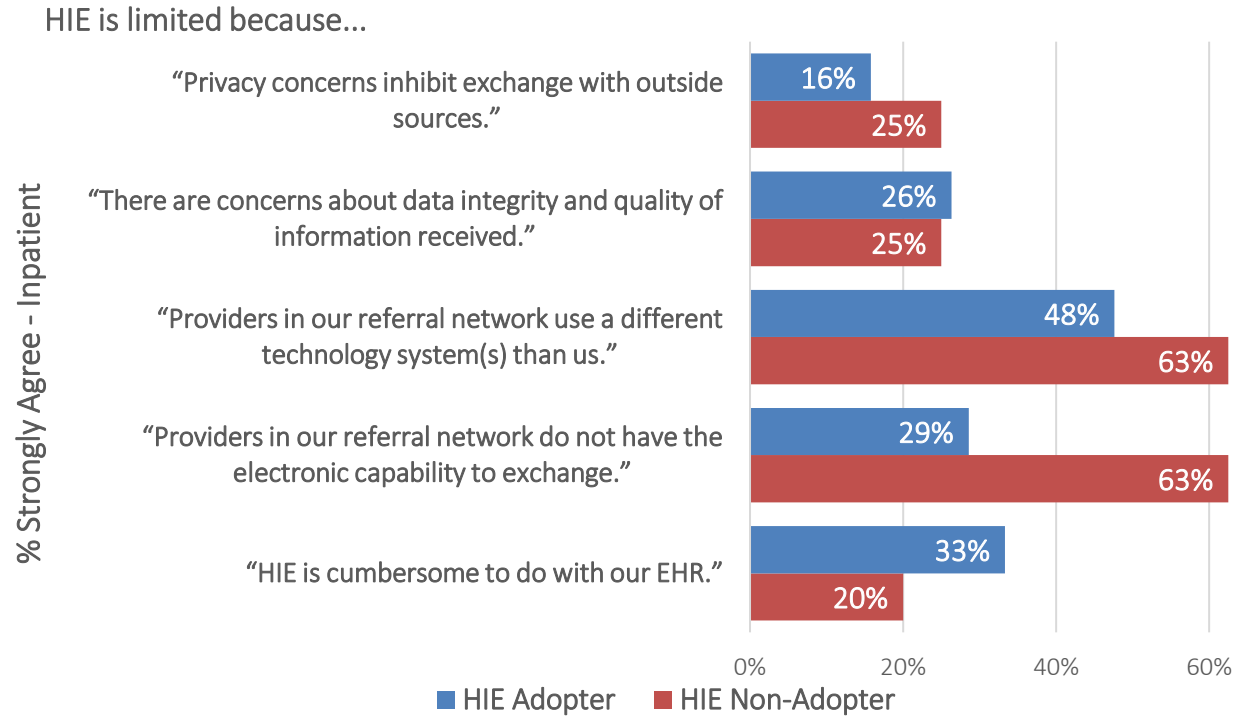


Exhibit 3-9: Perceived HIE Barriers among Inpatient Respondents

## 2. Observations from Stakeholders

This section details observations gathered from interviews with stakeholders who have both adopted and not adopted HIE solutions. The stakeholders interviewed for this assessment represented several different points of view from across the health care landscape and were varied in terms of their own technological advancement and adoption of HIE.

Several of the entities engaged during this assessment had yet to adopt HIE capabilities or fully realize its utilization and benefits. Despite this, there was consensus among the stakeholders interviewed that, despite a widely-held positive view of HIE as a concept amongst the health care community, actual HIE adoption remains low throughout the health care landscape in Florida. Throughout stakeholder interviews, several themes consistently emerged that help to explain and characterize the current state of HIE adoption in Florida.

### Common Themes from Stakeholders

1. Desire for Education and Engagement
2. Cost and Resource Concerns
3. Cultural Considerations
4. Value Propositions Alignment and Demonstration

#### a. Education and Engagement

In each interview, stakeholders were asked if they believed that their peers and colleagues in the health care community understood, at a high level, the concept of HIE. The overwhelming response was “no.”

Throughout the stakeholder interviews, a recurring theme emerged that there *is no* common or consistently used definition of HIE to which stakeholders refer. During stakeholder interviews, a full range of examples were given to describe what people understood to be HIE adoption. It was apparent that without clear, common and consistent definition of HIE, fundamental misunderstandings and confusion persists throughout the health care community. This was identified as a roadblock to progress in HIE adoption, as varied stakeholder perspectives cannot be properly communicated if parties use inconsistent and misunderstood language.

Despite outreach and education efforts already in place by AHCA, throughout the interviews, stakeholders universally expressed a strong desire for additional education and awareness about HIE across the health care spectrum. This sentiment was specifically expressed amongst Non-Adopters, which was also identified in the survey. Similarly referenced in **Exhibit 3-9**, more than half of survey respondents (62%) cited the need for more education about HIE as an important factor in their decision to not adopt HIE. In their interviews, stakeholders expressed the desires of the health care community to better understand the concept of HIE more thoroughly, how HIE applies to them directly, and how it will impact their operations and “bottom line”. Stakeholders also expressed the need for more direction and centralized guidance on where to

find this information. Finally, stakeholders expressed a strong desire for the increased engagement throughout the health care community, such as Long-term and Post-Acute Care and Behavioral Health facilities.

Overall, stakeholders frequently mentioned that increased and expanded education, communication, and engagement across the health care landscape will be required to combat misunderstandings and misinformation which currently exist in the health care community today. Doing so will help to keep varied stakeholders engaged in the HIE landscape.

#### **b. Cost and Resources**

The cost of HIE was regularly cited as a barrier to HIE adoption in stakeholder interviews. These costs range from the initial investment in HIE, costs and resources associated with implementation and training, ongoing maintenance and support costs, and costs to upgrade in the future. Stakeholders explained that when coupled with competing resource demands, competing internal technology projects, the level of sponsorship and commitment needed by organizational leadership, and constrained financial resources, these cost barriers can become a tipping point where HIE is perceived to be too expensive or too burdensome to adopt.

While most stakeholders expressed concerns about cost and its impact on HIE adoption, the interviews revealed distinct differences in the types of cost barriers faced by the health care community depending on their organizational size and structure.

Among smaller organizations and provider groups, such as primary care practices, the cost concerns were primarily focused around initial costs for over-arching IT strategy and implementation of HIE technologies. Smaller entities often do not have adequate in-house IT resources to create HIT strategies for large undertakings, such as HIE. The initial cost of hardware, software, and infrastructure upgrades and connections is daunting and can be prohibitive. Even if smaller entities adopt a HIE technology, they are often faced with the costs of training and motivating staff to use the new technology, and the long-term costs of maintaining and supporting HIE platforms. These combined costs prove to be prohibitive for many small organizations.

For larger entities and organizations, such as hospitals, the in-house IT resources are often more robust and have the ability to handle the strategy and implementation of new technology. The cost concerns for these entities focused around long-term maintenance, support, and upgrades of their HIE solutions and platforms, needed to continually adjust to the changing healthcare landscape. Some of the larger organizations expressed concerns around absorbing the costs for establishing and maintaining HIE connections with providers in their community. As one hospital expressed, *“It costs a lot of money to create interfaces with each facility, and many of them force us to still contact them to request PHI records.”* While not in-expensive, this is an approach (“one-off” connectivity) that some entities, especially hospitals, are using to further develop their HIE network.

Further, there are unique cost and resource concerns among non-incentivized provider organizations, regardless of their size, that factor into HIE adoption. Since non-incentivized providers, such as behavioral health centers and long-term care facilities were not eligible for the original EHR Incentive Program funding, these sectors of the healthcare community have only recently “caught up” with incentivized providers in terms of EHR adoption. It was clear in stakeholder interviews that there is strong interest and desire among these types of providers to become integrated with, and exchange patient health information amongst, their community providers via HIE.

Some stakeholders also mentioned additional barriers to obtaining government or community funding made available for HIE adoption. With the cost of HIE being a substantial barrier to entry for many organizations, some organizations have human resources specifically devoted to locating additional funding opportunities for their organization. While this is viewed as beneficial to the organization, it is often laborious, time-consuming, and appropriate organizational processes and policies have to be in place to identify, respond to, and acquire this funding. Organizations who cannot dedicate resources to this function may not be able to take advantage of available funding opportunities.

### **c. Cultural Considerations**

Electronically exchanging sensitive data, while relatively new in the health care community, is an established practice across many other industries, such as the finance and retail industries. As one provider said, *“This is now not a technical problem, but rather a culture shift.”*

In interviews, stakeholders acknowledged that the increased sharing of patient health information and data is the path forward to creating a better health care system across the country. However, stakeholders also acknowledged that a culture of cautious optimism, coupled with hesitation, currently exists in Florida.

Stakeholders explained even with the ongoing shift to value-based payment models, which has led to increased adoption and desire to electronically exchange patient health information, there are still strong cultural influences remaining from the fee-for-service payment model that deter HIE adoption. Examples of such influences include viewing patient health information as a competitive advantage and not wanting to share PHI with others for fears of revenue diminution or ‘patient poaching’.

Another cultural barrier regularly mentioned by stakeholders is the hesitation to exchange data due to Florida’s strict patient consent and privacy laws. While most stakeholders did not believe that current privacy and consent laws prevent or inhibit most HIE, they noted this is a long-held and stubborn perception among many in the health care community. Consistent awareness and cautiousness regarding the real or perceived risks of exchanging health information, the potential violations of privacy and security laws, and fears of litigation has pushed providers to err on the more extreme side of caution to mitigate risks.

It is important to note that the majority of stakeholders interviewed believed that this cultural barrier could be overcome with increased guidance, clarification, and education by state government entities on what the law does and does not permit. Further, when asked, none of the stakeholders interviewed could think of any state policies or regulations currently in place which inhibit HIE adoption or the electronic sharing of data.

Stakeholders also mentioned additional cultural hurdles which exist based on early HIE-adopters' experiences. Stakeholders explained that many previous HIE initiatives were tied directly to achieving Stage 2 Meaningful Use requirements under the Medicaid EHR Incentive Program. During this time, health care communities pictured a grand vision of fully integrated systems which were user-friendly, enabling seamless transmission of data and communications to improve patient outcomes. Stakeholders expressed expectations were not met surrounding interoperability outcomes related to Meaningful Use objectives. According to stakeholders, this experience of unmet expectations and the frustrations in not realizing a user-friendly and fully integrated HIE solution has trickled down from the early adopters to other stakeholders across the health care community.

A frequent observation made by stakeholders is "*healthcare is local and should be driven by a community.*" Some noted that because health care is local, providers only need to support and share data within their communities, explaining that analysis of patient referral patterns can define a community's HIE needs and encourage collaboration amongst providers. With this in mind, some stakeholders expressed a lack of utility in statewide and national HIE platforms; however, several inpatient survey respondents said they either currently participate in non-localized HIE or expressed intentions to do so in the future (See **Section 3.C.1**).

#### **d. Value Proposition Alignment and Demonstration**

Throughout the duration of the assessment, the most commonly observed gap in the HIE landscape is the validation and demonstration of a value proposition which supports adoption of HIE at an individual provider and facility level as well as across the state. Each stakeholder's value proposition is different, determined by what best fits their organization and supports their vision, mission, and business model. Therefore, a singular value proposition will never exist that sufficiently satisfies and motivates all stakeholders across the HIE landscape.

Several steps were acknowledged as necessary for a health care provider or facility to embrace and pursue HIE adoption. Identifying a defined value proposition was determined to be most important. Stakeholders outlined the following steps as critical to this process:

- The creation of a *tailored* value proposition aligning to an organization's vision, mission, and business model.
- *Communication* of this value proposition to the appropriate stakeholder in an organization, and throughout the community.
- Ensuring stakeholders *understand and embrace* the value proposition on an individual, organizational, and community-wide level.

Throughout the interviews, stakeholders mentioned the following three components as being critical in creating a substantive value proposition for any organization: (1) establishing a positive business case for using HIE technologies and services; (2) finding and correlating existing use cases that demonstrate the benefits from such services are possible and advantageous to their patients and their organizational structure; and, and (3) determining a positive return on investment (ROI). While ROI is often measured via top and bottom line revenues, stakeholders mentioned that ROI should also be thought about in terms of increased efficiencies and improved patient experience depending on the use case.

Another underlying factor noted by stakeholders in an organization's value proposition for HIE, was access to significant and sufficient data sources. As one stakeholder stated, *"The exchange is only as good as the facilities participating."* In this vein, stakeholders mentioned the concept of an "Adoption Paradox" which can hinder large scale HIE adoption. The Adoption Paradox refers to a situation where a provider does not want to invest and join in the HIE until there is significant data to access and utilize for their benefit. Should a critical mass of entities embrace this mindset, then no one will willingly join the HIE and there will be no data for anyone to access.

As shown in the survey results, those who have not yet adopted HIE tend to perceive HIE as less beneficial than those who have adopted HIE (**Exhibit 3-6** and **3-7**), and some stakeholders mentioned that the value proposition to adopt HIE was not evident to them. These sentiments are reflective of two things: a lack of understanding about the value proposition of HIE (e.g., increased efficiencies, better patient outcomes, etc.) and/or inadequate communication and demonstration of the value proposition. Stakeholders mentioned that providing meaningful resources, tools, and education to non-adopters about the benefits, use cases, and ROI of HIE would be helpful in encouraging adoption.

Below are some sentiments and examples of components of stakeholders' value propositions, as identified via interviews.

- Value Propositions expressed by **Providers and Health Care Facilities**:
  - *"I want a system that can help me make patients better, quicker. Meaning, better data for treatment, and more efficiency."*
  - *"I want decreased administrative burden. I want to spend more time with my patients."*
  - *"Adding another system does not make sense unless it integrates with our current workflow – real efficiency."*
  - *"A big chunk of healthcare money is used on small segment of people. If we can figure out how to make that segment better more efficiently, it would cut our costs and improve outcomes all-around."*
  - *"Seeing a patient's history improves diagnosis, treatment, and long-term outcomes."*
  - *"There is a potential for improvement of HEDIS (Healthcare Effectiveness Data and Information Set measures) scores with access to better and more comprehensive data."*

- Value Propositions expressed by **Payers**:
  - *“Access to more voluminous and accurate data increases response times and helps to create more efficiencies in our business model.”*
  - *“With a more complete picture of a patient (acquired from multiple sources, such as: Emergency Rooms, Primary Care Providers, and pharmacies), we are able to share that back into community to help other providers close-the-loop on a patient’s status.”*
  - *“Access to increased data can be used in predictive medicine, resulting in long-term cost savings, such as reduced readmissions.”*
  - *“We need to increase the correlation of coordination of care and quality of care. We’re currently making decisions about members with only one-third of the needed information.”*
  - *“There is a potential for improvement of HEDIS (Healthcare Effectiveness Data and Information Set measures) scores with access to better and more comprehensive data.”*

## C. HIE UTILIZATION

This section focuses on the utilization of HIE by health care providers and facilities which have already adopted HIE technology and services. HIE utilization was assessed by looking at HIE integration into the existing workflows of health care providers and facilities. The extent to which electronic exchange is integrated into a provider’s workflow is a good reflection of the value they derive from using HIE. This assessment found that, even among those who have strongly embraced HIE, many still use paper-based and eFax methods to exchange patient health information with others. The reasons for this redundancy, such as a lack of trust and fears of making mistakes with a patient’s health information, are also explored in this section.

The below analysis contained in **Section 3.C** details the current state as it relates to the following questions (addressed in the electronic survey, and qualitative analysis captured in stakeholder interviews).

1. If you electronically exchange patient health information, what type of HIE services and solutions are you currently using?
2. How do you send patient health information to providers in which you refer patients?
3. How do you receive patient health information from providers from which you see referred patients?
4. Outside of claims, what types of clinical information do you, as a Payer, currently receive from providers/facilities electronically?

## 1. Survey Findings

### a. Utilization of HIE Solutions

To better understand the types of HIE solutions used in Florida, the survey asked respondents with HIE to identify which HIE solution(s) they currently use to facilitate the electronic exchange of PHI.

The survey found that most outpatient and inpatient respondents were currently using a commercial HIE solution (62%), followed by national HIE solutions (27%), the Florida HIE (12%), and regional HIE solutions (10%). The most popular HIE solution vendors among survey respondents were:

- Athena Health
- eClinicalWorks
- Cerner Corporation
- Epic
- Greenway
- NetSmart

For those respondents using a national HIE solution, Commonwell was most often cited by outpatient respondents (27%) while the eHealth Exchange was most popular among inpatient respondents (27%).

When asked about their future HIE plans to participate in other HIE solutions, 13% of outpatient and inpatient respondents had known plans to do so, the majority of which were to participate in an *additional* HIE within the next 18 months (78%) as opposed to *switching* HIE solutions (22%). Of those respondents with known plans, nearly half (44%) reported they planned to join a national HIE solution.

### b. HIE Utilization and Workflow Integration

The survey sought to capture HIE utilization by measuring the integration of HIE into the existing workflows of inpatient and outpatient providers. The survey asked respondents how they exchanged PHI with providers outside their practice or facility and the extent to which they used that method to exchange PHI with others. Respondents with HIE capability were asked how they sent and received PHI with the providers that they currently refer and receive patients from.<sup>32</sup>

As shown in **Exhibit 3-10** and **3-11**, the survey found that paper-based methods, such as mail and fax, were still the most widely utilized method of *sending* and *receiving* PHI across all types of health care providers and facilities.<sup>33</sup>

Among **outpatient** respondents with HIE capabilities, the most utilized forms of exchange were:

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<sup>32</sup> Do you refer patients to the following types of providers? Select all that apply.

<sup>33</sup> Do you see patients that have been referred from the following types of providers? Select all that apply.

How do you send patient health information to these providers? Select all that apply.

How do you receive patient health information from these providers? Select all that apply.

1. Paper-based methods
2. eFax
3. EHR, using built-in EHR exchange capabilities (HIE)
4. Direct messaging (HIE)

Among **inpatient** respondents with HIE capabilities, the most utilized forms of exchange were:

1. Paper-based methods
2. EHR, using built-in EHR exchange capabilities (HIE)
3. eFax

While outpatient respondents reported using paper-based methods more often than respondents in inpatient settings, the prevalence of paper-based methods across all respondents is indicative of several things: ongoing duplication of transmission efforts, incomplete integration of HIE into existing workflows due to organizational barriers, and/or the absence of providers with which they can electronically send or receive PHI. The absence of such providers illustrates how others' adoption decisions can hinder the widespread utilization of HIE, even among the most dedicated HIE adopters. These findings may also be influenced by limitations of existing incentives which indirectly deter electronic exchange.

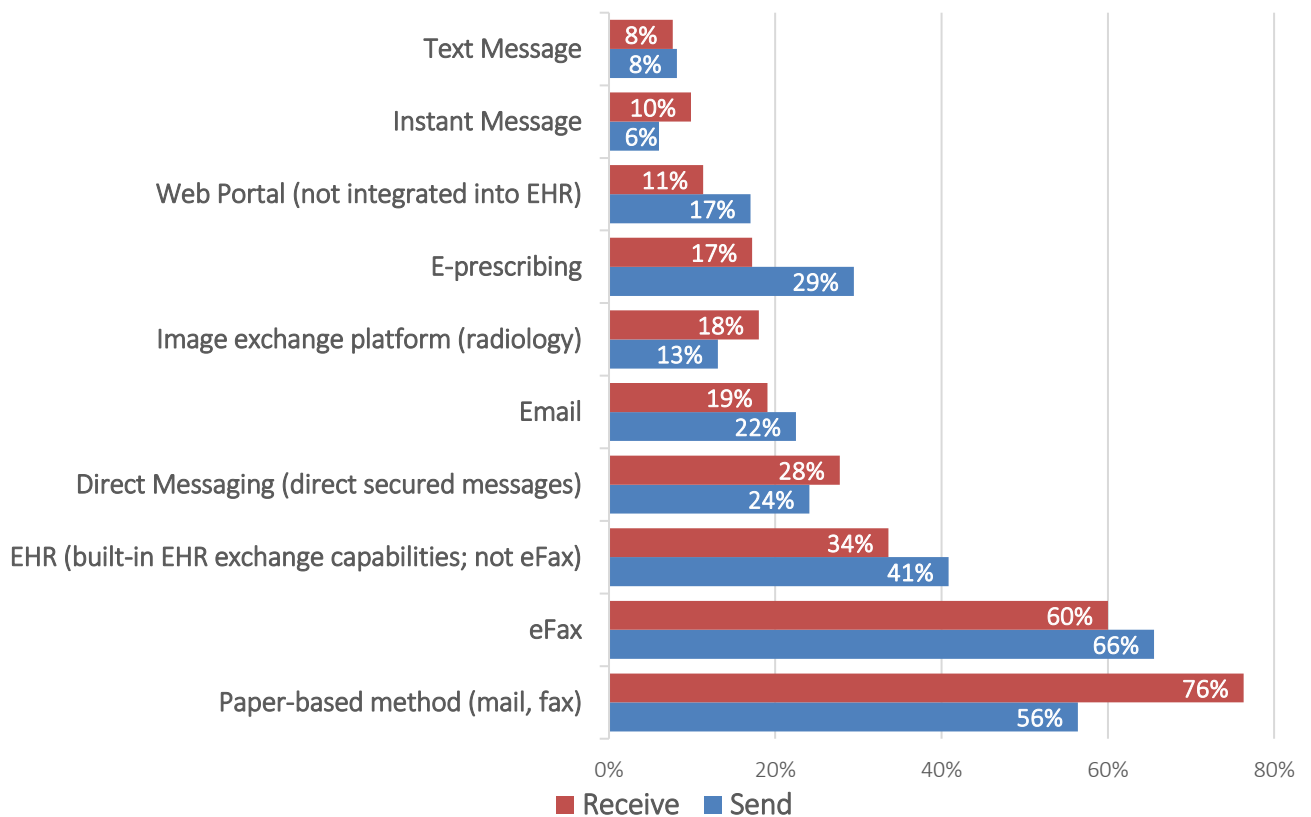
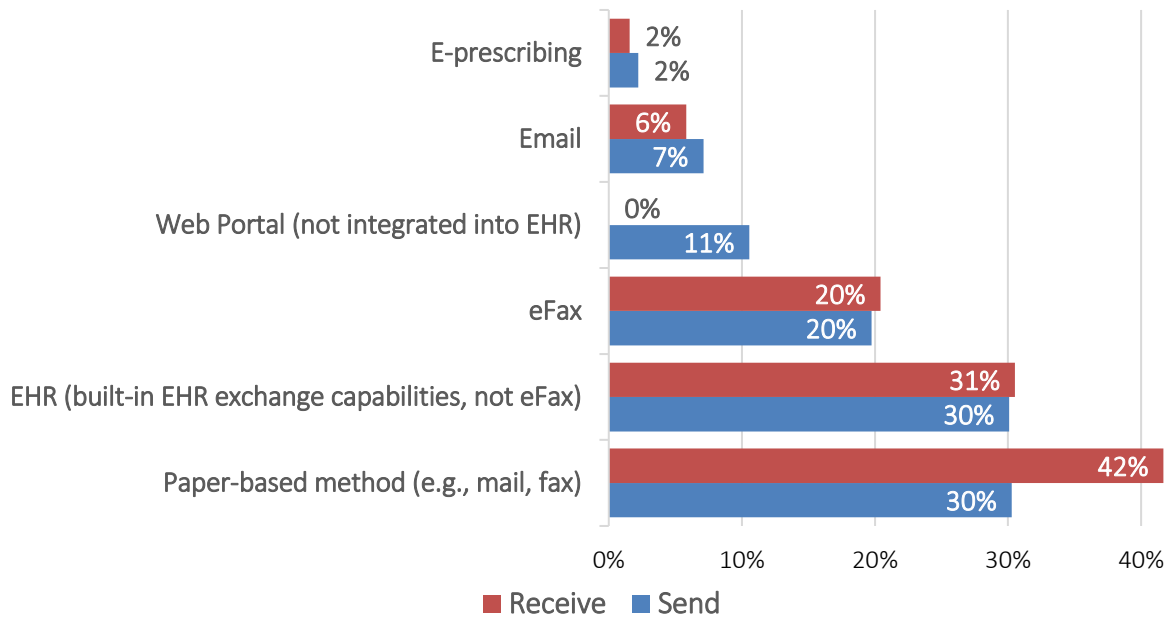


Exhibit 3-10: Exchange Methods among Outpatient Respondents



**Exhibit 3-11: Exchange Methods among Inpatient Respondents**

Health care **Payers** who responded to the survey were also asked about the types of health information they receive from providers and facilities in their network and how they receive that information.<sup>34</sup>

Payer respondents were then asked how they receive those types of patient health information from their providers and facilities. As shown in **Exhibit 3-12**, half (50%) of those who received referrals, hospital discharge summaries, imaging reports, or patient problem lists from their providers and facilities did not receive them electronically.

<sup>34</sup> Outside of claims, what types of clinical information do you currently receive from your providers/facilities electronically? 'Electronically' does not include transmission by email, eFax or billing record systems.

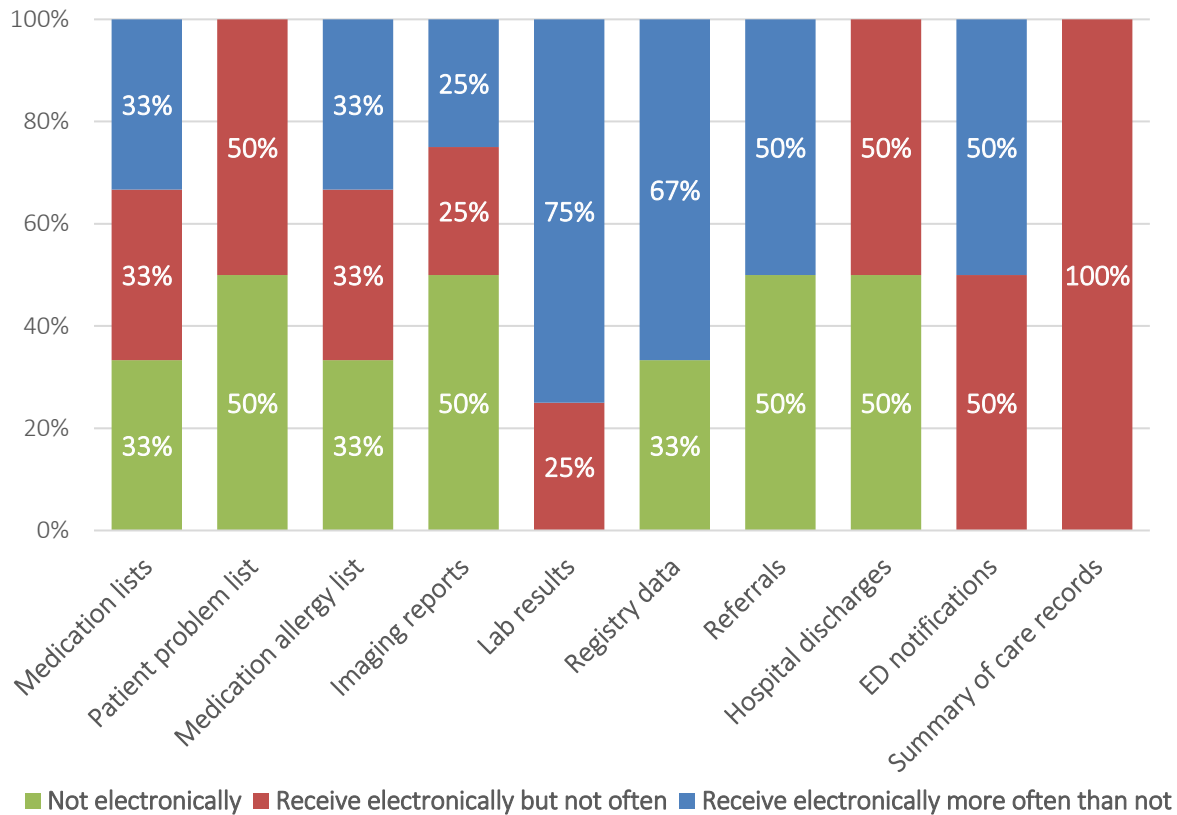


Exhibit 3-12: Method of Receipt by Payer Respondents

## 2. Observations from Stakeholders

### Common Themes from Stakeholders

1. Prevalence of Paper-Based Methods
2. Lack of Exchange Partners
3. Need for Staff Training and Change Management
4. Importance of Workflow Efficiencies and Seamless Integration

Despite efforts to boost HIE adoption and utilization, paper-based methods are still widely used by providers and facilities to exchange patient health information. These methods can include fax, paper charts, and post-it notes.

Across all stakeholders interviewed, those associated with ACOs and participants in value-based payment arrangements reported the highest level of HIE utilization and workflow integration. Those stakeholders who have adopted and use HIE expressed the continual need to improve their in-house HIE technologies and services to obtain even greater benefits of HIE, such as having their system become fully integrated with existing workflows of their organization. There

is also a desire to close interoperability gaps within and outside of a stakeholder's respective organization.

When asked about HIE integration into providers' workflows, stakeholders cited the following reasons for the continued prevalence of paper-based methods:

- **Lack of Exchange Partners:** A lack of partners which can electronically exchange or access the shared data. While HIE adopters may be able to send the information electronically to their partners, they are not necessarily able to receive the information, thus creating the need for redundant paper communication. The lack of exchange partners is impactful in HIE utilization, and may be representative of a true deficiency in interoperable partners, or in the inability to identify partners. An example of this is that although most EHRs have Direct Messaging capabilities, many providers do not know the addresses of their referral or care partners.
- **Misaligned Incentives:** The confluence of misaligned incentives and "minimum necessary" attitudes by some who have only embraced HIE technology to meet Meaningful Use requirements for federal funding. Stakeholders lamented this attitude because it arbitrarily limits the utilization of HIE across health care communities and does not perpetuate successful, long-term HIE infrastructures and activities.
- **Staff Behaviors:** Stakeholders observed that staff don't always trust new systems, and/or they haven't broken from their old routine, which most directly impacts the extent to which HIE is integrated into provider's workflows. This distrust and hesitation can stem from several factors. For example, staff not properly trained on a new system's capabilities and functionalities can cause anxiety and hesitation in use. Without understanding how to properly use a new system, staff will revert to previous, more comfortable habits. Another cause may be that the staff do not understand the potential benefits of HIE to their position. Without an understanding of individualized and big picture benefits resulting from the changes to their workflows, staff will be less eager to adopt and use a new system and processes. While both of these issues can have a significant impact on the integration and utilization of HIE, they can be addressed with consistent messaging from organizational leadership, adequate training and resources, and reinforcement.
- **Seamless Integration:** Some stakeholders mentioned that, if HIE has not been seamlessly integrated with existing EHRs and clinical data systems, a provider or facility may be less likely to use it to send and receive health information. According to stakeholders, if the HIE solution does not create tangible workflow efficiencies for the provider it is less likely to be fully utilized and integrated into their day-to-day operations.

## D. INFORMATION MANAGEMENT

As previously shown in **Exhibit 3-8** and **3-9**, some of the perceived barriers to HIE adoption involve information and management data governance issues such as the privacy, security, and ownership of patient health information. These topics were commonly mentioned by

stakeholders, especially when discussing a Master Patient Index (MPI) or Centralized Data Repository (CDR).

Information Management has several components aimed at keeping data secure and consumable. The below factors were mentioned when speaking with stakeholders about the sharing and electronic exchange of patient clinical data.

- **Data Governance & Accountability:** Data governance and maintaining a standard of accountability for those accessing, updating, and reporting on aggregated data is imperative for keeping patient information accurate. Creating a governance structure allows for rule making and a body of people which keep the larger vision and goals of HIE in Florida at the forefront of their decision-making.
- **Data Integrity:** Maintenance of data over its entire lifecycle and ensuring data accuracy and consistency. Data integrity is a critical aspect to the design, implementation and usage of any system that stores, processes, or retrieves data.
- **Data Security:** Consistent security standards that all parties must abide by when accessing or sharing data, is vital for patient protection and organizational trust, which can include nationally developed standards guide data security best practices.
- **Data Tracking:** The ability to tell where data originated from and who has edited it since creation is important and directly related to data integrity. “Originator tags” can help address trust issues related to sharing data amongst disparate organizations.
- **Information Blocking:** Information blocking occurs when persons or entities knowingly and unreasonably interfere with the exchange or use of electronic health information. While there are policies in place to help deter and prevent this type of activity<sup>35</sup>, some stakeholders mentioned persisting perceptions that this occurs throughout the health care community.
- **Master Data Management (MDM):** The processes, governance, policies, standards and tools that consistently define and manage the critical data of an organization to provide a single point of reference.
- **Master Patient Index (MPI):** A Master Patient Index (MPI) is used across a healthcare organization or HIE to maintain a unique patient identifier allowing for the management of consistent, accurate, and current patient demographics.
- **Predictive Analytics:** Predictive analytics analyzes patient population health to help improve patient outcomes through early detection, or prediction of adverse outcomes before they occur. Predictive analytics can be used to help reduce hospital readmissions, prevent medication errors, predict “drug-seeking behavior”, and provide healthcare trends to inform better treatment decisions. As stated by one hospital system, *“We need the ability to exchange more real-time data, and this type of analytics will be useful in treating the patient at the point of contact.”* Interest in predictive analytics was widespread among stakeholders who had already adopted HIE. As one payer said, *“Predictive analytics is the future and we’re happy to be on the front-end of it.”*

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<sup>35</sup> [https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/EHR\\_InformationBlockingFact-Sheet20171106.pdf](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/EHR_InformationBlockingFact-Sheet20171106.pdf)

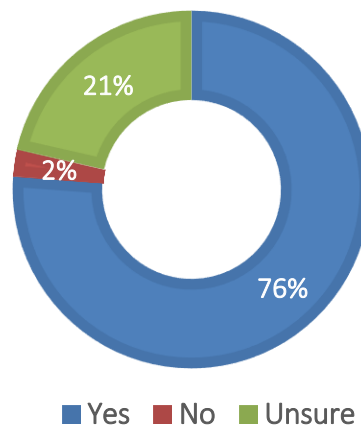
## 1. Statewide Master Patient Index

One solution to statewide data management would be the deployment of a statewide Master Patient Index (MPI). An MPI can make unique patient identification possible across health care organizations, allowing for the management of consistent, accurate, and current patient demographics. Unique patient identifiers, built on patient demographics, could offer Florida health care entities more assured patient matching, and lay the groundwork for more seamless exchange between disparate systems through record locator services, while not requiring a statewide clinical data repository.

### a. Survey Findings Regarding MPI

In the electronic survey, respondents were asked for their opinion on a statewide MPI. Respondents were asked if the creation, or availability of a statewide MPI would be valuable to their facility, if created or made available in Florida.<sup>36</sup> As shown in **Exhibit 3-13**, 76% of inpatient respondents said a statewide MPI would be valuable to their facility. Roughly, one-fifth of respondents were unsure (21%) of its value.

INTEREST IN STATEWIDE MPI



**Exhibit 3-13: Interest in a Statewide MPI among Inpatient Respondents**

Respondents who answered ‘no’ or ‘unsure’ were further asked, “For what reasons would a statewide MPI not be valuable to your facility? What capabilities would the MPI need to have in order to provide value to your facility?” Respondents’ answers to this question are listed below:

- *“The added layer of another number associated with a client.”*
- *“Privacy of registrants is critical; we would use if privacy a very high feature.”*
- *“We are a small facility and have no issues with accurate patient identification.”*

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<sup>36</sup> In your opinion, would a statewide Master Patient Index (MPI) be valuable to your facility? MPI is an electronic database that maintains unique identifiers for every patient registered by participating entities. A MPI allows for cross-referencing of patients using unique patient identifiers and high accuracy patient matching across care settings.

- *“Residents not wanting to share.”*
- *“Our community EMPI is GREAT. There have not been issues with it except for patients that have a hidden identity (like rape patients in the ED).”*
- *“Sometimes a patient identifier has been required, it would be valuable in those instances. I am not sure what capabilities it would need to have.”*

#### **b. Observations from Stakeholders Regarding Statewide MPI**

In interviews with both inpatient and outpatient providers, as well as payers, stakeholders were asked for their opinion on AHCA establishing a statewide MPI utilizing the existing Florida HIE infrastructure. There was a true 50/50 split in opinions among stakeholders interviewed. Smaller entities tended to be more in favor of a statewide MPI, primarily due to fewer financial resources available to develop their own MPI. Larger entities, most of which have already established their own MPI, were less likely to be in favor of a statewide MPI. According to stakeholders with an established, the creation and addition of a statewide MPI would be duplicative and redundant, and not of high value to their organizations.

Others mentioned significant challenges in the creation of a statewide MPI, such as the creation, agreement, and maintenance of unique patient identifiers as well as unique originator tags. Stakeholders expressed the importance of determining the demographics to use in building a MPI. Not all organizations capture the same demographic information, such as Social Security Number (SSN). Stakeholders often expressed that the demographic issue would need to be properly and thoughtful addressed for a statewide MPI to be successful.

## **SECTION 4 STATE & FEDERAL ROLES IN HIE**

### **A. FLORIDA HEALTH AND HUMAN SERVICES AGENCIES**

This section looks at the utilization of HIE within and among health and human services agencies in Florida as well as in public health reporting. This section also looks at real-time access to eligibility and health insurance information and use of the prescription drug-monitoring program (PDMP) in the State of Florida.

North Highland assessed the extent to which HIE is currently being used in the exchange of health information with Florida’s health and human services agencies. In Florida, these agencies include the Department of Health (DOH), Agency for Health Care Administration (AHCA), Department of Children and Families (DCF), Department of Persons with Disabilities (APD), and the Department of Elder Affairs (DOEA).

This assessment found that there is currently limited integration of HIE or interoperability among and within Florida’s health and human services and public health agencies, which makes this an area ripe with opportunities to improve intra- and inter-agency coordination and reap the benefits of increased efficiencies across the health care system. For example, the existence of separate and distinct health and human services, in Florida has resulted in robust HIE initiatives developing without significant integration or interoperability between agencies.

The below analysis contained in **Section 4.A** details the current state as it relates to the following questions (addressed in the electronic survey, and qualitative analysis captured in stakeholder interviews).

1. How do you send patient health information to public health organizations?
2. How do you receive patient health information from public health organizations?
3. How often do you search for a patient's health information using the Florida Prescription Drug Monitoring Program, also known as E-FORSCE (Electronic-Florida Online Reporting of Controlled Substance Evaluation Program)?
4. How do you check you patients' health insurance coverage status for the following types of health insurance coverage?

## 1. Public Health Reporting

Health care providers and facilities are required to share certain patient health information with public health agencies, primarily the Florida Department of Health (DOH) and its public health reporting registries. Providers can satisfy the Meaningful Use requirements for public health reporting by sending this information electronically to DOH via interfaces from their EHR. DOH's electronic reporting systems include the Florida State Health Online Tracking System (SHOTS), which is the state's immunization reporting registry, Electronic Lab Reporting, and the Syndromic Surveillance program. Both reporting to the Florida Cancer Data System (FCDS), which is the statewide cancer registry and reporting to or querying the prescription drug monitoring program (PDMP) known as E-FORSCE, satisfy the Meaningful Use requirement for reporting to specialized registries.

Public health reporting, surveillance and case investigation remains an area where there are significant HIE use cases and opportunities to automate, enhance, or update existing processes. Many electronic reporting mechanisms in Florida were developed prior to the requirements of Meaningful Use. Progress has been made on connectivity to EHRs although interfaces are not fully interoperable.

To help capture the extent to which HIE is being used in the exchange of patient health information for public health reporting purposes, survey respondents were asked about how they currently send and receive such information with Florida's public health agencies.<sup>37</sup>

As shown in **Exhibit 3-14** and **3-15**, many survey respondents said they used paper-based methods to send patient health information to public health agencies. Most also reported receiving such information from public health agencies in the same fashion.

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<sup>37</sup> How do you send patient health information to public health organizations? Select all that apply.  
How do you receive patient health information from public health organizations? Select all that apply.

- Among **outpatient respondents**, most reported sending and receiving PHI from public health agencies via a paper-based method, followed by eFax.
- Among **inpatient respondents**, most reported sending PHI to public health agencies using paper-based methods, followed by eFax and Email.

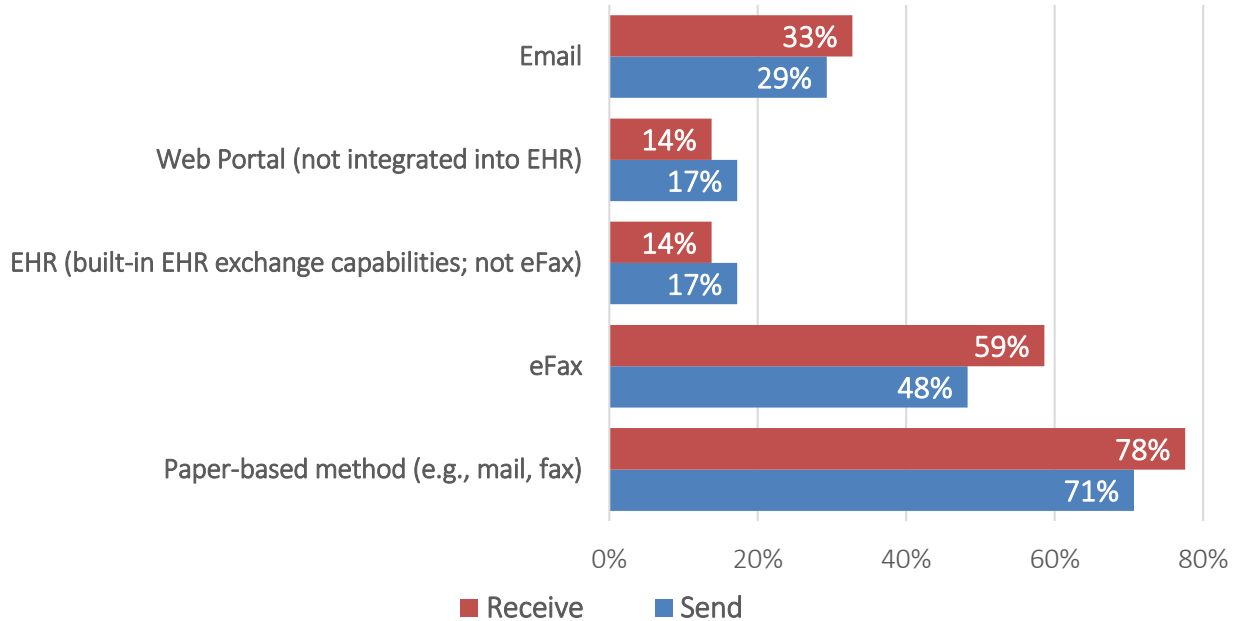


Exhibit 3-14: Methods of Exchange with Public Health Agencies among Outpatient Respondents

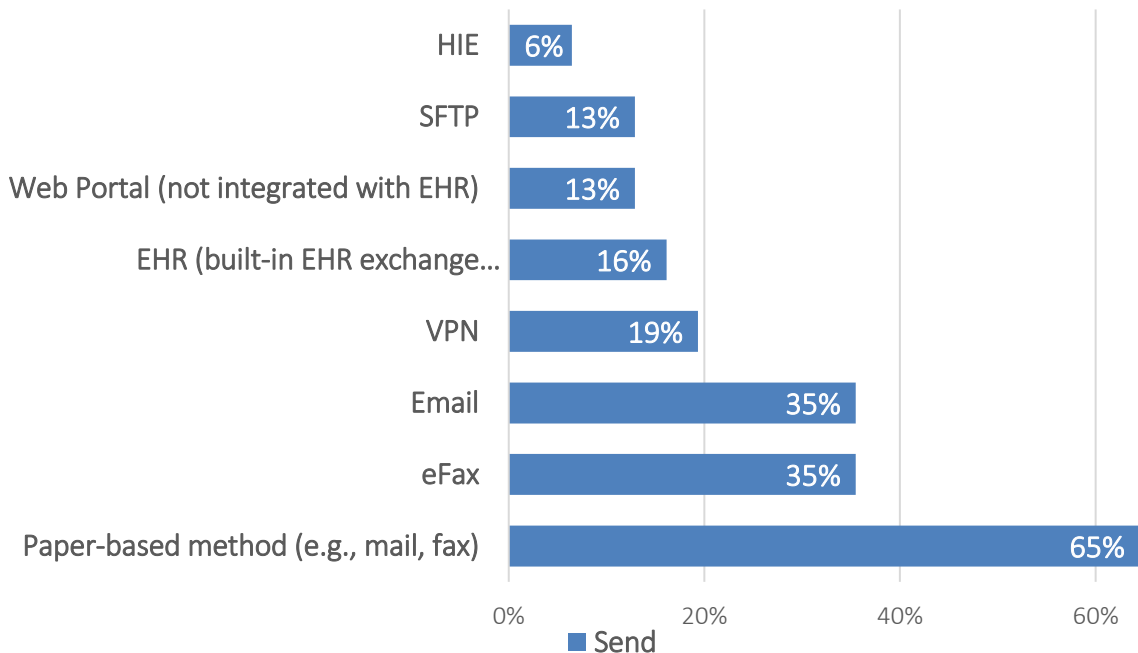


Exhibit 3-15: Exchange with Public Health Agencies among Inpatient Respondents<sup>38</sup>

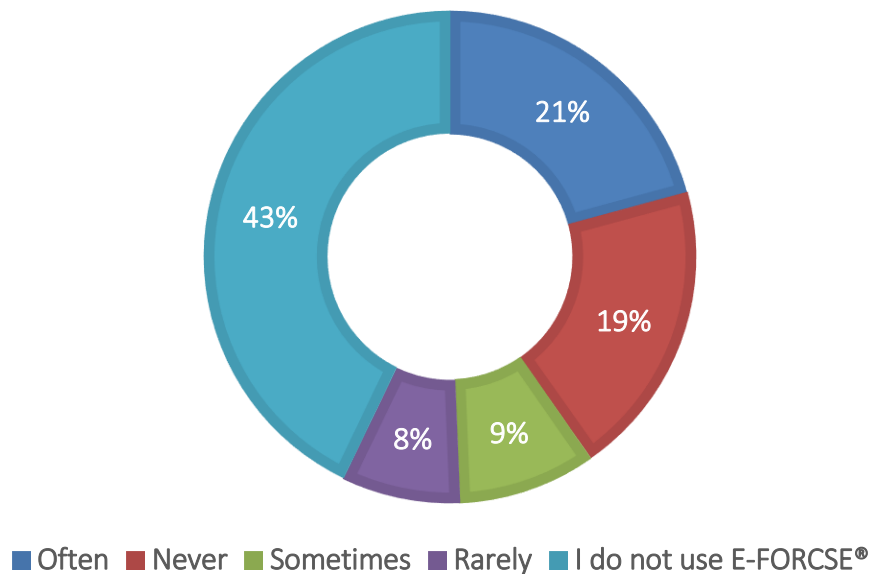
<sup>38</sup> Secure File Transfer Protocol (**SFTP**) is a secure version of File Transfer Protocol (FTP), which facilitates data access and data transfer over a Secure Shell (SSH) data stream. This term is also known as SSH File Transfer Protocol.

**a. Prescription Drug Monitoring Program**

Prescription drug monitoring programs (PDMPs) have emerged as one of the most promising tools available to address prescription drug misuse, abuse, and diversion. PDMPs are state-run electronic databases providing physicians and other health care providers with critical health information about an individual’s history of using controlled substance prescriptions. This information is intended to prevent inappropriate prescribing, identify drug-seeking behaviors, and allow providers to intervene when there are signs of prescription drug misuse.

Florida’s PDMP database, Electronic-Florida Online Reporting of Controlled Substance Evaluation Program (E-FORSCE), was created in 2009 to encourage safer prescribing and to reduce drug abuse and diversion. Florida Statutes require providers to report to the E-FORSCE, each time a controlled substance is dispensed to an individual. While providers and pharmacists are encouraged to access the PDMP database before prescribing, pharmacists are required to use it before dispensing a controlled substance.

To help assess the utilization of E-FORSCE by health care providers, the survey asked outpatient respondents how often they searched for patient health information using E-FORSCE.<sup>39</sup> As shown in **Exhibit 3-16**, 43% of respondents said they do not use E-FORSCE.<sup>40</sup> Of those who use E-FORSCE, 21% said they use it ‘Often’. A similar share of respondents (19%) said they never search for PHI using E-FORSCE.



**Exhibit 3-16: Use of E-FORSCE among Outpatient Respondents**

Virtual Private Network (VPN) enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network.

<sup>39</sup> How often do you search for a patient's health information using the Florida Prescription Drug Monitoring Program, also known as E-FORSCE (Electronic-Florida Online Reporting of Controlled Substance Evaluation Program)?

<sup>40</sup> This response rate may be a reflection of survey respondents who do not currently prescribe controlled substances; thus, use of the PDMP would not apply.

When stakeholders were asked about their use of E-FORSCE, several stakeholders commented in interviews they did not use it as often as they would like and frequently cited the length of time it takes to query through E-FORSCE as the primary reason. The time it takes to query was noted as a significant barrier in acute care settings, such as emergency departments and hospitals where several new patients can be seen within a short time frame. Others said that E-FORSCE was one of a number of separate portals that providers and facilities must access already.

Stakeholders also expressed desire to find a way to integrate the PDMP data into providers' existing EHR and HIE systems, so the query process would naturally have incorporated into their existing workflow processes. Some stakeholders said PDMP data should be able to integrate directly into the clinical workflow and should communicate seamlessly with the health IT systems already used in clinical care. Stakeholders generally conveyed providers need to be able to more easily access and review PDMP data before prescribing or dispensing a prescription opioid, in order to more effectively address the opioid epidemic in Florida.

## 2. Eligibility and Public Assistance Program Enrollment

North Highland also assessed the availability to providers of real time access to eligibility and insurance information for individual enrollment in public programs or private insurance.

To determine the availability of real time access to information about individual enrollment in public programs or private insurance to providers, the survey asked both outpatient and inpatient respondents about how they check a patient's health insurance coverage status for Medicaid, Medicare, and commercial coverages.<sup>41</sup> Electronic data interchange (EDI) is considered an 'electronic' method for checking a patient's health insurance status. An example of a 'web portal' is the Florida Medicaid Secure Web Portal (FLMMIS).

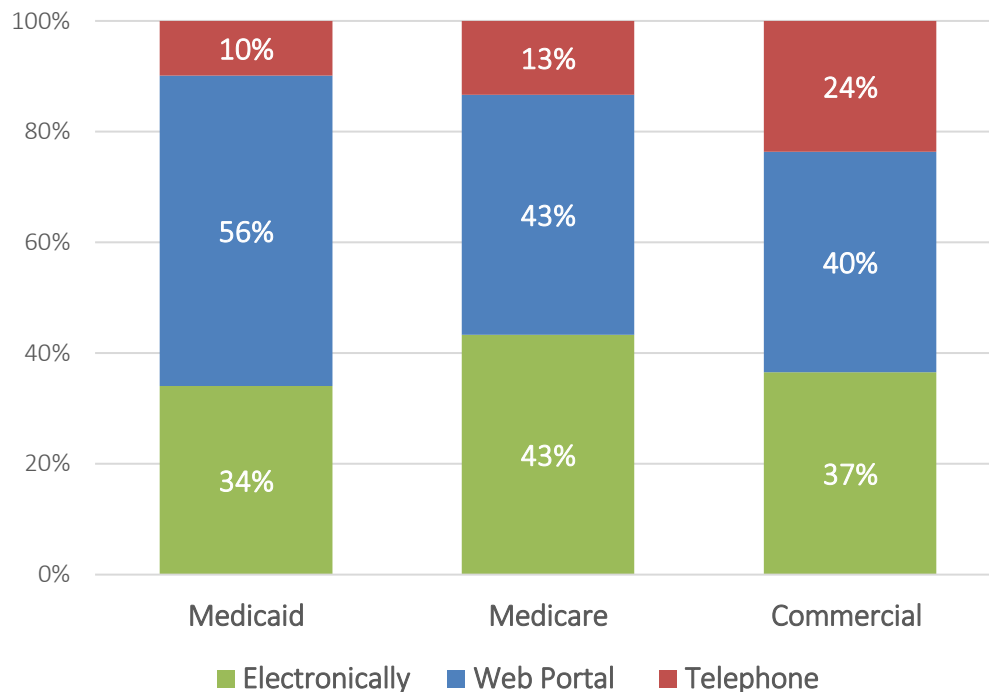
Across the board, web portals were found to be the most often used method to check a patient's insurance status among both inpatient and outpatient respondents.

As shown in **Exhibit 3-17**, the most utilized methods among different insurance coverage types were:

- Medicaid – Web Portal (56%)
- Medicare – Electronically (43%) and Web Portal (43%)
- Commercial – Web Portal (40%)

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<sup>41</sup> How do you check a patient's health insurance coverage status for the following types of health insurance coverage?



**Exhibit 3-17: Methods of Checking Patient Health Insurance Coverage Status**

Respondents affiliated with hospitals and long-term care facilities which accept Medicaid patients were also asked about the method they used to transmit “Medical Certification for Medicaid Long-Term Care Services and Patient Transfer Forms”, or “3008 forms”, to other facilities.<sup>42</sup> The 3008 form is used to help establish the appropriate level of care and determine the least restrictive, most appropriate placement for Medicaid patients.<sup>43</sup>

As shown in **Exhibit 3-18**, among those survey respondents in hospitals and long-term care facilities accepting Medicaid patients:

- Nearly half (47%) said they did not know how their 3008 forms were currently being transmitted.
- Of those who did, paper-based methods and eFax were the two most commonly used methods of transmission between facilities.
- None of the respondents said they used an EHR to transmit 3008 forms between facilities.

<sup>42</sup> If you are a Hospital or Long-term Care Facility that accepts Medicaid patients, how do you send Medical Certification for Medicaid Long-Term Care Services and Patient Transfer Forms, or “3008 forms”, to other facilities? Select all that apply.

<sup>43</sup> The 3008 form is used to determine medical eligibility in Medicaid waiver programs and is required by Florida Rule 59G-1.045. The form is dual purposed to be both a communication tool to ensure appropriate coordination of care upon a patient’s transfer to a skilled nursing facility and a tool for continued evaluation of placement in specialized Medicaid programs.

<https://www.flrules.org/gateway/ruleno.asp?id=59G-1.045>

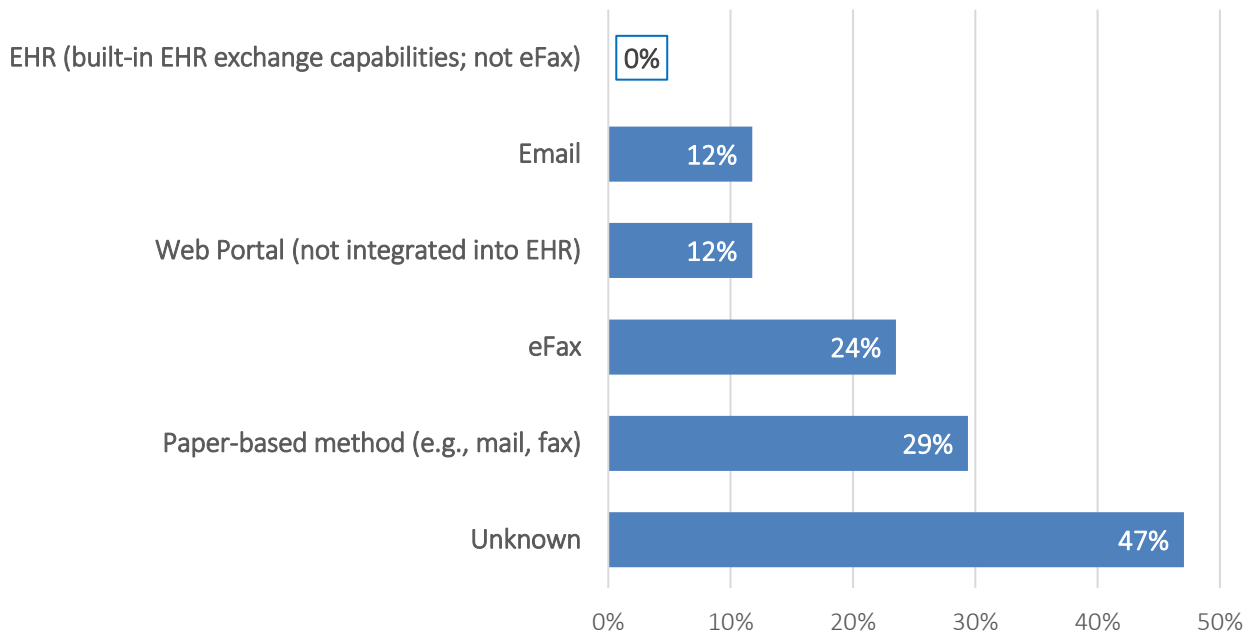


Exhibit 3-18: Methods of Exchange – 3008 Forms

### 3. HIE in Support of Florida Medicaid

AHCA is the chief health policy and planning entity for Florida, tasked with administration of the Florida Medicaid program, licensure and regulation of Florida’s health facilities, and for providing information to Floridians about the quality of care they receive. As the designated state entity for health Information technology development, AHCA works to support HIE.

#### a. State Policy Levers

Some states have taken a proactive role in promoting HIE by using their regulatory power and authority to directly and indirectly enable electronic HIE. In this role, states engage in HIE efforts vis a vis Medicaid and social services, given the state’s strength and influence as a payer and licensing body. States in this role typically use their existing Medicaid and Children’s Health Insurance Program (CHIP) authorities to incorporate HIE into payment policies or incorporate HIE acceleration strategies into Medicaid through the State Plan Amendment and Waiver processes. In Florida, AHCA has employed policy levers through the role of State Contracting Authority.

**State Contracting Authority:** HIE can be a useful tool for improving care and reducing cost in Medicaid and CHIP programs. Particularly under a managed care delivery system, where HIE can be used to support state oversight and reporting on the quality of care to Medicaid beneficiaries, states have begun to include HIE enablement provisions in their contracts with health plans.<sup>44</sup> Among managed care states, including Florida, there have been two primary areas where states have included provisions related to HIE: (1) State Quality Strategies and (2) Contracts with the managed care entities.

<sup>44</sup> Currently, 41 states and the District of Columbia deliver Medicaid and/or CHIP services through a managed care arrangement.

1. **State Quality Strategy:**<sup>45</sup> CMS requires all states contracting with a managed care organization (MCO) or prepaid inpatient health plan (PIHP) to have a written strategy for assessing and improving the quality of managed care services offered within the state, known as the State Quality Strategy. CMS regulations require that states who contract with MCOs conduct an External Quality Review (EQR) of each such entity based on this State Quality Strategy annually. States can indirectly promote HIE by including references to HIT and HIE in sections pertinent to their strategic improvement efforts planning.

Examples of such references include: use of HIT to assess access to care, the method of data collection for use in reporting performance measures, identification of enrollees with special needs or health care disparities, or use of a new health information/exchange technology as a performance improvement project or focused study.

2. **MCO Contracting:** A more aggressive option is requiring HIE usage as part of MCO Request for Proposals (RFP) and contracts. Such examples include: requiring encounter reporting via HIE with the MU Summary of Care data elements, requiring MCOs connect to each other for purposes of coordinating care for patients moving between plans and provider networks, or integrating HIEs with HEDIS reporting requirements.

#### b. State HIE Governance & Services

**State-Level HIE Governance:** The Florida Center for Health Information and Transparency (The Florida Center), which is housed within AHCA, is responsible for the administration of programs, such as the Florida HIE, that support the creation of a statewide health information network and the adoption of EHR systems. The Florida Center also works with other state agencies on HIT initiatives, such as the Department of Children and Families (DCF), Department of Corrections (DOC), Department of Elder Affairs (DOEA), Department of Health (DOH), and the Department of Juvenile Justice (DJJ), in addition to acting as the liaison for the Office of the National Coordinator for Health IT (ONC) to coordinate HIE activities throughout the state of Florida.

Within AHCA, there are multiple governing committees to guide the decisions surrounding HIT and specific Florida HIE initiatives:

- The **State Consumer Health Information and Policy Advisory Council (AC)** assists The Florida Center in advising on varied health information systems, including the identification, collection, standardization, sharing, and coordination of health-related data, fraud and abuse data, and professional and facility licensing data among federal, state, local, and private entities. It also recommends improvements for purposes of public health, policy analysis, and transparency of consumer health care information. Sub-committees of the AC with a specific focus on HIT include:

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<sup>45</sup> Federal regulations at 42 CFR Part 438, subpart D (Quality Assessment and Performance Improvement) lay the groundwork for the development and maintenance of a quality strategy to assess and improve the quality of managed care services offered within a state. This quality strategy is intended to serve as a blueprint or road map for states and their contracted health plans in assessing the quality of care that beneficiaries receive, as well as for setting forth measurable goals and targets for improvement.

- The **Health Information Exchange Coordinating Committee (HIECC)** provides guidance to The Florida Center as it develops and implements specific programs for the creation of a statewide HIE network, the adoption of electronic medical record systems, and ensuring the privacy and security of health information.
- The **Legal Work Group** provides guidance on topics related to the legal policies for HIE, including provisions of participation agreements and other subscription agreements.

**Florida HIE Services:** AHCA governs the Florida Health Information Exchange (Florida HIE), which offers hospital encounter alerts (ENS) and direct secure messaging (DMS) services to providers and payers across the state as well as facilitates query-based exchange.<sup>46</sup> The Florida HIE has been enabling the secure exchange of health information between health care providers since 2011. The Florida HIE provides services through agreements with third-party vendors. The Florida HIE currently offers the following services:

- **Encounter Notification Service (ENS):** Florida’s ENS provides subscribers with timely notifications about their members’ hospital encounters. Utilizing data feeds from hospitals (95% of Florida’s acute care beds), information about a patient’s hospital event (including demographic information, information on the source facility, and primary complaint) are securely sent via the subscribers preferred method and schedule. This service supports care coordination and reduction in unnecessary hospital readmissions for subscribers such as health plans, accountable care organizations, hospitals, and other providers. There are currently 5.1 million lives covered through ENS.
- **Direct Messaging Service (DMS):** The Florida HIE DMS provides health care organizations and providers with a way to securely send health information over the internet. This service allows for simple HIPAA-compliant, encrypted transmission of Protected Health Information. Orders, records, results, and any other documents can be easily and securely transmitted.
- **Query-based Exchange:** The Florida HIE facilitates patient-authorized exchange of clinical data between participants through regional health information organizations and health systems, and national exchange platforms like the eHealth Exchange and Carequality.

### c. Public Assistance Eligibility Determination via ACCESS

DCF provides eligibility determination for Medicaid through the Automated Community Connection to Economic Self-Sufficiency (ACCESS) Florida system. The ACCESS Florida system interchanges eligibility information with the Florida Medicaid Management Information System (FLMMIS). It allows customers to connect with available public assistance information and helps promote strong and economically self-sufficient communities by determining eligibility for food, cash, and medical assistance for individuals and families on the road to economic recovery. However, this information is not currently available in real-time to providers or others who interface with DCF’s wide-range of services.

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<sup>46</sup> <https://www.florida-hie.net/>

**d. Substance Abuse and Mental Health Information System**

DCF also administers the program offices for Substance Abuse and Mental Health (SAMH), adult protective services, childcare, domestic violence prevention, homelessness coordination, refugee services, and marriage education services. The SAMH Program maintains the Substance Abuse and Mental Health Information System (SAMHIS), which collects and reports data pertaining to who receives what services from whom to achieve what outcomes at what cost. The SAMHIS system does not serve as a HIE system nor does it currently exchange health information using any other HIE infrastructure.

**e. Medical Needs Assessments for Medicaid Long-Term Care Program**

DOEA provides medical needs assessments which are a component of Medicaid eligibility determination for the Medicaid long-term care program. DOEA also administers several programs through contracted Area Agencies on Aging (AAAs) to provide home and community-based services to more than one million elderly Floridians.

In its role, DOEA collects client demographic and assessment data; tracks service provision in federally and state-funded programs serving the elderly; manages program enrollment, program waitlists, and managed care encounter data; and, tracks the level of care determination process for clients applying for Medicaid funding. DOEA shares this information and data with the contracted AAAs, case management agencies, and hundreds of service providers. This information is also shared with state agencies, such as AHCA and DCF; however, sharing of this information between agencies is not currently done in an integrated manner.

AHCA, as the single state Medicaid agency, is responsible for the Preadmission Screening and Resident Review (PASRR), which is a federally mandated program (42 CFR 483.100) requiring that all individuals are screened prior to admission to a Medicaid certified nursing facility regardless of payer source. AHCA delegates the PASSR process to multiple other state agencies. The Comprehensive Assessment and Review for Long-Term Care Services (CARES) program in the DOEA is the delegate for performing Level I PASSR screenings on all adults.

CARES is Florida's federally mandated pre-admission screening program for nursing home applicants. A registered nurse and/or assessor performs client assessments. A physician or registered nurse reviews each application to determine the level of care that is most appropriate for the applicant. The assessment identifies long-term care need and establishes the appropriate level of care (medical eligibility for nursing facility care), and recommends the least restrictive, most appropriate placement.

AHCA Form 5000-3008 Medical Certification for Medicaid Long-term Care Services and Patient Transfer Form is used by CARES to determine medical eligibility. This form must be signed by a licensed physician, physician assistant, or licensed advanced registered nurse practitioner and submitted to the individual requesting the form or to the local CARES office. Stakeholders have expressed concerns about the form to AHCA and have requested a way to assure this information is gathered in a more comprehensive and automated fashion for both determining eligibility and providing patient information for transfer.

#### **f. Medicaid Waiver Programs for Persons with Disabilities**

APD is the state agency specifically tasked with serving the needs of Floridians with developmental disabilities. APD supports Medicaid waiver programs that assist such persons in long-term care settings, including the Consumer Directed Care Plus (CDC+) and the Medicaid Home and Community Based Services Waiver (HCBS). Recently, APD created and deployed iBudget Florida as a way for APD to better manage the waiver system while giving recipients more flexibility and control over their services. Each year, individuals get an allocation of funds, or iBudget, and they choose how to spend it on waiver services. iBudget Florida currently operates as a standalone web-based portal.<sup>47</sup>

#### **4. Observations from Stakeholders**

##### **Common Themes from Stakeholders**

1. Integration of State Services and Databases with EHR and HIE Systems
2. Increased Integration and Communication Amongst HHS Agencies

#### **a. Integration and Communication of State Services and Data**

There is a strong desire across the continuum of stakeholders for improved integration and communication amongst health and human services agencies. There is also a strong desire to have better integration of HHS agencies' services and data into stakeholders' EHR and HIE platforms. These desires aim at driving creation of administrative efficiencies, better understanding patient populations, streamlined reporting processes, and overall better outcomes for patients.

Currently, meaningful real-time access to eligibility information for individual enrollment in public programs is not available to providers or state agencies in Florida. Interviews with stakeholders revealed that several of the government agencies involved in eligibility and public programs currently operate in technological and organizational siloes that prevent real-time or timely access to eligibility information by providers and others in the health care continuum.

#### **b. Intra- and Inter-Agency Health Information Exchange**

Stakeholders expressed that information is currently siloed both across and within agencies. A comprehensive review and revision of existing policies, procedures, organizational structures, and reporting needs within and across each of Florida's health and human services agencies would assist in streamlining processes to create a more effective system of agencies working together to efficiently serve the citizens of Florida. Stakeholders who have adopted HIE technologies have a strong desire for even further integration with state systems, such as E-FORSCE, and other public health registries like Florida SHOTS and the Florida Cancer Data System (FCDS).

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<sup>47</sup> <http://apd.myflorida.com/ibudget/>

As stakeholder interviews were conducted with Florida state agencies, it emerged that most state technology systems pertaining to public health and eligibility information collection lag behind in their ability to support modern day technology integration between platforms, systems, and agencies. Successfully upgrading aging, legacy technology is reliant on funding allocations by the Florida Legislature, prioritization by agency leadership in coordination with competing agency priorities, and the hiring and retention of adequate IT and program area staff to implement and maintain such a large undertaking as HIE integration. According to the ONC, “the barriers to integration (in state government) include a lack of trained public health informatics resources, the complexity of local, state and federal laws, a dearth of leadership and champions to advance integration, and competing priorities.”<sup>48</sup>

## **B. FEDERAL REGULATORY ENVIRONMENT**

The future of U.S. healthcare will involve extensive coordination across the full continuum of care. The ability to access patient information is the cornerstone of that coordination and the secure, efficient, and effective sharing and use of electronic health information will be a key component of health care delivery system reform. To help inform the current regulatory environment in Florida, a market scan and literature review was conducted to identify key trends in the HIE landscape.

Recent legislative and regulatory changes at the federal level have caused significant shifts in the HIE landscape nationwide. The national shift toward value-based payment models is changing the healthcare landscape and increasing the need for meaningful HIE across the continuum of care.

Recent federal legislation, such as the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), 21st Century Cures Act, and Medicare Shared Savings Program (MSSP), have and will continue to drive the creation of new and expanded data standards, exchange requirements, and specifications across a growing number of data sources and organizations types. In addition, legislative and regulatory changes to the Medicare program, such as the IMPACT Act, as well as the implementation of MITA 3.0 in states’ Medicaid Management Information Systems (MMIS) will also have an impact on the standards and requirements for HIE and interoperability.

Initial federal efforts to promote HIE began in 1996 with the introduction of HIPAA regulations, which sought to advance the mobility of patient data by making electronic exchange private and secure. The 2009 HITECH Act and the Affordable Care Act (ACA) enlarged the scope of data sharing. CMS funding under the EHR Incentive Programs expanded upon these efforts with directives and incentives to digitize paper health records and adopt meaningful electronic data sharing.

The HITECH Act established Meaningful Use rules that include electronic prescribing (e-prescribing) as a requirement in the core set of required measures for eligible professionals to

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<sup>48</sup> [https://www.healthit.gov/sites/default/files/FINAL\\_ONC\\_PH\\_HIE\\_090122017.pdf](https://www.healthit.gov/sites/default/files/FINAL_ONC_PH_HIE_090122017.pdf)

qualify for incentive payments. E-prescribing uses health information technology to enable the electronic transmission of prescriptions, including controlled substances<sup>49</sup>, and access to medication histories by prescribing physicians at the point of care. E-prescribing systems are a form of health information exchange that integrate prescribed medication data from multiple stakeholders including pharmacy benefit managers (PBM), payers, and pharmacies. Through these systems, medication histories are available for prescriptions that were brought to the pharmacy on paper or transmitted electronically. E-prescribing systems enable practitioners with authorized access and consent to view medication history information at the point of care for coordination of patient drug therapy and improved quality. E-prescribing systems also provide practitioners with a secure means of electronically accessing health plan formulary information and patient eligibility at the point of care.<sup>50</sup>

Meaningful Use rules have increased e-prescribing nationwide; however, e-prescribing of controlled substances still lags behind. Florida's e-prescribing rate, which is the amount of e-prescribing relative to all prescriptions that could have been e-prescribed, has increased from 1.6% in 2007 to 75.2% in 2017 while electronic prescribing of controlled substances (EPCS) in Florida has increased from 0.2% of e-prescription transactions in 2014 to 4.6% of transactions in 2016.<sup>51</sup>

As a result of the EHR Incentive Program funding, EHRs and e-prescribing have been widely adopted by providers across the country. However, as previously noted, there is still not widespread electronic exchange of health information, or HIE, which is critical in achieving cost reductions associated with re-admissions, duplicate testing, and the overall better clinical outcomes that result when decisions are informed with complete information.

Recognizing this, Congress passed the 21st Century Care Act in 2016 to help address some of the issues underpinning the existing market dynamics, such as the lack of clear, universal technology, and data standards. The CURES Act required ONC to develop a Trusted Exchange Framework and Common Agreement (TEFCA) to support network-to-network exchange of health information by establishing uniform standards, policies, and technical requirements for interoperability to support exchange across networks. ONC released its draft TEFCA for public comment on January 5, 2018.<sup>52</sup>

The TEFCA is composed of two parts:

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<sup>49</sup> Until 2010, the U.S. Drug Enforcement Administration (DEA) regulations required that controlled substances be written on a paper prescription pad. In 2010, the DEA issued an interim final rule permitting e-prescribing of controlled substances (EPCS). The rules specify system requirements related to identity proofing; access control; and auditing for prescribing practitioners and other registrants, e-prescribing vendors, pharmacies and pharmacists, and others. In 2011, the DEA issued clarification on the interim final rule emphasizing that third-party audits of EPCS software application must encompass all regulation requirements including security and process integrity. The DEA also announced the first DEA approved certification process for EPCS and the posting of DEA approved certifying organizations on the DEA's website. Federal Register Volume 76, Number 202 (Wednesday, October 19, 2011), Rules and Regulations, "Electronic Prescriptions for Controlled Substances Clarification", Pages 64813-64816. Florida currently allows the electronic prescribing (EPCS) of Schedule II drugs.

<sup>50</sup> Florida Agency for Health Care Administration (AHCA), "Florida Electronic Prescribing Annual Report for 2016", January 2017.

<sup>51</sup> Florida Agency for Health Care Administration (AHCA), "2017 Florida Electronic Prescribing Quarterly Summary", January 2018.

<sup>52</sup> <https://beta.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement>

1. Part A - Principles for Trusted Exchange: General principles which provide guardrails to engender trust between Qualified Health Information Networks (QHINs).
  - Principle 1 - Standardization: Adhere to industry and federally recognized standards, policies, best practices, and procedures.
  - Principle 2 - Transparency: Conduct all exchange openly and transparently.
  - Principle 3 - Cooperation and Non-Discrimination: Collaborate with stakeholders across the continuum of care to exchange electronic health information, even when a stakeholder may be a business competitor.
  - Principle 4 - Security and Patient Safety: Exchange electronic health information securely and in a manner that promotes patient safety and ensures data integrity.
  - Principle 5 - Access: Ensure that patients and their caregivers have easy access to their electronic health information.
  - Principle 6 - Data-driven Accountability: Exchange multiple records at one time to enable identification and trending of data to lower the cost of care and improve the health of the population.
  
2. Part B - Minimum Required Terms and Conditions for Trusted Exchange: A minimum set of terms and conditions for the purpose of ensuring that common practices are in place and required of all participants who participate in the Trusted Exchange Framework, including:
  - Common authentication processes of trusted health information network participants;
  - A common set of rules for trusted exchange; and
  - A minimum core set of organizational and operational policies to enable the exchange of electronic health information among networks.

Federal funding and incentives are also shifting. In recent years, CMS has shifted focus from provider adoption and meaningful use of EHRs to the adoption and meaningful use of HIE. With the scheduled expiration of the EHR Incentive Program in 2021, CMS has indicated that funding for HIE initiatives may be more appropriate through MITA and E&E federal financial participation funding streams, which offer 90/10 match for design and development costs and reimbursement for on-going maintenance and operations at a 75% match rate, unlike HITECH incentive funding. States can leverage these existing CMS funding sources to build out master person indexes, provider directories, identity proofing and management, and the like within their Medicaid/ CHIP systems enterprise, or to allow patients to download their claims and/or clinical data housed in the states' MMIS, among others.

In response to a shifting regulatory landscape, state exchanges have begun shifting their approach more toward opportunities and solutions that increase value for providers and encourage patient-centered care through improved access to relevant and meaningful information at the point-of-care.

As identified during interviews with federal entities such as ONC and CMS, states can have different roles and responsibilities in the HIE landscape. These roles can include: **(1) Guide and**

**Educate** where states provide information and support to providers and payers on HIT and exchange; **(2) Lead and Convene** where states provide leadership, vision, and coordination, particularly in convening stakeholders and ongoing needs assessments; **(3) Motivate and Regulate** where states can promote HIE by using their regulatory power and authority to directly and indirectly enable HIE activities; and/or **(4) Service Provider** where states provide or enable state-level services such as a provider directory, all-payer claims database, or hospital encounter notification system.

## SECTION 5 SUMMARY OF GAPS, BARRIERS, AND CONTINUANCES

The summary information in this section details key findings from the As Is Assessment related to EHR adoption, HIE adoption and utilization, HIE infrastructure and services, and public health. Findings from these areas of interest have been further organized in to the Strategic Objectives identified and defined during the strategic visioning sessions held with stakeholders. These strategic objectives are defined below as an ideal To Be State:

- **Improve Culture:** Stakeholders embrace technology capabilities, agility, and full span of benefits to actively and openly exchange health information with internal and external stakeholders in order to provide better health care for all Floridians.
- **Employ Interoperability:** Stakeholders leverage the capabilities of various technology systems and software to communicate, exchange data, and use the information that has been exchanged in order to provide better health care for all Floridians.
- **Increased Access:** Stakeholders have access to the right information, by the right people, at the right time so that they are able to provide better health care to all Floridians.
- **Decrease Cost & Complexity:** A critical mass of willing stakeholders seamlessly participate in the exchange of electronic information and realize sustainable long-term value for unique operating models that results in better health care for all Floridians.

Leveraging findings from the As Is Assessment detailed in **Sections 1, 2, 3, and 4** of this document, a roadmap will be developed outlining those initiatives and activities to be completed which will lead the Agency into an ideal To Be Future State. The Roadmap will consist of defined strategic initiatives that can be traced back to the strategic objectives above. These initiatives will lay the strategic foundation for removing barriers and gaps.

### A. SUMMARY DETAILS

#### 1. CATEGORIES: Gaps, Barriers, and Continuances

The categories of Gaps, Barriers, and Continuances are defined below.

- **Gap:** The identified difference between the current state of HIE in Florida and the defined ideal state of HIE in Florida.
- **Barrier:** An existing circumstance or obstacle that needs to be overcome or removed in order to reach the defined ideal state of HIE in Florida.

- **Continuance:** An activity or initiative that is currently taking place to support HIE in Florida, and will continue to take place in the defined ideal state of HIE in Florida.

## 2. THEMES: People, Process, and Technology

The policies and procedures related to HIE in Florida affect or influence one of three key capabilities: People, Process, or Technology. These capabilities were taken in to consideration to assist in further defining the identified categories of gaps, barriers and continuances. The themes of People, Process, and Technology are defined below:

- **People:** An organization's most critical asset is its human capital. Barrier, Gap, and Continuance Analysis implications in the People theme address staff training and HIE awareness, professional skills and qualifications, and resource competence, and motivation.
- **Process:** Effective and well-documented standard operating procedures are often the differentiating factor between good and great organizations and strategic initiatives. Barrier, Gap, and Continuance Analysis implications in the Process theme address systems, governance frameworks, and organizational best practices.
- **Technology:** Technology and information systems are useless by themselves. If implemented in an otherwise effective organization, however, technology can facilitate huge efficiency gains, and dramatic increases in labor productivity. Barrier, Gap, and Continuance Analysis implications in the Technology theme address infrastructure, as well as data capture, governance, quality, and analysis.

## B. SUMMARY OF GAPS, BARRIERS, AND CONTINUANCES

The following pages present each of the strategic objectives for HIE in the state of Florida and the associated Gaps, Barriers, and Continuances assessed during this HIE study, broken down by theme.

Strategic Objective: IMPROVE CULTURE		
Category	Summary	Theme
Gap	<p>A validated <b>value proposition</b> unique to stakeholder grouping is strongly desired amongst stakeholders. Each stakeholder's value proposition is different – it is what best fits their organization and supports their vision, mission, goals, and business model. They communicated desire for a value propositions in three primary forms: (1) a positive business case for using HIE technologies and services; (2) correlating use cases to provide the benefits are possible and are beneficial to patients and the delivering entity; (3) and a positive return on investment (ROI).</p> <p>To enable each organization to embrace a defined value proposition, there must be the creation of a tailored value proposition that aligns to an organization's vision, mission, goals, and business model; communication of this value proposition to the appropriate stakeholder in an organization, and throughout the community helping everyone involved understand what the return on investment is; and ensuring stakeholders understand and embrace their value proposition.</p>	People
		Process
Gap	<p>Organization has <b>competing business and technology priorities</b>. Without devoted leadership championing HIE initiatives, it could prevent an entire organization from participating in HIE activities.</p>	Process
Barrier	<p>The "<b>Adoption Paradox</b>" is a situation where a provider does not want to invest in a HIE platform until there is significant data to access and utilize to their benefit. However, if each entity embraces this mindset/culture, there will be no one that proactively participates in HIE, and as a result, there will be no data to access in the first place. Given that stakeholders perceive access to this data as a vital component of their value proposition, this paradox is a prominent inhibitor for HIE adoption.</p>	People
		Process
Gap	<p>Healthcare communities pictured an ideal vision of fully integrated HIE systems that were user-friendly, enabled a seamless transmission of data and better communications, and increased patient outcomes. While some organizations have reached the height of their HIE involvement to-date, that number is not the majority of organizations. The majority have not experienced true HIE activity. These <b>misaligned expectations</b> have resulted in late adopters not embracing HIE technologies, and frustrated early adopters experiencing problems with HIE.</p>	People

Strategic Objective: IMPROVE CULTURE		
Category	Summary	Theme
Barrier	There is a perception amongst stakeholders that some Adopters of HIE technologies have only embraced the technology to meet the Meaningful Use requirements which are required to access more federal funding - a <b>"doing the minimum necessary"</b> attitude.	Process
		Technology
Continuance	It is good for the healthcare community to <b>continue having discussions</b> and keep HIE as part of all health care improvement and efficiency conversations to increase interest and commitment.	People
Gap	There are differing perspectives across the stakeholder community as to <b>who owns the data</b> that is electronically exchanged. This ambiguous culture has led some stakeholders to view this data as a point of competitive advantage, and want direct ownership of data.	People
		Process
Barrier	There is a <b>culture of fear and reluctance</b> to fully make one's system interoperable. Reasons for fear can include: (1) Entities feel by not sharing their data it gives an organization a competitive advantage; (2) There is also concern "behind-the-scenes" audits are happening by payers and government agencies; and, (3) Entities have concerns about retroactive legally liability related to HIE.	People
		Process
Gap	There is a lack of <b>common definition of HIE</b> to which all stakeholders can reference.	Process
Continuance	There is a strong desire for additional <b>education, awareness, and engagement</b> ("bringing people along") with regard to the full HIE landscape and its associated activities.	People
		Process
		Technology
Barrier	While stakeholders acknowledge that HIE is beneficial in improving patient outcomes and long-term efficiencies, some stakeholders expressed concerns about financial bottom lines when considering adopting or expanding HIE activities.	People
		Process

Exhibit 4-1: Summary of Improve Culture Gaps, Barriers, and Continuances

Strategic Objective: EMPLOY INTEROPERABILITY		
Category	Summary	Theme
Barrier	Smaller entities often do not have adequate in-house IT resources to create HIT strategies for large undertakings, such as HIE. The <b>initial cost</b> of hardware, software, and infrastructure upgrades and connections is daunting and often times completely prohibitive. Even if smaller entities adopt a HIE technology, they are often faced with the <b>costs of training</b> and motivating staff to use the new technology, and the long-term costs of maintaining and supporting HIE platforms.	People
Barrier	Larger entities' cost concerns focus around <b>long-term costs</b> of maintenance, support, and upgrades to their platforms to continually adjust to the changing healthcare landscape. Some of these entities also have concern around absorbing costs for the community, as their community continues to develop HIE capabilities and technical connections are established.	Process
		Technology
Gap	Some organizations have an absence of adequate, in-house <b>technical resources</b> to support, maintain, and advise on HIE-related activities.	People
		Process
Gap	The <b>level of effort</b> associated with building out the necessary technical infrastructure for HIE, and the associated <b>opportunity-cost</b> of deprioritizing inflight and planned initiatives, often proved to outweigh the potential benefits of HIE.	Process
Continuance	There is a strong desire for additional <b>education, awareness, and engagement</b> regarding available technologies, and which technologies are good fits for various organizations.	People
		Process
		Technology
Continuance	The Florida HIE <b>Encounter Notification System (ENS)</b> is commonly adopted amongst stakeholders, who appreciate its ability to deliver relevant and helpful information to inform decision-making.	Technology
Gap	Although many EHR systems have Direct Messaging capabilities, there is a <b>lack of accessibility and transparency of Direct messaging addresses</b> .	Technology
		People
Gap	There is an <b>absence of understanding</b> of HIE capabilities, technical needs, best practices, and standards surrounding interoperability and integration.	People
Gap	Stakeholders want <b>integration of other public health databases with HIE systems</b> , such as EFORCE (PDMP), SHOTS, and Florida's Cancer Registry.	Process
		Technology
Barrier	The use of <b>paper-based and eFax methods of data transmission</b> is inhibiting full adoption and utilization of HIE technology.	Process

Strategic Objective: EMPLOY INTEROPERABILITY		
Category	Summary	Theme
Continuance	AHCA's connection to a <b>national HIE</b> serves additional stakeholders and works to further connect the communities of Florida.	Technology

Exhibit 4-2: Summary of Employ Interoperability Gaps, Barriers, and Continuances

Strategic Objective: INCREASE ACCESS		
Category	Summary	Theme
Barrier	The <b>costs</b> of initial setup, hardware, software, maintenance, support, and training for HIE can be a substantial barrier to entry for many organizations.	Process
Gap	Some organizations need <b>human resources specifically devoted to locating additional funding opportunities</b> for their organization. While this is viewed as beneficial to the organization, it is often laborious, time-consuming, and appropriate organizational processes and policies have to be in place to identify, respond to, and acquire this funding.	People
		Process
Gap	Some organizations have an absence of adequate, in-house <b>technical resources</b> to support, maintain, and advise on HIE-related activities.	People
		Process
Gap	<b>Information Management strategies</b> are critical for a successful electronic exchange of data. Information Management can include: Master Data Management, Data Acquisition & Cleansings, Data Tracking, Data Integrity, and Data Quality.	Process
Continuance	There is a strong desire for additional <b>education, awareness, and engagement</b> with regard to how stakeholders can get better and increased access to PHI sources.	People
		Process
		Technology
Gap	Some stakeholders desire more <b>real-time access</b> to data for improved decision-making and patient outcomes.	Process
		Technology
Barrier	<b>Technology used by State Agencies</b> , while often robust, may be outdated, limiting agility and adaptability in the constantly changing healthcare landscape.	Technology
Continuance	Facilitation of connectivity to <b>national HIE platforms</b> serves stakeholders and works to further connect the communities of Florida.	Technology

Exhibit 4-3: Summary of Increase Access Gaps, Barriers, and Continuances

Strategic Objective: DECREASE COST & COMPLEXITY		
Category	Summary	Theme
Gap	Some organizations have an absence of adequate, in-house <b>technical resources</b> to support, maintain, and advise on HIE-related activities.	People
		Process
Gap	There is an absence of an overarching <b>governing entity</b> to guide and give direction to HIE initiatives across the state of Florida.	People
		Process
Gap	Established set of combined state, federal, and industry recognized <b>standards, policies, best practices, and procedures</b> to guide HIE activities in Florida across the continuum of stakeholders.	Process
Gap	Stakeholders want <b>integration of public health databases with HIE systems</b> , such as E-FORSCE (PDMP), SHOTS, and Florida's Cancer Registry.	Process
		Technology
Barrier	The <b>costs</b> of initial setup, hardware, software, maintenance, support, and training for HIE can be a substantial barrier to entry for many organizations.	Technology
Gap	<b>Consistent messaging is necessary</b> to avoid stakeholder confusion around HIE strategy for Florida, including vision for the future, the State's role in that vision, and details about funding opportunities available to stakeholders.	People
		Process
Barrier	HIE technologies are perceived to not be able to <b>integrate seamlessly into an organization's current technology</b> , especially existing EHR technology enabling <b>seamless workflow integration</b> .	Technology
Barrier	There is a desire for <b>increased intra-Agency and inter-Agency coordination</b> for the streamlining of data, creating workflow efficiencies internal and external to the Agency, and better understanding of the full continuum of care.	People
		Technology
Gap	<b>Behavioral Health Centers and Long-Term Care Facilities</b> were not included in the original EHR Incentive program funding designation. As a result, this sub-sect of the healthcare community has recently "caught up" by adopting EHR systems and now strongly desire to become integrated and share information amongst their community providers through HIE. They are looking for <b>funding support and inclusion</b> .	Process
Gap	Create a <b>common definition of HIE</b> to which all stakeholders can reference.	Process

Exhibit 4-4: Summary of Decrease Cost & Complexity Gaps, Barriers, and Continuances

## SECTION 6 CONCLUSION

This As Is Assessment provides an analysis of the current state of health information exchange across Florida through engagement of representative stakeholders from across six identified stakeholder groupings: *State and Federal Agencies, Associations, Health Care Facilities, Vendors, Payers, and Providers*, with *Patients* centered as the primary stakeholders.

Key findings related to EHR adoption, HIE adoption and utilization, HIE infrastructure and services, and public health have been extrapolated from qualitative stakeholder interviews, quantitative electronic survey results, and an environmental scan. Findings from these areas of interest have been further organized into strategic objectives identified and defined during the strategic visioning sessions held with stakeholders.

The As Is Assessment findings will be leveraged in developing a roadmap which outlines the initiatives and activities needed to lead HIE in Florida towards an ideal To Be Future State. The roadmap will consist of defined strategic initiatives which can be traced back to the strategic objectives. These initiatives will lay the foundation to close gaps, remove barriers, and realize benefits of health information exchange in Florida.

## SECTION 7 APPENDIX

### A. SURVEY QUESTIONS AND RESULTS



Outpatient  
Respondent Survey Results.pdf



Inpatient  
Respondent Survey Results.pdf



Payer Respondent  
Survey Results.pdf