

# Environmental Scan

## 2017 Illinois Health IT Survey Report

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The 2017 Illinois Health IT Survey Report was prepared by the Illinois Health Information Technology Regional Extension Center at Northern Illinois University's Center for Governmental Studies under agreement with the Illinois Department of Health and Family Services. Questions and inquiries regarding the contents of this report may be directed to [Info@ILHITREC.org](mailto:Info@ILHITREC.org).

The findings and conclusions presented in this report are those of the authors/project team alone and do not necessarily reflect the views, opinions, or policies of the officers and/or trustees of Northern Illinois University.

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## Executive Summary

The Illinois Department of Healthcare and Family Services (HFS), in coordination with the Illinois Health Information Technology Regional Extension Center (ILHITREC) and the Chicago Health Information Technology Regional Extension Center (CHITREC), developed and conducted an environmental scan of health care organizations to determine the current state of Electronic Health Record (EHR) use by medical providers in the State of Illinois. The purpose of the 2017 Illinois Health IT Survey was to determine the extent of health information technology use by providers and hospitals in Illinois. Survey topics include EHR adoption, utilization, and functionality, as well as Health Information Exchange (HIE) participation. Based upon the survey results, HFS, ILHITREC, and CHITREC will actively work to promote the adoption of EHR and Health Information Exchange (HIE) systems in Illinois through the EHR Medicaid Incentive Payment Program (eMIPP). This document will focus on the consolidated survey results and the responses from Illinois hospitals, clinics, and practices.

Highlights from the survey include:

- Over 74% of respondents are enrolled in the Medicare or Medicaid EHR incentive programs. For those not enrolled, the primary reasons for not participating are lack of eligibility and EHR cost.
- 89% of respondents currently use an EHR. Only 11% of respondents do not currently use an EHR. For those organizations who are not using an EHR, the key issues include concerns about capital needed to acquire and implement a system, and the ongoing operational costs associated with licensing fees and other technical maintenance/support.
- Over two thirds of organizations not currently using an EHR are in urban counties, 69%, compared to 31% in rural counties.
- Utilization of EHRs in rural counties has increased significantly from 9% reporting EHR use in 2012 to 85% in 2017.
- Over 28% of respondents anticipate reporting eCQMs via QRDA file in 2017 and nearly 30% in 2018. Around half of respondents are not sure for 2017 or 2018.
- Nearly 90% of hospitals have a process to generate data related to inpatient and/or emergency room admissions, discharges, and transfers (ADT). Of those, 90% indicate the ADT notifications are automated through the hospital's EHR. Systems used by these hospitals include:

Allscripts	GE/Centricity	Meditech
Athenahealth	Greenway	NextGen
Cerner	LSS Data Systems	Practice Fusion
CPSI	McKesson	
EPIC	Medhost	
- Over 51% of respondents have a process in place to receive ADT notifications.

- One-third of respondents currently report participation in a Regional Health Information Exchange, with 82% connected to the Communities of Illinois Health Information Exchange. 38% of organizations not currently connected to an HIE have plans to connect to one in the future. Most of the organizations not planning to connect to an HIE indicated a lack of knowledge on HIEs in general, along with lack of awareness on options and benefits.
- Nearly 80% of respondents are participating in meaningful use and 44% in PQRS. 40% of respondents are participating in MIPS, however only 18.9% of those are in the eMIPP program.

## Methodology

The survey questions for the 2017 Illinois Health IT Survey were initially derived from the 2012 environment scan and were updated and expanded as needed in both 2016 and 2017 to reflect the current state of health IT. ILHITREC developed informational and promotional materials, identified availability of media tools such as websites, newsletters, and listserv/email distributions lists, and coordinated with state and provider associations and other interested stakeholders to help promote the survey. The survey was distributed predominately through electronic messaging with a link to the Survey Monkey® tool.

The target audience for the 2017 Illinois Health IT Survey was practice, IT, and incentive program coordinators rather than physicians themselves unless they were the designated meaningful use contact for their practice. With the increasing use and value of IT in the health care environment, more hospitals and practices tend to have a designated EHR, health IT, or incentive program coordinator who responds to like surveys on behalf of the organization instead of individual physicians.

Outreach regarding the survey was conducted through existing provider communication channels, eMIPP system contacts, and ILHITREC practice databases. In addition, HFS sent messages to listserv subscribers requesting completion of the survey. Below is a summary of the primary communication channels used to encourage participation in the 2017 survey.

Organization	Email to Listservs	Newsletters	Website
HFS	X		
ILHITREC	X	X	X
CHITREC	X	X	X
Communities of Illinois Health Information Exchange	X		
Illinois Academy of Family Physicians	X	X	X
Illinois Academy of Pediatrics	X*		
Illinois Critical Assess Hospital Network	X	X	X
Illinois Department of Public Health	X	X	
Illinois Health & Hospital Association	X	X	
Illinois Medical Group Management Association	X		
Illinois Primary Health Care Association	X*		
Illinois Public Health Association	X*		
Illinois Rural Health Association	X	X	
Illinois State Medical Society		X	
* Confirmation of distribution was not received.			

This analysis utilized the Rural-Urban Continuum Coding structure defined by the United States Department of Agriculture (USDA) <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/.aspx> . The 2013 Rural-Urban Continuum Codes form a classification scheme that distinguishes metropolitan counties by the population size of their metro area, and nonmetropolitan counties by degree of urbanization and adjacency to a metro area. The Rural-Urban Continuum Codes were originally developed in 1974. They have been updated each decennial since (1983, 1993, 2003, 2013), and slightly revised in 1988.

The table below, describes the classification scheme to define rural and urban counties. Overall, 77.2% of respondents were from urban counties compared to 22.8% from rural counties. See Exhibit 1 for a map of respondents by Illinois County.

**Rural-Urban Continuum Codes**

	Description	Designation
<b>Urban/Metro counties:</b>		
	Counties in metro areas of 1 million population or more	Urban/Metro
	Counties in metro areas of 250,000 to 1 million population	Urban/Metro
	Counties in metro areas of fewer than 250,000 population	Urban/Metro
<b>Rural/Non-Metro counties:</b>		
	Urban population of 20,000 or more	Rural/Nonmetro
	Urban population of 2,500 to 19,999	Rural/Nonmetro
	Completely rural or less than 2,500 urban population	Rural/Nonmetro

There are challenges with analysis based on the above classifications which may distort results along urban and rural categories. Increased consolidation of hospitals, clinics, and practices, along with greater centralization of EHR IT and incentive program support results in respondents reporting based on many locations which can be in both urban and rural counties. Additionally, this means that county responses are underrepresented because a single respondent may represent locations in multiple counties, both urban and rural, yet would only have reported their base location on the survey. Still it is meaningful to evaluate on this classification for changes over time.

## 2017 Illinois Health IT Report

The 2017 Health IT Report is based upon survey responses received by Illinois practices and hospitals between May and July 2017. A total of 300 respondents completed the survey. Not all respondents provided an answer for each question. Therefore, the following analysis is based upon responses received for each individual question and may not equal the total number of 300 respondents.

The state of Illinois is served by two regional extension centers, CHITREC serving the City of Chicago and ILHITREC serving the state of Illinois outside Chicago. Overall, 81% of respondents were from the ILHITREC region, while 19% of respondents were from Chicago. While Chicago includes approximately 40% of all Illinois providers, it also includes larger health care systems and practices and would thus, have fewer practices and overall responses. The ILHITREC region includes approximately 60% of all Illinois providers but with smaller health systems and practices spread over the entire state. Therefore, a larger representation from the ILHITREC territory is expected.

### Respondent Organizations and Providers

#### *Which of the following best describes your type of organization?*

Primary care and specialty practices accounted for 44% of respondents, acute care and critical access hospitals accounted for 8%, and FQHCs represented 13% of survey respondents. 22% of respondents indicated *Other* which primarily included health systems and multi-specialty practices (12), behavioral and mental health (7), and public health organizations (7).

Answer Options	Percent	Responses
Primary care practice	28.10%	43
Specialty practice	15.69%	24
Acute care hospital	2.61%	4
Critical access hospital	5.23%	8
FQHC	13.07%	20
Rural health clinic	7.84%	12
Dental practice	3.92%	6
Optometric practice	0.00%	0
Long term care facility	1.96%	3
Other (please specify)	21.57%	33
<b>TOTAL</b>		<b>153</b>



***Which of the following best describes your provider type?***

Nearly 60% of providers from responding practices are primary care providers. Nurse practitioners, specialists, and behavioral health providers represented 21%, 19%, and 19% respectively. Respondents selected all the provider types included in their organization, therefore the total percent represented in these responses is greater than 100%.

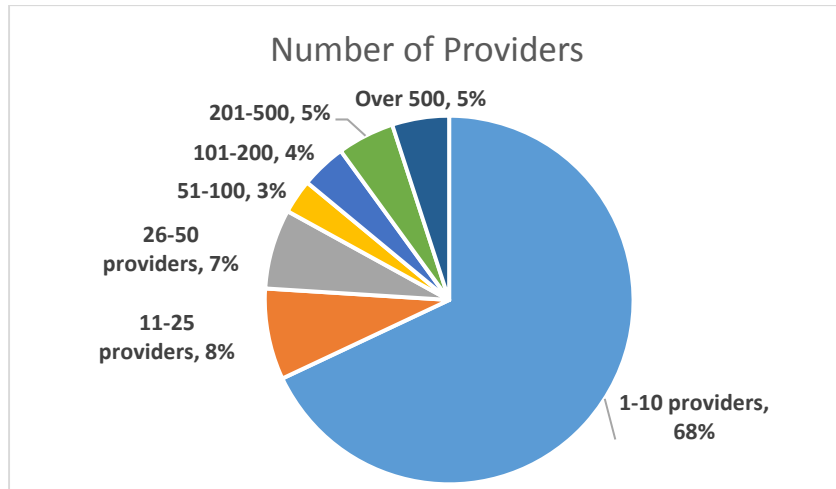
<b>Answer Options</b>	<b>Percent</b>	<b>Responses</b>
Primary care provider	59.73%	89
Podiatrist	6.04%	9
Specialist	18.79%	28
Dentist	10.07%	15
Optometrist	3.36%	5
Nurse practitioner	21.48%	32
Certified nurse midwife	6.71%	10
Chiropractor	4.03%	6
Physician assistant	8.05%	12
Behavioral healthcare provider	18.79%	28
Other (please specify)	18.12%	27
<b>TOTAL</b>		<b>149*</b>

*\*149 respondents completed this question but many checked multiple options, therefore the number of individual options does not total number of respondents.*

***How many providers are part of your organization?***

Small practices with 10 or fewer providers accounted for 68% of respondents. Only 14% of respondents had more than 100 providers in their organization.

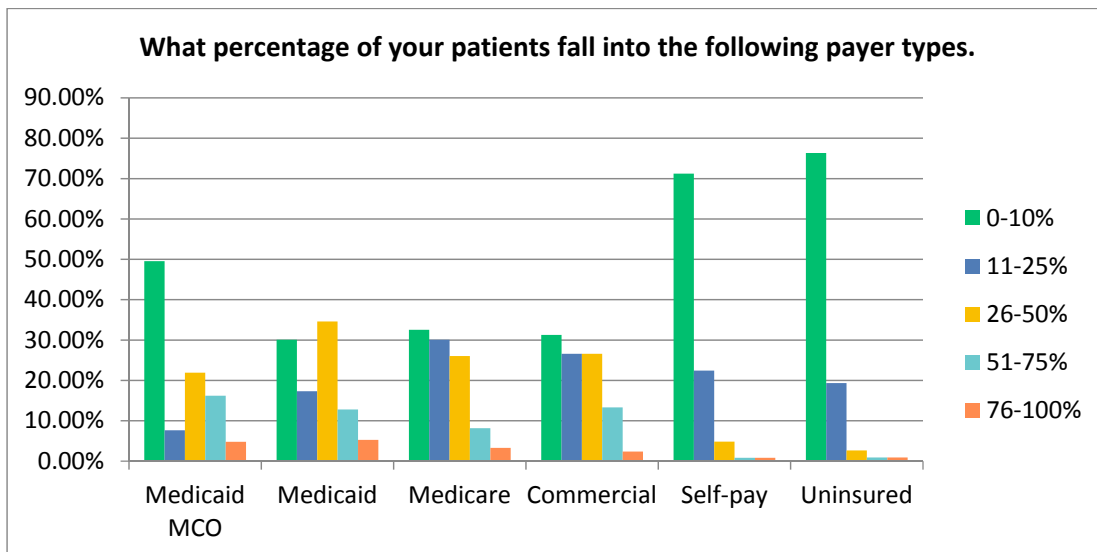
<b>Answer Options</b>	<b>Percent</b>	<b>Responses</b>
1-10 providers	68%	51
11-25 providers	8%	6
26-50 providers	7%	5
51-100	3%	2
101-200	4%	3
201-500	5%	4
Over 500	5%	4
<b>TOTAL</b>		<b>75</b>



**What percentage of your patients fall into the following payer types?**

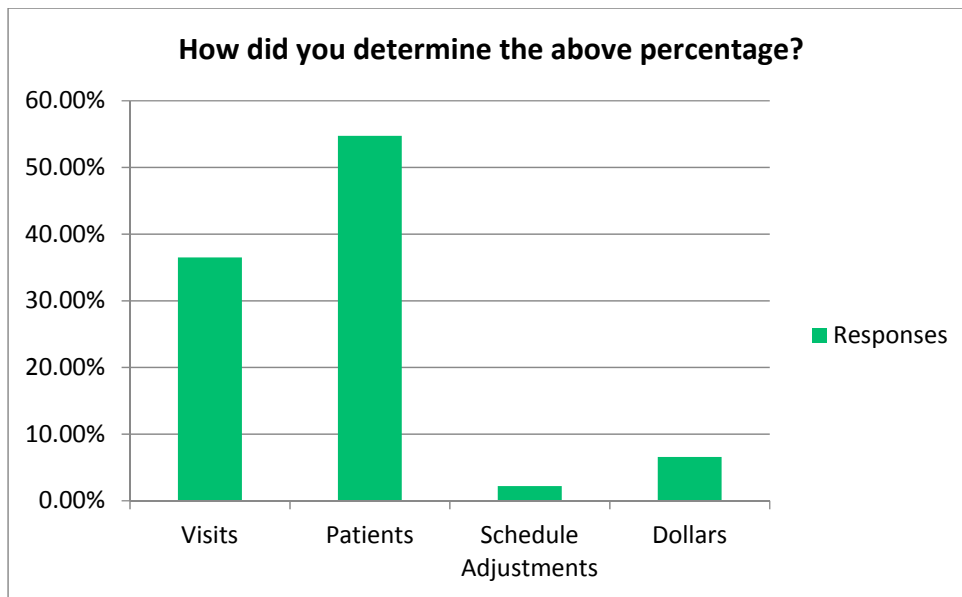
Medicaid accounts for 76-100% of total patients for 5.26% of respondents. Medicaid accounts for 51-75% of total patients for 12.78% of respondents. Over 76% of respondents report low volumes of uninsured patients which accounts for only 0-10% of their total patients

Answer Options	0-10% of patients	11-25% of patients	26-50% of patients	51-75% of patients	76-100% of patients	Responses
Medicaid MCO	49.52%	7.62%	21.90%	16.19%	4.76%	105
Medicaid	30.08%	17.29%	34.59%	12.78%	5.26%	133
Medicare	32.52%	30.08%	26.02%	8.13%	3.25%	123
Commercial	31.25%	26.56%	26.56%	13.28%	2.34%	128
Self-pay	71.20%	22.40%	4.80%	0.80%	0.80%	125
Uninsured	76.32%	19.30%	2.63%	0.88%	0.88%	114
<b>TOTAL</b>						<b>139</b>



**How did you determine what percentage of your patients fell into different payer types?**

Answer Options	Percent	Responses
Visits	36.50%	50
Patients	54.74%	75
Schedule Adjustments	2.19%	3
Dollars	6.57%	9
<b>TOTAL</b>		<b>137</b>



**What type of Internet connection do you have at your organization?**

Nearly all respondents, 90% have wired broadband connections at their locations which includes DSL, cable modem, or faster connection such as fiber, T1 or T3 lines. No sites report using a Dial-up connection.

Answer Options	Percent	Responses
Dial-up connection	0.00%	0
Wired broadband (i.e. DSL, cable modem, or faster connection e.g. T1 or T3 line)	89.26%	133
Cellular connection	2.68%	4
Satellite connection	1.34%	2
No Internet connection	0.67%	1
Not sure/Don't Know	9.40%	14
<b>TOTAL</b>		<b>149</b>

## EHR Incentive Program Participation

### *Do you have providers enrolled in the Medicaid EHR Incentive Payment Program (eMIPP) for using electronic health record systems in the adoption of meaningful use?*

Over 74% of respondents are enrolled in the Medicaid EHR incentive program. Nearly 26% are not enrolled and indicated the primary reasons for not participating are lack of eligibility and EHR cost. Organizations not participating in an EHR incentive program are predominantly in urban counties 80.9%, compared to those rural counties, 19.1%. In 2016, those not enrolled included 71.8% in urban counties versus 28.2% in rural counties indicating greater rural participation in the incentive program.

Answer Choices	Percent	Responses
Yes	74.5%	184
No	25.5%	63
<b>TOTAL</b>		<b>247</b>

If no, why not?	Percent	Responses
Not eligible	52.8%	19
Too difficult or costly	19.4%	7
No Certified EHR	5.6%	2
Lack of expertise/staff	8.3%	3
Other	13.9%	5
<b>TOTAL</b>		<b>36</b>

### *Do you anticipate meeting the Stage 3 requirements by the 2018 program year?*

Most respondents, 56.7%, believe they will be able to meet Stage 3 requirements by the 2018 program year, 34% are unsure. For those that do not anticipate meeting the Stage 3 requirements, many indicate that vendor software and certification will be a primary issue.

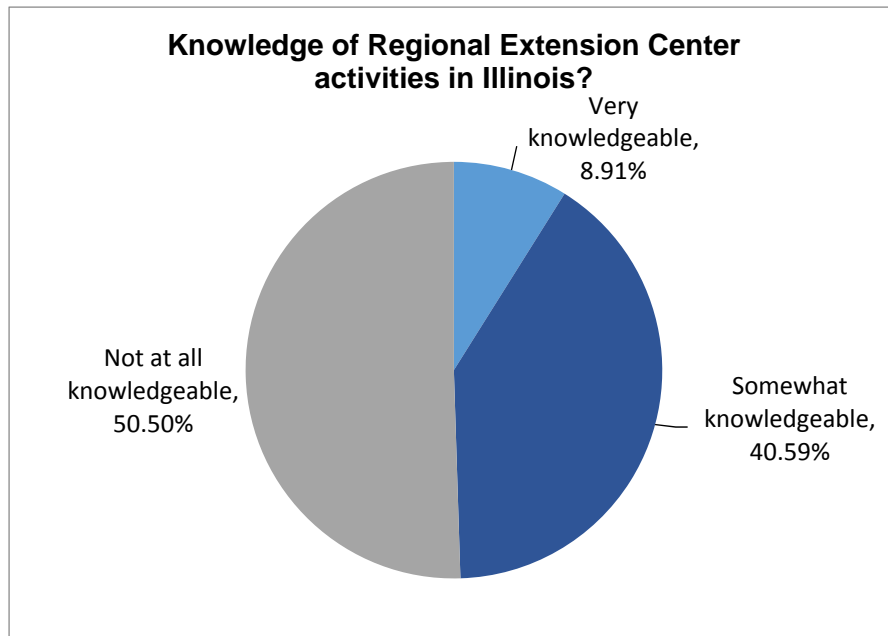
Answer Choices	Percent	Responses
Yes	56.71%	93
No	9.76%	16
Don't Know	33.54%	55
<b>TOTAL</b>		<b>247</b>

**What method(s) do you use to obtain EHR Incentive Program information?**

Answer Options	Percent	Responses
Centers for Medicare/Medicaid website	82.80%	154
Centers for Medicare/Medicaid mailings	33.33%	62
HFS website	46.24%	86
Regional Extension Center mailings	20.97%	39
EHR Incentive workgroup meetings	25.27%	47
HFS MU Incentive Program Help Desk	31.72%	59
EHR Vendor	3.76%	7
<b>TOTAL</b>		<b>186</b>

**How would you categorize your knowledge of Regional Extension Center activities in Illinois?**

Half of respondents are very or somewhat knowledgeable about regional extension center activities. Of those who are not at all knowledgeable, 20.6% are not participating in the eMIPP program.



## Organizations Not Using an EHR

### *Does your organization use an EHR?*

Only 11.2% of respondents do not currently use an EHR. For those organizations that are not using an EHR, the key issues include concerns about capital needed to acquire and implement a system, and the ongoing operational costs associated with licensing fees and other technical maintenance/support. Other primary concerns include insufficient internal technical resources.

Concerns over capital costs continue to be the main challenge for organizations not currently using an EHR but those indicating capital costs were issues, dropped significantly from 54.8% in 2016 to 40.7% in 2017.

Answer Choices	Percent	Responses
Yes	88.78%	261
No	11.22%	33
<b>TOTAL</b>		<b>294</b>

If no, why not?	Percent	Responses
concerns about capital needed to acquire and implement system	40.74%	11
concerns about ongoing operational costs associated with licensing fees and other technical maintenance/support	37.04%	10
insufficient internal technical resources	33.33%	9
concerns about lack of productivity during transition	25.93%	7
finding an EHR product that satisfies needs	25.93%	7
planning to adopt	25.93%	7
uncertainty about return on investment	25.93%	7
security/privacy concerns	22.22%	6
EHR lacks interoperability with other information systems resulting in high interface costs	18.52%	5
not sure	14.81%	4
staff does not have the expertise to use an EHR	11.11%	3
Other (please specify)	22.22%	6
<b>TOTAL</b>		<b>27</b>

*\*27 respondents completed this question but many checked multiple options, therefore the number of individual options does not total number of respondents.*

Organizations that do not currently use an EHR primarily include local health departments, specialty practices, and rural clinics. 60% of these organizations have just 1 provider in the practice. Over two thirds of organizations not currently using an EHR are in urban counties, 69%, with the rest in rural counties, 31%.

Over 90% of respondents in urban counties report using an EHR system compared to 85% of respondents in rural counties. In 2012, 55% of the urban counties had EHR systems compared to 9% of rural counties. Utilization of EHRs in rural counties has increased significantly from 9% reporting EHR use in 2012 to 85% in 2017.

***For practices still prescribing on paper, which statement best describes your organization's prescribing practices?***

For organizations without an EHR, only 9.5% use a stand-alone e-prescribing system, the rest do not use a system to support e-prescribing.

<b>Answer Choices</b>	<b>Percent</b>	<b>Responses</b>
We order medications by entering prescription information into our stand-alone e-prescribing system.	9.52%	2
We do not use a system to support ordering medications or e-prescribing.	90.48%	19
<b>TOTAL</b>		<b>21</b>

## EHR Utilization

### *Does your organization use an EHR?*

Nearly 89% of respondents currently use an EHR, compared to 61% from the 2012 report.

Answer Choices	Percent	Response
Yes	88.78%	261
No	11.22%	33
<b>TOTAL</b>		<b>294</b>

### *Does your organization still use paper in addition to using an EHR?*

Less than 50% of organizations with an EHR still use paper in addition to the EHR, compared to 53% from the 2016 survey 47% from the 2012 survey.

Answer Choices	Percent	Response
Yes	48.5%	100
No	51.5%	106
<b>TOTAL</b>		<b>206</b>

### *Which statement best describes your organization's EHR system?*

Over 90% of organizations with an EHR use it for more than 90% of functions for the organization. Less than 9% have an EHR installed but use it for some of the available functions. Less than 1% have an EHR but are not using it yet.

Answer Choices	Percent	Response
We have purchased an EHR, but are not yet using the system.	0.49%	1
We have an EHR installed and we use it for some of the available functions.	8.87%	18
We have an EHR implemented, and we use it for most (more than 90%) functions of our organization.	90.64%	184
<b>TOTAL</b>		<b>203</b>

***Please indicate the EHR(s) being used by your organization. If your organization has more than one EHR, you may select up to three EHR products that are used as the primary, secondary, and tertiary systems.***

The most commonly used EHRs by survey respondents include eClinicalWorks, Epic, Allscripts, Meditech, Practice Fusion, and Cerner. 74.9% of respondents indicated that the EHR vendor adequately met their staff training needs.



Answer Options	Primary EHR	Secondary EHR	Tertiary EHR	Response Count
Acumen	2	0	0	2
Allscripts	19	2	2	23
Athenahealth	13	2	0	15
Cerner	16	2	1	19
CPSI	12	3	2	17
eClinicalWorks	24	3	1	28
EPIC	22	5	0	27
GE/Centricity	9	3	0	12
Greenway	8	3	1	12
LSS Data Systems	0	2	0	2
McKesson	2	3	1	6
Meditech	12	7	3	22
Modernizing Medicine	0	0	0	0
NextGen	11	3	1	15
Practice Fusion	13	0	0	13
Other	38	4	4	46
<b>TOTAL</b>				<b>193</b>

*\*193 respondents completed this question but many checked multiple options, therefore the number of individual options does not total number of respondents.*

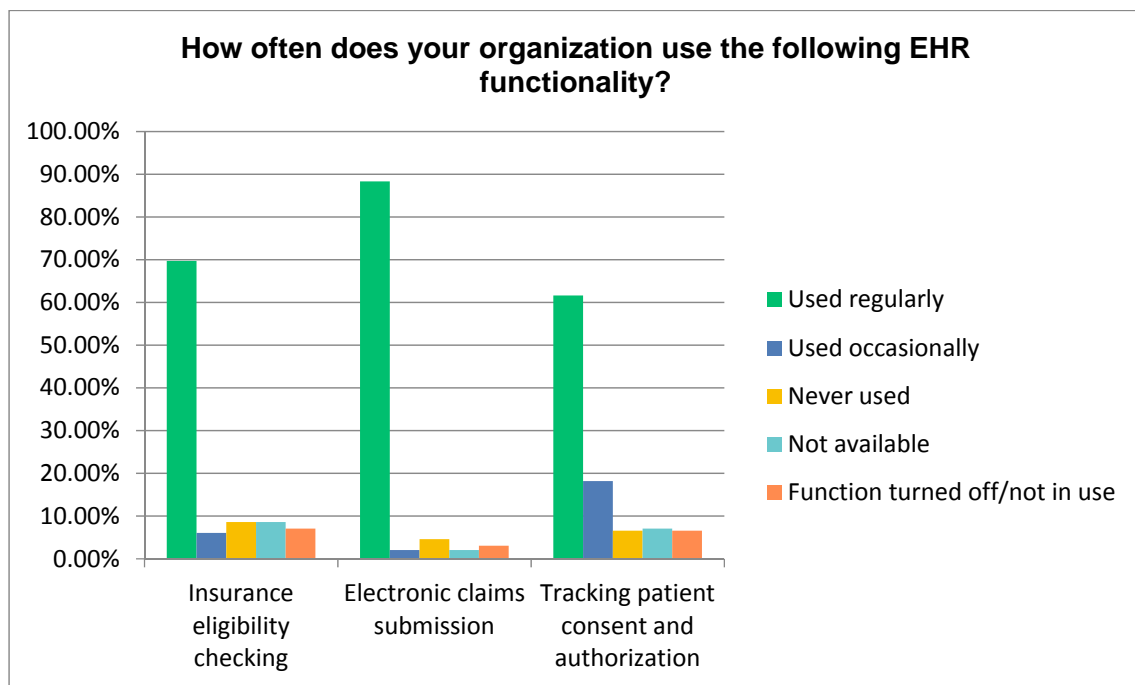
***Did your EHR vendor adequately meet your staff's training needs?***

Answer Choices	Percent	Response
Yes	73.89%	150
No	26.11%	53
<b>TOTAL</b>		<b>203</b>

## EHR Functionality

*How often does your organization use the following EHR functionality?*

Answer Options	Used regularly	Used occasionally	Never used	Not available	Function turned off/not in use	Response Count
Insurance eligibility checking	69.70%	6.06%	8.59%	8.59%	7.07%	198
Electronic claims submission	88.32%	2.03%	4.57%	2.03%	3.05%	197
Tracking patient consent and authorization	61.62%	18.18%	6.57%	7.07%	6.57%	198
<b>TOTAL</b>						<b>198</b>



### *What challenges does your organization face in effective utilization of the EHR?*

The most frequently reported challenge organizations face in effective utilization of an EHR are the costs associated with maintenance and upgrades, 67.4%. Other frequently reported issues include lack of interoperability with other systems resulting in high interface costs, 49.7%, and needed staff training, 50.3%.

Answer Choices	Percent	Response
Costs associated with maintenance and upgrades	67.36%	130
Additional staff training is needed	50.26%	97
EHR does not support all of our functionality needs	40.41%	78
EHR lacks interoperability with other systems resulting in high interface costs	49.74%	96
Decreased office productivity	36.27%	70
Insufficient internal technical resources	32.64%	63
Other (please specify)		27
<b>TOTAL</b>		<b>193</b>

***Are you currently sharing information electronically using your EHR?***

Less than 24% indicate they do not currently exchange information electronically.

Answer Choices	Percent	Response
No, do not currently exchange. More likely to fax, call, email, or print.	23.88%	48
Other clinicians	44.78%	90
Other clinics	31.34%	63
Other hospital(s)	29.85%	60
Other pharmacy(s)	39.30%	79
Other laboratory(s)	37.81%	76
State immunization registries	53.73%	108
Public health (for required reportable diseases)	27.36%	55
Disease or diagnosis registries	16.42%	33
Patients	53.23%	107
Other		10
<b>TOTAL</b>		<b>201</b>

***Are the laboratories at your facility capable of sending results electronically to providers?***

Answer Choices	Percent	Response
Yes	67.16%	135
No	6.47%	13
<b>TOTAL</b>		<b>201</b>

***If yes, are they capable of sending these results using LOINC coding?***

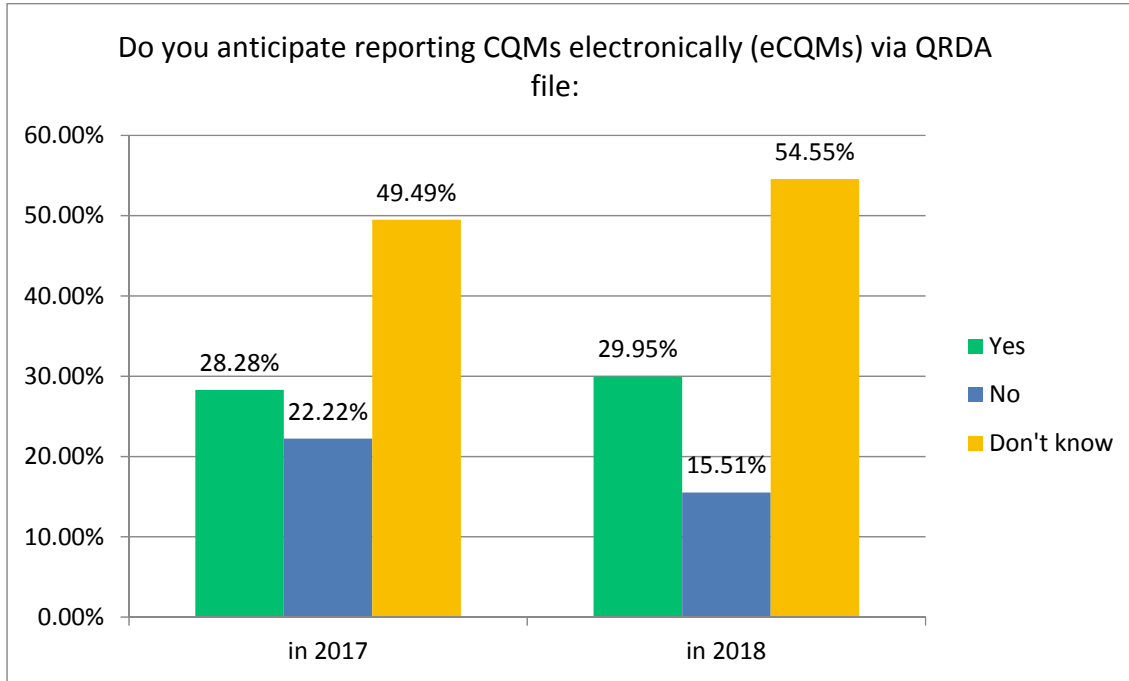
Answer Choices	Percent	Response
Yes	88.73%	63
No	11.27%	8
<b>TOTAL</b>		<b>71</b>

**Does your organization report CQMs or eCQMs for other government programs?**

<b>Answer Options</b>	<b>Yes</b>	<b>No</b>
Ambulatory Surgical Center Quality Reporting	7.14%	7
End-State Renal Disease Quality Incentive Program	1.02%	1
Home Health Quality Reporting	6.12%	6
Home Health Value-Based Purchasing	1.02%	1
Hospice Quality Reporting	7.14%	7
Hospital Acquired Condition Reduction Program	8.16%	8
Hospital Compare	13.27%	13
Hospital Inpatient Quality Reporting	29.59%	29
Hospital Outpatient Quality Reporting	20.41%	20
Hospital Readmission Reduction Program	12.24%	12
Hospital Value-Based Purchasing	11.22%	11
Inpatient Psychiatric Facility Quality Reporting	1.02%	1
Inpatient Rehabilitation Facility Quality Reporting	1.02%	1
Long-Term Care Hospital Quality Reporting	0.00%	0
MACRA/MIPS	56.12%	55
Medicare Part C Star Rating	2.04%	2
Medicare Part D Star Rating	3.06%	3
Medicare Shared Savings Program	15.31%	15
Million Hearts	3.06%	3
Nursing Home Quality Initiative	2.04%	2
Physician Compare	7.14%	7
Physician Feedback/Quality Resource Use Report	15.31%	15
Prospective Payment System-Exempt Cancer Hospital Quality Reporting	4.08%	4
Qualified Health Plan (QHP) Quality Rating System (QRS)	19.39%	19
<b>TOTAL</b>		<b>201</b>

**Do you anticipate reporting CQMs electronically (eCQMs) via QRDA file?**

Over 28% of respondents anticipate reporting eCQMs via QRDA file in 2017 and nearly 30% in 2018. Around half of respondents are not sure for 2017 or 2018.



	Yes		No		Don't know		Total
in 2017	28.28%	56	22.22%	44	49.49%	98	198
in 2018	29.95%	56	15.51%	29	54.55%	102	187
TOTAL							201

**Please indicate if your organization is using the following features of your EHR.**

Answer Options	Yes	No	Functionality not available	Response Count
Provide patients with timely electronic access to their health information	86.56%	7.53%	7.53%	186
E-Prescribing	92.55%	4.79%	4.79%	188
Provide clinical summaries for patients for each office visit	81.42%	15.30%	15.30%	183
Send reminders to patients per patient preference for preventive/follow-up care	52.75%	34.07%	34.07%	182

Computerized Provider Order Entry (CPOE) for medication orders	89.62%	4.92%	4.92%	183
Drug-drug checks	92.35%	4.37%	4.37%	183
Drug-allergy checks	94.54%	2.73%	2.73%	183
Drug-formulary checks	86.26%	7.69%	7.69%	182
Maintain an up-to-date problem list of current and active diagnoses	97.35%	1.06%	1.06%	189
Maintain active medication list	97.35%	1.06%	1.06%	189
Maintain active medication allergy list	97.87%	1.06%	1.06%	188
Record demographics	97.88%	0.53%	0.53%	189
Record and chart changes in vital signs	97.33%	1.07%	1.07%	187
Record smoking status for patients 13 years or older	96.26%	2.67%	2.67%	187
Incorporate clinical lab test results as structured data	84.41%	11.29%	11.29%	186
Generate lists of patients by specific condition	81.87%	10.44%	10.44%	182
Implement 5 clinical decision support rules	77.22%	13.33%	13.33%	180
Medication reconciliation	90.86%	5.91%	5.91%	186
Summary of care for each transition of care and referrals	80.65%	13.44%	13.44%	186
Capability to exchange key clinical information among providers of care and patient-authorized entities	76.22%	15.68%	15.68%	185
Protect electronic health information	98.94%	0.00%	0.00%	188
Report ambulatory clinical quality measures to CMS/States	72.88%	15.82%	15.82%	177
Provide patients with an electronic copy of their health information, upon request	89.78%	5.38%	4.84%	186
Use certified EHR technology to identify patient-specific education resources and provide to patient, if appropriate	83.33%	11.83%	4.84%	186
Capability to submit electronic data to immunization registries/systems	77.17%	13.04%	9.78%	184
Capability to provide electronic syndromic surveillance data to public health agencies	51.11%	28.89%	20.00%	180
Capability to provide electronic submission of reportable lab results to public health agencies	45.81%	34.08%	20.11%	179
For hospitals, provide patients with electronic copy of their discharge instructions at time of discharge, upon request	50.38%	18.32%	31.30%	131
For hospitals, record advance directives for patients 65 years or older	50.00%	18.46%	31.54%	130
<b>TOTAL</b>				<b>194</b>

## Generating ADT Notifications – Hospitals

### *Does your hospital have a process to generate data related to inpatient and/or emergency room admissions, discharges, and transfers (ADT)?*

Approximately 27% or 54 respondents were hospitals. 88.6% of hospitals have a process to generate data related to inpatient and/or emergency room admissions, discharges, and transfers (ADT). Of those, 90% indicate the ADT notifications are automated through the hospital's EHR.

Answer Choices	Percent	Response
Yes	88.64%	39
No	11.36%	5
<b>TOTAL</b>		<b>66</b>

Systems used by hospitals with automated ADT notifications include:

Allscripts	GE/Centricity	Meditech
Athenahealth	Greenway	NextGen
Cerner	LSS Data Systems	Practice Fusion
CPSI	McKesson	
EPIC	Medhost	

### *Where are the hospital's ADT notifications sent?*

Answer Choices	Percent	Response
Within the hospital - clinical care team or case manager	79.41%	27
Health system or parent organization	20.59%	7
The patient's primary care provider outside your hospital/health system	38.24%	13
Payer	20.59%	7
Insurance company	23.53%	8
Managed care organization	17.65%	6
Patient health record portal	52.94%	18
Other (please specify)		4
<b>TOTAL</b>		<b>34</b>

## Receiving ADT Notifications

***Does your organization have a process to receive notifications when your patients experience inpatient and/or emergency room admissions, discharges, and transfers (ADT)?***

Over 51% of respondents have a process in place to receive ADT notifications.

Answer Choices	Percent	Response
Yes	51.09%	70
No	48.91%	67
<b>TOTAL</b>		<b>137</b>

***If yes above, where do those ADT notifications come from?***

Answer Choices	Percent	Response
Directly from the hospital - clinical care team or case manager	90.63%	58
Health system or parent organization	15.63%	10
The patient's primary care provider outside your hospital/health system	9.38%	6
Payer	4.69%	3
Insurance company	14.06%	9
Managed care organization	20.31%	13
Patient's health record portal	7.81%	5
Other (please specify)		14
<b>TOTAL</b>		<b>64</b>

***What proportion (percent) of ADT notifications are received by:***

Answer Choices	Percent	Response
Fax	76.32%	58
Telephone	43.42%	33
Regular mail	35.53%	27
Direct secure messaging	40.79%	31
Other	35.53%	27
<b>TOTAL</b>		<b>76</b>

***How frequently does your organization receive ADT notification information?***

Answer Choices	Percent	Response
Real-time as ADT events occur	31.94%	23
Daily	54.17%	39
Weekly	13.89%	10
Other		11
<b>TOTAL</b>		<b>72</b>



***How does your organization use the ADT notification information?***

<b>Answer Choices</b>	<b>Percent</b>	<b>Response</b>
We don't use this information	15.79%	12
Make contact with patient	61.84%	47
Inform the patient's primary care provider	38.16%	29
Other		14
<b>TOTAL</b>		<b>76</b>

***Does your organization receive ADT notifications for all of your patients or a particular group of patients?***

<b>Answer Choices</b>	<b>Percent</b>	<b>Response</b>
All patients	61.43%	43
Particular group of patients	38.57%	27
<b>TOTAL</b>		<b>70</b>

## Health Information Exchange

### *Is your organization participating in a Regional Health Information Exchange (HIE)?*

One-third of respondents currently report participation in a Regional Health Information Exchange, nearly the same as reported in 2016. 38% of organizations not currently connected to an HIE have plans to connect to one in the future. Most of the organizations that were not planning to connect to an HIE indicated a lack of knowledge on HIEs in general, along with lack of awareness on options and benefits.

Answer Choices	Percent	Response
Yes	33.33%	54
No	66.67%	108
<b>TOTAL</b>		<b>162</b>

### *Does your organization have plans to connect to a Regional HIE?*

Answer Choices	Percent	Response
Yes	37.96%	41
No	62.04%	67
<b>TOTAL</b>		<b>108</b>

### *Which Regional HIE does your organization connect to?*

With the closure of the Metro Chicago Health Information exchange, Illinois has just 2 options for HIEs. Over 82% of organizations are connected to the Communities of Illinois Health Information Exchange (CIHIE). 11% are connected to the Health Information Exchange of Southern Illinois (HIESI). A few are connecting to out of state HIEs.

Answer Choices	Percent	Response
Communities of Illinois Health Information Exchange (CIHIE)	82.14%	23
Health Information Exchange of Southern Illinois (HIESI)	10.71%	3
Indiana Health Information Exchange (IHIN)	7.14%	2
<b>TOTAL</b>		<b>28</b>

### *Do you have a secure electronic message service (e.g. Direct mail account, EHR function, Patient Health Record Portal)?*

Answer Choices	Percent	Response
Yes	97.73%	43
No	2.27%	1
<b>TOTAL</b>		<b>44</b>

***Does your practice currently participate in any of the following health information exchange activities?***

Answer Choices	Percent	Response
Direct Exchange	72.00%	18
Query-Based Exchange	16.00%	4
Consumer Mediated Exchange (patient portals)	20.00%	5
Electronic Notification Services	32.00%	8
Other (please specify)	24.00%	6
<b>TOTAL</b>		<b>25</b>

***Does your organization have questions with respect to understanding patient privacy and confidentiality requirements and health information exchange?***

Answer Choices	Percent	Response
Yes	27.78%	10
No	72.22%	26
<b>TOTAL</b>		<b>36</b>

***Among those that are currently not sharing data with your organization, which would your organization like to share data with or receive data from to be more effective?***

Nearly 80% of respondents indicated that sharing data or receiving data from hospitals would allow them to be more effective. 75% indicated sharing data or receiving data from other clinics would allow them to be more effective. Over 55% indicated that sharing data or receiving data from HIEs and laboratories would allow them to be more effective.

Answer Choices	Percent	Response
Hospitals	79.31%	23
Other clinics	75.86%	22
Health Information Exchange	55.17%	16
Laboratories	55.17%	16
Medicaid	51.72%	15
Substance abuse, mental health, or behavioral health clinics	51.72%	15
Claims registries	44.83%	13
Pharmacy	41.38%	12
Public health registries	41.38%	12
Other (please specify)		3
<b>TOTAL</b>		<b>29</b>

***Does your organization have electronic processes in place to make referrals to these social services for your patients as needed?***

<b>Answer Choices</b>	<b>Percent</b>	<b>Response</b>
Counseling/mental health care	75.00%	12
Psychiatry	68.75%	11
Substance abuse treatment	50.00%	8
Crisis assistance/services	37.50%	6
Supportive housing	25.00%	4
Other	14.80%	3
<b>TOTAL</b>		<b>16</b>

***Has your practice experienced any of the following barriers to health information exchange?***

Lack of access to provider’s direct address is the most significant barrier to HIE, followed by referring provider or sharing partners refusal to accept direct messaging.

<b>Answer Choices</b>	<b>Percent</b>	<b>Response</b>
EHR vendor does not support the technology	13.79%	4
EHR vendor costs are prohibitive	24.14%	7
Lack of access to provider Direct address	55.17%	16
Referring provider or sharing partner refuses to accept direct messaging	48.28%	14
Other (please specify)	27.59%	8
<b>TOTAL</b>		<b>29</b>

## Quality Improvement Participation

### *Does your organization participate in any of the following quality improvement programs?*

Nearly 80% of respondents are participating in meaningful use and 44% in PQRS. 40% of respondents are participating in MIPS, however only 18.9% of those are in the eMIPP program.

Answer Choices	Percent	Response
Meaningful Use (MU)	79.26%	107
Physician Quality Reporting System (PQRS)	44.44%	60
Merit-based Incentive Payment System (MIPS)	40.00%	54
Healthcare Effectiveness Data and Information Set (HEDIS)	34.81%	47
Patient Centered Medical Home (PCMH)	34.81%	47
Accountable Care Organization (ACO)	31.11%	42
Chronic Care Management (CCM)	17.78%	24
Private Insurance Program	15.56%	21
Value Based Modifiers (VBM)	13.33%	18
Quality Improvement Organization (QIO)	9.63%	13
Other (please specify)	9.63%	13
Million Hearts	1.48%	2
<b>TOTAL</b>		<b>166</b>

# Exhibit 1

## Map of Respondents by Illinois County