GREATER NEW YORK HOSPITAL ASSOCIATION
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MEMBER LETTER

July
Thirteen
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ML-73

TO: Chief Executive Officers

FROM: Kenneth E. Raske, President

RE: Report on Nursing Facility Electronic Solutions and Care Transitions

GNYHA and its affiliate, the GNYHA Foundation, are pleased to present the *New York-Reducing Avoidable Hospitalizations (NY-RAH): 2017 Nursing Facility Electronic Solutions Report*. The attached report discusses the use of health information technology to improve transitions of care between hospitals and nursing facilities and is based on a survey conducted of the nursing facilities participating in the NY-RAH project. The list of the 60 NY-RAH participating nursing facilities is included in the report.

The report includes data on the nursing facilities' use of regional health information organizations (RHIOs). The report also provides aggregated information on the increased use of Direct Messaging, a web-based technology that securely transmits encrypted protected health information in a structured format, since the NY-RAH project conducted a similar survey in 2015. Direct Messaging is used to transmit a document (referred to as the Consolidated Clinical Document Architecture, or C-CDA) that includes important information about a patient's treatment at a provider setting in a standardized format. The report reviews best practices and gaps in workflow design in the use of the C-CDA among the nursing facilities.

Highlights of the Report

The report found that:

- There has been a 40% increase in the percent of nursing facilities receiving C-CDAs from at least one hospital and 31% increase in the percent of nursing facilities receiving C-CDAs from two or more hospitals.
- There is a delay in nursing facilities receiving the C-CDA following the patient admission, which presents a challenge to the nursing facility in developing a standardized clinical workflow.
- While many nursing facilities are interested in RHIO connectivity, few of the nursing facilities are conducting any data sharing activities.

Background on the NY-RAH Project

GNYHA Foundation was one of seven organizations across the country awarded a cooperative agreement in 2012 from the Centers for Medicare & Medicaid Services to conduct a project to improve the quality of care for long-stay nursing facility residents. Interventions to support quality improvement; palliative care; and electronic solutions were implemented, and a second phase began in 2016 which added payment

incentives for treating six clinical conditions at the nursing facility, and is expected to continue until 2020. To support electronic communication between nursing facilities and hospitals during transitions of care, NY-RAH implemented Direct Messaging and is tracking its usage within a subset of the NY-RAH facilities.

The NY-RAH project management team will continue to work with stakeholders to further nursing facility adoption of the C-CDA and address the workflow challenges that hinder optimal use of health information technology.

For questions about the report or to request hard copies, please contact Jeffrey Paul (**jpaul@gnyha.org**).

Attachment

cc: Chief Operating Officers
Chief Information Officers
Discharge Planning Committee
Health Information Management Workgroup
HIT Workgroup
DSRIP PPS Health Information Exchange Workgroup
DSRIP PPS Post-Acute Care Workgroup

2017 NURSING FACILITY
ELECTRONIC SOLUTIONS REPORT

GREATER NEW YORK HOSPITAL ASSOCIATION GNYHA | NY–RAH

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INTRODUCTION

GNYHA Foundation was one of seven organizations across the country awarded a four-year cooperative agreement in 2012 from the Centers for Medicare & Medicaid Services (CMS) to conduct a special project to improve the quality of care for long-stay nursing facility residents. GNYHA Foundation's project, New York–Reducing Avoidable Hospitalizations (NY–RAH), is sponsored by the Federal Medicare-Medicaid Coordination Office under the *CMS Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents*.* GNYHA Foundation partners with the Icahn School of Medicine at Mount Sinai to conduct the project. NY–RAH recruited an initial group of 29 nursing facilities to participate in the project in 2012 (for what is now called "Phase One"). NY–RAH placed registered nurse care coordinators (RNCCs) in each facility to provide consultation and education to improve the health care, health outcomes, and quality of life for nursing facility residents. NY–RAH's work with the nursing facilities in Phase One was focused on general clinical interventions and quality improvement; development of palliative care capacity; and development of an electronic solutions intervention.

GNYHA FOUNDATION

Greater New York Hospital Association (GNYHA) represents more than 160 hospitals and health systems in New York, New Jersey, Connecticut, and Rhode Island. GNYHA Foundation is an affiliate of GNYHA that was created to match the interests of public and private grant funding organizations with special projects of importance to the region's hospitals and health systems. For information on GNYHA and GNYHA Foundation, go to www.gnyha.org.

In March 2016, GNYHA Foundation was awarded a new four-year cooperative agreement to continue the NY–RAH project interventions in Phase One participating facilities, while also testing the impact of new Medicare Part B incentive payments for treating residents in place for six potentially avoidable conditions. Thirty-three new facilities ("Group A"), in addition to 27 of the original 29 facilities ("Group B"), voluntarily agreed to participate in Phase Two of the NY–RAH project. For more detailed information on the clinical and payment reform interventions of the NY–RAH project, please see Appendix I (page 14) or go to www.nyrah.org. For a list of the currently participating NY–RAH nursing facilities, see Appendix II (page 16).

* NY–RAH is supported by Funding Opportunity Number 1E1CMS331492-01-01 from the U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. The contents provided are solely the responsibility of the authors and do not necessarily represent the official views of HHS or any of its agencies.

NY–RAH ELECTRONIC SOLUTIONS INTERVENTION

As part of the electronic solutions intervention in Phase One, NY–RAH identified Direct Messaging as the technology that could enhance electronic communication between nursing facilities and hospitals, and meet CMS's "meaningful use"* requirements. Direct Messaging is a web-based technology that securely transmits encrypted protected health information (PHI). The PHI is packaged in the format of a Consolidated Clinical Document Architecture (C-CDA) *Summary of Care* document and is transmitted from one provider setting to another. The C-CDA contains clinical information such as vital signs, laboratory tests, and a medications list, along with administrative information for the resident at the time of a hospital discharge. These messages are managed and transmitted by Health Information Service Providers (HISPs), which act as a channel between disparate electronic health record (EHR) technologies that otherwise could not communicate with each other. Messages are similar to e-mail, containing the C-CDA *Summary of Care* document as an attachment. This solution has been implemented nationally to encourage health information exchange (HIE) and help hospitals and other providers meet Stage 1 of CMS's meaningful use requirements. Since this technology was being commonly used, NY–RAH leveraged it as the means to introduce its participating nursing facilities to HIE.

In 2014, NY–RAH partnered with MedAllies, Inc., a HISP, to provide technical support for Direct Messaging Mailboxes to 17 of the 29 Phase One nursing facilities. NY–RAH also provided technical support to the 12 nursing facilities that elected to work with another HISP. (Some nursing facilities received HISP support through their regional health information organization [RHIO] membership.) In Phase One, NY–RAH supported implementation and workflow development by working with the nursing facilities and their partner hospitals to implement best practices and address technical and operational barriers to successfully adopting Direct Messaging. Additionally, the project worked with the Admissions Department at NY–RAH nursing facilities to identify best practices for receiving a C-CDA *Summary of Care* document, as well as integrating the document into the facility's workflow. To try to build a case for use of the new technology, the C-CDA *Summary of Care* documents were compared with the Patient Review Instrument (PRI) and paper discharge summary that hospitals send routinely in transfer packets to determine which document had the most relevant information at the time of transfer and admission. NY–RAH staff developed a crosswalk to demonstrate that the C-CDA was the most comprehensive of the three documents.

* Meaningful use is using certified EHR technology to improve quality, safety, efficiency, and reduce health disparities; engage patients and family; improve care coordination, and population and public health; and maintain privacy and security of patient health information. Meaningful use sets specific objectives that eligible professionals (EPs) and hospitals must achieve to qualify for CMS Incentive Programs. These objectives will evolve in three stages: Stage 1, 2011-2012, data capture and sharing; Stage 2, 2014, advance clinical processes; and Stage 3, 2016, improved outcomes. Source: **HealthIT.gov**

NY–RAH ELECTRONIC SOLUTIONS INTERVENTION (continued)

In Phase Two, NY–RAH is continuing to work with these nursing facilities to adopt technologies that align with the Statewide Health Information Network for New York (SHIN-NY), a statewide HIE infrastructure that connects the eight RHIOs throughout the State and enables the sharing of patient data across the participants of each RHIO. Aligning with SHIN-NY will require a broader approach to technology and technical interfaces between RHIOs and nursing facility systems that facilitate data exchange. While resource intensive to implement, this will give NY–RAH participants access to a more robust network that allows health care providers from any health system to use any EHR technology to access and contribute data to the resident health record. In Phase Two, NY–RAH will focus on connecting these nursing facilities to their RHIO and will support implementing and integrating the C-CDA *Summary of Care* documents into the nursing facility's workflow. Those nursing facilities that are current RHIO members will receive additional support to become fully connected and able to perform bidirectional exchange of resident level data. The NY–RAH project will also work with nursing facilities to facilitate membership in the facilities' local RHIOs.

ABOUT THE NY–RAH ELECTRONIC SOLUTIONS SURVEY

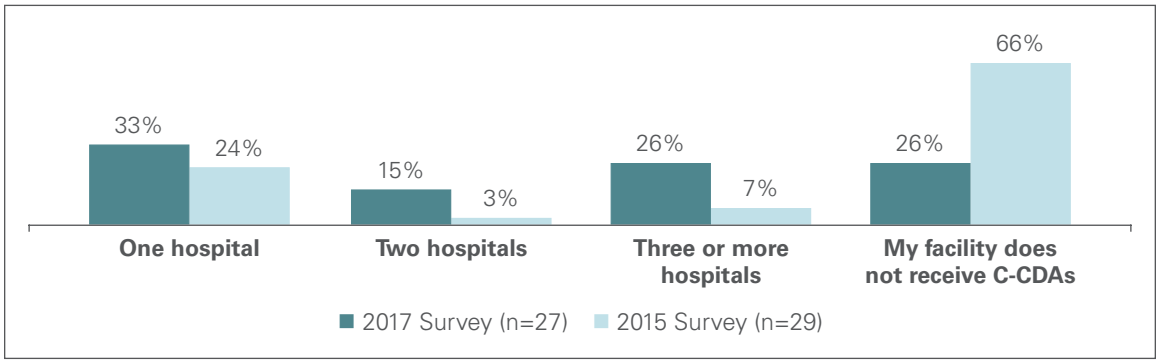
In January 2015, NY–RAH surveyed the original 29 participating nursing facilities to understand their Direct Messaging workflow processes and perceived value compared to the standard paper process. All 29 facilities responded to the survey. The 29 facilities represented a mix of sizes (bed counts ranged from 46 to 679); use of technology (some had fully implemented EHRs while others were still paper-based); location (urban and suburban across New York City and Long Island); and number of hospital transfer partners (from one hospital to up to 15). The wide variety of facilities provided NY–RAH with valuable workflow information to inform NY–RAH's Phase One approach to design workflow processes for transmitting C-CDA *Summary of Care* documents between a nursing facility and its hospital partner(s).

In March 2017, NY–RAH re-administered the survey to those same facilities (Group B) so that progress could be assessed by comparing the information with data from the 2015 survey results. A subset of the 2017 survey was also administered to those nursing facilities that had newly joined for Phase Two (Group A) to assess the level of RHIO participation amongst all 60 currently participating NY–RAH nursing facilities. This report provides aggregated information on the increased use of Direct Messaging across the Group B nursing facilities and reviews best practices and gaps in the workflow design. The report also compiles information on Group A and B nursing facilities' use of the RHIO and offers a guide to where NY–RAH will focus the electronic solutions intervention in Phase Two. Consistent with GNYHA and NY–RAH policy, individual facility information is not included in the report.

INCREASED NUMBER OF FACILITIES RECEIVING C-CDAs

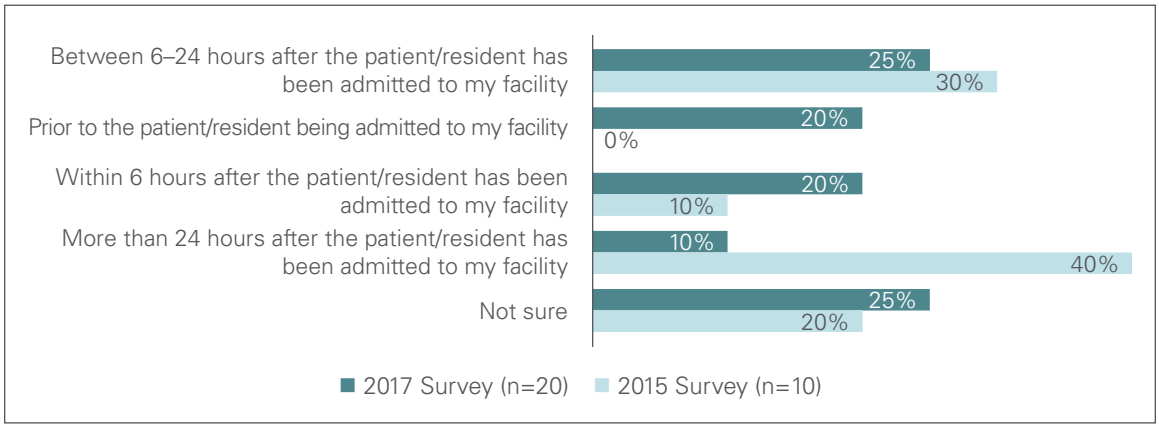
From 2015 to 2017, there has been a 40% increase in the percent of nursing facilities that are receiving C-CDAs from at least one hospital. In addition, there is a 31% increase in the percent of facilities that are receiving C-CDAs from two or more hospitals.

HOW MANY HOSPITALS DO YOU RECEIVE C-CDAs FROM?



As more nursing facilities begin receiving C-CDAs, survey results show that hospitals have also improved their transmission processes. Nursing facilities have begun to receive C-CDAs in "real time." Of the nursing facilities that are receiving C-CDAs, there was a 30% increase from 2015 in the percent of nursing facilities that receive C-CDAs from their partner hospitals either *prior to or within* six hours of the resident being admitted to the nursing facility. The improvement in timeliness was also visible in the 30% reduction in 2017 of facilities that receive the majority of C-CDAs from their hospital more than 24 hours *after* the patient/resident has been admitted to the facility.

IN WHAT TIMEFRAME DOES YOUR NURSING FACILITY RECEIVE THE MAJORITY OF C-CDAs FROM A HOSPITAL?

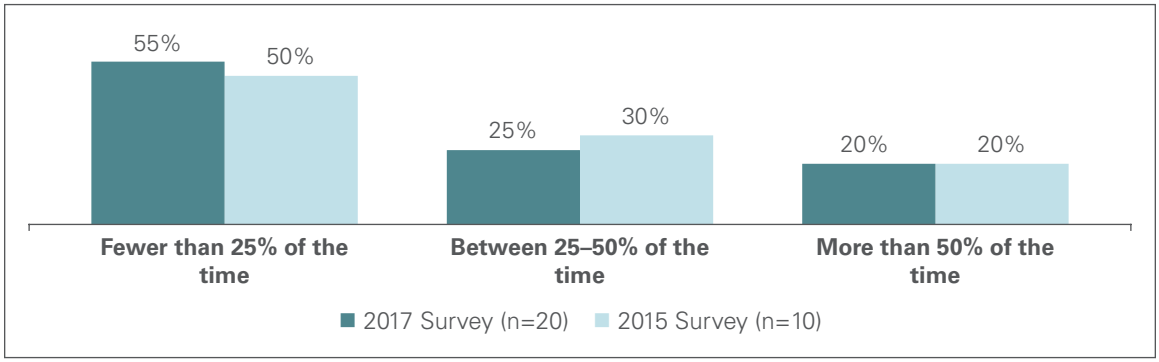


NURSING FACILITIES VARY ON CLINICAL WORKFLOWS

In 2017, more than half (56%) of Group B nursing facilities identified the Admissions Department as primarily responsible for accessing C-CDAs when it has been sent by a hospital, a 28% increase since 2015. Although a majority of nursing facilities have identified a specific department to be responsible for accessing C-CDAs, only 15% of those receiving C-CDAs have convened a meeting of their interdisciplinary team to discuss the C-CDA workflow process. Furthermore, less than half (40%) of nursing facilities that receive C-CDAs attach the C-CDAs received to the patient/resident's medical record.

Since 2015, NY–RAH has worked with nursing facilities to understand the challenges both internal and external to establishing effective workflow processes. Nursing facilities have expressed concern about the inconsistent rate at which C-CDAs are transmitted by hospital partners. Despite the improvements in other Direct Messaging areas, only one in five (20%) nursing facilities receiving C-CDAs in 2017 estimates receiving it more than 50% of the time when a hospital transfers a patient/resident to their nursing facility. Nursing facilities are experiencing difficulties standardizing a process that they can implement for all of their admissions.

WHEN A HOSPITAL TRANSFERS A PATIENT/RESIDENT TO YOUR NURSING FACILITY, HOW OFTEN WOULD YOU ESTIMATE YOUR NURSING FACILITY RECEIVES A C-CDA FROM THE HOSPITAL?

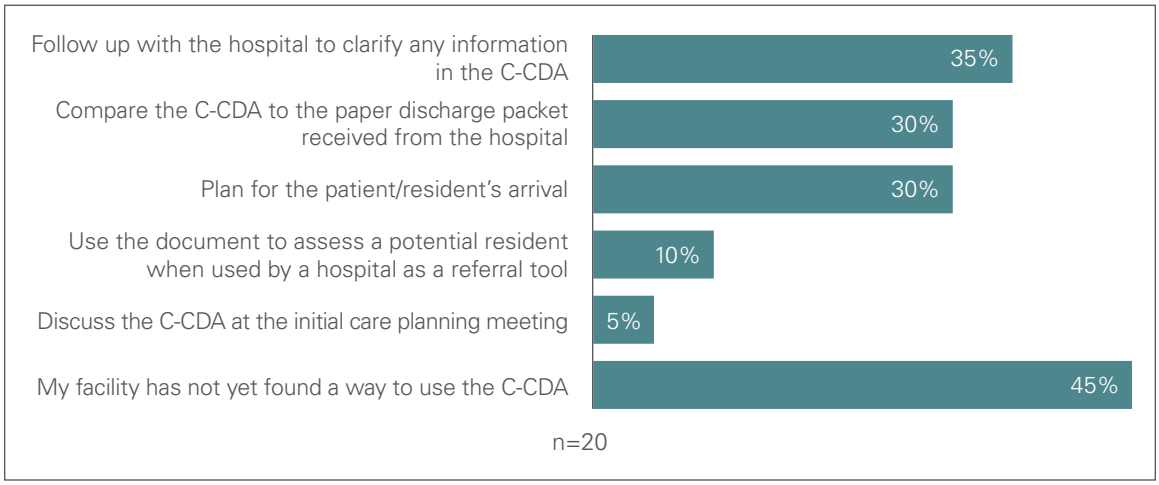


Having a specific point of contact at partner hospitals for technical concerns related to Direct Messaging is also important to managing a good workflow process. In 2017, only 25% of nursing facilities that receive C-CDAs report having a specific point of contact at either some or each of their hospital partners. An additional 25% reported not communicating with their hospital partners regarding technical concerns related to Direct Messaging.

NURSING FACILITIES VARY ON CLINICAL WORKFLOWS (continued)

These factors contribute to weaknesses in nursing facility workflows and ultimately devalue the C-CDA. Of the nursing facilities that currently receive C-CDAs, there are mixed results regarding how C-CDAs are used clinically after the nursing facilities receive them from the hospitals. Forty-five percent of nursing facilities reported that they have not yet found a way to use the C-CDA. Other most frequent responses to the question of how the nursing facility uses the C-CDA included: follow up with the hospital to clarify any information in the C-CDA (35%); compare the C-CDA to the paper discharge packet received from the hospital (30%); and plan for the patient/resident's arrival (30%).

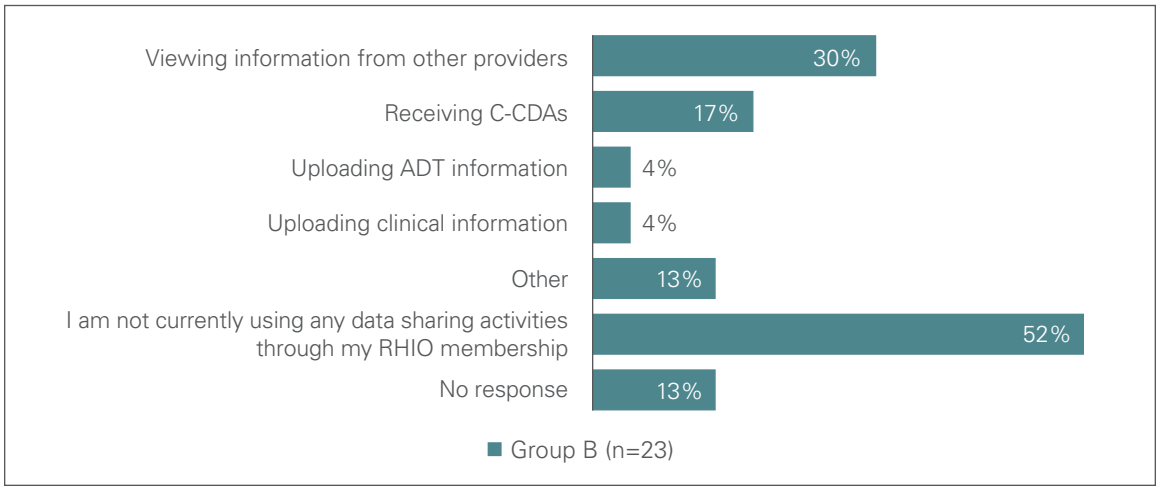
HOW DOES YOUR NURSING FACILITY USE THE C-CDAs RECEIVED FROM THE HOSPITAL?

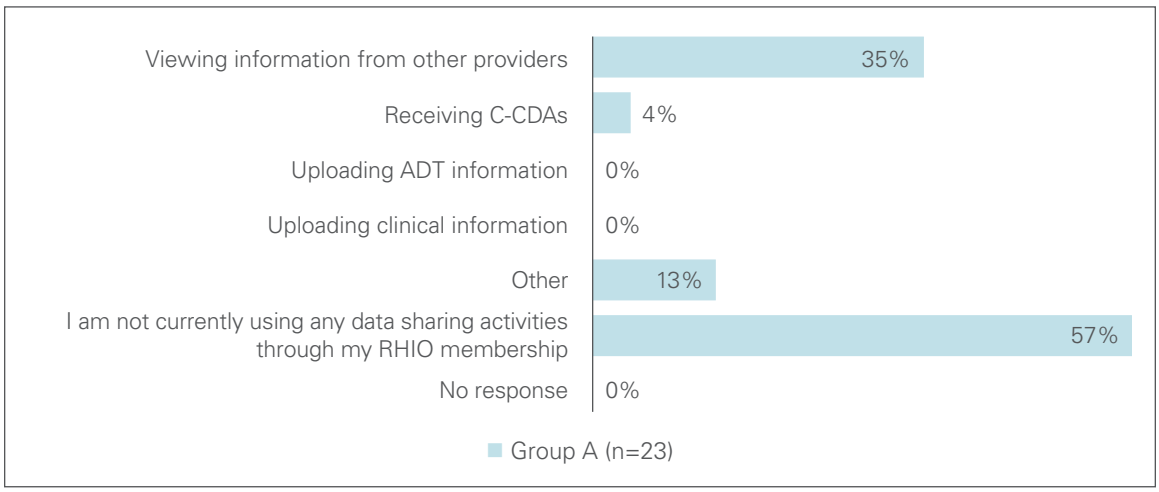


RHIO INTEREST AND CONNECTIVITY EXISTS BUT ACTIVITY IS MINIMAL

While a large percentage of nursing facilities are members of a RHIO, more than half of the nursing facilities participating in a RHIO in Group B (52%) and Group A (57%) are not currently conducting any data sharing activities through their RHIO membership. Potential activities range from basic functionality such as uploading Admission, Discharge, and Transfer (ADT) information to more advanced functionality such as contributing clinical data.

BELONGING TO A RHIO OFFERS A VARIETY OF DATA UPLOADING, VIEWING, AND SHARING ACTIVITIES. PLEASE SELECT WHICH OF THE FOLLOWING ACTIVITIES YOUR NURSING FACILITY IS CURRENTLY USING THROUGH YOUR RHIO MEMBERSHIP.





RHIO INTEREST AND CONNECTIVITY EXISTS BUT ACTIVITY IS MINIMAL (continued)

Certain potential funding opportunities have been made available through New York State for nursing facilities to become members of a local RHIO. More than half (60%) of Group A nursing facilities not currently part of a RHIO reported that they were at least interested in becoming a member of a RHIO if funding was available from New York State to aid with membership.

DISCUSSION

The 2017 survey results show signs of significant growth in C-CDA transmission and indications that Group B nursing facilities have adopted the best practices and lessons learned from Phase One. Increased transmission rates from an increasing number of transmitting hospital partners indicate that Direct Messaging and the C-CDA are viewed as viable solutions to the challenge of HIE and care transitions. As nursing facilities and hospital partners continue to embrace this technology, they may reap the benefits they have only begun to realize. When the C-CDA is sent in real time, it can be used in the admissions and care planning processes. Additionally, because the C-CDA is the most accurate summary of the hospital visit, it can also be used by clinicians in nursing facilities for medication reconciliation. Survey results also show significant interest amongst nursing facilities in funding opportunities to join a local RHIO. Similar to the C-CDA, the clinical data and embedded tools found in the RHIO can positively impact the quality improvement and assurance goals of the nursing facility. Despite NY–RAH's efforts to promote the implementation of health information technologies such as Direct Messaging, several external factors may impede these efforts from being completely successful. C-CDA exchange is a hospital-driven process based on the CMS Meaningful Use Incentive Program. In order to comply with the requirements under meaningful use, hospitals had to implement a viable strategy to electronically transfer a C-CDA *Summary of Care* document for a subset of their patients who are discharged to another setting. In 2014, when Direct Messaging was first implemented, 10% of hospital discharges required a C-CDA in order to avoid a meaningful use payment penalty. Physician offices and clinics are the main receivers of the hospital C-CDAs, as most nursing facilities did not have this technology in place when the meaningful use program was first launched. In addition, some hospital systems were granted hardship exceptions from the meaningful use program as their EHR could not support data exchange at the time.

To date, as hospital work in meaningful use continues into Stage 3, the threshold for exchange is expected to increase to a minimum of 50% of discharged patients transferred to another care setting, and hospitals are now also required to demonstrate advanced functionalities, such as bidirectional exchange. In parallel, the CMS Requirements of Participation for Long Term Care, released in October 2016, promotes the exchange of clinical data sets captured in the C-CDA. Combined, these initiatives may lead to an increase in C-CDA transmission. Similarly, New York initiatives outside of NY–RAH have also incentivized RHIO connectivity amongst nursing facilities. The Delivery System Reform Incentive Payment (DSRIP) program and the New York State Department of Health Data Exchange Incentive Program (DEIP) have both encouraged greater nursing facility–RHIO connectivity by providing incentives to alleviate the financial burden that nursing facilities face to become a RHIO member. Furthermore, a New York State mandate for long term care facilities with certified EHRs to connect to a RHIO and bidirectionally exchange C-CDAs will most certainly spur some action as well.

DISCUSSION (continued)

While it seems that the C-CDA hasn't yet been utilized by nursing facilities to its full potential, it is nonetheless a valuable asset, and its medium of transport, Direct Messaging, is a sustainable technology. Trends in the RHIO survey data further support the theory that the low utilization of the technology in nursing facilities may be due partly to the lack of incentives and support for long term care settings; the low utilization is less a reflection of the failure of the technology, in other words. Policymakers and providers can expect that, as nursing facilities become more familiar with the potential uses of technology, electronic transmission of patient information will exponentially increase.

CONCLUSION

The NY–RAH 2015 electronic solutions survey results served as a guide for developing the technical assistance necessary for nursing facilities to implement Direct Messaging in Phase One. The NY–RAH 2017 electronic solutions survey highlights the progress that has been made since 2015, but also draws attention to continuing challenges as well as new opportunities to further engage with the RHIOs.

NY–RAH has identified best practices to further the implementation of Direct Messaging at nursing facilities and expand on progress made. The success of the participating nursing facilities in the area of electronic solutions and overall health information technology is often driven by the level of collaboration with their hospital partners. NY–RAH will continue to leverage impending CMS meaningful use requirements to further nursing facility adoption of the C-CDA and continue piloting bidirectional electronic exchange between partners. NY–RAH will also continue to work with HISP, RHIO, and EHR vendors to address the workflow challenges that hinder optimal use of the technology. NY–RAH aims to have each of its nursing facilities connected to and actively engaged in their area RHIO by 2020, the end of the NY–RAH project. RHIO patient event notifications and trainings to address user unfamiliarity with technology may further adoption.

NY–RAH appreciates the willingness of its participating nursing facilities to explore new ways in which technology can improve transitions of care and ultimately improve the quality of care for its long-stay residents. The electronic solutions survey will be re-administered in early 2019 to further evaluate the adoption of C-CDAs and RHIO connectivity and engagement to ensure nursing facilities find value in the electronic solutions intervention and have the ability to sustain the technologies beyond the project end.

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APPENDIX I: NY–RAH OVERVIEW

PHASE ONE

In partnership with the Icahn School of Medicine at Mount Sinai, GNYHA Foundation placed registered nurse care coordinators (RNCCs) in 29 nursing facilities in New York City and Long Island to serve as educators and coaches. The RNCCs do not provide any direct clinical care (the intervention is a "hands off" model). RNCCs implemented the Interventions to Reduce Acute Care Transfers (INTERACT) program with facility staff on early recognition and communication of acute changes of condition. RNCCs also used hospital transfer and other customized reports NY–RAH developed to identify process improvement focus areas to prevent future avoidable transfers.

The NY–RAH project strengthened palliative care in the nursing facilities by encouraging the completion of advance directives and adoption of the Medical Orders for Life-Sustaining Treatment (MOLST) form. The NY–RAH project also improved electronic communication between nursing facilities and partner hospitals with Direct Messaging and other strategies.

PHASE TWO

In March 2016, GNYHA Foundation was awarded another four-year cooperative agreement to continue the NY–RAH project and support the interventions in currently participating facilities, while also testing the impact of new Medicare incentive payments to nursing facilities to provide cost-effective, appropriate treatment for certain qualifying conditions. Also referred to as "Phase Two" under the *CMS Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents–Payment Reform,* two distinct cohorts ("Group A" and "Group B") of nursing facilities are now participating in the NY–RAH project across New York State.

Phase Two of the NY–RAH project began in March 2016 with recruiting additional facilities and preparing all facilities for the payment reform interventions. The payment reform interventions began in New York on November 1, 2016.

Group A comprises facilities that were newly recruited in early 2016 specifically for Phase Two to participate in the payment reform interventions without the accompanying clinical interventions described above in Phase One. Group B consists of Phase One facilities that will continue to implement clinical interventions in Phase Two and can avail themselves and their practitioners of the payment reform interventions. The payment reform interventions consist of three new Medicare Part B billing codes created specifically for facilities and practitioners participating in Phase Two of the CMS Initiative.

Payment to Nursing Facilities for Treating Qualifying Conditions

CMS created a new code for nursing facilities to furnish services and treat beneficiaries for any of the following six conditions in place without a transfer to a hospital:

- Chronic obstructive pulmonary disease or asthma
- Congestive heart failure
- Dehydration
- Pneumonia
- Skin ulcers or cellulitis
- Urinary tract infection

The payment is an additional daily rate paid directly to the nursing facility for the specific duration of the condition, to a maximum of seven days. As a condition for participating in Phase Two, nursing facilities are required to invest additional resources to develop processes and clinical capabilities for the six conditions, if they do not currently offer them.

Payment to Practitioner for Treating Qualifying Conditions at the Nursing Facility

CMS created a new code for a practitioner to use for an initial visit to treat an acute change of condition at a nursing facility within the project. The billing code (for "acute nursing facility care") equalizes the payment rate for initial visits between a hospital and a nursing facility, incentivizes an earlier intervention, and potentially prevents the need for transfer to the hospital.

Payment to Practitioner for Care Coordination and Caregiver Engagement

CMS also created a new code for practitioners to bill for participating in nursing facility care conferences and engaging in care coordination discussions with residents, families, and the interdisciplinary team. The conference must be a minimum of 25 minutes, with a member of the nursing facility interdisciplinary team present, and without performing a clinical examination during the discussion.

APPENDIX II: NY–RAH PARTICIPATING NURSING FACILITIES

Sorted by County

NY–RAH Group*	Nursing Facility Name	Address	City	State	County	Zip
B	Acadia Nursing Care Center	1146 Woodcrest Avenue	Riverhead	NY	Suffolk	11901
B	Good Samaritan Nursing Home	101 Elm St	Sayville	NY	Suffolk	11782
B	Gurwin Jewish Nursing and Rehabilitation Center	68 Hauppauge Road	Commack	NY	Suffolk	11725
B	Island Nursing and Rehabilitation Center Inc	5537 Expressway Drive North	Holtsville	NY	Suffolk	11742
B	Long Island State Veterans Home	100 Patriots Road	Stony Brook	NY	Suffolk	11790
B	Smithtown Center for Rehabilitation & Nursing Care	391 North Country Road	Smithtown	NY	Suffolk	11787
B	St. Catherine of Siena Nursing & Rehabilitation Care Center	52 Route 25A	Smithtown	NY	Suffolk	11787
B	St. James Healthcare Center	275 Moriches Road	St. James	NY	Suffolk	11780
B	Suffolk Center for Rehabilitation & Nursing	25 Schoenfeld Blvd	Patchogue	NY	Suffolk	11772
B	The Shores at Peconic Landing	1500 Brecknock Road	Greenport	NY	Suffolk	11944
B	Amsterdam Nursing Home at Harborside	300 East Overlook	Port Wash-ington	NY	Nassau	11050
A	Beach Terrace Care Center	640 West Broadway	Long Beach	NY	Nassau	11561
A	Central Island Healthcare	825 Old Country Road	Plainview	NY	Nassau	11803
B	Cold Spring Hills Center for Nursing and Rehabilitation	378 Syosset-Woodbury Road	Woodbury	NY	Nassau	11797

* Group A: joined NY–RAH in Phase Two
Group B: joined NY–RAH in Phase One

APPENDIX II: PARTICIPATING NURSING FACILITIES (continued)

NY–RAH Group*	Nursing Facility Name	Address	City	State	County	Zip
A	Daleview Care Center	574 Fulton St	Farmingdale	NY	Nassau	11735
B	Highfield Gardens Care Center of Great Neck	199 Community Drive	Great Neck	NY	Nassau	11021
A	Boro Park Center for Rehabilitation and HealthCare	4915 10th Ave	Brooklyn	NY	Kings	11219
A	Brooklyn Center for Rehabilitation and Residential Health Care	1455 Coney Island Avenue	Brooklyn	NY	Kings	11230
B	Buena Vida Continuing Care and Rehabilitation Center	48 Cedar Street	Brooklyn	NY	Kings	11221
A	Bushwick Center for Rehabilitation and HealthCare	50 Sheffield Avenue	Brooklyn	NY	Kings	11207
A	New York Congregational Nursing Center	135 Linden Blvd	Brooklyn	NY	Kings	11226
B	Highland Care Center	91-31 175th Street	Jamaica	NY	Queens	11432
A	Holliswood Center for Rehabilitation and HealthCare	195-44 Woodhull Avenue	Hollis	NY	Queens	11423
B	Sapphire Center for Rehabilitation and Nursing	35-15 Parsons Blvd	Flushing	NY	Queens	11354
B	The Pavilion at Queens Rehabilitation and Nursing	36-17 Parsons Blvd	Flushing	NY	Queens	11354
B	The Silvercrest Center for Nursing & Rehabilitation	144-45 87th Avenue	Briarwood	NY	Queens	11435
B	Trump Pavilion for Nursing and Rehabilitation (Jamaica Hospital Nursing Home Co)	89-40 135th Street	Jamaica	NY	Queens	11418
B	Harlem Center for Nursing and Rehabilitation	30 West 138th Street	New York	NY	New York	10037
B	St. Mary's Center Inc.	516 West 126th Street	New York	NY	New York	10027

NY–RAH Group*	Nursing Facility Name	Address	City	State	County	Zip
B	Terence Cardinal Cooke Health Care Center	1249 Fifth Avenue	New York	NY	New York	10029
B	The New Jewish Home	120 West 106th Street	New York	NY	New York	10025
A	Bronx Center for Rehabilitation and Health Care	1010 Underhill Ave	Bronx	NY	Bronx	10472
B	Casa Promesa Residential Health Care Facility	308 East 175th Street	Bronx	NY	Bronx	10457
B	The Hebrew Home for the Aged at Riverdale	5901 Palisade Avenue	Bronx	NY	Bronx	10471
B	Triboro Center for Rehabilitation and Nursing	1160 Teller Ave	Bronx	NY	Bronx	10456
B	Workmen's Circle Multicare Center	3155 Grace Avenue	Bronx	NY	Bronx	10469
A	Regency Extended Care Center	65 Ashburton Ave	Yonkers	NY	Westchester	10701
A	United Hebrew Geriatric Center	391 Pelham Road	New Rochelle	NY	Westchester	10805
A	Northern Metropolitan Residential HealthCare Facility	225 Maple Ave	Monsey	NY	Rockland	10952
A	Northern Riverview HealthCare Center	87 S Route 9W	Haverstraw	NY	Rockland	10927
A	Pine Valley Center for Rehabilitation and Nursing	661 North Main Street	Spring Valley	NY	Rockland	10977
A	Elant at Goshen	46 Harriman Drive	Goshen	NY	Orange	10924
A	Elant at Meadow Hill	172 Meadow Hill Road	Newburgh	NY	Orange	12550
A	Wingate at Beacon	10 Hastings Drive	Beacon	NY	Dutchess	12508
A	Ten Broeck Commons	One Commons Drive	Lake Katrine	NY	Ulster	12449
A	Wingate at Ulster	1 Wingate Way	Highland	NY	Ulster	12528
A	Eddy Heritage House Nursing and Rehabilitation Center	2920 Tibbits Avenue	Troy	NY	Rensselaer	12180
A	Van Rensselaer Manor	85 Bloomingrove Drive	Troy	NY	Rensselaer	12180
A	Our Lady of Mercy	2 Mercy Care Lane	Guilderland	NY	Albany	12084

APPENDIX II: PARTICIPATING NURSING FACILITIES (continued)

NY–RAH Group*	Nursing Facility Name	Address	City	State	County	Zip
A	Kingsway Arms Nursing Center	323 Kings Rd	Schenectady	NY	Schenectady	12304
A	Maplewood Health Care and Rehabilitation Center	205 State Street Road	Canton	NY	St. Lawrence	13617
A	Valley Health Services, Inc.	690 West German St.	Herkimer	NY	Herkimer	13350
A	Charles T. Sitrin Health Care Center, Inc.	2050 Tilden Ave.	New Hartford	NY	Oneida	13413
A	Oneida Healthcare	323 Genesee Street	Oneida	NY	Madison	13421
A	Syracuse Home at McHarrie Place	7740 Meigs Road	Baldwinsville	NY	Onondaga	13027
A	ElderWood at Waverly	37 N Chemung St	Waverly	NY	Tioga	14892
A	Autumn View Health Care Facility	4650 Southwestern Blvd	Hamburg	NY	Erie	14075
A	Garden Gate Health Care Facility	2365 Union Road	Cheektow-aga	NY	Erie	14227
A	Harris Hill Nursing Facility	2699 Wehrle Drive	Williamsville	NY	Erie	14221
A	Seneca Health Care Center	2987 Seneca Street	West Seneca	NY	Erie	14224

APPENDIX III: RHIOs

BRONX RHIO
Serving the Bronx
(718) 708-6633
http://www.bronxrhio.org

HEALTHeCONNECTIONS
Serving the Central and Northern New York regions, including Cayuga, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence, and Tompkins counties
(315) 671-2241
http://www.healtheconnections.org

HEALTHeLINK
Serving Western New York and Buffalo
(716) 206-0993 x311
http://wnyhealthelink.com

HEALTHIX
Serving all counties in both upstate and downstate New York
(877) 695-4749
http://healthix.org

HEALTHLINK NY
Serving the Hudson Valley (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester counties) and Southern Tier (Broome, Chenango, Delaware, Tioga, and Tompkins counties, and the Catskills)
(845) 896-4726
http://www.healthlinkny.com

HIXNY
Serving the Capital Region and Northern New York, including Albany, Essex, Franklin, Fulton, Clinton, Columbia, Greene, Hamilton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, St. Lawrence, Warren, and Washington counties
(518) 640-0021
http://www.hixny.org

APPENDIX III: RHIOS (continued)

NEW YORK CARE INFORMATION GATEWAY

Serving New York City, Nassau, and Suffolk counties
(631) 250-9191
http://nycig.org

ROCHESTER RHIO

Serving Monroe, Allegany, Chemung, Genesee, Livingston, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Wyoming, and Yates counties in Upstate New York
(877) 865-7446
http://www.grrhio.org

APPENDIX IV: GROUP A RHIO SURVEY SUMMARY

	n=All Group A respondents	Count	n=33 2017 %
Is your facility a member of any of the following RHIOs? **Percents may not add to 100% because respondents could choose more than one option.**	Healthix	8	24%
	HealtheLINK	5	15%
	HealtheConnections	4	12%
	HealthlinkNY	3	9%
	Bronx RHIO	0	0%
	Health Information Xchange New York (HIXNY)	0	0%
	New York Care Information Gateway	0	0%
	Rochester RHIO	0	0%
	Not sure	3	9%
	My nursing facility is not a member of a RHIO	10	30%

Belonging to a RHIO offers a variety of data uploading, viewing, and sharing activities. **Please select which of the following activities your nursing facility is currently using through your RHIO membership?** **Percents may not add to 100% because respondents could choose more than one option.**	n=All Group A respondents who are a member of a RHIO	Count	n=23 2017 %
	Viewing information from other providers	8	35%
	Receiving C-CDAs	1	4%
	Uploading Admission, Discharge, and Transfer (ADT) information	0	0%
	Uploading clinical information	0	0%
	Other	3	13%
	I am not currently using any data sharing activities through my RHIO membership	13	57%

APPENDIX V: GROUP B RHIO SURVEY SUMMARY

	n=All Group B respondents	Count	n=27 2017 %
Is your facility a member of any of the following RHIOs? **Percents may not add to 100% because respondents could choose more than one option.**	Healthix	10	37%
	New York Care Information Gateway	5	19%
	Bronx RHIO	3	11%
	HealtheConnections	0	0%
	HealtheLINK	0	0%
	Health Information Xchange New York (HIXNY)	0	0%
	HealthlinkNY	0	0%
	Rochester RHIO	0	0%
	Not sure	6	22%
	My nursing facility is not a member of a RHIO	4	15%

	n=All Group B respondents who are a member of a RHIO	Count	n=23 2017 %
Belonging to a RHIO offers a variety of data uploading, viewing, and sharing activities. Please select which of the following activities your nursing facility is currently using through your RHIO membership? **Percents may not add to 100% because respondents could choose more than one option.**	Uploading Admission, Discharge, and Transfer (ADT) information	7	30%
	Viewing information from other providers	4	17%
	Receiving C-CDAs	1	4%
	Uploading clinical information	1	4%
	Other	3	13%
	I am not currently using any data sharing activities through my RHIO membership	12	52%

APPENDIX VI: GROUP B DIRECT MESSAGING SURVEY SUMMARY

	n=All Group B respondents	Count	n=27 2017 %	n=29 2015 %
Which department is primarily responsible for accessing the C-CDA (*Summary of Care* Document) when it has been sent by a hospital to your nursing facility?	Admissions	15	56%	28%
	Nursing	2	7%	28%
	Social Work	0	0%	0%
	Medical Records	0	0%	0%
	Information Technology	0	0%	0%
	Other	9	33%	17%
	There is not one single department that is responsible for receiving the C-CDA	0	0%	28%
	No response	1	4%	0%

	n=All Group B respondents	Count	n=27 2017 %	n=29 2015 %
How many hospitals do you receive C-CDAs from?	One hospital	9	33%	24%
	Two hospitals	4	15%	3%
	Three or more hospitals	7	26%	7%
	My facility does not receive C-CDAs	7	26%	66%

	n=All Group B respondents that receive C-CDAs	Count	n=20 2017 %
What hospitals do you currently receive C-CDAs from? **Percents may not add to 100% because respondents could choose more than one option.**	John T Mather Memorial Hospital	5	25%
	NewYork-Presbyterian Queens	4	20%
	Bronx-Lebanon Hospital-Concourse	3	15%
	Flushing Hospital	3	15%
	Mount Sinai Hospital	3	15%
	Stony Brook University Medical Center	3	15%
	Jamaica Hospital	2	10%
	South Nassau Communities Hospital	2	10%
	St Catherine of Siena Hospital	2	10%
	All other hospitals (13)	1	5%

APPENDIX VI: GROUP B DIRECT MESSAGING SURVEY SUMMARY (continued)

Since receiving C-CDAs, have you convened a meeting of your nursing facility's interdisciplinary team (practitioners, nursing, admissions, IT) to discuss the C-CDA workflow process?	n=All Group B respondents that receive C-CDAs	Count	n=20 2017 %
	Yes	3	15%
	No	17	85%

Please consider only hospitals that are currently sending C-CDAs to your nursing facility. When a hospital transfers a patient/resident to your nursing facility, how often would you estimate your nursing facility receives a C-CDA from the hospital?	n=All Group B respondents that receive C-CDAs	Count	n=20 2017 %	n=10 2015 %
	Fewer than 25% of the time	11	55%	50%
	Between 25% and 50% of the time	5	25%	30%
	More than 50% of the time	4	20%	20%

Please think about all of the C-CDAs you receive. In what timeframe does your nursing facility receive the majority of C-CDAs from a hospital?	n=All Group B respondents that receive C-CDAs	Count	n=20 2017 %	n=10 2015 %
	Prior to the patient/resident being admitted to my facility	4	20%	0%
	Within six hours after the patient/resident has been admitted to my facility	4	20%	10%
	Between six hours and 24 hours after the patient/resident has been admitted to my facility	5	25%	30%
	More than 24 hours after the patient/resident has been admitted to my facility	2	10%	40%
	Not sure	5	25%	20%

Does your nursing facility somehow attach the C-CDAs received to the patient/resident's medical record?	n=All Group B respondents that receive C-CDAs	Count	n=20 2017 %
	Yes	8	40%
	No	11	55%
	Not sure	1	5%

	n=All Group B respondents that receive C-CDAs	Count	n=20 2017 %
How does your nursing facility use the C-CDAs received from the hospital? Please select all that apply. **Percents may not add to 100% because respondents could choose more than one option.**	Follow up with the hospital to clarify any information in the C-CDA	7	35%
	Compare the C-CDA to the paper discharge packet received from the hospital	6	30%
	Plan for the patient/resident's arrival	6	30%
	Use the document to assess a potential resident when used by a hospital as a referral tool	2	10%
	Discuss the C-CDA at the initial care planning meeting	1	5%
	Discuss the C-CDA at morning report	0	0%
	Other	2	10%
	My facility has not yet found a way to use the C-CDA	9	45%
	No response	1	5%

	n=All Group B respondents that receive C-CDAs	Count	n=20 2017 %
What are the biggest challenges to effectively using the C-CDA to begin care for a patient/resident? **Percents may not add to 100% because respondents could choose more than one option.**	The C-CDA is not received timely enough for clinical purposes	7	35%
	The C-CDA does not contain the information my facility needs	2	10%
	The C-CDA contains so much information that it is hard to find what is important	0	0%
	Other	2	10%
	My facility has not found the best way to incorporate the C-CDA into our existing processes	11	55%
	No response	1	5%

APPENDIX VII: TERMS AND DEFINITIONS

CONSOLIDATED CLINICAL DOCUMENT ARCHITECTURE (C-CDA)

A structured format of capturing and exchanging protected health information.

DIRECT MESSAGING

A secure mode of transmitting encrypted protected health information packaged in the form of a C-CDA.

HEALTH INFORMATION EXCHANGE (HIE)

The electronic movement of any health-related data according to an agreed-upon set of interoperability standards, processes, and activities across affiliated and non-affiliated organizations in a manner that protects the privacy and security of the data and the entity that organizes and takes responsibility for the process.

HEALTH INFORMATION SERVICE PROVIDER (HISP)

An organization that manages security and transport for health information exchange among health care entities or individuals using the Direct standard for transport.

MEANINGFUL USE

In the context of health information technology, Congress defined meaningful use as 1) the use of certified electronic health record (EHR) technology, 2) a certified EHR that is connected in a manner that provides for the electronic exchange of health information to improve care, and 3) provider submission of information on clinical quality measures to the Centers for Medicare & Medicaid Services.

PROTECTED HEALTH INFORMATION (PHI)

Individually identifiable health information transmitted by electronic media, maintained in electronic media, or transmitted or maintained in any other form or medium. The privacy and security of PHI is protected under the Health Insurance Portability and Accountability Act and related regulations.

REGIONAL HEALTH INFORMATION ORGANIZATION (RHIO)

A multi-stakeholder governance entity that convenes non-affiliated health and health-care related providers to improve health care coordination for the communities in which it operates. RHIOs take responsibility for the process that enables the electronic exchange of interoperable health information within a geographic area.

New York–Reducing Avoidable Hospitalizations
www.nyrah.org