



Navigating Coronavirus Series Remind, Recall, Repeat - Tools to Link Patients to Care

May 19, 2020

This webinar series brought to you by



Today's Presenters

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NC HealthConnex Overview

We connect health care providers to safely and securely share health information through a trusted network to improve health care quality and outcomes for North Carolinians.



STATE DESIGNATED



SECURE



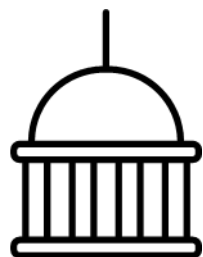
PARTNERSHIP

By the Numbers:

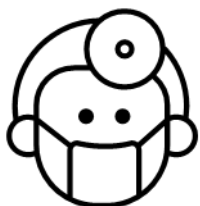
- **Over 55,000 providers** with contributed records
- **6,000+** health care facilities live submitting data, including **113 hospitals**
- 5,000 plus health care facilities in onboarding
- 100 million+ continuity of care documents (CCDs)
- **9M+ unique patient records**
- **700K messages flowing in daily**
- Over 225 unique EHRs engaged, over 80 live
- Over 20 border and interstate HIEs connected, plus connections to the VA and DoD via the eHealth Exchange and the national Patient Centered Data Home network

COVID-19 Data Collection & Data Sharing Challenges

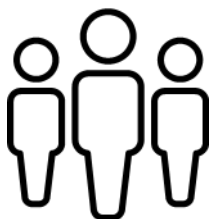
The pandemic has highlighted the systemic issues across the U.S. with clinical data sharing and the need for a comprehensive data sharing ecosystem.



- Bridging patient records across multiple silos
- Patients seeking care outside of traditional (emergency) surveillance scope; using telemedicine, urgent care, primary care, health departments



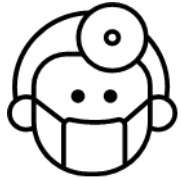
- Siloed and limited frameworks for delivery of results back to care teams
- Central repository of patient histories for segmenting high-risk populations



- Balancing patient privacy concerns against public health need to know

NC HealthConnex Response Against COVID-19

HIE is a clinical data collection and data sharing service to provide comprehensive, longitudinal patient health records at the point of care and surface insights about who is impacted, where is the virus spreading, who should be tested, and which communities are at greatest risk.



Providers:

Timely, longitudinal patient records & awareness of new cases via NC*Notify and population health dashboards to improve care coordination, patient care decisions and operational needs.



DHHS:

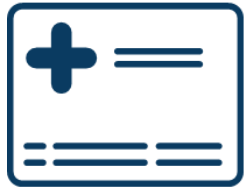
Support the State's syndromic surveillance efforts via NC EDSS and NC DETECT with clinical repository to identify Covid-like illness across health care settings and patient matching services.



Public Health/Citizen Safety:

Identify COVID-like illness across health care settings as they seek to identify and isolate potentially exposed individuals.

Current Outbound NC HealthConnex Services for COVID-19



- **Access to patient data from point of care**
 - EHR Integrations
 - Web-based Clinical Portal
- **NC*Notify**
 - Providers receive alerts as their patients seek care
- **Cohort Monitor**
 - View patient lists via web-based clinical portal (*available to providers early June*)
- **Data extracts for public health response** (*gathering requirements*)
 - Key data points for segmenting population and mobilizing response

Procedures/Results



[PAA Tools](#) [Patient Search](#) [View Summary](#) [Clinician Tools](#) [My Account](#) [Logout](#) [Help](#)

Awaiting results from: eHX-GAHIN [Click to Refresh](#)

DEMO1, COVID1

Male · 65 Years (1955-01-01) · 10000 NOT REAL STREET, FAIRLY BIG TOWN, NC 27519 · (555) 222-1111



view timeline

Summary

PROCEDURES

PROCEDURE	PROCEDURE DATE	CARE PROVIDER	PROCEDURE CODE	LAST UPDATED
CORONAVIRUS (COVID-19) SARS-COV-2 PCR PREOPERATIVE SCREEN	04/13/2020	Sample Provider	LAB9990	,Duke University Health System,
COMPLETE BLOOD COUNT (CBC) WITH DIFFERENTIAL	04/08/2020	Sample Provider	85025	,Duke University Health System,
MAGNESIUM	04/08/2020	Sample Provider	83735	,Duke University Health System,
COMPREHENSIVE METABOLIC PANEL (CMP)	04/08/2020	Sample Provider	80053	,Duke University Health System,
COMPLETE BLOOD COUNT (CBC) WITH DIFFERENTIAL	04/01/2020	Sample Provider	85008	,Duke University Health System,
MANUAL WHITE BLOOD CELL (WBC) DIFFERENTIAL	04/01/2020	Sample Provider	85027	,Duke University Health System,
MAGNESIUM	04/01/2020	Sample Provider	83735	,Duke University Health System,
COMPREHENSIVE METABOLIC PANEL (CMP)	04/01/2020	Sample Provider	80053	,Duke University Health System,

Procedures/Results

GENERAL LAB RESULTS

Vaccinations

ORDER ITEM	CUMULATIVE	RESULT 1	RESULT 2
CORONAVIRUS (COVID-19) SARS-COV-2 PCR PREOPERATIVE SCREEN (LAB9990_t178:1)		04/13/2020 17:46 F	

Documents

Complete Blood Count (CBC) with Differential (90001_t138:1)

AI Prompt

Comprehensive Metabolic Panel (CMP) (682_t138:1)

Magnesium (854_t138:1)

Manual White Blood Cell (WBC) Differential (9000_t138:1)

OTHER RESULTS AND NOTES

[DETAILS](#) [DESCRIPTION](#) [STATUS](#) [RESULTS](#) [RESULT DATE](#)

HealthShare - Google Chrome

ncq66au/csp/healthshare/hsaccess/web/csp/websys.csp?TUID=1058&TUID=24533

DEMO1, COVID1

Male · 65 Years (1955-01-01) · 10000 NOT REAL STREET, FAIRLY BIG TOWN, NC 27519 · (555) 222-1111

CORONAVIRUS (COVID-19) SARS-COV-2 PCR PREOPERATIVE SCREEN

Previous Result

Next Result

Order Details

Cumulative

Order Start Date & Time	04/13/2020 17:46	Result Date & Time	04/14/2020 00:49
Ordering Clinician		Result Status	Final
Specimen		Placer ID	164921478242316164921
Specimen Collection Date & Time	00:00	Last Updated At	Duke University Health System
Specimen Received Date & Time	00:00	Age at Time of Test	65 Years

TEST ITEM	FLAG	VALUE	UNITS	REFERENCE RANGE	TEST ITEM STATUS	COMMENTS	SENSITIVITIES	MESSAGE FLAG
Results narrative would be documented here		Not Detected			Final			
NAR					Final			
Lab Interpretation		Normal			Final			

Patient Results from eHealth Exchange



[PAA Tools](#) [Patient Search](#) [View Summary](#) [Clinician Tools](#) [My Account](#) [Logout](#) [Help](#)



Awaiting results from: eHX-GAHIN [Click to Refresh](#)

DEMO1, COVID1

Male · 65 Years (1955-01-01) · 10000 NOT REAL STREET, FAIRLY BIG TOWN, NC 27519 · (555) 222-1111



[view timeline](#)

Summary

Allergies & Alerts

Encounters

Medications

History

Conditions

Procedures/Results

Vaccinations

Documents

AI Prompt

SUMMARY

ALLERGIES

DETAILS	CATEGORY	ALLERGEN	NATURE OF REACTION
	P propensity to adverse reactions to drug	Penicillins	Rash

DIAGNOSES

DETAILS	DESCRIPTION	CODE	DIAGNOSIS DATE	LAST UPDATED
	Fever, unspecified fever cause	386661006		
	Tonsil cancer (CMS-HCC)	363393007		
	Fever and chills, unspecified	274640006		
	Cancer associated pain	98921000119102		
	Therapeutic opioid induced constipation	136801000119102		

1 ▶

GENERAL LAB RESULTS

DETAILS	DESCRIPTION	STATUS	RESULTS	RESULTS DATE
	CORONAVIRUS (COVID-19) SARS-COV-2 PCR PREOPERATIVE SCREEN	Final	Results	04/14/2020 00:49
	Comprehensive Metabolic Panel (CMP)	Final	Results	04/08/2020 08:29
	Magnesium	Final	Results	04/08/2020 08:29
	Complete Blood Count (CBC) with Differential	Final	Results	04/08/2020 08:26
	Complete Blood Count (CBC) with Differential	Final	Results	04/01/2020 09:31

1 ▶

MEDICATIONS

DETAILS	ORDER NAME	ORDER STATUS	START DATE
	nitrofurantoin, macrocrystal-monohydrate, (MACROBID) 100 MG capsule	Inactive	04/15/2020
	polyethylene glycol (MIRALAX) packet	Inactive	04/09/2020
	morphine (MS CONTIN) 15 MG ER tablet	Inactive	04/09/2020
	tramadol (ULTRAM) 50 mg tablet	Inactive	04/08/2020
	lidocaine (XYLOCAINE) 2 % solution	Inactive	04/08/2020

1 ▶

DOCUMENTS

DETAILS	DOC TYPE	DOCUMENT	DOCUMENT PARSED
	Consolidated CDA R2.1 Structured Body Document	Continuity of Care Document	Yes
	Consolidated CDA R2.1 Structured Body Document	Continuity of Care Document	Yes
	Consolidated CDA R2.1 Structured Body Document	Continuity of Care Document	Yes
	Consolidated CDA R2.1 Structured Body Document	Continuity of Care Document	Yes
	Consolidated CDA R2.1 Structured Body Document	Continuity of Care Document	Yes

1 ▶

OTHER RESULTS AND NOTES

DETAILS	DESCRIPTION	STATUS	RESULTS	RESULTS DATE
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Documents - Continuity of Care Document (CCD)



DEMO1, COVID1

Male · 65 Years (1955-01-01) · 10000 NOT REAL STREET

➤ [view timeline](#)

DOCUMENTS	
DETAILS	DOCUMENT
	Continuity of Care Document
	Continuity of Care Document
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ncq66au/csp/healthshare/hsaccess/web/csp/websys.csp?TUID=381&TUID=24545

Summary of Care - Google Chrome

Summary of Care

Patient	COVID1 DEMO1	Alias	
Date of birth	January 1, 1955	Sex	Male
Preferred Language	English		
Contact info	Primary Home: 10000 NOT REAL STREET FAIRLY BIG TOWN, NC 27519, US Tel: (555) 222-1111	Patient IDs	COVIDDEMO1 1.2.840.114350.1.13.324.2.7.7.737384.14 COVIDDEMO1 1.2.840.114350.1.13.324.2.7.7.737384.14 COVIDDEMO1 1.2.840.114350.1.13.324.3.7.3.688884.100

Document Id	b0320bb1-ee2b-469a-bd62-836925632adf EPC		
Document Created:	April 15, 2020, 17:15:41 -0400		
Performer (primary care physician)	Sample Provider of HALIFAX INTERNAL MEDICINE, PLLC		
Contact info	Work Place: 2232 Wilborn Ave Ste J South Boston, VA 24592-1662, USA Tel: +1-434-517-6180		
Author	Epic - Version 8.8		
Contact info	Address and Telecom information not available		
Encounter Id	164921219941195164921 1.2.840.114350.1.13.324.2.7.3.698084.8	Encounter Type	Documentation
Encounter Date	From April 14, 2020 to April 14, 2020		
Encounter Location	Some Hospital Cancer Center Hematological Malignancies of		
Emergency contact	Emergency Contact Person		
Document maintained by	Some Hospital Health System		
Contact info	Work Place: 12345 Some Hospital Street Durham, NC 27710, USA		

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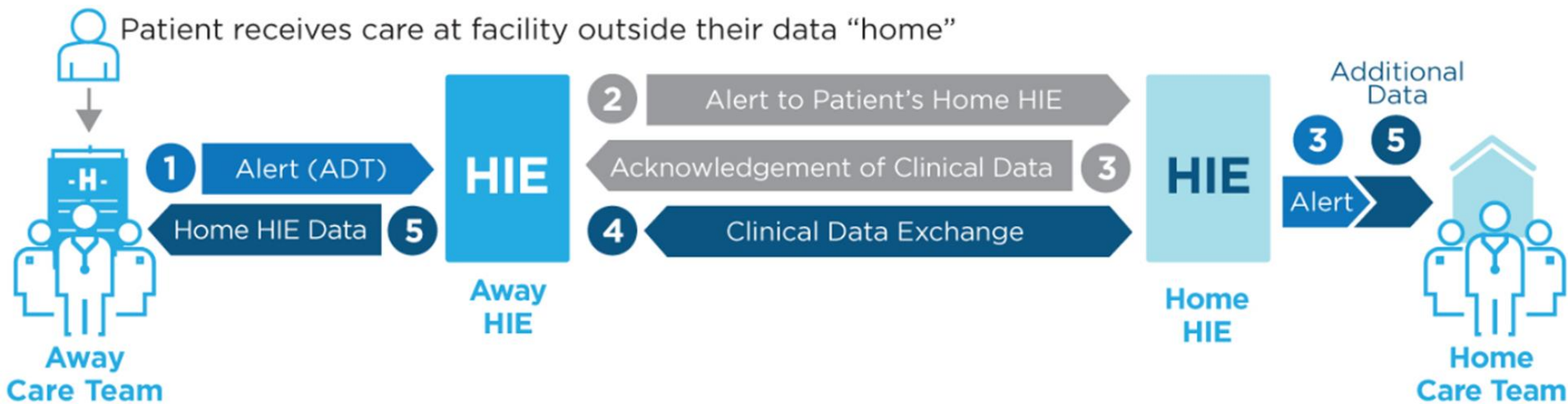
- Reason for Visit
- Encounter Details
- Allergies
- Medications
- Active Problems
- Immunizations
- Social History
- Last Filled Vital Signs
- Progress Notes
- Plan of Treatment
- Results

Reason for Visit

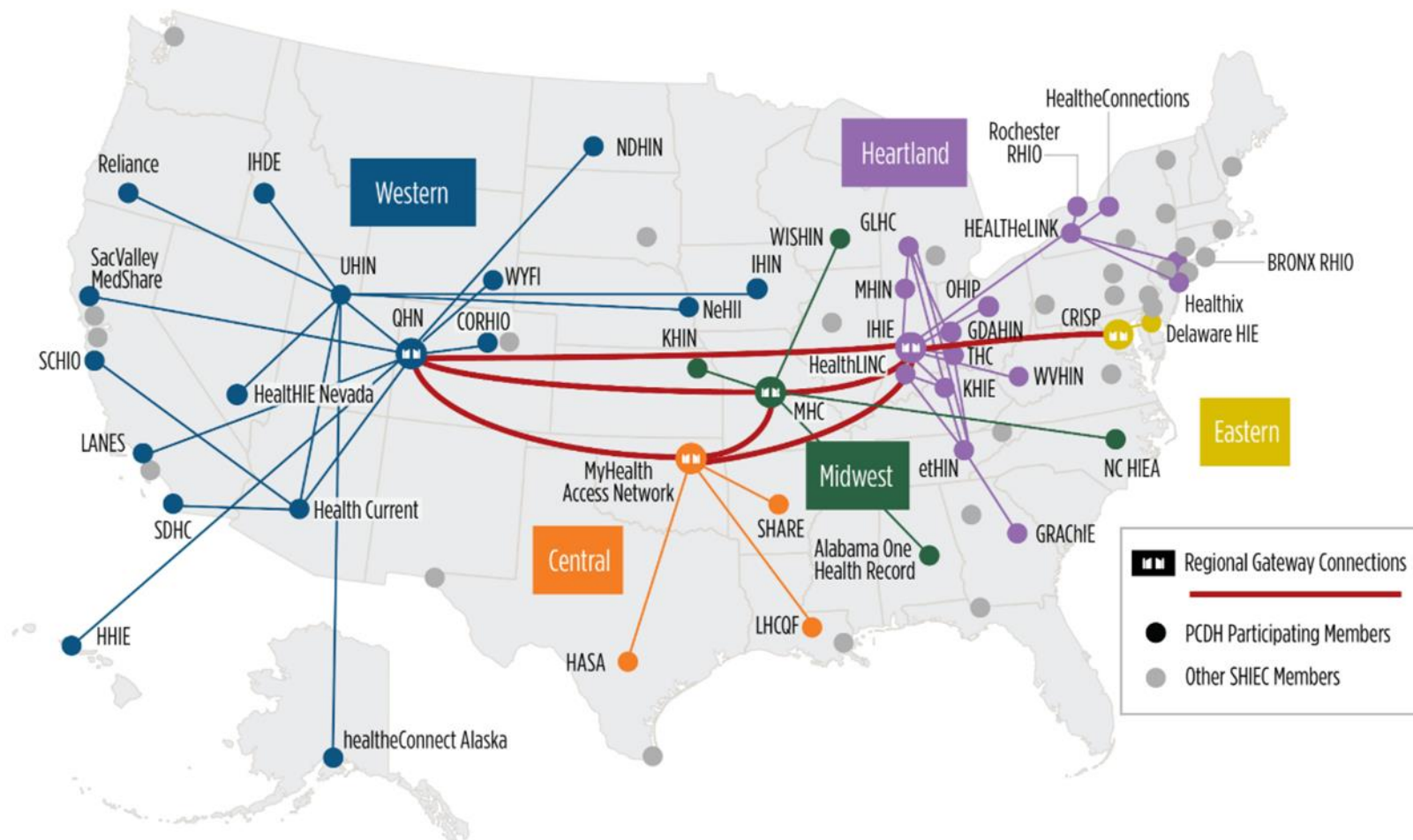
Reason	Comments
Nutrition Counseling	

Patient Centered Data Home

How It Works

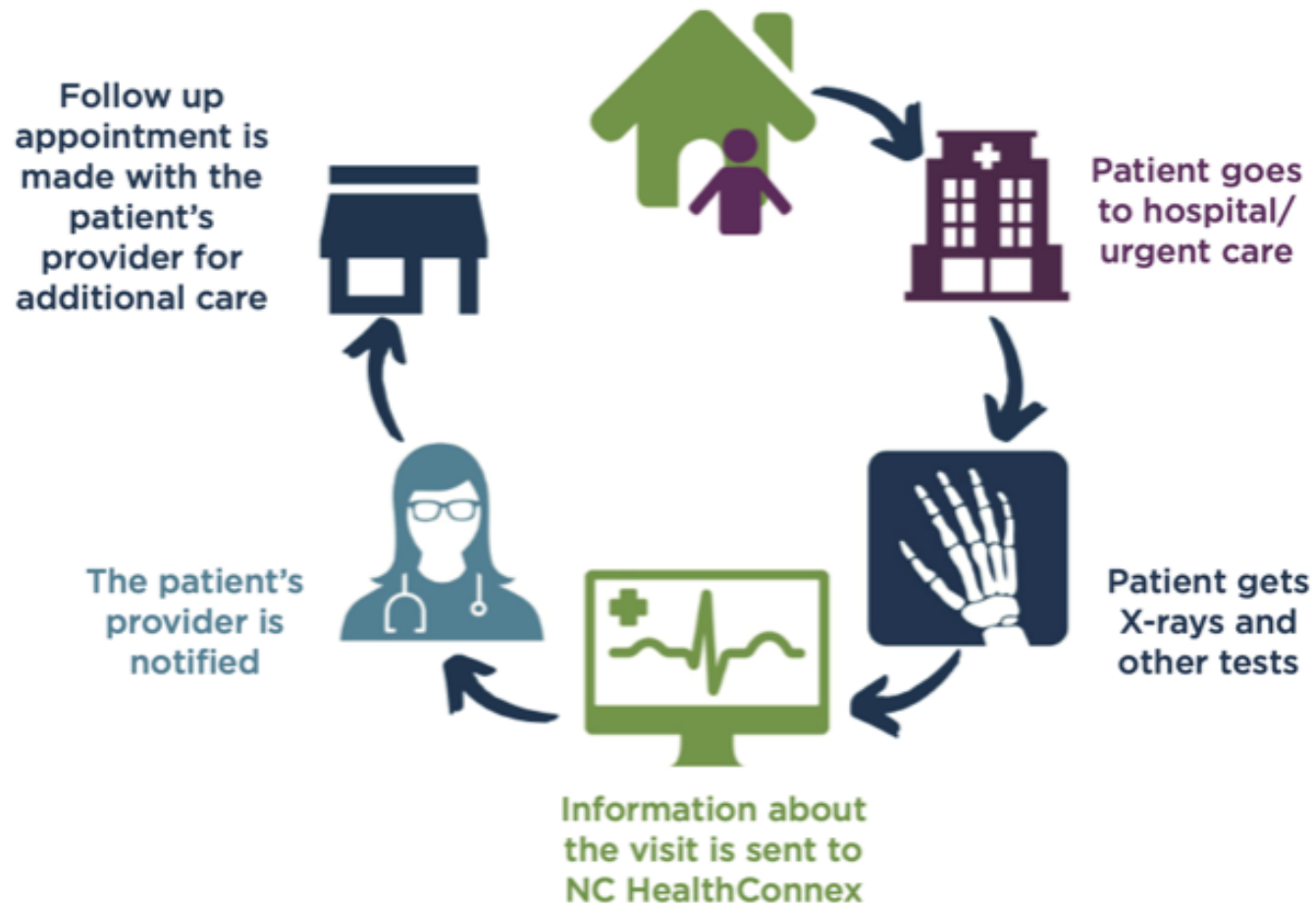


Patient Centered Data Home



Reference: <https://strategichie.com/initiatives/pcdh/>

NC*Notify – Event Notification Service



Future State - V3 and V3+

Along with near real-time HL7 notifications, other enhancements in V3+include :

- Auto Attribution
- Patient Panel Loader
- Web-Based Notification Platform – A dashboard-like platform accessible through the NC HealthConnex Clinical Portal that provides:
 - More efficient view of patient notifications
 - Exporting abilities for reporting
 - Care coordination enhancement tool

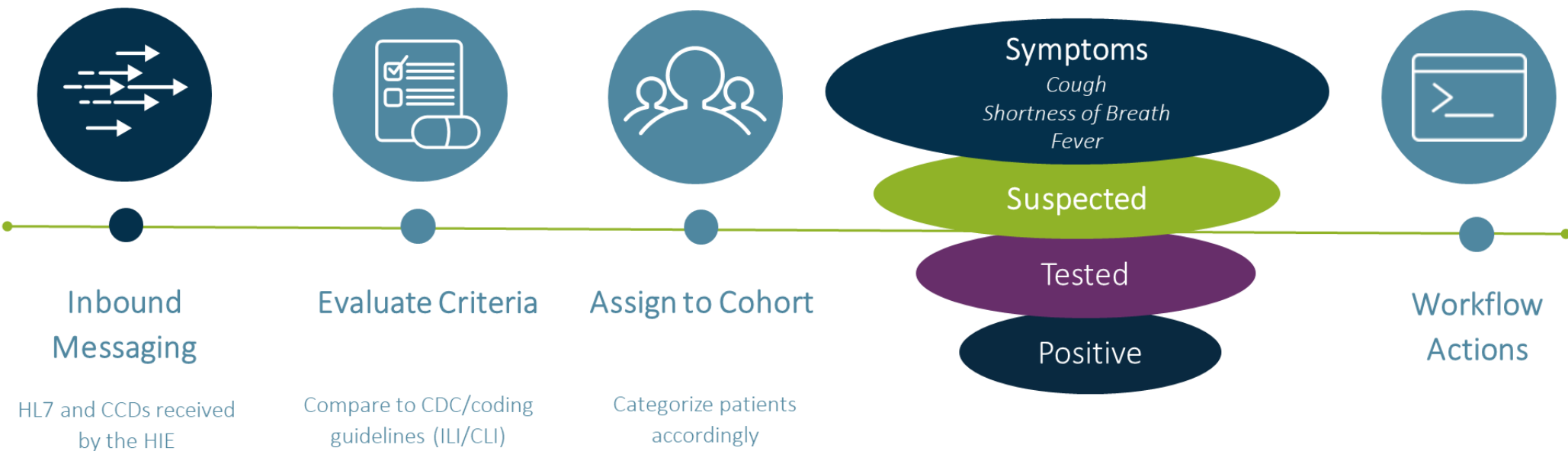
Advancing Notification Services

Roadmap



Versions	V1 & V2	V3	V3+
Frequency of Notifications	Weekly or Daily	Near Realtime	
Format/Method	File via <u>sFTP</u> DSM	HL7	Web Based Solution
Triggers Generating Notifications	ED, Inpatient, Ambulatory Admissions & Discharges		ED Reutilizers
Panel Details	Participant Defined		Attributed via encounters sent to HIE
Content	Visit date, visit type, location diagnosis, discharge information, death indicator/date	Admit and discharge date/time and reason, visit number, attending physician, referrer	Web-based panel submission

NC HealthConnex Cohort Monitor



Questions?

**For more information visit:
www.nchealthconnex.gov**

**Tel: 919-754-6912
E-mail: hiea@nc.gov**

Karen L. Smith, MD, FAAFP
Independent Rural Family Physician

Goals for Presentation

1. Telehealth Strategies used in Outpatient Clinics to insure Continuity of Care
2. Review the Role Healthcare Data at Point of Care
3. Patient Perception and Acceptance of Primary Care's effort in response to Covid-19

Leverage Fundamentals of Team Approach



The Beginning of the Pandemic



Healthcare Data vs. Doughnuts and Burgers

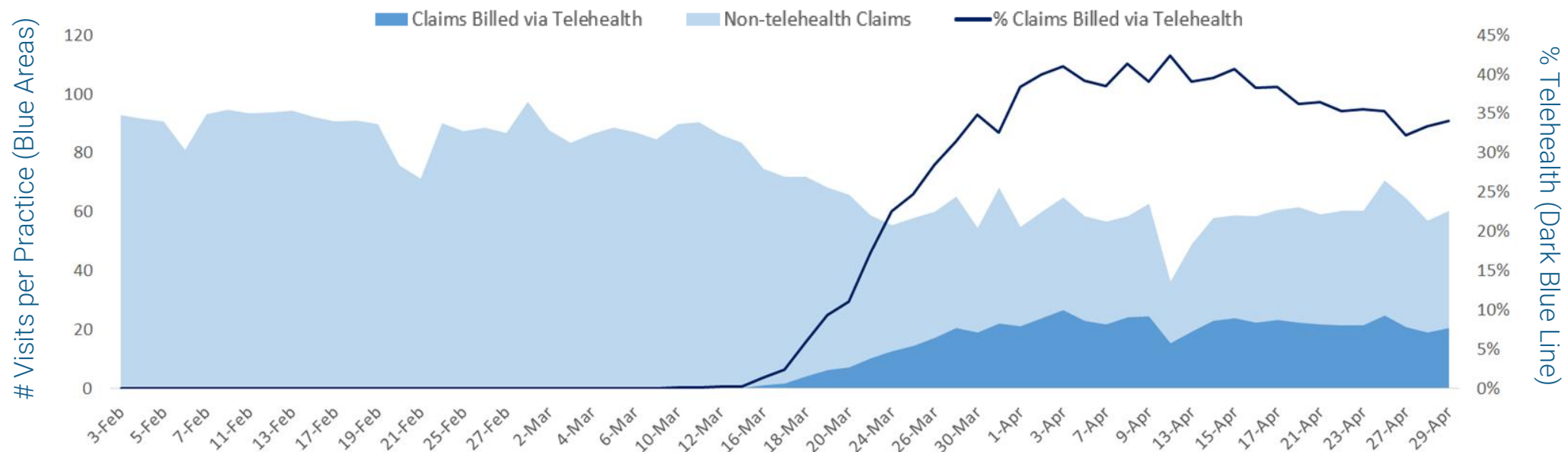


Modification of Patient Messaging



Telehealth Adoption by Independent PCPs in NC

Claim Volume & Telehealth Uptake (Weekday Adjusted)



Notes

- These data represent 126 independent primary care practices with 237 practice locations across North Carolina (partnering with Aledade in value based accountable care contracts)
- Telehealth use increased from **0% to 35%** of all claims in **under 20 days**
- Visit volumes dropped by 40% but beginning to stabilize and hopefully climb

Telehealth Annual Wellness Visits

Medicare Policy Clarification

Medicare policy allows for the billing of the AWW (G0438-G0439) when delivered via telehealth provided that all elements of the AWW are provided

(https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/AWW_Chart_ICN905706.pdf).

For the duration of the public health emergency, the AWW may be administered using audio-only technology, if a video connection with the patient is not possible. If the patient can self-report elements of the AWW (i.e., height, weight, blood pressure, other measurements deemed appropriate based on medical and family history), those measurements may be included and recorded in the medical record as reported by the patient. Guidance for when the patient cannot self-report is currently under review, and CMS plans to issue guidance soon. We encourage you to keep abreast of changes and updates by browsing our most up-to-date publications via the following CMS websites:

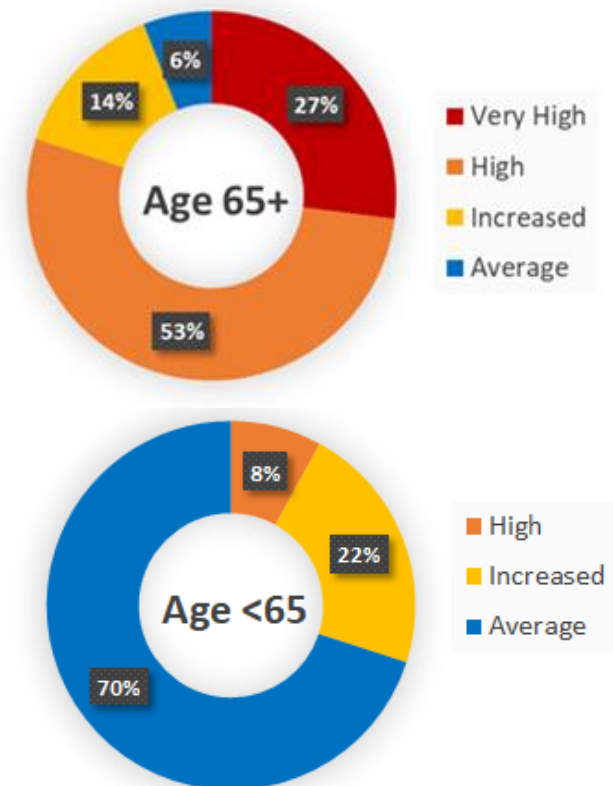
- <https://www.cms.gov/about-cms/emergency-preparedness-response-operations/current-emergencies/coronavirus-waivers>
- <https://www.cms.gov/Outreach-and-Education/Outreach/FFSProvPartProg/Provider-Partnership-Email-Archive>.

Identify & Proactively Outreach to COVID-Vulnerable

How we help bring awareness to COVID-19 Vulnerability:

- Based on available scientific literature so far, Aledade implemented a basic scoring system that assigns points for patient characteristics that correlate with **higher fatality rates from COVID-19 infection**.
- Age** has the strongest influence on this scoring system.
 - History of CVD, COPD, HTN, DM, cancer and male gender also confer higher risk.*
 - Patients whose most recent BP was >160/100 or most recent HbA1C >9.0 have a higher score than those with controlled values.*
- Patients are segmented into **4 vulnerability categories for ease of interpretation: average, increased, high, and very high**

What proportion of patients can I expect to be flagged high vulnerability?



Fill Schedules with the Patients who Need you Most Right Now!

1. **Actively monitor hospital ADT event notifications** to assist with care transitions
2. **Identify patients who are most vulnerable to severe COVID complications** if they were to be exposed
 - Advanced age, DM, CVD, COPD, immunosuppression
3. **Keep them safe!**
 - Convert scheduled visits to telehealth visits
 - Proactively outreach to schedule a “Stay Well at Home” visit

The screenshot shows the Aledade patient management interface. The top navigation bar includes 'COVID-19 RESOURCES', 'DAILY HUDDLE', 'CARE MANAGEMENT', 'POPULATION EXPLORER', 'WORKLISTS', 'APPLICATION DATA', and 'SETTINGS'. The 'WORKLISTS' tab is active, and the 'COVID-19 OUTREACH' sub-tab is selected. The interface displays a summary of 50 patients needing outreach, 1 needing follow-up, and 0 with completed outreach. A table lists individual patients with columns for Name, Outreach Status, Outreach Date, COVID-19 Vulnerability, Phone, and Next Appointment. A red box highlights the 'COVID-19 VULNERABILITY' column, showing levels ranging from 'VERY HIGH' to 'HIGH'.

NAME	OUTREACH STATUS	OUTREACH DATE	COVID-19 VULNERABILITY	PHONE	NEXT APPT
Thompson, Donald 08/10/1941			VERY HIGH	202-555-1212	4/15/20
Murphy, Joan 08/26/1947			VERY HIGH	202-555-1212	
Allen, Judith 07/25/1942			VERY HIGH	202-555-1212	
Reed, Jean 09/21/1942			VERY HIGH	202-555-1212	5/25/20
Murray, Evelyn 08/26/1946			VERY HIGH	202-555-1212	6/12/20
Lopez, Rita 05/20/1941			HIGH	202-555-1212	
Hernandez, Wayne 07/01/1947			HIGH	202-555-1212	4/22/20
Burns, Ellen 09/22/1942			HIGH	202-555-1212	
Torres, Eugene 09/20/1947			HIGH	202-555-1212	4/19/20
Alexander, Mildred 12/23/1942			HIGH	202-555-1212	5/8/20
Cole, Josephine 05/27/1941			HIGH	202-555-1212	
Berry, Anne 04/24/1946			HIGH	202-555-1212	6/1/20
Henderson, Eileen 09/09/1943			HIGH	202-555-1212	6/17/20

“Stay Well at Home”

© Aledade, Inc. 2020

COVID-19 “Stay Well at Home” Telehealth Visit Checklist



Don't forget to review the Daily Huddle for alerts and tags!



Starred tasks can be performed outside of the visit by practice staff or using a questionnaire.



Provide COVID-19 Patient Education & Guidance

*Educate on Vulnerability to COVID-19:

- ☐ People aged 65 and older and those with heart conditions, lung disease, high blood pressure, diabetes and cancer or other immunocompromising conditions are significantly more vulnerable to severe illness in the event of coronavirus exposure.

*Avoiding Exposure – Advise:

- ☐ “Stay at home as much as possible, stay >6 feet away from others if you must go out.”
- ☐ “Wash hands frequently for >20 seconds, keep hand sanitizer with you, avoid touching your face.”
- ☐ “Postpone elective procedures, surgeries, dental and other non-urgent visits. Did you have anything coming up?”

Make a Care Plan for Chronic Conditions & Ensure Adequate Supplies

Medications and Durable Medical Equipment:

- ☐ *Ensure patients have a 90 DAY SUPPLY of medications and DME, including home oxygen, nebulizers, incontinence supplies, etc.
- ☐ *Encourage to call for refills at least 2 weeks in advance, and arrange for home delivery from local or mail order pharmacy. (Many payers are allowing for early refills)
- ☐ *Ask: “How often do you miss a dose of your medication?” (Address barriers to adherence)
- ☐ See full medication review guidance [here](#).

Dialysis, Infusions, & Other Critical Therapies:

- ☐ *Ask: “Are there any barriers to care or treatment?”

General:

- ☐ Consider need for home self-monitoring devices to complement telehealth visits.
- ☐ Provide instructions for self-measurement and symptom monitoring, and when to call. Engage family members to support.
- ☐ Reinforce medication adherence and address barriers.
- ☐ Consider enrollment in chronic care management.

Specific Conditions:

- ☐ HTN: BP monitor at home? Establish self-monitoring plan.
- ☐ DM: Glucometer at home? Establish self-monitoring plan.
- ☐ HF: Scale at home? Establish self-monitoring plan.
- ☐ Coumadin: Can the patient switch to a direct oral anticoagulant? If not, establish plan for INR monitoring. (Click [here](#) for further anticoagulation guidelines)

Keep Patients Prepared for the Future

Advanced Care Planning:

- ☐ Ask: “Have you and your family talked about your wishes for ventilator support or resuscitation in the event of serious illness?” (Discuss end of life wishes and advance directives. Offer t/u telehealth ACP visit)

*Provide Guidance on When to Call:

- ☐ Advise: “Call us if you develop a cough or fever, feel bad in any way, or if you have any other concerns.”

*Urgent or Emergent Care:

- ☐ Does your patient know who to call or where to go if high acuity care is required?

Resources:

- ✓ COVID-19 Precautions
- ✓ Medication and DME supplies
- ✓ Plan of care for chronic conditions
 - home monitoring
- ✓ Advance care planning
- ✓ Food and safety at home
- ✓ Anxiety, depression, stress management
- ✓ Alcohol and substance use

Address Social & Behavioral Health Needs

*Social Needs:

- ☐ Ask: “How are you currently obtaining groceries? Do you have sufficient access to food?” (Arrange Meals on Wheels or other services as necessary)
- ☐ Ask: “What is the one thing that worries you most about staying at home during this emergency?”
- ☐ Ask: “Do you have a family member or friend who can check in on you regularly?” (Encourage staying connected virtually)

Behavioral Health:

- ☐ *Consider a [PHQ-2](#) or [GAD-7](#) screen.
- ☐ *Ask about alcohol and substance use.
- ☐ Refer for behavioral health telehealth services as needed.

Smoking Cessation:

- ☐ More important now than ever! (Consider nicotine replacement therapy and pharmaceutical support)

Physical Activity & Healthy Eating:

- ☐ Make a plan for staying physically active and maintaining a healthy diet during social isolation.

Sleep Hygiene:

- ☐ Encourage patients to get sufficient sleep and to practice healthy habits to avoid insomnia.

<https://www.aledade.com/covid-19>

Pearls from Dr. Sam Cykert

Telehealth and High-Risk Patient Management Checklist: Unprecedented cancellations by patients of scheduled visits for chronic disease management.

- Detrimental for individuals with high cardiovascular risk, diagnosed ischemic vascular disease, suboptimal diabetes control, and uncontrolled hypertension because they are more likely to be hospitalized or die if infected with SARS-coronavirus.
- Even if infection does not occur, delaying chronic disease management increases odds patients will experience unwanted sequelae of their chronic disease.
- Primary care practices need sufficient patient volume to remain financially sustainable in their communities.
- Systematic scheduling of telehealth visits for the chronically ill, especially prior to a defined COVID surge, benefits patients through enhanced chronic care and can reduce COVID related morbidity and downstream complications of patients' chronic conditions.

Pearls from Dr. Sam Cykert

1. Query EHR for a list of all patients with uncontrolled hypertension who have not been seen in the last 3 months.
2. Query EHR for a list of all diabetics with Hgb A1C's > 7.9 percent who have not been seen in the last 3 months.
3. Query the EHR for all patients with LDL cholesterols > 130 who have not been seen in the last 3 months.
4. If the EHR is capable of producing 10-year ASCVD risk scores, query for all patients $\geq 10\%$ who have not been seen in the last 3 months.
5. If high ASCVD risk population cannot be automated, simply cross the lists above and designate those who appear on 2 or more lists as highest risk and designate those above the age of 50 on one list as intermediate-high risk.
6. Prepare a handout for all hypertensive patients and the ASCVD high risk group who do not own a digital blood pressure cuff with procedures and potential products for obtaining a dependable digital monitor. {We can prepare this for practices – see HHN BP modules}. Note Medicaid is currently paying for these devices.
7. Designate video visit or telephone (if video not possible) visit slots for high risk patients prioritizing the highest risk patients first.

Pearls from Dr. Sam Cykert

8. Have nurse / CNA do pre-visit to ensure that telehealth platform works and to get weight (if patient has scale) and blood pressure (if patient has digital device).
9. If patient is diabetic and has glucometer get glucometer readings during pre-visit.
10. If patient is hypertensive and does not have a digital device, can use the pre-visit to advise the purchase of the digital monitor or designate an isolated, “clean” office area for blood pressure monitoring “drop in” {would probably reserve this for individuals with very high pressures at last visit, e.g. systolic > 160 or diastolic > 100}.
11. Ensure flexibility with technology and high-risk patients when executing the pre-visit contact. While the practice may have a preferred telehealth solution, the practice may have to work with what the patient is most comfortable with (i.e. Facebook, Facetime, Skype, telephone).
12. Emphasis for the main clinician visit should be aggressive risk reduction, e.g. intensification of diabetes meds, hypertension meds, addition of statins.
13. With medication adjustments, arrange follow up telehealth visit at a fairly quick interval, e.g. 2 weeks, to ensure that improving trends and associated risk reduction is proceeding appropriately.
14. In follow up take a thorough history in terms of adherence to new meds or dose adjustments and ask about any relevant side effects. Continue to intensify care if indicated.

Pearls from Dr. Sam Cykert

15. Continue to systematically schedule chronic disease patient visits from high risk to low risk until all population lists are exhausted. Prioritize follow up of uncontrolled high risk patients over lower risk patients but eventually work down to the lower risk lists.
16. Some patients will not recognize the value of telehealth visits and wish to wait for the re-establishment of face to face visits. Pre-visit staff may need to advocate for the value of controlling dangerous illnesses now in the context of COVID infection as well as the uncertainty of when regular face to face visits will be available.
17. Consider using telehealth and telephonic visits for follow-up of patients recently discharged from the hospital inpatient or emergency room. This will help the practice and patient ensure effective transitions of care management.
18. Incorporate telehealth with annual wellness exams and a prioritization of high-risk patients.

COVID-19 Impact on Vaccine Administration: “Sneak Preview” of the next challenge

- This data represents over 1100 offices in 15 states, multiple payers and multiple EHRs, across the lifespan. Older patients demonstrate a greater percentile decline when compared to the pediatric population
- Public health administered vaccines often in rural locations demonstrated the greatest decline in vaccination administration

Age Group		All
Week Start Date (Monday)		
2-Mar		0.6%
9-Mar		-8.8%
16-Mar		-34.5%
23-Mar		-49.9%
30-Mar		-54.8%
6-Apr		-55.9%
13-Apr		-49.6%
20-Apr		-49.2%
27-Apr		-41.2%
4-May		-32.0%
11-May		-33.3%

Adult and Pediatric Immunizations



Complete Flu Clinic Solution

Overview

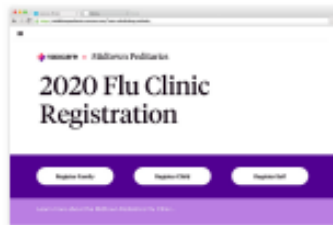
A complete flu clinic solution that helps patients engage with the providers they trust. These tools will help equip practices with the ability to effectively order, communicate, and vaccinate in a COVID environment.

PREDICTIVE FLU PRE-BOOK



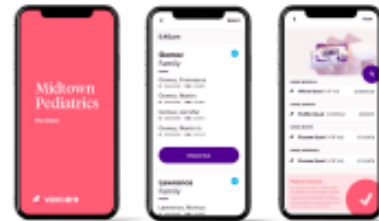
The vaccines you need when you need them, automatically.

PATIENT COMMUNICATION SYSTEM



A one stop shop for patients to manage their flu clinic visit.

CURB-SIDE CLINIC KIT



A mobile clinic solution for the socially distanced world.

FAMILY FLU PROTECT (*Pediatric)



Offer flu to parents or guardian during a child's visit with a simple scan of their license.

Patients Thankful for Uninterrupted Service



Wendy Holmes
Immunization Branch Head
N.C. DHHS' Division of Public Health

Goals of this presentation

1. Encourage the use of the Reminder/Recall function in the N.C. Immunization Registry to promote timely immunization during the pandemic.
2. Provide step-by-step example of how to perform this operation.

Timely Immunization is Important

Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly

Early Release / Vol. 69

May

Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering Administration — United States, 2020

Jeanne M. Santoli, MD¹; Megan C. Lindley, MPH¹; Malini B. DeSilva, MD²; Elyse O. Kharbanda, MD²; Matthew F. Daley, MD³; Lisa G. Gebo, MD⁴; Julianne Gee, MPH⁴; Mick Glover⁵; Ben Herring⁶; Yoonjae Kang, MPH¹; Paul Lucas, MS¹; Cameron Noblit, MPH¹; Jeanne Tropper, MPH, I
Tara Vogt, PhD¹; Eric Weintraub, MPH⁴

Maintaining Coverage Levels

- Prioritize in-person newborn care as well as well visits and immunizations for children through 24 months of age.
- Collaborate with Local Health Departments (LHD) and provide to the extent possible immunization services for eligible children.
- Use Reminder/Recall with a focus on Reminder notifications.

Reminder/Recall Process

- **Reminder/Recall** is about communicating to a Parent/Responsible guardian that the patient is due now or on a future date (reminder) or past due (recall) for one or more immunizations.
- **Reminder/Recall Report** allows you to generate letters for patients who are due or overdue for vaccines. It can also be used to identify eligible patients when your office has short-dated vaccine or for vaccine recalls.
- The **NCIR Reminder/Recall Report** utilizes demographic information recorded in the registry such as address and telephone number to send notifications.

Benefits of using the NCIR Reminder/Recall Report

- Reminder/Recall is an easy and low-cost method for Providers to reinforce a medical (immunization) home through identification of patients lost to follow up and bringing them back for immunizations as well as other care.
- Assists Providers to improve clinical care through identification of erroneous immunization practices, such as giving a vaccine too early, violating minimum interval/age rules, etc.
- Saves staff time/labor by providing quality assurance benefits for Providers that use the NCIR to generate Reminder/Recall notifications.

Reminder/Recall Notifications and NCIR User Roles

Reports Only

- Searches for clients and views/prints client specific records

Typical User

- Manages client status
- Manages immunization information

Inventory Control

- Manages inventory and ordering

Administrator



- Manages users, practice site(s), clinicians
- Generates practice-level reports, including reminder/recall



Production Region 10.6.0

General

system user manual

Maintenance

manage users
manage sites
manage clinicians
manage physicians
manage schools
mass vax definition

Inventory

manage inventory
manage orders
manage transfers
manage returns
flumist replacement
request transaction sum
request vaccine usage
request wasted/expired
inventory report
vaccine accountability
inventory count

Clients

manage client
mass vax grid entry

Immunizations

manage immunizations

Reports

request reminder
check reminder status
request callback
request new client form
request casa extract
check request status
request vfc reports
check vfc status
assessment report
check assessment
benchmark report
check benchmark

Admin Support

manufacturer listing
trade name listing
vaccine listing
vaccine group listing
vaccine relationships

Data Exchange

dx imm transaction list

Organizations

switch org & role

[home](#) [change password](#) [logout](#) [help desk](#)

organization **TEST ORGANIZATION** • user **Wendy Holmes** • role **Administrator**

Reminder/Recall Request

Select Client Population ...

- ☒ Clients Associated with TEST ORGANIZATION
☐ Clients Residing in Selected Counties below
☐ Clients within TEST ORGANIZATION or Residing in Selected Counties

Available Counties

Add >

< Remove

* Selected Counties

Unknown

Unknown

NOTE: Fields marked with an asterisk * are required.

Select the Vaccine Group(s) ...

- ☐ Use All Vaccine Groups
☒ Use Vaccine Groups
Selected

Adeno
Anthrax
...

Add >

< Remove

DTP/aP
HepB
Hib

Select the School & Primary Care Provider ...

School

Provider -
PCP

Enter Additional Demographic Criteria ...

City

Zip Code

County

Enter the Date Criteria ...

* Birth Date Range

From

To

Target Date Range

From

To

Weeks Since Last Notice

NOTE: If Target Date is blank, today's date will be used.

Exclude clients more than

Month(s) Overdue

Exclude from

☒ Today's Date

☐ Target From Date

Specify How to Sort the Report Data ...

Sort 1st By

Last Name

Ascending

Sort 3rd By

Sort 2nd By

First Name

Ascending

Sort 4th By

Generate

Cancel

NOTE: Fields marked with an asterisk * are required.



organization **TEST ORGANIZATION** • user **Wendy Holmes** • role **Administrator**

Reminder Request Status

Refresh

Cancel

Started	Completed	Status	Clients	Eligible	Birth From	Birth To
05/17/2020 07:12 PM	05/17/2020 07:12 PM	100 %	5	3	05/18/2016	05/18/2018

Reminder Output Status

Reminder Request Process Summary

Step	Criteria Evaluated at this Step	Clients
1	Clients that are active or inactive for <i>TEST ORGANIZATION</i> .	215
2	Clients that are active for <i>TEST ORGANIZATION</i> .	51
3	Clients from Step 2 that are born between 05/18/2016 and 05/18/2018 .	10
4	Clients from Step 3 that meet the following criteria: <ul style="list-style-type: none"> • County is not specified; • School is not specified; • Provider - PCP is not specified; • Weeks Since Last Notice is not specified. 	8
5	Clients from Step 4 that meet the following criteria regarding vaccination status: <ul style="list-style-type: none"> • Clients that are Recommended or Overdue for one or more vaccinations between 05/17/2020 to 08/01/2020; • Use the following vaccine groups: MMR and ; • Use for all clients. • Exclude Overdue Reminders is not specified 	5
6	Clients from Step 5 that meet the following criteria. <ul style="list-style-type: none"> • Have one or more responsible persons; • At least one responsible person receives notices; • City is not specified • Zip Code is not specified 	3

Output	Description	Additional Input
Client Query Listing	A list of clients eligible for reminder based on the report criteria (in .pdf format). Excludes omitted clients.	Report Name <input type="text"/>
Reminder Letter	Standard Reminder Letter.	Report Name <input type="text"/> Free Text <input type="text"/> Phone # <input type="text"/>
Reminder Card	Standard Reminder Card (4x5).	Report Name <input type="text"/> Free Text <input type="text"/> Phone # <input type="text"/>
Mailing Labels	Avery Mailing Labels.	Report Name <input type="text"/>
Client Extract	A .txt file of clients eligible for reminder based on the report criteria. Includes omitted clients.	Report Name <input type="text"/>

Report Descriptions

Report Output	Description
Client Query Listing	This report is produced for the administrator's records. This report will list every client that was returned in the report query process. Along with each client, the report will also list the phone number and full address of every responsible person associated with each client. Any incomplete or blank lines found in this report represent insufficient or missing phone numbers and/or address information for a responsible person. This report excludes omitted clients.
Reminder Letter	This report output produces a standard form letter with sufficient room at the top of each page for your provider organization's letterhead. The body of the letter includes the clients immunization history, recommended immunizations and due dates, and can also include the free text and/or phone number. *Note*
Reminder Card	This report output produces a standard (4x5 inch) mailing card, printed one card per page. The body of this card includes only the clients recommended immunizations and due dates, and can also include the free text and/or phone number. *Note*
Mailing Labels	<p>This report produces mailing labels and will print in the same order as either of the above two reports. The report has been formatted to print on Avery Mailing Labels #5160, which contain 30 labels per page. *Note*</p> <ul style="list-style-type: none"> • The clients name is included in small font under the responsible person on the Mailing Labels. • Default sort will be on clients last name.
Client Extract	The Client Extract file is produced for the provider organization's mailing records. This extract is a fixed flat file containing the client name and primary contact information for every client that meets the query criteria through the vaccination status step: <i>recommended or overdue for the selected vaccines</i> . The extract will include clients reported in the Client Listing as well as clients reported in the Omitted Client report. Missing addresses or telephone numbers on this report represent missing information on the client's primary responsible person

Reminder Recall Best Practices

- Establish a reminder recall process for pediatric and adolescent patients.
- Designate a staff person to lead/coordinate this effort.
- Develop a standardized reminder recall process for your office (frequency, methodology, age cohort, etc.)
- Train front desk staff on when to schedule next immunization appointment and schedule next appointment at the time of checkout.
- Use the NCIR to run and send notifications to due/overdue patients.

Reminder Recall Best Practices (2)

- Use the NCIR to determine which immunizations are due for each patient at every visit.
- Ensure that immunization staff are knowledgeable and comfortable with administering all recommended vaccines to patients at every visit.
- Train nursing staff on facilitating conversations about the importance of vaccination with patients/parents.
- Provide strong, concise, and assertive recommendations.
- Routinely measure your pediatric immunization coverage levels and share the results with staff.

Questions?

**For more information, email:
wendy.holmes@dhhs.nc.gov**

Questions?

