



**Department  
of Health**

# **Implementing Cancer Case Reporting from Ambulatory Electronic Health Records**

**April Austin**

**New York State Cancer Registry (NYSCR)**

June 16, 2016

# Objectives

Describe NYSCR's progress and challenges related to

- Registration and Administration
- Testing and Validation
- Production Systems and Submissions

# Registration and Administration

# Meaningful Use (MU) Registration System

New York has one registration system located on NYSDOH's Health Commerce System (secure web-based portal)

- New York State Department of Health (Cancer Reporting)
- New York City Department of Health and Mental Hygiene
- For both Eligible Professionals (EPs) and Eligible Hospitals

January 2016 – Enhanced registration system deployed (replaced simple web-based system deployed in 2014)

- Program interface under development
- Plans for providers to retrieve MU status as needed

# Administrative Support

## NY Medicaid 90/10 Funds, Fall 2014

### NYSTEC – Technology consulting company

- Registration System
- Informatics Analysts
  - Support to public health program area (1 FTE in NYSCR)
  - Assist with registration and on-boarding activities
- NY's public website information
- NY's Meaningful Use (MU) Public Health Support Team
- NY Medicaid Incentive Payment Program audits

# NYSCR MU Tracking Database

## Active Registrations, On-Boarding, and Reporting Status

Registration ID

Practice NPI

On-boarding assigned to:

**Current Process Status**  
4/28/2016 Received response to request for action

Practice Name

Location Name

Address

Contact Information

Primary

Secondary

Initial (First) Submit Date

Current DOH status

Inactive Registration - See Active Registration

Active Registration

Comments

## Registration Review Section

Priority:

Practice specialty   Targeted

Part of Current Reporting

Details of Reporting

Vendor

EHR Vendor Name

EHR Software

EHR NOTCertified  Last Checked

Notes

Provider Info

### Provider Information

Registration ID  Provider ID

Provider NPI  License Number

Specialty

Name

Email  HCS ID

CMS ID  Registration submitted:

MU Stage  MUYear  MU Program

MU Start Date  Cancer Reporting Intent

MU End Date  Cancer Reporting Exclusion

Comments

# Import Registration Data and Review

- ✓ Record Practice specialty
- ✓ Record EHR certification status
- ✓ Identify existing cancer reporting
- ✓ **Prioritize (High, Medium, Low)**

**Registration Review Section** Priority: 1 High

Practice specialty: Dermatology  Targeted

Part of Current Reporting: Physician office (HCS web app)

Details of Reporting: Web app reporter (ID 87)

Vendor: Medent

EHR Vendor Name: Medent

EHR Software:

EHR NOTCertified  Last Checked: 4/3/2014

Notes:

# Process Status Log

## Current Process Status

4/28/2016 Received response to request for action

Date (Includes time with date)	Status	Process Status Log	Only log when a status changes - moves forward or back.
5/14/2016 11:44:22 AM			
4/28/2016 9:48:33 AM	Received response to request for action		
4/16/2016 11:04:17 AM	Request for action email sent		
1/20/2016 2:17:47 PM	Engaged in testing (test CDA submitted, response to invite #1)		
12/8/2015 11:36:43 AM	Invitation to test #1 email sent		
12/4/2015 2:18:06 PM	Assigned staff for testing/onboarding		
5/2/2014 10:48:32 AM	Awaiting invite to test email sent (likely to diag/treat)		
4/3/2014 11:03:10 AM	Registered - likely to diagnose/treat cancer		

Tracks process steps, including requests for action and EP responses.

## Series of Process Statuses Registration

- Likely/unlikely to diagnose/treat cancer
- Uncertified EHR

## Initial Communications

- Active Engagement Option 1 (awaiting invitation)
- EHR not certified




## Invitations to Test and Requests for Action

- Response to requests
- Production submissions



# Contact Log

- Documentation of all contacts with the practice.
- Place to save email communications as attachments, which can be provided back to EPs for audit purposes.

Contact Log			
Date:	Contact method:	Contact with:	Reason for Contact:
5/14/2016 			
Initials: <input type="text"/>	Additional Comments: <input type="text"/>		Attachments: <input type="text"/>
4/28/2016	Secure file transfer via HCS received	Laurie	Responded to request for action
Initials: dpv	Additional Comments: <input type="text"/>		Attachments: 
3/16/2016	Email initiated	Laurie	Request for action communication
Initials: dpv	Additional Comments: A request to send a second test CDA to evaluate updates in Medent		Attachments: 

# Action Reports and Status Reports (examples)

## Registration Review and Initial Contact(s)

New registration for review

EHR vendor to be identified

Due for Software not Certified contact - by registration ID

Due for Software not Certified contact - by contact email

Awaiting Invitations to Test - Lists

## Invitations to Test

Ready for Invite to Test 1

Reminder: 21-30 days since Invite 1

Responded to Invite 1 or 2 WITHOUT test CDA

>30 days since Invite 1 / Ready for Invite to Test 2

Reminder: 21-30 days since Invite 2

Alert: >30 days since Invite 2

Needs Non Responsive to Invites to Test communication

## Practice/Provider Status Summaries

Practice - MU status by priority

Provider - MU status by priority

Practice - NYSCR process status by priority

Provider - NYSCR process status by priority

## Vendor/Specialty Distributions

High/med priority - vendors

High/med priority - specialties

Vendors by certification status

Specialties by certification status

Overall specialty distribution

# MU Registrations 2014 – May 31, 2016

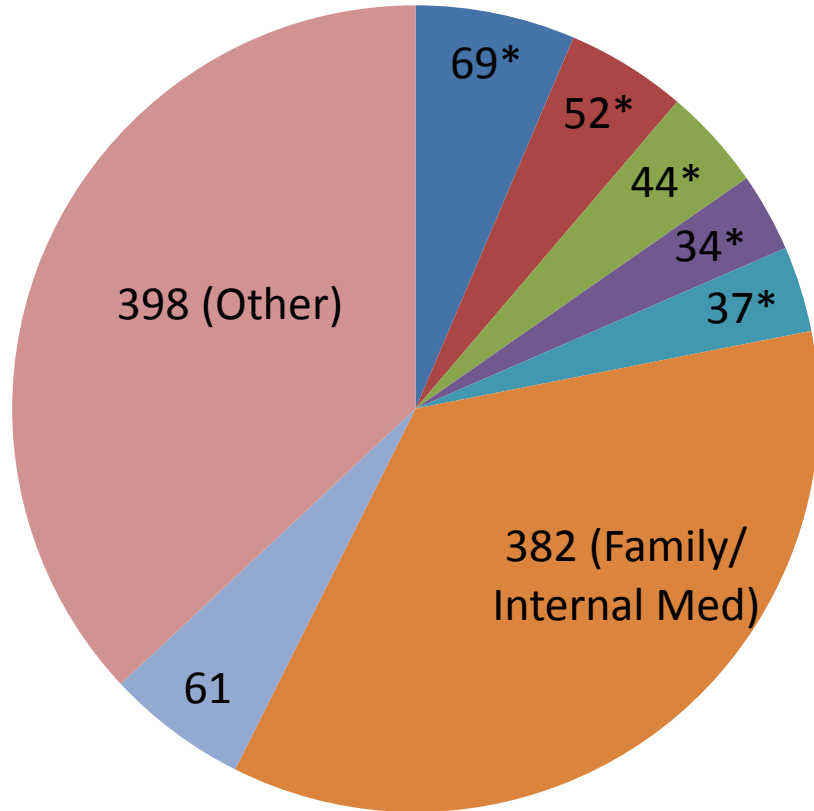
1,077 Practices

3,056 Eligible Professionals (EPs)

- MU incentive payment program at registration
  - Medicare: 2,152
  - Medicaid: 904

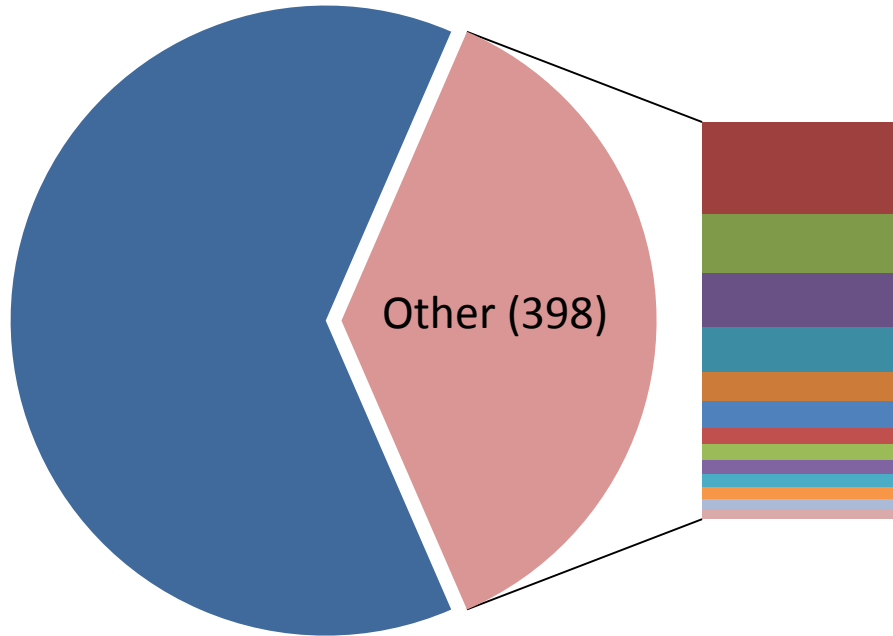
[Time will tell if this distribution will play a role in 2017 and forward based on the proposed Medicare Access & CHIP Reauthorization Act of 2015 (MACRA).]

# Registrations by Practice Specialty



- \*Dermatology (6%)
- \*Gastroenterology (5%)
- \*Hematology/Oncology (4%)
- \*Urology (3%)
- \*Multiple Specialty (with targeted, 3%)
- Family/Internal Medicine (36%)
- Pediatrics (6%)
- Other (37%)

# Further breakout of “Other” Specialties



- Multiple Specialty (non-targeted, 92)
- OB/Gynecology (59)
- Otolaryngology (55)
- Surgery (44)
- Cardiology (30)
- Other (27)
- Neurology (16)
- Ophthalmology (16)
- Orthopedics/Orthopedic Surgery (14)
- Pulmonary - Critical Care (13)
- Radiology/Radiation Oncology (12)
- Endocrinology (10)
- Podiatry (10)

# Prioritization

## High Priority (N = 108 practices)

- Targeted specialty (dermatology, urology, hem/oncology, gastroenterology)
- EHR software certified for cancer reporting
- No established reporting other than physicians using our web-based application

## Medium Priority (N = 105 practices)

- Targeted specialty - EHR software not certified
- Targeted specialty - hospital-based possible

## Low Priority (N = 864 practices)

- Non-targeted specialty
- EPs with established reporting (hospital, radiation treatment center, ambulatory surgery center)

# Registrations - EHR Software

61 different EHR vendors/products

- 16 (26%) are certified for cancer case reporting and used by 541 practices
- 45 (74%) are not certified for cancer case reporting and used by 514 practices
- 22 practices: EHR vendor unknown

Note: Certification status published on the Office of the National Coordinator for Health Information Technology *Certified Health IT Product List* (<http://oncchpl.force.com/ehrcert>).

# Top EHRs Registered, Certified/Not Certified

Certified (n = 541)		Not Certified (n= 514)	
<u>Vendor</u>	<u>N (%)</u>	<u>Vendor</u>	<u>N (%)</u>
Medent	187 (34.6)	eClinicalWorks	278 (54.1)
NextGen	121 (22.4)	Practice Fusion	38 (7.4)
Epic (Beacon Oncology)	71 (13.1)	Allscripts	31 (6.0)
MDLand	53 (9.8)	Greenway Health/Vitera	29 (5.6)
Modernizing Medicine	41 (7.6)	Chartlogic	21 (4.1)



## Specialty Distribution - High and Medium Priority Practices

Specialty	High N (%)	Medium N (%)
Total [Web App Reporters]	108 [54]	105 [17]
Dermatology	57 (53)	10 (10)
Gastroenterology	17 (16)	33 (31)
Hem/Oncology	15 (14)	18 (17)
Urology	10 ( 9)	21 (20)
Multiple specialty	9 ( 8)	23 (22)

## EHRs used by High Priority Practices

Vendor	N	Vendor	N
Modernizing Medicine	37	Athenahealth	3
Medent	34	Epic	2
NextGen	12	Meditab	2
MDLand	8	GeniusDoc	1
NexTech	5	Not Provided	1
Flatiron	3		

# Challenges

## CMS MU rules (lack of clarity, changes)

- Update communication documents and web-site information
- Create additional guidance documents for providers
- Respond to numerous inquiries from providers, hospitals, vendors, consultants

## NY decisions beyond NYSCR control

- 2015 Re-registrations & 2016 Deployment of new registration system
  - Required modifications to our tracking database
  - Required identification of re-registrations and updated review and documentation in tracking database

Anticipating and planning for Stage 3 and proposed MACRA

# Testing and Validation

# NYSCR Approach

Begin on-boarding with high priority practices.

- Dermatology (53%)
- Users of Modernizing Medicine or Medent EHRs (66%)

Provide fictional patient information for 3 melanoma test cases with invitations to test and requests for action.

Adhere to [Implementation Guide for Ambulatory Healthcare Provider Reporting to Central Cancer Registries](#) (no additional requirements).

57 (74%) Registered dermatology practices use our web-based system – need to ensure that we receive similar data quality.

# Progress and Findings

## 12 Practices engaged in testing and validation

- Ensure structural validation and content validation.
- Ensure practices are completing “critical” data elements.
- Ensure necessary staff are involved in testing.

## Attend several workgroups with CDC, vendors, other states

- Learn about how workflow processes developed/expected by vendors affect cancer case reporting.
- Learn about experiences of other states.
- Provide more test cases for discussion and problem solving with vendors.

# Progress and Findings

## Visit to a local practice

- Test data were missing for most cancer diagnosis elements.
- They had received no training and were not aware of training tools. They did not realize there was a Cancer Registry form.
- They were using an iPad; vendor later informed us that the iPad version did not have the cancer reporting functionality.

## Another practice – Request for Action/missing diagnosis date

- Provider could not find diagnosis date on the form.
- Vendor informed us they were using an earlier version of EHR that did not have a field to enter diagnosis date.

# Challenges

Vendors and/or providers need:

- A clear understanding of the data elements that are necessary to constitute a cancer case report.
- To understand the importance of EHR workflow processes to data quality.
  - Workflow processes might be related to automated data element completion.
  - Timing of closing out patient encounters in relation to recording cancer information affects data quality.
- To ensure that providers are using most up-to-date versions of the software.

# Challenges

Providers are not always aware of vendor training materials available to them, if they exist.

Testing and validation is an iterative process with both vendors and providers, which takes Registry time and resources.

As more EHR vendors become certified for cancer case reporting, the burden of on-boarding to Cancer Registries will be greater.

Stage 3 – additional tracking/validation processes anticipated.



# Production Systems/ Submissions

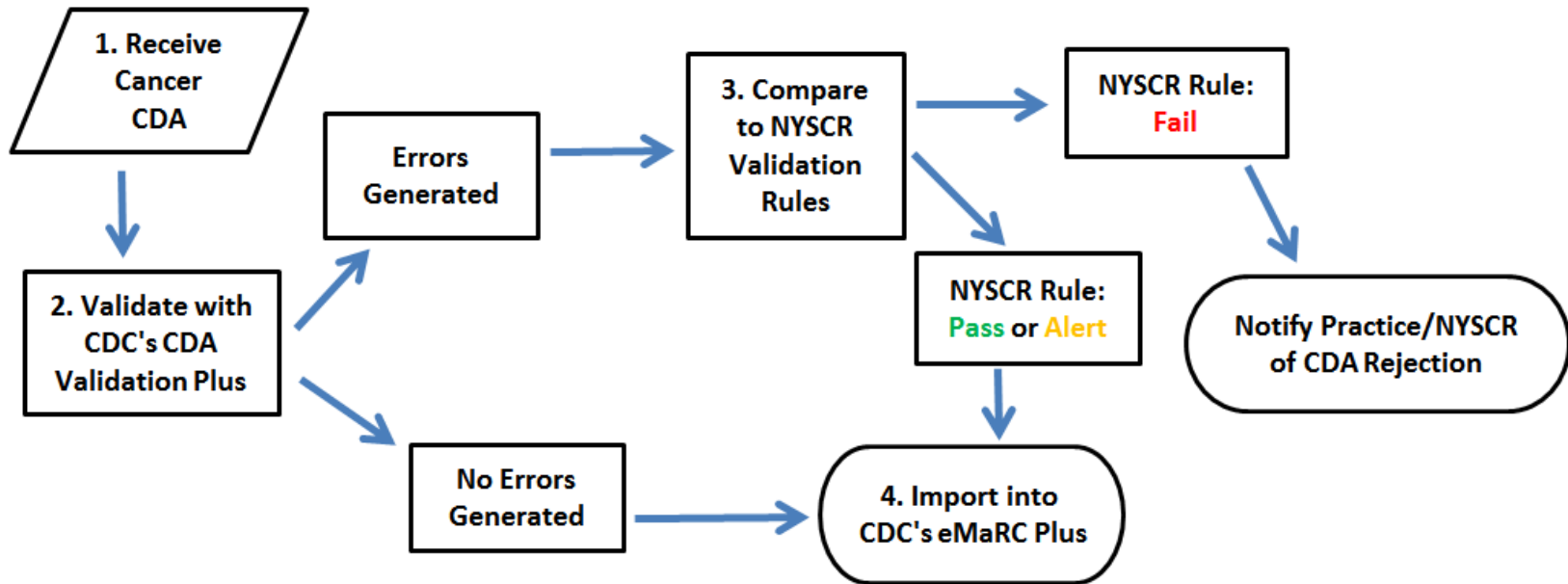
# CDA Upload Application

2014: Developed simple application for providers to upload single CDAs or zipped batch CDA files.

2015- 2016: Using 90/10 Medicaid funding for enhancements:

- Administration module for NYSCR to record information about practices/individuals approved for production submissions and to maintain permissions
- Automated processing (movement) of CDAs
- Notification emails to submitters and NYSCR
- Dashboard reports and data exports
- Ability to receive CDAs using DIRECT transport

# Automated Processing



NYSCR Validation Rules based on combinations of Data Element and Error Type generated:

**Fail** - related to critical patient and/or cancer diagnosis data elements

**Alert** - OID or formatting errors of non-critical elements

**Pass** - errors of less importance to the NYSCR

# Challenges

It is time consuming to work with contracted business analysts and developers, planning began in January 2015.

There are risks related to funding and project completion.

MU Stage 3 has different standards and different validation tools. We hope to receive continued funding for further development this fall.

Ongoing funds are required for continual maintenance and IT resources.

There are many uncertainties (volume, vendor and provider commitment beyond MU, staff resources).

# Conclusions

Successful implementation of cancer case reporting from EHRs requires **extensive time and effort** by Cancer Registries and IT services, EHR vendors, and providers.

Successful implementation requires **extensive time and effort** for activities related to the project:

- Receiving and reviewing registrations, and maintaining necessary documentation as required by CMS;
- Becoming knowledgeable about the reporting specifications (IG) and undertaking testing and validation processes with numerous practices and many EHR products;
- Developing and maintaining infrastructure for receiving production level submissions;
- Integrating cancer cases from EHRs into existing Cancer Registry data stream.

The biggest challenge is that Cancer Registries do not have the resources to devote the **extensive time and effort** that this initiative demands.

# Acknowledgements

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## Questions?