

Update on the Division of Health Care Statistics Electronic Health Record Activities

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Presentation to the NCHS Board of Scientific Counselors
December 5, 2018

Overview

Background

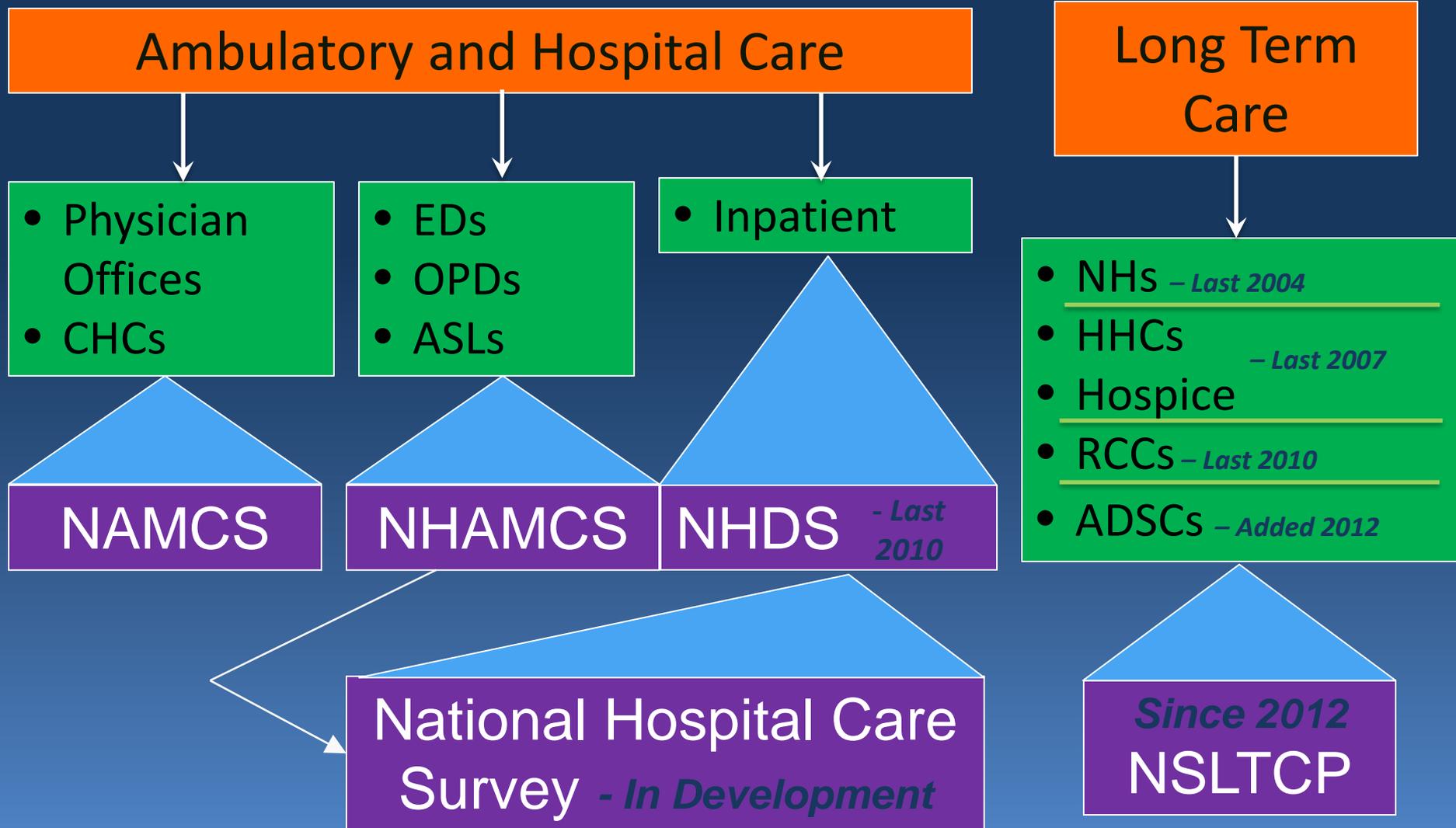
- National Health Care Surveys
- Move to Electronic Health Records (EHRs)
- Leveraging the EHR Incentive Programs

Updates

- Meaningful Use/Promoting Interoperability
- HL7 CDA Implementation Guide
- 2016 and 2017 NAMCS EHR Data Collections
- 2016 NHCS Data Collection
- NHCS FY17 and FY18 PCORTF Projects

Moving Forward

National Health Care Surveys: Spectrum of Care



Reasons to Move to EHR Data

- Less burden on the provider--no need for on-site medical record abstraction.
- More clinical detail and depth--all diagnoses, medications, and lab results are collected.
- Greater volume of data--all visits are included.
- Richer data available--allergies to medication, problem lists, family history, social history, and use of alcohol, tobacco and substance use.
- Better security--direct transmission of data with no need for laptops.

Steps Taken to Move to EHR Data Collection

Research

- Conducted several pilot studies sponsored by the Assistant Secretary for Planning and Evaluation, DHHS.

Data Standards

- Developed HL7 CDA Implementation Guide (IG) for the National Health Care Surveys, which provides a standardized format for data submission.

Survey Incentives

- Participation fulfills requirements of Medicare and Medicaid EHR Incentive Programs, formerly known as Meaningful Use (MU).
- IG named in 2015 edition of Health IT Certification Criteria.

Declaration of Readiness

Updated Declaration of Readiness for the National Health Care Surveys

February 7, 2018

This declaration of readiness is responsive to regulations regarding the Merit-Based Incentive Payment System (MIPS); EHR Incentive Programs (Meaningful Use) Modified Stage 2 & Stage 3; and ONC 2015 Edition for Health IT Certification Criterion § 170.315(f) (7) Transmission to public health agencies—health care surveys.

The National Center for Health Statistics (NCHS) will accept National Health Care Surveys data from Eligible Clinicians (ECs), Eligible Professionals (EPs), Eligible Hospitals (EHs) and Critical Access Hospitals (CAHs) in fulfillment of the MIPS and Meaningful Use Stage 2 Programs Objective 10: Public Health Reporting, Measure 3: Specialized Registry Reporting through calendar year 2018; and Stage 3 Objective 8: Public Health and Clinical Data Registry Reporting, Measure 4: Public Health Registry Reporting beginning January 1, 2018.

Until December 31, 2018 one of the following formats are required to generate and transmit data to NCHS for Measure 3: Specialized Registry Reporting or Measure 4: Public Health Registry Reporting:

1. HL7 CDA® documents, as described one of the following DSTU Implementation Guides for the National Health Care Surveys: Release 1, Release 1.1 or Release 1.2 (preferred), available from www.hl7.org. (Note that Release 1.2 will be accepted beyond December 31, 2018 as well.)
2. CDA documents, including Continuity of Care Documents (CCDs), Discharge Summaries, and Transfer Summaries, produced by Certified Electronic Health Record Technology (CEHRT) informed by one of the following implementation guides (IG) available from www.hl7.org:
 - HL7 IG for CDA® Release 2: IHE Health Story Consolidation, DSTU Release 1.1 (US Realm) July 2012.
 - HL7 IG for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm) DSTU Release 2, November 2014.
 - HL7 IG for CDA® Release 2: Consolidated CDA Templates for Clinical Notes DSTU Release 2.1, August 2015.
3. A custom extract built to include data elements as specified in the National Health Care Surveys Data Elements list, available from NCHS.

After December 31, 2018 the format required to generate and transmit data to NCHS for Measure 4: Public Health Registry Reporting will be HL7 CDA® R2 Implementation Guide: National Health Care Surveys, DSTU Release 1.2 – US Realm, August 2016, available from www.hl7.org.

Note: Providers and clinicians using CEHRT products certified to HL7 CDA® R2 Implementation Guide: National Health Care Surveys, DSTU Release 1 (Release 1 is an earlier release than the latest Release 1.2 of the IG) may continue to do so. For more information, please reference the ONC Health IT Certification Program § 170.315(f)(7) Transmission to public health agencies—health care surveys certification companion guide at: https://www.healthit.gov/sites/default/files/2015Ed_CCG_f7-Trans-PHA-health-care-surveys.pdf. Additional information about the ONC Health IT Certification Program can be accessed at www.healthit.gov/certification.

To register intent to submit data to NCHS, please email NCHSMUInfo@cdc.gov.

For more information on the National Health Care Surveys Registry, please visit https://www.cdc.gov/nchs/dhcs/meaningful_use.htm.

Healthcare Electronic Health Record (HEHR) Infrastructure

Purpose:

- Establish electronic registration for MIPS and MU/PI.
- Collect, process, and store EHR data.

Hybrid platform:

- Non-production environments are on the CDC AWS Cloud and CDC servers.
- Production environments are only on CDC servers.

EHR transmission mechanisms:

- CDC Secure Access Management System (SAMS),
- Direct, and
- Public Health Information Management Network System (PHINMS).

New Registration Portal Page



National Health Care Surveys Registry

National Health Care Surveys Registry Portal

Welcome to the National Health Care Surveys Registry Portal!

This portal enables Eligible Clinicians (ECs), Eligible Professionals (EPs), Eligible Hospitals (EHs), and Critical Access Hospitals (CAHs) to register their intent to submit data to the National Health Care Surveys as part of their participation in Meaningful Use or Merit-based Incentive Payment System (MIPS).

The purpose of this page and the links below are to facilitate registration for the National Health Care Surveys. Once registered, you can also manage the registration.

For general information on the National Health Care Surveys, and the National Health Care Surveys Registry proceed to the [National Health Care Surveys Registry home page](#)

To register with the National Health Care Surveys Registry, you must first request a National Health Care Surveys Portal Account.



Already Have a Portal Account



Request a Portal Account &
Register



Contact Us

EHR Vendors Offering IG Products (Release 1 or 1.2)

- 48 products have been developed.
- EHR vendors who have already developed products include Allscripts, Cerner, MedHost, NextGen, and Rhapsody Integration Engine.
- NCHS actively working with eClinicalWorks and Medi-Tech on interface development.
- Epic has not developed yet but anticipates development work will take place during 2019 with a tentative release date of November 2019.

Moving IG from DSTU to normative status

HL7 CDA® R2 Implementation Guide: National Health Care Surveys, STU Release 1.2 – US Realm, August 2016

- 3 documents/ care areas or domains:
 - Inpatient
 - Ambulatory
 - ED

NCHS staff reviewed each common data element across each domain and then specific elements to each domain.

- Comments were posted on HL7 site on September 30, 2018 and will be dispositioned by December 30, 2018.

Preparing for Connectathon

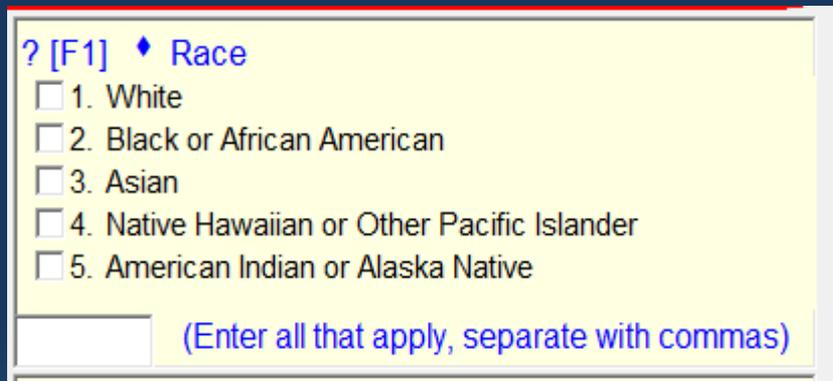
- To be held in January 2019 and will allow more optional elements in the IG to be tested.
- EHR vendors can develop, test, and even certify their interface to our IG on the spot.
- Will allow testing of transport mechanisms.

2016 and 2017 NAMCS Data Collections

- For 2016 and 2017, NAMCS will have abstracted and EHR data.
- Still integrating and processing the NAMCS 2016 and 2017 files that contain both abstracted and EHR data.
- The plan is to publicly release the 2016 NAMCS abstracted only data file first, in January 2019, and a combined 2016 abstracted and EHR data file in the NCHS RDC at a later date.
- A 2017 NAMCS abstracted and EHR file will follow as soon as possible.

Example: Initial Point of Data Collection

View of instrument for race



? [F1] ♦ Race

- 1. White
- 2. Black or African American
- 3. Asian
- 4. Native Hawaiian or Other Pacific Islander
- 5. American Indian or Alaska Native

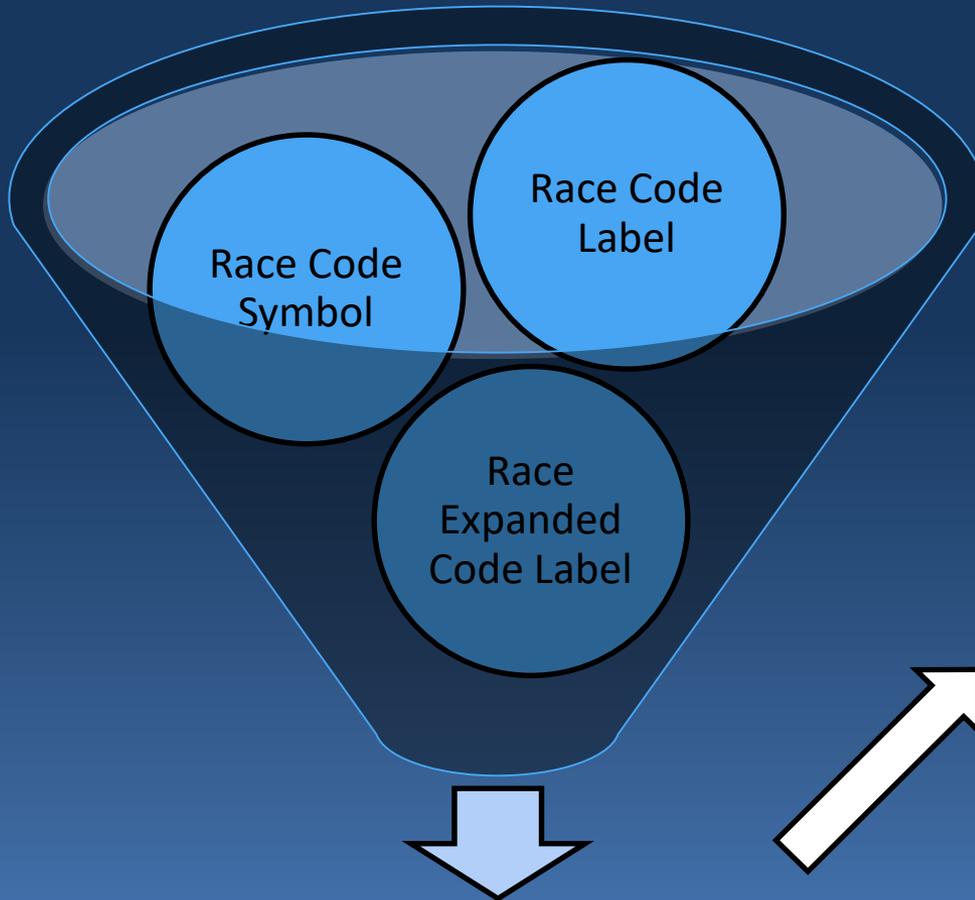
(Enter all that apply, separate with commas)

View of EHR input data for race

```
<raceCode code="2054-5" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC" displayName="White">  
<originalText>White</originalText>  
</raceCode>  
<ethnicGroupCode code="2186-5" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC" displayName="French"/>
```

Race is White, Ethnicity is French, but ethnicity group code (2186-5) is not for French

Example of Data Integration



6 values for race in Abstracted data are:

- White only
- Black only
- Asian only
- Native Hawaiian/Other Pacific Islander
- American Indian/Alaska Native
- Two or more races

73 unique combinations in EHR data

2016 NHCS Data Collection

44,898,857 unique encounters were collected from 158 hospitals:

- 5% were inpatient discharges,
- 16% were emergency department visits, and
- 79% were outpatient department visits.

4,340,204 encounters had EHR data provided:

- 33% were C-CDA documents (CCDs, Discharge Summary or Transfer Summary) and
- 67% were custom extracts.

FY17 Patient Centered Outcomes Research Trust Fund (PCORTF) Linkage Project

Goals of Project:

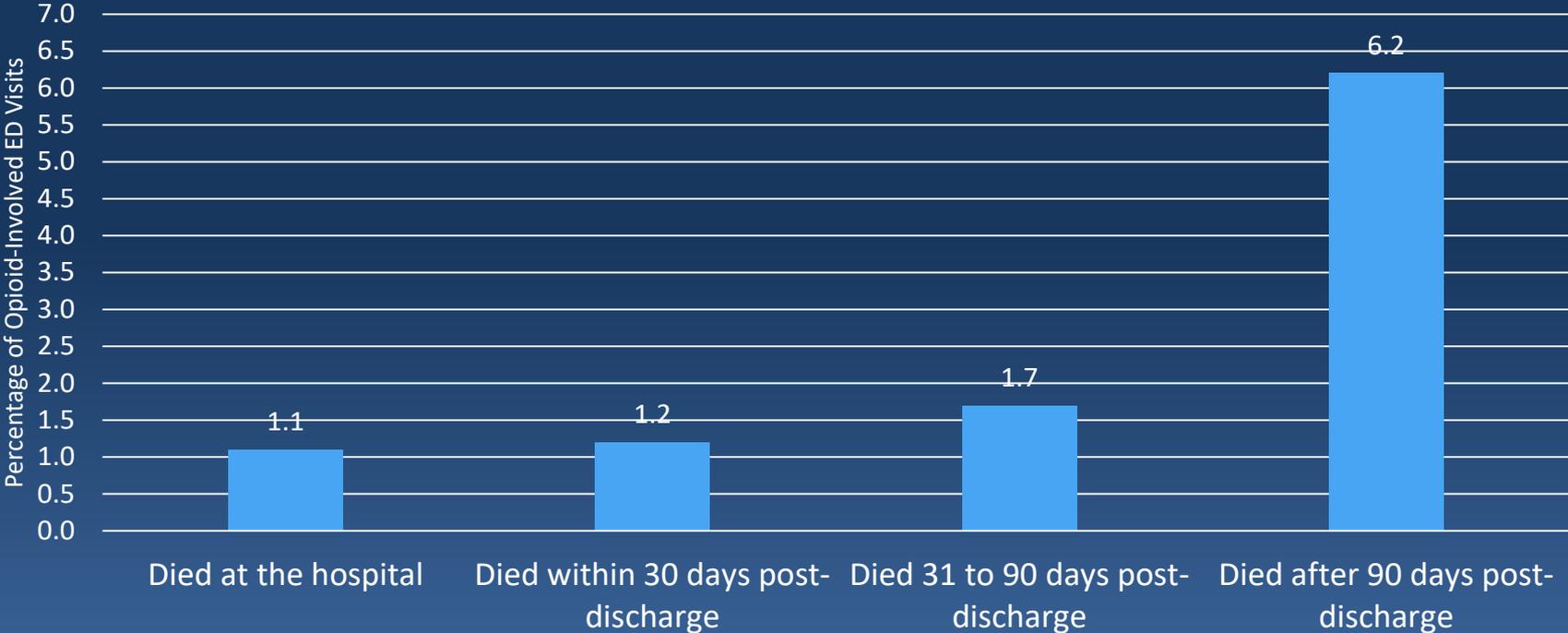
- Link NHCS to the NDI.
- Link NHCS to CMS data.
- Tailor linkage algorithm for administrative claims and EHR data.

Final products:

- Linked files:
 - 2014 NHCS-2014/2015 NDI released February 2018
 - 2016 NHCS-2016/2017 NDI file forthcoming December, 2018
 - 2014 NHCS-2014/2015 CMS file forthcoming December, 2018
- Methodological reports
- Dissemination efforts



Example using Linked Data: Percentage of Opioid-Involved ED Patients that Died in the Hospital or Within 30-, 60-, 90-Days Post Discharge, Linked 2014 NHCS- 2014/2015 NDI



Note: Data are not nationally representative.

SOURCES: National Center for Health Statistics (NCHS), Linked 2014 National Hospital Care Survey 2014/2015 National Death Index.

FY18 Patient-Centered Outcomes Research Trust Fund (PCORTF) Opioid Project

Goals of Project

- Develop and apply text mining strategies to written and coded data to identify the specific opioids involved in hospital encounters and drug overdose deaths.
- Merge the NHCS, the NDI, and the National Vital Statistics restricted-use mortality file to create an enhanced, more comprehensive data file on care and outcomes.



Final products

- A Web-based portal to report clinical information back to responding NHCS hospitals, and
- Dissemination of new data files, methods, and findings to the overall research community.

Example #1 of Information in the Clinical Notes

"Patient PCP: Date: CHIEF COMPLAINT: Unresponsive (Patient Found in Restaurant bath room on the floor not responding.) HPI: is a 47 year old male with history of diabetes and chronic back pain/chronic opioid use who presents to the ED via EMS with a chief complaint of **substance abuse/loss of consciousness**. Per EMS was found down in a bathroom **after "snorting something"**. He was unconscious with diminished respiratory rate and pinpoint pupils. He was **given intranasal Narcan x 2 and IV Narcan x 1 with arousal**. He is currently awake, alert and appropriately responding to questions. Reportedly was in a minor motor vehicle accident yesterday as well as today. After accident yesterday states he developed chest pain which has been persistent throughout the day. He denies head trauma, LOC, or additional injuries. This afternoon he was in a **"3 car fender bender"**. EMS on scene at accident

Example #2 of Information in the Clinical Notes

Chief Complaint: Altered LOC in otherwise healthy individual; Alcohol problem. Primary Diagnosis: Tachycardia, unspecified; Alcohol abuse with intoxication, unspecified; Anxiety disorder, unspecified; Pain in left knee; Disorientation, unspecified; **Opioid abuse, uncomplicated.**

Disposition Notes: Disposition decision is discharge; Condition at discharge - stable; Pt here with alcohol intoxication. Pt has history of chronic knee pain, no new injury. **Pt states he took a couple doses of morphine and vicodin for his pain, and had a few drinks.** Pt states he was feeling a little confused and disoriented after that, so he became concerned and called EMS. Pt tearful and anxious on arrival, stating he wants to go home. No s/i. D/w pt he is intoxicated and must remain in department until he is sober or has someone to come get him. Pt has no current medical complaints other than his chronic pain. Pt initially refused CT scan head. Pt observed until sober. Once sober pt was re-evaluated. He still adamant

Moving Forward...

- Update registration portal with enhancements.
- Continue to phase-in HEHR infrastructure.
- Continue to work with EHR vendors to build, test, and implement the HL7 CDA IG.
- Continue to recruit hospitals and collect EHR data for the 2018 NHCS.
- Explore options for processing and storing large volume of data from NHCS.

Thank You!!

Acknowledgement to Geoff Jackson, Katie Palso, and Betsy Rechtsteiner for their assistance with the presentation.