New Data, Small Data, Good Data, Fast Data

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PBRN June 30, 2104
Meaningful Use

- Data capturing and sharing
- Stage 1
- Stage 2: Advanced clinical processes
- Improved outcomes: Stage 3
Majority of eligible professionals have attested to stage 1.

Categories are hierarchical and mutually exclusive. For example, a professional that has attested to meaningful use and received an AIU payment and is enrolled with an REC is counted only in the Attested MU category.

MU is meaningful use. AIU is adopt/implement/upgrade to certified EHR technology. REC is Regional Extension Center.

Note: Categories are hierarchical and mutually exclusive. For example, a professional that has attested to meaningful use and received an AIU payment and is enrolled with an REC is counted only in the Attested MU category. MU is meaningful use. AIU is adopt/implement/upgrade to certified EHR technology. REC is Regional Extension Center.
NEW DATA
Why electronic quality measures?

• Claims measures only capture activity, not quality
  – e.g. how many visits for blood pressure - not what is the blood pressure

• Paper abstraction measures are expensive -
  • Hospital Core measures - very expensive to run

• Claims + chart abstraction (ala HEDIS+) are also expensive - (estimate $75 per chart)
How much cheaper?

• Kaiser study showed that using stage 1 MU measures the cost was 50% reduced— even with the issues need to resolve the measures

• Outpatient care showing similar cost savings
EHRs can measure new types of care

• Patient reported outcomes
• Functional status
• Clinical outcomes- such as blood pressure at goal, diabetes controlled, asthma controlled, pain controlled etc.
• Data is “cheap”- e.g. can build measures of repeated variables
“I am the expert about me.”
Depression Improvement in Minnesota

Response
Remission
PHQ Utilization

0% 25% 50% 75% 100%
0% 12% 24% 36% 48% 60% 72% 84% 96% 108% 120%

2010 2011 2012 2013 2014

49.90% 70.00%
HHS Measurement Alignment

MU, PQRS, IQR, ACO, VBP, HRSA, CDC

Unified Outcome Measures

EHR as primary reporting platform, with secondary reporting from registry, claims

current
DATA GETS BETTER THROUGH USE
Sample Questions

See samples of actual questions taken from selected physical health, mental health, and social health short forms.

More...
GOOD DATA- INTEROPERABILITY
Barriers to widespread adoption
INTEROPERABILITY

Patient: John Doe
Age: 38
Notes: Presented with acute abdominal pain

Patient: John Doe
Age: 38
Notes: Presented with acute abdominal pain

Nom%: To-awoi& *A0l} 2x~
2Qxwo: (*U*ej ap9 w8u2 30j9P af >w8zVo8w”ao
The Spectrum of Care is Vast…

Adapted from Derr and Wolf, 2012
…as are the Barriers to Care Coordination

Adapted from Derr and Wolf, 2012
Standard Interoperability “Building Blocks”

**Vocabulary & Code Sets**
How should well-defined values be coded so that they are universally understood?

**Content Structure**
How should the message be formatted so that it is computable?

**Transport**
How does the message move from A to B?

**Security**
How do we ensure that messages are secure and private?

**Services**
How do health information exchange participants find each other?

**Semantic Interoperability**

**Syntactic Interoperability**
A terminology based metadata solution frees data consumers from data interpretation.
CCD+ = Transfer Summary
MU2 eCQM Certification Policy through 2017

Modular - choose which measures you want
Validate to QRDA standard (schematron)

Capture
• Data > QRDA1

Calculate
• QRDA3

Report
• QRDA1, QRDA3
HHS Currently

- CMS ACO
- CMS Hospital
- FDA Sentinel
- CMS PQRS
- CMS LTPA
- CDC NHSN
- HRSA UDS
- Hospital A
- Hospital B
HHS Opportunity

CMS ACO

CMS Hospital

FDA Sentinel

CMS PQRS

CMS LTPA

CDC NHSN

Hospital A

Hospital B
SMALL DATA
Only those who provide care can improve care.
Car with no dashboard
Small Data is our Short Term Focus.

Dr. Joe Kimura
FAST DATA
Data at Rest
Eligible Providers
Eligible Hospitals
CA Hospital
Provider Quality Improvement

MiDiGate
QRDA (CAT I & III)
Cypress/DQA
Valid QRDA
Check NPI

CQMRR

SOM Data Warehouse
CQM Data Mart (Final)
State of Michigan Data Hub
Valid QRDA
VPN to SOM

cqms@direct.mihin.org

Provider Reports, Dashboards, Comparisons, Mining

MDSS
MCIR
MSSS

Meaningful Use Database

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Problem Statement:
Need to describe a set of capabilities to allow HIT applications and architecture to better manage disparate data with an ecosystem of players beyond just EHRs to enable performance reporting to public and private payers and actionable, timely feedback to providers on quality, efficiency and cost of care.

How to further integrate data across the ecosystem?
MODERN TOOLS
Value Set Authority Center
http://vsac.nlm.nih.gov/

Welcome to the NLM Value Set Authority Center (VSAC)

⚠️ The VSAC Authoring Tool will be down for scheduled maintenance from 8:00 AM until 4:00 PM EST on Dec. 8th, 2013.

For VSAC announcements, please subscribe to the VSAC Updates listserv.

The Value Set Authority Center (VSAC) is provided by the National Library of Medicine (NLM), in collaboration with the Office of the National Coordinator for Health Information Technology and the Centers for Medicare & Medicaid Services.

The VSAC has published the annual update for the 2014 Eligible Hospital Clinical Quality Measure (CQM) Value Sets. The update includes revised value sets to address deleted and remapped codes in the latest terminology versions, as well as new codes for addressing CQM logic corrections and clarifications.

The VSAC provides downloadable access to all official versions of vocabulary value sets contained in the 2014 Clinical Quality Measures (CQMs). The value sets in the VSAC describe the specific populations included and excluded in order to properly calculate each 2014 CQM. Each value set consists of the numerical values and human-readable names, drawn from standard vocabularies such as SNOMED CT® and ICD-10-CM, which are used to define clinical concepts used in clinical quality measures (e.g., patients with diabetes, clinical visit).

The content of the VSAC will gradually expand to incorporate value sets for other use cases, as well as for new measures and updates to existing measures. Viewing and/or downloading value sets requires a free Unified Medical Language Systems® Metathesaurus License, due to usage restrictions on some of the codes included in the value sets.

The Data Element Catalog contains the complete list of 2014 CQMs and value set names.

What services does the Value Set Authority Center offer?

The Value Set Authority Center (VSAC) currently serves as the authority and central repository for the official versions of value sets that support Meaningful Use 2014.
Cypress is an open source tool that can test and verify the accurate calculation of Stage 1 and stage 2 Meaningful Use Clinical Quality Measures reported by Electronic Health Record (EHR) software systems or modules.

Users of Cypress:

1. EHR software vendors
2. The EHR testing community

Used for Certification
Discharged on Antithrombotic Therapy

Description:
Ischemic stroke patients prescribed antithrombotic therapy at hospital discharge

Initial Patient Population:
- ✓ AND : ✓ Patient Characteristic Birthdate: birth date ≥ 18 years starts before start of ✓ Occurrence A: Encounter, Performed: Inpatient Encounter
- ✓ AND : ✓ Occurrence A: Encounter, Performed: Inpatient Encounter (Length of Stay ≤ 120 days)
- ✓ AND : ✓ Occurrence A: Encounter, Performed: Inpatient Encounter (Discharge Date/Time) during “Measurement Period”
- ✓ AND :
  - ✓ OR : ✗ Diagnosis, Active: Hemorrhagic Stroke (Ordinal : Principal Diagnosis) starts during ✓ Occurrence A: Encounter, Performed: Inpatient Encounter
  - ✓ OR : ✓ Diagnosis, Active: Ischemic Stroke (Ordinal : Principal Diagnosis) starts during ✓ Occurrence A: Encounter, Performed: Inpatient Encounter

Denominator: None

Numerator:
- ✓ AND : ✓ Medication, Discharge: Antithrombotic Therapy during ✓ Occurrence A: Encounter, Performed: Inpatient Encounter

Denominator Exceptions:
- ✗ AND :
  - ✗ OR : ✗ Medication, Order: Antithrombotic Therapy (Not Done: Medical Reason) starts during Occurrence A: Encounter, Performed: Inpatient Encounter
  - ✗ OR : ✗ Medication, Order: Antithrombotic Therapy (Not Done: Patient Refusal) starts during Occurrence A: Encounter, Performed: Inpatient Encounter

Denominator Exclusions:
- ✗ AND :
  - ✗ OR : ✗ Occurrence A: Encounter, Performed: Inpatient Encounter (Reason: Carotid Intervention )
  - ✗ OR : ✗ Occurrence A: Encounter, Performed: Inpatient Encounter (Discharge Status: Discharge To Another Hospital )
  - ✗ OR : ✗ Occurrence A: Encounter, Performed: Inpatient Encounter (Discharge Status: Left Against Medical Advice )
  - ✗ OR : ✗ Occurrence A: Encounter, Performed: Inpatient Encounter (Discharge Status:
Description: Ischemic stroke patients prescribed antithrombotic therapy at hospital discharge

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  - OR: ✗ Occurrence A: Encounter, Performed: Inpatient Encounter (Discharge Status: Left Against Medical Advice)
  - OR: ✗ Occurrence A: Encounter, Performed: Inpatient Encounter (Discharge Status: Out of State)
  - OR: ✗ Occurrence A: Encounter, Performed: Inpatient Encounter (Discharge Status: Transferred to Other Facility)
popHealth/cypress

NQF0028 Preventive Care and Screening: Tobacco - (a) Use Assessment

MEASURE NAME:

REPORTING PERIOD:
07/31/2010 - 10/31/2010

DESCRIPTION:
Percentage of patients aged 18 years or older who have been seen for at least 2 office visits, who were queried about tobacco use one or more times within 24 months. If identified as tobacco users, patient received cessation intervention.

INDIVIDUAL PROVIDER STATISTICS

<table>
<thead>
<tr>
<th>Provider</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAM, Gino</td>
<td>69%</td>
<td>18 (26)</td>
</tr>
<tr>
<td>CAMPBELL, Tom</td>
<td>71%</td>
<td>20 (28)</td>
</tr>
<tr>
<td>COOPER, Edmund</td>
<td>61%</td>
<td>13 (21)</td>
</tr>
<tr>
<td>COOPER, George</td>
<td>68%</td>
<td>15 (22)</td>
</tr>
<tr>
<td>COOPER, Jane</td>
<td>75%</td>
<td>18 (22)</td>
</tr>
<tr>
<td>DARLING, Diann</td>
<td>79%</td>
<td>23 (29)</td>
</tr>
<tr>
<td>EDWARDS, Robert</td>
<td>78%</td>
<td>22 (28)</td>
</tr>
<tr>
<td>MYERS, Jamie</td>
<td>81%</td>
<td>27 (33)</td>
</tr>
</tbody>
</table>
Publicly available demonstration via the popHealth website or http://demo.projectpophealth.org

Open Source Development Occurring Including:
1. Popeye
2. Viral Hepatitis
Stroke guidance regarding carotid intervention

Type: Intent/Governance
Status: Closed
Priority: Major
Resolution: Fixed
Component/s: None
Labels: None
Solution: The missing or inaccurate data guidance initially listed in the eligible hospital (EH) chart-based measures was carried over into the eCQM per the measure steward's original direction. This guidance has been removed from Stroke measures NQF/CMS: 0441/102, 0435/104, 0436/71, 0437/91, 0438/72, 0439/105, and 0440/107.

2014 EH Measures: CMS102v1/NQF441, CMS104v1/NQF435, CMS105v1/NQF439, CMS107v1/NQF440, ...

Description
The logic for Carotid Interventions seems as though there is potential for encounters to be excluded that are not intended to be excluded. Recommend: Standardize the logic across all measures.
GET INVOLVED
The scope of the Targeted Data Access Use Case is to define the requirements for inter-organizational access to individual patient data. The requirements in this use case will focus on the interchange between applications across two trusted healthcare organizations willing to exchange data. The diagram below illustrates the scope within the larger workflow of a user (e.g. Healthcare Professional) accessing patient data from a trusted external healthcare organization.
Structured Documents

http://wiki.siframework.org/Structured+Data+Capture+Initiative
“I wouldn’t give a fig for simplicity on this side of complexity but I’d give my right arm for simplicity on the other side of complexity.”

Oliver Wendell Holmes
Questions?

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For more information about ONC visit: healthIT.gov