

6.6 From Meaningful Use to Promoting Interoperability

10x10 – Introduction to Biomedical Informatics & Artificial Intelligence
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HITECH, ARRA, and MU

Health Information Technology for Economic and Clinical Health (HITECH) Act of the American Recovery and Reinvestment Act (ARRA) (Washington, 2017)

- Incentives for “meaningful use” (MU) of EHR by physicians and hospitals (up to \$27B)
- Direct grants administered by federal agencies – \$2B
- “Enhancements” to HIPAA Privacy and Security Rules

Program now folded into CMS quality measurement program and renamed [Promoting Interoperability](#)

MU was driven by underlying goals for healthcare system

Conceptually originated in legislation by Stark (2010)

All MU criteria must “map” to one or more of five goals for the healthcare system

- Improving quality, safety, and efficiency
- Engaging patients in their care
- Increasing coordination of care
- Improving the health status of the population
- Ensuring privacy and security

Examples

- Implement drug-drug interaction checks → Improving quality, safety, and efficiency
- Provide summary of care to patients → Engaging patients in their care

Required to use ONC-certified EHRs

Implementation of MU

Implemented through three phases to

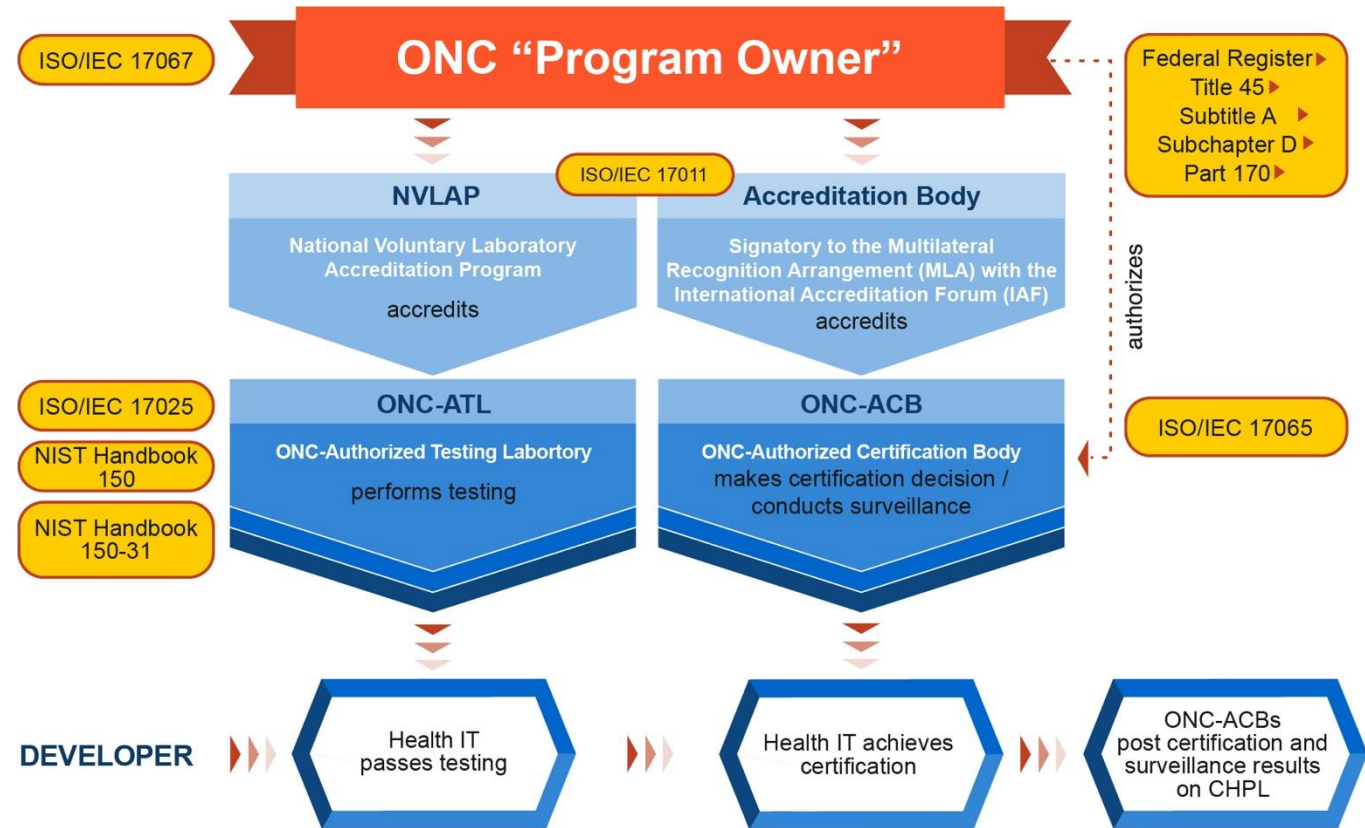
- Eligible professionals (EPs)
 - Medicare – up to \$44K
 - MD, DO, DDS/DMD, DPM, OD, DC
 - Medicaid – up to \$64K
 - MD, DO, DDS/DMD, Certified Nurse Midwives, Nurse Practitioners, Physicians Assistants operating at an FQHC/RHC
 - Hospital-based EPs not eligible (>90% service in hospital, e.g., pathologist, emergency physician)
- Eligible hospitals (EHs) – up to \$13M
 - Medicare
 - Acute Care Hospitals, Critical Access Hospitals (CAHs)
 - Medicaid
 - Acute Care Hospitals , CAHs, Children's Hospitals

EHR certification

[ONC/ASTP HIT Certification Program](#)

[List of certified EHR products](#)

[Health IT Certification Program Test Method](#)



How was MU operationalized?

For EPs and EHs, had

- Objectives that had to be met in stages
 - Original Stages 1-2 had core (all must be met) and menu (selection from group) objectives
 - Modified Stage 2 and Stage 3 required all objectives
- Clinical quality measures (CQMs)
 - Original set in 2011 superseded by new set in 2014 for all stages of MU
- Standards designated by ONC required to meet objectives and to certify EHRs

Paid out about \$37B through 2018

From MU to Promoting Interoperability

Medicare Access & CHIP Reauthorization Act (MACRA) of 2015 combined all CMS quality programs for EPs, including MU, into single program

- MU for EPs renamed to Advancing Care Information (ACI)

Entire program renamed to [Promoting Interoperability](#) in 2018

- Aimed to simplify and add value
- Now limited to Medicare since Medicaid administered by states
- Required along with quality measures, cost reductions, and practice improvement activities

Promoting Interoperability for EPs

Two pathways

- Merit-based Incentive Payment System (MIPS)
- Alternative Payment Model (APM)

Promoting Interoperability for both requires

- Use of certified EHR
- Required measures under 4 objectives
 - e-Prescribing
 - Health information exchange (HIE)
 - Provider-to-patient exchange
 - Public health and clinical data exchange

Promoting Interoperability for EHs

SCORED REQUIREMENTS

The total program score must be at least 60 points.

Electronic Prescribing

- e-Prescribing (10 points) (Num/Den Required)
- Query of PDMP (10 points) (Yes/No Attestation Required)

Health Information Exchange: Must select 1 of the 3 reporting options below.

Support Electronic Referral Loops by Sending Health Information (15 points)

AND Support Electronic Referral Loops by Receiving and Reconciling Health Information (15 points) (Num/Den Required)

OR

Health Information Exchange Bi-Directional Exchange (30 points) (Yes/No Attestation Required)

OR

Enabling Exchange under TECCA (30 points) (Yes/No Attestation Required)

Provider to Patient Exchange

Provide Patients Electronic Access to Their Health Information (25 points) (Num/Den Required)

Public Health and Clinical Data Exchange (25 points)

A level of active engagement is required for each measure below.

- Syndromic Surveillance Reporting (Yes/No Attestation Required)
- Immunization Registry Reporting (Yes/No Attestation Required)
- Electronic Case Reporting (Yes/No Attestation Required)
- Electronic Reportable Laboratory Result Reporting (Yes/No Attestation Required)
- AUR Surveillance measure (Yes/No Attestation Required)

eCQM REPORTING REQUIREMENTS

Submit four calendar quarters of data for a total of six eCQMs.

Each quarter must contain the same six eCQMs.

Submit data for the following eCQMs:

Three CMS-selected (mandatory) eCQMs:

- Safe Use of Opioids – Concurrent Prescribing
- Cesarean Birth (PC-02)
- Severe Obstetric Complications (PC-07)

AND

Three self-selected eCQMs from the [CY 2024 Available eCQMs Table](#)

Submit eCQM data as any combination of the following:

- QRDA Category I files with patients meeting the IPP of the applicable measure(s)
- Zero denominator declarations
- Case threshold exemptions

Refer to the [CY 2024 eCQM Submission Overview](#) & [CY 2024 QRDA Category I Submission Checklist](#) on the QualityNet and Quality Reporting Center websites.

UNSCORED REQUIREMENTS

An attestation of Yes is required.

Protect Patient Health Information

- SAFER Guides
- Security Risk Analysis Measure

Acting to Limit or Restrict the Compatibility or Interoperability of CEHRT

ONC Direct Review

Bonus

OPTIONAL MEASURES/REQUIREMENTS

Public Health and Clinical Data Exchange

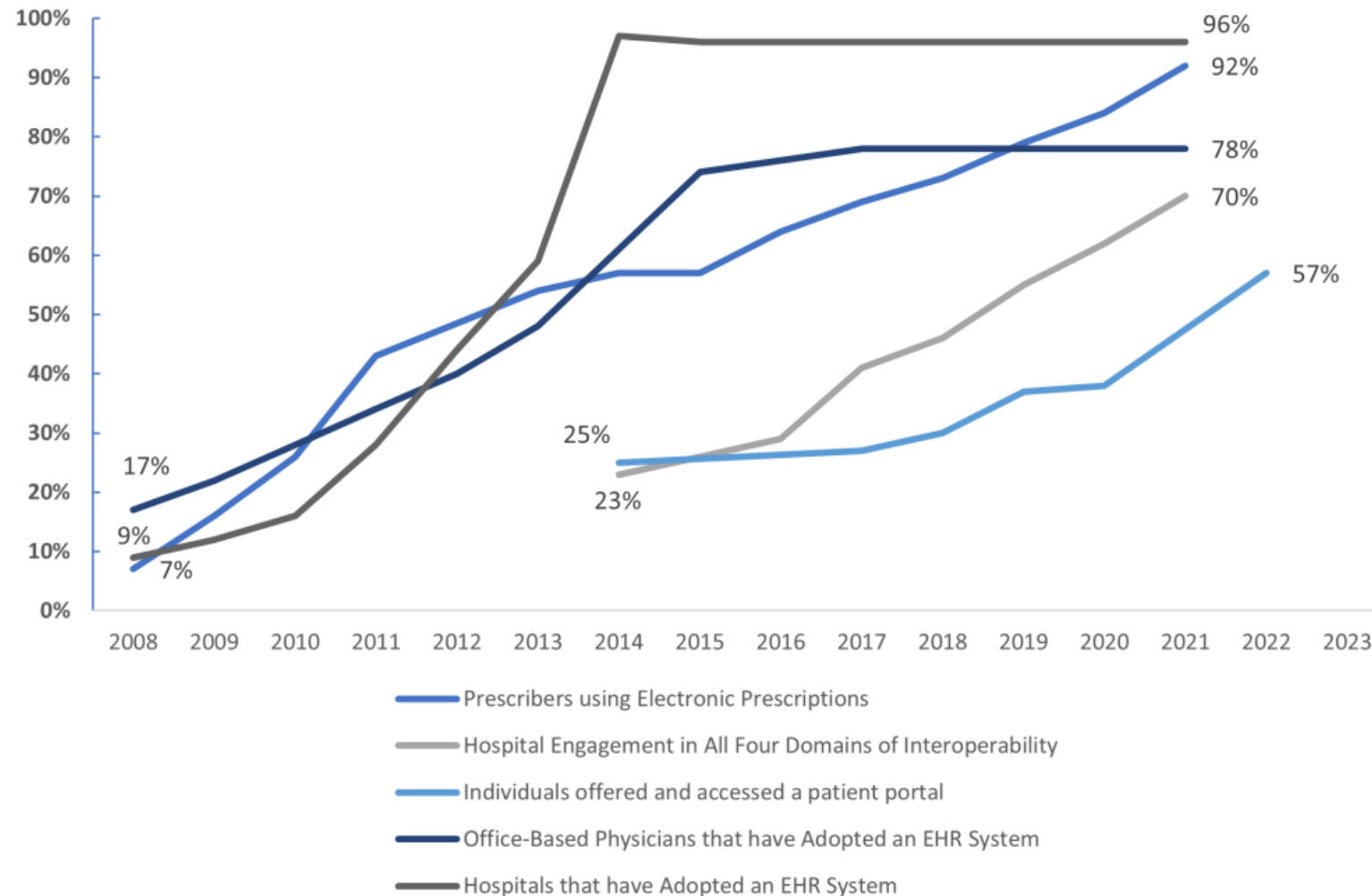
Report only one for 5 bonus points:

- Public Health Registry Reporting (Yes/No Attestation Required)
- Clinical Data Registry Reporting (Yes/No Attestation Required)

ONC ACB Surveillance (Yes/No/NA Attestation):

This is an *optional* attestation. No bonus points will be provided.

MU resulted in increased EHR adoption in US (Barker, 2024)



What did we learn from HITECH and MU?

Retrospectives (Gold, 2016; Hersh, 2018)

Four ONC national coordinators noted progress (Washington, 2017)

“We lost the heart and minds of clinicians” (Halamka, 2017)

Going forward, need to adopt patient perspective (Wachter, 2017)

“The US has spent \$100 billion for [EHRs] that keep doctors and nurses glued to their screens” (Charette, 2025)