Meaningful Use Stage 2

(and connectivity/interoperability)

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Some Background

•The HITECH Act of 2009 created government funding for adoption of EHR (Electronic Health Records) aka EMR (Electronic Medical Records)

- Defines Eligible professionals (EPs) and Eligible hospitals (EH)
- Tied to Medicare/Medicaid participation
- Carrot now, stick later

The carrot

- Reimbursement for adoption of EHR

*But…*The EHR and its use must comply with "Meaningful Use"

- EHR must be certified as compliant (e.g. capable)
- actual use of the certified EHR must be compliant

The carrot

Logic: If the government is going to provide money to do something…

it makes sense for the government to specifically define:

what that something is…
and to then confirm that it actually being done

The stick

There will be financial penalties for not having adopted compliant EHRs and MU – starting in 2015

e.g. Hospitals subject to a % decrease in the percentage increase that the hospital would otherwise receive for that year

Meaningful Use (MU)

Meaningful use (in general)

is using *certified* electronic health record (EHR) technology to:

Improve quality, safety, efficiency, and reduce health disparities

Engage patients and family

Improve care coordination, and population and public health

Maintain privacy and security of patient health information

http://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives

Meaningful Use (MU)

Ultimately, ***it is hoped*** that meaningful use will result in:

- Better clinical outcomes
- Improved population health outcomes
- Increased transparency and efficiency
- Empowered individuals
- More robust research data on health systems

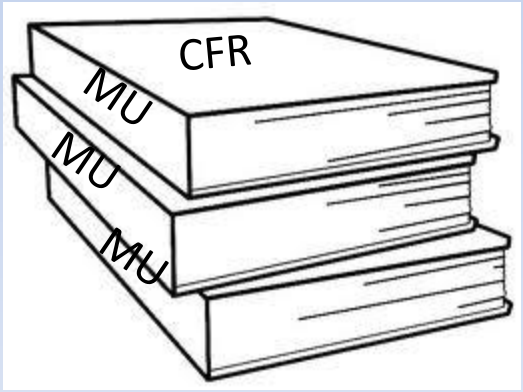
http://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives

Meaningful Use (MU)

But more to today's point:

ONC/CMS Meaningful Use sets **specific objectives** that eligible professionals (EPs) and eligible hospitals (EH) must achieve to qualify

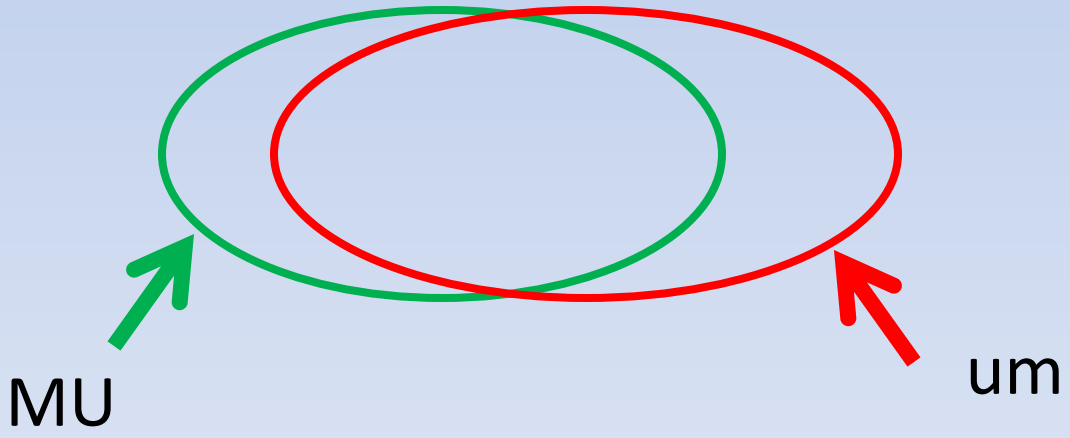
MU concept



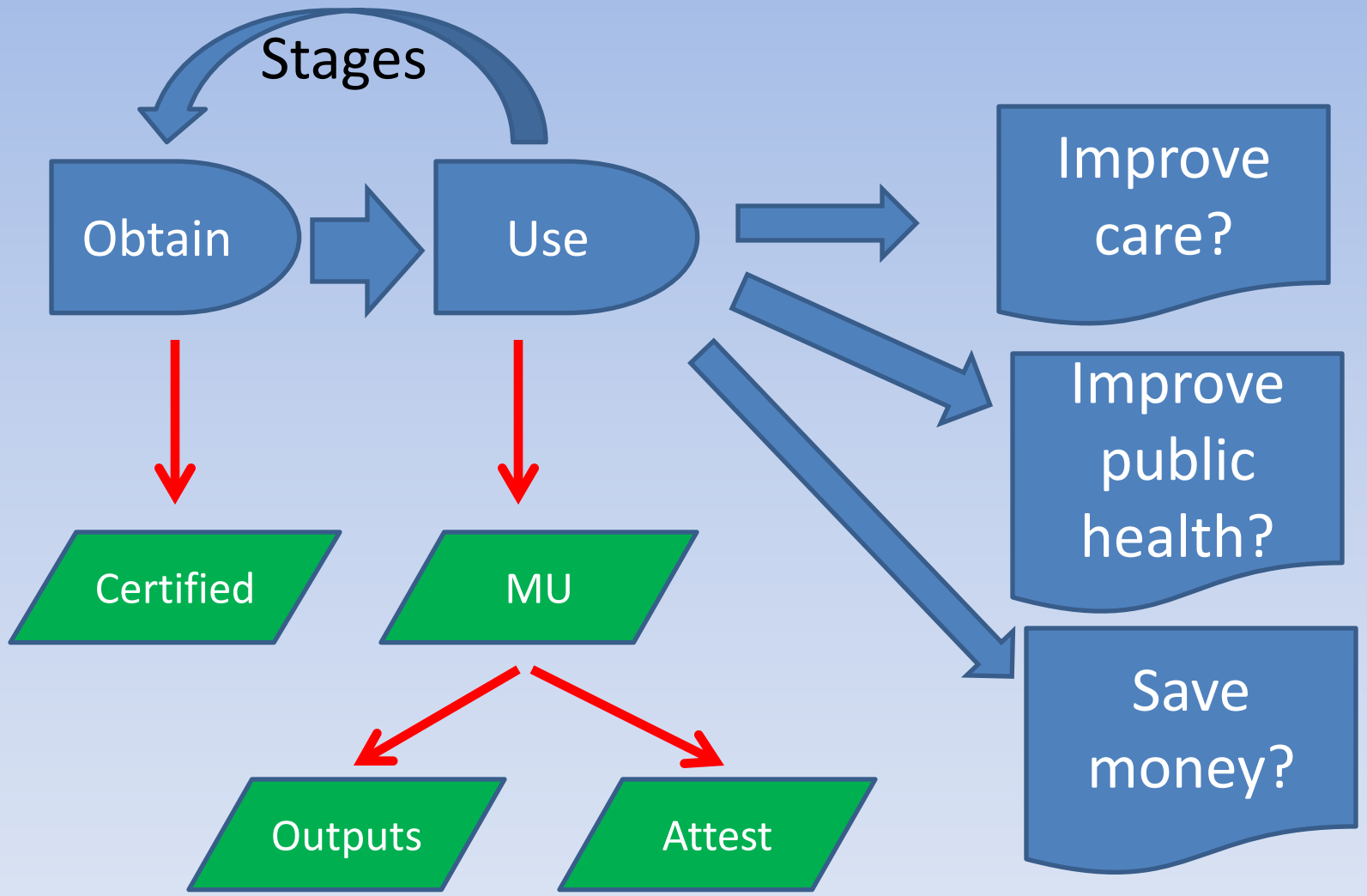
Meaningful Use (MU)

MU is *as prescribed* for the EHR funding scheme

MU is not the necessarily the same as
to use meaningfully (um)



The Grand Scheme



Meaningful Use (MU)

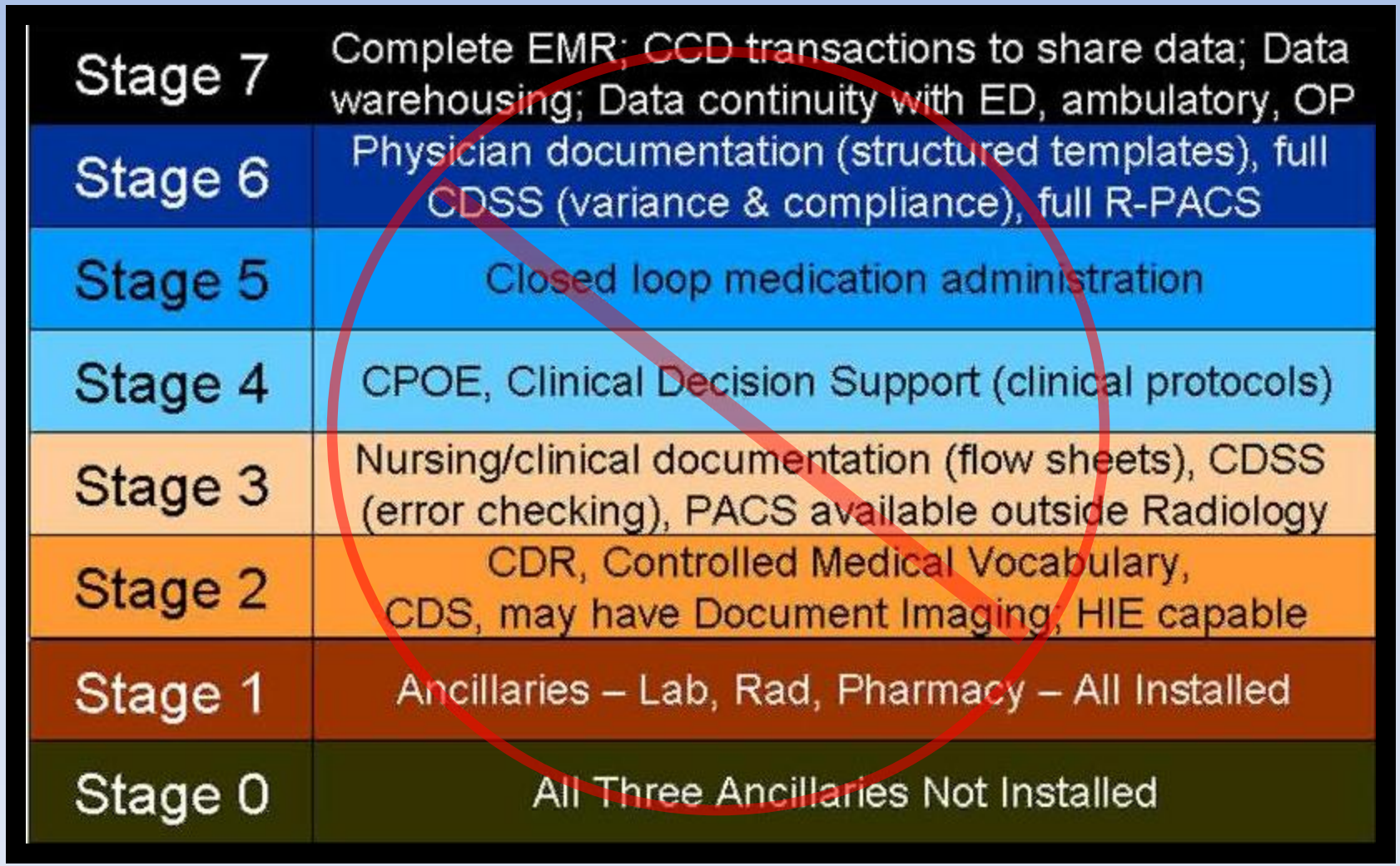
Meaningful Use is being rolled out in stages

2011-2013 **Stage 1** Data capture and sharing	2014 **Stage 2** Advance clinical processes	20?? **Stage 3** Improved outcomes

Some revisions to Stage 1

Over 1000 pages

Not to be confused with HIMMS Analytics 7 Stages



Stage 2

EP	EH
~~15~~ *17* core objectives ~~5 of 10~~ *3 of 6* menu objectives ~~19~~ *20* total objectives	~~14~~ *16* core objectives ~~5 of 10~~ *3 of 6* menu objectives 19 total objectives

> Each ***objective*** has an extent of use requirement

e.g. Record vital signs for more than 80%
Some increased from Stage 1 to Stage 2

> Also, Clinical Quality Measures (CQM) become reportable

EP Core Stage 2

1. CPOE
2. e-Rx
3. Demographics
4. Vital Signs
5. Smoking Status
6. 5 CDS Interventions + drug/drug and drug/allergy
7. Lab results - structured
8. Patient List by specific condition
9. Preventive Reminders

BP, height & weight

Up from 1

EP Core Stage 2

10. Patient online access *<<< New (replacement) – moved from St 1 menu*
11. Visit Summaries *revised, part from St 1 menu*
12. Education Resources
13. Secure messages from patients *<<< New*
14. Rx Reconciliation
15. Summary of Care *<<< exchangeable*
16. Immunizations data output *moved from St 1 menu*
17. Security analysis and actions

EP Menu Stage 2 – Pick 3

1. Imaging results accessible through EHR *<<< New*
2. Family history *<<< New*
3. Syndromic surveillance ongoing output
4. Cancer information output *<<< New*
5. Specialized registry output *<<< New*
6. Progress notes entry *<<< New*

EH Stage 2

1. CPOE
2. Demographics
3. Vital signs
4. Smoking status
5. Implement 5 clinical decision support interventions + drug/drug and drug/allergy
6. Labs
7. Patient list by specific condition
8. eMAR – >>> *New* --- *Caution! The term closed loop is used here but not in the sense of automatic control of actual drug delivery*

EH Stage 2

9. Patient access *<<< New (replacement)*
10. Education resources for patients
11. Rx reconciliation
12. Summary of care outputs
13. Immunizations outputs
14. Labs results
15. Syndromic surveillance outputs
16. Security Analysis

EH Stage 2 Menu – Pick 3

1. Progress notes
2. e-Rx *<<< New*
3. Imaging are accessible through EHR
4. Family history
5. Advanced directives
6. Lab results output to EPs *<<< New*

EP CQMs

9 from a list of 64 CQMs covering no less than 3 of 6 National Quality Strategy Domains

“Recommended” adult CQMs – typically % of patients

1. Controlling High Blood Pressure
2. Use of High-Risk Medications in the Elderly (NEW)
3. Tobacco Screening and Cessation Intervention.
4. Use of Imaging Studies for Low Back Pain
5. Screening for Clinical Depression and Follow-Up Plan (NEW)
6. Documentation of Current Medications in the Medical Record (NEW)
7. Body Mass Index (BMI) Screening and Follow-Up
8. Receipt of Specialist Report (NEW)
9. Functional Status Assessment for Complex Chronic Condition (NEW)

CQMs

"In Stage 2, CQMs are no longer a core objective; however, providers are still required to submit CQMs in order to successfully participate in the program"

Interoperability/connectivity of what?

EHRs?

Medical devices?

Inputs?

Outputs?

Communications?

Some new medical device distinctions

> Traditional (TMD) – ‘bedside’ data gathering (diagnostic) and therapeutic

monitors (continuous or discrete)
imaging & lab
infusion pumps, ventilators, surgical

> Data movers – collect, transmit, store, display data acquired from TMDs

Medical Device Data Systems (MDDS)
similar things that don’t qualify under MDDS

Some new medical device distinctions

> Data manipulators – process data to achieve some new function

Clinical Decision Support (CDS)

And

> EHRs themselves

Subject to whether or not EHRs are medical devices

A TMD example – Vital Signs

MU requires that vital signs be included in an EHR

How does the data get there?

> Someone can type it in ***manually***

> Device can transmit the vital signs ***automatically***, i.e. they appear in the EHR without the need for a human transposer

Is automatic ***required*** ? NO

Might it be a good idea? YES….

but

EHR Vital Signs Certification Test

The proposed certification test method says:

Record - evaluates the ***capability to enter*** vital signs data into the EHR

- o ***The Tester enters*** the numerical ONC-supplied height/length, weight, and blood pressure data and verifies that the data was recorded

So apparently ***manual*** entry has to at least co-exist with ***auto-entry***…or passing the test is going to be a challenge

Pros and Cons of Automated Vital Signs EHR Entry

Pros

- Efficiency
- Eliminate lag time
- Reduce transcription errors
- Auto-updating/continuous

Cons

- Complexity
- Removes/reduces eye-ball error detection

Other TMDs

e.g. other vital signs (e.g. O_2), pumps, ventilators, surgical devices, UDIs, etc.

> No ***requirement*** re MU

> ***Might*** want to do it for other reasons

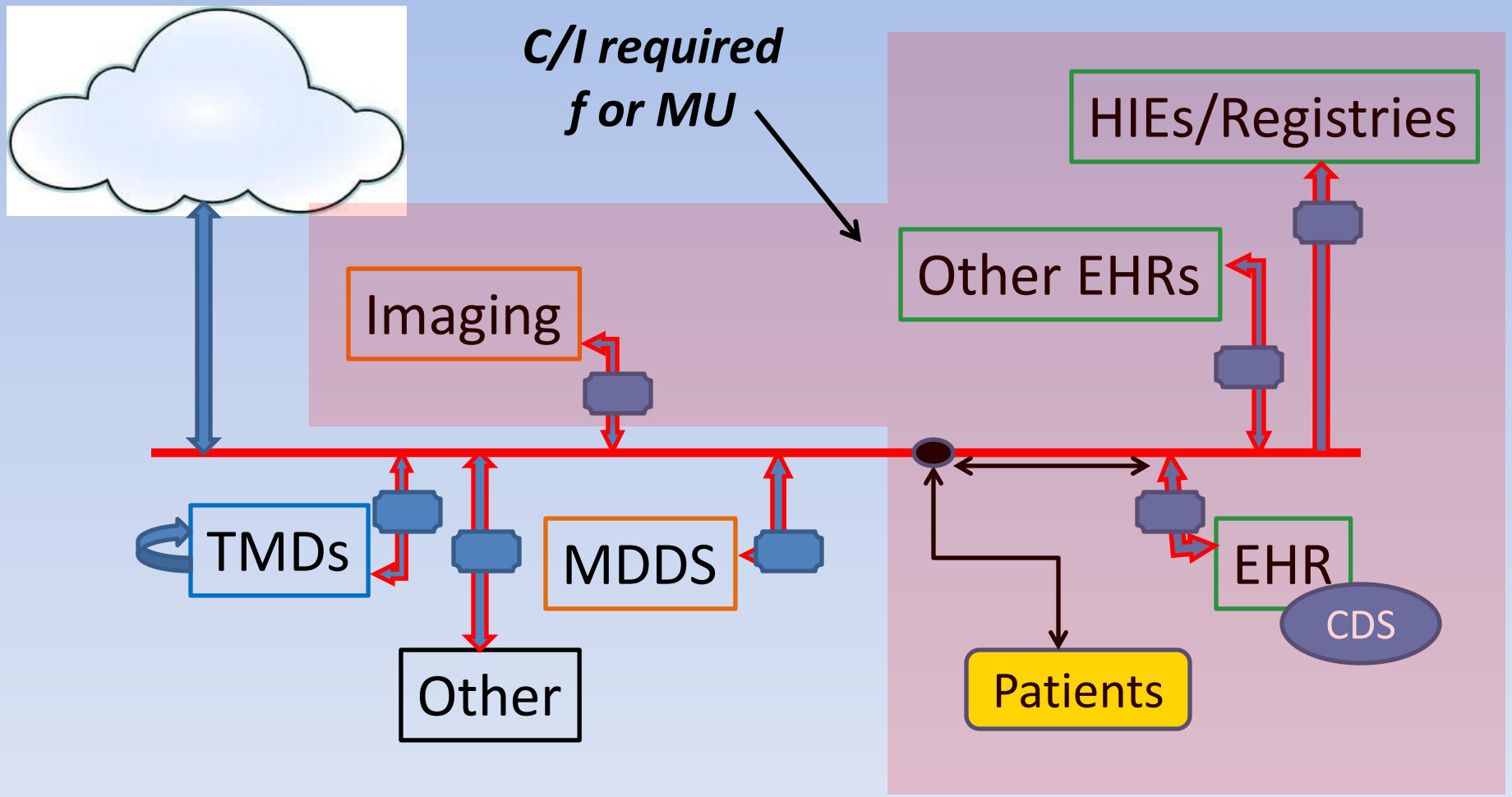
For continuous devices – how much data is that to move and store?

and, speaking of *um*, how will it be:

displayed?

and used?

Connectivity/Interoperability



Stage 3 *Proposals/Discussions* (new only)

- More menu to core
- Use CPOE and provide structured info for referrals/transitions
- EHR must be able to consume new drug-drug interaction and patient immunization info
- Generate real-time specific conditions dashboard
- Provide for patient info entry –

  Option 2: Provide 10% of patients with ability to submit information using:

  1) A generic semi-structured questionnaire platform and

  2) capability to receive uploads from home devices (e.g., glucometer, BP device, scale)

- Ability to find clinical trials

Summary

> There are no Stage 2 ***requirements*** for TMD connectivity to the EHR

If someone tells you there is, ask them to point to the specific ***rule and test*** (CFR cite) that says so

> TMD connectivity ***may*** be a means to satisfy some elements of MU

> TMD connectivity ***may*** have value that is unrelated to MU

> Images, CDS and EHRs themselves ***do*** require connectivity