Meaningful Use: Making use of Clinical Decision Support

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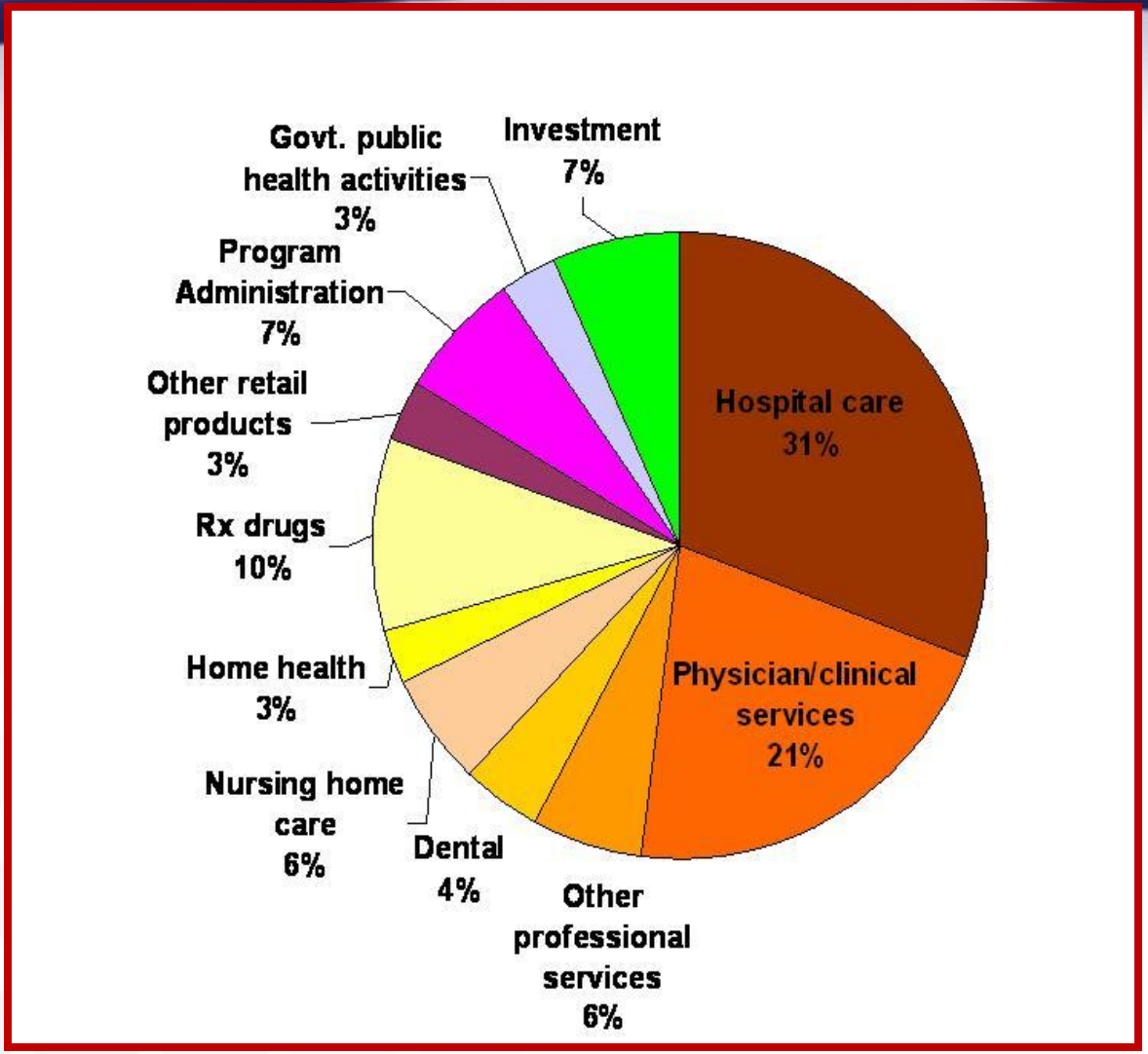
Preparing for Meaningful Use

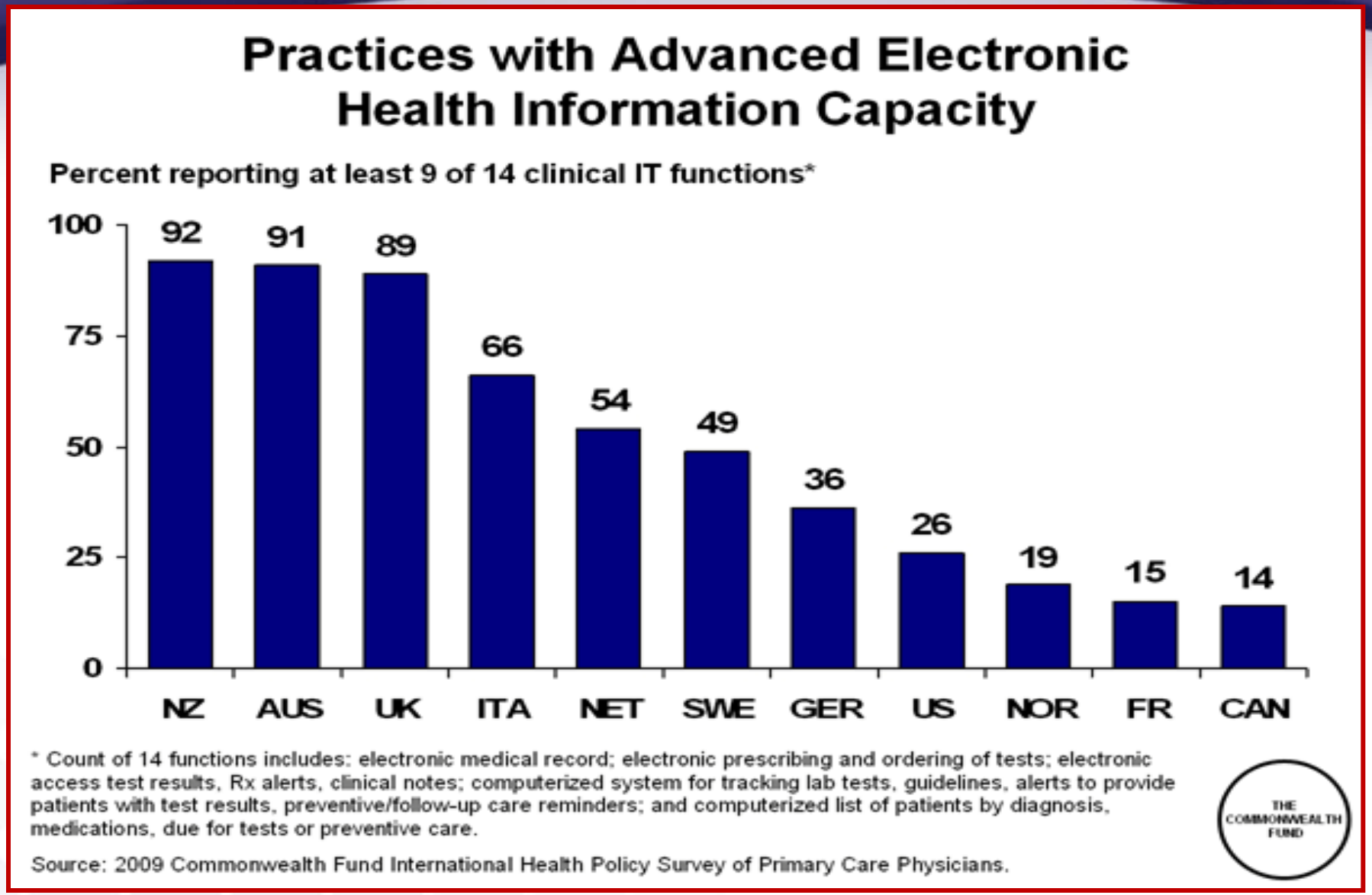
- ARRA/HITECH Goals
- Overview Final Rule for MU – Stage 1
- Medicare Program
- Utilizing Clinical Decision Support
- Future of CDS
- Q&A

Healthcare Spending



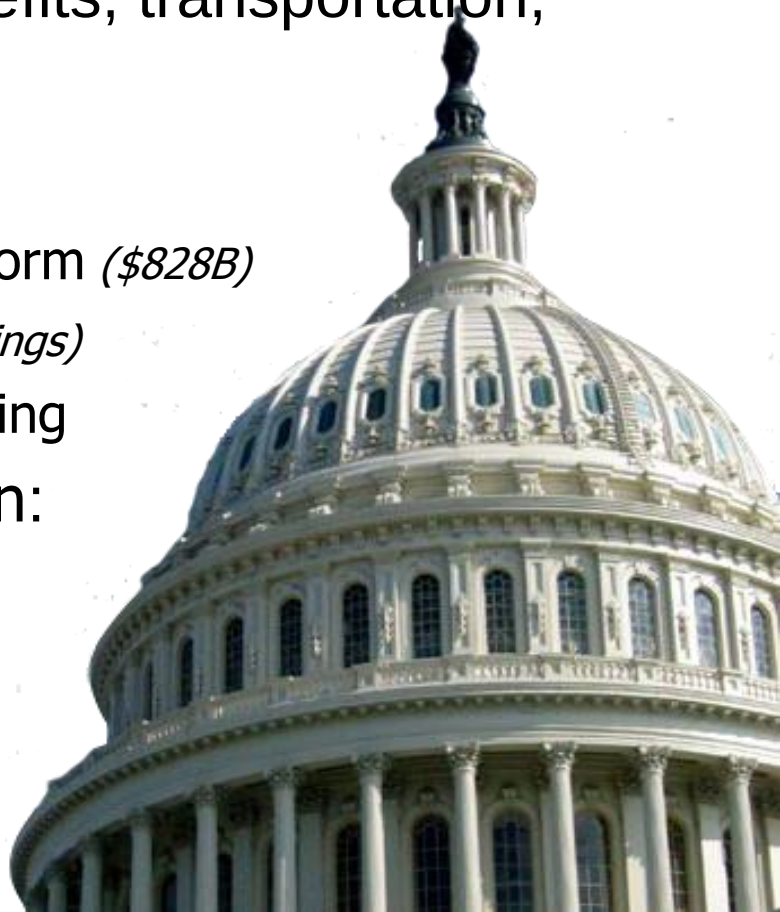
Source: CMS, Office of the Actuary, National Health Statistics Group

State of EHR in the US



Overview of ARRA/HITECH

- Signed 2/17/09 in Denver, CO
- Purpose: Stimulate the economy through investments in infrastructure, unemployment benefits, transportation, education, **and healthcare**.
- Health Care is in the Spotlight
  - Affordable Care Act - Health Care Reform *($828B)*
  - Fueling push for HIT *($54B per year savings)*
  - Rapid market movement and positioning
- Up to $45B for direct EHR adoption:
  - $20B in Medicare Incentives
  - $14B in Medicaid Incentives



HITECH Goals

1. Push Provider adoption/use of approved (certified) EHR Technology
2. Capture DATA
3. Move DATA – Interoperability
4. Report DATA

- $27B in "Carrots" - incentives:
  - Up to $48,400 through Medicare
  - Up to $63,750 through Medicaid

Stage 1 of Meaningful Use

- Programs are mutually exclusive
- Medicare
  - MD, DO, DDS/DMD, DPM, Doctor of Optometry, Chiropractor
  - PECOS # Required
  - Fee-for-Service (FFS)
  - Medicare Advantage (MA) – *(HMO's)*
    - EPs - 20 hours/week of patient-care for MA and employed by a qualifying MA Organization; or,
    - EPs employee/partner of contracting MA entity that furnishes 80%+ services to enrollees

What Providers Must Do …

- Objectives are broad spanning goals/activities
- Measures are specific task(s) requirements
- Meeting the measures = meeting the Objectives for that Stage
- Stage 1 MU
  - 15 Core Measures required by all EP's
  - 10 "Menu" Measures from which EP's choose 5
  - States can opt to add up to 4 Menu Measures to Core Medicaid Requirements
- Exclusions Clause – must meet all the following:
  - Ensure that Objective is not applicable *(e.g. Dentists do not immunize)*
  - Meet criterion in the other applicable objectives permitting attestation, and
  - Provide attestation
- Exclusions will reduce the number of Objectives required by EP

Stage 1 MU – Core Measures

15 Core Objectives – Required for All EPs				
No.	**Objective**	**Measure**	**Exclusions**	**Threshold**
1	**Record Patient Demographics**	Gender, race, ethnicity, DOB, and preferred language as structured data	None	50%
2	**Record Vital Signs and Chart Changes**	Height, weight, blood pressure, BMI, and growth charts for children as structured data	EP does not see pts. age 2 or older; or, EP believes all 3 vitals have no relevance to his/her scope of practice	50%
3	**Maintain Up-to-date Problem List**	One entry recorded as structured data	None	80%
4	**Maintain Active Medication List**	One entry recorded as structured data	None	80%
5	**Maintain Active Medication Allergy List**	One entry recorded as structured data	None	80%
6	**Record Smoking Status**	Patients age 13 and older as structured data	EP see no patients age 13 or older	50%
7	**Provide Patients with Clinical Summaries**	For each office visit to patients within 3 business days	EP has no office visits during the EHR Reporting Period	50%
8	**Electronic Copy of Health Information, upon request**	Upon request, including diagnostic test results, problem list, medication list, and medication allergies	EP has no requests during the EHR Reporting Period	50% within 3 business days of request

Stage 1 MU – Core Measures

15 Core Objectives – Required for All EPs

No.	Objective	Measure	Exclusions	Threshold
9	Generate and Transmit Permissible Prescriptions Electronically	Using a certified EHR technology *(Controlled Substance Permissible 6.1.2010)*	EP writes fewer than 100 scripts during EHR Reporting Period	40%
10	Computerized Provider Order Entry (CPOE)	Patients with at least one medication in their medication list must have at least one medication ordered through CPOE	EP writes fewer than 100 scripts during EHR Reporting Period	30% of Medication Orders Only
11	Implement Drug-Drug and Drug-Allergy Interaction Checks	Enable functionality	None	Entire Reporting Period
12	Implement Ability to Exchange Key Clinical Information	Electronically among providers and patient-authorized entities	None	1 Test
13	Implement Clinical Decision Support and Track Compliance	One Rule implemented and tracked compliance	None	1 Rule
14	Implement Systems to Protect Privacy and Security of Patient Data	Conduct/review a security risk analysis; implement security updates as necessary and correct security deficiencies	None	During Reporting Period
15	Report Clinical Quality Measures (CQM)	To CMS or states; number of measures reduced from 99 to 44; all quality measures are NQF and have electronic specifications to map code for electronic transmission; 3 Core (and 3 alternative core) and 38 menu	None	CY2011 provide aggregate numerator/denominator through attestation; CY2012 electronic submission of measures

Stage 1 MU – Menu Measures

10 Menu Objectives – EPs Must Choose 5				
No.	**Objective**	**Measure**	**Exclusions**	**Threshold**
1	**Implement Drug Formulary Checks**	Must be implemented and must access at least one internal or external drug formulary	None	During Reporting Period
2	**Incorporate Clinical Lab Test Results into EHR**	Incorporated as structured data – positive/negative or numerical format – within the EHR	EP orders no labs with +/- or numeric format during EHR Reporting Period	40%
3	**Generate Lists of Patients by Condition**	For use in quality improvement, reduction of disparities, research or outreach.	None	1 List with a Specific Condition
4	**Use EHR for Patient-Specific Education Resources**	Provide patient-specific education resources to patients, as appropriate	None	10%
5	**Perform Medication Reconciliation**	During transitions of care	EP did not receive any transitions of care during EHR Reporting Period	50% during transitions of care

**** Note: At least 1 public health objective must be selected***

Stage 1 MU – Menu Measures

10 Menu Objectives – EPs Must Choose 5				
No.	**Objective**	**Measure**	**Exclusions**	**Threshold**
6	**Provide Summary of Care Record**	Patients referred or transitioned to another provider or setting	EP neither transfers or refers a pt. during EHR Reporting Period	50%
7	**Submission of Electronic Immunization Data to Registry/Information Systems***	Submission and follow-up submission (where registries can accept electronic submissions)	EP administers no immunizations during EHR reporting period; or, no registry available	One Test
8	**Submission of Electronic Syndromic Surveillance Data***	Data submission and follow-up submission to Public Health agencies (where agencies can accept electronic data)	EP does not collect any reportable data during EHR reporting period; or, electronic info cannot be received by public health agency	One Test
9	**Send Reminders to Patients**	Preventative and follow-up care for patients aged 65+ or age 5 or less	EP has no pts. age 65+ or age 5 and younger	20%
10	**Timely Electronic Access to Health Information**	Including lab results, problem list, medication list, medication allergies – within 4 days of being updated in the EHR	EP neither orders nor creates labs, problem list, Rx list, and Rx allergy list during the EHR Reporting Period.	10%

**** Note: At least 1 public health objective must be selected***

MU - Clinical Quality Measures (CQM's)

- Final Rule: 3 Core/Alternative Core + 3 Menu (38) = Must submit on 6
- Core Measures
  - HTN: BP Measurement (NQF 0013)
  - Tobacco Prevention/Screening: 1-Tobacco Use Assessment; 2-Cessation Intervention (NQF 0028)
  - Adult Weight Screening & Follow-up (NQF 0421; PQRI 128)
- Alternative Core Measures
  - Weight Assessment/Counseling for Children/Adolescents (NQF 0024)
  - Prevention/Screening: Flu Shots patients age 50+ (NQF 0041, PQRI 110)
  - Childhood Immunization Status (NQF 0038)
- Menu Measures
  - 38 CQMs
  - 10 Categories

MU - Menu Measures (CQM's)

No.	Category	Clinical Quality Measure
1	**Asthma**	Asthma Pharmacologic Therapy
2	**Asthma**	Asthma Assessment
3	**Asthma**	Use of Appropriate Medications for Asthma
4	**Behavioral**	Anti-depressant Rx: a) Effective Acute Phase Tx., b) Effective Continuation Phase Tx.
5	**Behavioral**	Alcohol & Other Drug Dependency: a) Initiation, b) Engagement
6	**Cancer Prev.**	Breast Cancer Screening
7	**Cancer Prev.**	Colorectal Cancer Screening
8	**Cancer Prev.**	Cervical Cancer Screening
9	**Cancer Prev.**	Smoking/Tobacco: a) Advising to quit, b) Discussing Cessation Rx, c) Discussing Cessation Strategies
10	**Cardio**	Heart Failure: ACE Inhibitor or ARB Therapy for LVSD
11	**Cardio**	CAD: Beta-Blocker Therapy for Patients with prior MI
12	**Cardio**	CAD: Oral Antiplatelet Therapy prescribed for Patients with CAD
13	**Cardio**	CAD: Drug Therapy for lowering LDL-Cholesterol
14	**Cardio**	Heart Failure: Warfarin Therapy Patients with Atrial Fibrillation
15	**Cardio**	IVD: Blood Pressure Management
16	**Cardio**	IVD: Use of Aspirin or other Antithrombotic
17	**Cardio**	IVD: Complete Lipid Panel and LDL Control
18	**Cardio**	Heart Failure: Beta-Blocker Therapy for LVSD

MU – Menu Measures (CQM's)

No.	Category	Clinical Quality Measure
19	**Diabetes**	Hemoglobin A1c Poor Control
20	**Diabetes**	LDL Management and Control
21	**Diabetes**	Blood Pressure Management
22	**Diabetes**	Eye Exam
23	**Diabetes**	Urine Screening
24	**Diabetes**	Foot Exam
25	**Diabetes**	Hemoglobin A1c Control (< 8.0%)
26	**Hem.-Onc.**	Breast Cancer: Hormonal Therapy for Stage IC-IIIC ER/PR Positive Breast Cancer
27	**Hem.-Onc.**	Colon Cancer: Chemo for Stage III Colon Cancer Patients
28	**Hem.-Onc.**	Prostate Cancer: Avoid Overuse of Bone Scan for Staging Low Risk Prostate Cancer Pts.
29	**OB-GYN**	Prenatal Care: Screening for HIV
30	**OB-GYN**	Prenatal Care: Anti-D Immune Globulin
31	**Ophthal.**	Primary Open Angle Glaucoma: Optic Nerve Evaluation
32	**Ophthal.**	Diabetic Retinopathy: Document Presence/Absence of Macular Edema & Level of Severity of Retinopathy
33	**Ophthal.**	Diabetic Retinopathy: Communication with Physician Managing Ongoing Diabetes Care
34	**Wellness**	Pneumonia Vaccination Status for Older Adults
35	**Wellness**	Controlling High Blood Pressure
36	**Other**	Chlamydia Screening for Women
37	**Other**	Low Back Pain: Use of Imaging Studies
38	**Other**	Appropriate Testing for Children with Pharyngitis

Medicare Program – Short story

- EP is an individual provider, not a clinic / practice
- Must have PECOS Number with CMS
- Must be right type of provider – MD, DO, DDS, DMD, DPM, DC, Optometrist
- Must register with CMS
  - Registration Website: cms.gov/EHRIncentivePrograms/
- Payment Year 1 - Must meet 15 Core + 5 Menu Measures for continuous 90-days
- CY2011 - Must gather data, run calculations, attest and send to CMS
- CY2012 and Beyond – Electronic Submission
- Qualification is reviewed annually

Medicare EHR Incentive Program

- Provider Enrollment, Chain & Ownership System (PECOS) – used to verify 'Care enrollment
- Medicare enrolled pre-November, 2003, and no update
  - Provider is NOT enrolled in PECOS
  - Must enroll to receive Medicare incentives
    - To enroll, go to www.cms.hhs.gov/MedicareProviderSupEnroll
  - Enrolled post-November, 2003 - OR – pre-November, 2003 with update post-November, 2003 → No further action required
  - Unsure – Contact Medicare enrollment contractor
    - Go to www.cms.hhs.gov/MedicareProviderSupEnroll
    - Click on "Medicare Fee-for-Service Contact" under "Downloads"

Medicare Fee-For Service *(§ 495.102)*

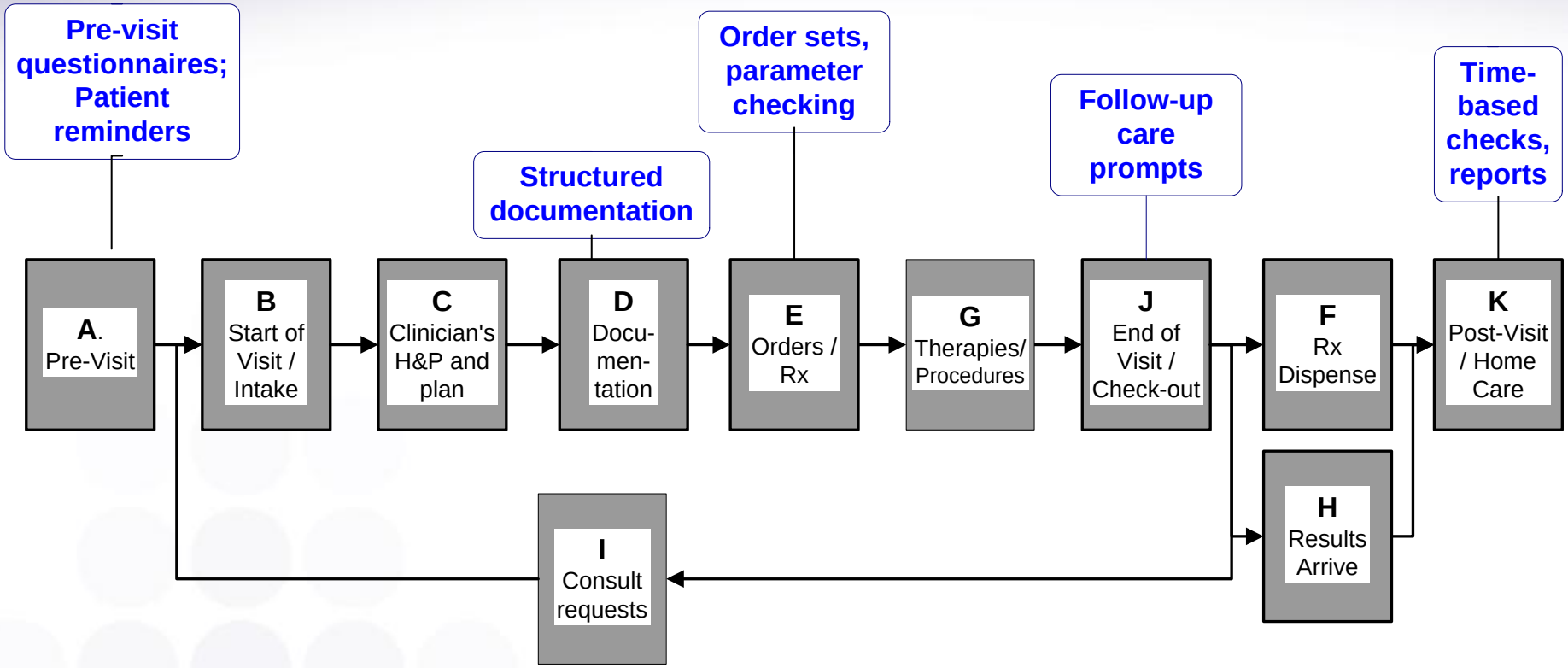
- Paid out over 5-year period
- Equivalent to 75% of allowables for EP Payment Year
- Capped at HITECH statutory EHR Payment Year amounts
- Administered by the Medicare Administrative Contractor
- Reduced for late initiation, after 2014
- Increased 10% if practicing in a “shortage” area

Potential Medicare Incentive Payments

Calendar Year	First Calendar Year in which the EP Receives an Incentive Payment				
	2011	2012	2013	2014	2015 and subsequent years
2011	$18,000				
2012	$12,000	$18,000			
2013	$8,000	$12,000	$15,000		
2014	$4,000	$8,000	$12,000	$12,000	
2015	$2,000	$4,000	$8,000	$8,000	$0
2016		$2,000	$4,000	$4,000	$0
TOTAL	$44,000	$44,000	$39,000	$24,000	$0
*Shortage Area Totals**	*$48,400*	*$48,400*	*$42,900*	*$26,400*	*$0*

** Providers practicing in a federally identified shortage area are eligible for a 10% increase.*

Basic Workflow



Workflow Reengineering

- Map the course
  - What is being used today?
  - Where are the gaps?
- Workflows MUST BE CONSISTENT for data capture and reporting
- Granular Assessment – *Think*:
  - Custom Workflow – Provider
  - Uniform Workflow – Administration

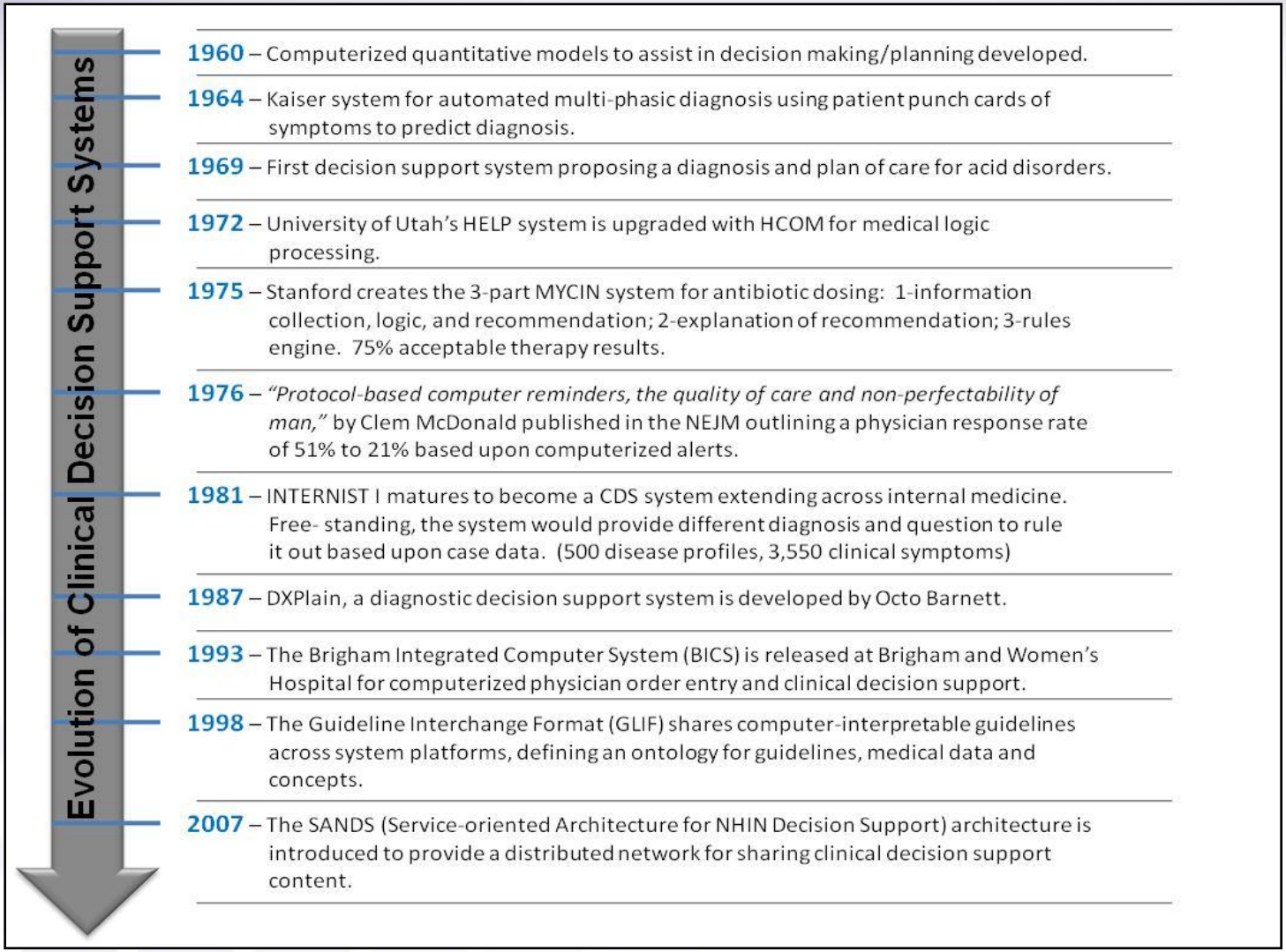
How does Clinical Decision Support fit?

- The main purpose of modern CDSS is to assist clinicians at the point of care. This means that a clinician would interact with a CDSS to help determine diagnosis, analysis, etc. of patient data.

What is Clinical Decision Support?

- According to the Office of National Coordinator (ONC), Clinical Decision Support (CDS) “provides clinicians, staff, patients or other individuals with knowledge and person-specific information, intelligently filtered or presented at appropriate times, to enhance health and health care.”

Evolution of CDSS



Legislation

- American Recovery and Reinvestment Act of 2009
- Potential 2015 Medicare reimbursement cuts
- 1.1 Billion for Comparative Effectiveness Research

Keys to CDS

- **AHRQ's 5-Rights of CDS:**
  - **Getting the *Right* Information** – One that is evidence-based, suitable and pertinent to the circumstance,
  - **To the *Right* Person** – contemplating the care team, which includes all clinicians, the patient, and the patient's caregivers,
  - **In the *Right* CDS Format** – be that an alert at the point-of-care, an order set, or educational information for clinical questions,
  - **Through the *Right* Channel** – such as the electronic health record, a personal health record, the Internet, or a mobile device,
  - **At the *Right* time in the patient workflow** – such as the time of decision, time of action, or time of need.

Potential CDS Issues

- Translating Textual Guidelines into Computer Logic
- CDS Use in Clinical Workflows
- Physician Acceptance
- Relevant Information not Overwhelming Information

Translating Textual Guidelines into Computer Logic

- Translating evidence-based guidelines into rules within the CDS engine
- AHRQ's eRecommendation

CDS Use in Clinical Workflows

- Stage 1 MU Requirement
- Physician Accommodation
- Passive vs Proactive Alerts
- AHRQ's 5-Rights

A1C 5-Rights Example

Right	***Answer***	***Workflow Consideration***
Get the ***RIGHT*** Information	According to NQF 0059 *(evidence-based)*: •If a patient is diagnosed Diabetic, an initial assessment should be done with a target A1C value ≤ 7%. •Glycosylated hemoglobin should be obtained at least twice a year for stable patients meeting treatment goals.	1. Is the rule-logic pre-built and available in the CDS system and integrated within the EHR? 2. If the patient presents for an unrelated reason (e.g. upper respiratory infection), will the system alert the user? 3. Can the system report on a list of non-compliant patients and allow outreach in accordance with the patient's preferred method of communication?
To the ***RIGHT*** Person	Monitor and treat hyperglycemia, with a target A1c of 7%.	1. Who needs this information during clinic workflows? 2. Who needs access to this information for non-compliance tracking and outreach?

A1C 5-Rights Example

Right	***Answer***	***Workflow Consideration***
In the ***RIGHT*** CDS Format	• Alerts/Reminders to care providers and patients • Clinical Guidelines for reference • Condition-focused Order sets • Patient data reports/summaries • Documentation templates • Diagnostic support • Other tools	1. What is the proper CDS Format(s) to manage diabetics and A1C for chronic disease management? 2. What can the EHR provide? 3. Can alerts, order sets and documentation templates be customized?
In the ***RIGHT*** Channel	• Electronic Health Record • Personal Health Record • Mobile Device • Internet Patient Portal • Other	1. Will the alert be a pop-up note or will the user have to prompt? 2. Can communication for outreach be facilitated via secured email? 3. Should an alert be sent to the patient portal?
At the ***RIGHT*** Time in the Patient Workflow	At the time of: • Patient Registration / Check-In • Assessment / Triage • Exam Room / Physical Exam • Treatment / Plan Development • Performing Orders • Check-out • When the patient is remote / After hours	1. Can and should CDS information be provided at more than one time of the patient workflow? 2. Can alerting be configured (e.g. based upon severity)? 3. Can patient information / education be customized?

Future of CDS

- Human Genome Mapping
- Stage 2 MU
- National Guidelines
- Ambulatory Quality Reporting

Questions?

- This material was prepared by AQAF, the Medicare quality improvement organization for Alabama, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. Contents do not necessarily reflect CMS policy. 9SOW-PREV-AL-11-131