

Assessment of EMR Adoption Model for an EMR Software

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Overview

EMR Adoption Model

- Health Information Management Systems Society Analytics
- Subsidiary of HIMSS & Global Healthcare Advisor for Health IT
- Healthcare Delivery Organizations like IT companies, Governmental entities, Financial, Pharmaceutical, Consulting & emerging technology solution partners worldwide
- Industry depends on HIMSS Analytics' for:
 - Benchmarks
 - Resources
 - Predictive tools
 - Assessment tools



- Improves decision making regarding their it strategic roadmap and market strategy
- HIMSS Analytics has helped hospitals and clinical practices track and benchmark their EMR adoption and utilization goals since 2005 through the EMR adoption model (EMRAM)
- EMRAM provides an 8-stage model with comparisons to healthcare organizations in the same country and around the world
- EMRAM –an 8-stage model with comparisons to healthcare organizations in the same country and around the world

Scope

Project focuses on following objectives:

- Study of EMR Adoption Model with respect to US Healthcare
- Assessment of “X” EMR Software capability to comply with the pre-requisites of EMR Adoption Model
- “Y” Healthcare provider analysis from the client market

Approach

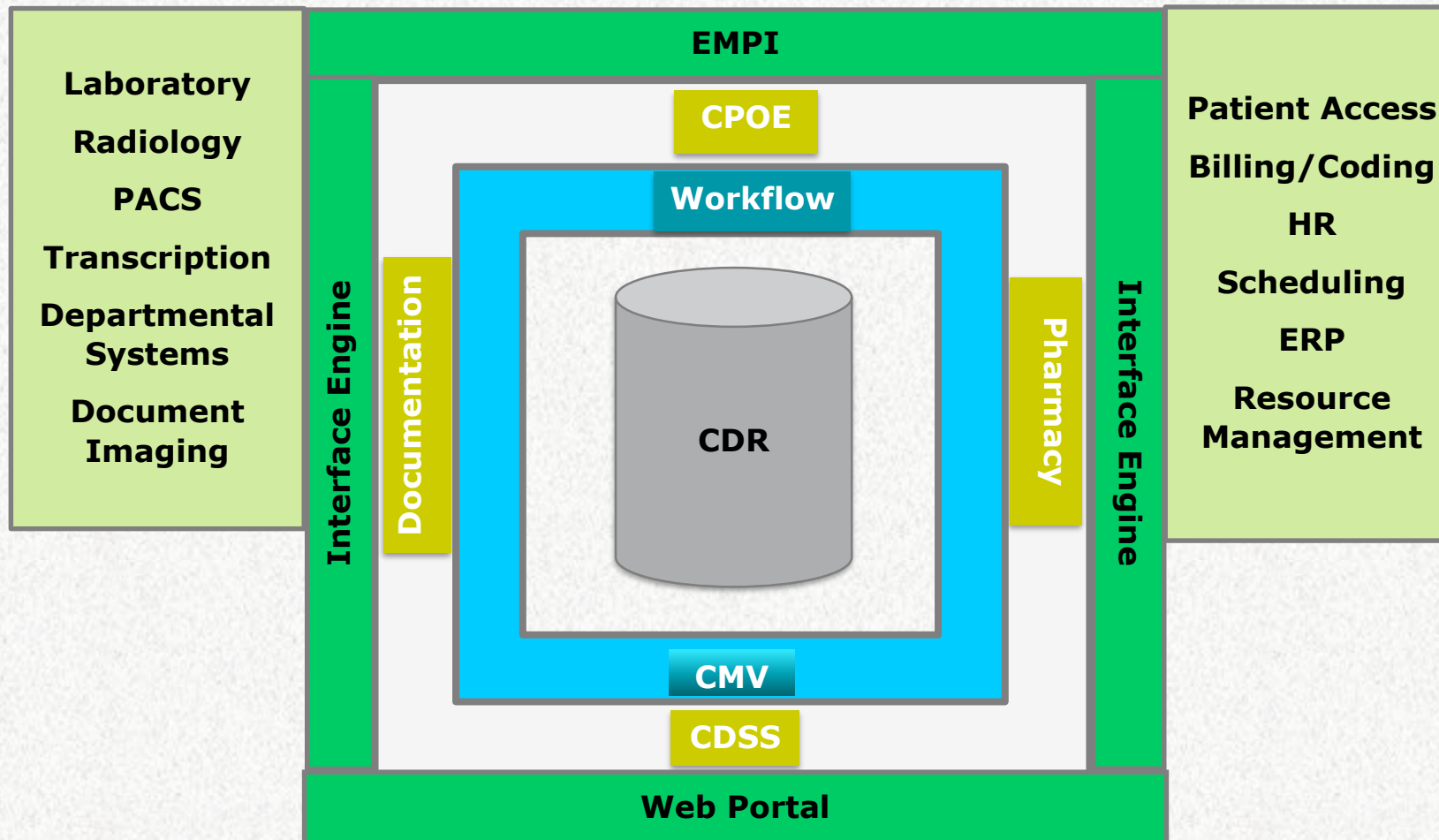
- Qualitative Study involving Descriptive Cross-sectional Study Design
- Convenience sampling technique under Non-Probability sampling
- Study Area- Carried out in North American market distributed as North Zone, Central Zone and South Zone of USA
- Single healthcare facility/ hospital “Y” as study setting
- For data collection, a checklist from the Electronic Medical Records Adaption Model (EMRAM) was prepared
- “X” refers to one of the largest EMR software being used in US Healthcare
- “Y” refers to the hospital functioning under a national, non-profit health system

EHR vs EMR

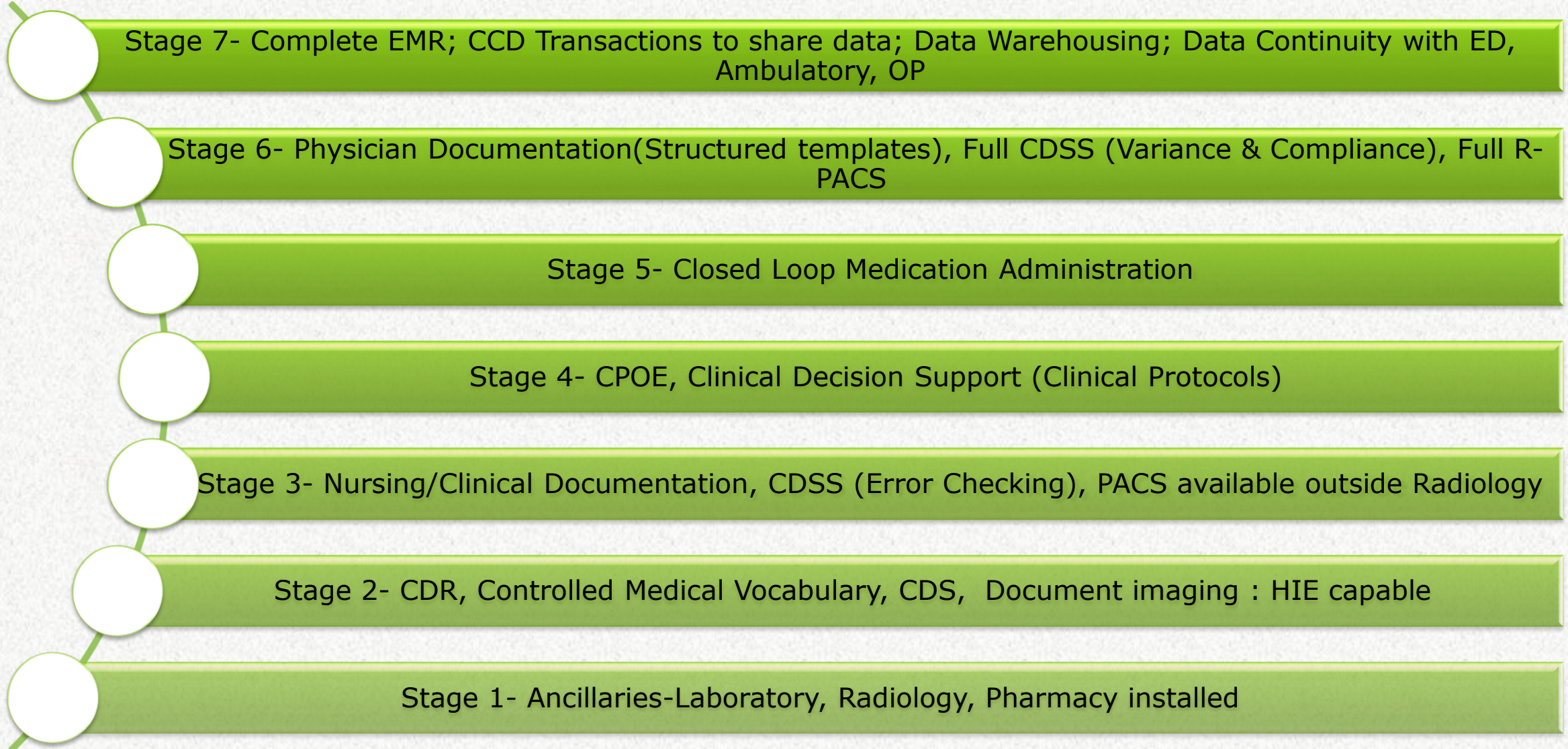
The Line of Difference....

Electronic Medical Records	Electronic Health Records
Legal Record of Care Delivery Organization	Subset of information from various CDOs where patient has had encounters
Record of Clinical Services for patient encounters in a CDO	Owned by a patient or stakeholder
Systems are being sold by enterprise vendors and installed by hospitals, health systems, clinics etc.	Community, state, region or nation wide in future
Patients have access to info. through a portal but not interactive	Provides interactive patient access as well as the ability for patient to append information
Does not contain other CDO encounter information	Connected by NHIN

A Typical EMR Environment



US EMRAM Model & Stages



The Assessment Process

- Stage 0 to 5 – online & self assessment
- Stage 6 - onsite visit typically with one reviewer from HIMSS
- Stage 7 - onsite visit typically with up to three reviewers: one from HIMSS and two from other hospitals

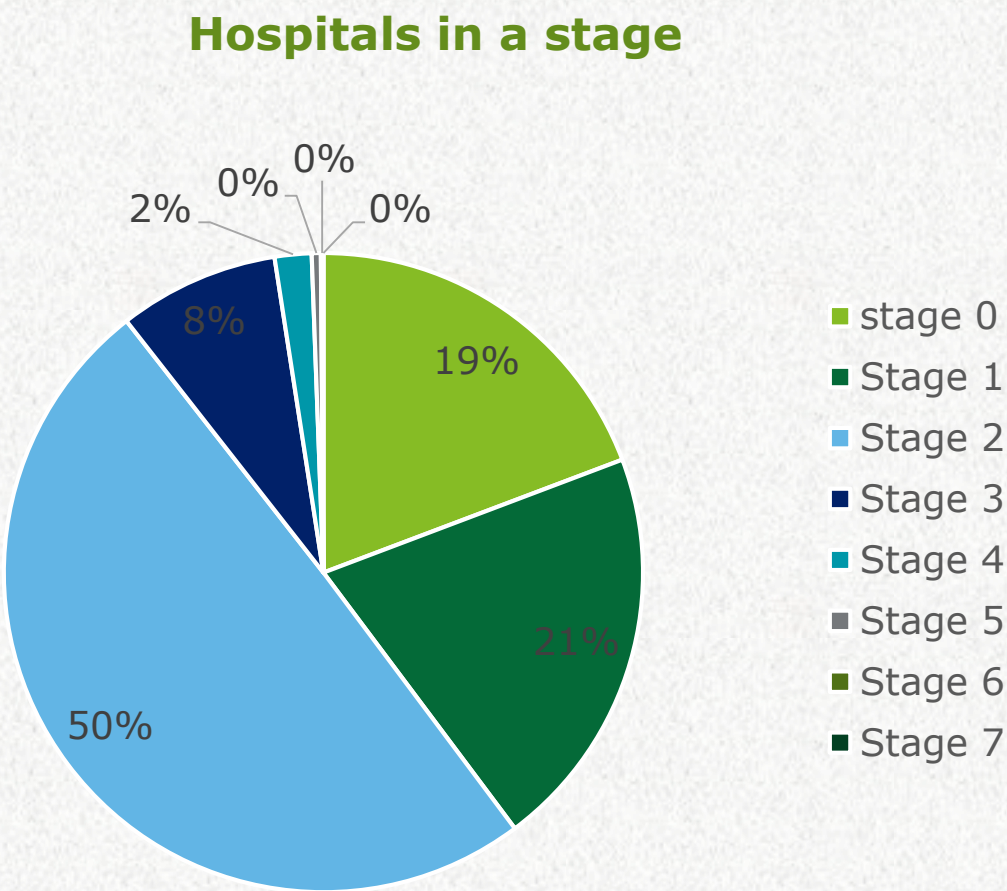
Stage 7- Validation Process

- Onsite visit conducted to review all criteria by:
 - HA Inspector
 - CIO from another stage 7 hospital or stage 6 hospital if stage 7 not available
 - Physician from stage 7 or stage 6 hospital if stage 7 not available
- Final report dispatched within two weeks of visit
- HIMSS Analytics recommends and provides onsite pre-validation consultations for both Stage 6 and Stage 7 preparations



Data Sets

STAGE	Hospitals in a stage	% of 3917 total hospitals
stage 0	754	19.25%
Stage 1	804	20.53%
Stage 2	1945	49.66%
Stage 3	318	8.12%
Stage 4	73	1.86%
Stage 5	18	0.46%
Stage 6	5	0.13%
Stage 7	0	0.00%
Total	3917	100.00%



Key Requirements for Stage 7

- Stages 3, 4, 5, 6 now must be hospital-wide
- A&E included for Stages 3, 4, 5, 6
- **>=90% CPOE** for 4 months consecutively
- For 4 months consecutively, **>=95%Barcode Enablement**: medications, Blood Products
- Physician Documentation driven by a “rules engine” with structured templates for capturing discrete data
- Emergency Department (ED)- LIVE with CPOE, Physician Documentation (no percentage criteria required)

Key Requirements for Stage 7

- Scanning of clinically relevant paper within 24 hours of creation
- All medications must be available on the eMAR or Patient Profile (Including Code & Anesthesia Medications)
- CCD LIVE Exchange of information with outside organizations
- Quality and analytics program with strategy & governance for disaster recovery and business continuity
- Essentially paperless

Healthcare Provider Analysis

Parameters	Criteria	Time Period	Results
CPOE Compliance	=>90%	4 Months	Total Orders=1,249,197 CPOE Compliance=73% Verbal=22% Written=2% Unspecified=3%
Outcome- Non-compliant with the defined criteria			
IP Barcode	=>95%	4 Months	Total Administrations=9,55,492 Patient Scan Compliance= 97.42% Medication Scan Compliance= 95.15%
Outcome- Compliant with the defined criteria			

Parameters	Criteria	Time Period	Results
Barcoded Medication Administration	=>95%	4 Months	Average Medication Compliance= 95.1% Average Patient Compliance= 97.4%
Outcome- Compliant with the defined criteria			
Structured Discrete Data	~20% (No defined Threshold)	NA (Not Available)	Report Couldn't run
Outcome- Not Available			

Thank You