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Four Years On: From HITECH to Optimization

MARCH 5, 2013

Overview

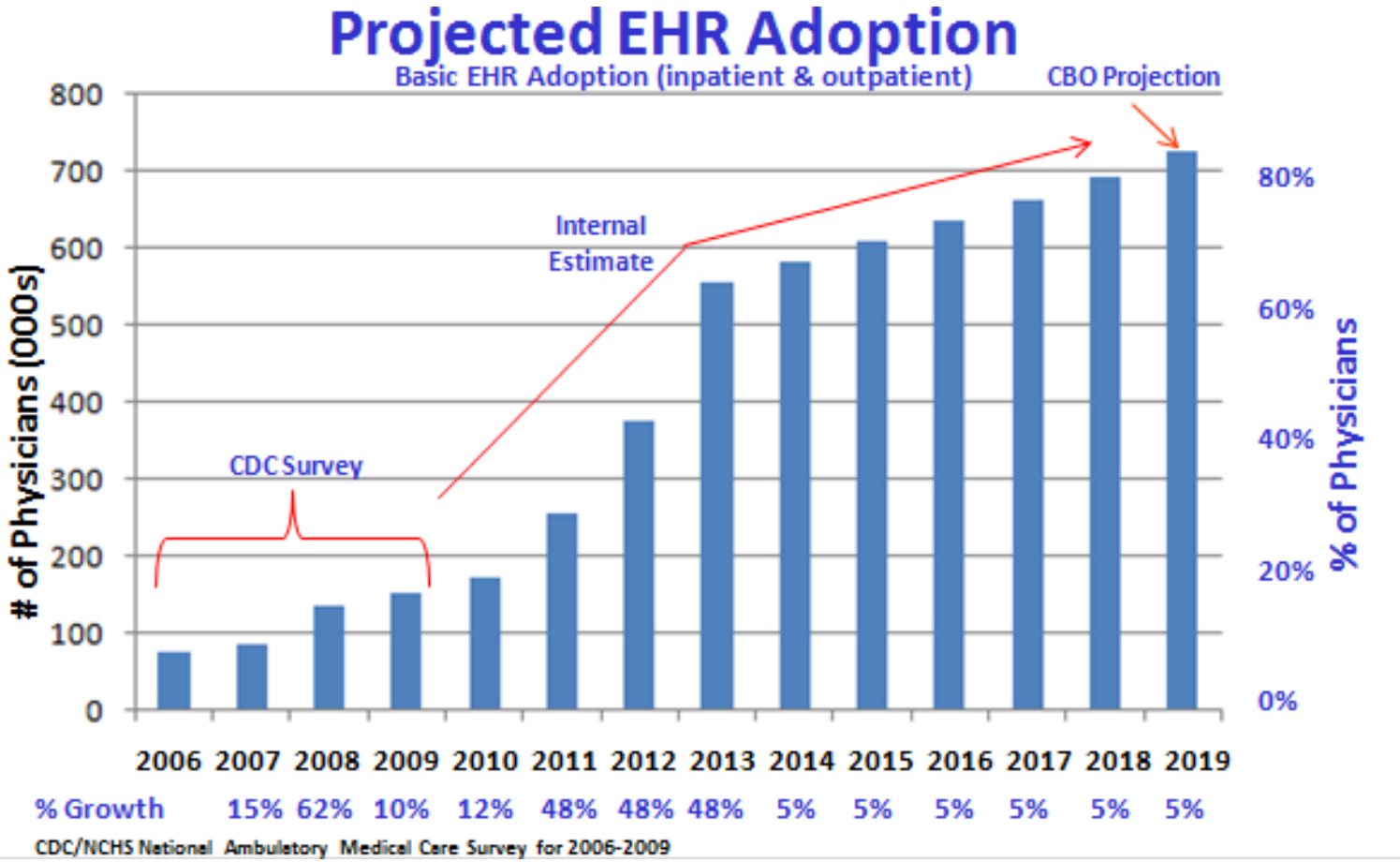
- Healthcare Provider IT Marketplace and Impact of Last Four Years
- Calculating the ROI Associated with Healthcare IT Investments
- Establishing a Monitored Optimization and Benefits Realization Program

Healthcare Provider IT Marketplace and Impact of Last Four Years

Current Healthcare IT Market Overview

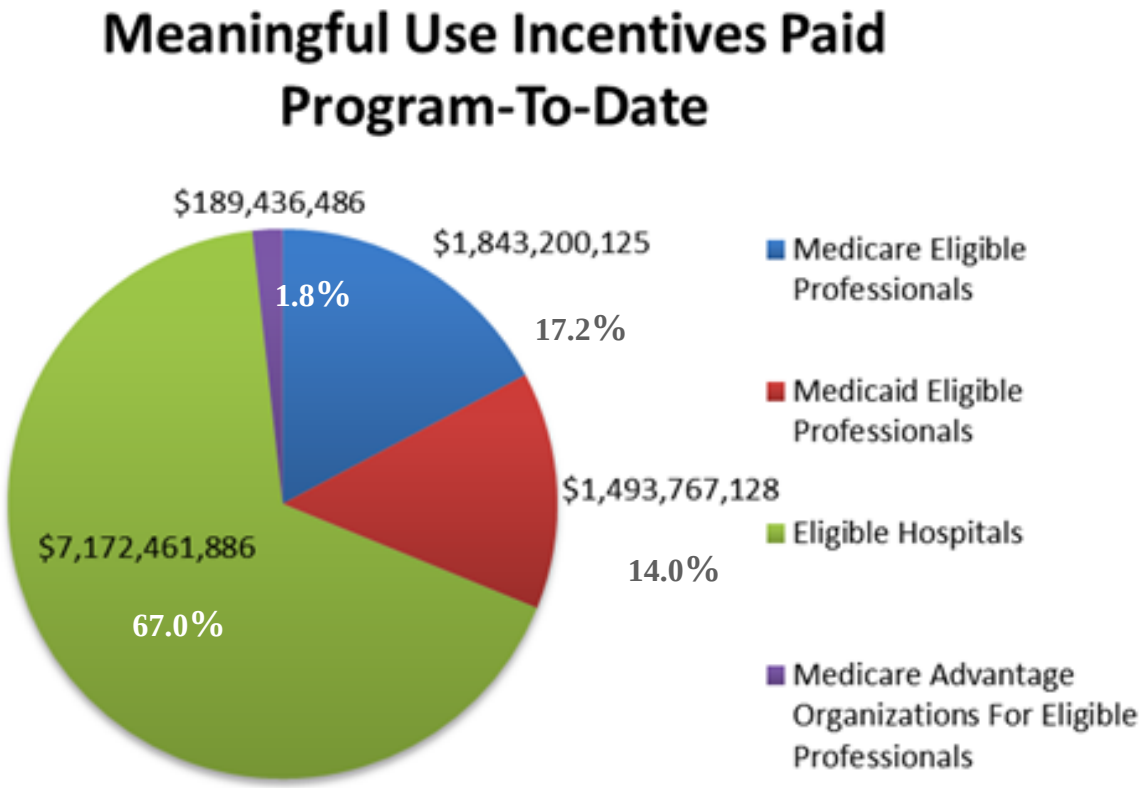
- The HITECH Act of 2009 effectively nudged the U.S. healthcare industry toward clinical workflow automation
- EHRs implemented at impressive rates over the past four years
- Meaningful Use financial incentives have spurred a rush of baseline EHR implementations

EHR Adoption Projections



Meaningful Use Incentives

- As of December 2012, over $10.6 billion in MU incentives paid to eligible professionals and hospitals



https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/DataAndReports.html

Meaningful Use Incentives, contd.

- A closer look at incentive payments made to Eligible Hospitals and Eligible Professionals based on number of payments made thus far:
  - Average payment to eligible hospitals was $1,156,289
  - Average payment to eligible professionals was $18,539

EHR Incentive Program Payments to Eligible Providers			
Recipient	**Number of Payments**	**Amount**	**Average Per Payment**
Professionals	180,000	$3,336,967,253.00	$18,539
Hospitals	6,203	$7,172,461,866.00	$1,156,289

http://dashboard.healthit.gov/meaningfuluse/
https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/DataAndReports.html

Macroeconomic Reality – Federal Healthcare Tab is Huge, Growing Fast and Hard to Reduce

- Challenges facing Medicare:
  - Aging population in the US accustomed to full-service healthcare insurance
  - National debt nearly 100% of US GDP

http://jamsidedown.com/2011/02/the-federal-budget-getting-what-we-asked-for.html

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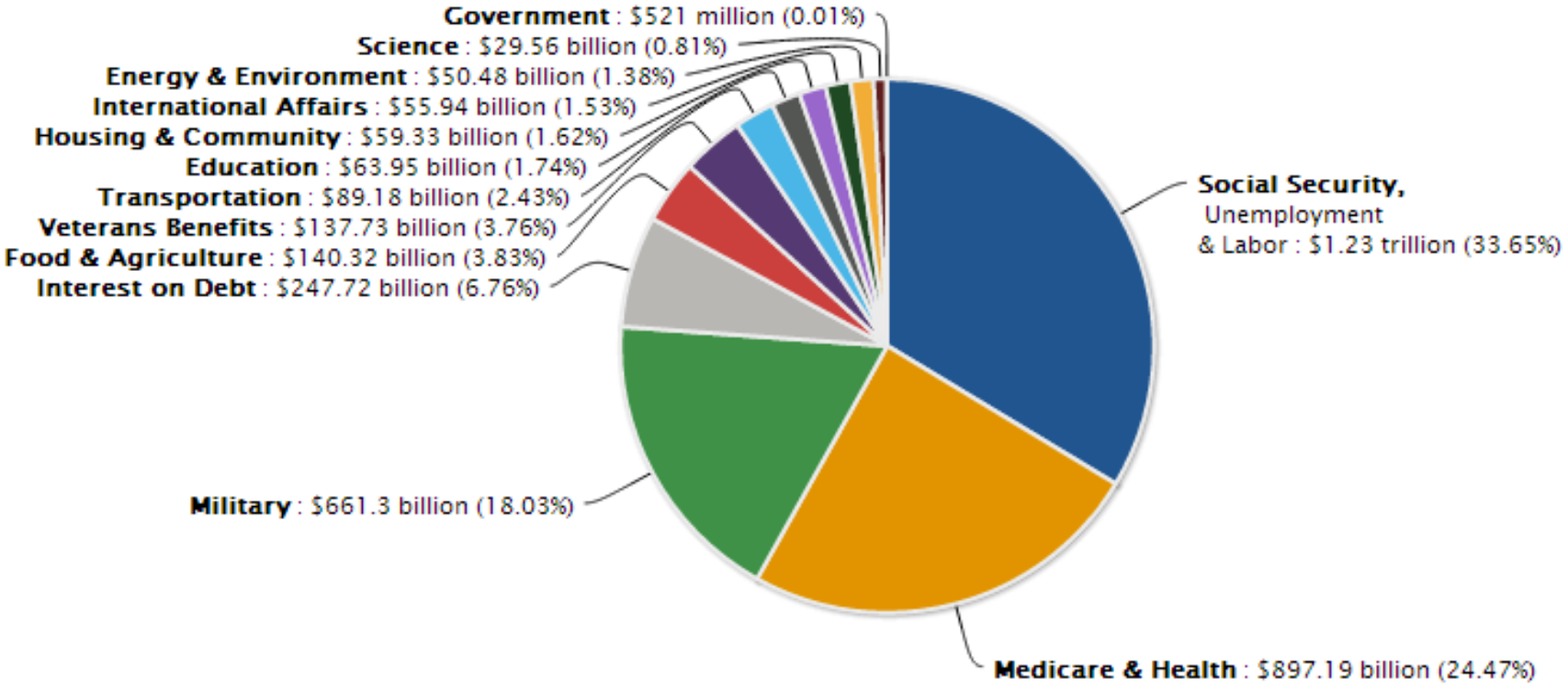
2013 U.S. Proposed Federal Spending

- 25% of the US Federal Budget is devoted to Medicare & Health spending



http://nationalpriorities.org/

Software Vendor Consolidation

- Fortune 1,000 ERP Market:
  - Early/Mid-1990s: 100+ vendors
  - Today: SAP and Oracle (Lawson in Healthcare)
- HIT Vendor Market:
  - Today: 7 major vendors and 250+ small-mid sized
  - Several of these players are facing existential challenges
  - Consolidation is inevitable

http://www.industryweek.com/articles/erp_vendors_big_get_bigger_9670.aspx
http://www.healthdatamanagement.com/issues/19_6/health-information-technology-vendor-acquisitions-42542-1.html

Software Vendor Consolidation, contd.

- Epic, Cerner and Meditech customers received >50% of Hospital MU fund allocations in 2011-2012
- "Enterprise Integration" highly favored over "best of breed"?

Eligible Professionals Attesting				
Ambulatory Vendors	**2011**	**2012YTD**	**Total**	**%**
Epic	8,888	7,111	15,999	21.50%
Allscripts	3,652	5,419	9,071	12.20%
eClinicalWorks	2,980	3,100	6,080	8.20%
GE Healthcare	1,424	2,854	4,278	5.70%
NextGen	1,533	2,504	4,037	5.40%
Greenway	1,161	936	2,097	2.80%
athenahealth	1,614	435	2,049	2.80%
Practice Fusion	758	1,213	1,971	2.60%
Cerner	801	891	1,692	2.30%
Medent	1,229	402	1,631	2.20%
All Others	11,555	14,044	25,599	34.40%
Total	**35,595**	**38,909**	**74,504**	**100.00%**

Hospitals Attesting				
Acute Vendors	**2011**	**2012YTD**	**Total**	**%**
Cerner	260	486	746	23.90%
MEDITECH	259	164	423	13.60%
Epic	327	71	398	12.80%
Allscripts	27	293	320	10.30%
HCA	264	2	266	8.50%
CPSI	133	60	193	6.20%
Healthland	55	31	86	2.80%
Latric Systems	33	41	74	2.40%
Siemens	54	20	74	2.40%
McKesson	12	47	59	1.90%
All Others	282	200	482	15.40%
Total	**1,706**	**1,415**	**3,121**	**100.00%**

http://thehealthcareblog.com/blog/2012/08/06/numbers-dont-lie-the-ehr-market-must-consolidate/

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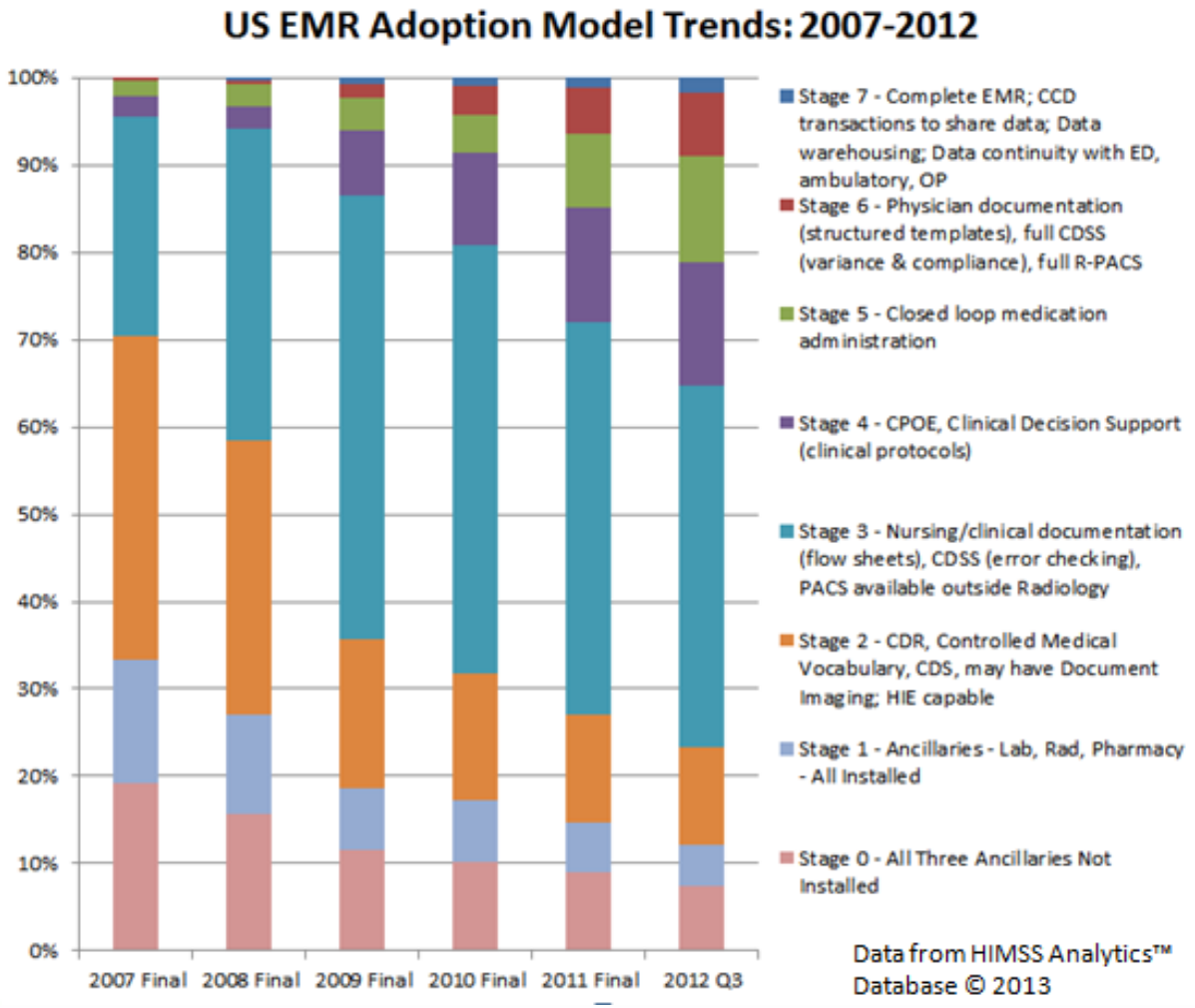
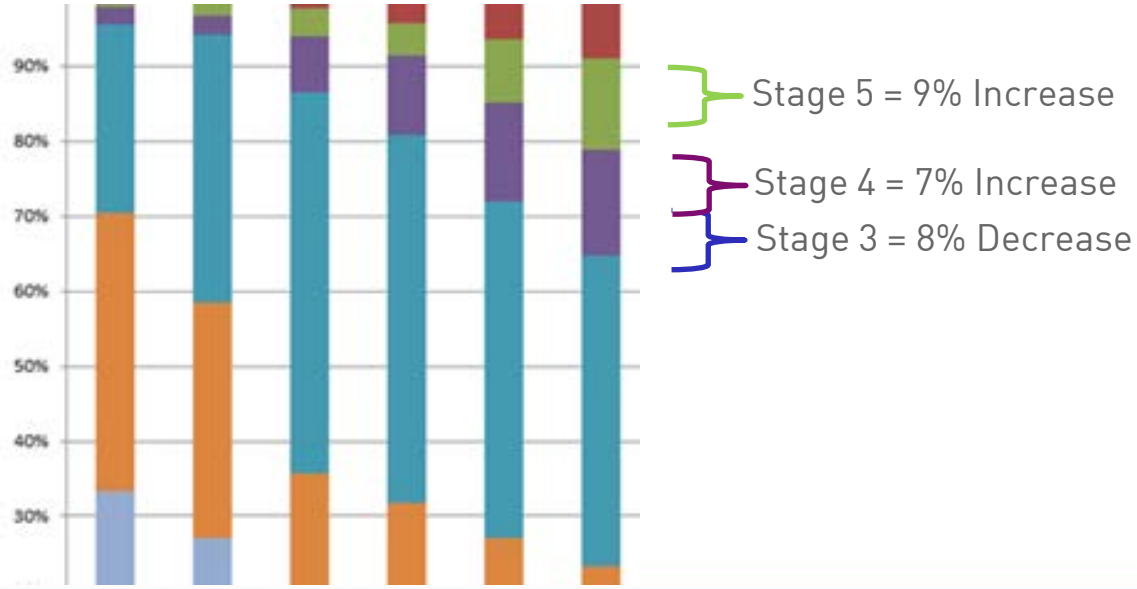
Current Healthcare Market Overview– HIMSS Analytics Adoption Trends



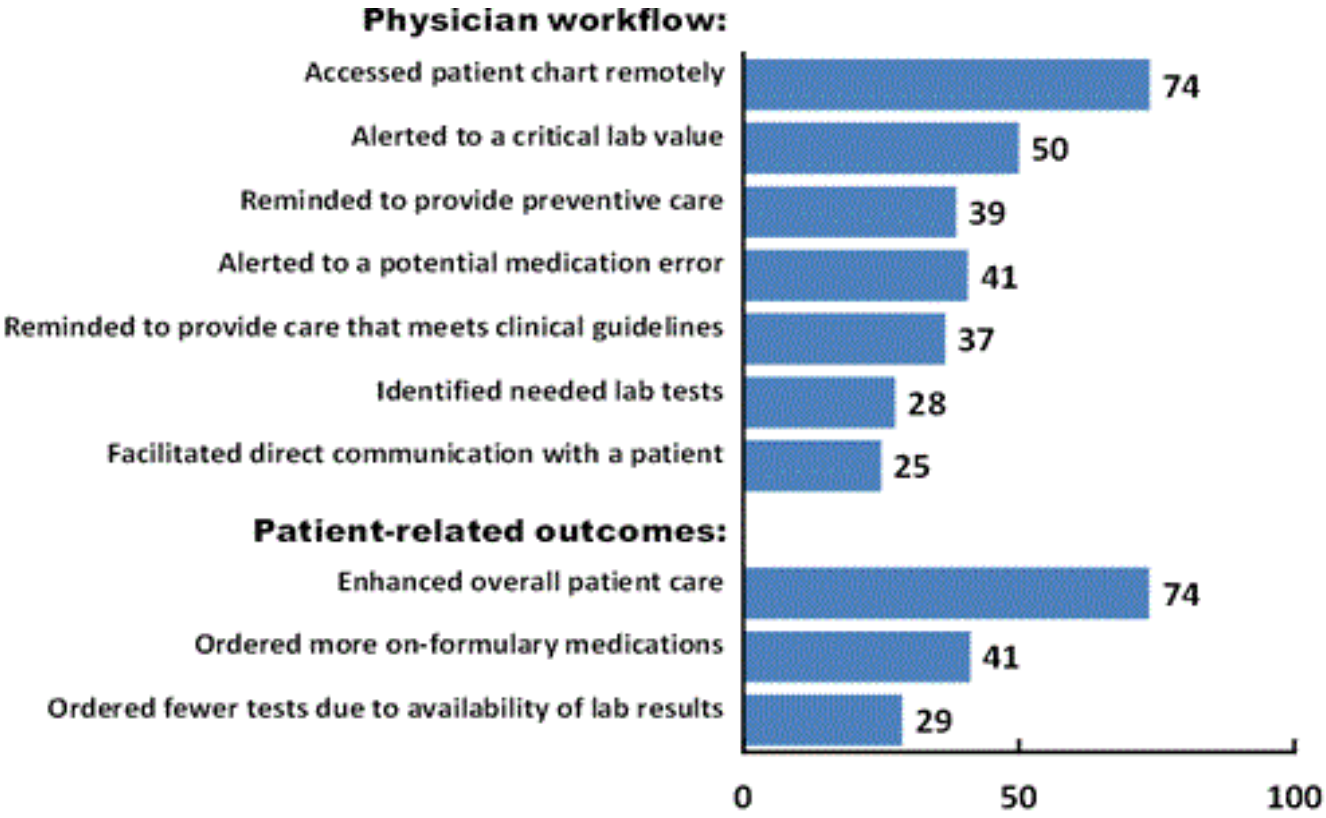
Where's the Dramatic Growth in Higher Stages?

- The percentage that has moved from lower to higher stages has not increased dramatically after 2009
- Ex: In 2009, 13% were Stage 4 or higher
  - In Q3 2012, 35% were Stage 4 or higher
  - Surprising that this number is not significantly higher following HITECH



EHR Outcomes

- The data below, reflected as percentage of physicians, have reported EHR accomplishments realized from 2008 – 2011



Information obtained from the NCHS Physician Workflow Study, 2011. http://www.cdc.gov/nchs/data/factsheets/factsheet_nhcs.htm

EHR Strengths

- Commonly noted benefits of EHR technology include:
  - Improved access to clinical information
  - Increased patient safety and care quality
  - Simplified compliance with regulatory requirements (e.g., PQRI)
  - Improved communication between providers
  - Cash payments through the HITECH Act MU incentive program

EHR Weaknesses

- Baseline EHR implementations have generated mixed results
- Complaints range from legitimate to far-fetched:
  - Security concerns
  - Interoperability challenges
  - Distracted, unsatisfying patient-physician interactions[1]
  - Doctors seem to bill at higher levels than before[2]
  - EMRs encourage doctors to cheat and lie[3]

McKinney, M. "Study: Digital tools lead to patient dissatisfaction." *Modern Physician*. January 29, 2013.
Abelson, R., Creswell, J., Palmer, G. "Medicare Bills Rise as Records Turn Electronic." *New York Times*. September 21, 2012.
McArdle, M. "The Unintended Consequences of Electronic Medical Records, Continued." Januaury 25, 2013.
http://www.thedailybeast.com/articles/2013/01/25/the-unintended-consequences-of-electronic-medical-records-continued.html

Implementation Lessons Learned – What We've Seen

- While every implementation is different, some patterns have emerged regarding what makes one successful or not

Successful Implementations

- Emphasis on clinical workflow process improvement care quality enhancement
- Emphasis on change management
- Emphasis on ROI elements of initiative

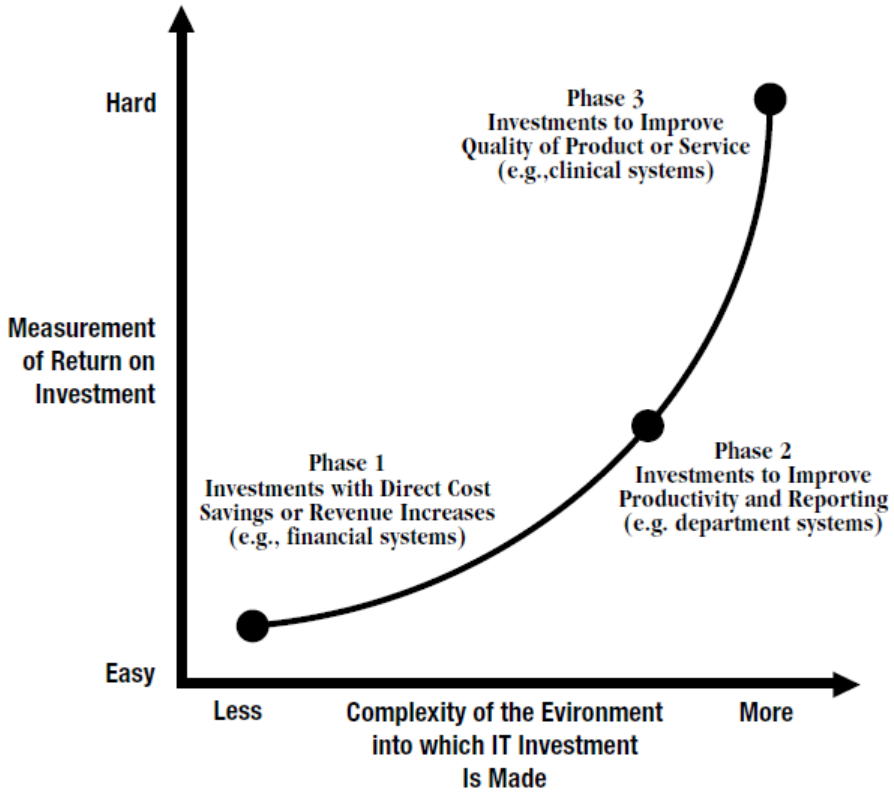
Less Successful Implementations

- Heavy focus simply on MU criteria as project objectives
- Heavy focus on MU Stage 1 deadlines for attestation

Calculating the ROI Associated with Healthcare IT Investments

ROI Is Difficult to Measure in Healthcare IT

- The ability to measure ROI becomes increasingly difficult as the complexity of the systems increases.



"Finding Value from IT Investments: Exploring the Elusive ROI in Healthcare"
http://www.himss.org/content/files/Code%20159_Finding%20Value%20from%20HIT%20Investments_Vogel_JHIM.pdf

Measuring Healthcare IT ROI: A New Model

- Classic economic models for ROI do not appropriately reflect the healthcare business
- HIMSS recommends a new model for ROI:

Efficiency savings

- Reduced paper costs
- Reduced cost of records transport, storage
- Reduced cost of dictation and transcription services

Improved outcomes of care

- Increased patient safety
- More accurate diagnoses and successful treatments

Additional revenue generated as a result of an IT implementation

- MU dollars
- Quicker and/or more thorough reimbursement from insurance, Medicare/Medicaid

Non-financial gains

- Increased patient satisfaction with care encounters
- Decreased provider time at work
- Higher levels of employee satisfaction

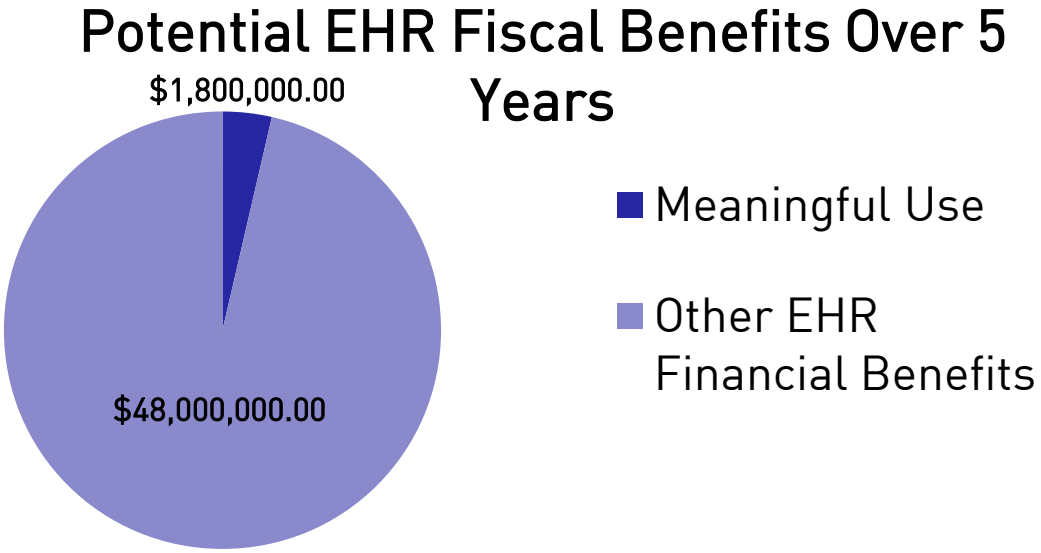
Increased provider knowledge

- Patient population data
- Evidence-based outcome analytics

Smith, C. "ROI In Health IT Is More Than Just A Price Tag." September 21, 2012. http://blog.himss.org/2012/09/21/roi-in-health-it-is-more-than-just-the-pricetag/

Healthcare IT ROI – It's There

- The right model and categories of return will vary from one organization to the next
- ROI is there for most organizations over a 10+ year period
- Electronic records $2/record/year vs. $8/record/year for paper records!!
- Optimization will accelerate ROI to an acceptable payback period



Bell, K. & Thornton, L. "From Promise to Reality – Achieving the Value of an EHR." *Healthcare Financial Magazine.* February 2011.

Where Are the Benefits?

- EHR benefit outcomes can vary depending on a number of factors, including organization size, complexity, scope of implementation, etc.
- As a result, the benefits can be wide-ranging, but include key areas such as:
  - Improved decision-making capabilities
  - Reduction in medical errors
  - Improved medication safety via fewer adverse drug events
  - Improved patient outcomes resulting in standardization of care

http://www.readperiodicals.com/201102/2273326421.html#ixzz2KEqVdi1xhttp://www.emarketer.com/blog/index.php/tag/how-many-people-shop-online/

Cash Flow and Revenue Benefits

Cash Flow Increases	
Benefit	**Example**
Reduced A/R days and cash acceleration	Illinois academic health system reduced Accounts Receivable days to 35 in Medical Group's 75 practices
Improved coding accuracy	Leading national health system gains 1.5-5% increase in charge capture
Increased inpatient turnover / Reduced adverse drug events	National health system gains increased capacity for new patients/procedures = $1.8-$2.2 million increased net revenue for facilities at capacity
Top-Line Revenue Growth	
Benefit	**Example**
Increased revenue	National managed care organization's procedure volume increased 30% for colon cancer screenings, 11% for breast cancer screenings, 5% for cervical cancer screenings
Increased revenue	Multi-site hospital and ambulatory system saw 10% increase in mammograms , 5% increase in M.D. patient load
Integrated registration-POS collections / Improved documentation	National health system reduced denied claims brings ~ $6 million revenue increase

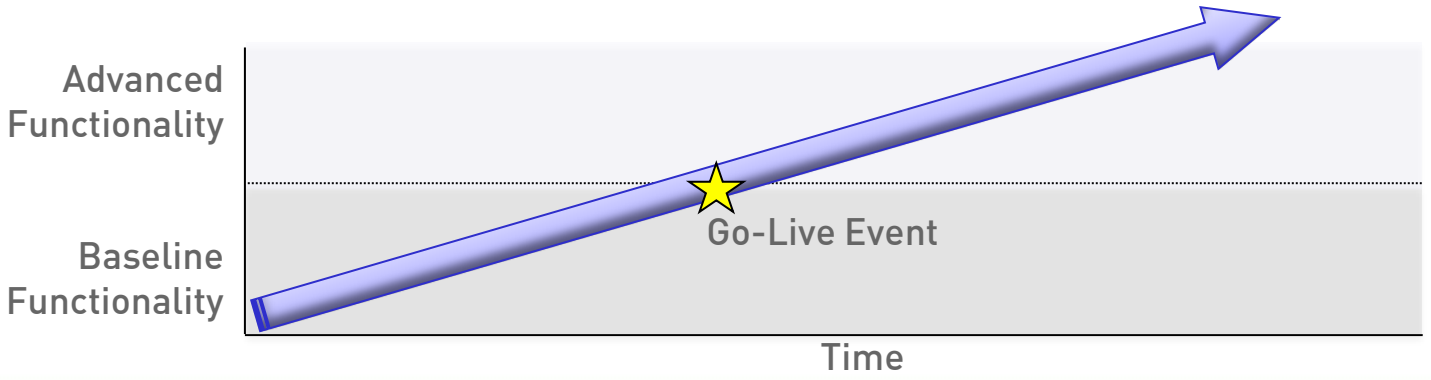
Cost Reduction and Avoidance Benefits

Cost Reductions	
Benefit	**Example**
Improved staff efficiency	Hospital system serving Southeast gains $1 million in savings from reductions in medical records and coding staff
Improved inventory management / Reduced waste	Multi-hospital and clinic system in Iowa achieved 568% ROI first 18 months and $500,000 hard-dollar savings the first year
Reduced supply costs	Children's hospital in Boston reaps $40,000 annual savings by eliminating paper, chart folders and supplies
Cost Avoidance	
Benefit	**Example**
Avoidable readmissions prevention	Missouri health system reports 35% reduction in readmission rates of home care patients
Improved patient care / Chronic disease management	New York hospital system reports 9% improvement in A1C levels across 22 locations = ~ $18,000 savings per point improvement per patient
Reduction of document imaging staff	National health system's CPOE to reduce shared services document imaging staff by 16% = 0.5 FTEs per hospital by 2015

Establishing a Monitored Optimization and Benefits Realization Program

What is Optimization?

- The Merriam-Webster dictionary defines optimization as "an act, process, or methodology of making something as fully perfect, functional, or effective as possible."
- In Healthcare Information Technology, Optimization has come to be known as the act of improving clinical information systems (as well as the environments in which they operate) in a manor that yields continual improvement well beyond a product implementation go-live!

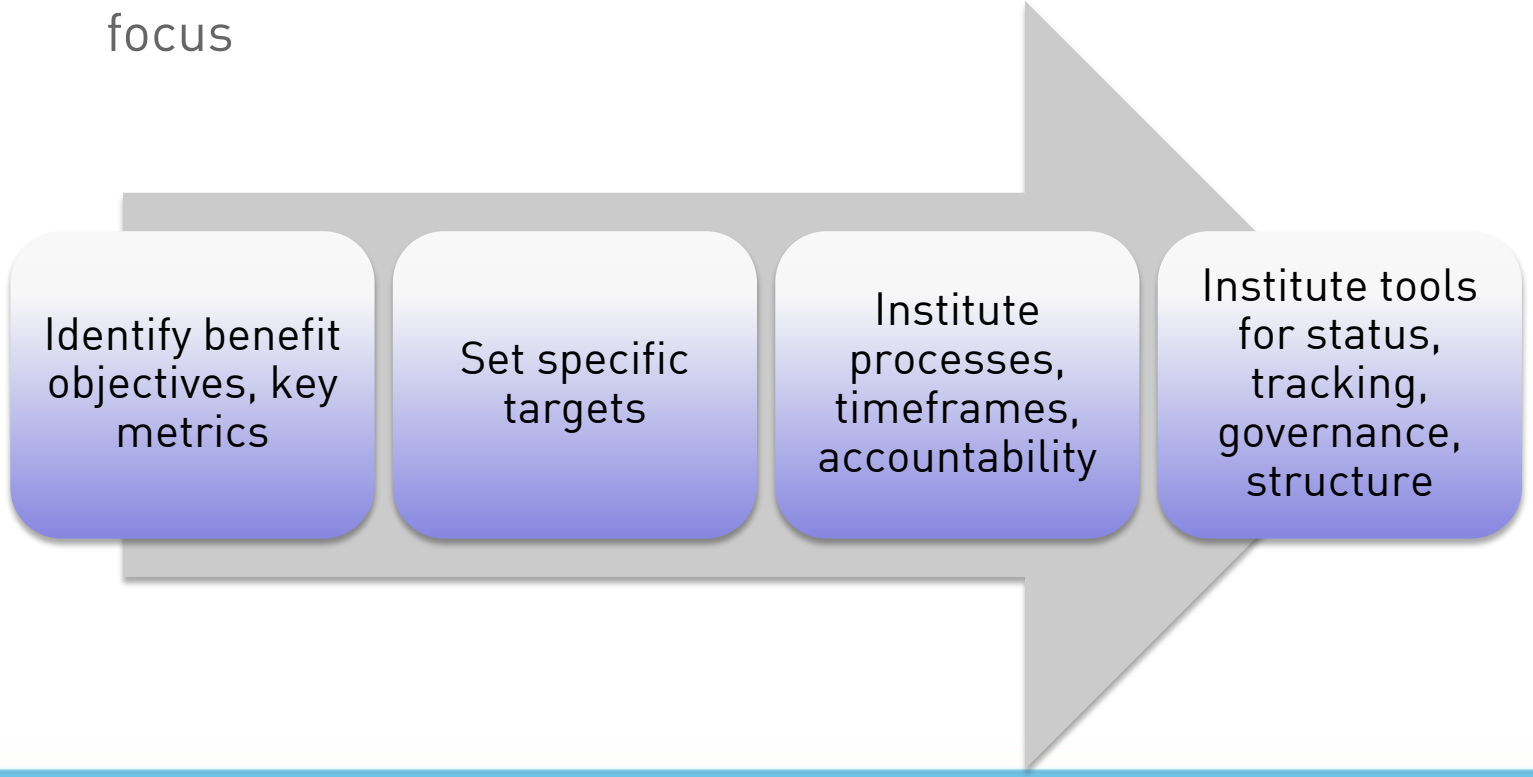


Optimization Programs

- Fact: EHRs are the new normal in healthcare
- Baseline implementations act as a "springboard" from which organizations can meet future requirements
- The work is not complete at go-live; it's just begun!
- To make the most of your EHR, it is crucial to form a dedicated optimization team
  - Spanning multiple departments of the organization
  - Working with members from every level of the organization
- Proactive optimization is rooted in the principles of TQM, LEAN, CQI, etc. and will work to:
  - Improve the overall effectiveness of healthcare workers
  - Improve patient safety
  - Address issues of cost

Monitored Optimization & Benefits Realization Program

- Should be understood as a substantial undertaking with significant resource/operational investment
- Optimization efforts should be viewed broadly as an operational improvement effort, keeping ROI constantly in focus



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