ePrescribing: Best Practices for Implementation and Growth

Pre-Forum Workshop: World Congress 5th Annual Executive Forum on Pharmacy Benefit Management Strategies

July 12, 2010

POINT-OF-CARE PARTNERS
HIT Strategy & Management Consultants

World Congress
Strategic Leadership for the Health Care Industry

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Agenda

- **Preliminaries**
- Overview of ePrescribing in the U.S.
- ePrescribing: Market Drivers & Adoption Trends
- Electronic Health Records: Market Drivers & Adoption Trends
- Examining the truths and misconceptions around e-prescribing
- Identifying the right model for your organization

Today's Objectives

- The means to an end: Solidifying why e-Prescribing will improve quality of care and patient safety
- "Myth-Busters": Examining the truths and misconceptions around e-Prescribing
- Identify the best-fitting healthcare information technology and the necessary steps for successful implementation in your organization
- What are the current rules and regulations regarding ePrescribing for controlled substances and what is the potential impact?
- Uncover why health plan integration is crucial for the success of e-prescribing and medication management
- What are the primary trends and drivers around e-Prescribing adoption and utilization?
- What's next for e-Prescribing as it is now linked to the adoption and success of EHRs?

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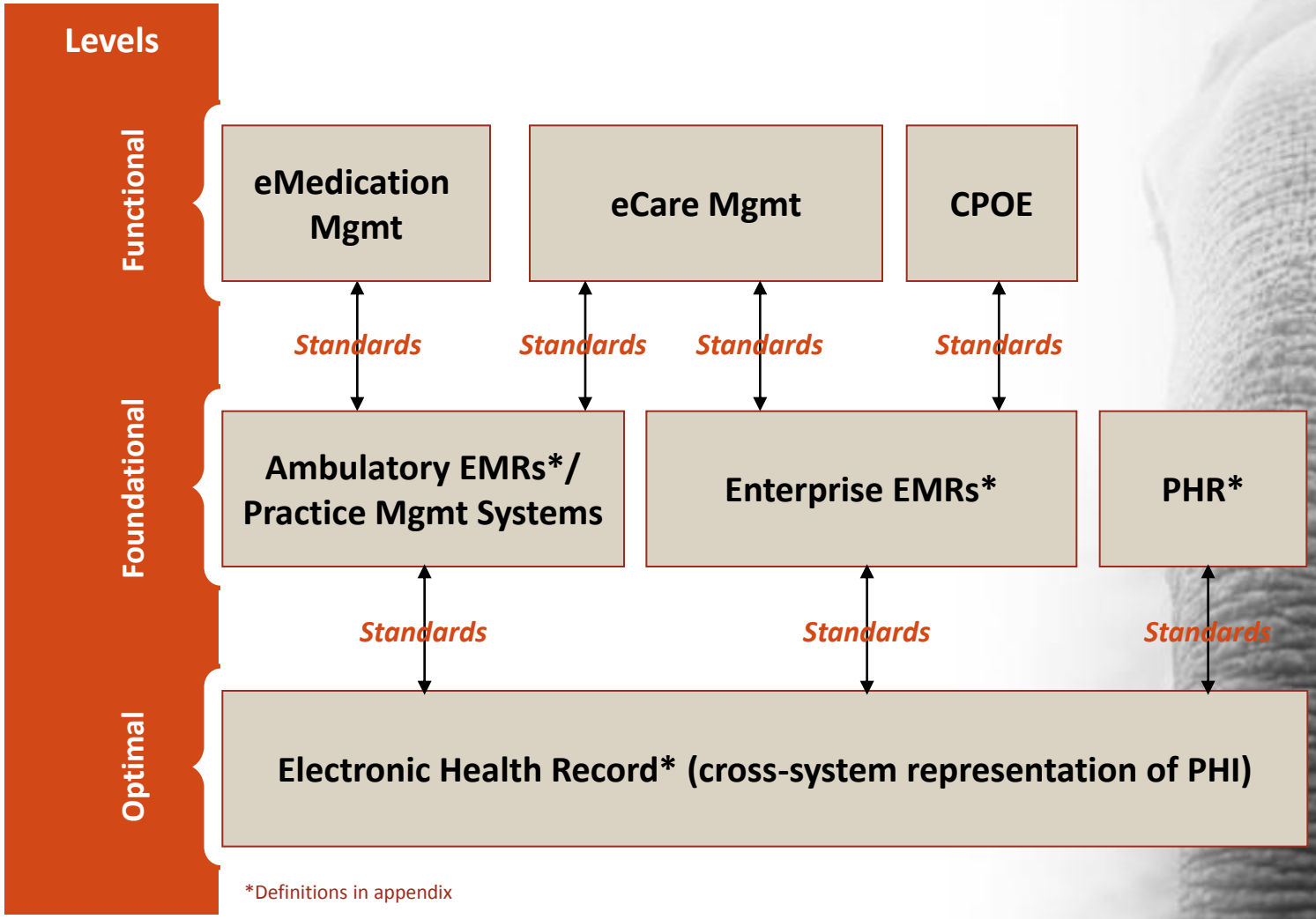
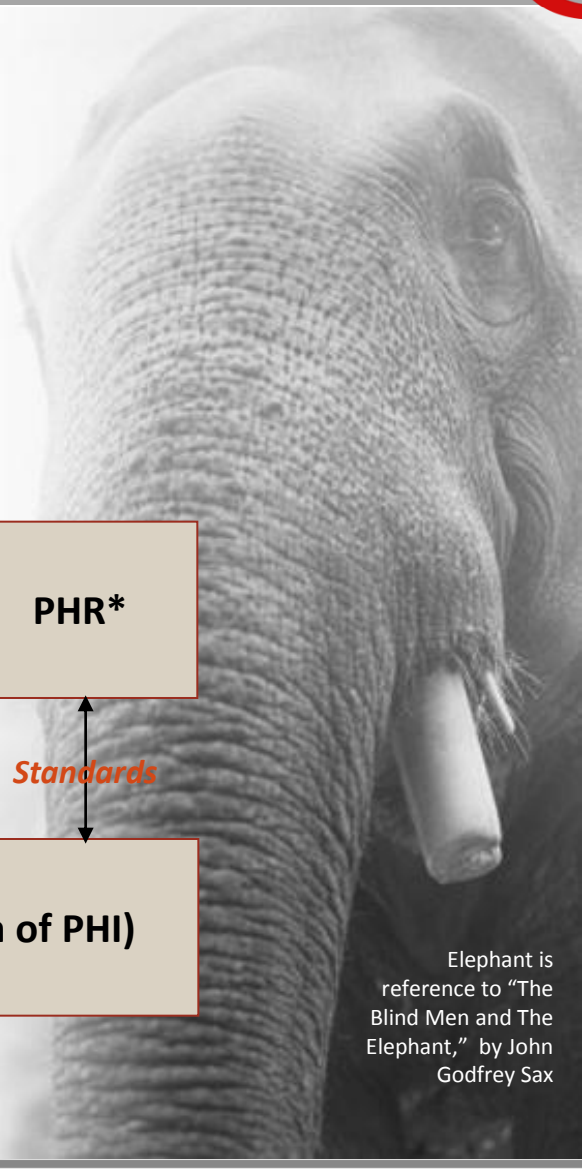
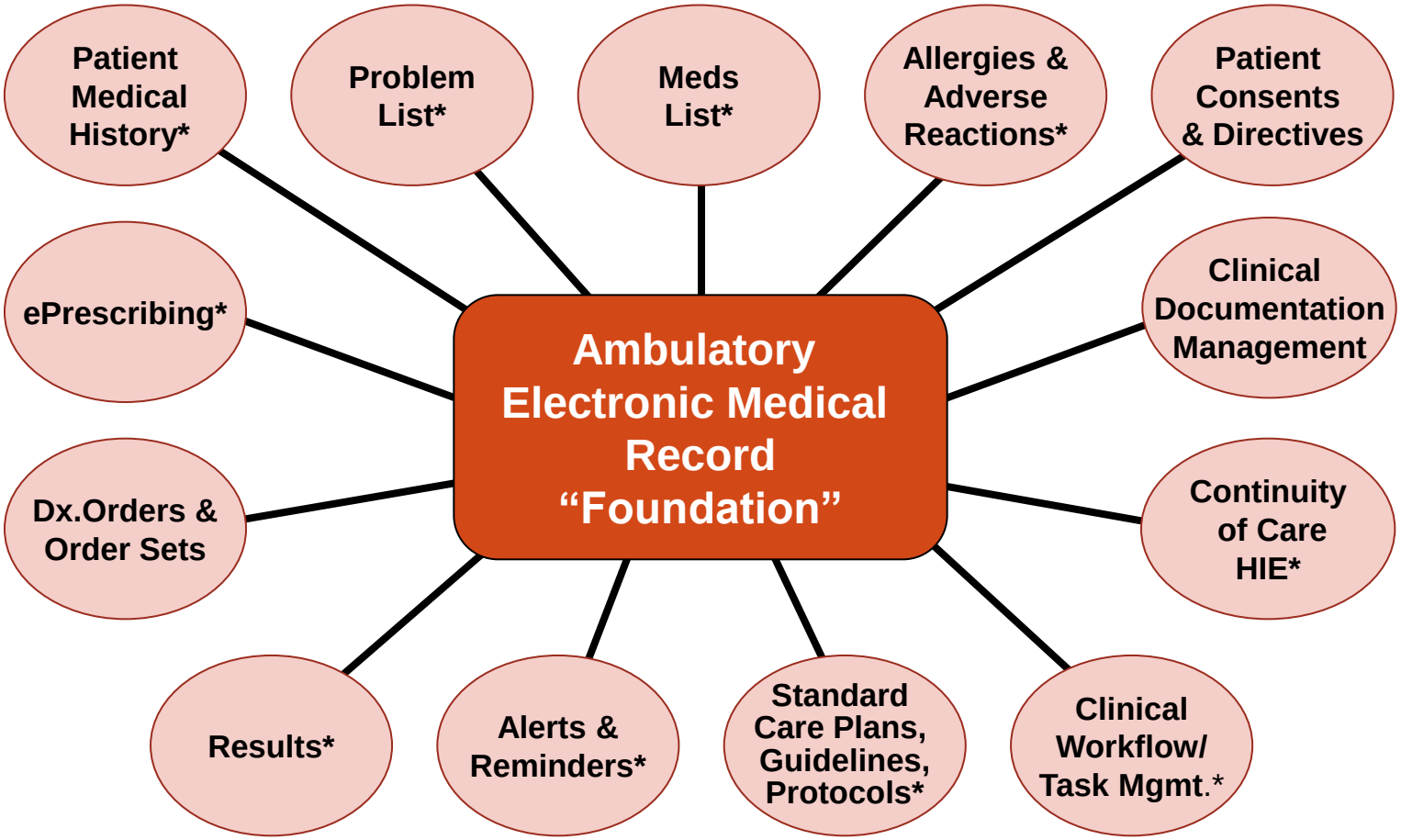
Health Information Technology





Elephant is reference to "The Blind Men and The Elephant," by John Godfrey Sax

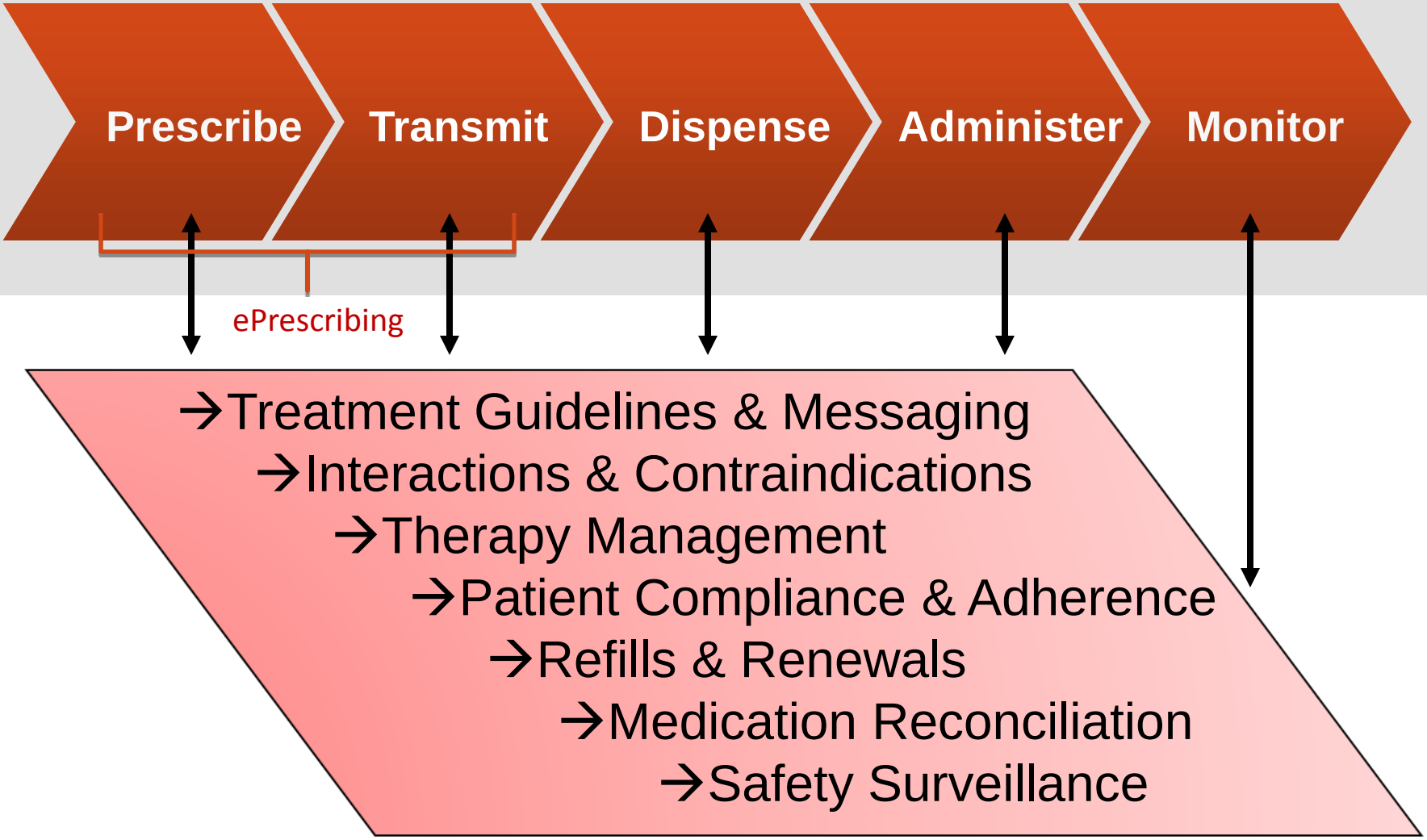
EMR Scope & Components



* Key to medication adherence management

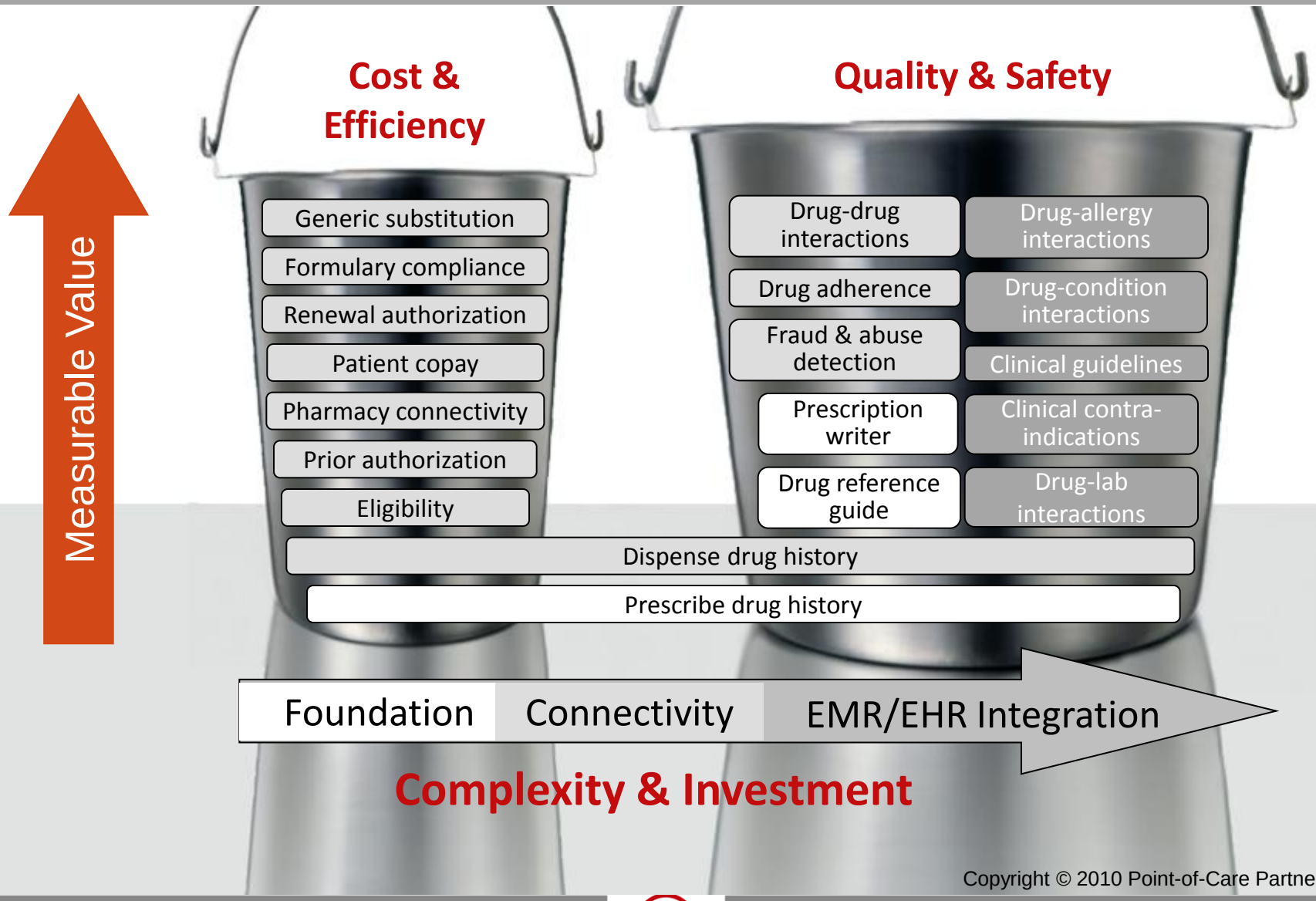
Sources: CCHIT, POCP primary research

eMedication Management

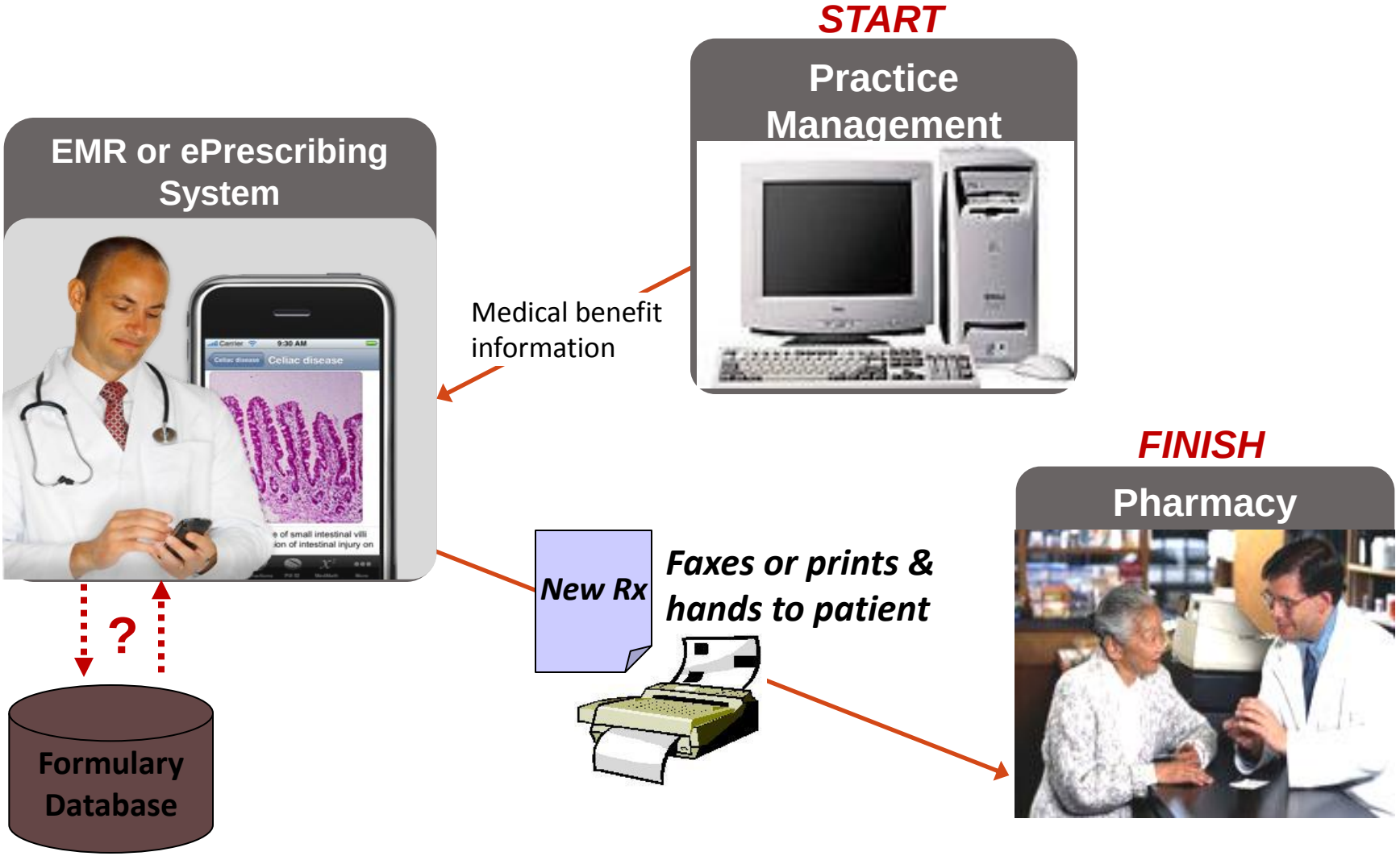


Adapted from Bell et al 2004

ePrescribing Components and Value

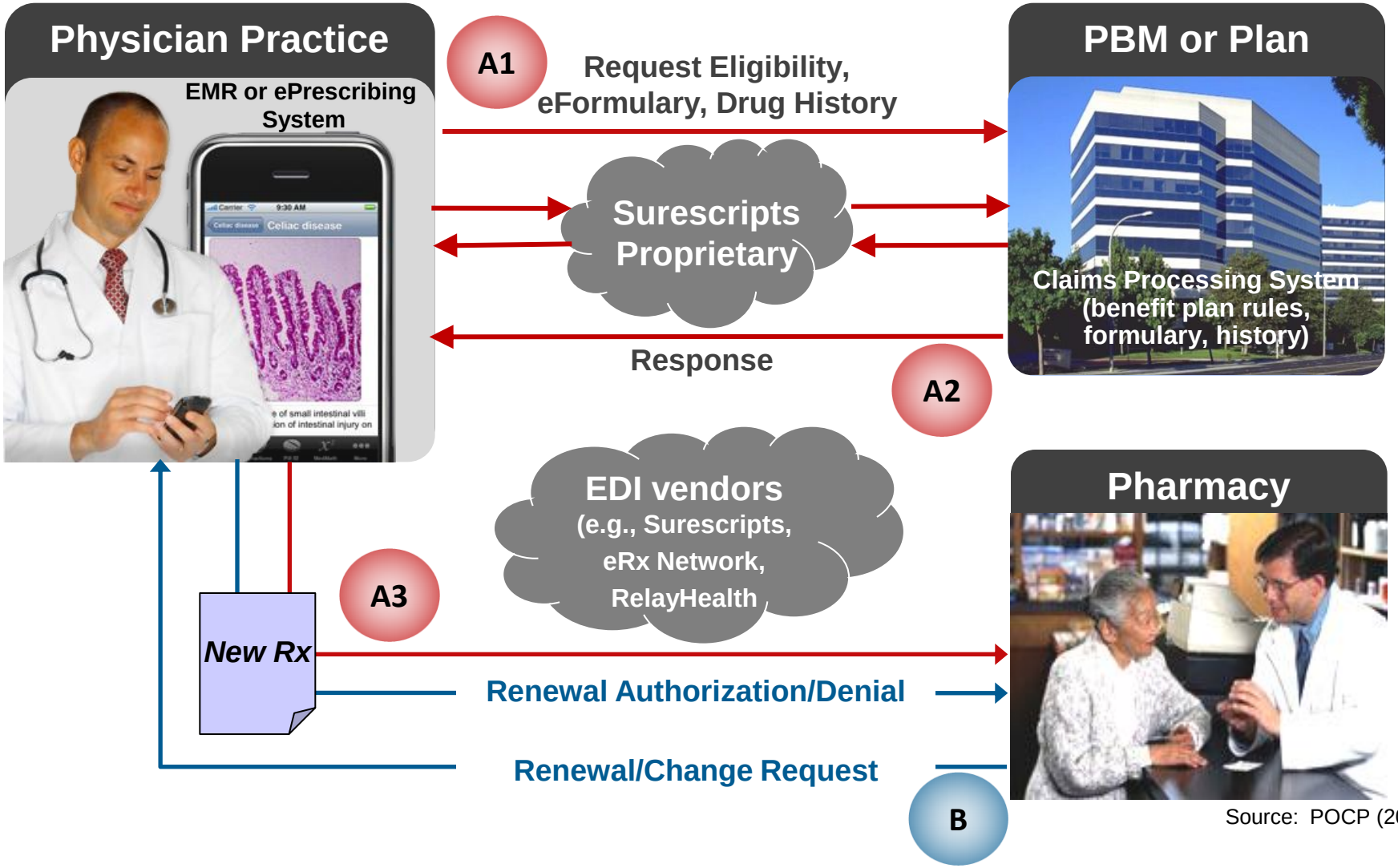


Early ePrescribing (often still there)



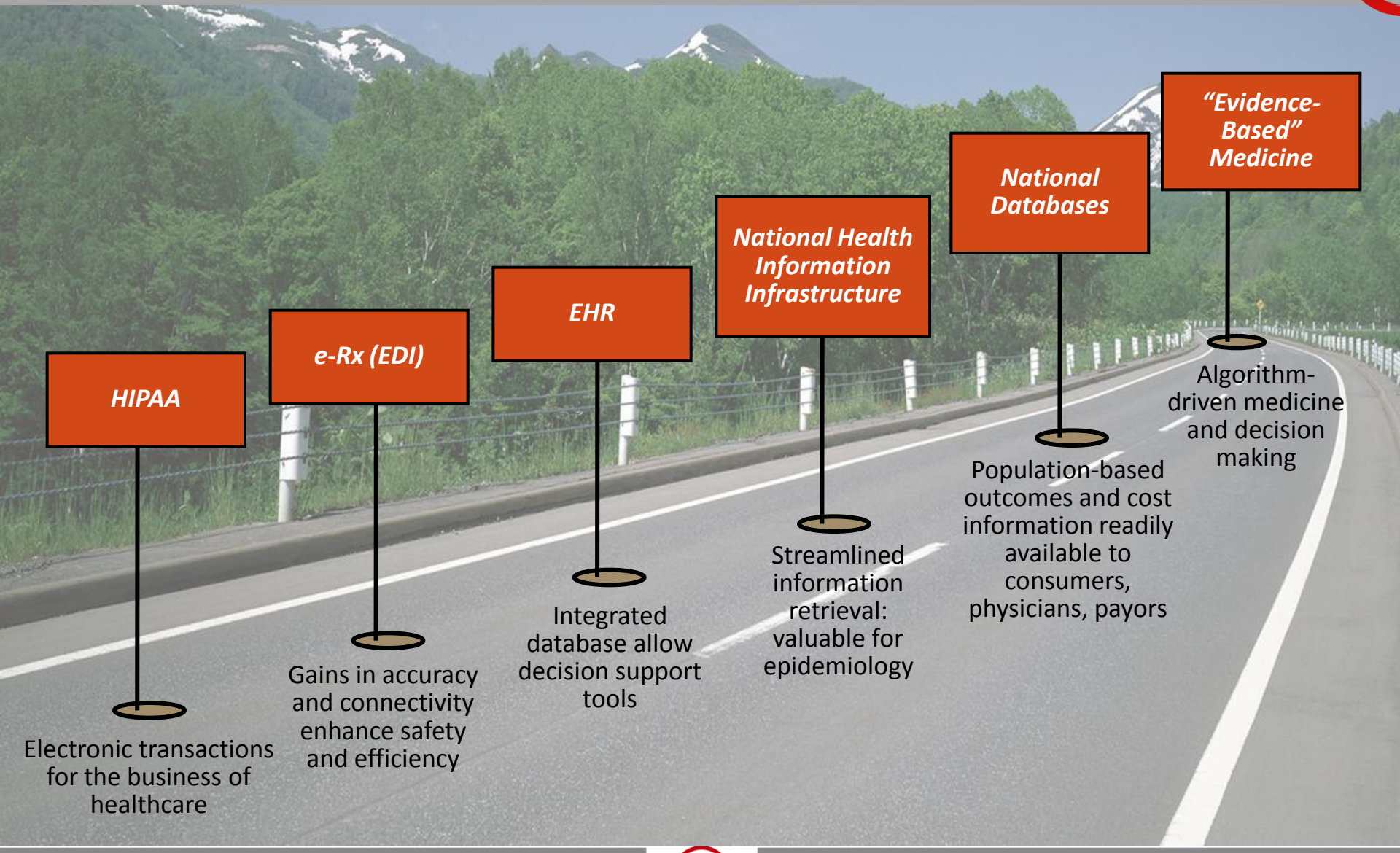
Source: POCP (2009)

True ePrescribing Interoperability



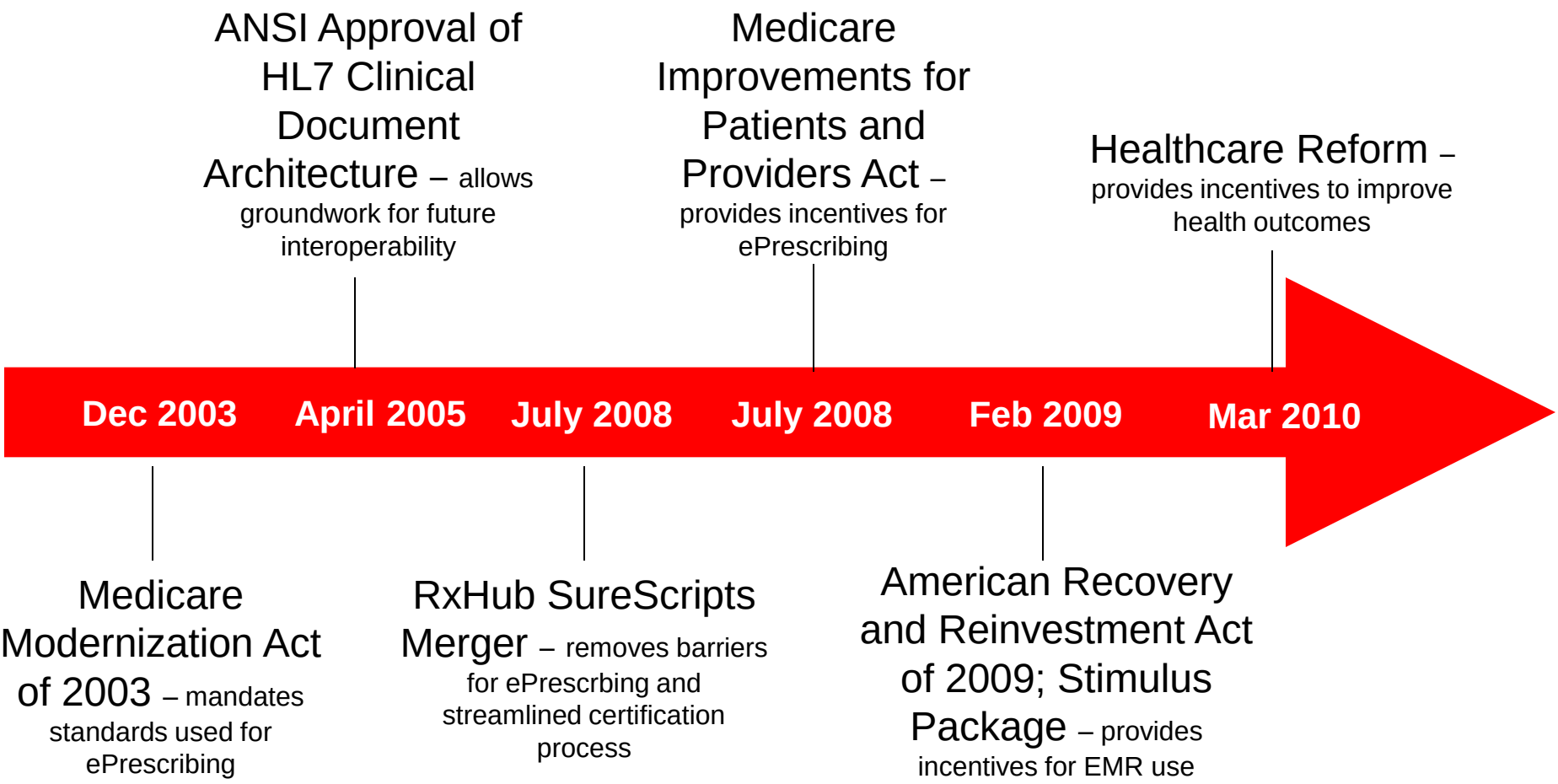
Source: POCP (2010)

The Connectivity Roadmap



Major Influences

Although ePrescribing and electronic health records have been pending mass adoption for many years, key milestones in the past are likely to provide profound acceleration



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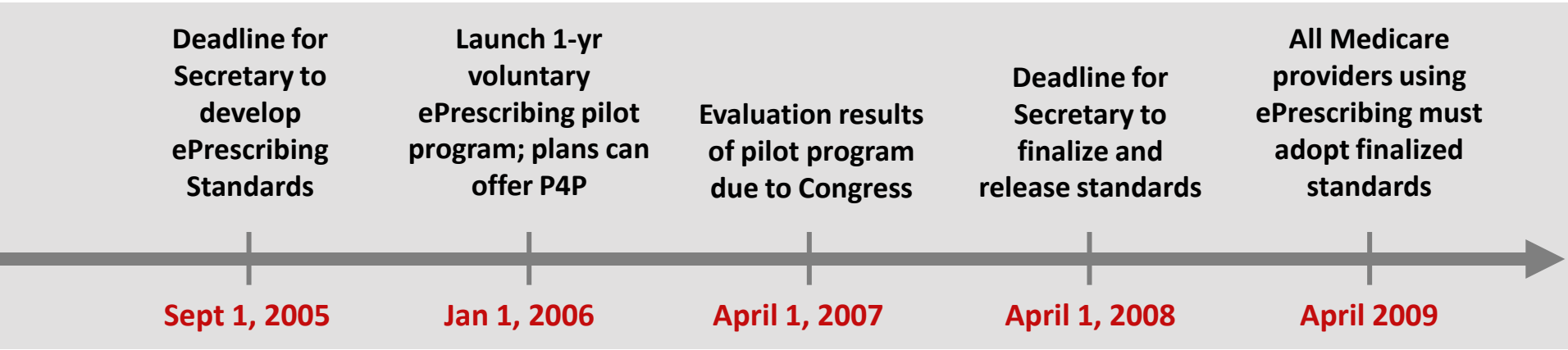
Impact of MMA (Medicare Part D)

Overview

- Landmark legislation stipulated if the clinician was ePrescribing. had to use standards.
- Called for hearings and pilots, which were held in '06.
- Initially named NCPDP Script, as the standard for ePrescribing.
- Relaxed Stark and Safe Harbor laws to permit hospitals to provide MDs with software.
- Process continued along timeline set out by the MMA, as indicated below.
- Work continues on standards not deemed ready for implementation.

2006 Pilot Recommendations

Standards	Description	Pilot Recommendation
Medication History (NCPDP SCRIPT)	Dispensed/Claims Hx fx of NCPDP SCRIPT	Ready for Implementation
Formulary & Benefit (NCPDP v.1.0)	Form status & alternative drugs, copay	Ready for Implementation
Fill Status Notification (Fxn of NCPDP SCRIPT)	Informs when Rx filled, not filled or partially filled	Ready for Implementation
Structured & Codified SIG	Patient instructions incl. dose, route, freq., etc.	Needs More Work
RxNorm Clinical Drug Terminology	Std drug nomenclature meant to be intralingua	Needs More Work
Electronic **Prior Authorization** Messages	Provider request, payer response to PA criteria	Needs More Work



Medicare Improvements for Patients and Providers Act of 2008 (MIPPA)

- MIPPA provides both carrots and sticks to prescribers that ePrescribe.
- Physicians qualify by having ePrescribing functionality and writing 10% of their Rxs electronically and submitting 25 unique ePrescribing events.
- Criteria is self-reported to CMS ("attestation").

Incentive*	Year	Penalty*
+2%	2009	None
+2%	2010	None
+1%	2011	None
+1%	2012	-1%
+.5%	2013	-1.5%
None	Beyond	-2%

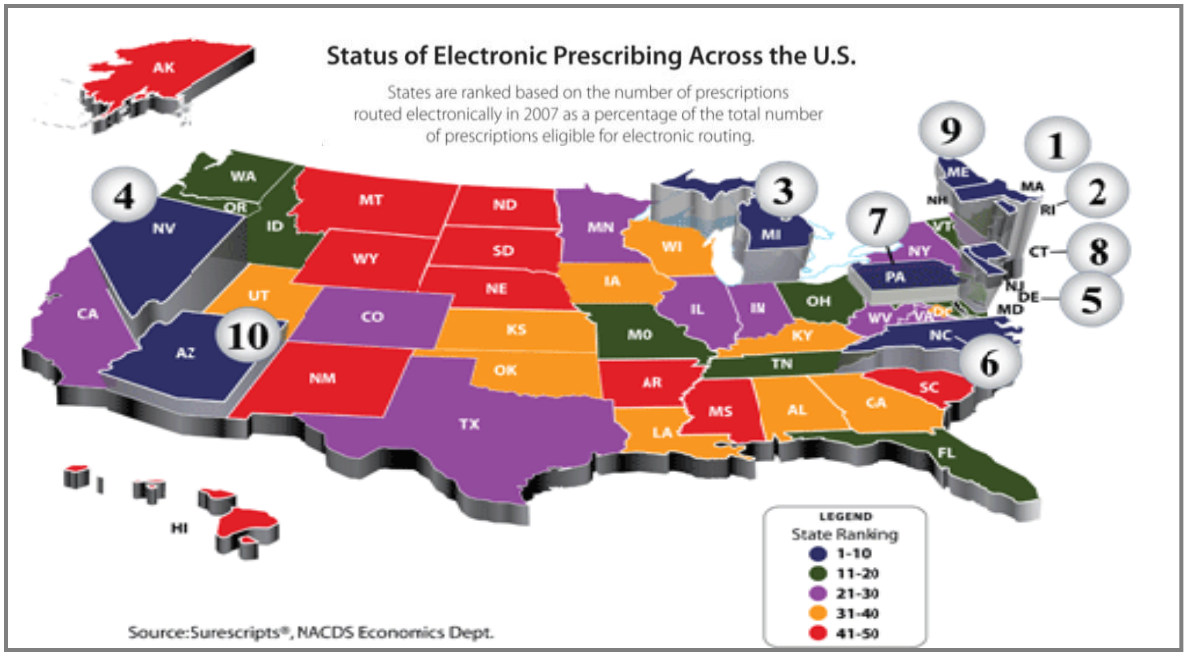
* Increase or decrease in Medicare Part B revenue

ePrescribing Forecast Model (2009, 2010)	
Patients per day	24
% of Practice Medicare	33%
Medicare Patient Per Day	8
Revenue per Medicare Patient	$85
Days per year	250
Medicare Revenue Per Year	$168,300
Potential % Increase	2%
Incremental Revenue per MD per Yr	$3,366

Source: Allscripts

Initiatives Driving Adoption

1. Massachusetts
2. Rhode Island
3. Michigan
4. Nevada
5. Delaware
6. North Carolina
7. Pennsylvania
8. Connecticut
9. Maine
10. Arizona



Initiatives are key contributors in high volume, highest percentage and most improved states

Different Stakeholders Are Leading:

- Massachusetts – Health plans created eRx Collaborative
- Rhode Island – Multi-stakeholder collaborative with leadership from RI Dept. of Health and Rhode Island Quality Institute
- Nevada – Large multi-specialty clinic driven
- Michigan – GM, Ford, Chrysler created ePrescribing program supported by BCBSMI, HAP, Medco and CVS Caremark

Published Studies: Value to Health Plan

Study	Results
Weingart et al 2009	ePrescribing alerts may prevent a substantial number of injuries and reduce adverse drug events
Brigham and Women's 2008	Generic dispensing rate increased by 3.3%. Almost all movement was to generic alternatives
Aetna/Zix 2007	7% improvement in generic dispensing rate (GDR) and 5% improvement in formulary compliance
Affinity Health 2005	Average costs declined $4.12 for new Rx; per member per month (PMPM) declined 57¢ vs control; target drugs were 17.5% lower
Aetna 2005	No change in formulary compliance
Univ. of VA. 2003	Annual drug cost savings in a PCP academic group = 2%; Estimated adverse drug event (ADE) cost reduction of 62%
Tufts Healthplan 2002	Wide-spread deployment of ePrescribing could mitigate rising pharma costs by 2% or more

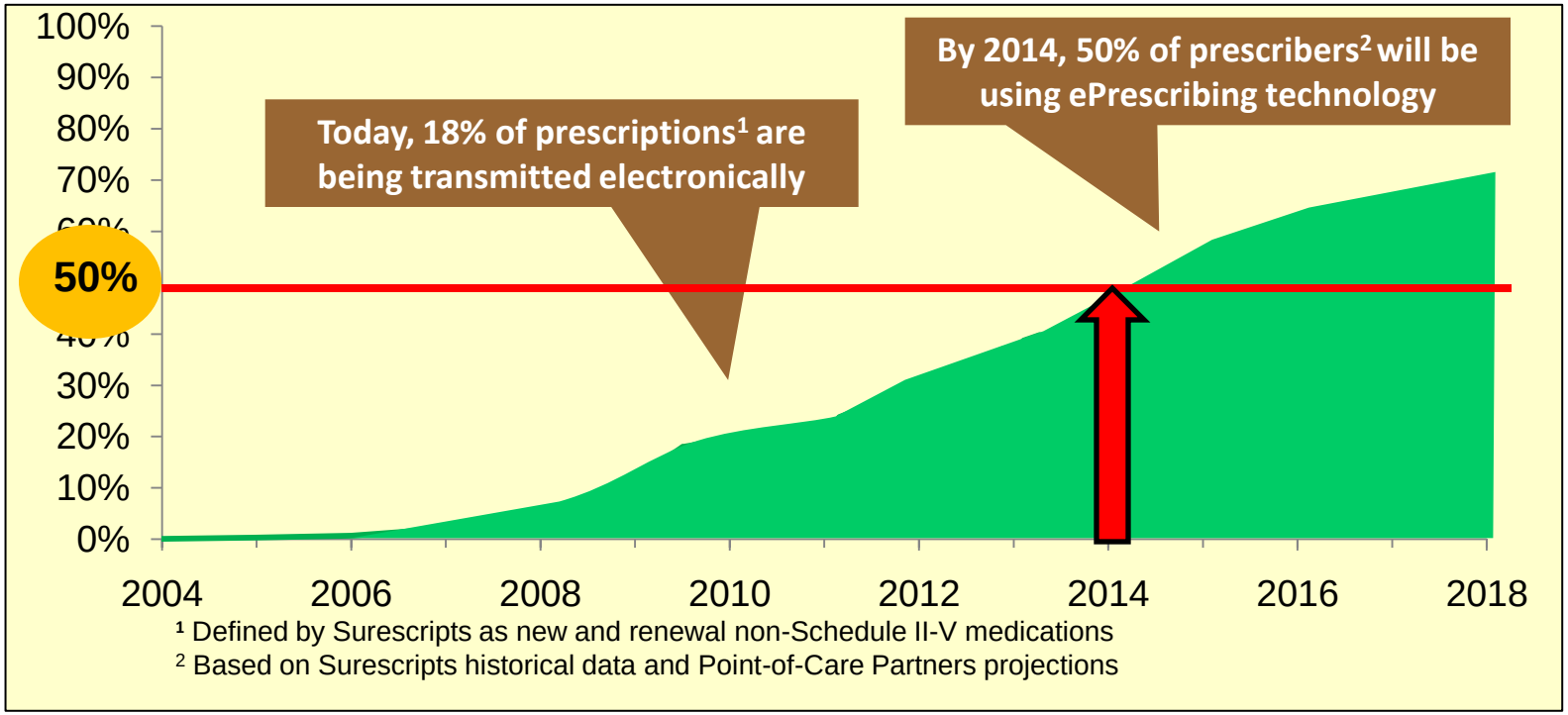
ePrescribing Controlled Substances

- Long awaited DEA rule allows ePrescribing of Schedule II-V medications
  - Providers must be authenticated by 3rd party
  - Providers must use 2 of the following:
    - Password
    - Token
    - Biometric
  - ePrescribing systems must generate ePrescribing reports by Provider monthly
  - Rule became law June 1, 2010

- ePrescribing Impact:
  - It is unclear whether HIT vendors will be able to include DEA requirements before ARRA (2011) – if not, may make it harder for some physicians to meet Meaningful Use requirement of 75% ePrescribing.
  - Some vendors may require DEA authentication (Password, Token and/or Biometric) for ALL ePrescriptions, rather than require for only Schedule II-V to avoid duel processes
- DrFirst has already demonstrated compliance with DEA ruling as part of AHRQ study (June 2010)

ePrescribing Market Drivers

ePrescribing Can No Longer Be Ignored



Eligibility Transactions in 2009[1]		Successful Hits (Surescripts[2])		Encounters		Average Rxs /Encounter		Rxs Impacted by Surescripts		Total Scripts (that can be transmitted[2])		**Rxs Impacted by Surescripts formulary**
303,000,000	x	.85	=	206,040,000	x	3	=	618,120,000	÷	1,591,000,000	=	**39%**

Factors Accelerating and Decelerating ePrescribing Adoption 2010 - 2013

ARRA incentives (starting in 2011) and penalties (starting in 2015) will drive adoption	+ + +
"Meaningful Use" and certification are making ePrescribing a standard EMR application	+ + +
Consolidation of small practices with larger practices that have EMRs	+ +
Well run Regional Extension Center (REC) and/or HIEs may increase adoption	+
Final DEA rule provides legal clarity around controlled substances	+
P4P programs like NY Medicaid will boost adoption	+
Physician confusion around software options, "Meaningful Use", and ARRA is slowing down sales	- - -
Governmental delays in "Meaningful Use" regulations and certification programs will delay software development for EHRs as well as prescriber adoption	- -
Ramp-up of EMR implementation services may not keep pace when demand spikes in late 2010/2011	- -
Focus now on more costly EMRs with ePrescribing functionality, non-adopters less willing to adopt more costly ePrescribing solution.	- -
Vendor interpretation of DEA rule may be burdensome on prescribers	-
Recent adoption increases driven by adding ePrescribing to EMRs - little opportunity left	-
Non-adopters tend to be smaller, more remote groups that will be more difficult to engage	-
Prescribers may not be willing to adopt where pharmacies are not connected or refuse to accept ePrescriptions for various reasons	-

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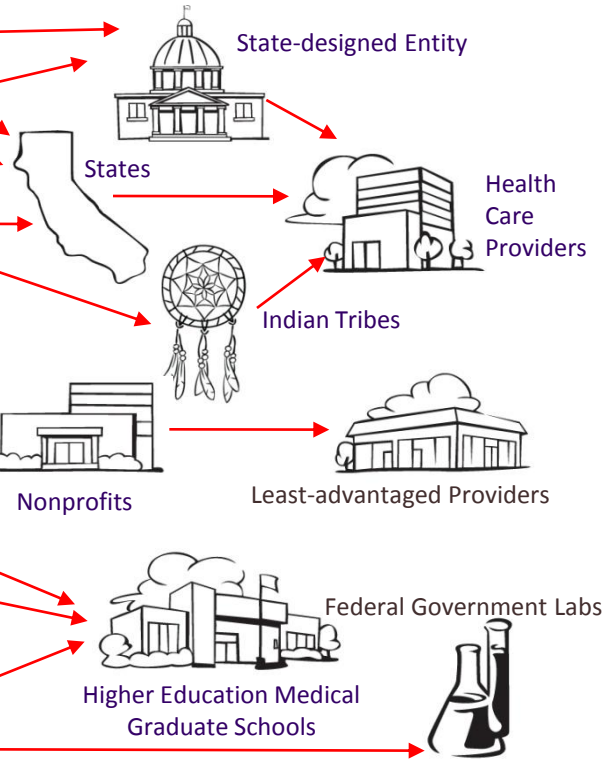
ARRA and the HIT Advocate-in-Chief

- In January, 2009, signed into law the American Reinvestment and Recovery Act of 2009 (ARRA). The HITECH component:
  - Set aside a potential ~$27 billion in funds to encourage adoption and use of electronic health records (EHRs)
  - The **"goal of meaningful use of an EHR is to enable significant and measurable improvements in population health through a transformed health care delivery system."**
  - Patient-Centered Medical Home pilot, which has electronic prescribing as a key ingredient
  - A new Bureau of Health Information, which would be responsible for collecting and reporting health information across agencies.
- **"In the economic recovery plan … we'll make sure that every doctor's office and hospital … is using cutting edge technology and electronic medical records."** *– remarks by President-elect Barak Obama Radio Address, December 6*

ARRA Appropriated Funds

$2 billion in gross outlays

Program	Distribution Agency	Use of Funds
HIE Planning and Development	ONC	Planning Grants Implementation Grants
EHR Adoption Loan Program	ONC	Loan Funds
Health IT Extension Program	ONC	Health IT Research Center Regional Extension Centers
Workforce Training Grants	HHS, NSF	Medical Health Informatics EHR in Medical School Curricula
New Technology Research and Development Grants	NIST, NSF	Health Care Information Enterprise Integration Research Centers



Adapted from California HealthCare Foundation 2009

Regional Extension Center (REC) Grants

- Goal: To build capacity necessary for EPs to meaningfully use EHRs
  - Creates a national Health Information Technology Research Center (HITRC) and Regional Extension Centers (RECs)
  - Will offer education, health care organization readiness assessment, best practices, and technical assistance to support and accelerate adoption of EHRs
- Principal focus:
  - Primary care providers practicing in small offices (< 10 physicians)
  - Medical professionals practicing in rural and underserved areas
- The Extension Program establishes 60 RECs
  - The first cycle of grants awarded February 10th to 32 state/state designated entities (SDEs)
  - Second cycle awarded on April 10th to 28 states/SDEs
- Funding for the RECs ($598M) from ARRA largely concludes by December 2012 at which point it is anticipated that the RECs will be largely self sustaining. Some minimal funding ($45M) is available for 2 additional years
- Programs may support at least 100,000 physicians

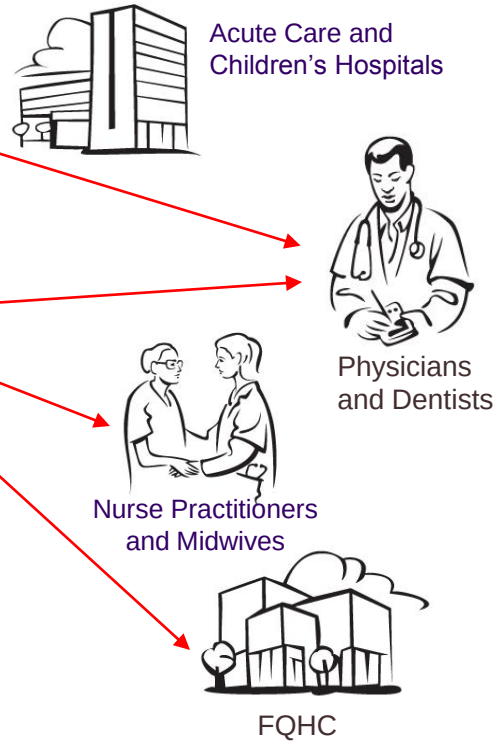
Health Information Exchange (HIE) Grants

- Goal: "*…development of a nationwide health information technology infrastructure that allows for the electronic use and exchange of information and that…promotes a more effective marketplace, greater competition...[and] increased consumer choice*". (Section 3001(b))
- ARRA authorizes grants ($548M) to fund the building of HIEs to enable the sharing of electronic health information among a patient's providers of care
  - The first cycle of grants were awarded February 12th to 40 HIEs planned or operated by states/SDEs
  - The second cycle was awarded on March 15th to 16 HIEs planned or operated by states/SDEs
  - Some states or SDEs (6) that received HIE grants also were awarded grants for RECs; these states are developing an integrated organizational structure to promote the adoption of EHRs
- HIEs receiving grants will be evaluated annually to determine if they are meeting specified milestones; especially year 2:
  - Does progress demonstrate reasonable likelihood that the state HIE will meet the HIE-related requirements of EHR Meaningful Use by 2015?

Transforming Healthcare with ARRA's EHR "Meaningful Use"

$27 billion in gross outlays

Program	Distribution Agency	Use of Funds
Medicare Payment Incentives	CMS	Incentive Payments through Carriers
Medicaid Payment Incentives	CMS and States	Incentive Payments through State Agencies



For providers 1) using ***certified electronic health records*** 2) that are ***"meaningful users"***

Adapted from California HealthCare Foundation 2009

ARRA Incentives by Adoption Year

Medicare Incentives

Certified Meaningful User	2010	2011	2012	2013	2014	2015	2016	Total Incentive
2011		$18,000	$12,000	$8,000	$4,000	$2,000		**$44,000**
2012			$18,000	$12,000	$8,000	$4,000	$2,000	**$44,000**
2013				$15,000	$12,000	$8,000	$4,000	**$39,000**
2014					$12,000	$8,000	$4,000	**$24,000**
2015+								**$ Penalties**

Medicaid Incentives

Cap on Net Average Allowable Costs, per the HITECH Act	85 percent Allowed for Eligible Professionals	Maximum Cumulative Incentive over 6-year Period
$25,000 in Year 1 for most professionals	$21,250	**$63,750**
$10,000 in Years 2-6 for most professionals	$8,500	
$16,667 in Year 1 for pediatricians with a minimum 20 percent patient volume, but less than 30 percent patient volume, Medicaid patients	$14,167	**$42,500**
$6,667 in Years 2-6 for pediatricians with a minimum 20 percent patient volume, but less than 30 percent patient volume, Medicaid patients	$5,667	

Meaningful Use and EHR Certification

- Health care providers and hospitals must meaningfully use "Certified EHR Technology" to receive the ARRA EHR Medicare or Medicaid incentives of up to $27 billion (est.)
- "Certified EHR technology" is either a 1) "Complete EHR" or 2) *combination* of "EHR modules" that:
  - Has <u>all</u> attributes of a "Qualified EHR":
    - Capability to support: a) storage of patient health information, b) clinical decision support, c) CPOE, d) quality reporting, and e) health information exchange;
    - Enables providers to meet all the EHR meaningful use criteria; and
    - Is certified by one of the certification entities/processes endorsed by HHS-ONC*
- If "EHR modules" are involved, the responsibility rests with the health care provider or hospital to ensure that the *combination* of EHR modules meets the "Certified EHR technology" requirement
- Announcement from June 21st 2010 provides details on the temporary certification program

* ONC published NPRM with 2-phase certification process in March, 2010

Meaningful Use and EHR Certification

- Meaningful Use is divided into three stages
  - Stage 1 was defined on December 30, 2009 in an interim final rule
  - Stages 2 and 3 sketched by the HIT Policy Committee, but not yet defined
- There are two categories of providers
  - Eligible Professionals (EPs)
    - Hospital-based professionals that furnish substantially all services in a hospital in-patient or ER setting are not allowed to receive incentive dollars
  - Hospitals
- There are three separate incentive programs
  - Medicare EHR Incentive Program
  - Medicare Advantage (MA) EHR Incentive Program
  - Medicaid EHR Incentive Program
- If an EP, must choose one program
  - Can switch programs once

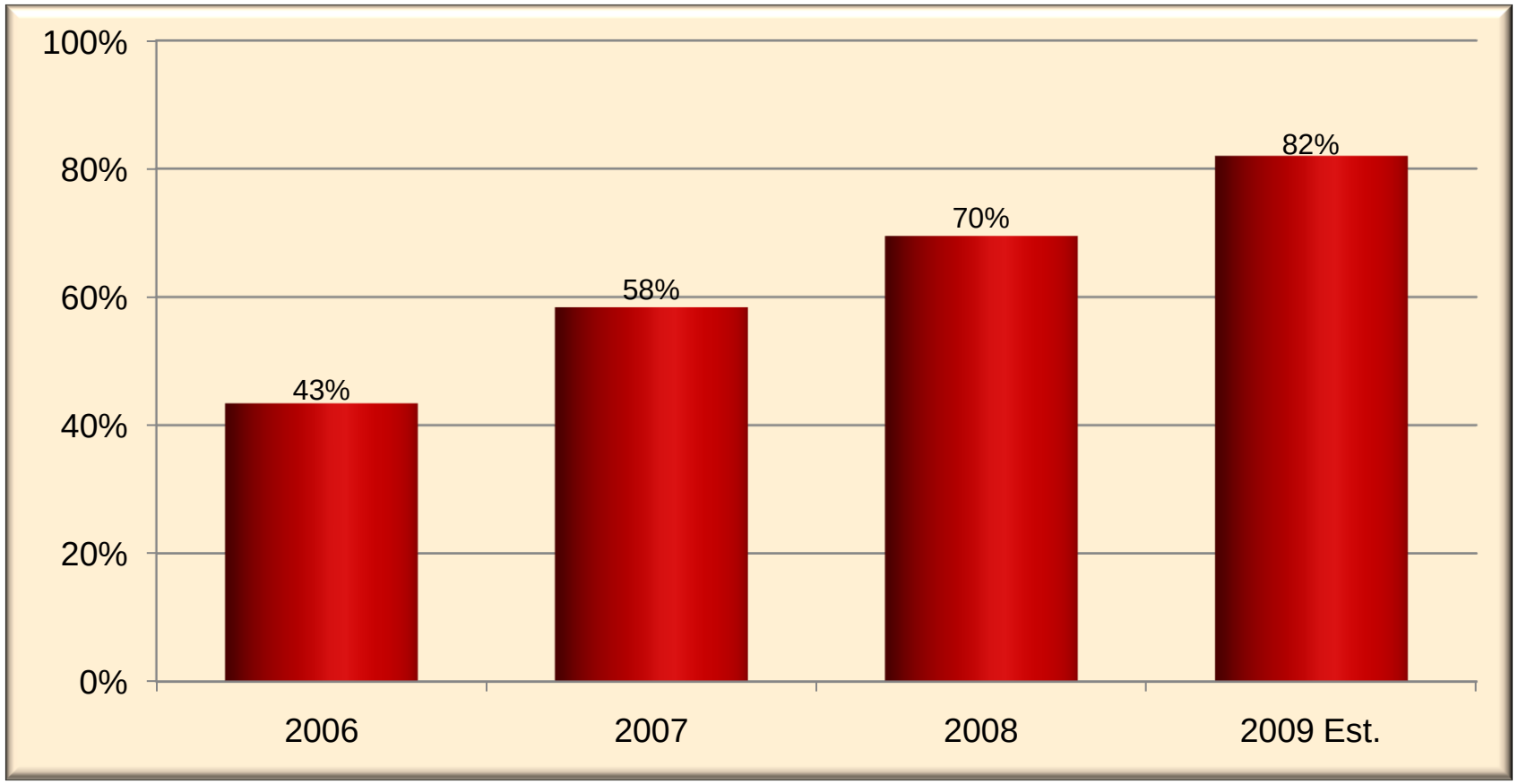
Stage 1 Elements of Meaningful Use

Items in bold may be achieved through ePrescribing

1. Use Computerized Provider Order Entry (CPOE)	14. Implement 5 clinical decision support rules
2. Implement drug-to-drug, drug-to-allergy, formulary checks	15. Check insurance eligibility electronically
3. Maintain an up-to-date problem list of current and active diagnoses	16. Submit claims electronically
4. Generate and transmit permissible ePrescriptions	17. Provide patients with electronic copy of their health info
5. Maintain active medication lists	18. Provide patients w/ timely electronic access to their health info
6. Maintain active medication allergy list	19. Provide clinical summaries for patients
7. Record demographics	20. Capability to exchange key clinical information
8. Record and chart changes in vital signs	21. Perform medication reconciliation
9. Record smoking status for patients 13 years or older	22. Provide summary care record for each transition of care, referral
10. Incorporate clinical lab-test results into EHR	23. Capability to submit electronic data to immunization registries
11. Generate lists of patients by specific conditions	24. Capability to provide electronic syndrome surveillance data to public health agencies
12. Report ambulatory quality measures to CMS and the states	25. Protect electronic health information created or maintained by the certified EHR technology
13. Send reminders to patients per their preference for preventative/follow-up care	

As ePrescribing continues to grow, more and more ePrescribing will come from EMRs

EMR Prescriptions as a Percentage of Total ePrescribing Volume



Source: 2009 Estimate from Harry Totonis World Research Group Presentation, September 2009

Ambulatory EMR Adoption Rates: U.S.

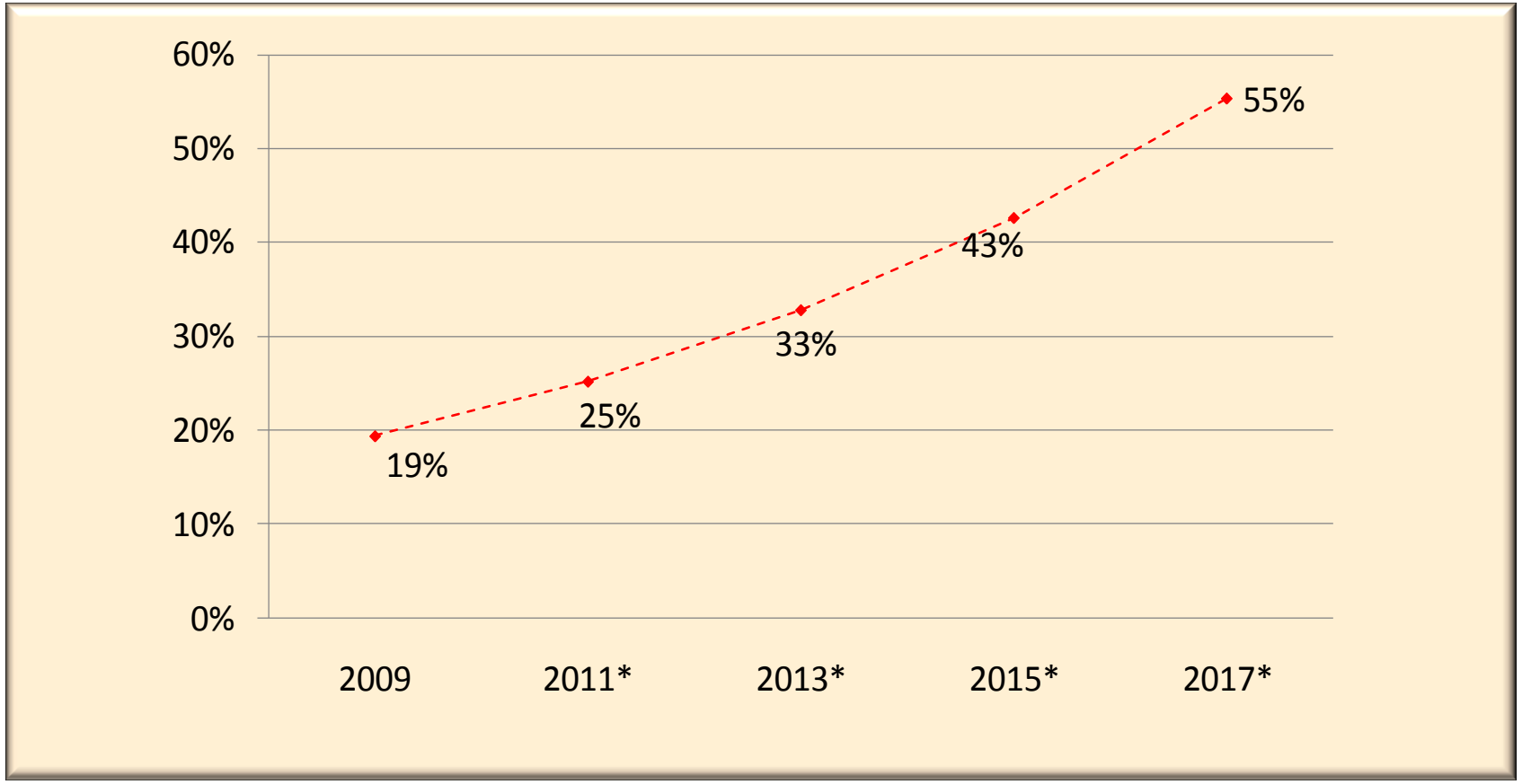
In the new era of "Meaningful Use" this adoption statistic is an important indicator the true baseline for physicians meaningfully using EMRs

Year	Physicians Using Any EMR	Physicians Using EMR with all features of Meaningful Use	Source
2008	41.5%	**4.4%**	Hsiao et al. (2009) NCHS Survey
2007-08	17.0%	**4.0%**	DesRoches et al. (2008) RTI Study
2007	34.8%	**3.8%**	Hing & Hsiao (2010) NCHS Survey
2006	29.2%	**3.1%**	
2005	23.9%		
2005	14.1%		Gans et al. (2005) MGMA Survey

These adoption rates are the most credible; NCHS Surveys consistently report higher adoption rates; we consider them overstated due to NCHS' broad definition of EMR and what constitutes usage

And EMR usage will increase rapidly in the next decade

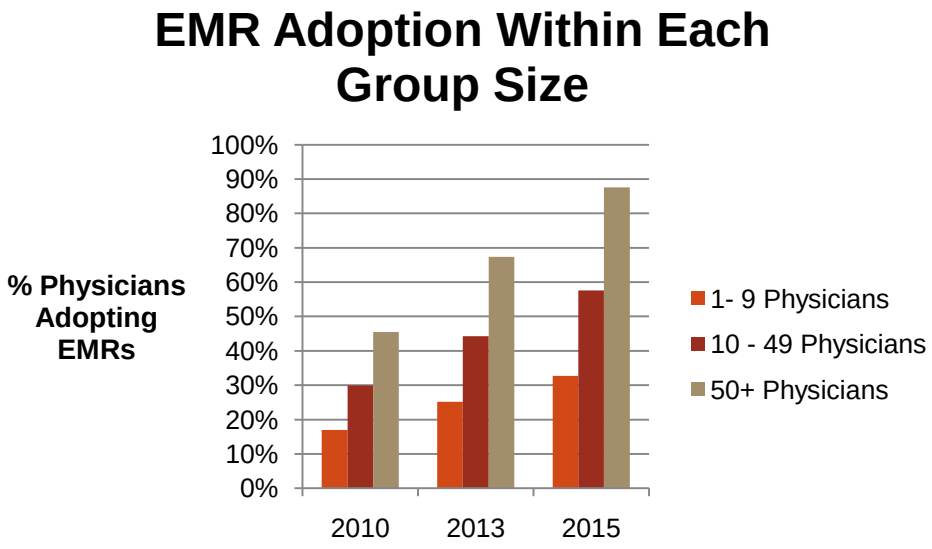
Ambulatory EMR adoption by Calendar Year

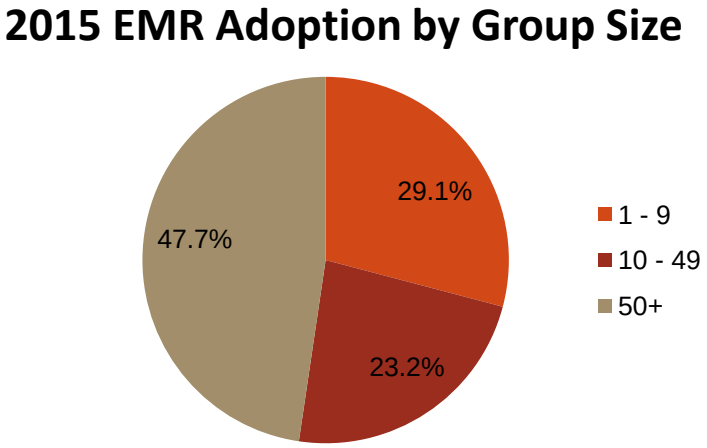


Source: POCP projections

Large medical groups will be the major vehicle for EMR adoption

- Large medical groups will be the primary source of growth in EMR adoption by physicians in the foreseeable future
  - Almost 90% of large medical groups will be EHR users in 2015
  - 48% of growth in physician EMR adoption will occur from within large medical groups (2010- 2015)
- *These groups should be the primary target for health plan investments intended to leverage EMR technologies to improve health outcomes*





Patient-Centered Medical Home is gaining momentum

Goal

- Continuous access to primary care
- Coordinate patient care across various settings & specialties
- Manage care with integrated health records and evidence-based care guidelines

Performance Measures

- Improved patient satisfaction
- Better clinical outcomes
- Reduced utilization of urgent care, emergency services

2-Tier Model of Capabilities

- Tier 1: Track tests, follow-up, referrals; 24x7 access; Integrated care planning, **Medication reconciliation;** Patient self-management
- Tier 2: **EMR; Coordination of care; performance measurement & reporting**

Health IT is a core enabler to all PCMH capabilities defined in both tiers

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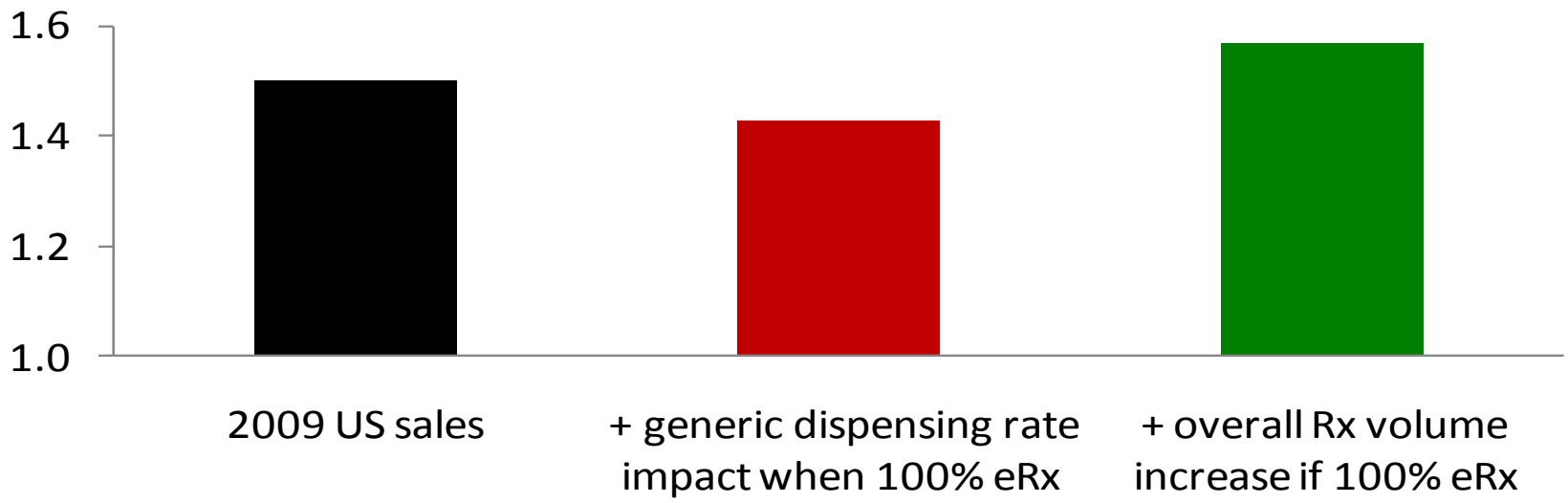
Financial Implications

- ePrescribing is associated with a 3% increase in generic share *
  - a $75 million savings
- ePrescribing is associated with an 11% increase in prescription volume**
  - a $68 million increase in drug spend instead of a $75 million savings

2009 Drug A sales (in billions)



** In 2007, IMS, Surescripts, and Walgreens collaborated on a study that found dispensed Rxs increased 11.21% . http://www.surescripts.net/benefits-e-prescribing-pharmcists.html*

*** While various studies have found effects from 3%-7%, we used a conservative estimate based on Arch Intern Med. 2008;168(22):2433-2439.*

Source: POCP 2009

Other Misconceptions

- After installation and training are completed, the system will be used
- Physicians/prescribers are the users
- Medication history is being accessed
- Formulary and Benefit information is available in all certified systems
- Mail order appears as an option in all certified systems
- Prior authorization can be streamlined
- Almost all pharmacies are connected

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Health Plans Investing in ePrescribing

Aetna	HAP
BC CA	Highmark
BCBS AZ	Horizon
BCBS FL	Humana
BCBS IL	Independence BC
BCBS MA	Kaiser
BCBS MI	Lovelace
BCBS NC	United
Excellus	UPMC
Geisinger	WellPoint/Anthem

Note: Selectively representative list

Health Plan ePrescribing Strategies

- **ePrescribing is seen as one part of an overall physician technology and connectivity strategy.**
  - "Part of overall physician connectivity"
  - "Stepping stone to EHR"
  - "Part of broader physician connectivity"
  - "Would like physicians to participate in HIEs"
- **Actively working on an ePrescribing strategy**
  - "Searching for a national strategy. Wants to be the leader in physician technology."
  - Will likely have ePrescribing in budget
- **Wait and see position on ePrescribing. Will follow marketplace but not be proactive.**
  - "Will sit on sideline and wait for marketplace"
  - "Wait and see position"
- **ePrescribing is seen as a standalone technology with its own strategy**
  - "ePrescribing is it own strategy. It has proven its worth."

Source: POCP e-Prescribing Initiative survey (2009)

Health Plan ePrescribing Strategies

- **National Plans**
  - Sufficient evidence to provide a clear ROI.
  - ePrescribing tends to be seen as a part of a broader physician technology and connectivity strategy. No specific ePrescribing strategies at this time.
  - **Will rely on their PBM or Surescripts working with ePrescribing and EMR Software Vendors, along with MIPPA and ARRA incentives to pull through ePrescribing on a national level.**
    - National plans lack market share in a given physician's office to drive utilization or merit direct sponsorship. ePrescribing must be driven across multiple plans.
  - May participate in select sponsored initiatives, coalitions or joint public/private projects to gain experience and satisfy important provider group demands.
- **Regional and local plans**
  - Well established ROI model based on generic utilization
    - Don't perhaps have the tools for tight plan design and formulary management
  - **Will implement their own direct initiatives with providers in their markets**
  - This model will not support broad national deployments

Source: POCP e-Prescribing Initiative survey (2009)

Health Plan Goals of ePrescribing Initiatives

- **Increasing generic utilization is a primary goal of ePrescribing**
  - "Goal is lowest out of pocket cost to patient by pushing to lowest tier"
  - "Currently saving 3 ½% of total pharmacy cost with 1100 high prescribers. Members saving $20-25 per month"
  - "It is believed ePrescribing will help with generic utilization but no current data"
  - "Generic use has risen from 57 to 70 percent over 2 years. ePrescribing represents 40% of prescriptions."
  - Sees opportunity for financial benefit
- **Patient safety is a primary goal of implementing ePrescribing; primarily through ADE avoidance.**
  - "Want to document improved patient outcomes as a result of pharmacy utilization management"
  - "Approx 2% of Rx being changed due to DUR alerts, more than 90,000 Rx's in 2 years."
  - "More than 100,000 Rx's have been changed or canceled due to drug interaction alerts (in 3 years)"
  - "Patient safety is the top priority"

Source: POCP e-Prescribing Initiative survey (2009)

Identifying Best Model

- What are your goals?
- What type of relationship do you have with your network providers?
- Size of provider offices
- Technology vendor selection process
  - RFP
  - Evaluation process
    - Functionality
    - Connectivity
    - Certification
    - Support
    - Reporting
- Value assessment
- External Factors
  - REC
  - HIE
  - PQRI

Health Plan Integration is Key

- Formulary & Benefit information
- Medication History Data (complement retail claims data)
- Mail order
- Generic and preferred brand messaging
- Prior Authorization messaging
- Streamlined Prior Authorization process
- Basic Clinical Decision Support

On the Horizon

- Advanced Clinical Decision Support
- Electronic Prior Authorization (ePA)
- Fill Status Notification
- Adherence alerts
- Rx Norm
- Codified SIG

Summary

- ePrescribing will become the prominent from for transmitting prescriptions within the next few years
- Numerous drivers are affecting the adoption of HIT
- Benefits of ePrescribing stretch beyond the writing of the initial prescription
- ePrescribing functionality is evolving to become more robust
  - Clinical Decision Support
  - ePa
  - Adherence messaging
- There are multiple models that support ePrescribing
- Health plan integration is key

Thank You!

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POINT-OF-CARE PARTNERS

HIT Strategy & Management Consultants

Appendix

POINT-OF-CARE PARTNERS
HIT Strategy & Management Consultants

Definition of Key Terms

- Ambulatory EMR
  - Electronic medical record and clinical applications designed specifically to support physician office workflow.
- Enterprise EMR
  - Electronic medical record and application architecture originally designed to support hospital workflows; extensions to support physician offices may exist
- Personal Health Record (PHR)
  - A web-based set of tools enabling individuals to self-manage their health information, health, and health care:
    - Comprehensive and longitudinal view of a person's health and health care
    - Owned and managed by the individual
    - Separate and complementary to provider- and payer-sourced health records
    - Hub for communications with trusted sources
- Electronic Health Record
  - In contrast to EMRs, which are legal records of the provider organization, EHRs are owned by the patient or stakeholder
  - Contain a subset of info from various providers where patient has had encounters
  - Provides interactive patient access & the ability for the patient to append info
  - Designed to connect into the National Health Information Network (NHIN)

Sources: HIMSS Analytics (2005), POCP