

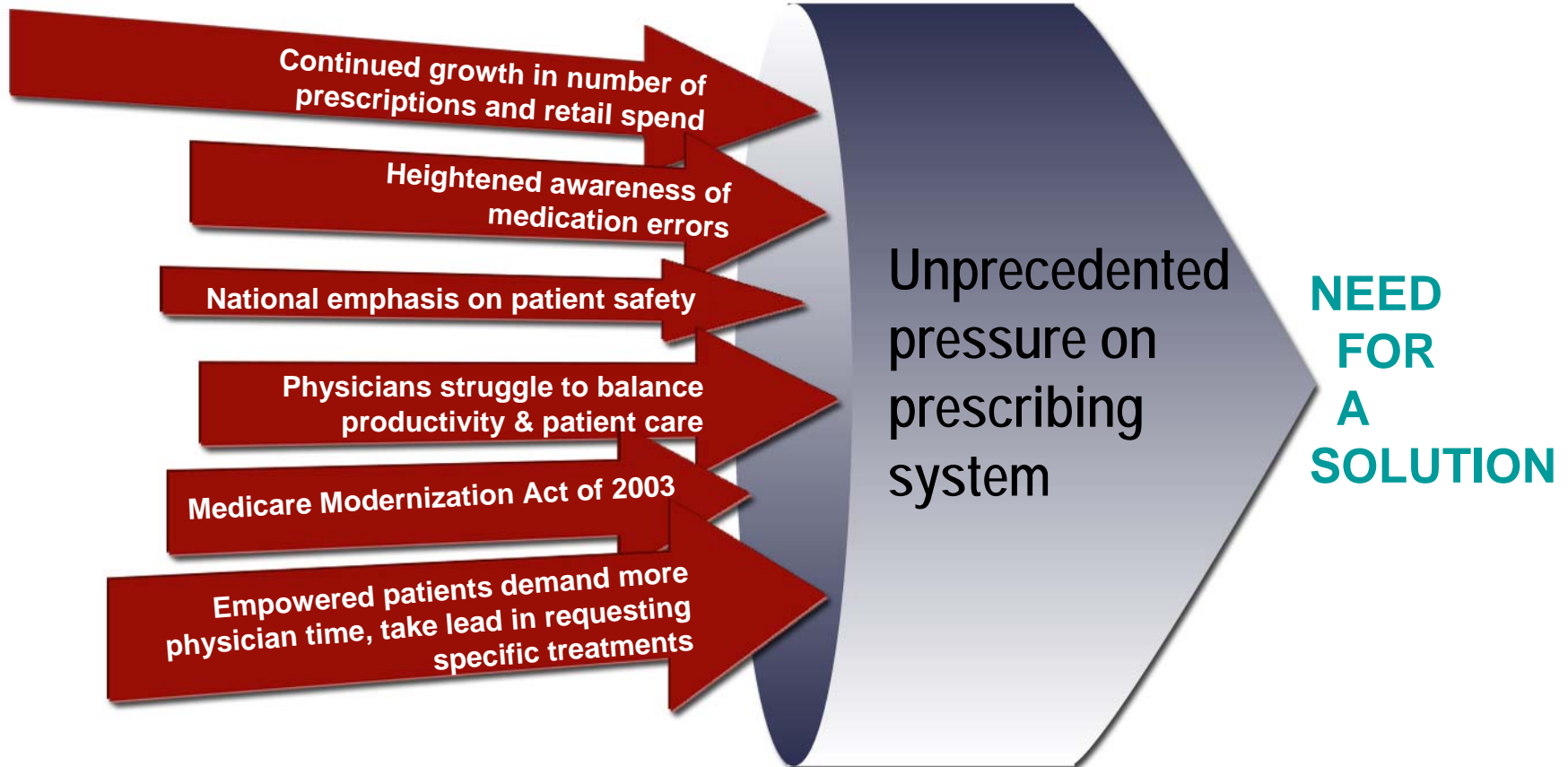
ePrescribing Primer

Kevin Hutchinson
President & CEO, SureScripts

Dave McLean
Chief Executive Officer, RxHub



There are a confluence of forces mandating change in the current prescribing system



E-Prescribing

The Overall Prescription Process

Definition: Electronic Prescribing (ePrescribing)

As defined in Medicare Modernization Act 2003

- ePrescribing is more than the mere electronic transmission of a prescription; it also encompasses the secure real-time electronic delivery to providers and pharmacists of patient-specific information on eligibility, benefits, drug interactions, warnings, dosage adjustments, medication history, and the availability of generics.

ePrescribing is a process

A process that goes beyond today's current "writing" of a prescription. It incorporates a more comprehensive approach that involves:

- Access to information of clinical decision support
- Building (incrementally) of a patient database that is transportable and accessible to all parties deemed by the patient to require information in their care
- Long-term intention of realizing safety gains realized by the more integrated systems
- Reducing cost and increasing practice efficiency

It's all about the **information** and how it's utilized...

Today's Prescribing Process...

-Needs Improvement

- The prescription is written based on physician-patient decision
 - *but without sufficient information.*
- The prescription is delivered to a pharmacy
 - *in a non-standardized delivery method... many Rx never get to the pharmacy*
- The prescription is processed at the pharmacy
 - *where much re-work often required.*
- When the patient takes the prescription—are they compliant
 - *is more information needed*

The Safety Challenge

- According to a recent study more than 8.8 million Adverse Drug Events (ADEs) occur annually in ambulatory care of which over **3 million** are preventable (*CITL*)
- Even with the explosion of knowledge and treatment options in health care, Americans get recommended care only 55% of the time (*Rand Corporation*)
- More than 57,000 Americans die needlessly each year because they do not receive appropriate care (*NCQA*).
- Over 7,000 deaths each year due to manual-process prescribing errors

The Cost Challenge

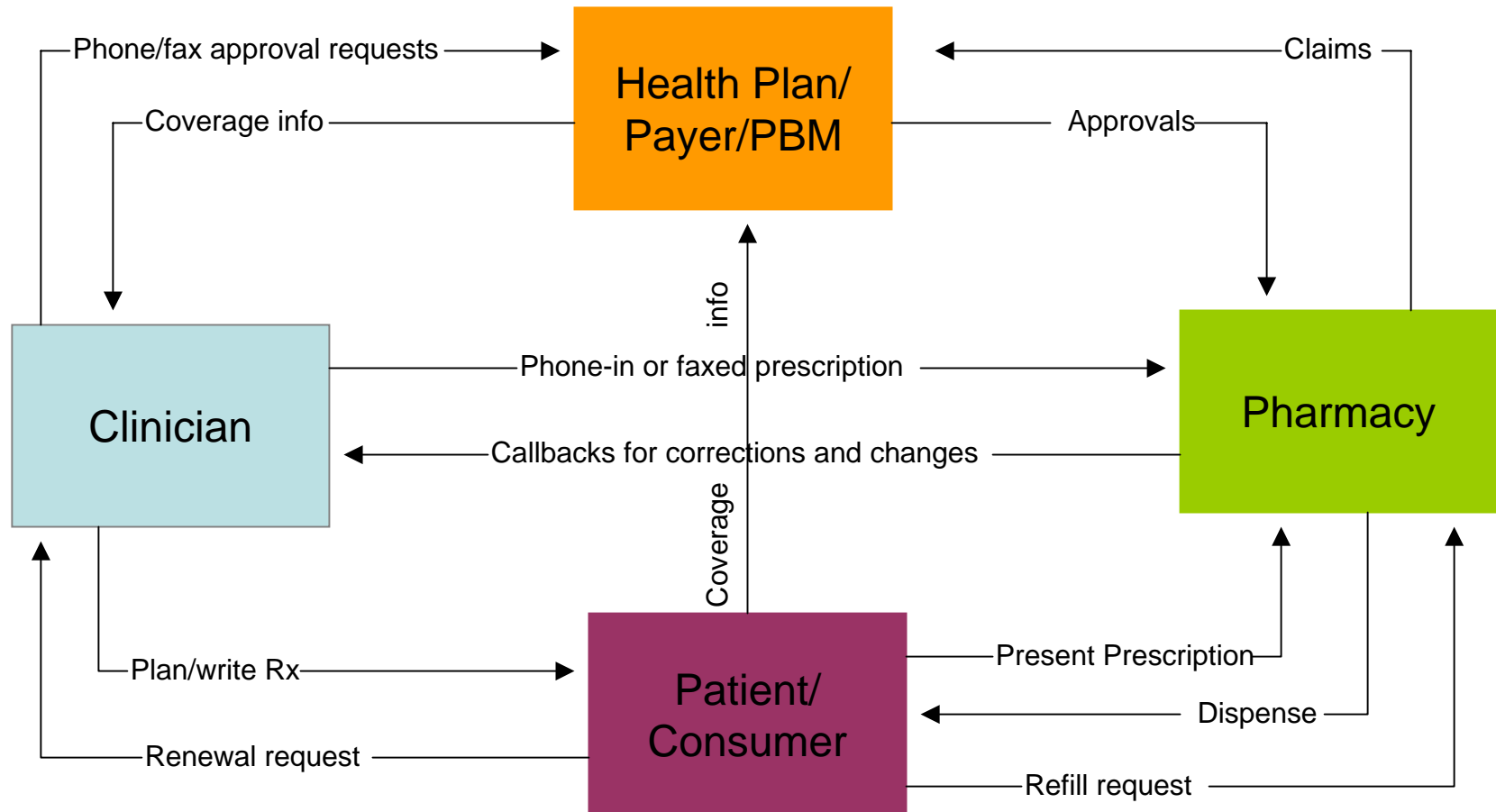
- U.S. healthcare spending higher, but quality lower, compared with other industrialized countries.
- One-third of the \$1.6 trillion spent on healthcare each year is wasted on duplicative or ineffective care (*CECS at Dartmouth*).
- Studies suggest national savings as high as \$27 billion with widespread adoption of eprescribing
- Nationwide adoption of computer systems for clinicians could prevent more than 2 million ADEs and 190,000 hospitalizations per year saving up to \$44 billion annually

The Efficiency Challenge

The total prescription system is challenged by hundreds of millions of phone calls and faxes

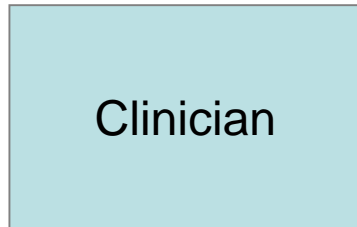
- Indecipherable or unclear prescriptions result in more than 150 million clarification calls from pharmacists to physicians
 - Up to 3 hours physician staff time/day
 - Up to 4 hours pharmacist staff time/day
- 900 million prescription-related telephone calls are placed annually, with practices reporting almost 30% of prescriptions required pharmacy callbacks
- Requesting and receiving approval for refills alone, estimated at nearly 500 million per year, adds to the telephone and fax burdens

The Overall Prescribing Process: More Complex Than Writing and Dispensing



Source: Electronic Prescribing: Toward maximum Value and Rapid Adoption. A Report of the Electronic Prescribing Initiative, eHealth Initiative April 14, 2004

ePrescribing Benefits to Clinicians



Improved Quality of Care

- *Safer prescriptions and safer treatment regimens*
- *Dispensed medications detection of non-compliance*

Improved Office Efficiency and Throughput

- *Reduced pharmacy call-backs*
- *Fewer phone calls for refill/renew requests*

Improved Patient Satisfaction

- *Fewer surprises at the pharmacy*
- *Easier refill requests*

ePrescribing Benefits to Pharmacists

Improved Quality of Care

- *Medication errors due to illegibility or sound-alike medications are eliminated*
- *Errors due to duplicate re-entry of information eliminated*

Improved Office Efficiency and Throughput

- *Reduced call-backs for clarification*
- *A work environment that promotes professional role of the pharmacist*

Improved Patient Satisfaction

- *Pharmacy professionals spending more time with customers ensuring safer outcomes and less time on administrative third-party issues*
- *Patients benefit from the added convenience from reduced wait times at the pharmacy*



ePrescribing Benefits to Payers/PBMs

Health Plan/
Payer/PBM



Improved Quality of Care

- *Reduced claims for admissions and visits to treat ADEs*
- *Patients receive the right drug for the right condition at the right time*

Improved Efficiency and Reduced Costs

- *Reduced call-backs for clarification of administrative issues*
- *Better utilization of cost-effective drugs (generic, therapeutic alternatives, step-therapy)*

Improved Patient Satisfaction

- *Slower premium growth due to reduced drug spend*
- *Fewer hassles over formulary coverage and prior-authorization rules*

ePrescribing Benefits Patients/Consumers

Improved Safety and Quality of Care

- *Safest possible drug choice based on information provided to the physician at the point of care*
- *Medication errors reduced due to illegibility*
- *Drug interactions or ADEs reduced based on knowledge of medication history*

Improved Efficiency and Reduced Costs

- *Physicians will know coverage and benefits upfront, eliminate non-formulary and non-approved administrative issues*
- *Better utilization of cost-effective drugs (generic, therapeutic alternatives, step-therapy)*

Improved Patient Satisfaction

- *Patients prescriptions will be ready at the pharmacy*
- *Patients will not have to carry a paper prescription which they may lose.*
- *Patients have more time with their Pharmacist to discuss care issues*



Current Status

- 36% of physicians said eprescribing improved efficiency
- 45% physicians said it improved compliance with formularies
- 33% physicians said it had a major impact on quality of care

Source: Harris Interactive and Boston Consulting Group Poll, 2003

Barriers to Adoption

- Cost of buying and installing systems
- Time/workflow impact, Initially >time compared to paper prescribing
- Lack of connectivity among stakeholders
- Lack of reimbursement for costs and resources
- Safety improvements not fully publicized

Source: Electronic Prescribing: Toward maximum Value and Rapid Adoption. A Report of the *Electronic Prescribing Initiative*, eHealth Initiative April 14, 2004

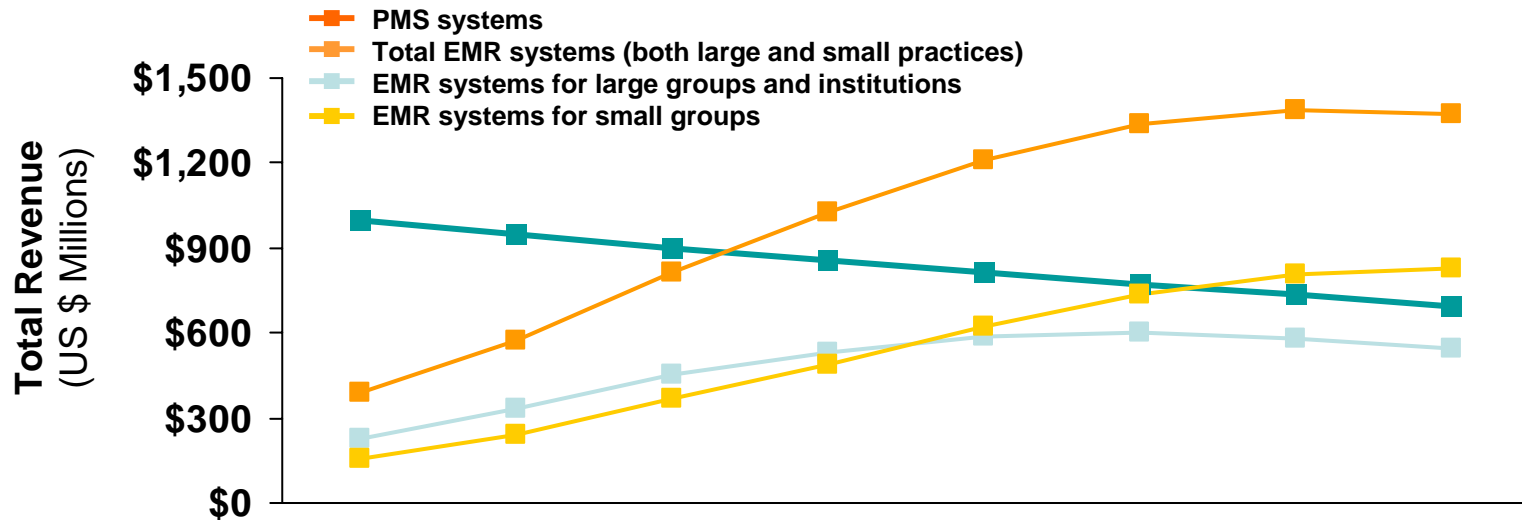
Physician Acceptance Widely Based on...

- Proven value in practice efficiency gains and safety/quality improvement
- Systems that are quick to install, easy to learn, and fast in use
- Financial or other incentives to overcome cost

Source: Electronic Prescribing: Toward maximum Value and Rapid Adoption. A Report of the *Electronic Prescribing Initiative*, eHealth Initiative April 14, 2004

EMR adoption is increasing rapidly

- Figure 3 Forecast: US PMS and EMR Adoption, 2003 to 2008

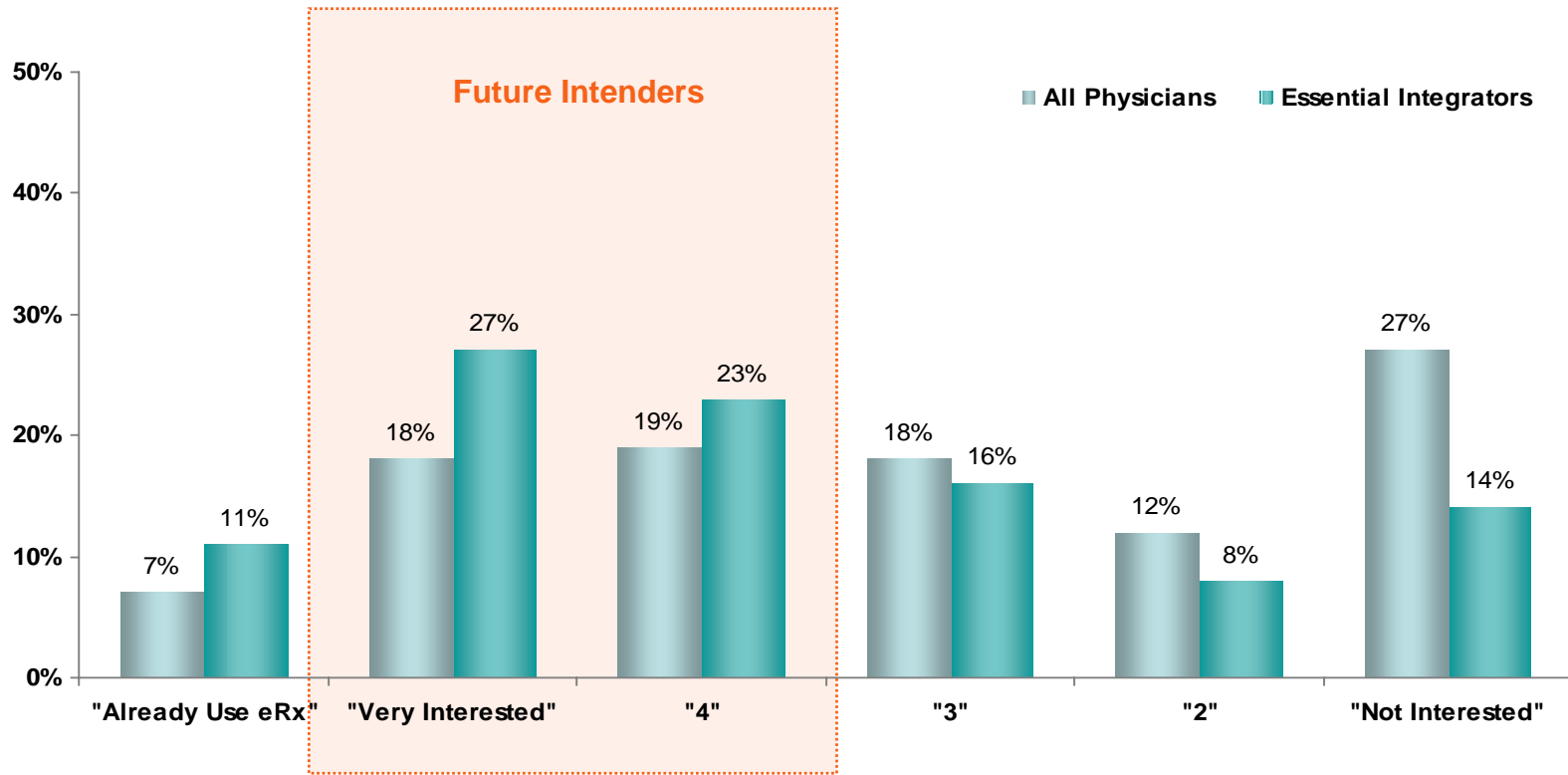


	2001	2002	2003	2004	2005	2006	2007	2008
PMS systems	\$998	\$948	\$901	\$856	\$813	\$772	\$733	\$696
EMR systems for large groups	\$229	\$330	\$450	\$532	\$585	\$599	\$581	\$544
EMR systems for small groups	\$158	\$244	\$366	\$491	\$622	\$736	\$809	\$829
Total EMR systems	\$387	\$574	\$816	\$1,023	\$1,207	\$1,335	\$1,390	\$1,373
Grand total (US \$ Millions)	\$1,385	\$1,522	\$1,717	\$1,879	\$2,020	\$2,107	\$2,123	\$2,069

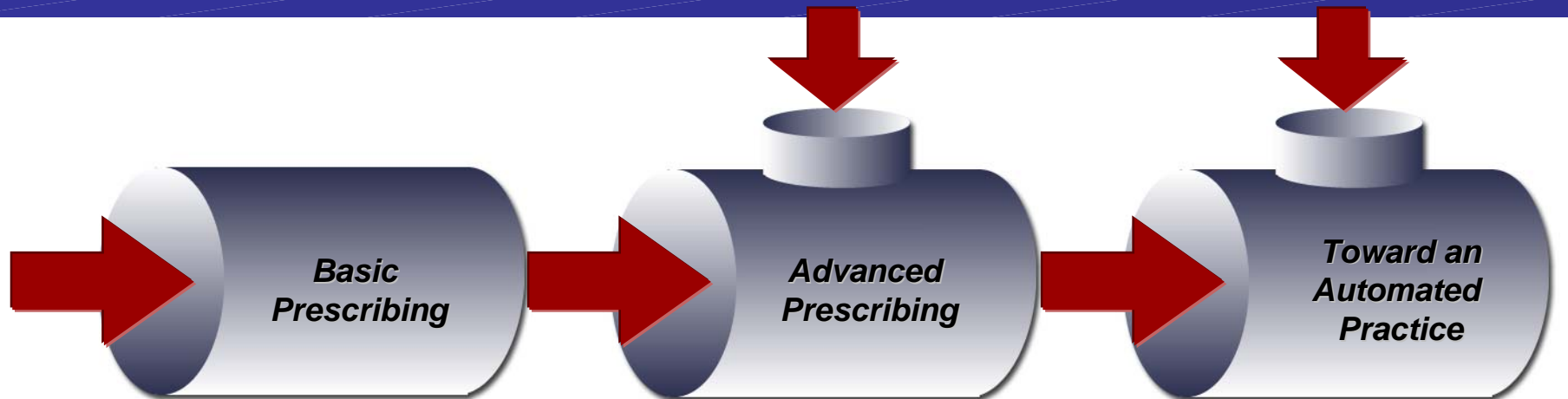
Today Writing a Prescription is Paper Based

- According to eHI, current studies show between 5% – 18% of physicians and other clinicians are using electronic prescribing
- Automation of prescription writing is estimated by Forrester Research at:
 - 11% in 1-2 physician practices
 - 17% in 3-10 physician practices
 - 38% in 11+ physician practices
- According to Manhattan Research, 7% of all physicians currently use an electronic prescribing system

Physicians Indicate a Strong Interest in Using an ePrescribing System over Next 12 Months



Roadmap of prescribing services for physician and pharmacy collaboration



- **Services Providing True Connectivity**

- Renewals
- New scripts
- Foundation for future collaboration
- Fair and open network

- **Services Impacting Patient Cost**

- Payer formularies
- Prior authorizations
- Rx change message
- Switch in class

- **Services Impacting Patient Safety**

- Drug interaction checks + safety net
- Medication history
- Patient compliance
- Patient-focused care management

- **Services Providing Complete automation**

- Billing and scheduling
- Lab results
- Payer communications
- Referrals
- Diagnostic reports
- Charge capture and coding
- Clinical notes

SureScripts & RxHub National Networks

SureScripts and RxHub: A common mission

Working to accelerate the adoption of electronic prescribing



–focus on physician and pharmacy connectivity

- Refills, renewal authorization, new Rx, change requests



– focus on delivery of real-time information at the point of care

- Eligibility, formulary, medication claims history

Working to achieve advancement toward clinical automation

Fundamentals of a HIT Infrastructure

Neutrality

- Collaborate with industry stakeholders
- Not endorsing any particular approach or application
- Support and in no way compete with end user applications

Open Access

- Adhere to industry standards as recommended by HHS
- Create an infrastructure that enables broad interoperability
- Support all solutions that meet certification requirements

Choice

- Promote patient choice of pharmacy
- Ensure physician choice of therapy
- Allow application systems of choice
-

Pharmacies are ready to communicate with physicians electronically

Over 75% of the nation's pharmacies are certified and connected to the network, and are at various stages of pharmacy activation

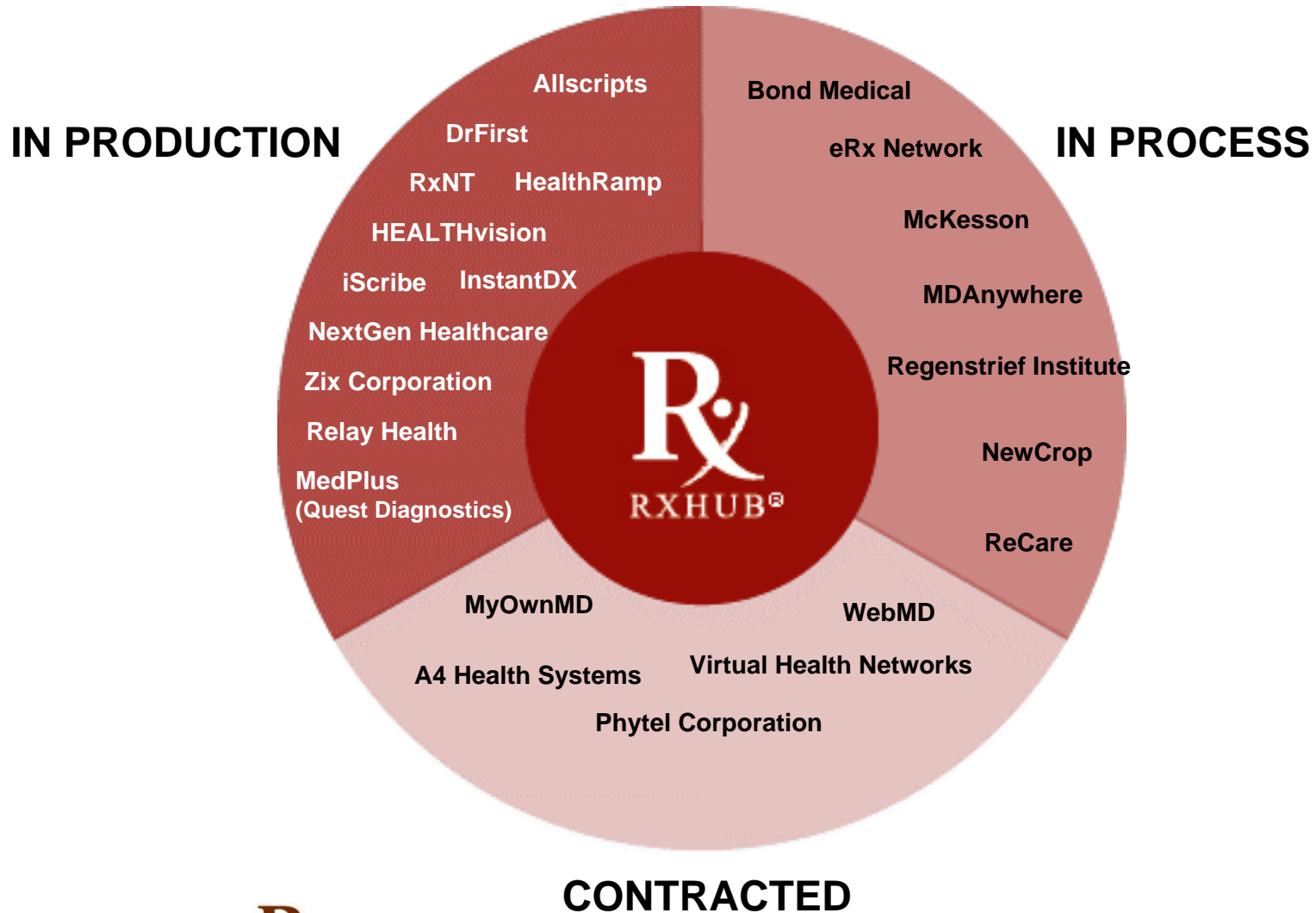


Just some of the pharmacies that are part of the SureScripts network

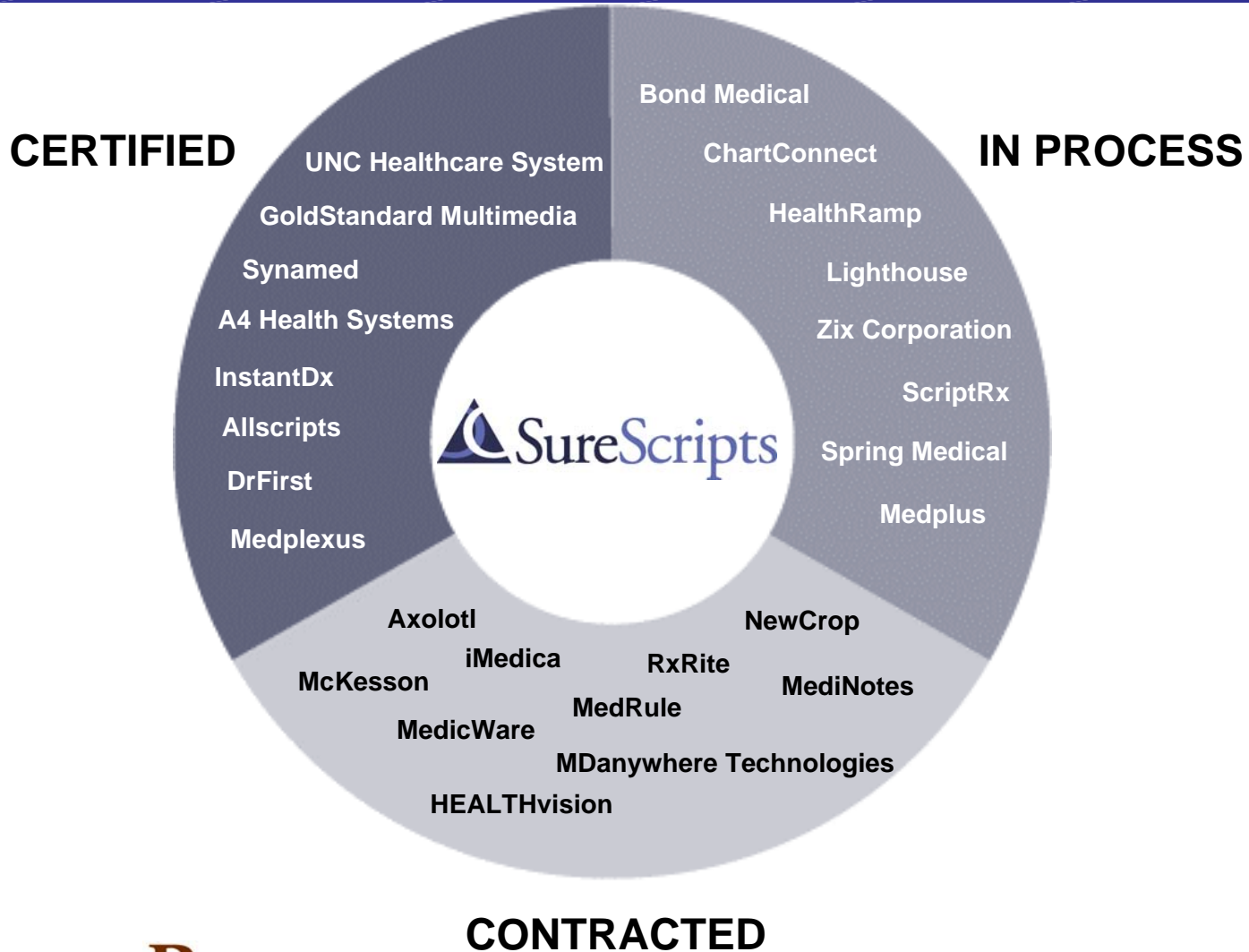
Payors and PBMs are ready to share plan data electronically

- A unique patient identification directory service containing more than 150 million names and growing
- Partnership with CAQH for health plan formulary distribution
- Dynamically links and manages millions of customer records from constantly changing databases
- RxHub's MPI algorithms for record linkage create a solid and predictable foundation for patient identification (*first & last name, DOB, gender, zip code*)
- Routes the request to the appropriate data source in "real-time" providing clinician access to patient specific drug benefit and medication history information
- Received over 5 million eligibility transactions to-date which represent a patient visit which could result in prescription(s)

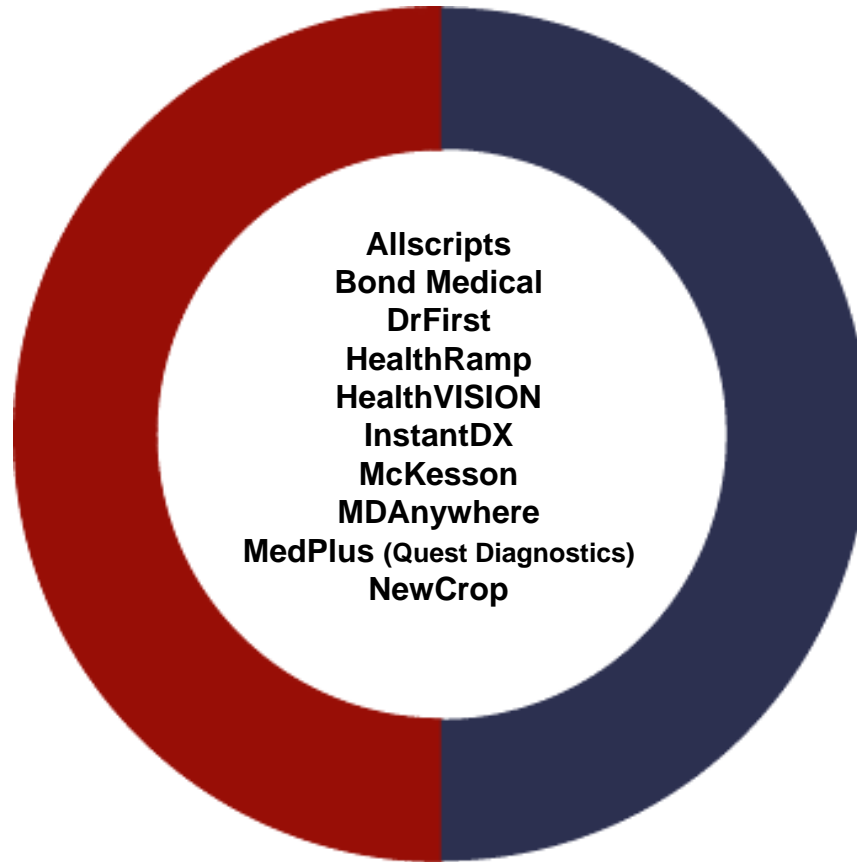
RxHub Physician Partners



SureScripts Physician Partners



Many physician partners are already working with both organizations



Allscripts
Bond Medical
DrFirst
HealthRamp
HealthVISION
InstantDX
McKesson
MDAnywhere
MedPlus (Quest Diagnostics)
NewCrop



ePrescribing Costs & Incentives

Barriers to Adoption- Perceived vs. Real

WORKFLOW

- Several studies report this as the 2nd biggest barrier to adoption.

VIABILITY & SUSTAINABILITY

- Product development is still early stage. As functionality improves, new versions of software require additional training (learning curve) time for physicians.

LIMITED DATA EXCHANGE & COMMON STANDARDS

- The limited ability to exchange data across systems (interoperability) is somewhat related to the lack of common standards. Early adopters find themselves supporting two systems (automated and paper-based).

COST

- The cost of adopting HIT involves more than just purchasing and implementing. Requires modifications in clinical practice. There are capital costs and operational costs that need to be addressed in concert with perceived benefits.

A Sampling of Incentives Projects

- Public and Private Sector Grants (HRSA, AHRQ, CCH)
- 3rd Party Payers—Pay for Performance “*Bridges to Excellence*” (GE, Verizon, Ford, UPS)
- Private Initiatives (Horizon BCBS-NJ, Mass Medical Society, GHI, Wellpoint)
- Legislative and Regulatory “*Medicare Modernization Act of 2003*” (Safe Harbor, Grants, Pre-emption, Payment/beneficiary for performance)

Federal Efforts to Encourage Adoption

- Medicare Modernization Act (MMA)
- Recommended Foundation Standards (NCVHS)
- Federal Legislation
 - Patient Safety Act (HR663)
 - Patient Safety and Quality Improvement Act (S720)
 - NHII Act (HR2915)
 - Health Information for Quality Improvement Act (S2003)
 - Medication Error Reduction Act of 2003 (S1729, HR3035)
- Grant funded demonstration projects

Questions Industry Must Solve Together

- **Physician / Pharmacist Collaboration:** What opportunities exist for collaboration between physicians and pharmacists to improve the prescription process?
 - Explore new areas for communications and services
 - Identify how technology can help move pharmacy closer to the clinical process
- **Beyond the Basics:** How should advanced electronic prescribing functions be implemented to improve the prescription process?
 - Consider patient compliance, medication history, formulary management, others
 - Work with physicians, community pharmacy, technology vendors and other stakeholders

Prescription Process Validation

- **Total System Impact:** How does electronic prescribing impact efficiency, safety and care quality?
 - Quantify ROI and quality impacts for basic and advanced functions
 - Focus on pharmacies and physician practice (health plans and health systems opportunistically)
- **Enabling and Integrating the EHR:** How can automating the prescription process best be integrated with the electronic health record and other clinical technologies?
 - Identify the implementation roadmap and customer migration strategies from basic prescribing to EHR
 - Identify EHR features that can improve the prescription process

Relevant Reports

- Electronic Prescribing:
Toward Maximum Value and Rapid Adoption
<http://www.ehealthinitiative.org/initiatives/erx/>
- The Decade of Health Information Technology: *Delivering Consumer-centric and Information-rich Health Care. A Framework for Strategic Action*, July 21, 2004
www.hhs.gov/onchit/framework/
- Achieving Electronic Connectivity in Healthcare: *A Preliminary Roadmap from the Nation's Public and Private-Sector Healthcare Leaders*, July 2004
<http://www.connectingforhealth.org>