E-Prescribing and Medication Management: The New Paradigm for Provider and Pharmacist Interaction

June 23, 2009

Presenters:

Michael T. Rupp
College of Pharmacy – Glendale Midwestern University

Steven T. Simenson,
Goodrich Pharmacies

Peter N. Kaufman
DrFirst, Inc

Moderator:

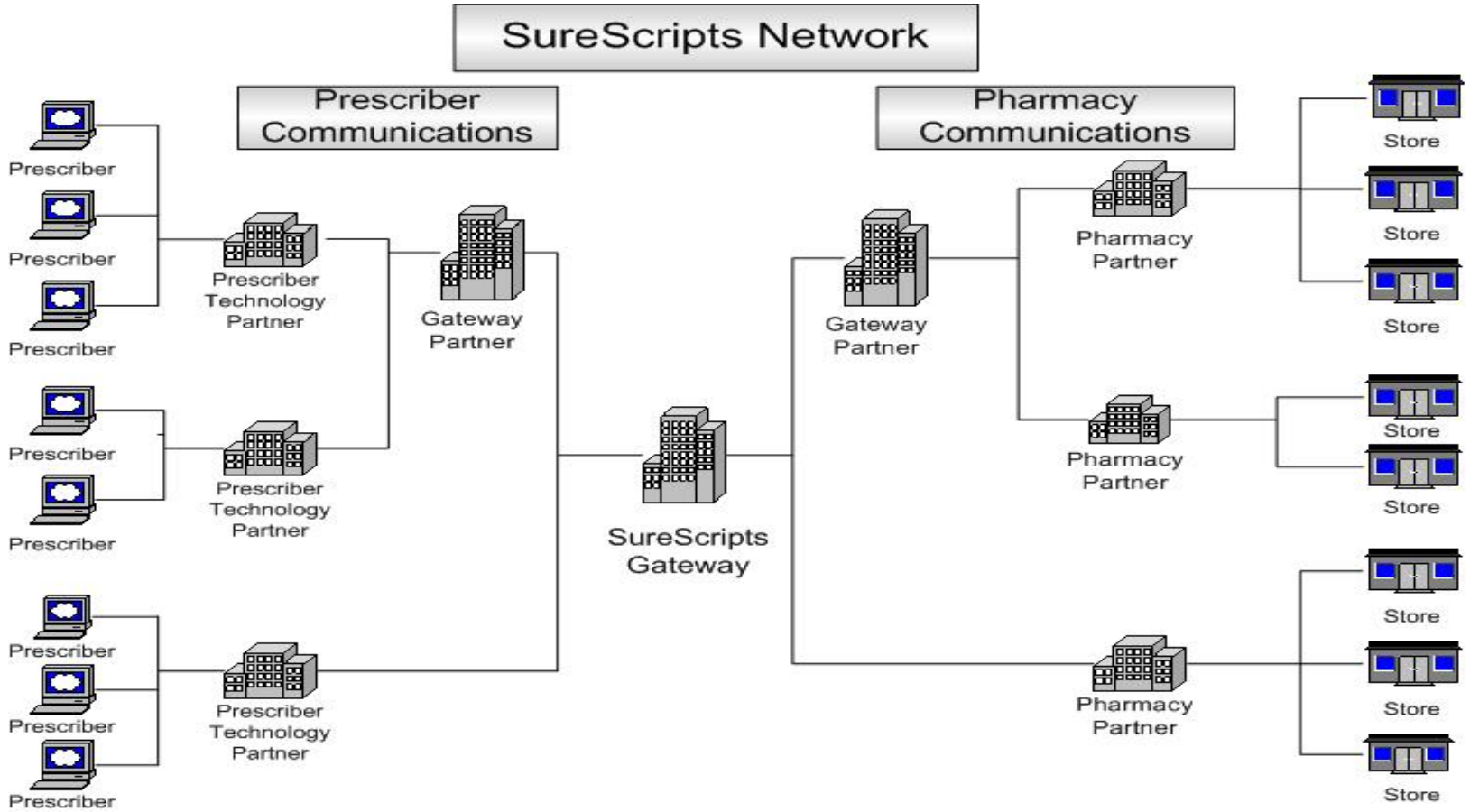
Robert Mayes
Agency for Healthcare Research and Quality

e-Prescribing: The Pharmacy Perspective

Michael T. Rupp, PhD, RPh, FAPhA

Professor of Pharmacy Administration, College of Pharmacy – Glendale Midwestern University

e-Prescribing



Source: Surescripts Health Information Exchange

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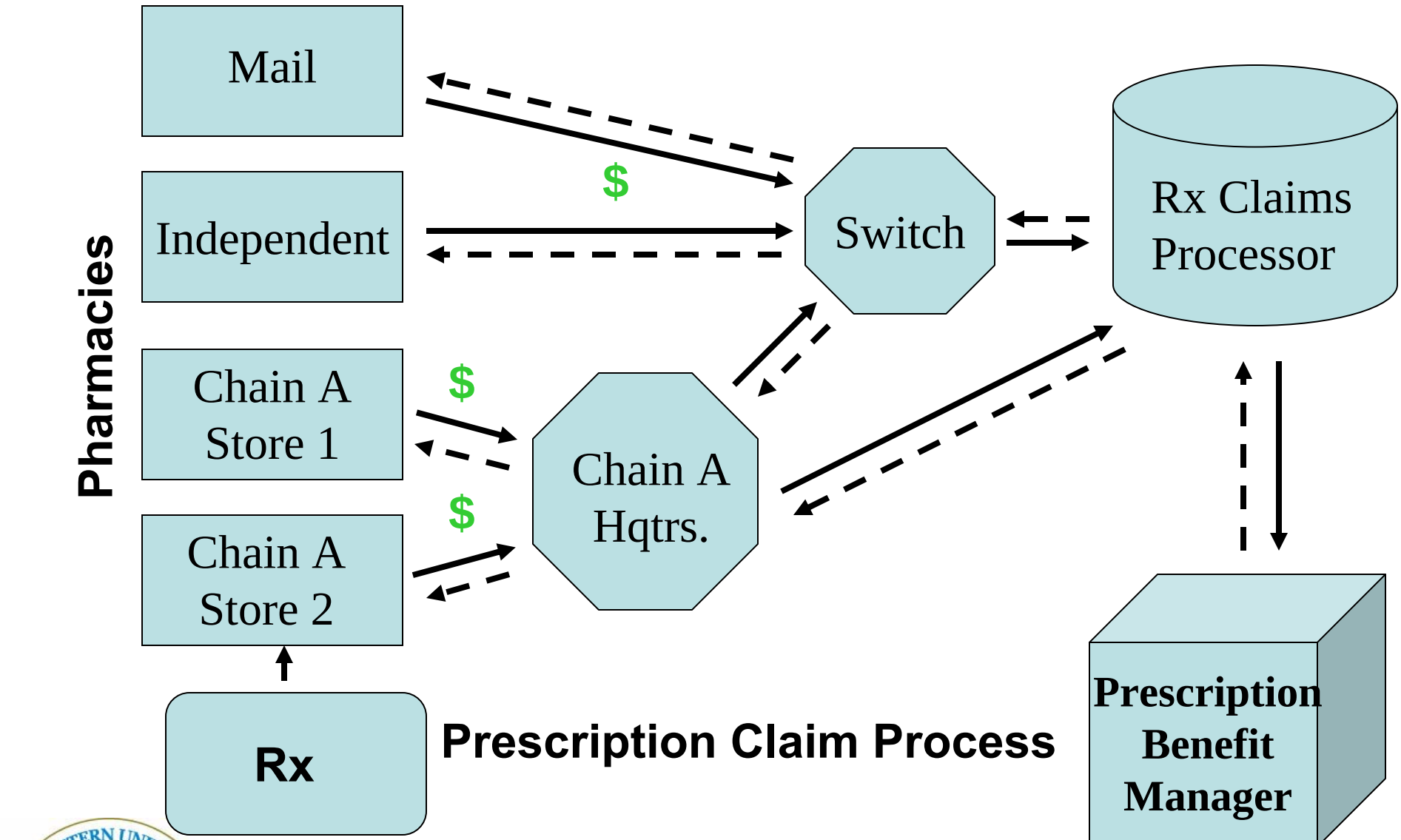
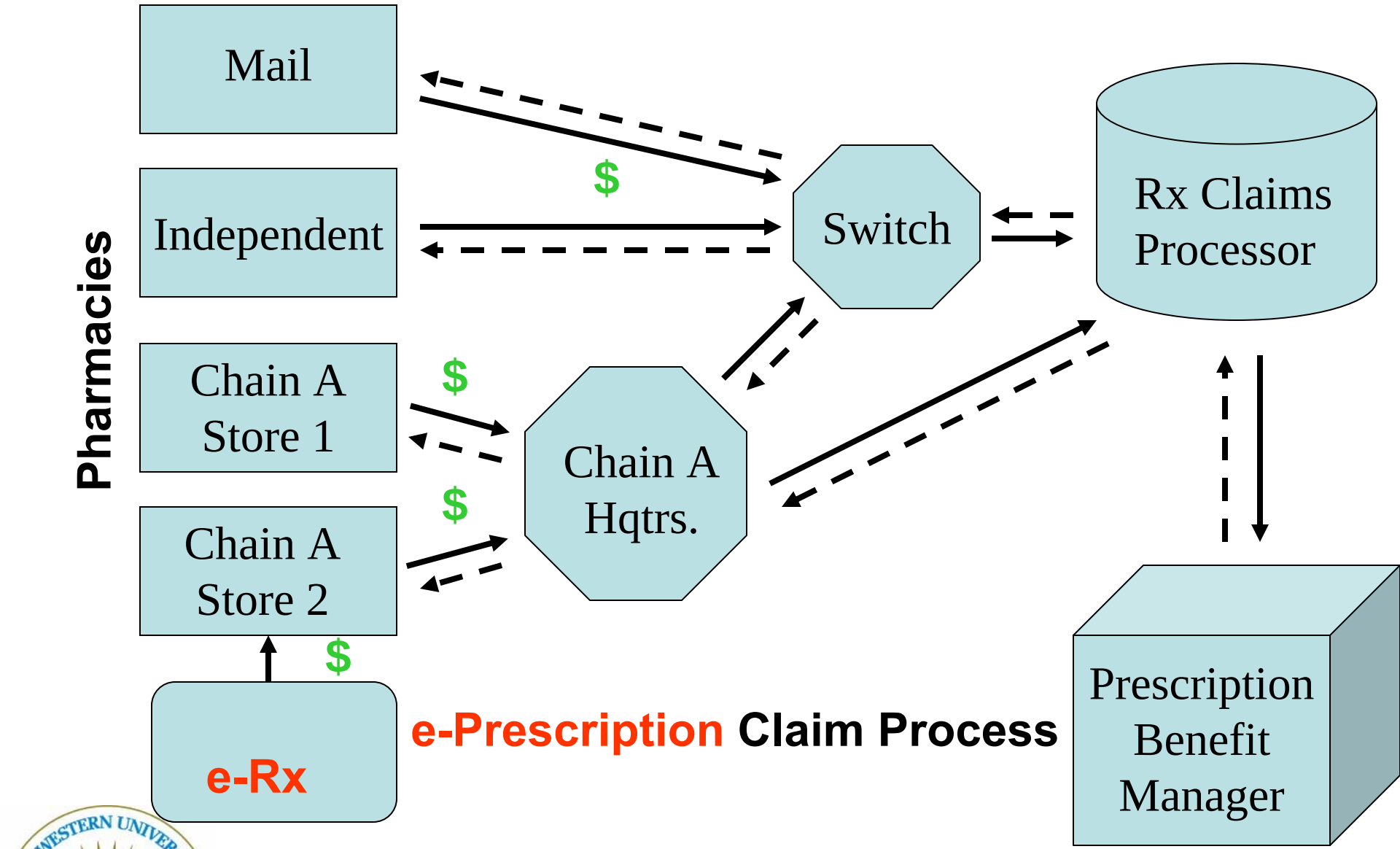
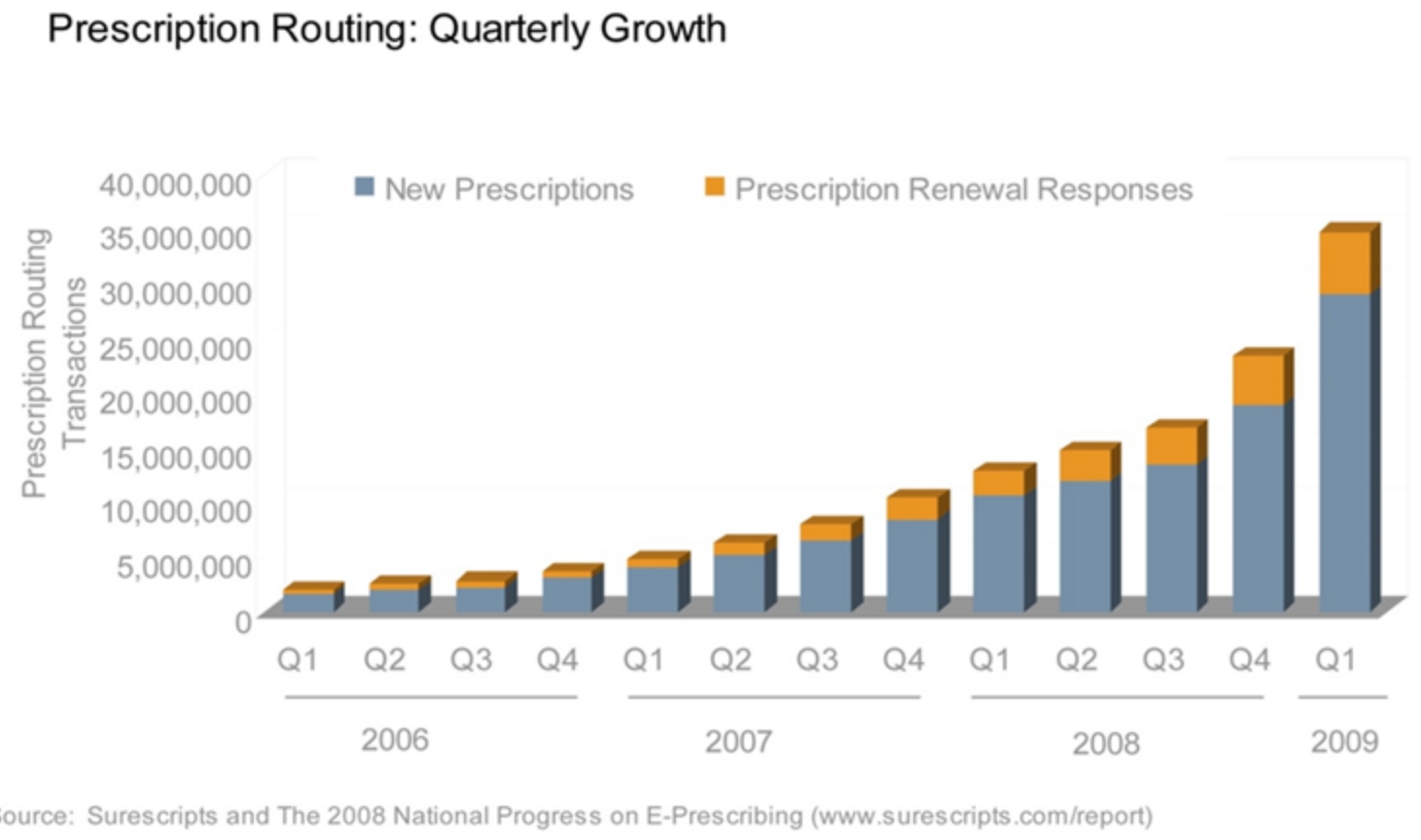


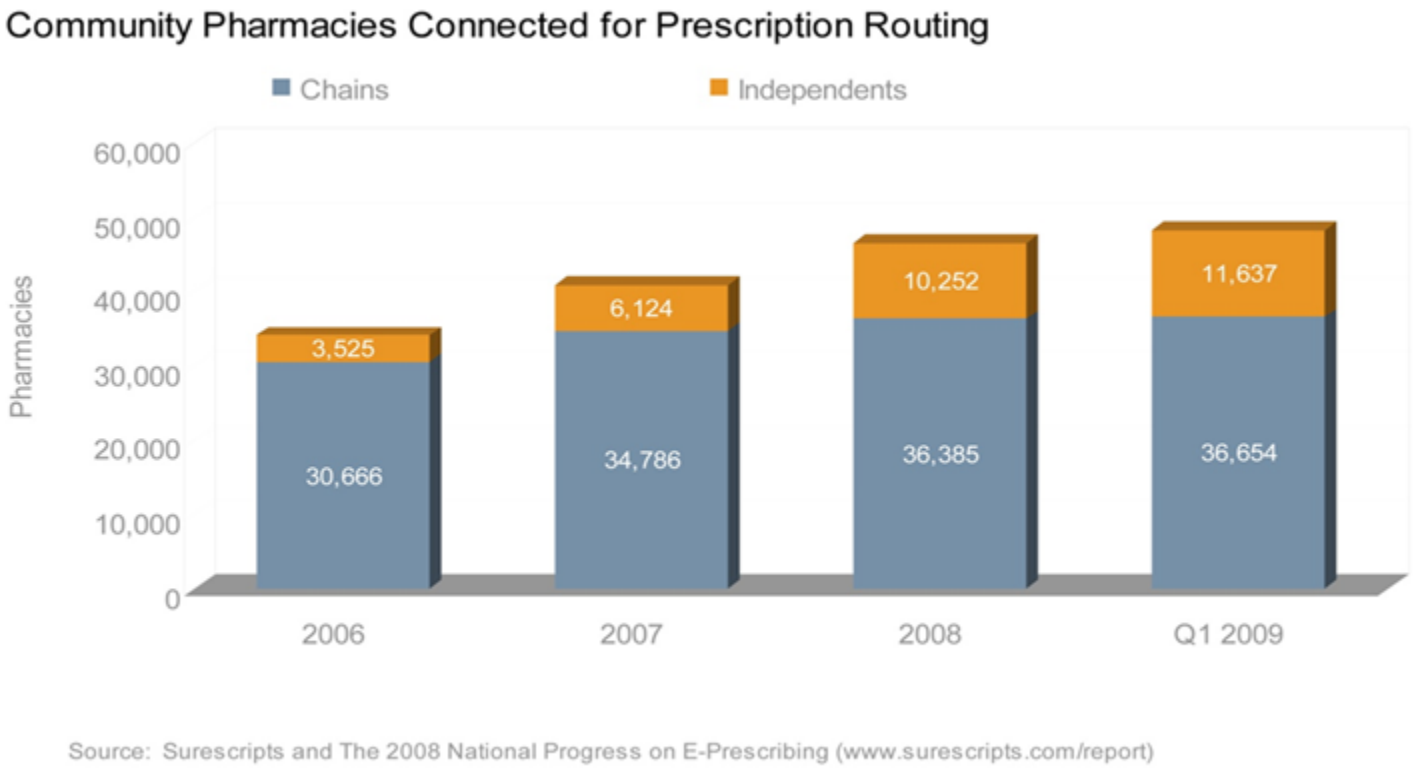


e-Prescription Growth



Source: National Progress Report on e-Prescribing, 2008. Surescripts Inc.

e-Prescribing Pharmacies: Chains & Independents



Source: Surescripts and The 2008 National Progress on E-Prescribing (www.surescripts.com/report)

NOTE: E-prescribing Capable Pharmacies use pharmacy management software that has been certified for e-prescribing. .

Potential e-Prescribing Benefits to Pharmacies

- Eliminates illegibility problems
- Reduces data entry errors
- Improves Rx processing efficiencies
- Reduces contacts with physicians and PBMs to correct or clarify orders
- Increases time for patient interaction
- Improves customer service, satisfaction and loyalty

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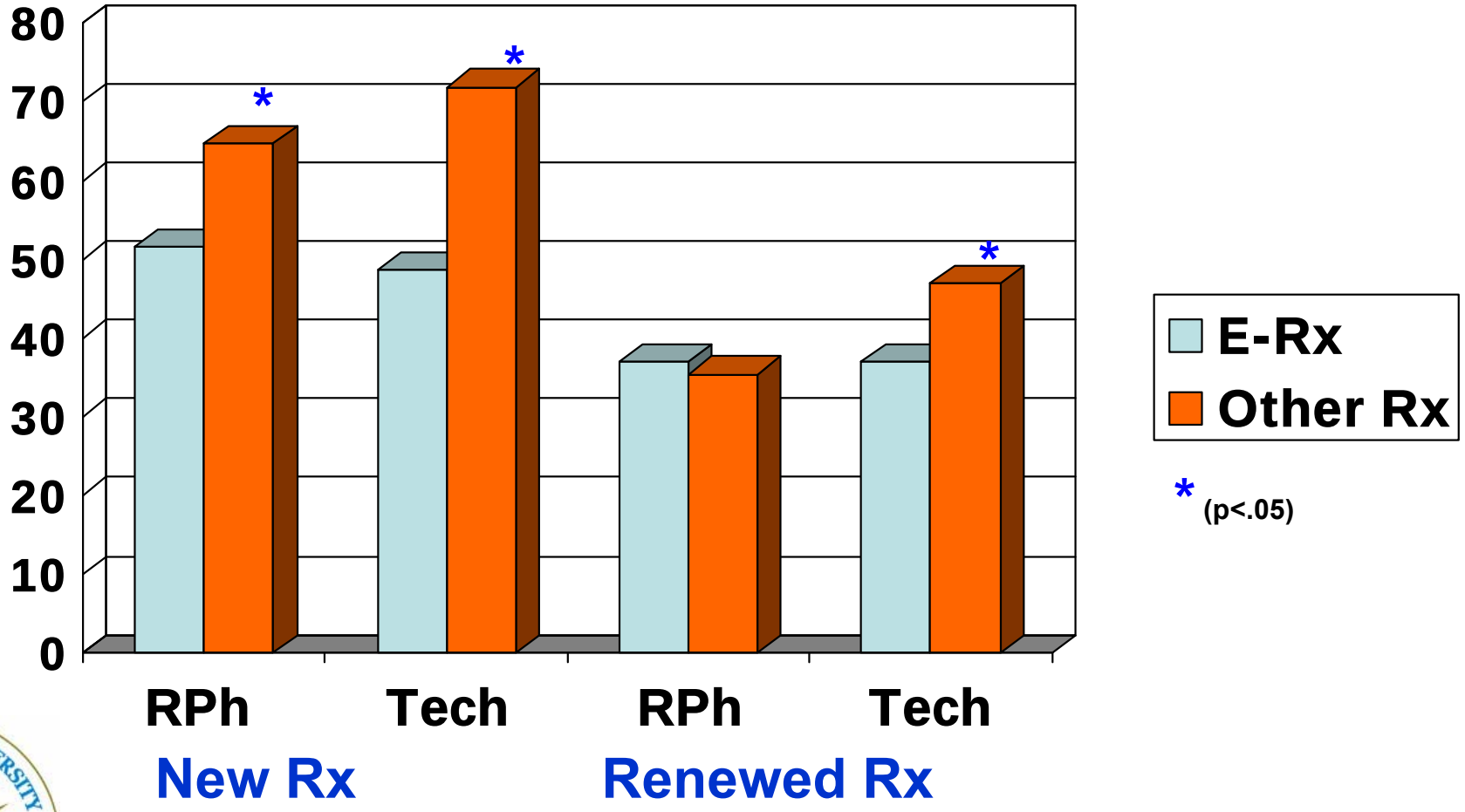
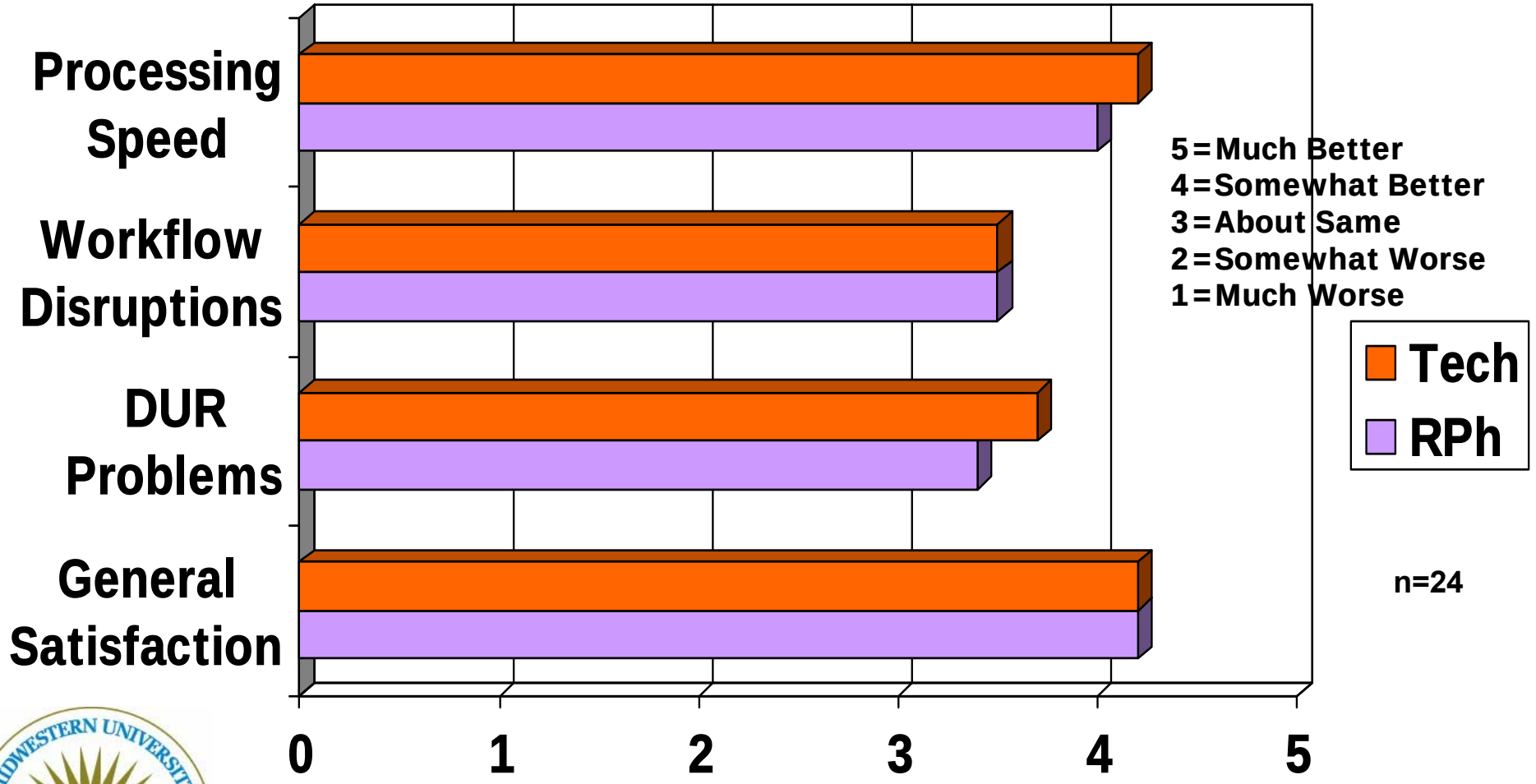
Rx Processing Time: e-Rxs vs. All Other



Source: Rupp MT "The Impact of E-Prescribing on Staff Productivity in Community Pharmacy – Part 1." *Computer Talk* 2005;25(3):15-22.

"How do e-prescriptions compare with other methods of receiving and processing prescription orders in your pharmacy?"



Source: Rupp MT "The Impact of E-Prescribing on Staff Productivity in Community Pharmacy – Part 2." *Computer Talk* 2005;25(4):14-17.

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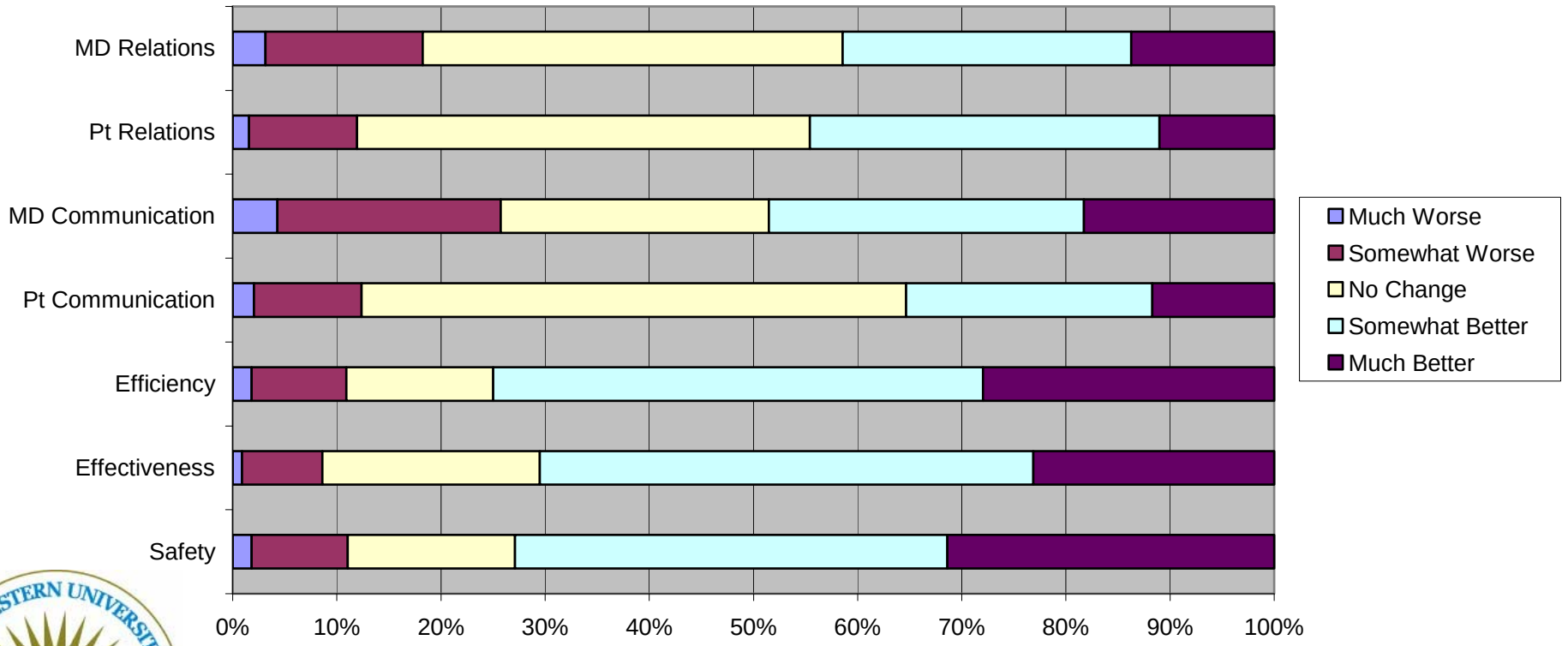
Conclusions

- Time savings
  - New e-Rxs required 26.6% less pharmacy staff time to process than other new prescriptions (walk-in, phone and fax)
  - Refill e-Rxs required 10.2% less staff time
- Reduced labor costs
  - Average reduction in pharmacy labor costs was $1.32 for new and $0.50 for renewed (figures updated to 2009)
- Improved staff satisfaction
  - Pharmacy staff perceived e-Rxs to be superior to traditional Rx orders in in speed of processing and overall satisfaction

Source: Rupp MT "The Impact of E-Prescribing on Staff Productivity in Community Pharmacy – Part 1." *Computer Talk* 2005;25(3):15-22.

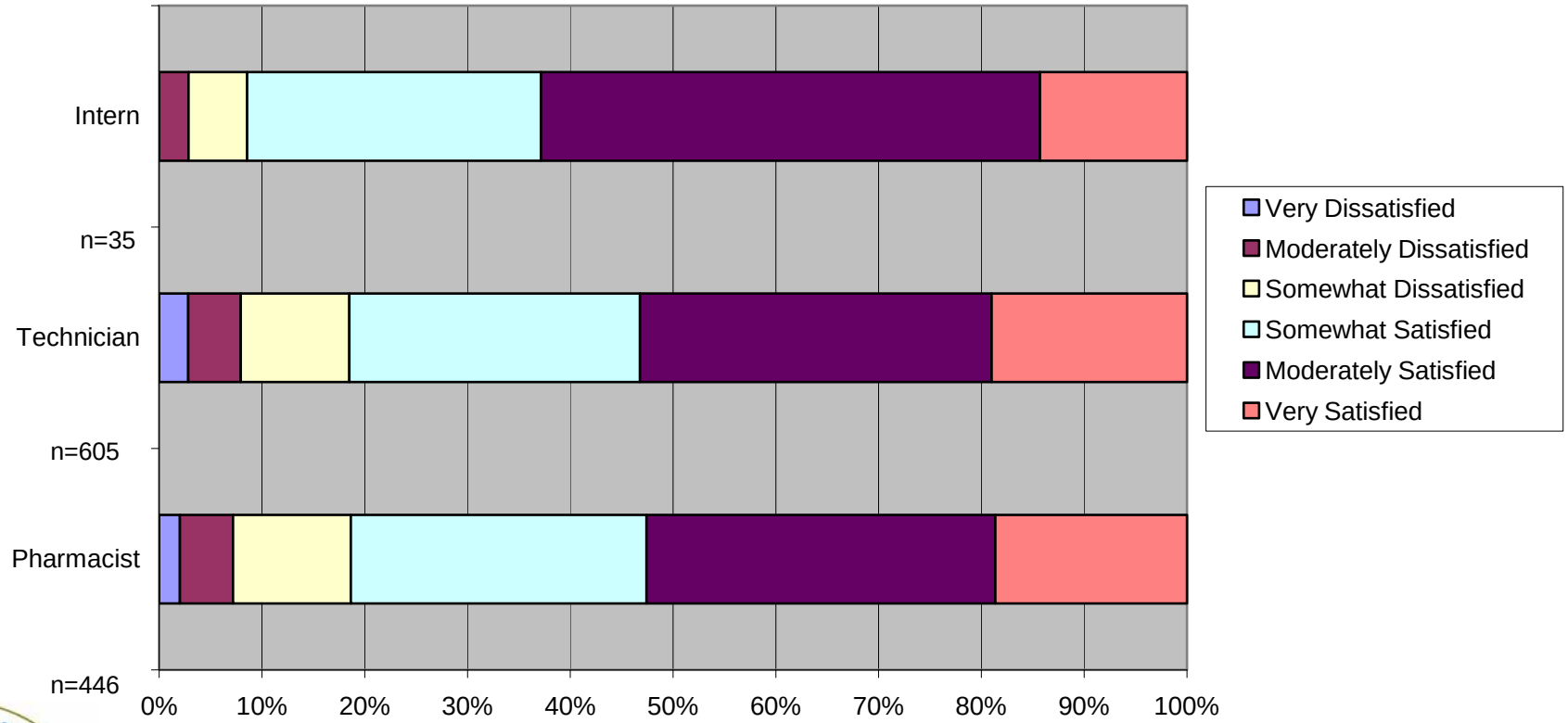
e-Prescribing Compared with Traditional Practice

(446 community pharmacists)



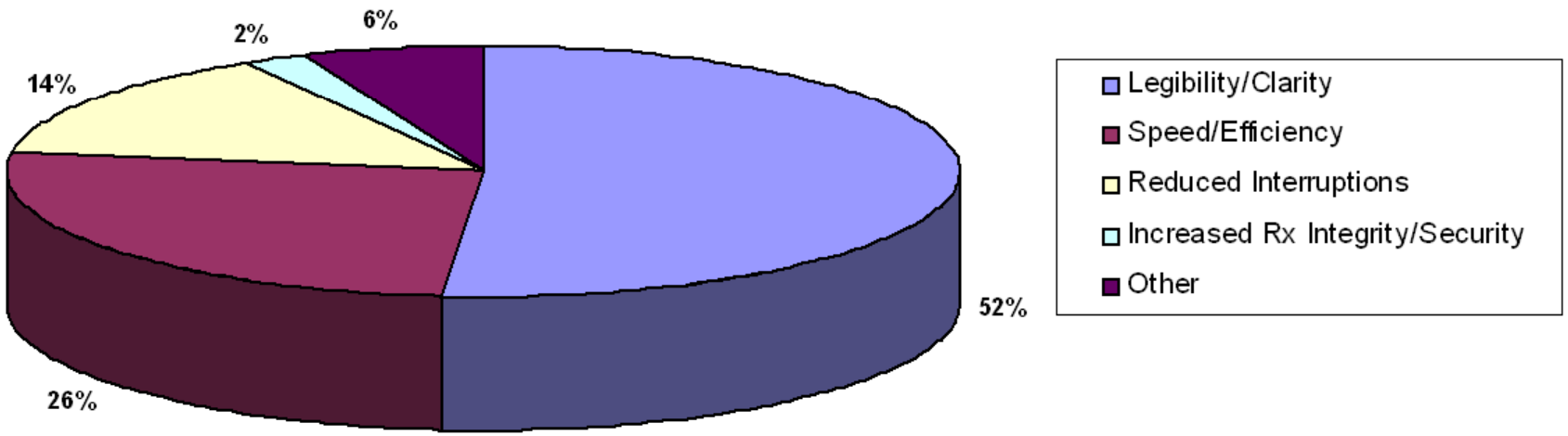
Source: Rupp MT and Warholak TL. "Evaluation of e-prescribing in chain community pharmacy: Best-practice recommendations." *J Am Pharm Assoc*. 2008;48:364-370.

Satisfaction with e-Prescribing: Community Pharmacy Personnel



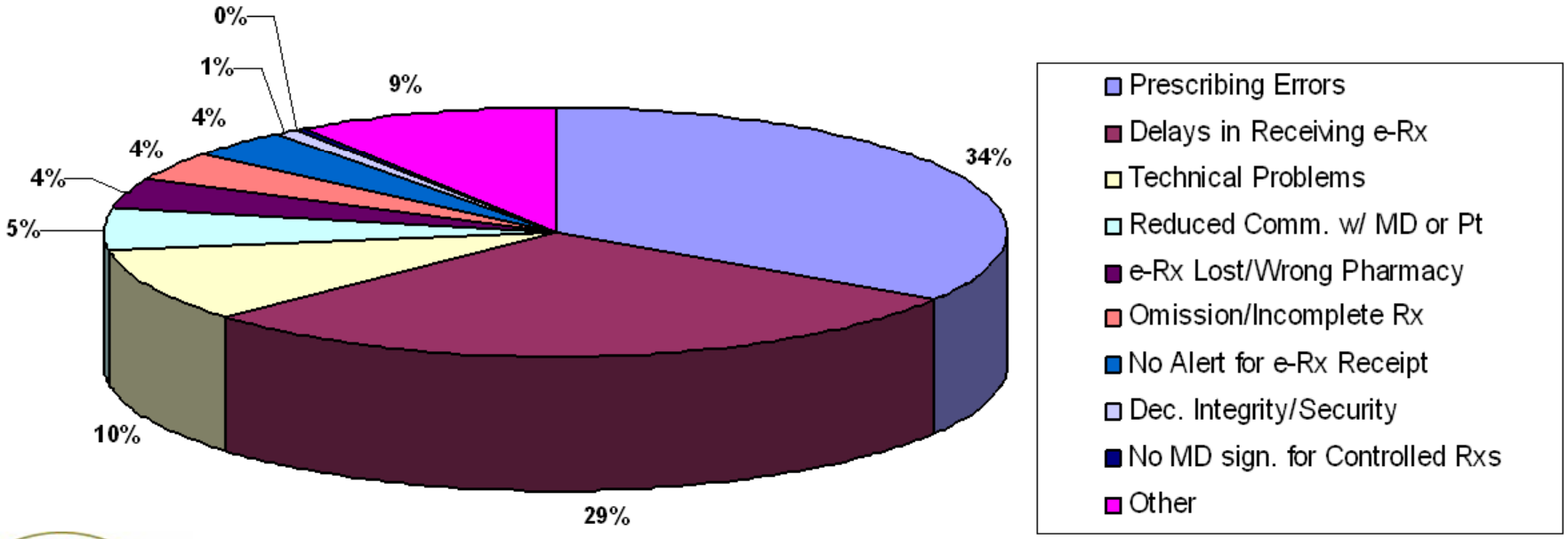
Source: Rupp MT and Warholak TL. "Evaluation of e-prescribing in chain community pharmacy: Best-practice recommendations." *J Am Pharm Assoc*. 2008;48:364-370.

Positive Features of e-Prescribing in Community Pharmacy



Source: Rupp MT and Warholak TL. "Evaluation of e-prescribing in chain community pharmacy: Best-practice recommendations." *J Am Pharm Assoc.* 2008;48:364-370.

Negative Features of e-Prescribing in Community Pharmacy



Source: Rupp MT and Warholak TL. "Evaluation of e-prescribing in chain community pharmacy: Best-practice recommendations." *J Am Pharm Assoc*. 2008;48:364-370.

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Pharmacist Interventions to Correct Problematic e-Rxs

e-Rx Type	e-Rxs Reviewed	Interventions	%
New	2,234	92	4.1
Refill	456	10	2.2
Total	2,690	102	3.8

Source: Warholak TL and Rupp MT. "Analysis of Community Pharmacists' Interventions on Electronic Prescriptions."
J Am Pharm Assoc (accepted for publication, May 2008)

The Pharmacy E-prescribing Experience Reporting (PEER) Portal

- A National Alliance of State Pharmacy Associations (NASPA) & SureScripts collaborative
- Primary focus is to gather information on e-prescribing problems directly from practicing pharmacists
- Data collected via a guided online feedback mechanism that will yield actionable data (but not PHI)
- SureScripts will issue bulletins and alerts to CSPs, new certification requirements, best practice recommendations and, if necessary, emergency interventions
- Portal went live on May 15, 2008

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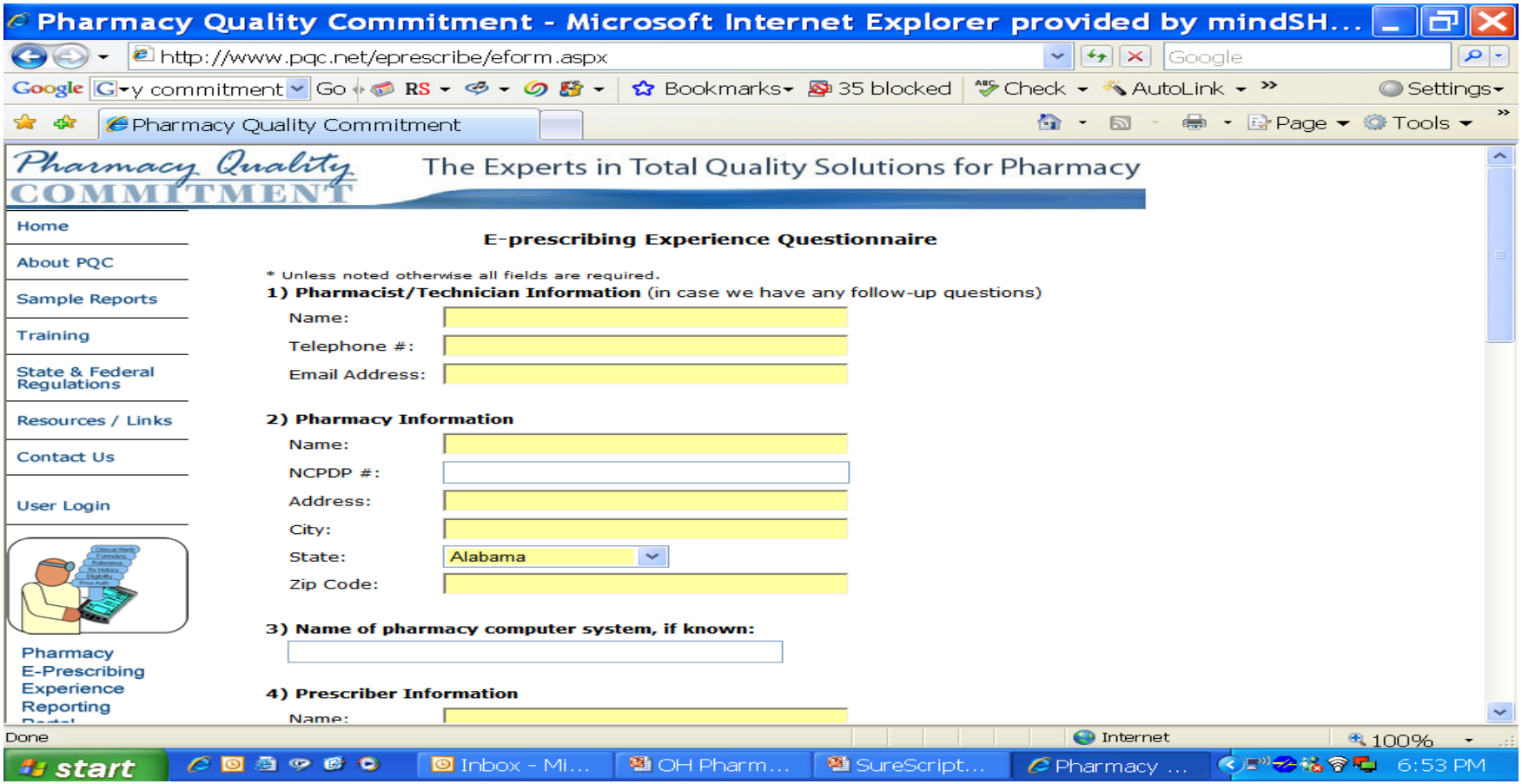
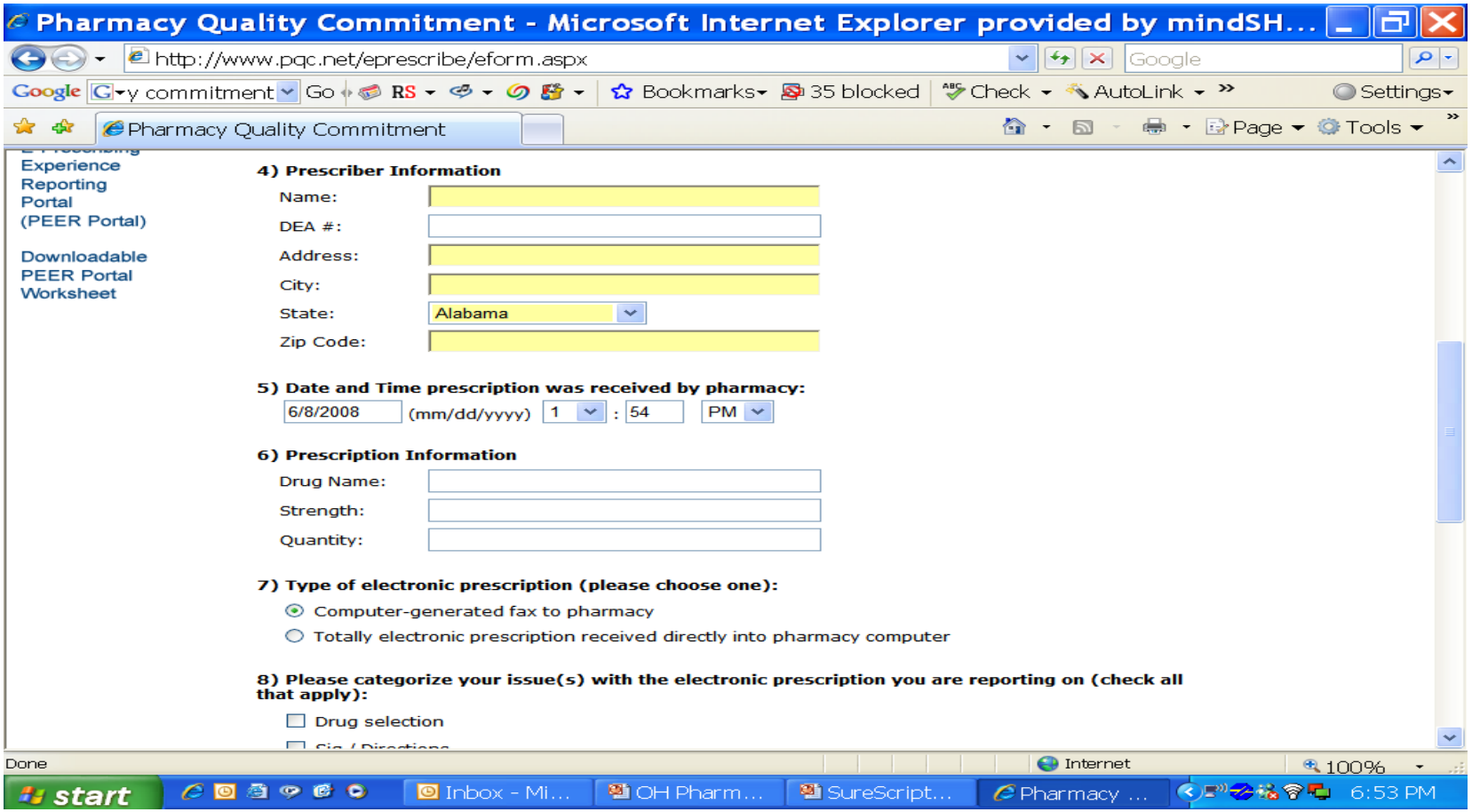
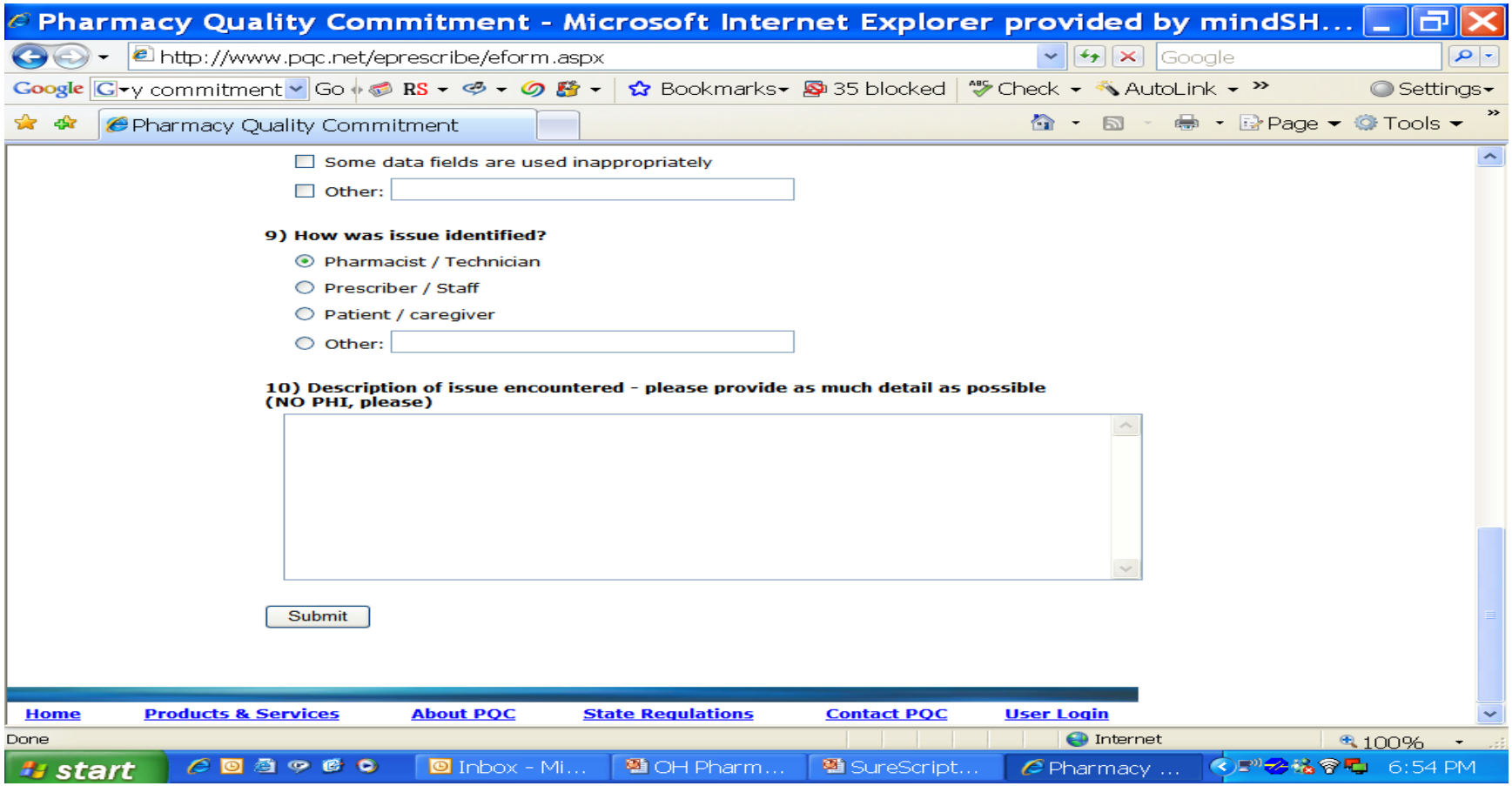
PEER Portal



PEER Portal



PEER Portal



e-Prescribing Best Practice Recommendations

- Physicians should perform their own e-Rx data entry or carefully review e-Rxs entered by support staff before allowing them to be transmitted to the pharmacy
- Prescriber-side decision support software (i.e., error-checking applications) should be enabled and routinely used.
- All e-Rxs for a patient should be electronically "bundled" or there should be a mechanism to alert the receiving pharmacy how many prescriptions to expect for a patient (e.g., "prescription 1 of 4").

Source: Rupp MT and Warholak TL. "Evaluation of e-prescribing in chain community pharmacy: Best-practice recommendations." *J Am Pharm Assoc*. 2008;48:364-370.

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Best Practice Recommendations

- Pharmacy computer systems should have an obvious indicator on the main prescription processing screen that alerts staff when an e-Rx has been received and is awaiting processing.
- Pharmacy staff should be trained and supervised to look for, and respond to, alerts that an e-Rx has been received and is awaiting processing.
- Information systems should allow pharmacy management to monitor the status of e-Rxs awaiting processing, and should issue a reminder to staff if processing is not initiated promptly.

Source: Rupp MT and Warholak TL. "Evaluation of e-prescribing in chain community pharmacy: Best-practice recommendations." *J Am Pharm Assoc*. 2008;48:364-370.

Best Practice Recommendations

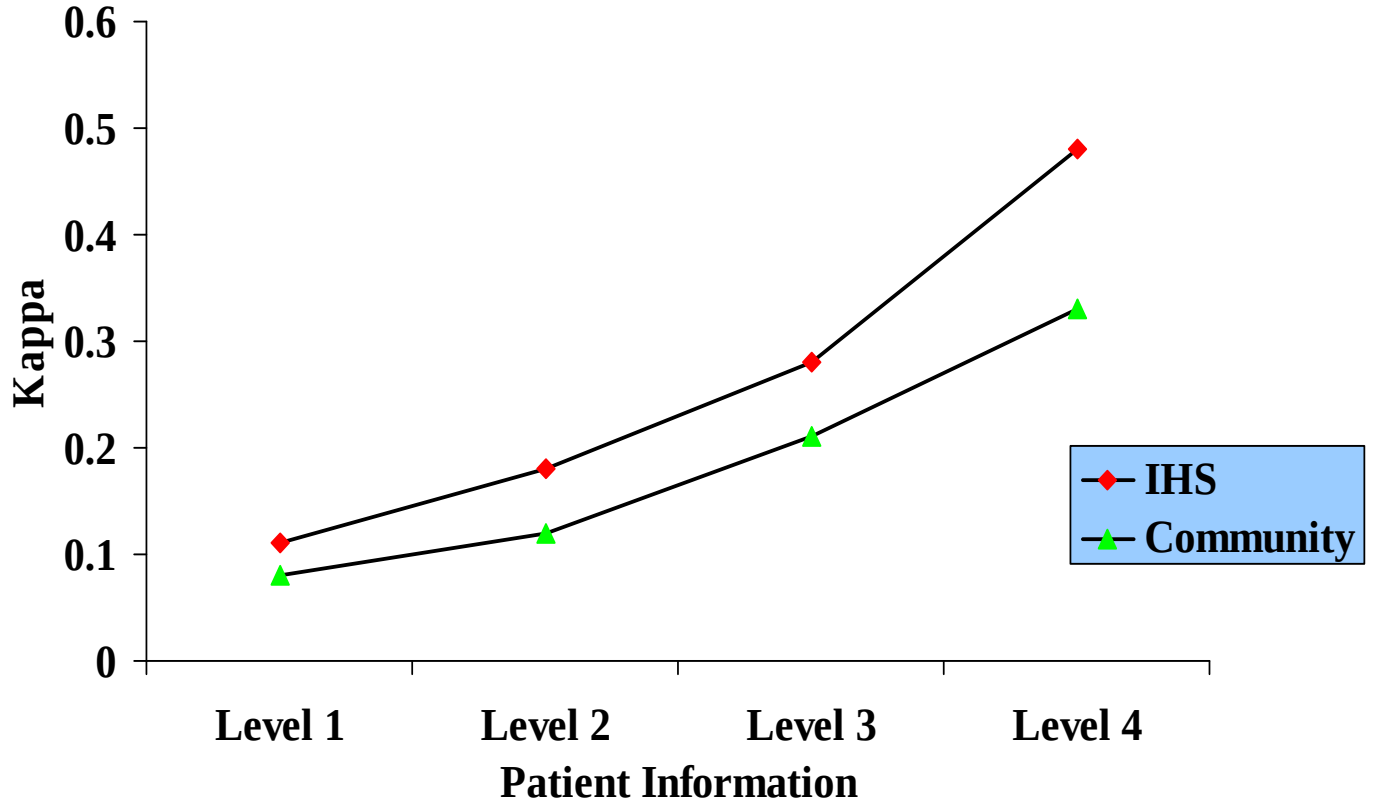
- Physician e-prescribing applications should adopt and use standard formats and procedures that reduce the need for physician callback and/or editing of e-prescriptions by pharmacy personnel.
- Physicians should engage patients as active and informed participants in e-prescribing to better ensure that their expectations at the receiving pharmacy are realistic.
- Physician and pharmacy providers should work with the Drug Enforcement Administration to create acceptable ways to allow prescribers to issue, and pharmacies to legally receive and process, e-Rxs for controlled substances.

Best Practice Recommendations

- Pharmacy e-Rx processing procedures should eliminate the routine printing of e-Rxs that must be re-entered by pharmacy staff, which increases both cost and the opportunity for data entry error.
- Pharmacists should have the ability to electronically request supplemental or clarifying information from the prescriber. Prescribers should be able to electronically respond to these queries and the information exchanged should be easily accessed and clearly displayed to users on both sides.

Source: Rupp MT and Warholak TL. "Evaluation of e-prescribing in chain community pharmacy: Best-practice recommendations." *J Am Pharm Assoc*. 2008;48:364-370.

Agreement between pharmacists and experts on DUR decisions at increasing levels of patient information



Warholak-Juarez T, Rupp MT, Salazar TA, Foster S. The effect of patient information on pharmacists' drug use review decisions. *Journal of the American Pharmacists Association*. 2000; 40:500-8.

Things really are getting better, just keep looking forward!

Thank you!

mtrupp@midwestern.edu

Electronic Medical Records
E-Prescribing
and MTM

Steven T. Simenson, BPharm, FAPhA
Managing Partner, Goodrich Pharmacies
Anoka, Minnesota

SINCE 1884 Goodrich Pharmacy

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Goodrich Pharmacy, Inc.

- 5 independent community pharmacies
- Suburban to suburban/rural demographics
- Professional 850 to 1400 sq ft pharmacies
- 3 in clinics, 1 stand alone adjacent to a clinic, and 1 supermarket pharmacy
- Established in 1884; stores added in 1991, 1997, 2002, and 2005

Filling Prescriber Needs and Building Relationships

- 1980s: Generic substitution protocols for products with patent expirations
  - Save physician phone calls
  - With clinic remodeling gained direct phone access to physicians' workspace and offices
- 1990s: Therapeutic substitution protocols for PBM formulary mandates
- We became an indispensable resource for PAs and NPs as they entered clinic practice environment
- Recommending solutions vs.. Identifying Problems

Building Clinical Skills

- 1990s: Disease state management
  - APhA Project IMPACT
  - LIPID panel in-store monitoring
- Blood pressure monitoring for referred patients
- Diabetes and A1c monitoring
- Pharmacy student rotations
- Actively recruiting pharmaceutical care patients through physician referral
- On-site clinic medication therapy presentations to providers always with some MTM tie-in or focus patient case discussions
- Collaborative Practice Agreements
- Active MTM practice with Health Plan contracting
- Resident / Clinical Pharmacists in clinic two (1/2) days weekly

Electronic Medical Record Access and Contracted Pharmacist Services

- Refill approval per standing order criteria and payment for consultation
  - Refill request
    - Patient medication chart review
      - Re-order medications
      - Order labs
      - Communicate with care team
      - Document and communicate patient consultation
      - Document immunizations

Effectively and Appropriately Using the EMR

- System legal requirements and staff training
- Access terminal in private yet convenient area
- Signing on and OFF regularly
- All areas when “touched” are labeled with individual accessing
- Zero tolerance to breaches in security

Medication Questions Answered Daily with EMR Access

- Confirm diagnosis or off label use
- Review latest labs for correct dosage, contraindications and medication effectiveness
- Confirm dosing and maximize compliance
- Review scope of last patient visit and date
- Review provider diagnosis and care plan
- Schedule labs and future provider visits
- Bridging continuity of care gaps

EMR RX ANSWERS

- Prescriptions filled at other Pharmacies
- Prescriptions sent to Mail Order dispensing
- Prescriptions sent to “Specialty Pharmacies”
- Specialist Consults and Prescribes
- Hospital Discharge Reports
- Rehabilitation & Nursing Home Discharge Reports
- Narcotic Care Plans and Agreements

Who Should Control EMR Access

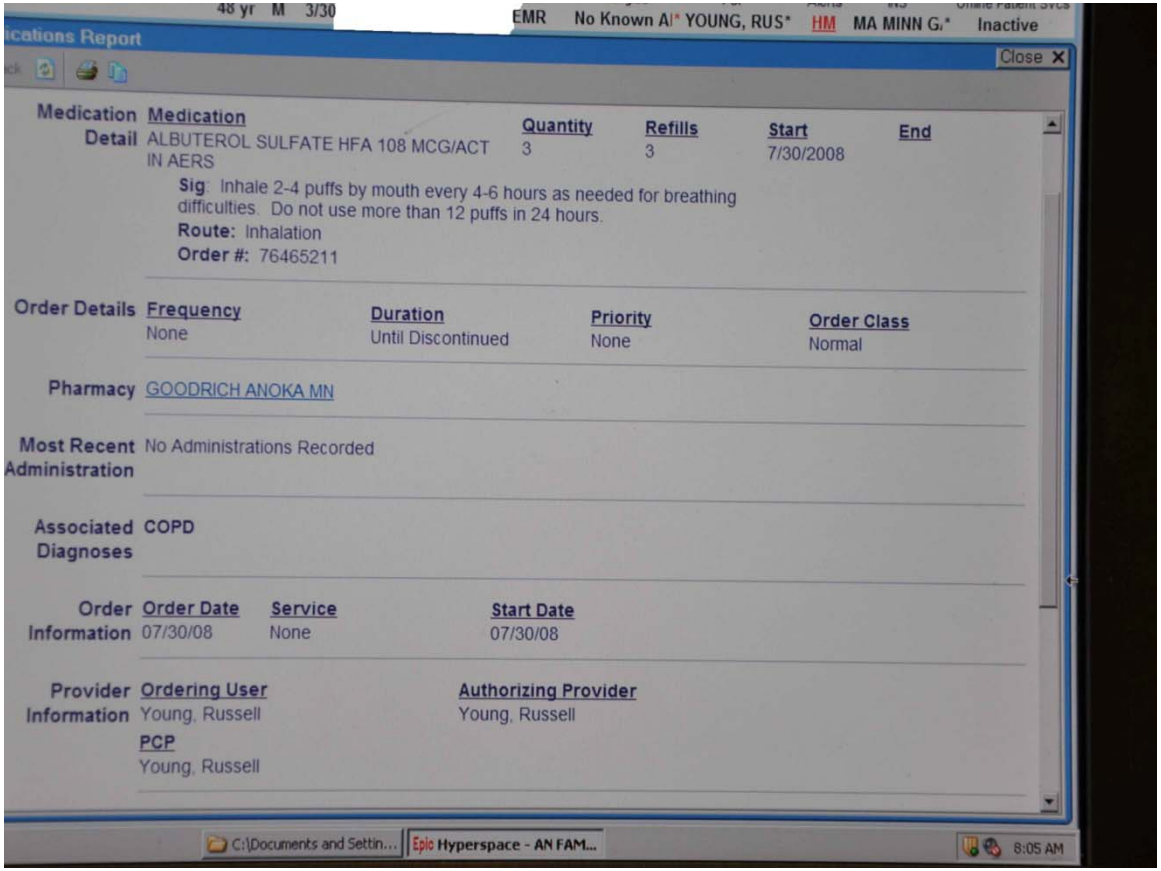
- Patients Own their Personal Health History
- Health Care Institutions have Proven that the Entire Health Care Team benefits a Patient's Medical Outcomes with EMR access
- Patient's Medication Outcomes are increased with EMR Access, Documentation and Communication by Pharmacists

EMR Access Anywhere

- Today's Technologies allow secure EMR Access Virtually anywhere.
- Secure Technologies are not site specific
- Read – Write access should be a standard not an option and not proprietary
- Maximizing Quality Information increases Patient Safety and Improves Medication Outcomes

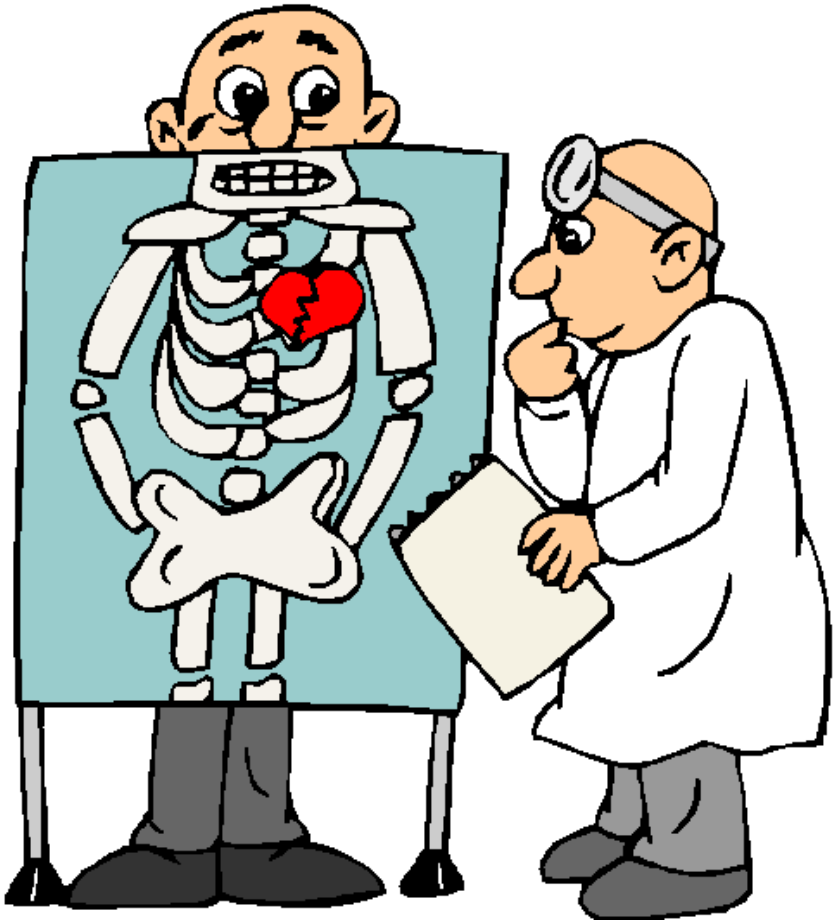
E-Prescribing
vs.
EMR Electronic Prescribing

- Additional information on EMR prescriptions
  - Allergies
  - Order entered by credentials and name
  - Time of order entry
  - Patients medical record number
  - Clinic name and address, prescriber specialty



EMR Medication Order

Sharing Patient Information



- Electronic Medical Record Systems offer a clear illumination of patient information that pharmacists seldom see
- Shared information improves Pharmacists clinical assessments, recommendations and patient outcomes

Using EMR to Provide MTM and Maximize Medication Outcomes

- Preparation … pre-appointment
  - Check most recent labs with known medications
    - Look at kidney (SCr & GFR), liver function (AST/ALT), electrolytes, lipids, A1c, TSH/T4
  - Check health care provider goals and plan
  - Check visit compliance
  - Review Medication Indication and Outcomes
  - Prepare bulk of PMR and substantiate with patient at visit

MTM Medication Therapy Review With Patient

- Check EMR when necessary during MTM consult to answer new patient questions
- Check for problem resolution or problem status with patient (provider goals)
- Have draft MAP for discussion and questions with patient
- Review patient expectations and concerns

Post MTM Visit

- Communication to care pool or provider of interventions, recommendations, and referrals per Core Elements of MTM services
- Re-order medications
- Order labs if necessary
- Same-day feedback through provider work queue

Benefits of Using EMR in Providing MTM

- More accurate and complete patient information to assess medication AND care goals
- Coordination with Physician Care Plan
- Timeliness addressing concerns and problems
- Pharmacist documentation in patient chart
- Assessment, Recommendation and Information posted into patients chart for immediate Physician Review

Benefits of Patient MTM

- Pharmacist confidence level in patient medical information
- Working in the same workflow patterns and system as other health care providers
- Better patient acceptance and closer working relationships with other health care providers
- Patients TRUST their Pharmacist with EMR Access
- Establish Continuity of Care

Pharmacists as Medication Managers - Coordinators

- Medical Home Models Speak for a:
  - Medication Specialist who guides
  - Medication Outcomes
- As Parameters that Guide Medication:
  - Outcomes are Rapidly being discovered
  - Pharmacists are uniquely qualified to transfer this information to Primary Patient Care models.
- Genomics … Behavior … Lifestyle…Relationships

Thanks!

goodrichpharmacy.com

Technical Considerations for Bidirectional Communication

Peter N. Kaufman, MD
Chief Medical Officer, DrFirst, Inc

DrFirst™

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E-Prescribing: How It Works

E-Prescribing Reduces Healthcare Costs, Improves Patient Safety & Promotes Efficiency

Payer

Provides:
- ❑ Prescription Benefit
- ❑ Prescription History

Processes:
- ❑ Eligibility Requests
- ❑ Prescription History Requests

Physician

Reviews:
- ❑ Patient information
- ❑ Prescription Benefit
- ❑ Prescription History

Generates:
- ❑ NewRx
- ❑ RxRenewal Response

Pharmacist

Provides:
- ❑ Prescription History
- ❑ RxRenewal Requests

Processes:
- ❑ NewRx
- ❑ RxRenewal Responses

Benefits for Payers:
Improves quality of care
Drives down healthcare costs
Saves beneficiaries money
Reduces medication errors

Benefits for Physicians:
Confirms prescription benefits
Enables prescription history review
Eliminates poor handwriting errors
Reduces pharmacy callbacks

Benefits for Pharmacists:
Provides “clean” prescriptions
Reduces time on faxes and calls
Allows more patient consulting time
Improves patient convenience

DrFirst™

SureScripts®

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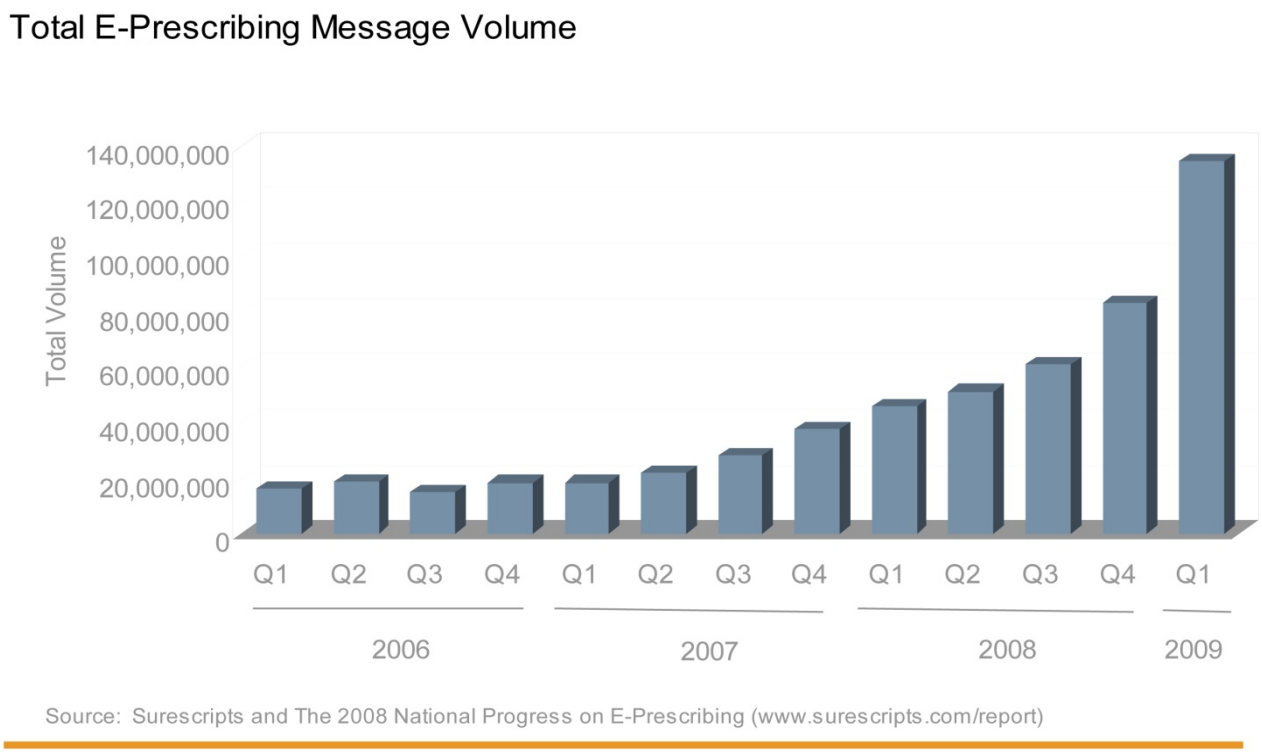
Relationship Between Providers and Pharmacists

- **Current: paper, phone, fax, E-Rx**
  - **Paper alone not so bad**
  - **Breaks down when there's a need for clarification, e.g. *interaction, formulary, legibility, patient concern***
  - **e-Rx limits the 1st 3**
- **E-Rx: Bidirectional message**
  - **New Rx: Physician->Pharmacist**
  - **Renewal: pharmacist->physician, and response**
  - **Soon to be more…**

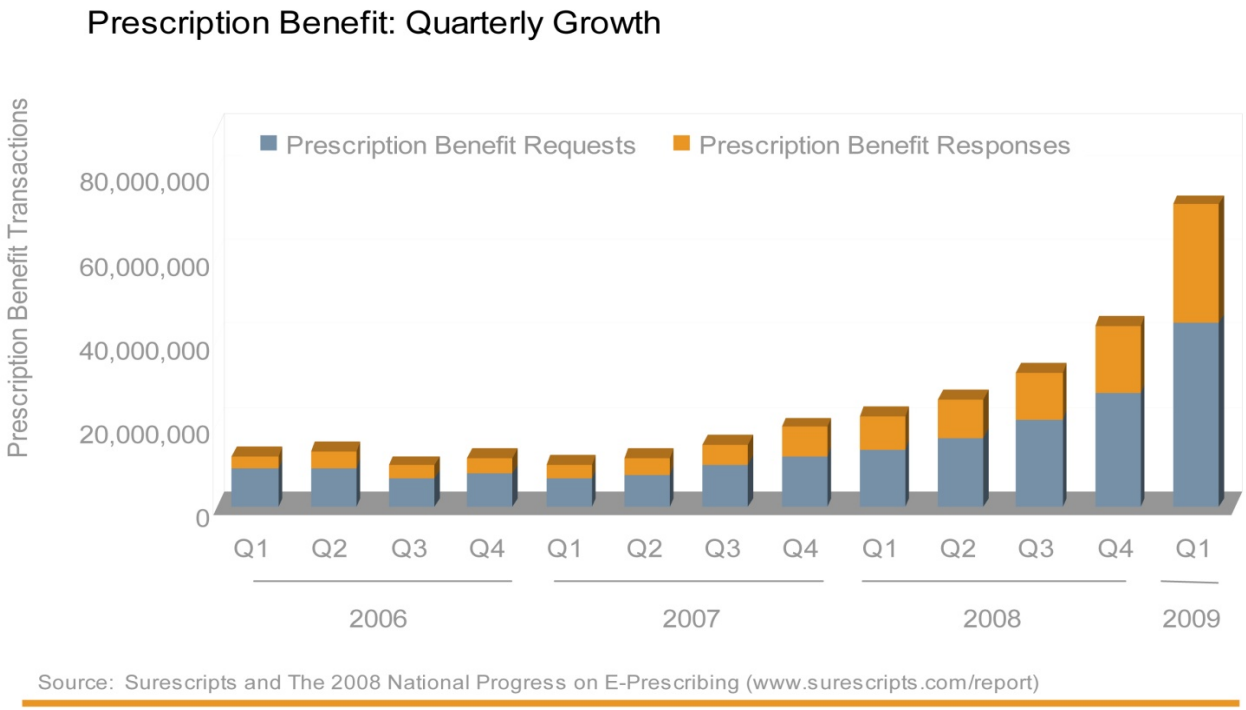
Total E-Prescribing Message Volume



Key Statistics:

- **E-prescribing message volume doubled between 2007 and 2008 to over 240 million**
- **The number of e-prescribing messages between 2006 and 2008 totaled nearly half a billion.**

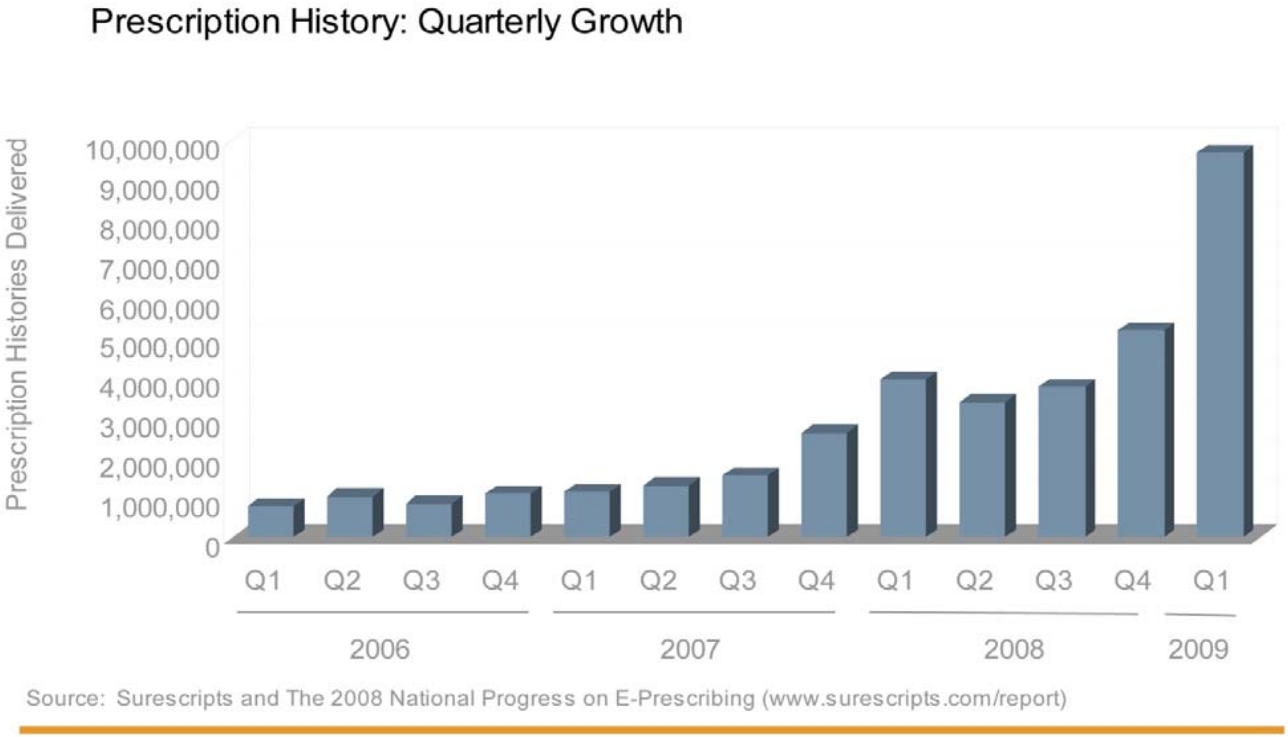
Prescription Benefit



Key Statistics:

- **Electronic requests for prescription benefit information grew from 37 million in 2007 to 78 million in 2008. Although this growth is significant, it represents an increase from only 4 percent of patient visits to 9 percent.**
- **At the end of 2008, the response rate to requests for prescription benefit (the rate at which information for the patient can be returned to the prescriber) was 69 percent.**

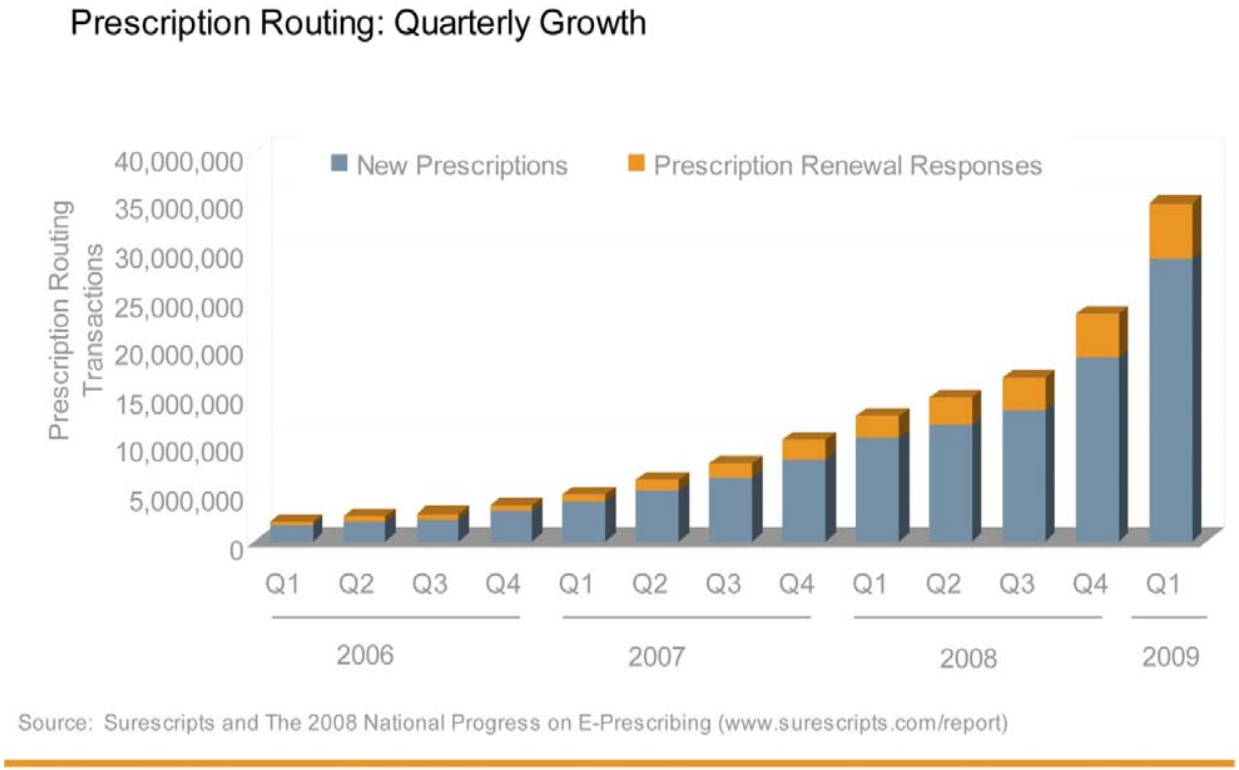
Prescription History



Key Statistics:

- **The number of prescription histories delivered to prescribers grew from over 6 million in 2007 to over 16 million in 2008. Although this growth is significant, it represents an increase from only 0.7 percent of patient visits to 1.8 percent.**
- **With a patient's consent, SureScripts can provide prescription history data for more than 200 million patients.**

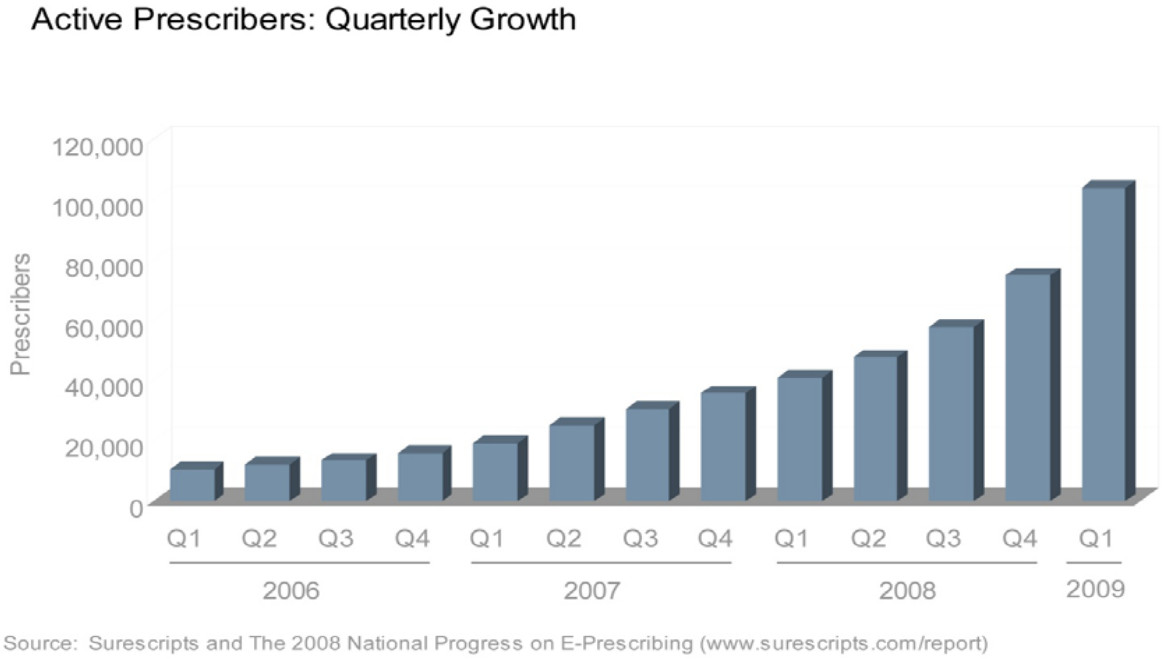
Prescription Routing



Key Statistics:

- **Prescriptions routed electronically grew from 29 million in 2007 to 68 million in 2008. Although this growth is significant, it only represents a shift from 2 percent of eligible prescriptions to 4 percent.**
- **In December 2008, the rate of prescriptions routed electronically, as a percentage of prescriptions eligible for electronic routing, rose to 6.6 percent.**

Electronic Prescribing Adoption: Prescribers



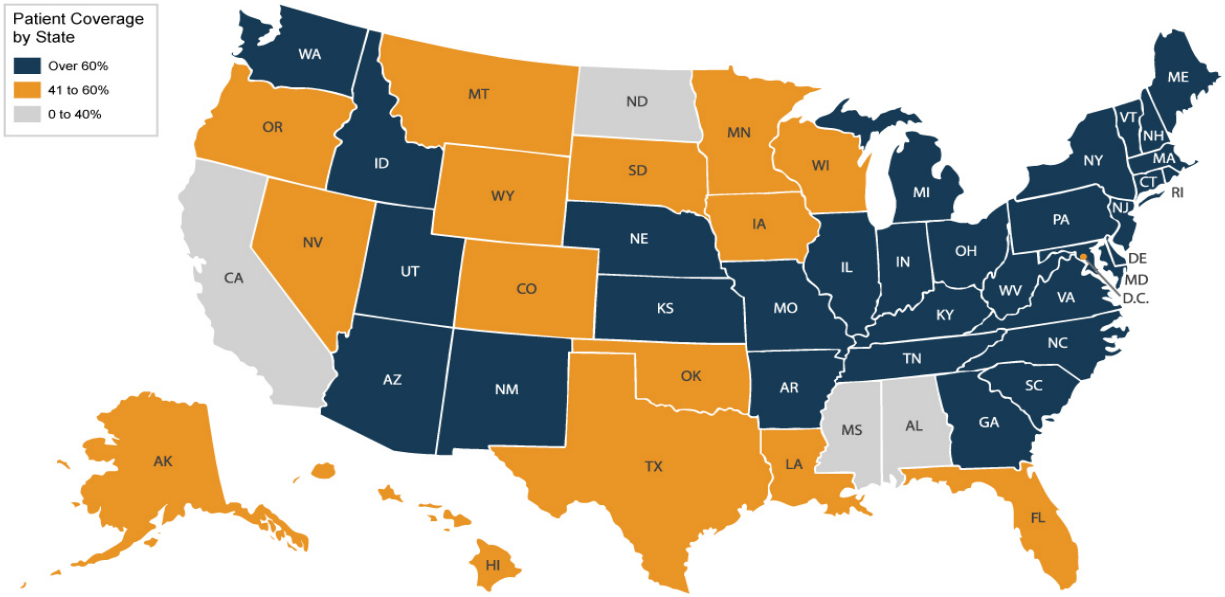
Source: Surescripts and The 2008 National Progress on E-Prescribing (www.surescripts.com/report)

Key Statistics

- **The number of prescribers routing prescriptions electronically grew from 36,000 at the end of 2007 to more than 74,000 by the end of 2008, or 12 percent of all office-based prescribers.**
- **All prescribers in the graph above used electronic prescription routing. A portion also accessed prescription benefit and prescription history services.**

Electronic Prescribing Adoption: Payers

Percent of Patients for whom Payers can Provide Prescription Benefit Information



Source: Surescripts and The 2008 National Progress Report on E-Prescribing (www.surescripts.com/report)

Key Statistics:

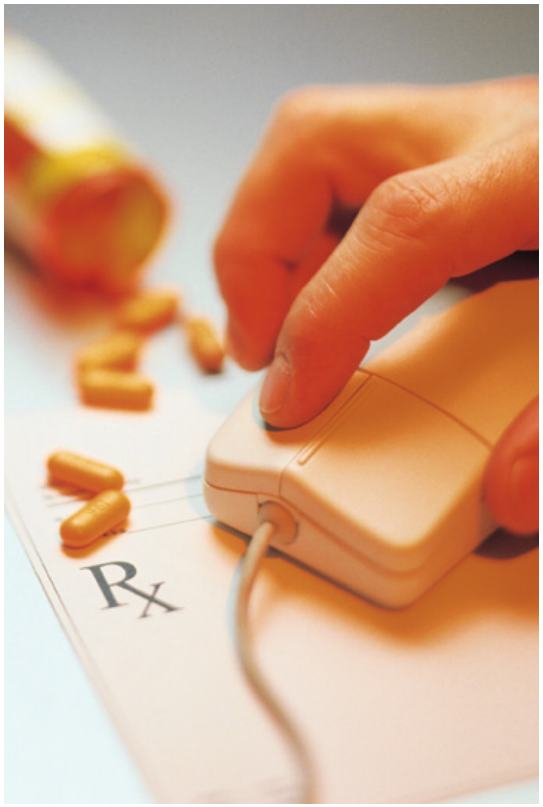
- **By the end of 2008, SureScripts could provide prescription benefit and history information for 65 percent of patients in the U.S. Increased participation by payers in e-prescribing allowed prescribers to locate and access more than 230 million member records from participating health plans. This figure is inclusive of records from all 50 U.S. states, the District of Columbia, Puerto Rico and U.S. territories.**

Electronic Prescribing Adoption: Q1 2009

- **Over 103,000 prescribers on the network**
- **Significant increase in growth trends – Q1-2009:**
  - **39% increase in active prescribers over Q4-2008**
  - **84% increase in prescription history requests over Q4-2008**
  - **49% increase in prescription routing over Q4-2008**

E-Prescribing in General

- **Advantages to Physicians:**
  - Prescription Benefits (formulary)
    - Cost savings for patients and payors
  - Medication history
  - Legibility
  - Office workflow (role-based, fewer call backs)
  - **Clinical alerts**
  - **Documentation**
  - **Speed (yes, speed)**



E-Prescribing in General

- **Advantages to Pharmacists:**
  - "Clean" prescriptions
  - Workflow
    - Reduced time on faxes and phone calls
    - Allows more patient consulting time
  - Improved patient convenience
  - **Increased prescription volume? (more to come)**
  - **Improved patient safety**
  - **Cost savings**

Focus On Pharmacy Value

Regain control of business

- Industry wide over 500 million renewal transactions
- Saves 3 – 4 hrs/day spent on prescription issues
- Substitutes inefficient callbacks with efficient electronic computerized communications

Achieve significant return on investment

- Results covered earlier in today's presentation

Source: e-Prescribing; The Value Proposition. Rupp April 2005 America's Pharmacist, updated with 2007 Grant Thornton Cost-of-dispensing Study Figures

Focus On Pharmacy Value

Elevates professional role of the pharmacist

- Provides more time for patient counseling
- Maintains the professional role of the pharmacist in DUR

Improve customer satisfaction & care

- Fewer patient insurance eligibility issues
- Fewer insurance formulary issues
- Less wait time at the pharmacy for renewals
- More time for patient/pharmacist interactions
- Reduced potential for medication errors

E-Prescribing in General

- **Limitations and Challenges (for physician practices)**
  - **Cost**
  - **Infrastructure missing in office (high-speed internet, computer availability)**
  - **Deployment**
  - **Office workflow (fit)**
  - **“Failed” scripts**

Bidirectional Electronic Communication

- **Technical limitations and challenges**
  - **Standards are complete and accepted**
  - **Communication standards (bidirectional) are not yet in full use**
  - **Current: NEWRX, REFREQ/REFRES**
  - **Message types not yet in wide use**
    - **CANRX/CANRES**
    - **RXCHG/CHGRES**
    - **RXFILL (and “NO-FILL”??)**
    - **Prior Authorization**

Bidirectional Electronic Communication

Benefits:

- **Efficiency (automated, Time-shifting) (could be a detriment if question is urgent)**
- **No language issue (legibility or verbal understanding)**
- **If system is easier (don't need to get physician/staff on the phone), more likely to communicate**

Bidirectional Electronic Communication

Impacts on outcomes for pharmacists reporting back to clinicians

- **Likelihood of response**
- **Automatic recording of bidirectional communication**
- **Improved relationship between pharmacists and physicians resulting from communication**
- **Improved patient care resulting from completed communication**

Electronic Prescribing Routing (In Detail)

- **It is the totally electronic transmission of prescription information from the prescriber's fingertips to the pharmacist's eyes…**
  - **Bits and bytes, computer to computer**
  - **Electronic data interchange (EDI)**
  - **NO PAPER! (Unless required by law or one so chooses)**
- **And vice versa—it is bi-directional**
  - **Refill renewal requests**
- **Plus, it's not simply e-prescribing these days (okay, well, soon…)**
  - **Change requests → Clinical health information transaction (CHIX)**
  - **Prescription histories and other clinical information**
  - **Eligibility and formulary**
- **Somewhat, but not completely, analogous to online claims adjudication**
  - **Uses the NCPDP SCRIPT Standard**

Thank You!

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Questions & Answers

Our Panel:

Michael T. Rupp, PhD, RPh, FAPhA, Professor of Pharmacy Administration at Midwestern University College of Pharmacy, Glendale, Arizona.

Steve T. Simenson, BPharm, FAPhA, President and Managing Partner of Goodrich Pharmacies.

Peter N. Kaufman, MD, is Chief Medical Officer of DrFirst, Inc.

Coming Soon!

Our Next Event

Third in our three-part series on Medication Management

Stay tuned for exact date and time and information on how to register

Thank You for Attending

This event was brought to you by the AHRQ National Resource Center for Health IT

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