THE CENTER
for
Improving Medication Management

A collaborative of providers, payors, employers and pharmacies

E-Prescribing Overview:
Improving the Medication Management Process

ERIC Health Policy Conference

June 11, 2008

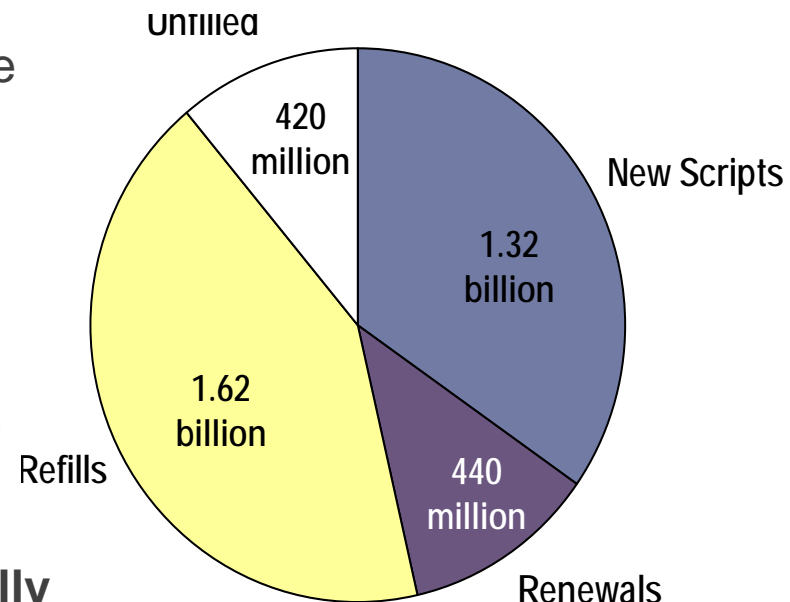# The Center for Improving Medication Management

- The Center for Improving Medication Management is a **collaborative forum** to demonstrate the value of pharmacy interoperability for the purpose of improving the medication management process

- The Center implements programs that accelerate the automation of the prescribing process through:

  - Adoption and use electronic prescribing technologies with physician-pharmacy interoperability

  - Testing of innovative approaches to improve patient compliance with prescribed medications

  - Managing research projects to evaluate and establish best practices

Helping physicians, pharmacists, patients and payers/PBMs optimally use technology to improve the way medications are evaluated, prescribed, approved, filled, consumed, refilled, adhered to, and measured for outcomes.

High Volume of Prescriptions…

Prescription growth in U.S.

- 823 million visits to physician offices in 2000[1]

- 4 out of 5 patients who visit a physician leave with at least one prescription[2]

- 65% of the US population use a prescription medication each year[3]

- Over 3 billion prescriptions are dispensed each year[4]

- Number is expected to rise to over 4.1 billion by 2010[4]

- **15% of physicians in the United States prescribe 50% of the prescriptions annually**

- **30% of physicians in the United States prescribe over 80% of the prescriptions annually**

Unfilled — 420 million

New Scripts — 1.32 billion

Refills — 1.62 billion

Renewals — 440 million

3.38 Billion Total Filled Prescription Transactions in 2005

(1) Pastor PN et. al. Chartbook on trends in the health of Americans.
    Health, United States, 2002. National Center for Health Statistics. 2002.
(2) The chain pharmacy industry profile. National Association of Chain Drug Stores. 2001.
(3) Agency for Healthcare Research and Quality. MEPS Highlights #11: distribution of health care expenses, 1999.
(4) NACDS estimates.

Medication Errors: What the latest research says…

- **September 10, 2007 issue of the *Archives of Internal Medicine***
  - The number of serious adverse drug events more than doubled between 1998 and 2005 in the U.S., as did the number of related deaths
    - From 1998 to 2005, the number of reported serious adverse drug events increased 2.6-fold from 34,966 in 1998 to 89,842 in 2005.
    - The number of fatal adverse drug events increased 2.7-fold during the same time period, from 5,519 in 1998 to 15,107 in 2005.
  - The number of adverse events increased four times faster than the total number of outpatient prescriptions, which rose from 2.7 billion to 3.8 billion during that time frame.
  - Drugs related to safety withdrawals were a small part of the picture
  - "…We saw increases in drugs whose risks we've really known about and should be able to manage. We've had insulin for 50 to 60 years, yet adverse events are increasing rapidly…"
    – study lead author Thomas Moore, of the Institute for Safe Medication Practices

Defining "Electronic Prescribing"

- Electronic prescribing has been around for many years, and the term has meant different things to different people.
- Today electronic prescribing generally refers to the solution sets
  - **Stand-alone** prescribing-focused solution
  - Integrated module within an **EHR**
- An evolving approach to the definition of electronic prescribing is to view it as a set of tools that target improving the medication management process
  - Clinical decision support (drug-drug, drug-allergy interactions, patient medication history, formulary and pharmacy benefits)
  - Writing of the prescription
  - Transmission between prescriber and dispenser
  - Dispensing of the medication
  - Support for its administration
  - Monitoring of the impact

Medicare E-prescribing and the Prescription Drug Program Final Rule

*"E-prescribing means the **transmission, using electronic media**, of prescription or prescription-related information between a prescriber, dispenser, pharmacy benefit manager, or health plan, either directly or through an intermediary, including an e-prescribing network. E-prescribing includes, but is not limited to, two-way transmissions between the point of care and the dispenser."*

SureScripts Mission: Improve the Prescribing Process

- **Driven by single mission**
  - **Improve the prescribing process through a focus on Safety, Efficiency and Quality**
- **Industry owned LLC formed by the pharmacy associations representing nation's 55,000 pharmacies**
  - **Incorporated August 2001**
  - **Pharmacy membership organization**
  - **Two sources of operating capital**
    - **Fees from pharmacy transactions**
    - **Membership**
  - **No charge to physicians or their vendors**
  - **Neutral entity**
    - **No advertising or commercial influence**
    - **Protect patient choice of pharmacy, physician choice of therapy**

NACDS NATIONAL ASSOCIATION OF CHAIN DRUG STORES

National COMMUNITY PHARMACISTS Association

Over 95% of the nation's pharmacies have completed the certification process required to connect to the Pharmacy Health Information Exchange™, operated by SureScripts

THE CENTER *for* Improving Medication Management · AMERICAN ACADEMY OF FAMILY PHYSICIANS STRONG MEDICINE FOR AMERICA · HUMANA. *Guidance when you need it most* · (intel) · MGMA *Defining Your Profession™* · SureScripts® *The prescription for better healthcare®*

Potential value created from process improvements

Improves Individual Empowerment and Satisfaction
- Improves the patient-physician relationship
- Improves the patient-pharmacist relationship
- Improves an individual's sense of self-efficacy and intrinsic motivation relative to medication therapies
- Lowers an individual's cost of medication, e.g., lower co-pays
- Increases an individual's satisfaction with the healthcare experience, e.g., shorter wait times in the pharmacy

Improves Health Outcomes
- Improves clinical outcomes, e.g. lower BP, cholesterol, HgA1C
- Improves patient safety, e.g. ADEs
- Improves functional outcomes, e.g., absenteeism / presenteeism

Improves Efficiency and/or Lowers Costs
- Improves the efficiency of the care process
- Increases availability of an individual's health benefit in the care process
- Decreases utilization of unnecessary or inappropriate care

Example Benefits

- *Increases patient adherence to prescribed medications*
- *Increases likelihood of patient pick up of first fill*
- *Improves operating efficiencies of physician practices, particularly smaller practices with high prescribers*
- *Can potentially facilitate prescriber requests for prior authorizations and step therapy documentation*
- *Improves patient understanding of the link between medication therapy and condition*
- *Increases appropriate conversation of side effects between provider and patient*
- *Increases use of prescriber favorites including proper dosing*
- *Creates new sources of data for outcomes and marketing studies*

Errors can be Prevented, Efficiencies Gained, and Savings Realized

- More than 1.5 million Americans are injured annually by medication errors. More than 25% of these injuries are preventable[1]

- According to the Institute for Safe Medication Practices, many errors result from:
  - Miscommunication due to illegible handwriting
  - Unclear abbreviations and dose designations
  - Unclear telephone or verbal orders
  - Ambiguous orders and fax-related problems

- In July of 2006, the Institute of Medicine recommended that all prescriptions be written electronically by 2010[1]

- Eliminate many calls between pharmacies and practices to clarify information, authorize renewals and free up time for patient care – save time, save money

- Payers estimate savings for members of $20 to $25 per prescription if the provider selects lower cost drug when prompted by formulary message (BCBS MA)

(1) Institute of Medicine. Preventing Medication Errors, 2006

Prescribing with Pharmacy Interoperability and Clinical Decision Support Lead to Greatest Safety Benefits

Chart legend:
- No ACPOE
- Basic ACPOE
- Intermediate ACPOE
- Advanced ACPOE

Y-axis (Preventable ADEs):
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0

Bars:
- **Pen** (No ACPOE)
- **Print** ↓6% (Basic ACPOE)
- **Fax** ↓37% (Intermediate ACPOE)
- **EDI + Decision Support** ↓61% (Advanced ACPOE)

Preventable ADEs

Advanced ACPOE Results in 2 million Fewer ADEs, 130k Of Which are Life Threatening
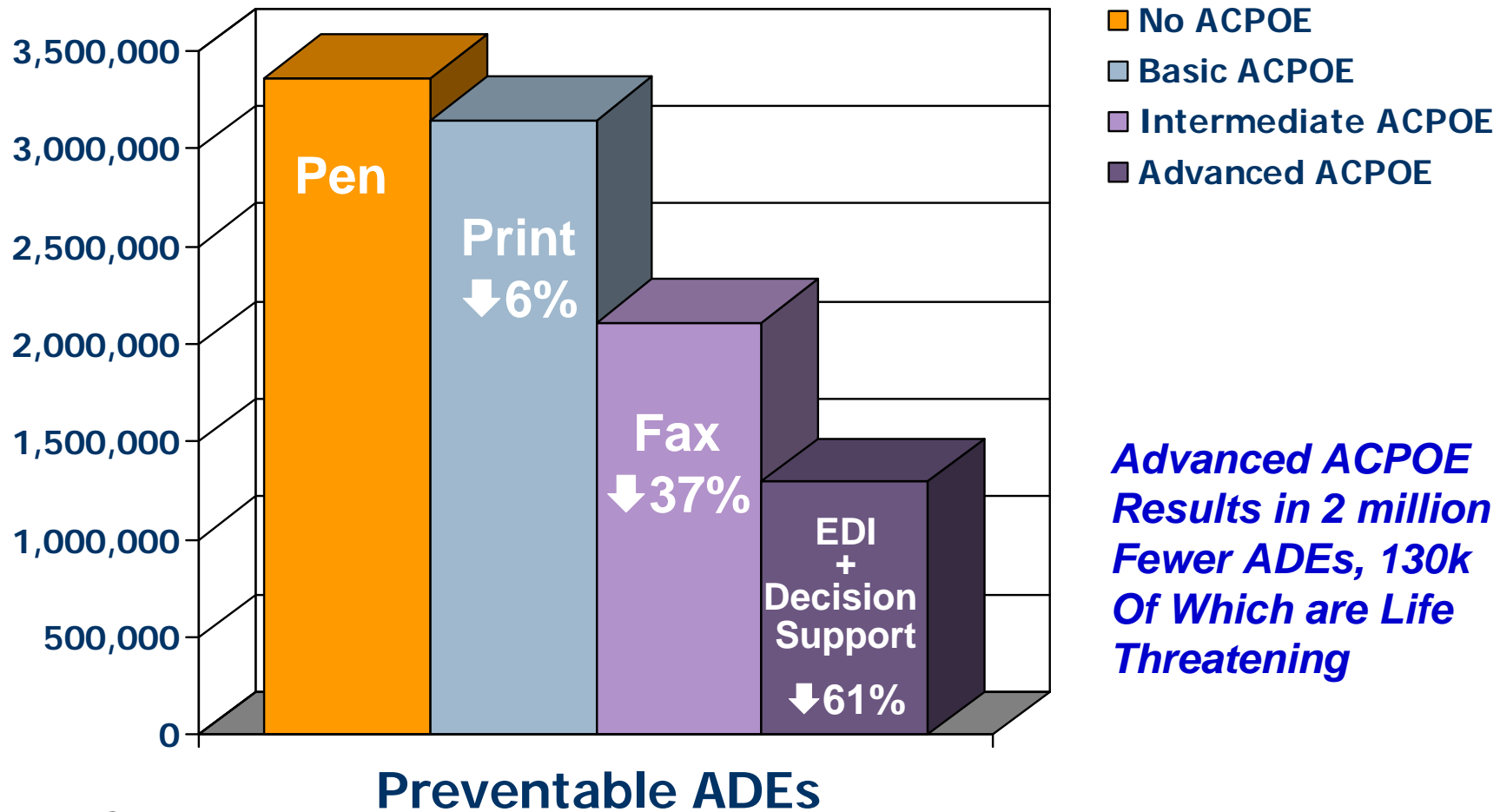
Source: CITL

Walgreens – IMS Study

Prescription Counts For 100 Prescribers: Before & After E-Prescribing			
	3 Months Before e-Rx	**3 Months After e-Rx**	**Difference**
New Prescriptions	272,103	302,616	**11.21%**

With E-Prescribing
More Prescriptions Get to the Pharmacy

Key Health IT Policy Issues

- President directive calling for EHRs
- Federal government push toward standards – CCHIT, MMA
- CMS recently issued proposed rules
  - E-prescribing standard moved from NCPDP 5.0 to NCPDP 8.1 to include formulary, eligibility, medication history as foundation standards (must be complied with under Medicare Part D)
  - CMS eliminates fax exemption effective January 1, 2009
    - Computer generated fax prescriptions no longer legal for Medicare
  - Tamper proof pads for Medicaid prescriptions required April 1, 2008
- AHIC recommended to Secretary of HHS that he seek statutory authority to offer the use of financial incentives or penalties under Medicare to encourage e-prescribing
- Senator Kerry Bill – incentives for e-prescribing adoption recently introduced
  - Phased in bonus payments tied to e-prescribing until 2011
  - Pay reductions without e-prescribing adoption after 2001
- DEA prohibits controlled substances from being prescribed electronically
  - Senate Judiciary Committee held hearing on this in December 2007
  - Industry coalition is working every angle
  - New rule expected to be issued soon

E-Prescribing: The Case for Employers

- Significant pressure to better manage healthcare costs and reduce variability in quality and outcomes; health information technology can help

- Medication management is a key area of focus and opportunity

- $220 billion is spent on drugs in the U.S. with more than $50 billion on chronic medications

- Patient adherence with prescribed medication regiments is less than 50%

- 130 million Americans have a chronic condition representing at least 50% of all prescriptions

- Better medication management can lead to potential medical benefits and reduced costs of emergency room, inpatient hospital admissions, and physician practice visits

- Health care payers including health plans, large self-insured employers, the government, and others can play a very important role in encouraging e-prescribing to improve medication management

Example of Employer Led E-Prescribing Initiative

- Southeast Michigan E-Prescribing Initiative (SEMI)
  - GM was the initial driver -- GM spent $4.6 billion on health care in 2007 providing coverage for 1 million employees, retirees, and their dependents; every two seconds, GM pays for a prescription
  - GM, Chrysler and Ford are championing the initiative to improve health and safety of employees, retirees and their dependents
  - Medco and CVS Caremark are involved, as well as several health plans
  - SureScripts and RxHub provide e-prescribing infrastructure
  - Over $1 million invested by coalition members
  - Over 3,000 physicians are e-prescribing; SEMI provides $500 upfront and $500 after 6 months of use
  - Nearly 7.5 million e-prescriptions since February 2005
- Impact -- 4.2 prescriptions analyzed
  - Severe or moderate drug-drug interaction was sent to prescribers for 1.3 million prescriptions (31%) resulting in more than 508,000 prescriptiosn being changed or cancelled
  - Nearly 120,000 medication-allergy alerts were presented with 49,000 (40%) being acted upon
  - When a formulary alert was presented, 38% of the time the physician changed the prescription to comply with formulary
  - Physicians are extremely satisfied with e-prescribing according to survey of 500 conducted in January 2008
    - For 9 out of 10, e-prescribing met or exceeded expectations
    - 75% strongly agree that e-prescribing improves patient safety
    - 2 out of 3 are more likely to prescribe generic or other lower cost alternative medication

What Can Employers Do to Encourage E-Prescribing?

- **Make a series of decisions about what the organization values most; how process innovations can best generate value; which type of innovation makes the most sense based on market dynamics and fit with their own organization; and what best practices could guide the implementation of innovations of interest**

- **Consider a broader role in supporting electronic prescribing: need incentives, education, implementation assistance**
  - **The cost, quality and efficiency benefits of e-prescribing are very dependent on how well the technology is implemented and successful implementation is difficult**
  - **Employer initiatives to encourage e-prescribing should include implementation assistance for physicians that takes into account the different needs of different types of practices – provider incentives, employee incentives**
  - **Employers can play a key role in smoothing the way in a given community by engaging health plans, pharmacies, PBMs and others to bring economies of scale to bear on the process**
  - **Employers should collaborate with other employers, health plans to advance the shared goal of improving medication management**
  - **Create or leverage an existing forum for employers and other payers to discuss and share best practices and lessons learned on solutions to improve medication management and encourage e-prescribing**

E-prescribing is a good first step to healthcare transformation and improving outcomes….

Pharmacy Rx History | **In-store Clinics**

MTM & Care Mgmt

Pharmacies

- *New Prescriptions & Renewal Requests*
- *RxFill, ChangeRx, CancelRx*
- *Rx history exchange*
- *Adherence program enrollment*
- *Pharmacy MTM-based care management*
  - *Rx review*
  - *Personal Rx record*
  - *Healthcare services*

Prescription History | **Payer-based Health Rec.** | **Predictive Modeling**

| | **Formulary & Guides** | **P4P** |

Payers / PBMs

- *Formulary / Eligibility Checks*
- *Rx history exchange*
- *Patients of interest*
  - *Non-adherent*
  - *At risk: multiple drugs & cost*
  - *Filtered by condition*
- *Integration with DM*
  - *Gaps in care*
  - *Predictive modeling*

Connected to the
Pharmacy Health Information Exchange™
Operated by SureScripts®

Physicians

EMR

Practice Management | **Electronic Prescribing**

- *New Prescriptions & Renewal Requests*
- *Integrated Rx history*
- *Adherence report*
- *Physician support*
  - *Program introduction*
  - *Adherence dialog*

- *Refill Requests*
- *Patient education*
- *Reminders / alerts*
- *Secure email, PHR, mobile and IVR*
- *Personalized*
  - *Meds, therapy & Dx specific*
  - *Pharmacy, payer, physician*

Patients

Home Care Monitoring

PHR | **Intelligent Dosing**