



# Electronic Prescribing (eRx): The Pros and Cons

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# Boston HealthNet

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- Established in 1995
- Partnership between Boston Medical Center, Boston University School of Medicine and 15 Community Health Centers (CHCs)
- The network's CHCs account for
  - 1.2 million patient visits annually
  - Over 206,000 patients
  - 173.18 FTE Physicians
- 14 of the 15 CHCs have EMRs, beginning in 2002



## e-Prescribing Defined

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*The two-way [electronic] communication between physicians and pharmacies involving new prescriptions, refill authorizations, change requests, cancel prescriptions and prescription fill messages to track patient compliance.*

*Electronic Prescribing is not Faxing or printing paper prescriptions.*

*-National Council for Prescription Drug Program, Inc.  
(NCPDP)*



# With or Without eRx

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## With eRx

- Reduces Cost
  - Increasing speed and ease of issuing new prescriptions
  - Reducing paper prescriptions
  - Reduces back-and-forth communication with the pharmacy
- Improves in safety and quality of care
  - Reduce errors due to illegible paper-based prescriptions.
  - Clinical decision support
  - Becomes part of the electronic patient record
- Improves patient satisfaction
  - Reduces wait time
  - Improves compliance
- Incentives from payors, feds

## Without eRx

- Difficulty reading handwritten prescriptions
- Phone call needed for 30% of all prescriptions
- Inefficient prescribing process
- Prescriptions lost by patient
- Little potential for Clinical Decision Support
- Medication errors harm over 1.5 million people each year (IOM 2006)
- Treating drug-related injuries in hospitals cost about \$3.5 billion annually (IOM 2006)

# Prescriptions Today

- Physicians write close to 4 billion prescriptions a year

- Physicians write a prescription from mental drug list

- Call to confirm prescription (over 150 million calls per year)
- clarify handwriting
- Dosage?
- Drug?

Physician



- Wait

Patients



- Request changes if required based on benefits

PBMs

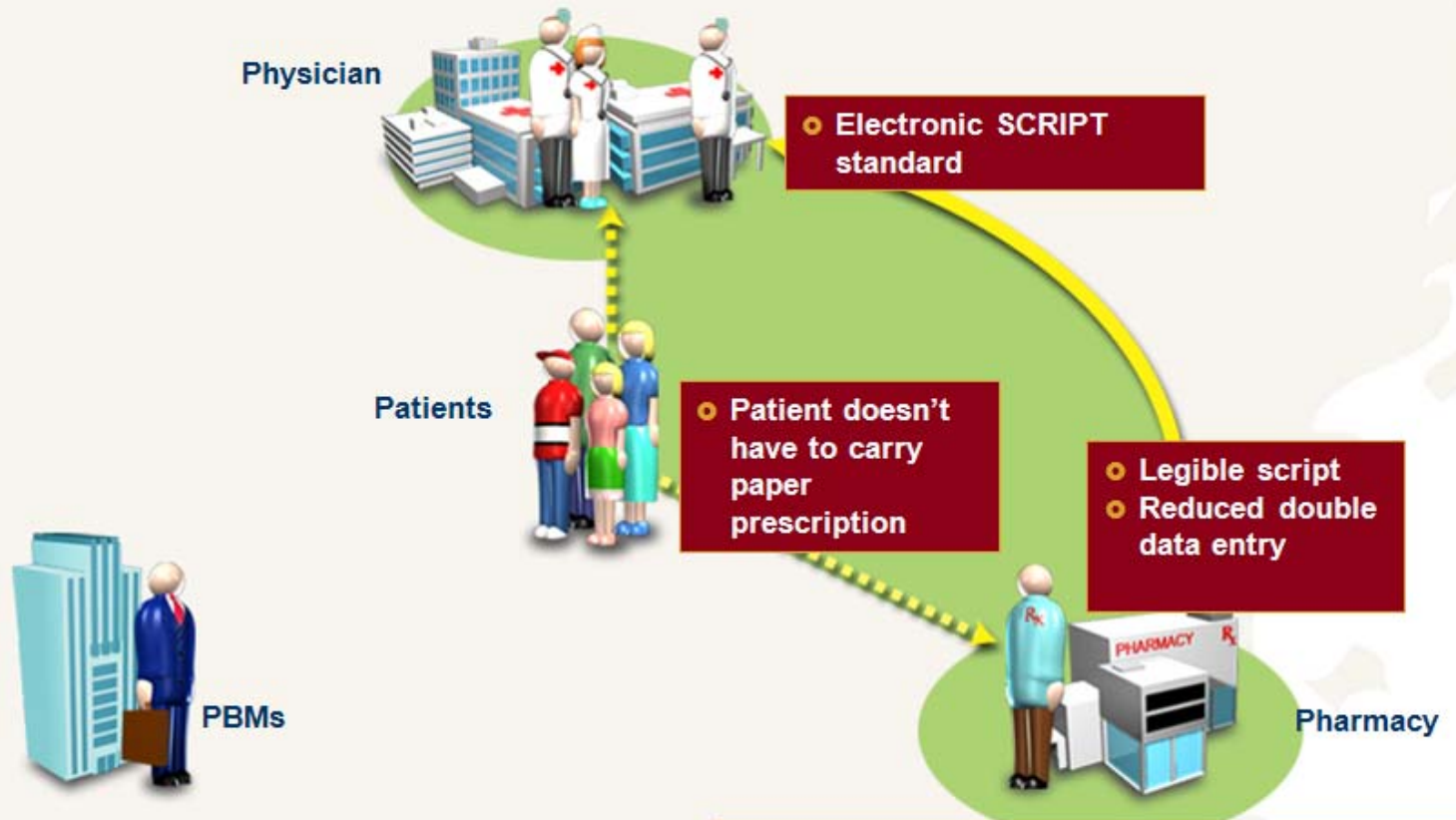
- Check eligibility
- Determine benefit

- Read script
- Data enter script

Pharmacy



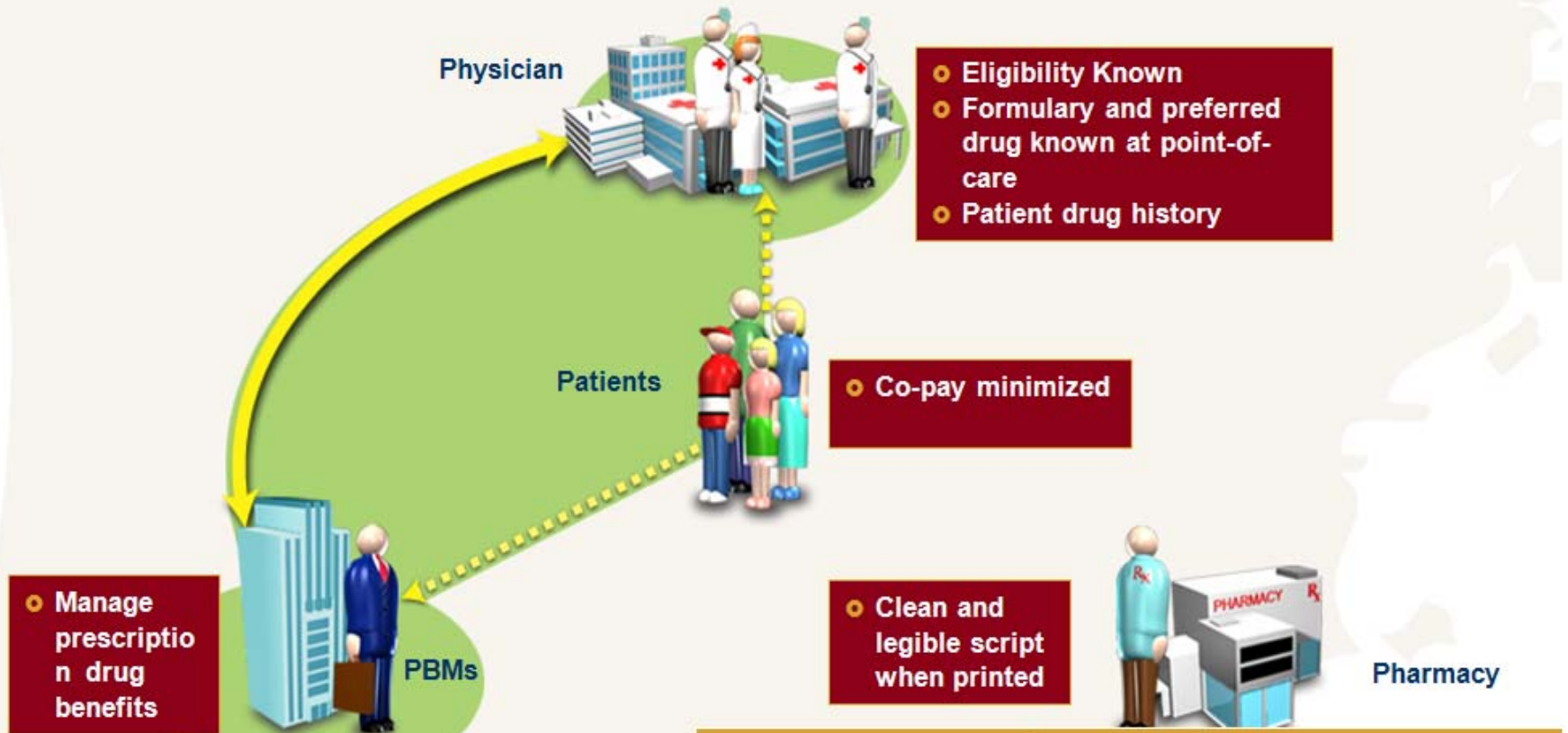
# Electronic transmission MD to Pharmacy (e.g. fax)



## Remaining Issues

- Formulary Compliance
- Eligibility
- Co-pay
- Wait time

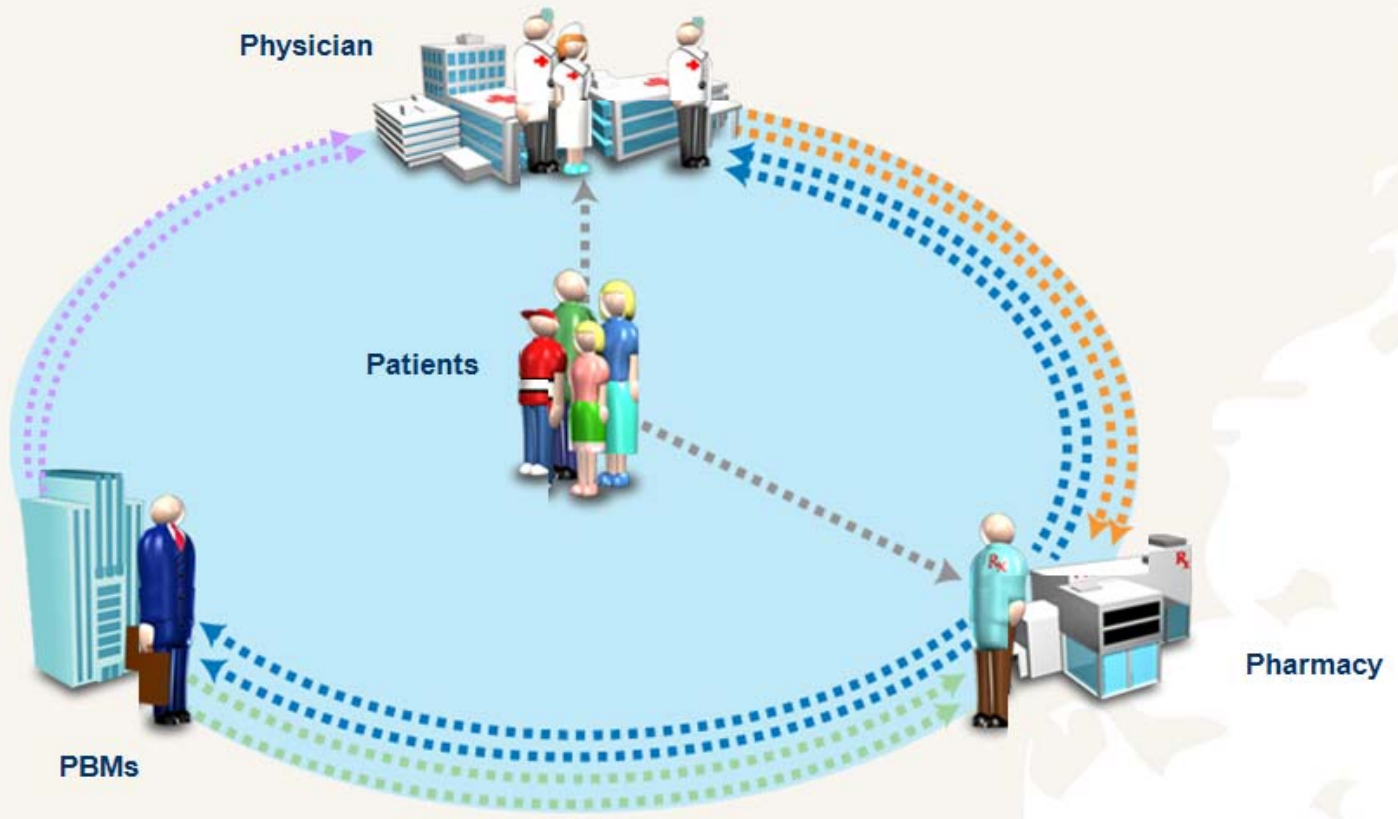
# Electronic Eligibility Check



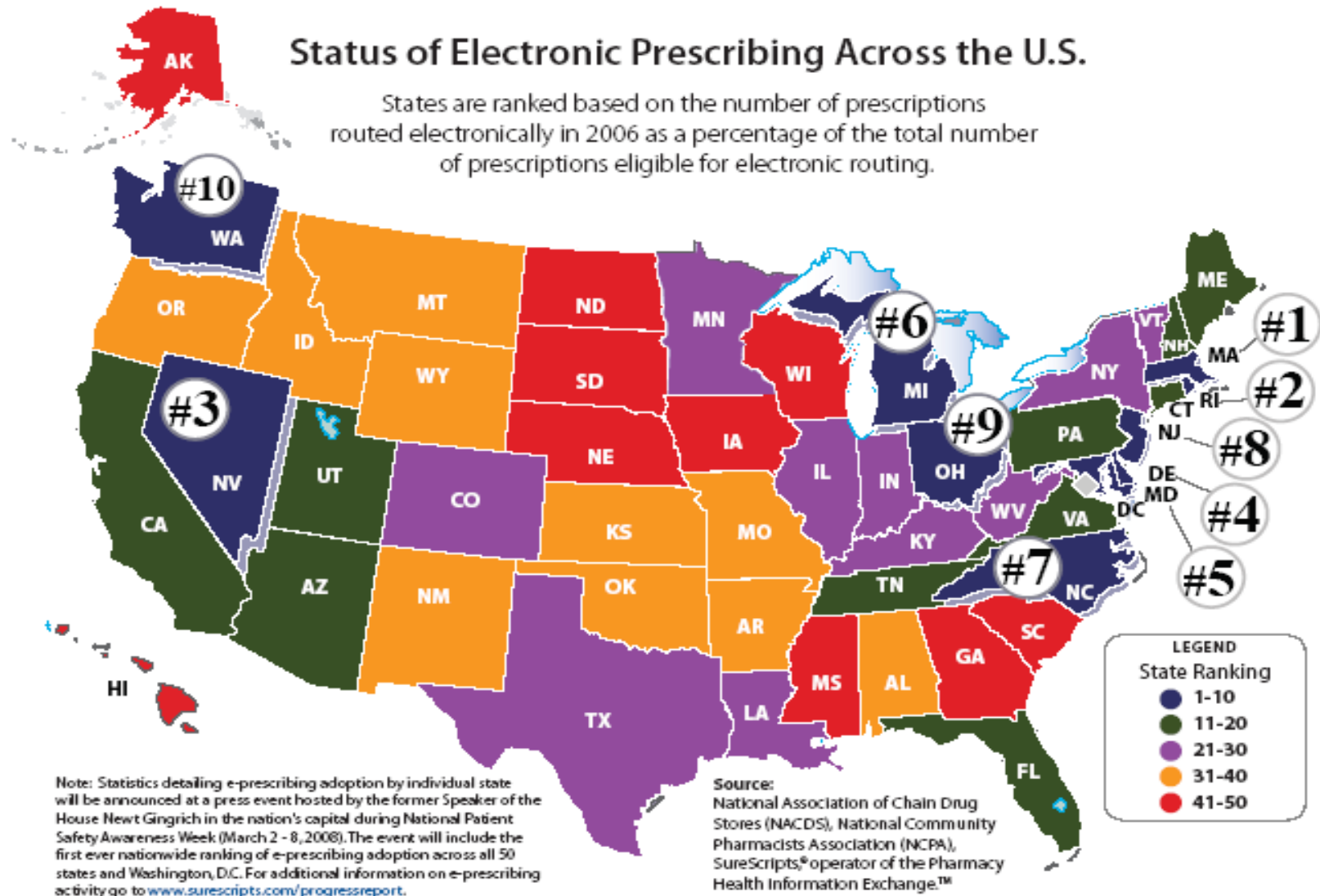
## Remaining Issues

- Medications not submitted for payment by patient are not known by PBM
- Patient wait time remains high
- Pharmacy data entry still required
- Pharmacy competitive position on physicians' desktop

# eRx: Complete Prescription Cycle



# E-Prescribing Growth by State



# Kryptiq's eSM Solution: Minor Workflow Change

**New Medication**

**Name:** B TEST  
**Birth:** 05/02/2007  
**Age:** 8 Month Old Female  
**Height:**  
**Weight:**  
**BSA:** Unable to calculate

**Insurance:**

**Current Medications**  
COMBIVIR TABS 150-300 MG (LAMIVU  
BL ECHINACEA 167 MG TABS (ECHINA  
AEROCHAMBER MASK LARGE MISC (I  
ADVAIR DISKUS 250-50 MCG/DOSE M

**Current Allergies**  
ADENOSINE (ADENOSINE)

**Find Medication**  
Custom List: BCMG Reference List...  
Formulary: BMC Outpatient Formulary  
Search Formulary...  
Select Formulary...  
Choose Alternative  
Status...

**Define Medication**  
Medication:  
Instructions:  
Start Date: 01/03/2008 Stop Date:  
Duration: Days Weeks Months

**Prescription**  
Quantity: 30 Refills: 1  Brand medically necessary  Print Pt. Handout  
Pharmacy: Englewood Pharmacy\*  
21 Justice St  
Englewood, CO 80110  
Ph: 3034830922  
Fax: 3034830990  
Authorized By: Winston MD, Harry S.  
Prescribing Method: Electronic  
State: Oregon

Add to custom list:  Drug  Instructions/Duration  Qty/Refills

Save & Continue OK Cancel

**Prescription**  
Quantity: 30 Refills: 1  Brand medically necessary  Print Pt. Handout  
Pharmacy: Englewood Pharmacy\*  
21 Justice St  
Englewood, CO 80110  
Ph: 3034830922  
Fax: 3034830990  
Authorized By: Winston MD, Harry S.  
Prescribing Method: Electronic  
State: Oregon

- Proposed workflow is almost identical to current workflow
- eRx enabled pharmacies appear with an (\*) asterisk next to the name
- Users will select 'Electronic' as the Prescribing Method

# Kryptiq's eRx Workflow



- Sending a new prescription with eSM fits seamlessly into current prescription workflow
- New prescriptions get sent securely from Centricity on the prescriber's desktop through eSM Central and SureScripts to the pharmacy
- Minimal Training

# Challenges

Issue	Solution
Some CHCs pharmacy's not on SureScripts network	Contacted pharmacy and had them added
Multiple locations of care at BMC	Used a consolidated location of care (home location).  This does pose a prescription origin and contact info issue.
Prescriber Phone number	Phone number of general service was used.
NPI number wasn't associated	eSM upgrade – manual process to register residents currently
eRx latency	eSM backend query issue, Obs Table issue; resolved with new query.
Collaborating provider not on script	Kryptiq will add a field on the back end to send this information in the electronic transmission. Upcoming release will correct this.
BMC pharmacy – workflow issues	Inpatient discharge issue; prioritization issue; volume change.
Refill Requests from Pharmacy	We decided to start with New Rx only. Process for refill requests need to be fixed with Pharmacies first.
Oct 1, 2008 – TRP mandate	Microprint on script
April 1, 2009 e-Prescribing Standards	<b>Currently we are on Logician 5.6 and there is no solution</b>



## BHN User Feedback

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- MD's have not felt too much of a difference (that's a good thing)
- NP's perceive their productivity has increased
  - No need to wait for physician to manually sign
  - Can submit Rx immediately and move on
- Believe the call-backs from pharmacies have decreased 80%
- Do not need to re-fax Rxs
- Would like DEA to allow eRx of controlled substances



## BHN Feedback (cont'd)

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- April 1, 2009 eRx standards not possible with Logician 5.6. These include:
  - Formulary & Eligibility
  - Fill status
  - Medication History



## So, what's the bottom line?

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- E-Prescribing
  - has not changed provider work flow very much
  - has tremendous benefits to support staff, CHC and patients.



# Thank You!

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