

Medication Use in the Community

Can we make improvements?

Curtis E. Haas, Pharm.D., FCCP , BCPS

Director of Pharmacy

University of Rochester Medical Center

October 2014

MEDICINE *of* THE HIGHEST ORDER



“Getting the medications right”

Are we even close?

- Roughly 80% of healthcare costs are attributable to chronic diseases and their complications.
- Drug therapy represents 75-80% of the interventions for chronic diseases (and ~10% of the costs)
- It is estimated that only slightly more than 50% of patients with chronic diseases are on appropriate or optimal drug therapy.
- For every dollar spent on drug therapy we spend nearly another dollar for the costs of adverse outcomes of drug therapy.
- 51% of primary care medication discrepancies are caused by medications discontinued by the patient or PCP.
- 51% of patients experienced at least one clinically important medication error within the first 30 days following hospital discharge.
- Primary care physicians spend an average of 49 seconds talking about a new prescription medication.

<http://www.ahrq.gov/research/findings/factsheets/costs/expriach/index.html#HowAre>

<http://www.ncbi.nlm.nih.gov/pubmed/17001265>

Avoidable costs in US Healthcare. June 2013. IMS Institute Report. <http://www.imshealth.com>

J Am Pharm Assoc. 2001;41:192–9

NEHI Research Brief. August 2009

NEJM 2003; 34(8): 2635-2645

Patient Educ Couns. 2008;72(2):311–9

Ann Intern Med. 2012;157(1):1–10

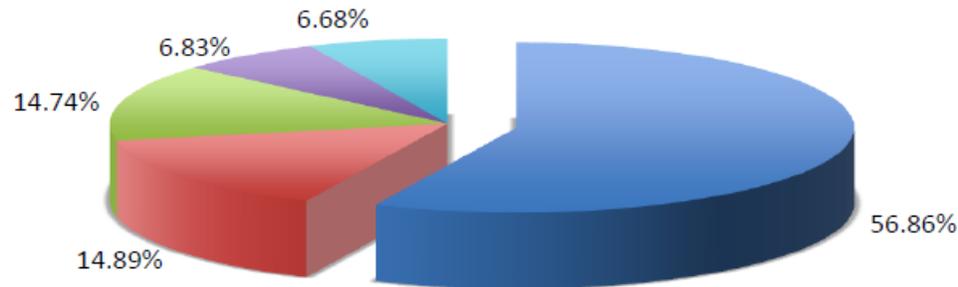
Comprehensive Medication Management

Comprehensive medication management is defined as the standard of care that ensures all patient's medications (whether they are prescription, nonprescription, alternative, traditional, vitamins, or nutritional supplements) are individually assessed to determine that each medication is appropriate for the patient, effective for the medical condition, safe given the comorbidities and other medications being taken, and able to be taken by the patient as intended. (<http://www.pcpcc.net/guide/medication-management>)

AKA – “Getting the medications right”

CMM Identifies the “real” problems that prevent goal achievement

**Types of Drug Therapy Problems:
Almost half of problems result from improper medication use.**



Category of Drug Therapy Problem

- Improper Use (Dose too low/Different or additional drug needed/Wrong drug)
- Non-Adherence
- Adverse reaction
- Dose too high
- Unnecessary

N = 15,426 patients; 42,746 visits;
85,957 Drug Therapy Problems

Cipolle RJ, Strand LM, Morley PC. Pharmaceutical Care Practice: The Patient-centered Approach to Medication Management Services. 3rd edition. Copyright © 2012 by McGraw-Hill Companies, Inc

Problems with the System:

A system of drug distribution and reimbursement that has evolved over decades in a fee-for-service, entrepreneurial environment.

- Inefficient and Expensive
 - Highly decentralized, often manual system
 - High-priced, underutilized workforce
 - Requires 3rd party adjudication system
- Not patient- and family-centered
 - Requires initiative on part of patient and family
 - Inconvenient, decentralized system
 - Unpredictable out-of-pocket cost
 - Unwelcome delays
 - Lack of “synchronization”
 - Packaging for the convenience of the pharmacy

Problems with the System

- Lack of system integration
 - Pharmacist disconnected from balance of healthcare team
 - Lack of access to necessary data
 - Lack of efficient/effective communication pathways
 - No real investment in the overall care and outcome of patient
 - Discontinued medications aren't...no message to the pharmacist
 - Not part of a comprehensive drug use system as a component of the healthcare delivery system.
- Poor Business Model for an ACN
 - True COGs are variable due to different GPOs, direct contracts, and market share agreements.
 - Misaligned incentives between pharmacies, PBMs, manufacturers, payers and employers
 - Limited ability to leverage the market

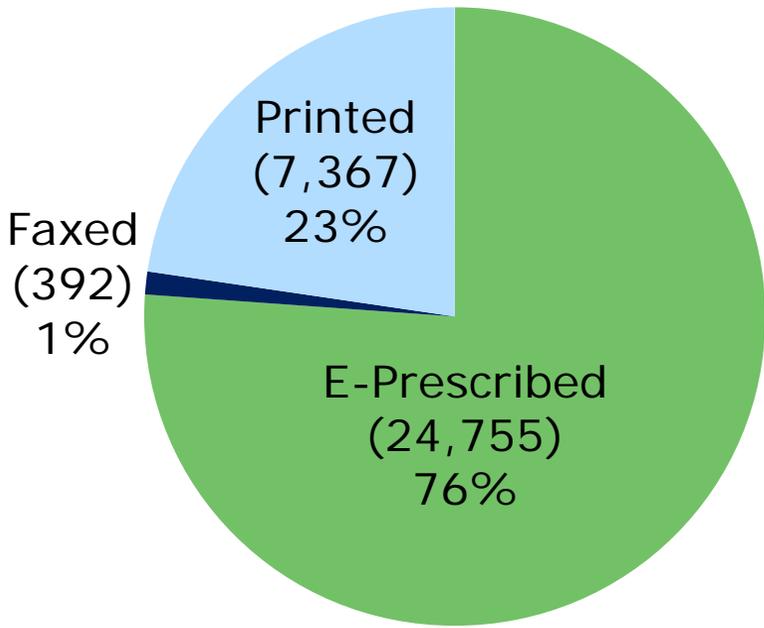
Consequences of the System

- Primary non-adherence (20-31%)
- Poor overall adherence (~25-50% non-adherence rate)
- Medication discrepancies are common (~4/patient)
- Hospital admissions/readmission (~10%)
- We spend almost as much on poor medication outcomes as we do on the medications themselves.

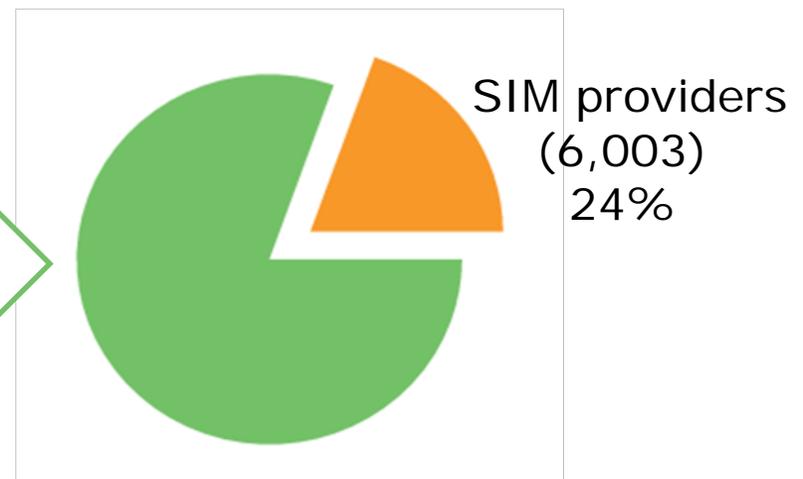


Results: URMC E-Prescriptions 1/1/13 - 5/31/13

**Total URMC Prescriptions
(32,514)**



**Total E-Prescriptions
(24,755)**



SIM E-Prescriptions	Mean	SD (Range)
184 providers	32 Rx/provider	45.7 (1-400)
1,656 patients	3.6 Rx/patient	3.9 (1-39)



E-Prescriptions Never Dispensed

% Prescriptions Never Dispensed		
Strong Outpatient Pharmacy	34.6%	(1,335/3,857)
Employee Pharmacy	13.6%	(247/1,819)
Infectious Diseases Pharmacy	5.1%	(4/79)
Strong Ties Pharmacy	0.8%	(2/248)
		Total 1,588 / 6,003

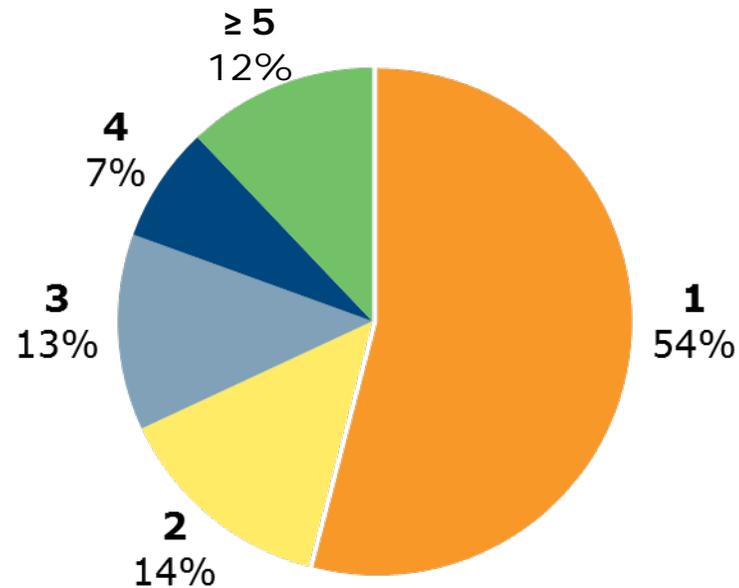
Dispenses After Provider Discontinuation

% Dispensed After Discontinuation

URMC pharmacies (mean) **40.9%** (4,287/10,477)

Total Number of Times E-Rx Dispensed

Mean \pm SD	1.44 \pm 0.99
Median	1



Summary

- Current medication use system in the community is poor.
- Accountable care systems need to pursue accountable pharmacy systems that address:
 - The operational/communication/financial issues detailed above, and
 - Comprehensive medication management to “get the medications right” (consistent with PCPCC recommendations).
- May represent a trade-off between choice and quality.

Questions

- What changes to the system would you like to see?
- What are the acceptable trade-offs between choice and quality?
- How important are:
 - “Synchronization”
 - Packaging changes
 - Predictability of out-of-pocket costs?



MEDICINE *of* THE HIGHEST ORDER