"PHARM-2-PHARM"

HEALTH CARE INNOVATION AWARD

A COLLABORATION COORDINATED THROUGH THE CENTER FOR RURAL HEALTH SCIENCE

Center for Medicare & Medicaid INNOVATION

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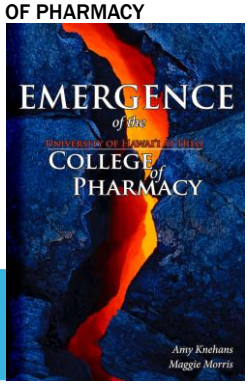
UNIVERSITY OF HAWAII AT HILO
DANIEL K. INOUYE COLLEGE OF PHARMACY

- John M. Pezzuto, PhD, Professor and Founding Dean
- Founded in 2006
- Vision: Improve health in Hawaii and throughout the Pacific
- A key strategic priority: Optimizing role of pharmacists and ensuring appropriate compensation
- Graduated first class of PharmDs in 2011
- Also offer:
  - BA in Pharmacy Studies
  - MS in Clinical Psychopharmacology
  - PhD in Pharmaceutical Sciences
  - CE (we are the only organization in the state that is an accredited provider of both CME and CPE)
- Home of the UHH Center for Rural Health Science



PHARM-2-PHARM

The Vision
The Aims
The Model
The Partners
The Project

THE PHARM-2-PHARM VISION

A new role for the community pharmacist (especially in rural areas):

- Improving access to care (pharmacists are available without appointment and on weekends)
- Improving quality of care (pharmacists have unique expertise to improve medication management)
- reducing costs of care (pharmacists have the ability to help patients avoid expensive hospitalizations and ER visits)

Aligns with the CMS Innovation Center mission to transform their health insurance programs through improvements in the healthcare system resulting in:

- Better care
- Better health
- Reduced costs

DATA FROM 2004 TO 2009 SHOWED[1]....

- The number of independent and rural pharmacies decreased significantly after the implementation of Medicare Part D
- The number of communities that saw their only pharmacy close increased
- An unintended consequence of Medicare Part D????

[1]Klepser DG, Xu L, Ullrich F, Mueller KJ. **Trends in Community Pharmacy Counts and Closures Before and After the Implementation of Medicare Part D.** ***Journal of Rural Health.*** 2011, 27(2), 168-175.

NATIONAL EFFORTS TO REDUCE DRUG SPEND*

- **The Data:**
  - Spending on outpatient prescription drugs has increased at double-digit rates for the past decade.
- **A unilateral response:**
  - Closed or highly restrictive formularies, in which insurance providers would only cover certain drugs.
- **A predictable result:**
  - Excluding specific medications or therapeutic classes led to considerable dissatisfaction among patients and physicians.
- **The impact of health plan tinkering:**
  - Adding an additional level of co-payment, increasing existing co-payments, and requiring mandatory generic substitutes all reduced health insurance plan payments significantly

*Joyce GF et al., **Employer Drug Benefit Plans and Spending on Prescription Drugs;** JAMA. 2002;288(14):1733-1739
http://jama.jamanetwork.com/article.aspx?articleid=195389#qundefined

DRUG SPEND PROBLEM SOLVED?

- **Authors' worries*:**
  - "Pharmacy benefit managers and their sponsors may be designing prescription benefit packages that reduce the costs of pharmaceuticals but increase overall medical costs"
  - "There is little evidence about whether lower pharmaceutical use resulting from higher patient cost-sharing adversely affects clinical outcomes"
- **Can these worries be addressed with better data and collaboration?**

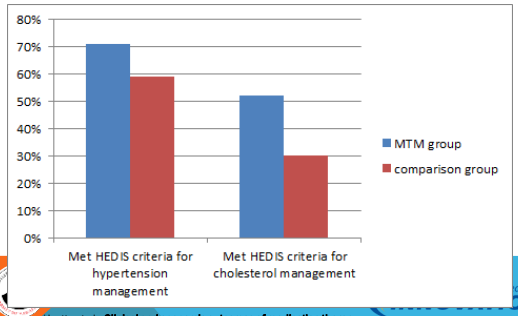
*Joyce GF et al., **Employer Drug Benefit Plans and Spending on Prescription Drugs;** *JAMA*. 2002;288(14):1733-1739
http://jama.jamanetwork.com/article.aspx?articleid=195389#qundefined

A BETTER APPROACH....

- *"Beginning in 1999, Fairview Health Services of Minneapolis/St. Paul implemented the Collaborative Practice of Pharmaceutical Care at 6 of 15 primary care clinics, where pharmacists now play an integral role in the delivery of care"
- *RESULTS:
  - Improvements in clinical outcomes
  - Reductions in cost

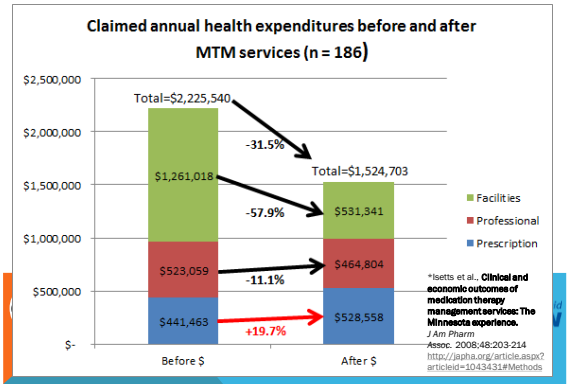
*Isetts et al., **Clinical and economic outcomes of medication therapy management services: The Minnesota experience.** *J Am Pharm Assoc*. 2008;48:203-214
http://japha.org/article.aspx?articleid=1043431#Methods

IMPROVED OUTCOMES



*Isetts et al., **Clinical and economic outcomes of medication therapy management services: The Minnesota experience.** *J Am Pharm Assoc*. 2008;48:203-214
http://japha.org/article.aspx?articleid=1043431#Methods

REDUCED TOTAL COST OF CARE (NOTE INCREASE IN DRUG COSTS)



*Isetts et al., **Clinical and economic outcomes of medication therapy management services: The Minnesota experience.** *J Am Pharm Assoc*. 2008;48:203-214
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WHY NOW?

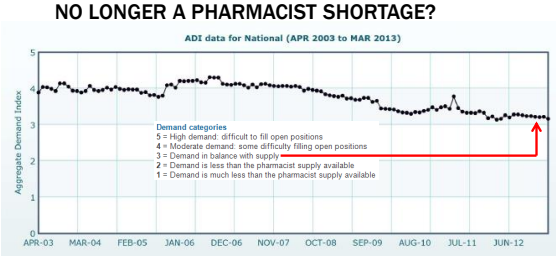
Previous obstacles to community pharmacy innovation:

- **Lack of payment/reimbursement**
- **Lack of pharmacists (workforce shortage)**

CMS funding to "support local projects in communities across the nation that aim to deliver better care and better health at lower costs"

- **Health Care Innovation Award program**
- **$1 billion in awards**
- **Pharm2Pharm is one of 107 projects selected out of about 3,000 (only a few of these selected projects involve leveraging community pharmacists)**
- **Pharm2Pharm project will pay community pharmacists $695 per patient enrolled per year on the assumption that there will be ROI to CMS**

NO LONGER A PHARMACIST SHORTAGE?



http://www.pharmacymanpower.com/about.jsp

DEMAND BY PRACTICE SETTING: MARCH 2013

Setting	Demand Index
Community	2.78
Institutional	3.22
Multiple	3.23

A community pharmacist glut?

Community refers to community pharmacists of all types: independent, chain, supermarket and mass merchandisers.
Institutional refers to pharmacies affiliated with hospitals and healthcare systems.
Multiple refers to pharmacies affiliated with large organizations that include community, clinic and inpatient pharmacies.

Region and Divisional Demand Index - Mar 2013

Regions and divisions refer to geographic areas defined by the U.S. Bureau of the Census.

Region/Division	States	Demand Index
Northeast		**2.50**
New England	CT, MA, ME, NH, RI, VT	2.44
Middle Atlantic	NJ, NY, PA	2.52
South		**3.26**
South Atlantic	DE, DC, FL, GA, MD, NC, SC, VA, WV	2.95
East South Central	AL, KY, MS, TN	3.39
West South Central	AR, LA, OK, TX	3.71
Midwest		**3.18**
East North Central	IL, IN, MI, OH, WI	3.09
West North Central	IA, KS, MN, MO, NE, ND, SD	3.39
West		**3.48**
Mountain	AZ, CO, ID, MT, NV, NM, UT, WY	3.17
Pacific	AK, CA, HI, OR, WA	3.61

A CRITICAL TIME FOR PHARMACISTS

2010: "Over the past year or so, the pharmacy job market has turned 180° from a candidate-driven market to an employer-driven market"
(http://www.pharmacytimes.com/publications/issue/2010/June2010/PharmacyJobTrends-0610)

THE GOOD NEWS

Unprecedented national focus on improving healthcare quality & cost-efficiency

Extensive evidence that expanding services offered by pharmacists accomplishes both

(http://www.usphs.gov/corpslinks/pharmacy/comms/pdf/2011advancedpharmacypracticereporttotheussg.pdf)

OFFICE OF THE CHIEF PHARMACIST: A REPORT TO THE U.S. SURGEON GENERAL 2011

"Failure to recognize expanded roles of pharmacists limits the potential for patients and our health care system to benefit from access to additional quality primary care services. Exclusion of pharmacists as health care providers also eliminates any subsequent service-sustaining compensation. Pharmacists are increasingly requested by many health systems, providers, and primary care teams to improve outcomes and delivery of care. However, ***in terms of pharmacist services, as the complexity or level of clinical service increases, the revenue generation potential is reduced. This is in stark contrast to the clinical services provided by other health professionals.***"

Giberson S, Yoder S, Lee MP. *Improving Patient and Health System Outcomes through Advanced Pharmacy Practice. A Report to the U.S. Surgeon General*. Office of the Chief Pharmacist. U.S. Public Health Service. Dec 2011.

ASSESSING TRUE DEMAND

"Demand" = ease of filling open positions by employers (e.g., Pharmacy Manpower Project)
- Does not accurately reflect need for pharmacists for optimal patient care (i.e., captures only one aspect of demand)
- Distortions due to payers not recognizing pharmacists as providers

"Demand" = the number of pharmacists required to improve healthcare quality and cost-efficiency
- Is more accurate (i.e., takes a broader view of demand)
- Is much greater
- e.g., HRSA: pharmacist demand derived from demand for pharmaceuticals and role of pharmacists in providing medication services that patients require (http://bhpr.hrsa.gov/healthworkforce/reports/pharmsupply20042030.pdf)

PHARM-2-PHARM AIMS

Better health

Better care

Lower costs

Specifically, reduce annual medication-related hospitalizations & ER visit rates and total cost of care among elderly/others at risk in rural Hawai'i*

**According to Hawaii Health Information Corporation, there were over 15,000 medication-related ER visits and over 700 medication-related hospitalizations among elderly in rural counties of Hawaii in 2010, resulting in over $63,000,000 in charges to payers.*

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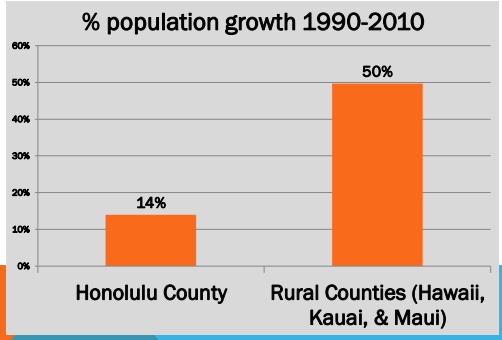
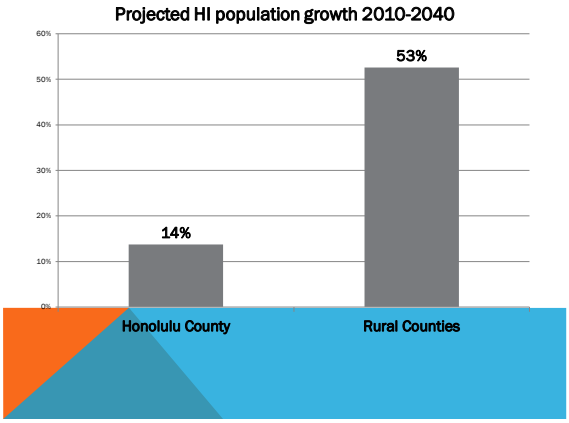




MODEL

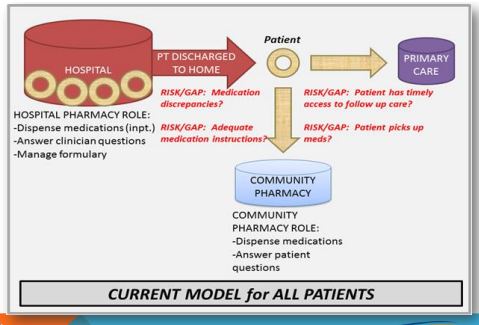
A formal hospital pharmacist-to-community pharmacist collaboration (called "pharmacist-to-pharmacist" or "Pharm2Pharm")

Designed to address gaps in care among patients at risk as they transition from hospital to community settings

Designed to leverage accessibility of community pharmacists in rural Hawai'i*

**In Hawaii, the 2012 physician shortage in the metropolitan county of Honolulu is 13% of current supply compared to a shortage of 44% across the three rural counties targeted in this project*
(http://www.ahec.hawaii.edu/workforce.html)

Center for Medicare & Medicaid INNOVATION



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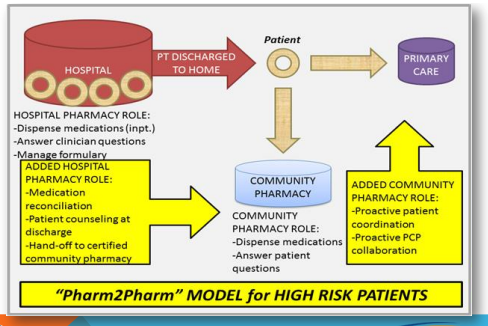

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MODEL INNOVATIONS

Pharmacists collaborating across the continuum of care
Pharmacist review of medication reconciliation*
Pharmacist-coordinated medication management**
Integration of pharmacists into care teams
Payment restructuring for pharmacist services

*Hospital pharmacists found unexplained discrepancies between preadmission medication regimens and discharge medication orders in 49% of all general medicine patients in a large teaching hospital[1]
**Ambulatory care pharmacist consultations focused on selected high-risk patients resulted in significantly lower non-elective hospitalization and mortality[2]

[1]**Role of Pharmacist Counseling in Preventing Adverse Drug Events After Hospitalization**. Schnipper, et al., 2006, *Archives of Internal Medicine*, 166: 565-571.
[2]**Effects of Ambulatory-Care Pharmacist Consultation on Mortality and Hospitalization**. Yuan, et al., 2003, *American Journal of Managed Care*, 9(1): 45-56

PARTNERS

Operating partners
- **Rural hospitals**
- **Hawaii Community Pharmacist Association members**

Other partners
- **Hawaii Health Information Exchange (our state-designated entity)**
- **Hawaii Health Information Corporation**
- **Altarum Institute**

PROJECT

- **3 year cooperative agreement**
- **July 1, 2012 through June 30, 2015**
- **Total award = $14.3MM**
- **Budget approval annually**
- **Target savings = $27.1MM in cost avoidance**

PROJECT WORK-STREAMS

Workforce development
- **Re-tool current pharmacies via CPE**
- **Adapt PharmD student rotations**

Pharm2Pharm service operations
- **Standard operating procedures**
- **Medication protocols**
- **Collaborative practice agreements**

Supporting HIT
- **Surescripts network interface with HHIE**
- **Rural hospital interface with HHIE**
- **EMR and Secure Electronic Communication for community pharmacists**

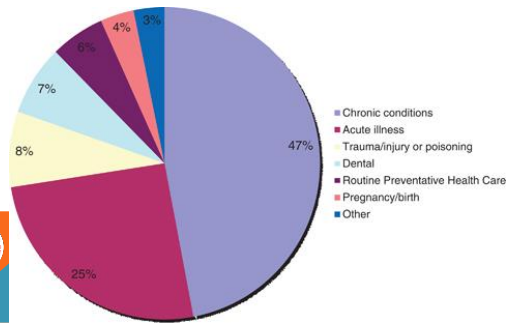
Project administration
- **Staffing**
- **Administering contracts**
- **Planning, Monitoring and Evaluation**
- **CMS communications**

CARE COORDINATION….

The Promise
The Puzzle

U.S. HEALTH CARE EXPENDITURES

HEALTH SERVICES RESEARCH
VOLUME 46, ISSUE 2, PAGES 479-490, 19 NOV 2010 DOI: 10.1111/J.1475-6773.2010.01212.X
HTTP://ONLINELIBRARY.WILEY.COM/DOI/10.1111/J.1475-6773.2010.01212.X/FULL#F1



Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries
15 Randomized Trials

Deborah Peikes, PhD
Arnold Chen, MD, MSc
Jennifer Schore, MS, MSW
Randall Brown, PhD

Context Medicare expenditures of patients with chronic illnesses might be reduced through improvements in care, patient adherence, and communication.

Objective To determine whether care coordination programs reduced hospitalizations and Medicare expenditures and improved quality of care for chronically ill Medicare beneficiaries.

FFS Medicare patients who volunteered to participate between April 2002 and June 2005 were randomly assigned to treatment or control (usual care) status

Each program received a negotiated monthly fee per patient from Medicare

- >18,000 patients
- Initially 4 years
- Hosted at disease management centers, academic, hospice, LTC, CH, retirement
- Targeted CHF, CAD, DM, COPD

PEIKES ET AL., 2009, *JAMA*, 301(6):603-618

OVERALL RESULTS

Only 2 of the 15 programs showed significant reductions in hospitalizations and Medicare expenditures

However one of those was not viable and dropped out of the project

None of the programs generated net savings

None of the programs improved adherence measures

Only a few of the many quality indicators showed improvement

MINING THE SUCCESSES

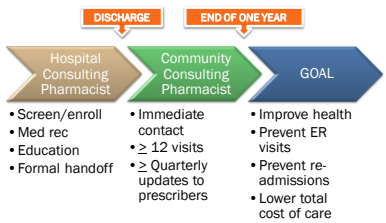
The most successful program, Health Quality Partners, risk-stratified its patients at enrollment

Treatment-control group differences were concentrated entirely in the program's highest severity cases (approximately 30% of the sample)

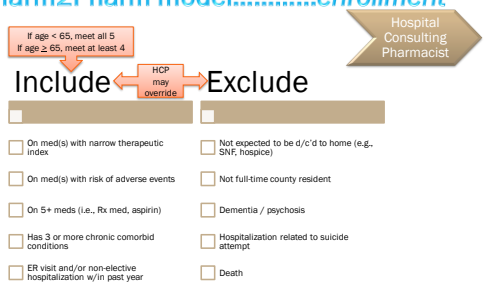
TOP 2 VS. OTHERS

DIFFERENTIATING FEATURES:	Top 2	Others (10 with sufficient sample size)
# of in-person contacts per month per patient	Nearly 1	Median of 0.3
Population enrolled	Average monthly Medicare expenditures of $900-$1200	Less targeted mix (including some higher and lower)
Teaching enrollees how to take their meds	Yes	Only 1 out of 10
Local hospital collaboration	Close collaboration	Less so
Opportunities to interact informally with physicians	Frequent opportunities / continuity of care coordinator per physician	Only 2 out of 10

Pharm2Pharm model: *timeline*



Pharm2Pharm model.....*enrollment*



Pharm2Pharm model.....*medication reconciliation*

Hospital Consulting Pharmacist

Reconcile with home meds → Compare with med rec from nurse → Resolve any discrepancies

Pharm2Pharm model.....*patient education*

Hospital Consulting Pharmacist

General
- Patient is at risk
- Importance of taking meds properly
- Disease states
- Community pharmacy selection

Specific
- Purpose of each med
- Monitoring each med
- Potential side effects
- How to take each med
- Which meds NOT to take

Pharm2Pharm model.....*formal handoff*

Hospital Consulting Pharmacist

Information transmitted to CCP	
	Demographics
	Allergies
	Nursing assessment of ADLs
	Discharge care plan
	Preadmission medications
	Discharge medications
	Follow up physician/contact
	Primary care provider/contact
	HCP clinical notes
	HCP contact info

Pharm2Pharm model.....*immediate post-dc contact*

Community Consulting Pharmacist

Within 1 day of discharge...
- Confirm patient picked up meds
- Confirm patient understands meds (what to take and not to take, and how)
- Confirm patient has an appointment with follow up provider
- Schedule Visit 1 within 3 days of discharge

Pharm2Pharm model..... ≥ *12 visits*

Community Consulting Pharmacist

Patient visit with CCP
- Functional status
- Patient's goals
- Med rec
- Drug therapy problems
- Adherence counseling/coaching

CCP follow up with prescribers (if needed)
- Recommend solutions to drug therapy problems

THREE-YEAR FOCUS

LAUNCH
Year 1
- Staff
- Contracts
- SOPs & tools
- Training
- Evaluation Plan
- Enrollment

IMPROVE
Year 2
- CQI
- HIT
- Provider collaborations

SUSTAIN
Year 3
- Payment models
- Partnerships

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