Understanding the Value of Integrated Clinical Pharmacy Services to Improve Health Outcomes and Patient Safety

Communities Organizing Integrated Delivery Systems With Clinical Pharmacy Services

For Patients With Chronic Conditions Whose Health Status and Safety Are Persistently Not Under Control

Sandra Leal, PharmD, MPH, FAPhA, CDE
Clinical Director of Pharmacy at El Rio Health Center
Chair, PSPC
The National Center for Health in Public Housing (NCHPH), a project of North American Management, is supported in part by grant number U30CS09734 from the Health Resources and Services Administration. NCHPH provides training and technical assistance to strengthen the capacity of federally-funded health centers to increase access to health care, eliminate health disparities, and enhance health care delivery for the millions of residents of public and assisted housing.

The mission of the National Center for Health in Public Housing (NCHPH) is to strengthen the capacity of federally funded Public Housing Primary Care (PHPC) health centers and other health center grantees by providing training and a range of technical assistance.
Objectives

- Describe essential elements of the Patient Safety and Clinical Pharmacy Services (PSPC) Collaborative.
- Summarize how integrated clinical pharmacy services into care teams can address systems barriers to optimal care delivery to patients.
- Apply the practices outlined by PSPC to address adherence, improve medical outcomes and address medication related adverse drug events (ADEs).
AIM

“Committed to saving and enhancing thousands of lives a year by achieving optimal health outcomes and eliminating adverse drug events though clinical pharmacy services for the patients we serve.”
Leadership Commitment: Develop organizational relationships that promote safe medication-use systems and optimal health outcomes

Measurable Improvement: Achieve change using the value and power of data-driven improvements

Integrated Care Delivery: Build an integrated health care system across providers and settings that produces safety and optimal health outcomes

Safe Medication Use Systems: Develop and operate by safe medication-use practices

Patient-Centered Care: Build a patient-centered medication-use system
ALLOCATION OF HEALTH CARE EFFORT, AND THE ASSOCIATED DISTRIBUTION OF HEALTH WORKFORCE AND RESOURCES

CURRENT

PRIMARY PREVENTION
SECONDARY PREVENTION AND TREATMENT
TERTIARY TREATMENT (Rescue Care)
END STAGE CARE

FUTURE

PSPC process drives effort and focus "upstream", reducing the need for rescue.

PRIMARY PREVENTION
SECONDARY PREVENTION AND TREATMENT
TERTIARY TREATMENT (Rescue Care)
END STAGE CARE

Focus on safe use of effective treatments for patients with uncontrolled chronic conditions prevents the complications and harm that otherwise requires secondary, tertiary care and eventually end-stage care.
Integrating clinical pharmacy services into treatment teams before prescription is written, during and after:

- To improve prescribing
- To decrease errors
- To improve patient safety
- To improve health outcomes
Not Unusual...
Common Types of Drug Therapy Related Problems

- Dosage Too High: 24%
- Dosage Too Low: 17%
- Adverse Drug Reaction: 13%
- Unnecessary Drug Therapy: 8%
- Compliance: 6%
- Different Drug Needed: 3%
- Need Additional Drug Therapy: 30%

Common Types of Drug Therapy Related Problems, Continued

Medication Therapy Management: 10 Years of Experience in a Large Integrated Health Care System

### TABLE 2
**Drug Therapy Problems Identified and Addressed by MTM Pharmacists**

<table>
<thead>
<tr>
<th>Categories of Drug Therapy Problems</th>
<th>Number of Drug Therapy Problems (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication</td>
<td></td>
</tr>
<tr>
<td>1. Unnecessary drug therapy</td>
<td>2,196 (5.7)</td>
</tr>
<tr>
<td>2. Needs additional drug therapy</td>
<td>10,870 (28.1)</td>
</tr>
<tr>
<td>Effectiveness</td>
<td></td>
</tr>
<tr>
<td>3. Ineffective drug</td>
<td>3,387 (8.8)</td>
</tr>
<tr>
<td>4. Dosage too low</td>
<td>10,100 (26.1)</td>
</tr>
<tr>
<td>Safety</td>
<td></td>
</tr>
<tr>
<td>5. Adverse drug reaction</td>
<td>3,197 (8.3)</td>
</tr>
<tr>
<td>6. Dosage too high</td>
<td>2,502 (6.5)</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
</tr>
<tr>
<td>7. Nonadherence</td>
<td>6,379 (16.5)</td>
</tr>
<tr>
<td>Total</td>
<td>38,631</td>
</tr>
</tbody>
</table>

*Reflects services provided from September 1998 through September 2008 to 9,068 patients. MTM = medication therapy management.

### TABLE 3
**Drug Therapy Adherence Problems Addressed by MTM Pharmacists**

<table>
<thead>
<tr>
<th>Drug Therapy Problem</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot afford drug product</td>
<td>2,311 (36.2)</td>
</tr>
<tr>
<td>Patient does not understand instructions</td>
<td>1,585 (24.8)</td>
</tr>
<tr>
<td>Patient prefers not to take</td>
<td>1,014 (15.9)</td>
</tr>
<tr>
<td>Patient forgets to take</td>
<td>806 (12.6)</td>
</tr>
<tr>
<td>Drug product not available</td>
<td>546 (8.6)</td>
</tr>
<tr>
<td>Cannot swallow/administer</td>
<td>117 (1.8)</td>
</tr>
</tbody>
</table>

*Reflects MTM services provided from September 1998 through September 2008 to 9,068 patients with a total of 6,379 adherence problems. Table shows the problem that, in the opinion of the pharmacist, was the main reason that the patient was nonadherent. For patients with more than 1 reason, only the main reason is shown. MTM = medication therapy management.

PCPS Aligns With National Efforts to Reform Service Delivery Systems

**PSPC Team Efforts**

- **Coordinated Care**
  - Work Towards Successful Coordination of Care

- **Patient Needs**
  - Develop Systems That Meet Patients Unique Health Needs With Emphasis on Medication Management

- **Learning & Networking Opportunities**
  - Help Teams Advance Towards Accreditation or Efforts to Improve Community Care Transitions.

**National Efforts**

- **Patient Centered Medical Home**
- **Accountable Care Organization**
- **Medication Adherence**
**Million Hearts™ Campaign** strives to prevent 1 million heart attacks and strokes over five years.

Elements to both Million Hearts and PSPC include:

- Educating, Treating and Coaching patients
- Following medication treatments and improving adherence
- Empowering one’s community to have a support system for health care needs
- Promote team-based approach to patient care and integrate services to improve delivery
- Build local collaboration and convene partners to enhance effectiveness and efficiency of efforts towards patient care

Source: http://millionhearts.hhs.gov/index.html
**Partnership for Patients** is a public-private partnership that offers support to physicians, nurses and other clinicians working in and out of hospitals to make patient care safer and to support effective transitions of patients from hospitals to other settings. Medication use and safety is a major concern.

PSPC teams have successfully built models of care with local networks and partners that can contribute to Partnership for Patients safety improvement initiatives.

Source: CMS.gov; [http://innovation.cms.gov/initiatives/partnership-for-patients/](http://innovation.cms.gov/initiatives/partnership-for-patients/)
PSPC Teams Efforts

Clinical Outcomes
- In Action to Achieve Clinical Outcomes Similar to National Performance Measures

Engage Patients
- Bring Health From “Out of Control” to “Under Control” and Teach Self-Management Skills

Best Practices
- Implement Best Practices and Focus on Patient Safety

National Program Goals
- NCQA HEDIS Goals
- CMS 5-Star Quality Rating
- Community Care Transitions Programs
PPOD is a collaborative team approach that:

- Engages many health providers who treated patients with diabetes
- Reinforces consistent diabetes messages across four disciplines:
  - Pharmacy
  - Podiatry
  - Optometry
  - Dentistry

Source: CDC; http://www.cdc.gov/diabetes/ndep/ppod.htm
## Project IMPACT: Diabetes National Interim Results

<table>
<thead>
<tr>
<th></th>
<th>N =</th>
<th>Baseline</th>
<th>Most Recent</th>
<th>Change</th>
<th>P Value</th>
<th>Days Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1C</td>
<td>1580</td>
<td>9.0</td>
<td>8.3</td>
<td>-0.7</td>
<td>0.000</td>
<td>206.5</td>
</tr>
<tr>
<td>Body Mass Index</td>
<td>1699</td>
<td>35.1</td>
<td>34.9</td>
<td>-0.2</td>
<td>0.000</td>
<td>186.8</td>
</tr>
<tr>
<td>Systolic Blood Pressure</td>
<td>1702</td>
<td>131.8</td>
<td>129.9</td>
<td>-1.9</td>
<td>0.000</td>
<td>187.8</td>
</tr>
<tr>
<td>LDL Cholesterol</td>
<td>966</td>
<td>99.5</td>
<td>92.2</td>
<td>-7.3</td>
<td>0.000</td>
<td>199.4</td>
</tr>
</tbody>
</table>

*Interim results represent aggregate data from all 25 communities for care provided through July 31, 2012.*
Average Amount of Total Charges among Diabetes Patients, 2000-2008
Institute of Medicine

Core Principles & Values of Effective Team-Based Health Care

Pamela Mitchell, Matthew Wynia, Robyn Golden, Bob McNellis, Sally Okun, C. Edwin Webb, Valerie Rohrbach, and Isabelle Von Kohorn*

October 2012

*Participants drawn from the Best Practices Innovation Collaborative of the IOM Roundtable on Value & Science-Driven Health Care

The views expressed in this discussion paper are those of the authors and not necessarily of the authors’ organizations or of the Institute of Medicine. The paper is intended to help inform and stimulate discussion. It has not been subjected to the peer review procedures of the Institute of Medicine and is not a report of the Institute of Medicine or of the National Research Council.

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Source: https://www.nationalahec.org/pdfs/VSRT-Team-Based-Care-Principles-values.pdf
El Rio Community Health Center
Tucson, Arizona

**Team composition:** The pharmacy team is formed by five clinical pharmacists and two residents who work together with the center staff, which includes physicians, nurse practitioners, physician assistants, dentists, clinical diabetes educators, nutritional counselors, behavioral health workers, mental health workers, nurses, administrative staff, and more.

**Clinical Care:** El Rio Community Health Center serves over 75,000 people in the Tucson area to provide accessible and affordable care for all income levels. In particular, the pharmacy team focuses on diabetes care and the clinic’s most complex cases.

**Team Process:** Team members work together to develop a comprehensive care plan for the patient. The entire center coordinates care using an electronic health record system, and each patient is provided with a printed care plan. To discuss quality improvement and team communication, the pharmacy team meets once a month, and then every other week with clinical staff.

*For more information, visit http://www.elrio.org/programs.html.*
Fixing Healthcare Can Be As Close As Your Neighborhood Pharmacy

The clinical emergency is medicine itself

Demand for primary care services is projected to increase through 2020, due to the increasing aging and population as well as the expanded insurance coverage implemented under the Affordable Care Act (ACA). In other words, the demand for primary care physicians will grow more rapidly than the supply, resulting in a projected shortage of over 20,000 full-time physicians.

Expanding the role of the pharmacist

However, the reality is, for most, the pharmacist simply isn’t considered a healthcare provider but a dispenser of drugs. This fact certainly impedes utilizing pharmacists to the fullest degree. While there have been some advancements in the pharmacy profession such as prescriptive authority and administering immunizations, there is still a tremendous potential to explore and potentially tap. A survey conducted in 2013, revealed 70% of consumers said they would go to a pharmacist for health services if their insurance covered them. Twenty percent of that 70% said they’d still go to a pharmacist even if they would have to pay $75 out of pocket. These percentages suggest that patients would both trust and engage pharmacists for medial care. This becomes important, particularly in rural areas where access is limited. A central point is that pharmacists can play a valuable role working with physicians and other providers to optimize medication therapy, deliver patient-centered care, and assist in managing acute and chronic conditions.
2014 PSPC is Transition to AIMM

Government-supported PSPC will end after 6.0 year

AIMM will offer:

- A powerful, action learning collaborative building upon PSPC successes
- An enriched, defined accountability pathway for delivery system transformation
- New capabilities for tracking, collecting and reporting data outcomes for local, regional and national performance stories
AIMM’s Offer

- Learning infrastructure with defined structure, tools and resources to help rapidly advance the organizations towards their goals.

- Transforming organizations and partners to provide healthcare by integrating comprehensive medication management services into their delivery system.
AIMM’s Offer

AIMM collaborative (AIMMc) focuses on integration of comprehensive medication management (CMM) into the delivery system to:

**Decrease**
- Number of potential and Adverse Drug Events per patient;
- Community care transitions
- Readmissions rates;
- Overall health care spending;

**Increase**
- Patients with controlled chronic conditions
- Patient satisfaction and engagement
- Alignment with national measures
AIMMc’s Action Learning Network

Structure is highly flexible, cohort-based Action Learning Network

Nationally Based Learning Network

• A broad approach where organization from all types come together for a wide range of networking and educational events.

• Sharing all information with all organizations

• Limited targeted events for cohorts of teams.

AIMMc’s Cohort Action-based Learning Network

• Bringing teams together based on specific cohorts of organizational need.

• Cohorts could be based on region, organization type, disease states or many other defining factors.

• National networking and educational still important part of the collaborative
Quality Improvement Organizations (QIOs)

CMS recently released the Quality Improvement Organization (QIO) program’s 11th Scope of Work (SoW) that is scheduled to commence in August 2014. The following attempts to capture some of the primary changes.

The purpose of the Quality Innovation Network (QIN) contract is to improve care for Medicare beneficiaries in a manner that aligns with the work that CMS will be doing in its efforts toward achievement of the National Quality Strategy (NQS) and the CMS Quality Strategy.

Apexus Prime Vendor for the 340B Drug Pricing Program

Apexus is the government’s awarded contractor to serve as the prime vendor for the 340B Drug Pricing Program. Apexus helps 18,500 safety-net providers receive additional savings on outpatient drug purchases through the 340B PVP as well as provides educational support to promote program integrity for all stakeholders.

Mission: The mission of Apexus is to leverage our unique resources and expertise in delivering maximum value to its 340B stakeholders, through the promotion of program integrity, compliance and optimization of the 340B Drug Pricing Program.
QIOs are experts in the field working to drive local change which can translate into national quality improvement.

The key goals for the upcoming contract cycle are improving the health status of communities; delivering patient-centered, reliable, accessible, and safe care; and better care at lower costs.

These goals will also be achieved by efforts to reduce adverse drug events among other targets.

Summary

- The PSPC Collaborative model offers an integrated approach;
- Integrated/coordinated care results in decreased barriers to access, adherence, drug related problems far beyond the clinic walls;
- Partnerships are critical in expanding resources beyond the primary care home into the community.
RxPrescribingPearls is designed to keep track of weekly educational tips for healthcare providers. This site is meant to prompt questions, discussion and review of ever changing resources and guidelines.

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Upcoming Symposium

June
10-12
2014

Save the Date

2014 Health Center and Public Housing National Symposium
The Westin Alexandria, Alexandria, VA
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen Williams</td>
<td>Director of Health</td>
<td><a href="mailto:karen.williams@namgt.com">karen.williams@namgt.com</a></td>
</tr>
<tr>
<td>James Field</td>
<td>Deputy Director of Health</td>
<td><a href="mailto:james.field@namgt.com">james.field@namgt.com</a></td>
</tr>
<tr>
<td>Dr. Jose Leon</td>
<td>Clinical Quality Manager</td>
<td><a href="mailto:jose.leon@namgt.com">jose.leon@namgt.com</a></td>
</tr>
<tr>
<td>Johnnette Peyton, MS, MPH, CHES</td>
<td>Manager of Research, Policy and Health Promotion</td>
<td><a href="mailto:johnnette.peyton@namgt.com">johnnette.peyton@namgt.com</a></td>
</tr>
<tr>
<td>Rachel Logan, MPH</td>
<td>Training and Technical Assistance</td>
<td><a href="mailto:rachel.logan@namgt.com">rachel.logan@namgt.com</a></td>
</tr>
<tr>
<td>Joy Oguntimein, MPH</td>
<td>Health Research and Policy Analyst</td>
<td><a href="mailto:joy.oguntimein@namgt.com">joy.oguntimein@namgt.com</a></td>
</tr>
<tr>
<td>Warren Brown</td>
<td>Resource Manager</td>
<td><a href="mailto:wbrown@namgt.com">wbrown@namgt.com</a></td>
</tr>
<tr>
<td>Devon LaPoint</td>
<td>Management Analyst</td>
<td><a href="mailto:devon.lapoint@namgt.com">devon.lapoint@namgt.com</a></td>
</tr>
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</table>

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703-812-8822