Pharmacy Practice
Advancement in Ohio: Measuring our Success

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Objectives

• Compare Ohio hospital PPMI self-assessment scores vs. national benchmarks
• Describe pharmacist and technician opportunities for improvement in Ohio hospitals
• Discuss the process and rationale that led to the formation of specific metrics for Ohio hospitals
• Recommend specific processes to advance Ohio as a leading PPMI state
What is PPMI?

• PPMI is an initiative of ASHP and the ASHP Foundation to advance the health and well being of patients by developing and supporting a futuristic practice model that efficiently utilizes pharmacists as direct patient care providers.

• Implementing this initiative will also instill passion, commitment, and pro-activeness amongst hospital and health-system pharmacy practice leaders. PPMI goals are to meet 5 different objectives that look to expand the role of a pharmacist in patient care.

• These objectives include:
  • Creating a framework
  • Determining services
  • Identifying emerging technologies
  • Developing a template
  • Implementing change

Source: http://www.ashpmedia.org/ppmi/faq.html
What is the Difference Between the National Dashboard and Hospital Self-Assessment Tool (HSA)?

- The National Dashboard are a set of goals and measures designed to provide a national, baseline measure of adoption of PPMI recommendations and allow measurement of progress over time.
- The HSA is a tool consisting of 106 questions that is designed to assess an individual hospital’s alignment with PPMI recommendations.
- The National Dashboard is similar to the HSA, but it is an aggregate measure of the national baseline for health-systems as a whole.
- The National Dashboard is measured annually through the ASHP National Survey.

Source: http://www.ashpmedia.org/ppmi/faq.html
What is the Difference Between the ASHP 2015 Initiative and PPMI?

• The ASHP 2015 Initiative was a member driven plan that emphasized the pharmacist’s role in promoting public health and ensuring safe and effective use of medications.

• PPMI is an initiative that stemmed from the vision of 2015 that focused on the pharmacist’s accountability for patient outcomes; advanced roles for pharmacy technicians; and use of technologies that improved medication safety.

• Essentially, the 2015 initiative evolved into PPMI to address, in a broader scope, the expanding roles of a pharmacist in relation to patient care.

Source: http://www.ashpmedia.org/ppmi/faq.html
Pharmacy Practice Model Initiative

Imperative for a better defined practice model identified by members.

Planning commences for summit: assumptions developed, ASHP members, thought leaders, and participants queried, briefing papers developed.

Consensus summit held resulting in 147 recommendations to better define characteristics of the optimal practice model for the future.

Summit Proceedings published in *AJHP*

Briefing document webinar series conducted

Presentations at MCM, SM, Residency Conferences

Hospital Self-Assessment (HSA) developed, launched

Demonstration and resident research grants issued

PPMI Website with resources, links launched

National dashboard developed to measure progress

Complexity tool developed

Policy issues from summit addressed

Source: http://www.ashpmedia.org/ppmi/docs/ppmi_national_dashboard.pdf
PPMI Data Process

147 PPMI Recommendations and statements

98 PPMI HSA questions + 7 demographic questions

26 PPMI related questions integrated into ASHP National Survey of Pharmacy Practice

One National Dashboard
National Dashboard

A set of goals and measures designed to provide a national, baseline measure of adoption of PPMI recommendations and allow measurement of progress over time. A total of 5 goals with 26 individual measures make up the scorecard. The scorecard will be updated annually with data from ASHP's National Survey of Pharmacy Practice in Hospital Settings. The national scorecard will be used primarily by ASHP/ASHP REF to report progress with PPMI. In time, state affiliates or large systems may wish to develop their own scorecard using the same goals and individual measures. (Note: All data reported are from the ASHP National Surveys.)

<table>
<thead>
<tr>
<th>Goal 1</th>
<th>Goal 2</th>
<th>Goal 3</th>
<th>Goal 4</th>
<th>Goal 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacist roles, practices, and activities will improve medication use and optimize medication related outcomes.</td>
<td>Pharmacy technicians will prepare and distribute medications and perform other functions that do not require a pharmacist's professional judgment.</td>
<td>Pharmacists and pharmacy technicians will have appropriate training and credentials for the activities performed within their scope of practice.</td>
<td>Pharmacy departments utilize available automation and technology to improve patient safety and improve efficiency.</td>
<td>Pharmacists will demonstrate leadership in exercising their responsibility for medication use systems and will be accountable for medication related patient outcomes.</td>
</tr>
</tbody>
</table>

[VIEW GOAL 1] [VIEW GOAL 2] [VIEW GOAL 3] [VIEW GOAL 4] [VIEW GOAL 5]
Linking the National PPMI Dashboard to the HSA

- A transparent crosswalk of data from the National PPMI Dashboard to the State level is not possible given the methodology used currently
  - Similar, but different language exists between documents/tools
- Statistical accuracy cannot be claimed due to these differences
Goals for Ohio PPMI Advancement

- Establish a cyclical review process at the state level
- Extrapolate HSA data to address meaningful areas of deficiency
  - Ohio HSA data matches 1:1 with National HSA data and provides an accurate statistical comparison
- Work to establish action plans for Ohio hospitals to address key areas
- Target a statewide HSA completion target of 70% or greater for 2014
- Plan to review and report changes through OSHP
- Discuss the feasibility of a separate state survey
Ohio HSA Progress

- 94 Facilities submitted HSA data in 2013
- Ohio had the 3rd largest response rate
  - Ohio still well below the 50% responder threshold
- Large hospitals (> 400 beds) over-represented in HSA data
  - Lack of small hospital (< 50 beds) response
  - Efforts by OSHP to boost HSA completion by Ohio hospitals has increased our completion percentage to ~35%
Initial Data Collection

OSHP PPMI Taskforce

Evaluation of Ohio scores on HSA vs National scores

Target low HSA scores for Ohio ($\geq 10\%$ from National HSA) and identify additional opportunities for improvement (OFI’s)

Link OFI’s to a state dashboard that will also address state-specific challenges that may not be included in the PPMI process.
Ohio Top Opportunities

- Have pharmacists providing drug therapy management completed an ASHP-accredited residency or achieved equivalent experience? [B23p]
- Do pharmacists facilitate medication-related continuity of care when patients experience transitions of care? [B20]
- Do pharmacists use patient-specific data to be leaders in disease prevention and wellness, such as assuring vaccination schedule adherence or smoking cessation? [B21]
- Do pharmacists take a leadership role in an antimicrobial stewardship program in your hospital? [B23j]
Ohio Top Opportunities (continued)

• Do pharmacists monitor patients' responses to medication therapy? [B23d]
• Is medication reconciliation performed by the pharmacy staff at your hospital? [B23k]
• Does a work queue provide documentation and management tools for drug therapy management services at your hospital? [C2h]
• Is barcode technology used during the preparation and compounding process at your hospital? [C2j]
Ohio Top Opportunities (continued)

• Is the compilation of clinical monitoring information (e.g., International Normalized Ratios) for pharmacist review assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3h]

• Is the management of controlled substance systems assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3j]

• Is the supervision of other pharmacy technicians assigned to technicians who have appropriate education and training at your hospital? [D3n]

• Are the pharmacists at your hospital residency-trained? [E4o]
State and National Metrics

• First tab on the dashboard identifies the national PPMI metrics and gives the state an opportunity to view national performance trends

• Second tab: Creation of an Ohio hospital specific scorecard that focuses on OFI’s with detailed action plans from HSA data
  • Also focuses on items not within the HSA data that are pertinent to Ohio hospitals (i.e. technician advancement)

• Third tab: Raw comparison of all state and national HSA data with OFI’s highlighted
  • Initial Goal: within 10% of the national HSA score for each item

• Appendix tabs for technician advancement information
### GOAL 1: Pharmacists roles, practices, and activities will improve use and optimize medication related outcomes.

<table>
<thead>
<tr>
<th>Proposed Dashboard Metric</th>
<th>2012 National Score</th>
<th>2013 National Score</th>
<th>National Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Percentage of hospitals/health systems that have pharmacist-review of all medication orders before the first dose is administered (either onsite or via telepharmacy except for procedure areas and emergency situations). [B23b]</td>
<td>73.6%</td>
<td>79.5%</td>
<td>✅</td>
</tr>
<tr>
<td>1.2. Percentage of hospitals/health systems that require that pharmacists document their recommendations and follow-up notes in the patients’ permanent medical records. [B15, B16] <em>Level and type of recommendation as determined by hospital protocol.</em></td>
<td>59.0%</td>
<td>62.3%</td>
<td>✅</td>
</tr>
<tr>
<td>1.3. Percentage of hospitals/health systems where pharmacists have privileges to write medication orders (modify or initiate therapy) in the health care setting. [B13]</td>
<td>82.3%</td>
<td>87.0%</td>
<td>✅</td>
</tr>
<tr>
<td>1.4. Percentage of hospitals/health systems where pharmacists have the authority to order serum medication concentrations and other clinically important laboratory tests. [B25h]</td>
<td>82.2%</td>
<td>84.0%</td>
<td>✅</td>
</tr>
</tbody>
</table>
Additional State Metrics

• Expand upon national metrics to provide additional insight into the progress of Ohio hospitals within the PPMI process
• Identify opportunities for improvement
• Facilitate effective strategic planning/action plan development at both the state and local hospital levels
• Identify barriers (actual and perceived) that hinder the advancement of Ohio as a leading PPMI state
• Attempt to survey Ohio hospital palatability for changes to our profession
• Attempt to define what pharmacy technician advancement may look like in the future for the State of Ohio

*Metrics change based on the needs and progress of Ohio hospitals*
<table>
<thead>
<tr>
<th>Proposed Statewide Metric</th>
<th>Your Hospital’s Performance</th>
<th>Action Plan Development to Address Underperforming Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOAL 1: Pharmacists roles, practices, and activities will improve use and optimize medication related outcomes.</strong></td>
<td></td>
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</tr>
<tr>
<td>Have systems been implemented at your hospital/health system to efficiently capture and report pharmacy metrics, outcomes data, and pharmacists’ value?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do pharmacists monitor patients’ responses to medication therapy? [B23d]</td>
<td></td>
<td></td>
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<tr>
<td>Are pharmacists actively involved in protocol and patient care plan development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are pharmacy APPE students actively involved in drug therapy management services and development of patient care plans?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of pharmacists actively processing medication orders manually (i.e. from paper orders).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Insert action plan comments for area(s) needing improvement below.
Pharmacy Technician Functionality

- A draft of Pharmacy technician functionality that attempts to define basic, advanced and highly advanced technician roles
- Difficult to summarize for Ohio as there is limited guidance currently to define advanced pharmacy technician practice
  - Legislative opportunities for the future in Ohio?
- National guidelines on technician advancement as well as approved technician activities in other states with more advanced technician functionality were researched to populate a draft list of activities
<table>
<thead>
<tr>
<th>Basic Functionality</th>
<th>Advanced Functionality (defined as regular involvement in ≥ 3 activities below)</th>
<th>Highly Advanced Functionality (defined as regular involvement in ≥ 3 activities below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug product acquisition</td>
<td>Informatics and technology management</td>
<td>Medication reconciliation upon admission</td>
</tr>
<tr>
<td>Preparation including sterile products and prepackaging</td>
<td>Quality assurance activities</td>
<td>Collect patient medication history and allergy information</td>
</tr>
<tr>
<td>Distribution and delivery after Pharmacist verification</td>
<td>Regulatory and safety compliance monitoring</td>
<td>Telepharmacy services under supervision of Pharmacist</td>
</tr>
<tr>
<td>Maintain drug inventory and drug records</td>
<td>Drug diversion auditing</td>
<td>Lab interpretation and validation, Review of patient medical records</td>
</tr>
<tr>
<td>Process patient charge documents and labels</td>
<td>Supervising other Technicians</td>
<td>Dosing based on standard protocols</td>
</tr>
<tr>
<td>Generate basic reports</td>
<td>IV chemotherapy compounding</td>
<td>Involvement in transitions of care</td>
</tr>
<tr>
<td>Inspects medication units</td>
<td>Wireless infusion pump data monitoring and audit</td>
<td>Discharge education and Retail Pharmacy prescription delivery</td>
</tr>
<tr>
<td>Processes orders</td>
<td>Automated dispensing cabinet monitoring and audit</td>
<td>Medication use evaluations (MUE)</td>
</tr>
<tr>
<td>Drug restocking/replenishment</td>
<td>Logistical management of drug shortages</td>
<td>Ambulatory clinic (MTM) education</td>
</tr>
<tr>
<td>Ambulatory appointment scheduling and follow-up</td>
<td>Pharmacy project management</td>
<td>Compliance audits and purchasing within the 340B program</td>
</tr>
<tr>
<td>Ambulatory refill request reminders</td>
<td>Hospital committee involvement</td>
<td>Provides multidisciplinary education (nursing, medical staff, etc)</td>
</tr>
<tr>
<td>Performs routine barcoding of inventory/orders</td>
<td>Troubleshooting and auditing of barcoding initiative</td>
<td>Presentation of high level data to hospital administration</td>
</tr>
<tr>
<td>Automated dispensing cabinet activities</td>
<td>Dispensing medications with remote video supervision</td>
<td>Managing medication assistance programs</td>
</tr>
<tr>
<td>Shipping and receiving</td>
<td>Routine management and inspection of controlled substance inventory</td>
<td>Order entry for Pharmacist verification</td>
</tr>
</tbody>
</table>
### Challenges

#### STATE SPECIFIC
- New process/culture
  - Realization of importance
- Low completion rate for Ohio hospitals
- Legislative barriers
  - Pharmacy Practice Act
  - Technician Practice Act
    - Licensure not governed by Board of Pharmacy
- OSHP PPMI Steering Committee
  - Formation of strong partnership between OSHP and ASHP on PPMI opportunities, etc.

#### HOSPITAL SPECIFIC
- Hospital engagement
  - Own the process
  - HSA completion
- Individual capabilities of Ohio hospitals
  - Financial, technological, etc.
- Executive awareness/support
- OSHP/ASHP participation
An Example from Firelands Hospital

- Initial completion of HSA revealed a 28% section score for Advancing the Application of Information Technology in the Medication Use Process in 2012
<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has an electronic health record system been implemented at your hospital?</td>
</tr>
<tr>
<td>Has an inpatient CPOE system been implemented at your hospital?</td>
</tr>
<tr>
<td>Has an outpatient CPOE system been implemented at your hospital?</td>
</tr>
<tr>
<td>Have clinical decision support systems (CDSS) been integrated with CPOE at your hospital?</td>
</tr>
<tr>
<td>Do real-time monitoring systems provide a work queue of patients needing review and possible intervention at your hospital?</td>
</tr>
<tr>
<td>Do the electronic health record and pharmacy information systems support drug therapy management services at your hospital?</td>
</tr>
<tr>
<td>Does a work queue provide documentation and management tools for drug therapy management services at your hospital?</td>
</tr>
<tr>
<td>Do automated systems at your hospital notify pharmacists when medication serum concentrations or other clinically important laboratory values fall outside of a therapeutic or normal range?</td>
</tr>
<tr>
<td>Is barcode technology used during the inventory process at your hospital?</td>
</tr>
<tr>
<td>Is barcode technology used during the preparation and compounding process at your hospital?</td>
</tr>
<tr>
<td>Is barcode technology used during the dispensing process at your hospital?</td>
</tr>
<tr>
<td>Are automated dispensing or robotics used at your hospital for the routine dispensing of maintenance doses?</td>
</tr>
<tr>
<td>Is barcode point-of-care technology used during medication administration at your hospital?</td>
</tr>
<tr>
<td>Are smart infusion pumps integrated into a closed-loop medication-use process at your hospital?</td>
</tr>
<tr>
<td>Is information on pharmacist interventions automatically captured through the information system at your hospital?</td>
</tr>
<tr>
<td>Have information systems been developed at your hospital to efficiently capture and report pharmacy metrics, outcomes data, and pharmacists value?</td>
</tr>
<tr>
<td>Are sufficient pharmacy resources available at your hospital to safely develop, implement, and maintain technology-related medication use safety standards?</td>
</tr>
<tr>
<td>Is telepharmacy technology to enable remote supervision used by the pharmacy department at your hospital when appropriate pharmacy staff is not available onsite?</td>
</tr>
<tr>
<td>Is remote medication order review and approval used at your hospital when appropriate pharmacy staff is not available?</td>
</tr>
<tr>
<td>Is telepharmacy technology that allows pharmacists to interact with patients from a remote location available for use in the pharmacy department at your hospital?</td>
</tr>
<tr>
<td>Are electronic health records designed to align with pharmacists care documentation and demonstrate improvement of outcomes and quality of care?</td>
</tr>
<tr>
<td>Are human factors engineering (HFE) principles employed to design and optimize the safety, efficiency, and effectiveness of technology at your hospital?</td>
</tr>
<tr>
<td>Is technology in medication-use systems designed to demonstrate its impact on patient outcomes (process, safety, and quality outcomes) at your hospital?</td>
</tr>
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<td>Is technology in medication-use systems designed to support pharmacy processes to improve patient outcomes (process, safety, and quality outcomes) at your hospital?</td>
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</table>
Additional State Metrics for Technology (2013)

Do you consider your clinical integration status to be: 
- Fully Integrated: All healthcare IT systems interface and exchange clinical information readily in real time; 
- Partially Integrated: Some IT programs interface with the main healthcare IT system (EMR), however, others have little to no communication with the main healthcare IT system; 
- Not Appropriately Integrated: Separate departments maintain their own systems with most programs providing either little or no integration/interfacing of clinical information across the system?

Does a work queue provide documentation and management tools for drug therapy management services at your hospital? [C2h]

Does your hospital's electronic health record allow pharmacists to routinely document recommendations and assess progress and achievement of therapeutic goals in patients’ medical records?

Does your facility document and report pharmacy intervention data and share this information across the facility as needed?

Are pharmacy interventions considered a part of the permanent medical record at your facility?

What % of orders are entered through your CPOE system?

Highest Meaningful Use stage currently attested to have been achieved at your facility?

Do you currently utilize bedside barcoding for medication administration throughout your facility?

Is barcode technology used during the preparation and compounding process at your hospital? [C2j]

Do you currently utilize barcoding for medication dispensing and/or inventory management?

Do you consider your CPOE system to have adequate clinical decision support?

Do you currently utilize wireless “smart” infusion pumps at your facility?

Do you currently utilize wireless infusion pump data for routine CQI reports to improve medication utilization at your facility?

Do you use telepharmacy technology that allows pharmacists to interact with patients from a remote location?
Firelands Progress

- Executive exposure to the current environment
  - Presented national dashboard scores (state scores not available)
  - Presented our HSA scores vs national
- Clinical Systems Integration Committee formation
  - Align needed improvements with Meaningful Use, Value Based Purchasing, and Quality of Care initiatives
- Reassessment of our goals and strategic plan
  - Organizational
  - Departmental
- OFI’s developed
- Re-assessment at 12 months
GOAL 4: Pharmacy departments utilize available automation and technology to improve patient safety and improve efficiency.

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Firelands Progress (4<sup>th</sup> QTR 2013)

PPMI Section 4 Compliance %

- 2011-2012: 28%
- 2013-2014: 81%
Summary

• Creation of a dashboard specific to OFI’s in Ohio hospitals can drive positive improvements in state and national PPMI scores
  • Interrelated to many other quality improvement projects (MU, VBP, Patient Satisfaction, ACO, PCMH, etc.)
• Patient care and satisfaction in Ohio hospitals will improve greatly with these achievements if done on a large scale
  • Engagement = Success
• Metrics can be used internally by hospitals to report to executive leadership on pharmacy progress, highlight the need for additional staff and facilitate additional strategic planning discussions
Summary

- Significant improvements in external influences (legislative reform) will also greatly help Ohio hospitals if this can be accomplished in the future.

- Need to boost Ohio’s HSA completion rate to at least 70%.

- HSA data is perpetual – when improvements are made at your facility, the HSA should be updated (at least annually) to accurately reflect your progress!

- Thoughts on making the proposed state metrics into an Ohio specific survey?
Discussion

Thanks for your attention!

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