Mapping the Route to Medication Therapy Management
Documentation and Billing Standardization and Interoperability within the Health Care System

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Mapping the route to medication therapy management documentation and billing standardization and interoperability within the health care system: Meeting proceedings

Marsha K. Millonig

Abstract

Objective: To convene a diverse group of stakeholders to discuss medication therapy management (MTM) documentation and billing standardization and its interoperability within the health care system.

Methods: More than 70 stakeholders from pharmacy, health information systems, insurers/payers, quality, and standard-setting organizations met on October 7–8, 2008, in Bethesda, MD. The American Pharmacists Association (APhA) organized the invitational conference to facilitate discussion on strategic directions for meeting current market need for MTM documentation and billing interoperability and future market needs for MTM integration into electronic health records (EHRs). APhA recently adopted policy that specifically addresses technology barriers and encourages the use and development of standardized systems for the documentation and billing of MTM services. Day 1 of the conference featured six foundational presentations on health information technology (HIT) trends, perspectives on MTM from the profession and the Centers for Medicare & Medicaid Services, health care quality and medication-related outcome measures, integrating MTM workflow in EHRs, and the current state of MTM operationalization in practice. After hearing presentations on day 1 and having the opportunity to pose questions to each speaker, conference participants were divided into three breakout groups on day 2. Each group met three times for 60 minutes each and discussed five questions from the perspective of a patient, provider, or payer. Three facilitators met with each of the groups and led discussion from one perspective (i.e., patient, provider, payer). Participants then reconvened as a complete group to participate in a discussion on next steps.

Summary: HIT is expected to assist in delivering safe, effective, efficient, coordinated care as health professionals strive to improve the quality of care and outcomes for individual patients. The pharmacy profession is actively contributing to quality patient care through MTM services focused on identifying and preventing medication-related problems, improving medication use, and optimizing individual therapeutic outcomes. As MTM programs continue to expand within the health care system, one important limiting factor is the lack of standardization for documentation and billing of MTM services. This lack of interoperability between technology systems, software, and system platforms is presenting as a barrier to MTM service delivery for patients. APhA convened this invitational conference to identify strategic directions to address MTM documentation and billing standardization and interoperability.

Conclusion: Participants viewed the meeting as highly successful in bringing together a unique, wide-ranging set of stakeholders, including the government, regulators, standards organizations, other health professions, technology firms, professional organizations, and practitioners to share perspectives. They strongly en-

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Marsha K. Millonig, BPharm, MBA, President and CEO, Catalyst Enterprises, LLC, Eagan, MN, served as a conference facilitator and primary author and editor of the proceedings.

Correspondence: Marsha K. Millonig, BPharm, MBA, Catalyst Enterprises, LLC, Eagan, MN 55123-1830. Fax: 651-905-9004. E-mail: mmillonig@catalystenterprises.net

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Health information technology (HIT) is expected to assist in delivering effective, efficient, coordinated care as health professionals strive to improve the quality of care and outcomes for individual patients. The pharmacy profession is actively contributing to quality patient care through medication therapy management (MTM) services focused on identifying and preventing medication-related problems, improving medication use, and optimizing individual therapeutic outcomes. As MTM programs continue to expand within the health care system, one important limiting factor is the lack of standardization for documentation and billing of MTM services.1 This lack of interoperability between technology systems, software, and system platforms is presenting as a barrier to MTM service delivery for patients.

Results from a December 2007 e-mail survey of 687 responding providers representing a diverse set of organizations and patient care settings bear this out. According to the MTM consensus definition (Appendix 1 in the electronic version of this article, available online at www.japha.org), 63% of respondents provided MTM services in 2007. Among MTM providers, 30% reported they were able to identify and demonstrate improvement on specific quality measures, including clinical, financial, humanistic, and process measures. A variety of methods were used to bill for services, including time, along or in combination with other methods (74%), type of service alone or in combination with other methods (61%), and level of complexity alone or in combination with other methods (34%).

Of those pharmacists not offering MTM services (n = 181), billing difficulties, documentation difficulties, and technology barriers were cited as the fourth, sixth, and ninth reasons not to implement MTM services, respectively.2 (The first three barriers were inadequate time, insufficient staffing levels, and heavy dispensing workloads.)

Documentation barriers were also discussed in a July 8, 2008, report—Exploratory Research on Medication Therapy Management—released by the Centers for Medicare & Medicaid Services (CMS). During 2007–2008, researchers from Abt Associates reviewed 59 publications about MTM, interviewed 60 individuals from 46 different organizations, and conducted four in-depth case studies.

Researchers found that documentation systems vary considerably. Documentation systems capture varying levels of detail in terms of patient clinical data, drug therapy problems, pharmacist documentation assessment and care plans, and prescriber concurrence with MTM recommendations.

Some systems are Web-based proprietary portals. The report noted that some chains have implemented corporate policies that disallow providing MTM services through Web-based vendors because of security concerns with Internet transmission of patient data. Researchers found that some pharmacies centralize claims submission and adjudication, while others do not. They note MTM electronic systems that are intended to support both patient care and claims transmission pose a barrier to pharmacies that centralize claims submission. Further, because each MTM program has differ-
ent policies for reimbursing pharmacists who provide MTM services, each requires different documentation.

The report also stated that a few of the larger Web-based MTM documentation systems are accumulating substantial patient-level databases that could be used to address many MTM program design questions and perhaps to evaluate patient outcomes, but this is largely an untapped opportunity.

Researchers write that some community pharmacies find it difficult to operate more than a few disparate billing and documentation systems. Further, all of these documentation issues may pose barriers to the provision of MTM through community pharmacies and may also pose barriers for telephonic MTM delivered through call centers. The reason is various plans may have or require different documentation systems.

Researchers conclude, “The documentation systems used by MTM programs and their vendors facilitate interaction and data exchange between the vendor and pharmacies, but may also pose barriers to provision of MTM by community pharmacists,” and “Some, but not all, of these issues would be addressed if MTM programs moved toward more standardized documentation requirements.”

In March 2008, in response to pharmacists’ concerns about challenges in MTM documentation and billing, the American Pharmacists Association (APhA) adopted policy that specifically addresses technology barriers and encourages the use and development of standardized systems for the documentation and billing of MTM services.

As a leader in MTM, APhA convened an invitational conference to facilitate discussion among a diverse group of stakeholders on strategic directions for meeting current market need for MTM documentation and billing interoperability and future market needs for MTM integration into electronic health records (EHRs).

**Foundational presentations**

Six foundational presentations were given on HIT, perspectives on MTM from the profession and CMS, health care quality and medication-related outcome measures, integrating MTM workflow in EHRs, and the current state of MTM operalization in practice.

**Session 1: The Global Perspective: Where Health Information Technology is Headed**

*Presented by Robert Kolodner, MD, National Coordinator for Health Information Technology, U.S. Department of Health and Human Services*

Kolodner provided the current state and future directions of HIT. He said HIT will be used to transform health care by increasing quality, efficiency, effectiveness, and safety for both individuals and populations. Key HIT components needed for this transformation include a robust, interoperable HIT environment that brings together the following:

- EHRs
- Personal health records (PHRs)
- Population health information (public health, biosurveillance, quality improvement, research)
- Standards (data, technical, and security)
- Interoperable health information exchange network (Nationwide Health Information Network [NHIN])

(Note: Definitions of key health technology terms may be found at www.hhs.gov/healthit/documents/m20080603/10_2_hit_terms.pdf.)

The Office of the National Coordinator (ONC) for HIT provides leadership for the development and nationwide implementation of an interoperable HIT infrastructure to improve health care quality and efficiency and the ability of consumers to manage their health. The ONC-Coordinated Federal HIT Strategic Plan: 2008–2012 lays out two goals, eight objectives, and 43 strategies with measures for each objective and milestones for each strategy.

The first goal is to enable patient-focused health care by facilitating the transformation to higher-quality, more cost-efficient, patient-focused health care through electronic health information access and use by care providers and by patients and their designees. The second goal is to improve population health by enabling the appropriate, authorized, and timely access and use of electronic health information to benefit public health, biomedical research, quality improvement, and emergency preparedness.

Kolodner outlined the following five critical components necessary for the NHIN:

- Privacy, security, and other HIT policies
- Adoption of interoperable HIT
- Connectivity
- Collaborative governance

Standard interoperability is achieved through a cyclical process (Figure 1). The American Health Information Community Successor (AHIC-II) sets the nation’s HIT priorities and develops health care cases. (At the time of the conference, AHIC-II was the public/private partnership serving in the role previously described. The change in presidential administrations and legislation that has been passed since the conference may potentially affect the names, structure, placement, and role of the entities involved within the government’s HIT infrastructure and governance.)

Existing HIT standards are identified and harmonized through the Healthcare Information Technology Standards Panel (HITSP). The Secretary of the Department of Health and Human Services (HHS) then accepts HITSP recommendations. Standards are pilot tested and implemented for a year with final acceptance by the Secretary. These harmonized standards are then incorporated and used in HIT products. These products are then certified by the Certification Commission for Health information Technology.

Kolodner left participants with three key messages:

- HIT is essential for health care reform.
- HIT activities are under way and gaining momentum through multiple public–private collaborations.
- MTM can increase its value and effectiveness when it is integrated into the HIT infrastructure.

He encouraged participants to follow what happens in
practice, not what’s needed for payment, as they develop interoperable MTM standards, study current standards related to MTM that exist or are in process as a start, and get involved in communities that are evolving standards.

Session 2: The Profession’s Perspective on MTM Documentation & Billing in Providing Effective and Efficient Patient Care

Presented by Dan Buffington, PharmD, Practice Director, Clinical Pharmacology Services

Buffington provided information on medication-related problems and their importance as a public health issue within the health care system. He noted that, as the pharmacy profession further evolves into that of patient-centered care, MTM and other patient care services are emerging nationwide in diverse patient care settings. Buffington said MTM services provided by pharmacists can address the medication-related problems and potentially reduce medication-related morbidity and mortality.

He presented an overview of MTM service documentation and billing, focusing on practitioner and payer perspectives. Buffington noted that MTM documentation challenges include the following:

- Varying documentation methods
- Terminology potentially holding different meanings to stakeholders
- Practice setting diversity
- Content (what took place, analysis of outcome) and scope variation (patient, intervention, transactional information)
- Disconnects between providers and payers
- Point-of-care and claims billing needs may be different
- Diversity in system interfaces

He asked, “Are current MTM programs stimulating and/or enhancing what happens at the point of care between pharmacists and patients or are they meeting a payer need?” He said documentation should be patient care rather than billing oriented. It should also be market oriented, support both episodic and longitudinal care, embrace all practice settings, and be outcomes rather than service oriented. He noted that pharmacists should look at other health provider practices and

Figure 1. Interoperability standards into products: summary of the cyclical process
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emulate good care models and build off other existing infrastructures. Finally, he noted that standardizing documentation and billing of these services to enhance continuity of care and track outcomes would be necessary as the profession moves toward achieving patient-centered care and focuses on care quality and outcomes. In closing, Buffington stated that a balance will need to be achieved between systems that strive to stimulate patient care and meet clinical needs of patients and providers and the creation of data warehouses with information to meet payer goals.

Session 3: CMS Perspectives on MTM Documentation and Billing Standardization

Presented by Michelle Ketcham, PharmD, MBA, Division of Clinical and Operational Performance, Medicare Drug Benefit and C&D Data Group, Center for Drug and Health Plan Choice, Centers for Medicare & Medicaid Services

MTM services were included in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 with the intent of enhancing patients’ understanding of appropriate drug use, increasing adherence to medication therapy, and improving the detection of adverse events. Ketcham said HHS is moving to shift U.S. health care toward a system based on value. Although MTM program design within Part D is currently variable, a key to measuring the success of these programs will be standardized data collection and integration for effective outcomes analysis, Ketcham said.

CMS has efforts under way to identify MTM service best practices and raise the bar for Medicare Part D MTM programs. Ketcham said CMS expects Medicare Part D plan sponsors to analyze and evaluate their MTM programs and to continuously improve them. She said CMS best practice analysis is also used to help guide future Medicare Part D program design.

Variability remains among Medicare Part D MTM programs and is reflected in CMS’s recent MTM program analysis. Exploratory Research on Medication Therapy Management. She said the report shows that pharmacists are the leading Medicare Part D MTM program providers (98% of program contracts are with pharmacists). The value of community pharmacists’ involvement is growing, she noted. Future research study questions include the following:

- Which patients are most likely to benefit from MTM programs?
- What is the degree of improvement as the result of a comprehensive medication review?
- What is needed to improve pharmacist participation, including reimbursement and fee structures?
- What outcomes should be measured?

CMS has established an internal, interdisciplinary, cross-divisional MTM service work group to continue to explore MTM best practices and form future Medicare Part D MTM program requirements. CMS is actively pursuing more robust MTM program data analysis to help them develop standardized outcome measures across all Plan D sponsors. CMS remains active in PQA, a pharmacy quality alliance, Ketcham noted. The High-Risk Medication Use in the Elderly Measure developed by the Healthcare Effectiveness Data and Information Set (HEDIS) and adopted by PQA will be the first patient safety measure incorporated into the Part D plan rating used by CMS.

With regard to MTM services billing, she said that the CMS Office of E-Health Standards and Services has provided a proposal that would allow MTM services to be billed with either the NCPDP 5.1 or X12N837P formats—a divergence from previous HIPAA (Health Insurance Portability and Accountability Act) requirement guidance provided by the agency—that may facilitate the options available for billing.

Ketcham also provided CMS’s perspective that integrating MTM within any EHR development and infrastructure will be important. What may be helpful in this regard are results from the Agency for Healthcare Research and Quality (AHRQ) Developing Evidence to Inform Decisions about Effectiveness (DEcIDE) MTM clinical trial, which measures the impact of pharmacist MTM in two ways: reliance on prescription data only or reliance on richer data from medical records. She concluded that more standardized data collection and integration can lead to more effective outcomes analysis and the most effective MTM program attributes.

Session 4: PQA – Quality Driven Health Care and MTM Measures for Improving Medication-related Outcomes

Presented by Laura Cranston, BPharm, Executive Director, PQA Inc.

Cranston introduced attendees to PQA, quality-driven health care, pay for performance and improved patient outcomes, and the development of outcomes measures for MTM services. PQA was recommended by CMS with the goal of developing measures of the quality/efficiency of pharmacy/pharmacists services. The more-than-60-member alliance is a membership-based, self-sustaining, consensus-driven organization.

She outlined PQA work to date validating a starter set of measures; 10 adherence-related measures by therapeutic class, diabetes medication dosing, suboptimal treatment regimens in diabetes and asthma, absence of control therapy in persistent asthma patients, and adopting HEDIS’s High-Risk Medication Use in the Elderly measure. PQA is now assessing the feasibility of creating pharmacy performance measure reports and implementing measure and report testing in demonstration projects.

Cranston said that, although MTM measures may not be difficult to conceive, they are difficult to measure because MTM service data are often documented in decentralized, proprietary platforms in nonstandard formats, making it difficult to collect and aggregate. Initial MTM measure development has been limited to measures that could be assessed based on prescription claims alone. Cranston described three of the current MTM measure concepts under development. The first is the number of patients receiving an MTM service, characterized as the percentage of patients prequalified by a health care payer for MTM who receive the service. The second is the MTM comprehensive medication review, which measures the percentage of patients/caregivers receiving a comprehensive medication review as part of an MTM program protocol requiring it. The third is the percentage of patients prequalified to receive a comprehensive
medication review as part of the MTM program who receive a reconciled personal medication list, and the provision of the list is documented in the patient record. After being endorsed by the PQA membership, the measures will need to be further developed, validated, and tested and moved to implementation.

In closing, Cranston said that the next steps for all quality alliances would be integrating data across settings to capture a comprehensive look at quality.

**Session 5: Integrating MTM Workflow into the Electronic Health Record through Harmonization of Standards**

Presented by Shelly Spiro, BPharm, FASCP, President of Spiro Consulting, Inc.

Harmonization of technology standards is the key to winning the HIT interoperability race. Exchanging standardized components of the EHR using industry-developed standards is the nationally adopted way for health providers to communicate health data including MTM information. Spiro described definitions and components of EHRs, PHRs, and e-prescribing and national HIT efforts.

She noted that harmonization of standards leads to interoperability, which is defined as “the ability of two or more systems or components to exchange information and to use the information that has been exchanged.” Numerous reasons were cited for adopting a certified EHR through standards harmonization (Figure 2).

Spiro described the process that the pharmacy profession is using to integrate MTM workflow into the EHR by means of the HITSP method. AHIC has created a descriptive medication management use case. Using this case and the needs it contains, standards that can facilitate its implementation are identified and then harmonized by HITSP. For the medication use case, the transaction, messaging, and nomenclature standards identified by HITSP for harmonization include those developed and used by organizations such as the National Council for Prescription Drug Programs (NCPDP), Health Level Seven, and the Accredited Standards Committee X12. Applying that model to MTM would draw from these groups.

She described efforts by NCPDP Work Group 10: MTM Communication Task Group. There are three sub–task groups: payer, provider, and technical communication methods (TCM). The payer and provider sub–task groups are determining data elements needed from each of their perspectives for communicating MTM services. The provider group worked primarily through the work of the Pharmacist Services Technical Advisory Coalition. The TCM sub–task group is studying the communication method that should be used to communicate this payer and provider information, using the HITSP use case model to leverage current standards. A TCM Implementation Guide is being developed. The TCM sub–task group also conducted an

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**Figure 2. Standards development harmonization for the AHIC medication management use case**

Abbreviations used: AHIC, American Health Information Community; ASC, Accredited Standards Committee; HL7, Health Level Seven; NCPDP, National Council for Prescription Drug Programs. Reprinted with permission from Rachelle “Shelly” Spiro, President, Spiro Consulting, Inc.
analysis of “high-level” MTM technology players. Groups identified as stakeholders include the prescriber, pharmacist, pharmacy, pharmacy benefits manager (PBM), health maintenance organization, CMS, and other health professionals. Detailed study of the payer and provider use cases is under way currently.

Electronic transmission of standardized health data as the solution to successful communication of MTM information among payers, pharmacists, and medical providers was discussed. Spiro noted that pharmacy currently does not have a standardized way to communicate MTM service provision. She said that electronic communication of MTM is part of a much larger HIT effort. She encouraged the pharmacy community to become more engaged in HIT harmonization efforts.

Session 6: Current State of Pharmacy Practice: Operationalizing MTM Services (panel discussion)

Moderated and presented by Steve Simenson, BPharm, Managing Partner and President, Goodrich Pharmacy, Inc. Panel participants: Jaime Montuoro, PharmD, Manager, MTM Services, SUPERVALU Pharmacies; Douglas C. Cornelius, BPharm, Assistant Pharmacy Merchandiser, Kroger Company; Tim Sawyers, BPharm, MBA, Director, Clinical Pharmacy Services, HealthSpring

Developing and implementing a business model for pharmacy practice that incorporates MTM is continuing to evolve in many diverse patient care settings. This final session provided the perspectives from diverse pharmacy providers from across the nation, as they work to operationalize these services. Panelists discussed the current state of their organization’s involvement in MTM services, opportunities and challenges, and the potential benefits of a fully interoperable, standardized documentation and billing system for MTM.

Montuoro noted that pharmacist-provided clinical services are a strategic imperative among SuperValu’s 920 pharmacies in 28 states. MTM services are provided both as workflow-based MTM interventions as part of the dispensing process and comprehensive, appointment-based MTM services. Mobile MTM pharmacists cover clusters of pharmacies. Patients are referred through numerous sources: third-party payers, physicians, and other health professionals, pharmacy teams, and patient self-referral. With the MTM opportunity come challenges, however. These include identifying the payer, determining how the patient is being identified/referred, determining how long the pharmacist can spend with the patient based on payer/protocol protocols, clarifying what the pharmacist is required to do for each program protocol, and determining how services are documented and billed. Montuoro said that these challenges could be more easily met by a wish list that includes standardization of the following:

- Service definition and expectations
- Patient identification and referral
- Billing (standard data sets for transmission to payers)
- Leaving the patient care process up to the practitioner provider
- Fostering collaboration among pharmacists and other health providers and emulating the medical model where it makes sense

Cornelius outlined the extensive clinical services at Kroger’s 120 pharmacies in three states within the Columbus, OH, division. The program in this Kroger division began in 1995 and now includes off-site wellness and screening services, disease management, immunizations, and MTM services under a tiered system of care among the sites. Every site offers immunizations and MTM services. Numerous program successes were outlined, but several difficulties and barriers remain. He said that these include lack of standardized reporting and transmission of data, patient skepticism, and confusion of clinical terminology within MTM.

Sawyers described HealthSpring’s MTM program with two components: an outsourced program for stand-alone PDPs and an in-house program for Medicare Part D that is in conjunction with a broader disease management and chronic care improvement program. He described the data elements related to MTM programs that plan sponsors must report to CMS semiannually. Payers desire adoption of standardized documentation, billing, and payment systems, he said. EHRs may represent an answer if MTM service documentation, billing, and payment systems are integrated.

Simenson described MTM services at Goodrich Pharmacy’s five independent pharmacy locations: three in clinics, one stand-alone, and one supermarket pharmacy. Electronic medical records (EMRs) are a logical choice for MTM documentation, he noted, based on his experiences with contracted access to patient EMRs for MTM services. Advantages include clear illumination of patient records that pharmacists seldom see, shared information that improves MTM assessments and patient outcomes, and MTM documentation in the EMR reaching other providers. Goodrich pharmacists are able to refill prescriptions based on standing order criteria and receive payment for consultation.

At Goodrich, to prepare for MTM visits, recent labs are checked against the patient’s medication record, health care provider goals, and visit compliance. A personal medication record (PMR) is prepared for substantiation during the visit. An MTM therapy review is conducted with the patient at the visit, any new patient questions from the EMR are answered, and a draft medication action plan is discussed and finalized. After the visit, interventions, recommendations, and referrals per the MTM Core Elements are communicated to the patient’s care providers. Medications are reordered if necessary, as are labs.

Simenson said that the benefits of using the EMR when providing MTM services include more accurate and complete patient information to assess medication and care goals, better coordination with the physician care plan, timeliness addressing concerns and problems, and pharmacist documentation directly into the patient chart. Future efficiencies will include billing capabilities through the EMR and access/conversion to a single universal EHR for all patients with appropriate pharmacist access and MTM documentation and charting capabilities.
Problems that potentially will be avoided as MTM integration with EHRs moves forward include the use of parallel systems, under- and overdocumentation, no contribution to the patient’s medical record, operating outside standardized systems, uneconomical process and effort duplication, and recommendations and documentation that are not collaborated or substantiated.

During the panel discussion that followed, participants further illuminated how lack of standardized MTM documentation and billing, along with variable MTM service requirements and expectation by plan sponsors, creates barriers to providing MTM services. All said patient care should be left to the pharmacist and the focus of MTM services should be improving public health. Sawyers noted that, for CMS reporting, plans need data to be aggregated and that assimilating data from many pharmacies can be very difficult. MTM documentation and billing integration with an EHR provides important benefits.

**Strategic directions: the breakout groups**

After hearing presentations on day 1 and having the opportunity to pose questions to each speaker, conference participants were divided into three breakout groups on day 2. Each group met three times for 60 minutes each and discussed five questions from the perspective of patient, provider, or payer. The three session facilitators were Ben Bluml, BPharm, Vice President of Research, APhA Foundation (provider); Harry Hagel, BPharm, Senior Vice President, Government and Professional Affairs, APhA (payer); and Marsha Millonig, BPharm, MBA, President & CEO, Catalyst Enterprises, Inc. (patient).

The three facilitators met with each of the groups and led discussion from one perspective (i.e., patient, provider, or payer). Each group addressed the following five questions:

- What does the “preferred future” as it relates to MTM documentation and billing, look like? (10 minutes)
- What changed to get us to that preferred future? (10 minutes)
- What are the guiding principles for achieving this change? (10 minutes)
- What are the principles for clinical MTM documentation? (15 minutes)
- What are the principles for billing MTM documentation? (15 minutes)

Group discussion points were captured by recorders using computers to generate Microsoft Word documents and by facilitators using flipcharts in each room; this was done for each discussion perspective (patient, provider, and payer). Therefore, nine total discussion groups were facilitated with outcomes noted.

Among the nine group discussion sessions, the preferred future and the resulting changes that would be needed in MTM documentation, billing, standardization, and interoperability to meet this preferred future were articulated with great clarity. Rather than drafting and “wordsmithing” specific principles, the group discussions provided a strategic direction for MTM documentation, billing, standardization, and interoperability. Results from the nine discussion sessions centered around the following six global themes:

- Patient-centered care
- Improvement of health care delivery
- MTM service standardization and implementation
- Data integration and accessibility
- Documentation and billing standardization
- Quality and pay for performance

**A look to the preferred future**

Guiding themes related to the preferred future included patient-centered care and improved health care delivery.

**Patient-centered care**

Participants believed that a preferred future revolves around a patient-centered and patient-directed health system. Personalized patient care is delivered by providers and balanced with a population-based view. Patients drive the demand for health services versus demand being driven from providers and payers. Third parties do not intervene with the patient–prescriber–pharmacist relationship and do not dictate service processes provided by the pharmacist.

Medications are the primary mechanism for managing health care costs by avoiding use of other expensive and potentially unnecessary health services and improving quality of life. Patients receive an annual comprehensive medication checkup in the location of their choice: their home, at one of their health providers, at their pharmacist’s pharmacy or office, or through other appropriate and effective mechanisms, including online. Consumers understand the value of their pharmacist and the services they provide. MTM is a cornerstone of continuity of care, not an episode of care. MTM services are reimbursable part of the health benefit. Patients can access MTM services through their health benefit or through self-referral and payment. Stakeholder acceptance of MTM service benefits that improve patient safety and quality and reduce costs is universal.

**Improvement of health care delivery**

Continuity of care exists between all practice settings. Communication and collaboration between the physician, pharmacist, patient, and third party exists for continuity of care.

Patient care standards exist across different practice settings with patients able to expect the same minimum service requirements at different pharmacies. HIT is standardized and implemented across providers. Medical claims and lab data are available at the point of care, and patients have access to their complete medical history through a PHR.

Aligned incentives exist in the health care system among pharmacists, physicians, patient, and payers (e.g., PBMs should have incentives to integrate pharmacy and medical data). Pharmacists focus on and are compensated for care-based activities, with the infrastructure and staffing to support these activities. Incentives exist to help build or expand the MTM service business model. Barriers to appropriate use of medication are removed (e.g., eliminating copays). Billing for services by pharmacists is “provider status” neutral. (The payment policy of all pharmacies can be very difficult. MTM documentation and billing integration with an EHR provides important benefits.)
health plan benefit for the patient.) Patients are exposed to and informed about service costs to assist them in health care service decision making. Stakeholders are willing to work together to create workable solutions to issues identified.

Strategies to take us into the future

Strategies articulated on the road to the preferred future were remarkably similar across all nine group discussion sessions. To get to the preferred future, participants identified the need for changes in several key areas: MTM service standardization and implementation; data integration and accessibility; documentation and billing standardization; and quality performance. More detailed information follows for each of these global areas.

MTM service standardization and implementation

Participants noted the need for the standardization of MTM services among all stakeholders in order to achieve a consistent clinical care process and define expectations among all stakeholders. MTM services need to be consistently provided across the profession, with defined outcome goals. MTM services need to be distinguished, valuable, and measurable. Pharmacists should not need to rely on a physician or payer referral system to provide MTM services. MTM services need to be location independent and available through the use of telecommunication by using appropriate HIT. Physicians need to be engaged in the MTM process. All pharmacists need to know what MTM is, how services are defined, and how the services are to be provided.

Strategic directions for MTM service standardization and implementation to develop a consistent clinical care process include:

- Developing systems where MTM documentation and billing are interoperable, seamless, and bidirectional among providers, patients, and payers.
- Providing an accessible, high-quality network of providers.
- Streamlining processes that drive the billing process and clearly define billing documentation elements.
- Promoting patient-centered, provider-driven systems.

Data integration and accessibility

Health care data need to be integrated from a medical and pharmacy standpoint, showing the relationship between medication spending and overall health care costs and spending. Health records need to be integrated (i.e., through a national health information network or NHIN). HIT systems and records must be interoperable, real time, and available across systems, with appropriate role-based access (e.g., insurance companies and genomic information should not be used for rate setting). Systems need to use consensus driven, standardized minimum data sets, and consistent definitions and semantics. Enough minimum data sets must exist to drive quality assurance and return-on-investment measures. Data sharing should be transparent.

PHRs need to be subsets of EHRs and portable. Data need to be consistent between providers in all settings (i.e., pharmacist information is the same as physician information.) Privacy and confidentiality must be a system design principle and universally applied but not a barrier to performing services.

Patients should have access to appropriate personal health information with methods to amend/annotate as appropriate and have the right to challenge health data. Clinical data should be available to patients in a usable form (i.e., lab results). Patients have the right to determine who has access/use/control of personal health information. Functional tools and guidance should exist to help the patient (scheduling tools, information on their condition, compliance tools.) An active, portable, electronically accessible medication list should be available.

All stakeholders must be engaged in HIT standards activities. Pharmacists need to work with national initiatives in information technology (IT) to ensure that these initiatives recognize clinical aspects of pharmacy services.

Strategic directions to promote data integration and accessibility include:

- Developing systems where MTM documentation and billing are interoperable, seamless, and bidirectional among providers, patients, and payers.
- Providing real-time, interactive eligibility, precertification, and billing information for all stakeholders to promote efficiency.

Documentation and billing standardization

Systems need to be secure, interoperable, real time, bidirectional, and consistent, with standardized common platforms/process documentation for data management, view, and input with appropriate authority. MTM documentation needs to be standardized (including minimum data sets and metrics) and fully interoperable within the EHR. Pharmacists should be accountable for documenting MTM services in systems. Systems should eliminate requirements for duplication of data entry/input and possess the ability to use the data entered once for all clinical, payment, or quality purposes. Information documented from patient care should facilitate the application of quality performance measures. Systems need to be understandable, usable, interpretable, and ecumenical. Documentation needs to be explicit and consistent between clinical and billing applications. The clinical care and documentation process should drive the billing process (i.e., pertinent information required for billing should be extracted from clinical documentation elements). Documentation requirements should be similar among providers (e.g., pharmacy service documentation should be similar to medical service documentation).

Systems must be electronic audit capable. Common service agreements and expectations of clinical service processes should exist when care is provided in a location with a dispensing pharmacy. Systems must move from a transactional to a process model, with documentation systems that integrate dispensing and clinical functions. Systems should interface with internal accounting systems to assist in reconciling services and payments. Pharmacists and other MTM providers should
have the choice of what documentation systems are used.

Prescriptions should contain the medical indication using standardized coding (i.e., ICD-9 or -10.) Patients should receive a “receipt” documenting MTM services provided and indicating what the pharmacist did to address specific medication-related concerns (e.g., resolved drug therapy problems, interactions with other health providers). Patients should also receive a personal medication list. Documentation systems must be tied to outcomes and facilitate access/input/cost savings information that may be reported to or accessed by payers, using a minimum data set as appropriate.

Although currently MTM is billed in many ways—fee for service, time based, time and resource based—future systems should enable billing that is consistent among all payers and that is consistent with billing used by other health care providers. Participants noted that underdocumenting services is a quality issue, while overdocumenting services is a cost issue.

Strategic directions for documentation and billing standardization include:

■ Developing a minimum data set agreed to and accepted by all stakeholders for clinical documentation and billing purposes
■ Developing systems and standards for MTM documentation and interfaces with billing software to populate data and repurpose these data appropriately without reentering for clinical, billing, and quality purposes.
■ Interfacing and integrating MTM documentation billing and with a data hub and EHR to streamline processes and facilitate data sharing.
■ Providing pharmacists their choice of a single documentation and integrated clinical billing system for their practice that is integrated with dispensing systems where applicable and that operates using industry standards to promote connectivity and interoperability.

Quality and pay for performance

Mechanisms must exist to determine the value of health care services provided. Provider evidence-based quality measures need to exist, and patients should have the opportunity to contribute to quality-related satisfaction scores. Pharmacists should show value of care provided through evidence-based quality measurement data. There is a need for well-defined pharmacy quality measures. What quality means from patient, payer, and provider points of view needs to be asked. Pharmacists should be accountable for patient care and need to ensure patient safety through technology, workflow, medication counseling, MTM, documentation, and quality improvement. Providers should be paid for the quality of their performance.

Patients should be able to choose their health care providers based on measurable quality criteria. Patients need one resource for accessing quality measures in order to choose providers, pharmacies, and point-of-care settings, and this resource should be integrated among all provider types and available 24 hours a day, 7 days a week.

With regard to ensuring quality, safety, and efficacy of care, the payer and provider discussion groups offered different perspectives. As payers, participants expressed interest in accessing all data in order to fulfill their perceived role of ensuring quality, safety, and efficacy of care. As providers, participants questioned the appropriateness of this data access. The provider perspective was also that payers should accept a standardized framework for MTM service delivery (e.g., MTM in Pharmacy Practice: Core Elements of an MTM Service Model Version 2.0) and not dictate how providers should deliver care to their patients.

Strategic directions identified for quality and pay for performance include:

■ Providing aligned incentives among patients, providers, and payers.
■ Continuing stakeholder dialogue on the issue.

Next steps

Before the second day of the meeting concluded, participants engaged in an interactive dialogue on the breakout groups’ strategic directions and offered perspectives on next steps. Participants viewed the meeting as highly successful in bringing together a unique, wide-ranging set of stakeholders, including the government, regulators, standards organizations, technology firms, professional organizations, and practitioners to share perspectives. APhA was encouraged to continue convening the stakeholders because ongoing dialogue is essential to moving MTM forward in the larger context of an electronic health environment.

Specific suggestions from participants include:

■ Identifying and defining specific data elements that support each area within the MTM in Pharmacy Practice: Core Elements of an MTM Service Model Version 2.0.
■ Conducting a gap analysis between where pharmacy MTM service clinical documentation and billing is and should be based on the strategic directions identified, compared with standard-setting work being undertaken by the government and private sectors.
■ Developing a minimum data set agreed to and accepted by all stakeholders for clinical documentation and billing purposes.
■ Identifying pharmacists and engaging them in the HIT standards development community.
■ Bringing and marketing MTM service requirements to other domains where standards work is being undertaken.
■ Identifying changes/advancements needed in current pharmacy IT systems, in order to incorporate new functionality required for the provision of MTM services and promote communication/integration with EHRs.
■ Developing and articulating a new pharmacy health information system model and how this model can be harmonized in the broader HIT community.
■ Increasing interdisciplinary dialogue on MTM development and service delivery.
■ Conducting brainstorming sessions with insurers and payers to define their needs and bringing results back into future stakeholder meetings for dialogue and consideration.
Expanding the evidence base supporting MTM services and highlighting best practices.

Marketing MTM in Pharmacy Practice: Core Elements of an MTM Service Model Version 2.0 among the pharmacy and payer communities.

Working with CMS to discuss how MTM services may fit within their PHR demonstration projects.

Promoting initiatives that allow pharmacists to have their choice of a single documentation and integrated billing system for their practice that achieves the following:

- Is integrated with dispensing systems where applicable.
- Operates using established industry standards to promote connectivity and interoperability.
- Is based on competition between systems on functionality rather than proprietary data elements and limited interfaces.
- Promotes care to individual patients and improves outcomes.
- Improves efficiency and effectiveness to providers and the health care system for MTM service billing, documentation, standardization, and interoperability that allows competition while following identified strategic directions (i.e., systems should not compete on data elements and interfaces, but rather on functionality).

Applying the meeting’s strategic directions into a vision for MTM service implementation that is integrated within the national HIT initiative and that contains short- and long-term measurable objectives and outcomes.

Conclusion

During the previous 20 years, the pharmacist’s role in providing patient-centered pharmaceutical care has been defined, documented, and expanded. Today, the pharmacy profession is actively contributing to quality patient care through MTM services focused on identifying and preventing medication-related problems, improving medication use, and optimizing individual therapeutic outcomes. To achieve the goal of helping patients get the best use of their medications, pharmacist-provided patient care services must be integrated into the larger health care and HIT infrastructure. Particularly because HIT is expected to aid in delivering safe, effective, efficient, coordinated care with improved quality and outcomes for individual patients.

The integration challenge is large, but the promise is great. For the most part, the pharmacy profession does not have a seat at the tables where broader HIT strategy, standards harmonization, and implementation are occurring. This limits other health professionals’ understanding of pharmacist-provided care and the data and information needed to support it. This must change if the profession’s efforts to gain data access supportive of expanded patient care roles are to be successful.

However, the profession’s past IT success positions it well to meet this challenge. Participants noted pharmacy’s success in building IT systems for product transactions with systematic, organized, methodical thinking. That success has led to comprehensive computerization of pharmacies and their billing functions in a relatively short period of time.

Now, the profession needs to take this product and billing transaction IT experience and apply it to pharmacist-provided clinical services to ensure that they are standardized, integrated, and interoperable within the broader health care and HIT infrastructure. Although patient care is more complex than product transactions, rigor must be applied to systems development with a “vendor agnostic” view to realize integrated clinical and billing platforms. Reaching consensus on minimum data sets for each functional area—clinical, billing, quality improvement—would be a very important short-term gain. A unique opportunity exists for the profession to lead the HIT community in creating a workable service system because of its experience in computerization of other processes.

To grasp this opportunity, pharmacists need to engage at both the organizational and individual level to become players in the HIT arena. Continuing this unique stakeholder dialogue is also imperative.

References

Appendix I: Medication Therapy Management Services Consensus Definition

Medication Therapy Management Services

Definition and Program Criteria

Medication Therapy Management is a distinct service or group of services that optimize therapeutic outcomes for individual patients. Medication Therapy Management services are independent of, but can occur in conjunction with, the provision of a medication product.

Medication Therapy Management encompasses a broad range of professional activities and responsibilities within the licensed pharmacist's, or other qualified health care provider's, scope of practice. These services include but are not limited to the following, according to the individual needs of the patient:

a. Performing or obtaining necessary assessments of the patient’s health status
b. Formulating a medication treatment plan
c. Selecting, initiating, modifying, or administering medication therapy
d. Monitoring and evaluating the patient's response to therapy, including safety and effectiveness
e. Performing a comprehensive medication review to identify, resolve, and prevent medication-related problems, including adverse drug events
f. Documenting the care delivered and communicating essential information to the patient's other primary care providers
g. Providing verbal education and training designed to enhance patient understanding and appropriate use of his/her medications
h. Providing information, support services, and resources designed to enhance patient adherence with his/her therapeutic regimens
i. Coordinating and integrating medication therapy management services within the broader health care management services being provided to the patient

A program that provides coverage for Medication Therapy Management services shall include:

a. Patient-specific and individualized services or sets of services provided directly by a pharmacist to the patient.* These services are distinct from formulary development and use, generalized patient education and information activities, and other population-focused quality-assurance measures for medication use.
b. Face-to-face interaction between the patient* and the pharmacist as the preferred method of delivery. When patient-specific barriers to face-to-face communication exist, patients shall have equal access to appropriate alternative delivery methods. Medication Therapy Management programs shall include structures supporting the establishment and maintenance of the patient*–pharmacist relationship.
c. Opportunities for pharmacists and other qualified health care providers to identify patients who should receive medication therapy management services.
d. Payment for medication therapy management services consistent with contemporary provider payment rates that are based on the time, clinical intensity, and resources required to provide services (e.g., Medicare Part A and/or Part B for CPT and RBRVS).
e. Processes to improve continuity of care, outcomes, and outcome measures.

*In some situations, medication therapy management services may be provided to the caregiver or other persons involved in the care of the patient.

Approved July 27, 2004, by the Academy of Managed Care Pharmacy, the American Association of Colleges of Pharmacy, the American College of Apothecaries, the American College of Clinical Pharmacy, the American Society of Consultant Pharmacists, the American Pharmacists Association, the American Society of Health-System Pharmacists, the National Association of Boards of Pharmacy,** the National Association of Chain Drug Stores, the National Community Pharmacists Association, and the National Council of State Pharmacy Association Executives.

**Organization policy does not allow NABP to take a position on payment issues.
Appendix II: Meeting Participants

Tom Albers  
Medication Management Systems  
Minneapolis, MN

Eleni Anagnostiadis  
National Association of Boards of Pharmacy  
Bethesda, MD

Ben Blum  
American Pharmacists Association  
Foundation/HealthMapRx  
Washington, DC

Daniel Buffington  
Clinical Pharmacology Services  
Tampa, FL

Randy Burnett  
QS1  
Spartanburg, SC

Anne Burns  
American Pharmacists Association  
Washington, DC

David Chen  
American Society of Health-System Pharmacists  
Bethesda, MD

Douglas Cornelius  
The Kroger Company, Columbus Division  
Columbus, OH

Laura Cranston  
PQA  
Fairfax Station, VA

Rachael Deck  
Walgreen Co.  
Deerfield, IL

Ajit Dhavle  
SureScripts RxHub  
Alexandria, VA

William Fleming  
Humana  
Louisville, KY

Gladys Garcia  
Philadelphia College of Pharmacy  
American Association of Colleges of Pharmacy  
Philadelphia, PA

Lynne Gilbertson  
National Council for Prescription Drug Programs  
Mt Juliet, TN

Lori Golterman  
Veterans Administration  
Washington, DC

Carolyn Ha  
National Community Pharmacists Association  
Alexandria, VA

Harry Hagel  
American Pharmacists Association  
Breakout Moderator  
Washington, DC

Michelle Ketcham  
Medicare Drug Benefit Group, Centers for Medicare and Medicaid Services (CMS)  
Baltimore, MD

Robert Kolodner  
National Coordinator for Health Information Technology, Department of Health and Human Services (HHS)  
Washington, DC

Julie Kuhle  
Iowa Foundation for Medical Care  
American Health Quality Association  
Washington, DC

Patty Kumbera  
Outcomes Pharmaceutical Health Care  
Des Moines, IA

Will Lang  
American Association of Colleges of Pharmacy  
Alexandria, VA

William Lockwood  
American Society for Automation in Pharmacy  
Blue Bell, PA
John Loonsk
Offices of the National Coordinator for Health Information Technology, Department of Health and Human Services (HHS)
Washington, DC

Macary Marciniak
University of North Carolina - Chapel Hill
College of Pharmacy
American College of Clinical Pharmacy
Chapel Hill, NC

Janet Marchibroda
e-Health Initiative
Washington, DC

Robert Mayes
Agency for Healthcare Research and Quality
Rockville, MD

Kathryn McLaughlin
America's Health Insurance Plans, Clinical Affairs Strategies and Planning
Washington, DC

Carla McSpadden
American Society of Consultant Pharmacists
Alexandria, VA

Tom Michalski
McKesson Corporation
San Francisco, CA

Marsha Millonig
Meeting Moderator
Eagan, MN

Don Mon
American Health Information Management Association
Chicago, IL

Jaime Montuoro
SUPERVALU Pharmacies
National Association of Chain Drug Stores
Franklin Park, IL

Vikki Oates
Medicare Drug Benefit Group, Centers for Medicare and Medicaid Services (CMS)
Baltimore, MD

George Oestreich
Missouri Division of Medical Services
Fulton, MO

Mindy Rasmussen
Arizona Pharmacy Alliance
National Alliance of State Pharmacy Associations
Tempe, AZ

Scott Robertson
Kaiser Permanente, HIT Standards
Torrance, CA

Tim Sawyers
HealthSpring, Inc.
Academy of Managed Care Pharmacy
Nashville, TN

Marissa Schlaifer
Academy of Managed Care Pharmacy
Alexandria, VA

Penny Shelton
Campbell University School of Pharmacy
American Society of Consultant Pharmacists
Buies Creek, NC

Steve Simenson
Goodrich Pharmacy
American Pharmacists Association
Anoka, MN

Mark Siska
Mayo Clinic
American Society of Health-System Pharmacists
Rochester, MN

Scott Smith
Agency for Healthcare Research and Quality
Rockville, MD

Rachelle (Shelly) Spiro
Spiro Consulting, Inc.
Las Vegas, NV

Ed Staffa
Mirixa Corporation
Reston, VA
### Stacy Swartz
PSTAC  
Alexandria, VA

### Jeanette Thornton
America's Health Insurance Plans, Health IT  
Washington, DC

### Brad Tice
PharmMD  
Brentwood, TN

### Anita Varghese
Centers for Medicare and Medicaid Services (CMS)  
Baltimore, MD

### Michele Vilaret
National Association of Chain Drug Stores  
Alexandria, VA

### Ed Webb
American College of Clinical Pharmacy  
Lenexa, KS

### David Weinstein
McKesson Corporation  
San Francisco, CA

### Laura Wilson
MemberHealth Inc.  
Solon, OH

### American Pharmacists Association Staff & Invited Observers

#### Paula Bass
American Pharmacists Association  
Washington, DC

#### Marcie Bough
American Pharmacists Association  
Washington, DC

#### Jason Doss
National Community Pharmacy Association  
Student Extern  
Alexandria, VA

#### Rawley Guerrero
Amgen  
Thousand Oaks, CA

#### Stephanie Hammonds
Health Policy Fellow  
American College of Clinical Pharmacy  
Washington, DC

#### Brian Lawson
American Pharmacists Association Foundation  
Washington, DC

#### Emily Leckwath
National Association of Chain Drug Stores  
Student Extern  
Alexandria, VA

#### Crystal Lennartz
National Association of Chain Drug Stores  
Alexandria, VA

#### James A. Owen
American Pharmacists Association  
Washington, DC

#### Mitch Rothholz
American Pharmacists Association  
Washington, DC

#### Joe Sheffer
American Pharmacists Association  
Washington, DC