Medication Adherence Call Series
Summary
August 2015

The Association of State and Territorial Health Officials (ASTHO) and the National Association of Chronic Disease Directors (NACDD) held a number of events to help states in their efforts to support clinical providers in improving the percentage of patients who take hypertension medications as prescribed and related system issues. ASTHO and NACDD planned and implemented two national webinars, which were each followed by a virtual roundtable that provided an opportunity for participants to discuss the webinar topic. To guide these learning opportunities the two organizations focused on questions posed by states participating in ASTHO's Million Hearts Learning Collaborative and NACDD's Million Hearts Stakeholder Workshops. State participants wanted to know the lessons learned and challenges related to the following:

- Using **data** to find and follow up with patients who have uncontrolled hypertension and are not taking medications as prescribed
- Adapting and incorporating **adherence protocols** (including assessing patient barriers to medication adherence, patient follow up, linking to community-level interventions, etc.) at the clinical level and ways states can support the adoption of these protocols

As a result of the webinar and virtual roundtables the following themes arose as state strategies to address medication adherence:

- Engage partners such as providers, schools of pharmacy, pharmacy associations, boards of pharmacy, large health systems, Federally Qualified Health Centers (FQHCs), and Medicaid in order to obtain data and to establish pilot programs. Success factors include: level of engagement, willingness of partners to engage and be patient, and understanding how state systems work.
- Use various data sources such as the all-payer claims database (APCD), Medicaid data, and claims data.
- Support reimbursement of pharmacists as part of the care coordination team.
- Develop collaborative practice agreements for pharmacists and better coordinate when pharmacists provide feedback/recommendation to providers.
- Educate payers and decision makers about the benefits of medication therapy management.

WEBINARS

Webinar #1 (*March 2015*)
Webinar slides: http://www.astho.org/Prevention/Million-Hearts/Assessing-and-Addressing-Med-Adherence/

This webinar highlighted efforts of the Centers for Disease Control and Prevention (CDC) to help states and clinicians address medication adherence. The call featured Jeffrey Durthaler and Matthew Ritchey from CDC's Division for Heart Disease and Stroke Prevention, who provided an overview of medication adherence, discussed tools and resources they are using, and outlined the SIMPLE strategy that physicians can use to help their patients. A brief summary of the information shared during the presentation follows:

Definition of medication adherence

- Medication adherence is defined as the patient's conformance with the provider's recommendation with respect to timing, dosage, and frequency of medication- taking for the prescribed length of time. It may also be defined as the active, voluntary, and collaborative involvement of the patient in a mutually acceptable course of behavior to produce a therapeutic result.
- Compliance suggests that the patient is passively following the provider's orders and that the treatment plan is not based on a therapeutic alliance or contract established between the patient and the physician.
- Persistence indicates duration of time patient takes the medication, from initiation to discontinuation of therapy.
  Source: http://www.effectivehealthcare.ahrq.gov/ehc/products/296/1248/EvidenceReport208_CQGMedAdherence_FinalReport_20120905.pdf

Medication adherence statistics

- Most Americans recognize the importance of medication adherence. However, nearly 50% of chronic disease medications are not taken as prescribed. People who skip or forget doses are less likely to understand the health consequences of medication non-adherence.
- Rates of medication adherence to therapies for chronic conditions usually drop after the first six months.
- Only 51% of patients treated for hypertension adhere to their prescribed long-term therapy.
  Source: http://millionhearts.hhs.gov/Docs/BP_Toolkit/TipSheet_HCP_MedAdherence.pdf

Performance measures for medication adherence

States are expected to calculate medication adherence based on the proportion of days covered (PDC) value of ≥80% among patients who are prescribed an antihypertensive or antidiabetic medication. PDC is the Pharmacy Quality Alliance's recommended metric for estimation of medication adherence for patients using chronic medications. This metric is also endorsed by the National Quality Forum (NQF) and is currently used by the CMS for the Star Ratings for Commercial Medicare Health Plans.

Five interacting dimensions of non-adherence

The World Health Organization reports there are five interacting dimensions of non-adherence. Each dimension may be related to multiple factors. One or more dimensions- health care system or team, patient, therapy, condition, or social and economic factors may contribute to a patient's medication non-adherence.

Source: http://apps.who.int/iris/bitstream/10665/42682/1/9241545992.pdf

S-I-M-P-L-E

Effective interventions to reduce medication non-adherence must be "SIMPLE." Providers need to:

- **S**—Simplify the regimen
- **I**—Impart knowledge
- **M**—Modify patient beliefs and behavior
- **P**—Provide communication and trust
- **L**—Leave the bias
- **E**—Evaluate adherence

Webinar #2 (May 2015)

Webinar recording: http://www.chronicdisease.org/?Webinar_2015_05_13

ASTHO and NACDD's Cardiovascular Health and Diabetes Councils co-hosted the second webinar highlighting two states' experiences in addressing medication adherence. The webinar featured presentations by Mehul Dalal, MD, Chronic Disease Director at the Connecticut Department of Public Health; Tom Buckley, MPH, RPh, Associate Clinical Professor, University of Connecticut School of Pharmacy; and Caity Frail, PharmD, MS, Assistant Professor of Pharmaceutical Care and Health Systems at the University of Minnesota College of Pharmacy.
A brief summary of the webinar follows:

Webinar panelists were asked to address these questions:

1. Are there any validated point-of-care tools to help providers and care team members assess medication adherence and patient barriers to adherence?
2. Do you have any guidance or examples of how public health and other partners have established relationships and collaborated with corporate or community pharmacies?
3. Do you know of any successful policies/financial models to reimburse community health workers and pharmacists?
4. What are some potential measures and strategies to assess improved medication adherence? If "percent of days covered" is not a preferred metric, what else can be measured?

Connecticut presentation: In Connecticut, the Department of Public Health has a strong partnership with the University of Connecticut, School of Pharmacy. They have established a medication therapy management (MTM) program in five community pharmacies in Hartford that focuses on patients with hypertension and diabetes. Using the pharmacy database, patients are identified with

hypertension and/or diabetes and invited to participate in this pilot. The patients are counseled by MTM-trained pharmacists on disease management and self-care strategies. The pharmacist communicates with the patients' primary care clinician to address any changes in patient status and/or manage medication titration if needed.

Minnesota presentation: In 2005, Minnesota passed legislation for an MTM benefit that was a result of a combined effort of 12 years of work. The legislation required the MN Department of Human Services to reimburse qualified pharmacists for MTM services. An advisory committee was established to define the benefit and evaluate outcomes. Pharmacists must enroll for this program; be a licensed pharmacist; meet the pharmacy privacy and space requirements; use a structured patient care process allowing for assessment, develop of a care plan and an evaluation plan; and use an electronic MTM documentation system.

VIRTUAL ROUNDTABLES

Attendees of the webinars were invited to attend a follow-up Virtual Roundtable to continue the discussion in a smaller, more informal way.

Questions that guided the discussion included the following:

- What other states have been working with their schools of pharmacy or other partners, such as community pharmacies, to address med adherence? What's your approach? What's working? What's not?
- Are there other relationships besides with the school of pharmacy that would be critical for success?
- What tools have you found to be helpful?

The following is a summary of the information shared on the three virtual roundtables, including follow up information provided by the webinar presenters and additional information from the participating states:

Working with Pharmacy and Health Systems Partners

States engaged partners such as providers, schools of pharmacy, pharmacy associations, boards of pharmacy, large health systems, and FQHCs in order to obtain data and to establish pilot programs. Success factors include: level of engagement, willingness of partners to engage and be patient, and understanding how state systems work.

CONNECTICUT

The Connecticut Department of Public Health (CDPH) works closely with the *University of Connecticut School of Pharmacy*. Staff at DPH had previous experience and success working with pharmacy partners, specifically around the vaccination program. CDPH brings data analysis, backbone, and ability to communicate the importance of the effort and how the pharmacy initiative fits into the larger picture. The state is also engaged in health care access reform so partners are used to having conversations about new and extended care. However, CDPH couldn't have come as far as they have without the participation of the School of Pharmacy- they

were carrying the water before CDPH got involved and will continue to do so. Now that DPH is part of the project, they can help connect it to sustainability efforts in the state and help to scale up the work.

GEORGIA

The Georgia Department of Public Health is surveying pharmacists to determine how they are getting data on medication adherence. They are in conversations with the *Georgia Pharmacy Association*, an important partner.

ILLINOIS

The Illinois Department of Public Health is working with six *local health departments* and with the *Illinois Pharmacists Association*. Each local health department is working with one pharmacy and one federally qualified health center (FQHC) within their county to then refer patients for MTM. The Pharmacists Association will present on MTM to the local health departments and analyze how they work together.

IOWA

The Iowa Department of Public Health has a strong relationship with its pharmacy partners. Their relationship developed over time and just recently, DPH initiated a contract with the *Iowa Pharmacy Association* to do a survey (based on Montana and Colorado surveys). The *Iowa Board of Pharmacy* provided addresses of all registered pharmacies across the state and DPH worked with the Iowa Pharmacy Association and the *Drake University College of Pharmacy and Health Sciences* through a cooperative agreement to compile responses from the survey. DPH is now looking at results to determine where to go next, such as determining how to analyze medication adherence work by physicians. They will also continue to seek a partnership with *Wellmark BCBS*, a large insurer in the state.

The Iowa DPH also contracted with the University of Iowa to recruit pharmacists and providers who want to work together but aren't co-located. Pharmacists and providers signed agreements to work together on panels of common patients focused specifically on hypertension and diabetes. Thus far, they have worked with 21 different teams and will analyze what makes these teams successful and what tools and resources have been most useful to such teams.

MINNESOTA

In Minnesota, there were several leaders within the *University of Minnesota College of Pharmacy* that became legislative champions for the bill described under Webinar #1. The *Minnesota Pharmacists Association* also worked tirelessly on this issue. Advocates from the *Minnesota Board of Pharmacy* were committed to the issue and there was also a champion within the *Minnesota Department of Human Services*.

There is no formal partnership but everyone is committed to this work, though they do not work as closely as they did when they were working to pass the legislation. The *Minnesota Pharmacists Association* provides training and support for those who want to get involved. The College of Pharmacy has provided continuing education and evaluations; the University has developed an MTM benefit based on the model passed in the legislature.

Depending on the composition of the state and community for this work (rural v urban), *health systems* can be good partners, as well as *independent community pharmacies* which are able to make changes nimbly without the necessity of a huge system change.

MARYLAND

The Maryland Department of Health and Mental Hygiene Center for Chronic Disease Prevention and Control (CCDPC) collaborated with the *University of Maryland School of Pharmacy,* the *Maryland Pharmacists Association,* and the *Maryland General Assembly* to implement the P3 (Patients, Pharmacists, Partnerships) Program. The program was implemented through self-insured employers and offered to their employees. Specially trained pharmacist coaches worked with participants using a model of care that provides step-by-step guidance in medication adherence, lifestyle changes, and self-care skills. A participant with diabetes, hypertension and hyperlipidemia who enrolled in the program was assigned to a trained Maryland P3 pharmacist who helped him/her understand and implement an individualized Medication Action Plan, developed in conjunction with the participant's primary care physician. P3 pharmacists regularly met face to face (5-7 times per year) with each patient to assess the patient's knowledge and understanding of his or her medication regimen and chronic disease, coach the patient in setting measurable self-management goals, and communicate with their patients' primary health care providers to ensure coordination of care. As a result of P3, the following outcomes were observed: better blood glucose control, better blood pressure control, more likely to get recommended services, and lower overall costs.

MONTANA

The Montana Department of Public Health and Human Services (MDHHS) is providing a grant of $2,000/pharmacy to focus on blood pressure medication adherence, although a few are getting reimbursed for MTM. In the funded pharmacies, the pharmacists conduct brief consults with a sample of patients where they address medication adherence and lifestyle behavior change. MDHHS is asking the sub-awardees to use the "Proportion of Days Covered ≥80%" for the medication adherence definition. They also performed a Community Pharmacy Assessment in the first year of their 1305 grant and will reassess it this spring. Several states contacted Montana for their survey, which was also shared at CDC's 1305 grantee meeting in 2014.

NEBRASKA

The Nebraska Department of Health and Human Services partnered with *Creighton University* to survey 501 pharmacies throughout the state, with a 68% response rate (343 pharmacies). This survey asked questions about blood pressure measurements, glucose testing, self-management, smoking cessation, comprehensive drug therapy review, medication adherence assistance and immunizations. Responses referenced these basic services and the results were broken down into pharmacies of interest, meaning those settings where medication therapy management was more likely to occur.

SOUTH CAROLINA

The South Carolina Department of Health and Environment is targeting specific areas and *providers who serve the most at-risk patients* to show the benefit of intervening with pre-diabetic patients or to get patients to improve medication adherence. They are using the ADA criteria for "at-risk" and have noted regional differences for diabetes diagnoses using a cumulative summary of hospitalizations, ER visits, racial distributions, mortality, and risk factors with inactivity and smoking.

WASHINGTON

The Washington Department of Health has been working with the *Washington State Pharmacy Association* and through them, also working with *schools of pharmacy.* They are working with *primary care providers* on evidence-based practices and team-based care for hypertension. They have found it easier to work with pharmacists that are embedded in a healthcare team in the FQHCs, as it is easier to provide feedback to the provider.

Partnering with Medicaid

States have varying degrees of relationships with their Medicaid partners and have been partnering with them to support reimbursement for pharmacists and to share data.

CONNECTICUT

The Connecticut Department of Public Health has been working through several pharmacy champions to work with their Medicaid agency. They request information and initiate and engage in conversations on Medicaid's plan. The champions can also engage in ancillary activities, such as working with legislators to allow pharmacists to become an integral part of the care team.

IOWA

In Iowa, private insurers and health plans broker some of these relationships.

MARYLAND

As a result of collaboration between the Maryland Department of Health and Mental Hygiene's Center for Chronic Disease Prevention and Control (CCDPC) and Medicaid, a Drug Utilization Review of anti-hypertensive medication in the fee-for-service population was conducted. Adults found to be non-adherent to anti-hypertensive agents were identified and educational letters were mailed to their respective prescribers and pharmacy providers. After a follow-up period, recipients were evaluated to determine if they continued to be non-adherent during the follow-up period.

NEBRASKA

Nebraska's Department of Health and Human Services is working closely with Medicaid in obtaining medication adherence data. Their Medicaid department will be writing quarterly reports on a specific disease and is currently working on a diabetes report, which will include many of the measures that are a focus of their chronic disease grant. Since they have had difficulty working with their Quality Improvement Network, they partnered with Pharmacy

Quality Solutions (PQS), which is the 'parent' of the EQuIPP Dashboard. PQS collects information on approximately 69% of Nebraska's Medicare population.

PENNSYLVANIA
Pennsylvania's Regional Extension Center is working with the PA Department of Human Services on claims data, analyzing the fill dates for the medications and looking at trending in terms of adherence.

Data Collection

States are using various data sources such as the all-payer claims database (APCD), Medicaid data, and claims data.

CONNECTICUT
The Connecticut Department of Public Health has enjoyed a fairly good relationship with Medicaid working on certain projects. Their current work around is to focus on pharmacies currently in the initiative and they are hoping to expand to other areas of the state. They hope to get medication adherence data directly from the pharmacies. They expect the APCD to be online within the next year to produce reports for them and have asked for medication adherence to be considered.

MARYLAND
The Maryland Department of Health and Mental Hygiene CCDPC is collaborating with the Maryland Learning Collaborative (MLC) on medication adherence and the possibility of using claims data to identify high utilizers in 52 Maryland Multi-Payer Patient Centered Medical Home (PCMH) practices. CCDPC is exploring using Maryland's APCD to analyze medication adherence to hypertension and diabetes drugs. CCDPC is in the process of determining which medications to include in the data analyses.

OHIO
The Ohio Department of Health is working with FQHCs that have a pharmacist embedded in the care team. The FQHC sites are using a standardized data collection tool and submit monthly reports to ODH on MTM consults. ODH also is working with primary care providers, retail pharmacists and community-based pharmacists to develop MTM models for these sites. They are hoping to learn from these models and expand MTM for hypertension and diabetes across the state. They are also working closely with the state HIE to collect 1305 and 1422 Performance Measure data related to EHRs. They are using their state Medicaid administrative pharmacy claims data to ascertain medication adherence rates for hypertension and diabetes. Additionally, data were collected from community pharmacies in targeted communities identified by 1422 sub awardees via an assessment regarding the promotion of medication-management and/or patient self-management of blood pressure.

PENNSYLVANIA
The Pennsylvania Regional Extension Center is working with 150 practices to utilize EHRs to

understand medication adherence. They are finding that there is not a structure field for medication adherence in EHRs and have found that many EHRs cannot produce reports and data.

SOUTH CAROLINA
The South Carolina Department of Health and Environmental Control is working with *FQHCs*, especially in rural settings. They have analyzed Medicaid populations, pharmacological utilization, and expenses. They can generate statistics related to chronic conditions. They now have measures within EHRs on medication adherence for HTN, as well as A1Cs for diabetes measurements.

STATES WITH APCDS
States with an all-payer claims database (APCD) tend to have more information on medication adherence but have to be creative about where they get that information. States can talk with their CDC project officer to connect with the CDC pharmacist for help in accessing this data.

CENTERS FOR DISEASE CONTROL AND PREVENTION
CDC is mostly working on data related to the proportion of days covered (PCD). They are looking at several different avenues for data collection, including APCDs, Medicaid databases, Medicare data that can be obtained through the Research Data Assistance Center (ResDAC: www.resdac.org), Tricare data through the Department of Defense, and all commercial plan data, though this is more cumbersome to obtain. Only about 10 states have an APCD and even these have somewhat limited data. CDC is hoping to work with a few states to assess the feasibility of using claims data aggregators, which are companies that look at activity before it becomes a claim with only a one-month delay. For some of these data sets, a national approach may be preferable because then states could request data from a centralized repository.

Reimbursement for Pharmacists

Several states are working with partners and insurers to support reimbursement of pharmacists as part of the care coordination team. They are also working on developing collaborative practice agreements for pharmacists and to better coordinate when pharmacists provide feedback/recommendation to providers.

CONNECTICUT
The Connecticut Department of Public Health plans to engage payers through the upcoming Million Hearts Stakeholder Workshop and will brainstorm ideas on how to maintain MTM services through private insurers.

OHIO
The Ohio Pharmacists Association convened a meeting with insurers and Medicaid regarding reimbursement for pharmacists. They are also talking with managed care plans.

ILLINOIS
The Illinois Department of Public Health is meeting with dual-eligible plans to discuss

reimbursement. They are working with three plans to discuss reimbursement for MTM and services offered at FQHCs.

WASHINGTON
Washington legislation was recently passed which covers reimbursement for pharmacist services for people insured by Medicaid and private payers. It requires health insurance carriers to include pharmacists as network providers.
http://www.wsparx.org/news/230992/ESSB-5557---WSPA-Alert-Landmark-Provider-Status-Legislation-Signed-by-Governor-Inslee.htm

Additional Tools and Resources

Several resources were mentioned by participants and are listed below.

- **ASTHO Tools for Change**: http://www.astho.org/Million-Hearts/State-Learning-Collaborative-Tools-for-Change/Data-driven-Action/#Medication-Adherence

- **GlaxoSmithKline** one-pager on medication adherence:http://www.chronicdisease.org/resource/resmgr/CVH/ASK-20_Survey_GSK.pdf.

- **Merck's Adherence Estimator**: http://www.adherenceestimator.com/.

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