



What's Behind the Lack of Success for Pharmacists' Clinical Services?

Melissa Sherer Krause, Pharm.D.

January 2021

Disclosures

- I am a consultant pharmacist and Vice President of Pharmacy Healthcare Solutions, LLC.
- I have no financial interests in the companies, organizations, or concepts described in this presentation.
- I am a member of the Pennsylvania Pharmacists Association, which is involved in the Pennsylvania Pharmacists Care Network (PPCN) CPESN. I am not directly involved in that specific activity of the Association, but I do support it and know many of the pharmacists doing excellent work in that area.

Objectives

- Evaluate various clinical services delivered by pharmacists to determine whether they provide hard or soft dollar savings
- Assess market segments willing to pay for soft dollar savings
- Analyze current market initiatives through this lens, including Chronic Care Management Services and CPESN

PHARMACIST DELIVERED CLINICAL SERVICES AND STATE SPECIFIC INITIATIVES

State Specific Initiatives

- Many states have introduced various initiatives for pharmacists to provide clinical services.
- The next few slides include a sampling of those initiatives, focused on where pharmacists may be recognized and reimbursed for their clinical services and/or addressed specifically in state laws or regulations, which exists in a variety of states, including:
 - California
 - Montana
 - New Mexico
 - North Carolina
 - Texas
 - Tennessee
 - Washington
- There are limited data about the uptake of these initiatives, but anecdotal evidence suggests participation is generally low.

New Mexico

- Pharmacist Clinicians can now be reimbursed for their clinical services at an amount equivalent to others providing those clinical services, such as physicians and nurse practitioners.
 - For example, this could apply to CCM payment rates, which in NM Medicaid are as follows:

CPT or HCPCS Code	Brief Description	Rate	Price Start Date
Chronic Care Management Services			
99487	Complex chronic care management services requiring moderate or high complexity of medical decision-making, with at least 60 minutes of staff time directed by a physician or other qualified health care professional per calendar month.	\$83.84	7/1/2019
99489	Complex chronic care management – each additional 30 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month.	\$41.91	7/1/2019
G0506	Chronic care management services when the billing practitioner personally performs an extensive assessment and chronic care management care planning beyond the usual effort described by the separate initiating visit.	\$57.90	7/1/2019

- Pharmacist clinicians collaborate with physicians to provide certain primary care and specialty care services, including prescribing medications, performing physical exams and ordering lab tests.

Texas

- A pharmacist in Texas can participate in Drug Therapy Management (DTM) as defined under the collaborative practice agreement with the physician.
- DTM is the performance of specific acts by pharmacists as authorized by a physician through written protocol.
- The pharmacist must document their activities with a patient for DTM and provide the documentation to the physician.

Tennessee

- As part of the Collaborative Practice Agreement (CPA) clinical pharmacists can
 - Initiate, modify or discontinue medications.
 - Order and review laboratory tests.
 - Make referrals to other medical providers.
 - Serve as a conduit to increased specialized pharmacotherapy care between patients' normal primary care provider (PCP) appointments.
- The clinical pharmacist is also able to be reimbursed for their services provided under the physician's NPI number in the CPA

Washington State

- Pharmacists can prescribe legend drugs under the collaborative practice agreement as determined by the physician.
- Pharmacists can interchange biologic products
- Pharmacists are able to prescribe 12 months of contraception
- Pharmacists are allowed to administer full range of vaccines as describe in their CPA

Payment Model Challenges

- Q: With all of these state specific initiatives, why isn't there more uptake of pharmacist-delivered clinical services?
- A: Lack of a sustainable payment model is a major factor.

Savings Types Examples

- **Soft dollar savings commonly include:**

- Reduction in cash flow
- Reduction in need for working capital
- Avoidance of capacity enhancement
- Conformation to changes in the law
- Increased safety in the workplace
- Increased employee satisfaction
- Increased customer satisfaction

- **Hard dollar savings commonly include:**

- Reduction in unit cost of operations
- Reduction in unit cost of production
- Reduction in transaction cost
- Reduction in overhead cost
- Reduction in manpower
- Increased through
- Increased revenue



Savings Types in Pharmacy Terms

- Soft dollar savings may include:
 - Patient safety
 - Medication error prevention
 - Consultations/Interventions provided
 - Saved time (nurses/physicians)
 - Patient satisfaction
- Working definition: savings that **cannot** be deposited in the bank, such as those that may be realized by preventing an adverse event as a result of a clinical service
- Hard dollar savings may include:
- Cost reduction
 - Drug costs or Total care costs
 - Personnel/FTE
 - Lease/purchase - automation costs
 - Reduced LOS (hospital)
- Working definition: savings that **can** be deposited in the bank, such as savings that free up dollars for other uses

Pharmacists' Clinical Services

Clinical Service	Typical Savings Type
Medication Therapy Management (MTM) including Comprehensive Medication Review ¹	Could be either, more common soft
Transitions of Care – Medication Reconciliation ²	Soft dollar
Immunizations ³	Hard dollar
Chronic Disease Management such as Diabetes Self Management Education ⁴	Soft dollar
Medication synchronization ⁵	Soft dollar

1. Wittayankorn, Saranrat; Evaluation of Medication Therapy Management Services for Patients with Cardiovascular Disease in a Self-Insured Employer Health Plan; *J Manag Care Pharm.* 2013; 19(5): 385-95. <http://www.amcp.org/WorkArea/DownloadAsset.aspx?id=16595>.

2. Najafzadeh M, Schnipper JL, Shrank WH, Kymes S, Brennan TA, Choudhry NK. Economic value of pharmacist-led medication reconciliation for reducing medication errors after hospital discharge. *Am J Manag Care.* 2016 Oct;22(10):654-661. PMID: 28557517.

3. Berenbrok LA, Renner HM, Somma McGivney MA, Coley KC. A conceptual value-based incentivization model of adult immunization for community pharmacists. *J Am Pharm Assoc* (2003). 2020 Nov-Dec;60(6):835-842. doi: 10.1016/j.japh.2020.04.023. Epub 2020 Jul 4. PMID: 32631740.

4. Nuffer W, Trujillo T, Griend JV. Estimated Potential Financial Impact of Pharmacist-Delivered Disease Management Services Across a Network of Pharmacies in Rural Colorado. *J Manag Care Spec Pharm.* 2019 Sep;25(9):984-988. doi: 10.18553/jmcp.2019.25.9.984. PMID: 31456492; PMCID: PMC6859940.

5. Patterson JA, Holdford DA, Saxena K. Cost-benefit of appointment-based medication synchronization in community pharmacies. *Am J Manag Care.* 2016 Sep;22(9):587-93. PMID: 27662221.

Example: MTM and Self-Insured Plan

- Evaluation of MTM services in patients with cardiovascular disease in a self-insured employer health plan¹

Differences in Clinical Outcomes

	Pre-Index Period	Post-Index Period
BP Goal Met	55%	70%
BMI Goal Met	13.0%	21.7%

- Fairview Pharmacy Services
 - Part of ACO
 - 23 MTM pharmacists (18 FTEs) at 30 locations
- Findings:
 - Since 1998, resolved over 2,780 medication-related problems
 - Optimal care in diabetes patients significantly higher for MTM patients (21% vs. 45%)
 - 12:1 ROI comparing overall healthcare costs of MTM patients vs. those not receiving services

1. Wittayanukorn, Saranrat; Evaluation of Medication Therapy Management Services for Patients with Cardiovascular Disease in a Self-Insured Employer Health Plan; *J Manag Care Pharm.* 2013; 19(5): 385-95. <http://www.amcp.org/WorkArea/DownloadAsset.aspx?id=16595>.
2. Brummel, Amanda; Best Practices: Improving patient Outcomes and Costs in an ACO Through Comprehensive Medication Therapy Management; *J Manag Care Pharm.* 2014; 20(12): 1152-58. <http://amcp.org/WorkArea/DownloadAsset.aspx?id=18838>.

Estimated Cost Avoidance

- Most articles in the pharmacy literature evaluating the savings realized from pharmacist-delivered clinical services utilize “estimated cost avoidance” (ECA), sometimes referred to as “medication cost avoidance” (MCA) or simply “cost avoidance,” as the measurement of savings
 - A literature search of PubMed for ECA and pharmacist returned 18 results
 - A similar search for ECA and pharmacist OR pharmacy yielded 40,849 results

ECA in the Literature

Article Title	ECA Cited
Impact of pharmacist interventions on cost avoidance in an ambulatory cancer center.	\$282,741/RPh/ year (net \$138,441) ¹
Retrospective Analysis of Estimated Cost Avoidance Following Pharmacist-Provided Medication Therapy Management Services.	\$494,122 over 4 month study period ²
Cost avoidance related to a pharmacist-led pharmacogenomics service for the Program of All-inclusive Care for the Elderly.	\$162,031-\$233,945 ³
A Study to Identify Medication-Related Problems and Associated Cost Avoidance by Community Pharmacists during a Comprehensive Medication Review in Patients One Week Post Hospitalization.	\$92,143, or \$4850 per patient Extrapolated annual cost savings related to the service: \$276,428 ⁴

1. Randolph LA, Walker CK, Nguyen AT, Zachariah SR. Impact of pharmacist interventions on cost avoidance in an ambulatory cancer center. J Oncol Pharm Pract. 2018 Jan;24(1):3-8. doi: 10.1177/1078155216671189. Epub 2016 Sep 27. PMID: 27682600.

2. Branham AR, Katz AJ, Moose JS, Ferreri SP, Farley JF, Marciniak MW. Retrospective analysis of estimated cost avoidance following pharmacist-provided medication therapy management services. J Pharm Pract. 2013;26(4):420-427. doi:10.1177/0897190012465992

3. Bain KT, Knowlton CH, Matos A. Cost avoidance related to a pharmacist-led pharmacogenomics service for the Program of All-inclusive Care for the Elderly. Pharmacogenomics. 2020 Jul;21(10):651-661. doi: 10.2217/pgs-2019-0197. Epub 2020 Jun 9. PMID: 32515286.

4. Took RL, Liu Y, Kuehl PG. A Study to Identify Medication-Related Problems and Associated Cost Avoidance by Community Pharmacists during a Comprehensive Medication Review in Patients One Week Post Hospitalization. Pharmacy (Basel). 2019 May 29;7(2):51. doi: 10.3390/pharmacy7020051. PMID: 31146447; PMCID: PMC6630417.

Limitations of ECA

- This sampling of studies suggests variability in ECA that may be realized as a result of pharmacist delivered clinical services
 - One study in the primary care setting, which compared projected medication cost avoidance to actual MCA associated with clinical pharmacy specialist-initiated medication conversions, found that projected MCA overestimated the actual cost avoidance by approximately 14% ¹

1. Kroner BA, Billups SJ, Garrison KM, Lyman AE, Delate T. Actual versus projected cost avoidance for clinical pharmacy specialist-initiated medication conversions in a primary care setting in an integrated health system. *J Manag Care Pharm*. 2008 Mar;14(2):155-63. doi: 10.18553/jmcp.2008.14.2.155. PMID: 18331117.

Who will spend on soft dollar savings?

- While ECA may be a valid method for estimating savings, it may not be precise, and is limited since it can only estimate soft dollar savings.
- This limits the audience willing to spend on these services to those organizations at financial risk for both the medical and pharmacy spend. For example, ACO's, large self-insured employers, and Medicare Advantage plans.
- Soft dollar/cost avoidance savings are important to risk bearing entities because they accrue the benefit directly. For example, an ACO will likely reimburse for services that lower projected costs because they are typically working with a capitation amount for all patient healthcare services.

Example: Clinical Service Supported by a Risk-Bearing Entity

- For example, self-insured employers were included in a project gathering expert insight to design a value-based payment model intended to incentivize community pharmacists for increased administration of various vaccines to adult patients.¹
- Researchers calculated ECA using:
 - “disease incidence”,
 - direct medical costs of vaccine-preventable diseases, and
 - vaccine effectiveness available at the time of this study.”

1. Berenbrok LA, Renner HM, Somma McGivney MA, Coley KC. A conceptual value-based incentivization model of adult immunization for community pharmacists. *J Am Pharm Assoc* (2003). 2020 Nov-Dec;60(6):835-842. doi: 10.1016/j.japh.2020.04.023. Epub 2020 Jul 4. PMID: 32631740.

ECA, Effectiveness, and Self-Insured Employers

- Two cost avoidance equations were drafted to provide estimates of cost avoidance:
 - **ECA WITH vaccine effectiveness** = Persons vaccinated* Disease incidence* Vaccine effectiveness* (direct medical costs of disease/case)
 - **ECA WITHOUT vaccine effectiveness** = Persons vaccinated* Disease incidence* (direct medical costs of disease/case)
- The study found that *“Individuals representing self-insured payers valued evidence supporting that increased vaccination rates ultimately lead to improved quality of care”¹*

1. Berenbrok LA, Renner HM, Somma McGivney MA, Coley KC. A conceptual value-based incentivization model of adult immunization for community pharmacists. J Am Pharm Assoc (2003). 2020 Nov-Dec;60(6):835-842. doi: 10.1016/j.japh.2020.04.023. Epub 2020 Jul 4. PMID: 32631740.

Disease Incidence & Economic Burden

- Disease incidence was not specifically defined. The study described how participants encouraged increased adult pneumococcal and pertussis vaccinations despite a lower annual incidence of disease for each compared to that of influenza and herpes zoster.
- They also looked at economic burden of each of these disease states:
 - Influenza disease was attributed to an economic burden of \$5.8 billion annually
 - Pneumococcal disease: \$1.9 billion
 - Herpes zoster: \$782 million
- They concluded that *“bundling preventative vaccinations may ensure that vaccine-preventable diseases with lower annual economic burden can also be incentivized by value-based models.”*

CHRONIC CARE MANAGEMENT (CCM)

Chronic Care Management (CCM)

- CCM
- Complex CCM



CCM Value

- In 2017, APhA wrote that:
 - *“CCM could be a powerful base payment mechanism for pharmacists and their prescriber partners who are collaborating on the care of a patient population. Additionally, CCM and complex CCM could provide the fee-for-service mechanism for pharmacists to be compensated for some of their services as pharmacists and physicians enter into emerging quality-based and risk-sharing payment structures.”*

2017 CCM Payment Rates

- In 2017, CCM payment rates based on CPT codes distinguished between CCM and Complex CCM, with different average payments per unit of services

The distinction between CCM and complex CCM is based on the amount of time spent delivering services to the patient in the given month. CCM and complex CCM are defined by the American Medical Association's (AMA) Current Procedural Terminology (CPT) codes. The chart below compares CCM and complex CCM:¹

	CCM	Complex CCM
Duration of Services	At least 20 minutes	More than 60 minutes
CPT Code(s)	99490	99487
Services Provided	5 core CCM services	5 core CCM services that may additionally include: <ul style="list-style-type: none">• Moderate or high complexity clinical decision making• Establishment or substantial revision of care plan
Average payment per unit of service ⁵	\$43	\$94
Eligible for 30-minute add-on	No	Yes

2020 CPT Codes for Pharmacist-Led CCM¹

CPT Description	CPT Code	Revenue (est)	Minimum Time Requirement	MDM Requirement	Application in Pharmacist Led CCM
Comprehensive Assessment and care planning	G0506	\$64	None	Moderate to Complex	Applied to physician-pharmacist co-care initiating visit
Chronic care management services	99490	\$43	20 min	None	Applied to CCM services delivered with or without pharmacist employing MDM
Complex chronic care management services	99487	\$94	60 min	Moderate to Complex	Applied when pharmacists employ moderate to complex MDM through CPA
Add-on for complex chronic care management services	99489	\$47	30 min (in addition to 99487 requirement)	Moderate to Complex	Applied when pharmacists employ moderate to complex MDM through CPA

1. Reproduced from: Martin R, Tram K, Le L, Simmons C. Financial performance and reimbursement of pharmacist-led chronic care management. Am J Health Syst Pharm. 2020 Nov 16;77(23):1973-1979. doi: 10.1093/ajhp/zxaa300. PMID: 32995845.

CCM in the Literature

- In this study, which measured ROI and excluded cost avoidance in its calculations, pharmacist-led CCM demonstrated a “modest positive ROI” of 15.6%

Table 2. Third-Party Claims for Pharmacist-Led CCM at 3 Primary Care Clinics During 12-Month Study Period

CPT Code	Total No. of Claims	Paid Claims, No. (%)	Payment Amount per Claim, mean	Published Reimbursement Rate ^a	Total Reimbursement
G0506	31	30 (97)	\$56.67	\$64	\$1,699.96
99490	70	55 (79)	\$37.80	\$43	\$2,079.05
99487	43	35 (81)	\$86.90	\$94	\$3,041.42
99489	14	11 (79)	\$55.77	\$47	\$613.48
Total	158	131 (83)	NA	NA	\$7,433.91

Abbreviations: CPT, Current Procedural Terminology; CCM, chronic care management; NA, not applicable.

^aPublished reimbursement rates are estimates provided on Medicare guidance documents pertaining to CCM.

1. Martin R, Tram K, Le L, Simmons C. Financial performance and reimbursement of pharmacist-led chronic care management. *Am J Health Syst Pharm.* 2020 Nov 16;77(23):1973-1979. doi: 10.1093/ajhp/zxaa300. PMID: 32995845.

CCM in the Literature

- This study showed an average reimbursement of \$70 per hour of clinical time-on-task.
 - Compared this reimbursement to the cost of pharmacist salary and benefits, excluded overhead facility costs such as space, lighting, and technology because those were “incurred by the medical practice regardless of pharmacist utilization”
- This initiative would have been more successful if more or all of the claims submitted were approved by the payer and with a lower percentage of unreimbursed effort

COMMUNITY PHARMACY ENHANCED SERVICES NETWORKS (CPESN) USA

CPESN Networks as of Sept 1, 2020



CPESN by the Numbers

- As of September 1, 2020:
 - 2,621 dedicated and capable pharmacies
 - 49 local networks in 45 states across America
 - More than 75 percent of the country covered by hand delivery to the home
 - 34.6 million rural Americans cared for by CPESN pharmacies
 - 422,572 total Pharmacist eCare Plans transmitted by 1,968 CPESN pharmacies
 - 18 technology providers with Pharmacist eCare Plan capabilities

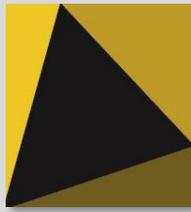
CPESN Results

- Most recent data available are from 2020, including:
 - *“More than 100 value-based contracting opportunities for CPESN networks”*
 - *“Most CPESN pharmacies with contracts have generated four-figure revenue, some with five- or six-figure revenue”*
 - These details are promising, though additional growth is needed. As of 2019, NCPA reports the average annual sales per pharmacy location were \$3.4 million.
 - Four, five, and even six-figure revenue is likely not enough incentive to allow clinical services to compete for pharmacists’ time with their dispensing activities.

Suggested Next Steps

- As pharmacy services continue to evolve, evaluate clinical programs as to the type of savings generated, hard or soft dollars
 - Where possible, structure programs that generate hard dollar savings and obtain agreement with finance on measurement metrics
 - For soft dollar savings programs, also agree on measurement metrics and track them over time to confirm or refute estimates
 - Track and publish results for all clinical programs to refine/improve services, learn in real world situations what works and what doesn't, and evaluate improvements to apply to future programs

Questions?



Melissa Krause, Pharm.D.
mkrause@phsirx.com
www.phsirx.com

