The pharmacy profession has for the greater part of four decades been associated with dispensing activities and product reimbursement. This has hindered the ability of pharmacists to evolve their roles in their respective sites of care. Payment reform efforts that create an outcomes marketplace offer an opportunity for professional transformation.

The Outcomes Marketplace Emerges

For more than three decades now, the pharmacy profession has been limited by a financing and performance model that threatens its sustainability. Pharmacy benefits are generally separate benefits from the rest of health plan and nondrug benefits, thereby relegating pharmacists to mercantile dispensers whose model of care is limited to providing only cursory advice or suggesting more cost effective medication alternatives.

This has been a natural posture given the constrained environment in which pharmacists have been able to express their value to date. Pharmacy benefit managers have historically had, as principal goals, drug-cost minimization and buy-sell rebate spread, having little to do with delivering clinical or global patient outcomes. This reality has stunted the growth and evolution of the profession and now thrust it into an identity crisis where pharmacists are still largely paid to sell medications but express value through their ability to aid the care team in producing better outcomes—pharmacists now have a dual existence.

As we move headlong into payment reform in all manners unrelated to the drug budget, an opportunity emerges for pharmacists and pharmacies to play a role in the outcomes marketplace. As we move away from fee-for-service models that attribute little or no value on outcomes, and toward models of provider risk and reward, the knowledge of the pharmacist, their staff, and their settings of care become increasingly advantageous to payers and medical providers alike.

The Four States of Patient Existence

Patients exist in one of 4 states relative to a given provider at any moment in time. Either the patient is pre-encounter, in an encounter, post-encounter, or disengaged from that provider (see Figure 1). An example of pre-encounter status is a patient who will be seen by their primary care provider in three days. An example of disengaged is a patient who is lost to follow-up.

In a fee-for-service model, the risk-reward proposition starts when a patient enters the clinic or other provider setting and it ends when the patient leaves the clinic (essentially the length of the encounter). For the hospital, it starts when they enter the emergency room and it ends when they are discharged. For pharmacies in a fee-for-product model, it starts when the patient drops off a prescription and ends when they pick it up.

However, in a population management model a provider is held to account for risk that goes beyond the encounter and to metrics that speak to clinical and humanistic outcomes. The act of doing an evaluation or procedure or dispensing of medication is not sufficient. The first ubiquitous example of risk reaching beyond the encounter was Medicare’s 30-day readmission penalty initiative.

But now that we are headlong into payment reform in all manners unrelated to the drug budget, an opportunity emerges for pharmacists and pharmacies to play a role in an emerging outcomes marketplace that is quite dependent on the coordinated and optimal use of medications. Patients in various states of care, among various sets of providers are especially susceptible to disorganized, fluctuating medication lists and chaotic medication use beyond the cash register, where actual medication taking and patient behavior often conflict with prescriber intent. Absent a suffocating model of financing based on product, pharmacists are well-skilled and often well-positioned to engage and reinforce well-coordinated and patient-centered medication use plans, aggregated across many prescribers.

Medications and Social Determinants

Improving outcomes requires an ongoing patient-provider relationship, especially for those with chronic diseases, behavioral health conditions, or self-management and medication-use challenges. Seventy one percent of all...
spending in health care comes from patients with multiple chronic conditions, and they represent 83% of all prescriptions filled [1]. Consider that the average Medicare recipient with multiple chronic illnesses sees 13 different prescribers in one year, fills 50 unique medications, and is 100 times more likely to have a preventable hospitalization than the average person. Payment reform and population management are inextricably linked to optimizing the use of medications [2].

In a population or panel management model, the optimal drug regimen is now only half of the effort. Prescribing a beta-blocker after a heart attack is certainly best practice, but this act alone has long been the focus of quality efforts. However, in an outcomes marketplace the provider needs to see the prescribed modality through to its intended effect. This change in focus now begs services to ensure that the patient fills that medication every month, avoids negative interactions with other drugs, and has access to and understanding of the prescription. This includes efforts to remove patient barriers such as lack of transportation, burdensome out of pocket costs, low belief in the effectiveness of a drug, and lack of understanding of when and how to take the medication.

**Community Pharmacy and Primary Care**

Pharmacists practice in many different settings of care, but the community setting in particular is a highly accessible and engaging point of capture which offers great promise for pharmacists who want to contribute in previously undervalued ways. Patients are often in transition from pre- or post-encounter states when moving freely about the health care system. They may be disengaged with their primary care provider (or lack one altogether) and cycle back and forth between specialists, hospitalizations, procedures, rehabilitation, and other care team interactions that are rarely, if ever, synced with each other. Pharmacies are often the lowest common denominator and in an outcomes marketplace, pharmacist activities that support coordinated and optimized medication use now become valuable to payers and other care team members.

The problems (and opportunities for improvement) with this phenomena are woefully understood or acknowledged by the larger healthcare delivery and financing system. North Carolina is about to undergo the most significant transformation in the Medicaid program's history since its inception through the Medicaid Reform effort. The Medicaid program serves an opportune population for return on investment in services related to optimizing the use of medications—not necessarily from a drug spend perspective, but from an institutional care offset perspective. For Medicaid enrollees, 5% of the population represents 48% of the cost, and for that complex population medication use is typically chaotic [3]. For the dually eligible, the concentration of utilization as a group is even more stark, with each dually eligible enrollee averaging $18,200 per year in expenditures in Medicaid dollars and $15,200 per year in Medicare dollars [4]. This concentration of cost and drivers of population level measures, along with the strong correlation between modifiable risk in these sub-populations and sup-optimal medication use, are compelling reasons to resource medication use experts and supports.

In traditional fee-for-service and fee-for-product models, the pharmacy and the primary care provider are left without a business proposition to optimize their population management capabilities. But in a population or panel-based model of care, their capabilities emerge as two cornerstones of an evolved financing and delivery system. Because primary care providers prescribe the vast majority of medications, pairing them with onsite pharmacy practice and offsite pharmacy settings makes sense. Figure 2 represents a typical flow of patient interactions with frequent visits to the pharmacy resulting from prescriptions emanating from multiple providers without engagement of a primary care provider. Community Care of North Carolina (CCNC)
maintains an ever growing body of peer-reviewed work that demonstrates the highly effective proposition of combining accessible primary care with medication use supports provided through care management and pharmacists [5-9]. In fact, CCNC believed so much in the proposition of community pharmacies augmenting primary care efforts that it built a Community Pharmacy Enhanced Services Network to pair with its care management wrap-around supports. That effort has now expanded to more than 35 states (see http://www.cpesn.com).

The Grass is Greener on the Other Side

The pharmacy profession’s current identity crisis—are we manufacturers, dispensers, prescribers, or coordinators of medication use?—can be squarely placed on the financing system that we have grown up in. Stuck on the drug-cost minimization side of the wall, away from the rest of the care team, without the ability to express value where they can influence it the most (in clinical and humanistic outcomes), pharmacists belie the educational construct of patient-centered care it has fought so hard to adopt since the later part of the last century. Payment reform begins to chip away at that wall between the drug and non-drug benefit. It’s not been for lack of desire to bring down that wall, it’s been for lack of tools—optimal medication use driving outcomes is that tool.

All Dressed Up with No Where to Go— Until Now

Starting in the 1990s, nearly all pharmacy schools began to transform their curriculum toward offering Doctor of Pharmacy degrees as a 4-year program (with associated residency and fellowship slot growth) that mimicked the medical school educational format and trajectory. By the early part of this century, nearly every school offered only the Doctor of Pharmacy degree.

Over time, residency slots grew and the number and percentage of pharmacy graduates electing to enter a residency or fellowship continued to rise. However, those residents then entered a job market where they were largely overqualified for the positions needing to be filled. Aside from subsidized positions in academic medical centers or schools of pharmacy, these well trained professionals found themselves in roles that matched the pharmacist job descriptions of the 60s, 70s, and 80s. Now well into the 2010s, the labor market for pharmacists has flipped from a dramatic shortage of pharmacists in the 2000s to a surplus in many geographies, with surpluses projected to get much larger over time. All of this is happening as payment reform finally arrives to perhaps create demand for skill sets and risk/reward captives that require optimal medication use so as to replace the reduction in demand for traditional activities centered on dispensing the medication that result from automation.

Learners become Teachers

Learners immerse themselves into their educational experience typically with a 40 year career horizon. They are much more likely to be concerned with a profession’s 10 or even 20 year trajectory than established practitioners. Like other professions, and owed to the retirement of the baby boom generation in part, pharmacy is going through a significant generational turnover in practitioners. New graduates and learners have the expectation that the skills they paid
so much for in tuition will lead to work that is professionally fulfilling and sustainable.

However, the outcomes marketplace may not wait around for this generational shift in practice preference and for this mindset to fully turn. This makes learners an essential vehicle to transform the way pharmacists conduct their work. As Project Director of the Centers for Medicare & Medicaid Innovation Round 2 cooperative agreement, I found that “learners as teachers” in community pharmacy settings benefit both the learners as well as the practice site itself. Traditionally, the goal of a preceptor or residency director has been to immerse the learner into an environment (that’s perhaps a bit evolved itself) and assimilate them so that they may follow their manner of practice. However, the need for radical transformation is so great and so widespread within community-based pharmacies that the role of the learner becomes the means by which transformation occurs. They are not contaminated by convention; rather they are versed in contemporary practice models. The learner then becomes the catalyst, not the assimilated.

A strong majority of the 270 plus community-based pharmacies that are integrating their activities into the medical neighborhood need learners to be teachers. CCNC has worked closely with the UNC Eshelman School of Pharmacy to test the immersion of first year students into these practice sites and supplement the workforce, with the goal of having them engage patients and participate in population management-oriented services that many of the pharmacies are simply unable to staff or are otherwise disinclined to make significant investment. Early findings suggest great promise for both students and sites.

Survival Requires Transformation

The emergence of the outcomes marketplace presents an opportunity for the profession to realize its efforts to build sustainable practice models that partner with their care team colleagues and serve their local communities. Yet risk abounds for tens of thousands of pharmacists with six-figure student debt if we are subsequently unable to transform conventional thinking and practice and bend it toward new models of care and financing. 

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References

1. Gerteis J, Izrael D, Deitz D, LeRoy L, Ricciardi R, Miller T, Basu J. Multiple Chronic Conditions Chartbook: 2010 Medical Expenditure Panel Survey Data. AHRQ website. https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/prevention-chronic-care/decision/mcc/mccchartbook.pdf. Published April 2014. Accessed May 3, 2017.
2. Anderson GF. Testimony before the Senate Special Committee on Aging. The Future of Medicare: Recognizing the Need for Chronic Care Coordination. Serial No. 110-7, pp 19-20 (May 9, 2007).
3. US Government Accountability Office. Medicaid: A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures. http://www.gao.gov/assets/680/670112.pdf. Published May 8, 2015. Accessed April 18, 2017.
4. Congressional Budget Office. Dual-Eligible Beneficiaries of Medicare and Medicaid: Characteristics, Health Care Spending, and Evolving Policies. https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/44308dualeligibles2.pdf. Published June 6, 2013. Accessed April 18, 2017.
5. Jackson CT, Trygstad TK, DeWalt DA, Dubard CA. Transitional care cut hospital readmissions for North Carolina Medicaid patients with complex chronic conditions. Health Aff (Millwood). 2013;32(8):1407-1415. http://content.healthaffairs.org/content/32/8/1407.long. Published August 2013. Accessed April 18, 2017.
6. Cosway R, Girod C, Abbott B. Analysis of Community Care of North Carolina Cost Savings Prepared for: North Carolina Division of Medical Assistance. Community Care of North Carolina website: https://www.communitycarenc.org/media/related-downloads/milliman-cost-savings-study.pdf. Accessed April 18, 2017.
7. Performance Analysis: Healthcare Utilization of CCNC-Enrolled Population 2007-2010. Report prepared by Treo Solutions. Community Care of North Carolina website: https://www.communitycarenc.org/media/related-downloads/treo-solutions-report-on-utilization.pdf. Accessed April 18, 2017.
8. Department of Health and Human Services, Division of Medical Assistance. Community Care of North Carolina Financial Related Audit, August 2015. http://www.ncauditor.net/EPSWeb/Reports/FiscalControl/FC-A-2014-4445.pdf. Accessed April 18, 2017.
9. North Carolina Community Care Networks, Inc. Clinical Program Analysis. Community Care of North Carolina website: https://www.communitycarenc.org/media/files/roi-document-may-2015.pdf. Published May 2015. Accessed April 18, 2017.