Changes in PBM Business Practices in 2019: True Innovation or More of the Same?

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SUMMARY

In 2019, pharmacy benefit managers (PBMs) responded to intense public criticism with business model changes described as movements toward full transparency and innovation to reduce costs for benefit plan sponsors. We critically analyze these changes in light of key challenges in specialty drug management: pharmaceutical manufacturer practices (price increases driven by coverage mandates and lack of price control, intensive and sometimes misleading advertising, patent extensions), FDA changes (increased reliance on manufacturer funding, weakened evidentiary base for drug approvals), and provider prescribing patterns (lag from evidence to routine practice, manufacturer influences on the knowledge base, direct manufacturer payments to frequent prescribers).

The persistence of controversial PBM practices suggests that business model changes were mostly cosmetic, without altering key marketplace dysfunctions. Examples include “spread” pricing, in which PBMs pay pharmacies less than employer-paid amounts; rebate-influenced formulary development; and shifting of prescription volume to PBM-owned pharmacies. Spread in Medicaid was estimated at \$224.8 million in Ohio and \$123.5 million in Kentucky in 1-year periods and is the subject of an ongoing federal investigation. Rebate influence on formulary development is suggested by slow biosimilar adoption and a study documenting little association between brand exclusions and clinical or cost-effectiveness. Even in 100% passthrough arrangements, the price differential between rebated products and lower-cost alternatives may far exceed revenues returned to the payer. Shifting of business to PBM-owned pharmacies was identified in Florida managed Medicaid in 2018, where the state’s 5 largest specialty pharmacies, all owned by managed care organizations or PBMs, collected 28% of prescription drug profit despite dispensing only 0.4% of claims. Finally, contract provisions and terms typically limit the ability of plan sponsors to monitor PBM performance. These include “offsetting,” changes in definitions (e.g., “single-source generic”) during the contract term, restrictions on audit rights, and exclusion of some pharmaceutical manufacturer revenues from “100%” passthroughs. We conclude that ostensibly positive changes in PBM practices have been offset by undisclosed business arrangements, shifts to alternative revenue sources, and opaque contractual terms. Establishing and maintaining a sustainable benefit will require fundamental alterations to this dysfunctional market

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For the pharmacy benefit management (PBM) industry, 2019 was widely viewed as a watershed year of business model changes brought about by disruptive competition; new federal and state regulations; intense public scrutiny; and accusations of business practices that represent, as described by one U.S. senator, as “one of the most gnarled, confounding riddles in American health care.”¹⁻⁵ In this critical review of peer-reviewed and grey literature, we conclude that these changes were (1) mostly cosmetic rather than fundamentally altering key dysfunctions in PBM-client relationships, and (2) insufficient to address the most pressing challenge facing benefit plan sponsors today: management of the specialty drug benefit. We focus on specialty drugs as a high-stakes financial concern,⁶ with many employers viewing escalating costs as an existential threat to health benefits, and an estimated 30% considering new plans or PBMs.^{7,8} Equally high stakes are clinical challenges stemming from common uses, such as off-label prescribing and genomic therapy for patients without the targeted mutation, that are clinically questionable or potentially harmful.⁹⁻¹² Following a description of PBM industry foundations, we consider specific drivers of these benefit-management challenges and conclude with a critical assessment of the PBM industry’s response to them.

Foundation of Drug Benefit Management in Early PBM Business Models

Contracting with a PBM provided important advantages for employers in the 1980s and 1990s, including administrative efficiencies from pharmacy carve-outs and automated claims processing, and favorable discounts off average wholesale price in PBM mail order.^{13,14} Employer-PBM arrangements began to shift toward greater PBM influence as drug spending increased rapidly beginning in the 1990s, fueled by “blockbuster” drug launches, coverage expansions, and increasingly broad definitions of chronic disease.¹⁵⁻¹⁷ Employers and other plan sponsors gradually relinquished control of the benefit, making decisions about design features (e.g., copayments, deductibles) but delegating key business arrangements like network contracting, price negotiation, formulary coverage, and utilization management to the PBM.^{13,18}

More recently, double-digit specialty drug cost increases and concerns about the transparency of PBM business practices led to growing consensus that this delegated model was no longer working well for many employers and patients.^{2,3,5,13,19} Recent

initiatives publicized by some PBMs in response to these concerns include collaborative employer-PBM arrangements described as transparent cost passthroughs building on previous movements toward transparency; innovative manufacturer contracts (e.g., “value-based” coverage, long-term payment plans); new clinical performance requirements; increased formulary exclusions for brand drugs; and increased biosimilar use.^{4,20-23} Although potentially positive, these changes should be understood in the context of 3 challenges, or “headwinds,” in specialty drug management: pharmaceutical manufacturer practices, U.S. Food and Drug Administration (FDA) changes, and provider prescribing patterns.

Headwind #1: Pharmaceutical Manufacturer Practices

Employers, which lack leverage over drug pricing and regulation, must rely on PBMs and consultants to combat several sources of manufacturer-related cost increases (Table 1, Box A).²⁴⁻⁵⁴ Among these are much higher prices for prescription medications in the United States than in other countries, such as the United Kingdom.²⁴ For example U.S. prices (in 2014 dollars) were higher by 96% for adalimumab (2 syringes, \$2,669 vs. \$1,362, respectively), 42% for ledipasvir-sofosbuvir (4-week supply, \$32,114 vs. \$22,554), and 736% for bevacizumab (400 mg, \$3,930 vs. \$470).²⁵

Critical to understanding these price differentials is the economic principle that pricing is based on “what the market will bear,” not on the producer’s cost.^{26,27} When payers lack leverage to negotiate, producers lack incentive to be price-competitive.²⁸ Passage of the Affordable Care Act, which eliminated lifetime benefit maximums, mandated coverage in every U.S. Pharmacopeia class, and included no price controls, was soon followed by large price increases for specialty drugs.²⁹⁻³¹ Similarly, broad coverage requirements may leave publicly funded health care programs with little leverage against price increases.²⁸ For example, total Medicare spending on repository corticotropin, a pediatric antiseizure medication with limited effectiveness over less costly alternative medications in adults, increased nearly 13-fold, from \$49.5 million in 2011 to \$636 million in 2016, with the cost per claim increasing from \$33,621 to \$49,442 during that period.³²⁻³⁶ In contrast to these U.S. circumstances, most other countries use price regulations (e.g., reference pricing, health technology assessment) to control drug costs.³⁷

Additional manufacturer practices increase U.S. payer outlays. Manufacturer expenditures on U.S. direct-to-consumer advertising (DTCA) for prescription drugs—legally prohibited in all other countries except New Zealand—more than quadrupled, from \$1.3 billion (79,000 advertisements) in 1997 to \$6 billion (4.6 million advertisements) in 2016.^{38,39} Deceptive advertising, sometimes resulting in substantial financial settlements with the U.S. Department of Justice to resolve allegations of wrongdoing, also impairs effective management.⁴⁰⁻⁴⁵ Patent

extensions facilitated by congressional actions intended to encourage drug development have delayed launches of FDA-approved biosimilars, with 16 launched and 10 unlaunched as of March 2020.⁴⁶⁻⁵¹ Allegations of anticompetitive practices, including requirements for biosimilar exclusions to obtain single-source brand rebates, “fail-first” provisions, and misleading advertising about biosimilar safety and efficacy, are under litigation and may contribute to markedly reduced U.S. market penetration compared with the European Union (e.g., 15% vs. 71%, respectively, for infliximab biosimilars).⁵²⁻⁵⁴

Headwind #2: FDA Changes

Although consultants and PBMs have historically relied on FDA approval as sufficient evidence for coverage, the wisdom of that approach is challenged by questions about whether programs intended to promote clinical innovation have compromised the agency’s regulatory function (Table 1, Box B).^{46,55-62} Manufacturer fees from the Prescription Drug User Fee Act and other programs increased from \$36.3 million in 1993 to \$1.38 billion in 2019, respectively, funding 29% and 66% of the FDA’s total budget for human drug and biologic applications in those years.^{56,57}

Simultaneously, the evidentiary basis for drug approvals has weakened per provisions of breakthrough and accelerated approval pathways, with percentages based on uncontrolled studies increasing from 4% to 17% and on active-comparator studies declining from 44% to 29% from 1995-1997 to 2015-2017.⁵⁸ Weaker evidence was particularly normative for drugs with a Breakthrough Therapy designation, for which 52% of approvals from 2013-2016 were based only on phase 1 or phase 2 trials.⁵⁸ Similarly, accelerated drug approval may be based on a surrogate, such as tumor shrinkage, that “is reasonably likely to predict” clinical benefit, provided that the manufacturer agrees to postmarketing studies of an endpoint outcome.⁵⁹ However, these surrogate-based approvals may yield limited evidence of clinical benefit in controlled research.^{60,61} For example, among surrogate-based oncology drug approvals from 2008-2012, only 14% of drugs improved survival, 50% did not, and 36% were untested after a median of 4.4 postapproval years.⁶¹ For payers, these changes mean that specialty drugs may not consistently represent good value for money spent. Compounding this issue, the FDA has no legal authority to investigate cost-effectiveness.⁶²

Headwind #3: Provider Prescribing Patterns

Payers may experience challenges resulting from the “evidence to practice gap,” defined as inconsistency between available scientific evidence and clinical practice that has persisted for decades (Table 2, Box A).^{10-12,63-76} The estimated 17-year lag time between translational (application-oriented) research and routine care contributes to sometimes clinically questionable utilization.^{10-12,65-67} Examples include pegfilgrastim for

TABLE 1 “Headwinds” in Specialty Drug Management, U.S. Level

Box A. Pharmaceutical Manufacturer Practices

No leverage over price

- Prices higher in United States, no price control mechanisms^{24,25,37}
- Prices rose sharply after ACA implementation, “what the market will bear”²⁶⁻³¹

Demand fueled by DTCA³⁹

- DTCA ad buys were \$1.3 billion in 1997, \$6 billion in 2016
- DTCA increases use of promoted products
- DTCA emphasis is on brand drug, not lifestyle or generic products

Potentially misleading marketing

- Failure to warn of potential for fatal overdose in ad for ER injectable for opioid addiction⁴⁰
- Downplaying of ADEs in marketing materials for injectable drug for plaque psoriasis⁴¹
- Failure to mention any risk information in pediatric-targeted advertisement for stimulant with black-box warning for abuse potential⁴²
- Website statement that investigational monoclonal antibody was a cure for brain cancer and was “safe and effective,” although drug was not approved⁴³
- Financial settlements (manufacturer names not shown):
 - \$2.2 billion to resolve allegations of fraudulent off-label promotion and “kickbacks” to physicians and pharmacists⁴⁴
 - \$1.4 billion to resolve criminal and civil liability for “illicit” promotion of buprenorphine-naloxone⁴⁵
 - 103 settlements totaling > \$11 billion from 1997-2016 for unlawful (typically off-label) promotion³⁹

Patent extensions, delayed biosimilar launches

- Adalimumab (5 approved biosimilars, no launches expected until 2023)⁵¹
- Infliximab (4 approved biosimilars, 2 launched as of February 2020)⁴⁸
- Etanercept (2 approved biosimilars, expected launch dates unknown)^{48,51}
- Biosimilar market shares in the United States vs. European Union, respectively⁵⁴:
 - Filgrastim: 94% vs. 72%
 - Infliximab: 71% vs. 15%
 - Pegfilgrastim: 42% vs. 29%

Box B. FDA Changes

Increases in pharmaceutical manufacturer funding

- Fees as percentage of total FDA budget for human drug and biologics regulation
 - FY 1993: PDUFA was \$36,319,490 of \$126,958,144 (29%)⁵⁶
 - FY 2019: All fees (PDUFA, generic, biosimilars, facility) were \$1.38 billion of \$2.1 billion (66%)⁵⁷

Weakened base of evidence from 1995-1997 to 2015-2017⁵⁸

- Uncontrolled studies increased from 4% to 17% of approvals
- Active-comparator studies declined from 44% to 29% of approvals
- 52% of breakthrough drug approvals based only on phase 1 or 2 trials; 42% based on no controlled studies in 2013-2016

Approvals based on surrogates and biomarkers

- No significant difference between breakthrough and non-breakthrough oncology drugs on tumor response rate (37% vs. 39%), MOA (36% vs. 39%), ADEs (38% vs. 36%), or death (6% vs. 4%)⁶⁰
- 67% of oncology drugs in 2008-2012 approved based on surrogate endpoint, follow-up median of 4.4 years after approval⁶¹
 - Of those, RCTs showed 14% improved survival, 50% did not, and 36% not tested
 - Surrogate basis much more likely (100%) for accelerated approval

ACA = Affordable Care Act; ADE = adverse drug event; DTCA = direct-to-consumer advertising; ER = extended-release; FDA = U.S. Food and Drug Administration; FY = fiscal year; MOA = mechanism of action; PDUFA = Prescription Drug User Fee Act; RCT = randomized controlled trial.

low- or intermediate-risk chemotherapy without other risk factors (46%)¹¹; off-label oral oncolytics without evidentiary support (3%)⁶⁶; and proprotein convertase subtilisin/kexin 9 inhibitors off-label (12%) or without concomitant statin use (60%).⁶⁷ Physicians may also lack awareness of drug costs.^{68,69}

Although gaps in available evidence (e.g., when studies exclude patients with common comorbidities) contribute to the problem, the sometimes-conflicted relationships between physicians and the pharmaceutical industry also play a role.⁷⁰⁻⁷² Despite Sunshine Act disclosure requirements, concerns remain

about manufacturer influences on knowledge dissemination, such as “gift authorship” arrangements, research targeted to commercial interests, and “detailing” visits.⁷²⁻⁷⁴

Studies consistently document decreased prescribing cost-effectiveness from these practices—an important issue because an estimated 48% of U.S. physicians received payments totaling \$2.4 billion from drug and device manufacturers in 2015.^{73,74} In Medicare Part D, receipt of even a single manufacturer-funded meal (mean value <\$20) was associated with increases of 18%-118% in odds of prescribing branded drugs when less

TABLE 2 “Headwinds” in Specialty Drug Management, Provider and PBM Level

Box A. Provider Practice Patterns

Clinical practice lagging behind science

- Estimated 17-year lag from translational research to routine care adoption⁶⁵
- Examples of studies documenting clinically questionable prescribing:
 - 46% of pegfilgrastim doses for patients using low- or intermediate-risk chemotherapy unnecessary¹¹
 - 29% of high-cost oral oncolytic uses off-label; of those, 12% not supported (12% of 29% = 3%)⁶⁶
 - 12% of early PCSK9-I uses were off-label; concomitant statin used by 40% (i.e., 60% did not use statins)⁶⁷

Aggregated estimated costs associated with clinically inappropriate uses

- >\$712,000 in 1 year in a single hospital study of 292 patients treated with CSF in 2009-2010¹¹
- \$2.5 billion nationwide for use of chemotherapies not supported by evidence in 2010¹⁰

Lack of drug price awareness

- Physicians unaware of drug costs; overestimate lower-cost drugs; underestimate higher-cost drugs^{68,69}

Manufacturer influence

- Receipt of a single manufacturer-funded meal increases brand prescribing⁷⁵
- 88% of frequent repository corticotropin prescribers received manufacturer payments totaling \$2.2 million⁷⁶

Box B. PBM Practices

Manufacturer-derived revenue sources: Administrative fees, inflation adjustments, care-management fees, rebates, sales of claims data, inventory procurement fees⁷⁷

Spread

Ohio Medicaid

- \$5.71 per script for all brands and generics, totaling \$224.8 million from April 2017-March 2018⁸⁰

Kentucky Medicaid in 2018

- Spread was 58% of prescriptions; of \$858 million paid to PBMs, \$123.5 million retained as spread⁷⁹

Massachusetts Medicaid⁸²

- Highest 5 spreads mean per script: tacrolimus (\$2,350), imatinib (\$1,811), omeprazole/bicarbonate (\$525), ribavirin (\$514), sildenafil (\$397)
- Spread was 22% of total payments to PBMs in 2014, 54% in 2016
- MCO exceeded FFS cost by a mean \$15.97 overall and by ≥\$50 for 9.9% of drugs in quarter 4, 2018
- Highest 5 increases of MCO over FFS mean cost per script (generic): valganciclovir (\$1,134), capecitabine (\$871), entecavir (\$709), clobazam (\$575-\$694), budesonide (\$525)

Owned pharmacies (Florida Medicaid)⁸³

- Little evidence of spread overall, but evidence that MCOs and PBMs maintained profitability with other mechanisms; may have redirected business to their owned pharmacies

Rebate influence on formulary development

- No association between clinical value or cost-effectiveness and formulary inclusion⁹⁴
- Formulary inclusion of branded alternatives costing >\$1,500/month despite low-cost ingredients^{86,89-91}
- Some employers reluctant to give up rebate guarantees, despite evidence of cost-ineffectiveness^{5,100}

Failed prior authorization

Archimedes examples, payer cost

- First-line use of omalizumab, a monoclonal antibody indicated for asthma only after failed inhaled corticosteroid treatment (\$12,120)⁹⁵
- Use of repository corticotropin injection for MS without previous steroid injection trial (\$169,293)³²⁻³⁴
- Use of somatropin, indicated for idiopathic growth deficiency, in 2 children at 75th and 97th height percentile with no clinical growth deficiencies (\$49,333)⁹⁶
- Ustekinumab dispensed at dosage too high for weight (\$48,058)

Information asymmetry

- Few published analyses of PBM programs, even in programs described as transparent^{20,99,100}

Contractual terms and nontransparencies favoring PBMs^{18,102-104}

- Omission of information about revenue received from manufacturers or PBM-owned pharmacies
- Omission or manipulation during contract term of key definitions, such as single-source generics
- Omission or manipulation during contract term of “offsetting” provisions
- Limited right to audit or verify billing accuracy

CSF = colony-stimulating factor; FFS = fee-for-service; MCO = managed care organization; MS = multiple sclerosis; PBM = pharmacy benefit manager; PCSK9-I = proprotein convertase subtilisin/kexin 9 inhibitor.

expensive options were available.⁷⁵ A more costly example was identified in an analysis of frequent prescribers of repository corticotropin, of whom 88% had received manufacturer payments totaling >\$2.2 million in 2015; each \$10,000 payment increment was associated with a 7.9% increase in Medicare spending on the drug.⁷⁶ Under these circumstances, encouraging cost-effective, evidence-based utilization has become an increasingly difficult task.

■ Critical Analysis: Are PBMs Headwind or Tack?

Faced with headwinds, a wise sailor takes a new tack—a changed angle of movement that, executed properly, permits progress. For payers, a key question is whether recent changes to PBM business models represent a headwind, perhaps in a different form than previously, or a tack that facilitates forward movement. Addressing this question requires consideration of financial alignment because money received from pharmacies and pharmaceutical manufacturers has supplanted claims-processing fees paid by plan sponsors as the primary PBM revenue source (Table 2, Box B).^{13,77-106} We consider the question of financial alignment in this section, examining recent evidence on several controversial PBM business practices.

“Spread,” or the differential between drug acquisition costs billed to the payer versus paid by the PBM to the dispensing pharmacy, came to public attention in 2018 after what one industry observer described as “the audit that changed everything,” which documented a total of \$224.8 million in spread paid by Ohio Medicaid in a 1-year period.^{79,80} The resulting concerns about spread prompted a federal investigation launched in April 2019 and similar investigations in other states, including Kentucky, Massachusetts, and Florida.^{79,81-83} In Massachusetts, spread for the top 20 generic drugs ranged from \$107-\$2,350 per prescription, and managed care organization (MCO) cost exceeded fee-for-service payments by \$15.97 per drug overall and by ≥\$50 for 9.9% of drugs (top 5 mean cost increases: \$525-\$1,134).⁸² These findings suggest that even when spread arrangements are declared in contracts, they represent financial misalignment between PBM and payer interests because total costs may far exceed what would otherwise have been paid for equivalent dispensing services.

A second controversial practice was highlighted in the report on Florida Medicaid, which produced little evidence of spread but a concerning finding that PBMs looking to “transition away from spread pricing without sacrificing profitability” may have found alternative revenue-enhancement mechanisms.⁸³ These included shifting of managed care prescription volume to the state’s 5 largest specialty pharmacies, which together collected 28% of available managed Medicaid prescription drug profit despite dispensing only 0.4% of claims in 2018.⁸³ For the state’s top 5 specialty pharmacies, all owned by MCOs or PBMs, per-claim profit on managed Medicaid was \$79-\$207 compared with \$2-\$4 in retail pharmacies.⁸³ Such arrangements create

inherent misalignment between the payer’s financial interest, selection of the most cost-effective dispensing site, and that of a PBM that owns a specialty pharmacy.

Rebates paid from pharmaceutical manufacturers to PBMs in exchange for formulary inclusion may be one of the clearest manifestations of misalignment, even in 100% rebate passthrough arrangements, because the price differential between rebated products and lower-cost alternatives may far exceed revenues returned to the payer. For example, a branded ibuprofen-famotidine combination costing approximately \$2,600 per claim is included in the formulary of at least 1 large PBM, which has a multimillion dollar rebate arrangement with the manufacturer, although both ingredients are available as generic products for a total of <\$20.⁸⁴⁻⁸⁹ Similar concerns have been raised about topical diclofenac and combination naproxen-esomeprazole, priced at approximately \$1,500 and \$2,200, respectively, for a 30-day supply, and included on some PBM formularies, sometimes with utilization management restrictions (e.g., prior authorization [PA], quantity limits).^{86,90,91}

With few exceptions, biosimilar uptake among PBMs has been slow.^{23,92,93} Formulary decisions on brand drugs, sometimes touted as innovative cost-saving measures, are often unrelated to clinical value and may be implemented for products without any available comparative evidence of clinical or cost-effectiveness, suggesting that rebates influence them.^{4,5,94}

Because these arrangements incentivize greater utilization and higher-cost drugs, PA use may be lax. Audits conducted by Archimedes, a firm with which we are affiliated, commonly reveal high-cost, clinically inappropriate utilization, similar to the patterns described in peer-reviewed research described previously, in paid claims that underwent PA (examples in Table 2, Box B).^{95,96} Investigation of these uses, coupled with medical reviews conducted by board-certified specialists, revealed that physician offices sometimes attested in the PBM’s PA process to clinical criteria not supported by the medical record. With few exceptions, specialty drug PA denial rates or outcomes are rarely reported, and stakeholder organizations have identified a need for reform around increased transparency and evaluation of these programs.⁹⁷⁻⁹⁹ Similarly, although contracting innovations (e.g., value-based coverage, long-term payment plans) may prove to be beneficial, no outcomes for these programs have been reported, even in organizational arrangements ostensibly centered around transparency.^{20,100}

■ Disclosure and Transparency in Payer-PBM Contracts

In response to concerns about industry practices, PBM representatives have argued that payer uptake of available innovations is typically slow, perhaps because spread pricing and rebates offset other costs, such as administrative fees or premiums.^{5,22} Supporting this view are relatively low use rates for point-of-sale rebates to reduce out-of-pocket costs and

the phenomenon of “rebate addiction,” or payer reluctance to convert from rebated to fee-only models.^{100,101} However, information disadvantage in contracting and monitoring PBM performance may mean that even in “transparent” arrangements, such choices are less than fully informed.^{18,102-104}

PBM contracts with payers typically lack important detail about revenue received from manufacturers and pharmacies, drug-pricing methods, and dispensing costs at PBM-owned versus community pharmacies.^{18,103,104} Without such information, plan sponsors may be unaware of financial misalignments, such as whether the pharmacy network has been chosen based on the lowest cost to the plan sponsor or the highest financial yield to the PBM.¹⁸ Plan sponsors may also be unaware that multiple sources of manufacturer revenue may be excluded from the 100% passthroughs they receive or that the PBM may use a separate group purchasing organization to aggregate and distribute rebates, potentially allowing additional revenue retention.^{103,105} Key definitions, such as what constitutes a “single-source generic,” and provisions, such as whether the PBM can “offset” failure to meet one guarantee with success in another, may be omitted or manipulated during the contract term.^{18,103,104}

Contracts also typically allow plan sponsors limited opportunity to evaluate PBM performance. Audit rights may be restricted by fees, limits on frequency or data access, or constraints on choice of auditor, making monitoring difficult for all but the largest plan sponsors.^{18,102-104} Moreover, few PBMs provide drug-level rebate reporting, leaving plan sponsors unable to determine if drugs have been chosen based on rebates or cost-effectiveness.

Although plan sponsors may contract with consultants or brokers to advise them on PBM selection, advisors vary greatly in their PBM knowledge, with some having limited sophistication on the complexity of PBM contracting or have conflicts of interest because of undisclosed PBM affiliations.^{5,18,102} Health Rosetta, a benefits-advising certifying organization, requires disclosure of all revenue sources and recommends use of consultants who do not accept PBM commissions.^{106,107} However, adoption of the Health Rosetta model has been slow.

Conclusions

In this critical review, we suggested that ostensibly positive changes in PBM practices have been offset by undisclosed business arrangements, shifts to other revenue sources, and opaque contractual terms. The challenge plan sponsors face is best understood by “following the money” and understanding their limited leverage over conflicted revenue streams and information asymmetry. Establishing and maintaining a sustainable health care benefit will require fundamental alterations to this dysfunctional market.

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