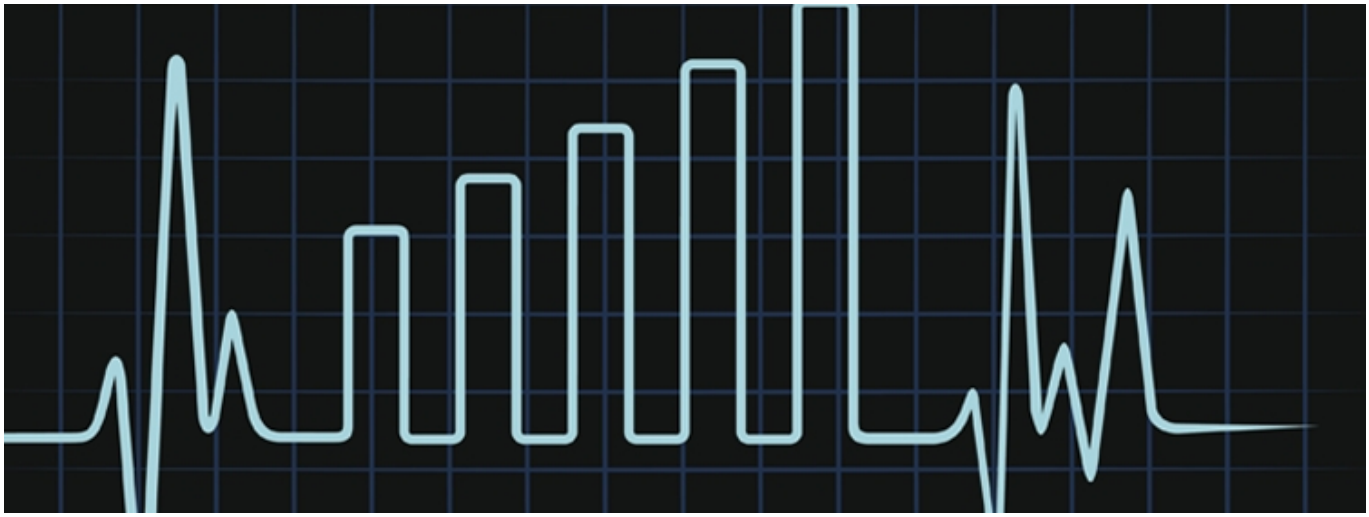


# Drug Inflation “Unmasked” and Worrisome

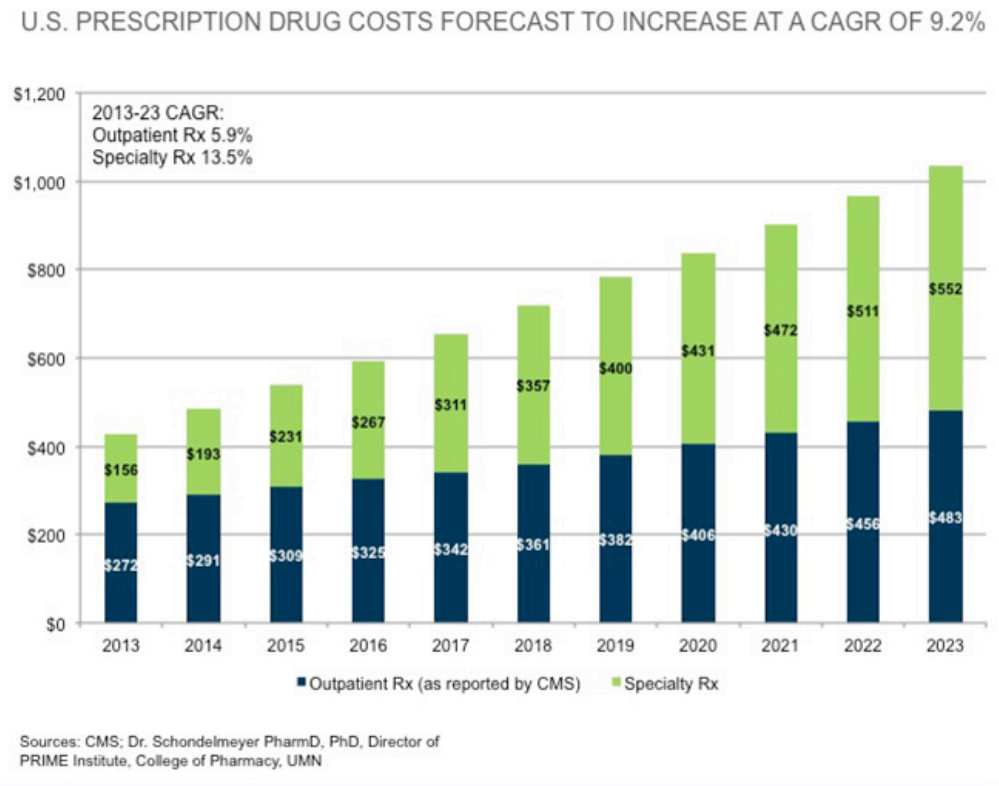
U.S. spending on prescription drugs increased 13 percent in 2014, driven by new specialty products and significant price increases for many branded products. A leading anti-viral medication for Hepatitis C reported sales of $10.3 billion, with a full 12-week course of therapy reaching $84,000 per patient.[1] The average price of one type of insulin has increased from $600 to $1,200 per vial in less than three years.[2] Due to generic drug industry consolidation, many generic drug prices have also exploded. Costs for the generic antibiotic doxycycline have risen by 8,281 percent, asthma treatment albuterol by 4,014 percent and anti-cholesterol medication pravastatin by 573 percent.[3]

The pharmaceutical industry in America, unlike in other developed nations, continues to use direct-to-consumer advertising to promote its products, to introduce new (cancer) products without price controls or a requirement for the generation of relative cost-effectiveness data,  and to lobby effectively to sustain its agenda.

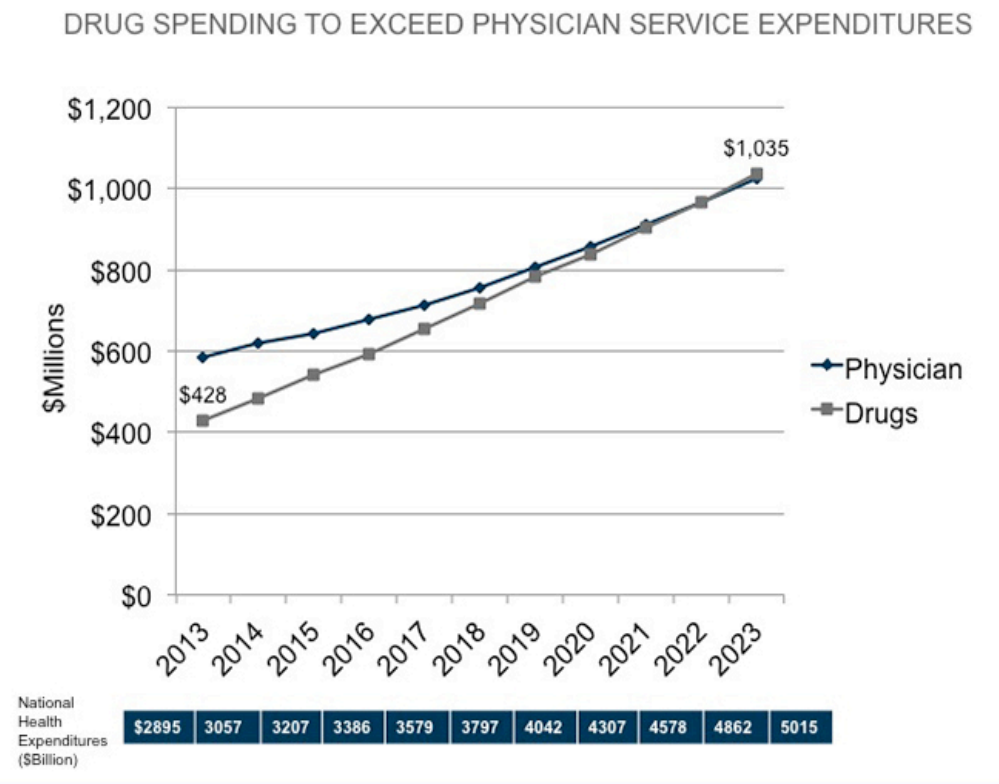
Payers, employers and consumers will continue to be affected by skyrocketing drug costs. In this article, we highlight the issues and propose remedies.

Drug expenditures as reported by CMS were understated by 36 percent.

The Centers for Medicare & Medicaid Services (CMS) do not include hospital and specialty drugs subject to medical claims (J-codes) in gross drug spending calculations. As a result, the vast majority of healthcare professionals are unaware that actual prescription drug spending far exceeds CMS reported expenditures. Also, through 2023, CMS reports drug spending as a percent of National Health Expenditures is forecast to remain relatively constant at 9.4 percent.[4] The reality is far different; drug spending is estimated to increase at a greater rate than any other sector within healthcare and to represent 20.1 percent of national health expenditures by 2023.[5]




Moreover, despite a $160 billion (37 percent) differential in spending in 2013, drug costs are projected to surpass physician service expenditures by 2022.

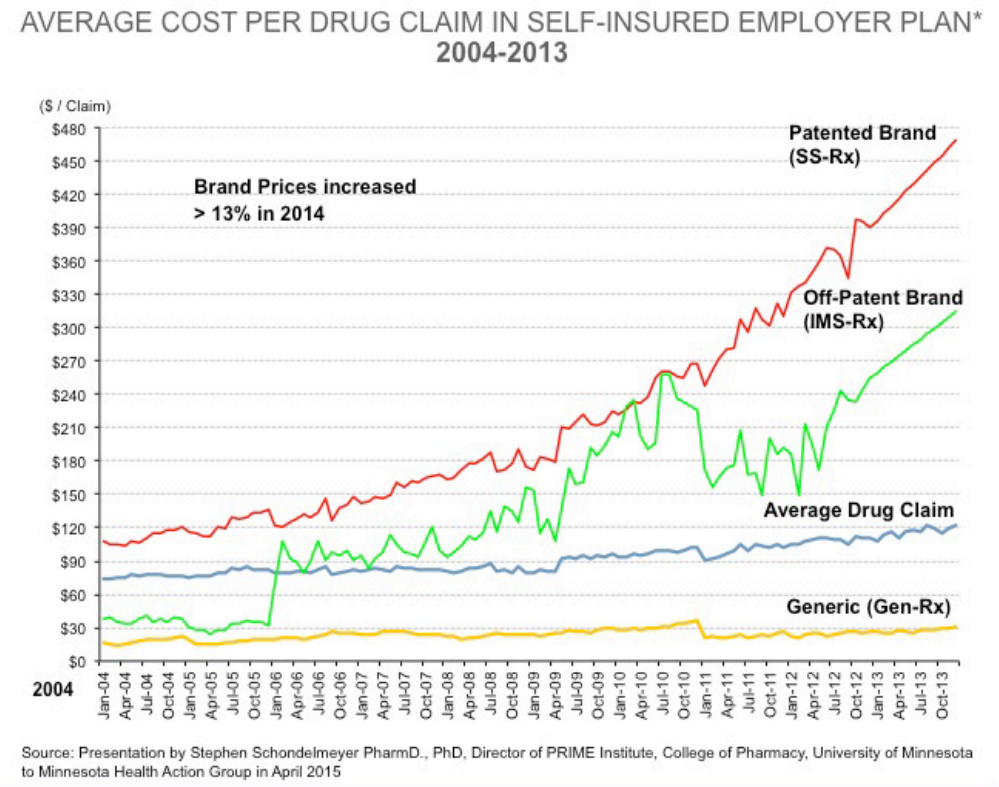



**Accelerating drug price inflation masked by generic cliff**

In 2003 to 2012, the generic prescription penetration rate increased from 54 percent to 84 percent, figures inclusive of branded and non-branded generic products.[6] The increase reflected major patent expirations from several therapeutic categories including anti-depressants, cholesterol lowering, gastric acid reflux and antibiotics, hence the term “generic cliff,” implying a significant loss of revenues.

During this period, the average price of a patented brand drug prescription increased from approximately $110 to $470 per

claim, reflecting a compound annual growth rate of 15.6 percent.[7] The increase reflects price increases to existing branded drugs, as well as the introduction of expensive specialty products.




*As a result of the prescription mix shift from branded to generic, the price of an average drug claim remained comparable, but that is all about to change.*

The generic cliff is forecast to end in 2016 to 17. In 2015, generic alternatives for branded products with revenues of $24.4 billion will become available; the comparable figures for 2016 and 2017 are $12.3 billion and $5.8 billion, respectively.[8]

**Pharmaceutical business models now focused on high cost, low volume conditions**

The advent of the generic cliff has shifted pharmaceutical research and development efforts to the development of specialty drugs, such as those used to treat cancer, and complex chronic and/or rare conditions that require special handling and/or administration (e.g., infusion or injection). In 2014, 41 of the 100 best-selling drugs treated fewer than 100,000 patients; conversely, only 35 treated more than 500,000 patients.[8]

Specialty drugs now include those being taken orally. The common denominator for all these drugs is high per patient costs typically ranging from $5,000 to more than $300,000 on an annual basis.

AVAILABLE SPECIALTY DRUGS

| Condition | Medication | 2013-14 |
|---|---|---|
| Oncology | Xelodda, Afinitor, Gleevec, Tasigna, Nexavar | $40-130,000 |
| Hepatitis C | Sovaldi, Olysio, Harvoni, Infergen | $84,000 to $150,000 |
| Growth Hormone | Norditropin, somatropin (generic), Omnitrope | $10-120,000 |
| Transplant Drugs | Cellcept, Rapamune, Prograf, Myfortic | $1-25,000 |
| Autoimmune drugs (RA/IBD/ Psoriasis) | Enbrel, Humira, Remicade, Kineret | $25-85,000 |
| Hemophiliac drugs | Kogenate FS, Benefix, Recombinate | $100-250,000 |
| Antiretrovirals (HIV) | Truvada, Atripla, Reyataz, Emtriva | $6-30,000 |
| Multiple Sclerosis | Avonex, Copaxone, Rebif, Tysarbi | $30-75,000 |
| Coagulation drugs | Lovenox, Arixtra, Innohep, Fragmin | $15-60,000 |
| Gaucher's Disease | Ceredase, Cerezyme | $80-150,000 |
| Anemia Drugs | Procrit, Neupogen Epogen, Neulasta, Aranesp | $15-100,000 |
| Other Specialty | Soliris | $40-500,000 |

Source: Presentation by Stephen Schondelmeyer PharmD., PhD, Director of PRIME Institute, College of Pharmacy, University of Minnesota to Minnesota Health Action Group in April 2015

Among the conditions treated are multiple sclerosis, inflammatory bowel disease, rheumatoid arthritis, Hepatitis C, growth hormone deficiency and hemophilia. New cancer drugs routinely cost $10,000 to $20,000 per month irrespective of their effect on longer-term morbidity and mortality; a few weeks or a couple of months of trials suffice for approval. *Cost effectiveness is legislatively prohibited from the Food and Drug Administration's (FDA) consideration in approval.*

In 2014, 39 drugs received FDA approval – 19 specialty (primarily cancer and rare disease) and 20 traditional drugs.[9] Over 500 specialty drugs (Phase II and III) are in development.[10]

In 2012, one pharmacy benefit manager (PBM) reported that specialty drugs comprised 0.5 percent of claims but 17.6 percent of all pharmacy benefit expenditures. By 2018, it estimates specialty drugs to account for 50 percent of the total due to the introduction and penetration of very expensive drugs.[11]

**PBM business model inherently conflicted (for some) due to manufacturer rebates**

PBMs are companies contracted by fully insured and self-insured employers, unions, managed care organizations and state and local governments to authorize, process and pay drug claims; manage a pharmacy network (retail, mail order and specialty); create a drug formulary; ensure appropriate utilization; improve patient adherence and minimize waste. Actual performance is often compromised by a non-transparent contract subject to non-transparent drug manufacturer rebates and other third party revenues.[12,13]

Hepatitis C can be used as a case study for employer/PBM/drug manufacturer interaction and *probable* conflict of interest.

There are 3.2 million Americans infected with Hepatitis C, the majority born in 1945 to 1965.[12] The vast majority of patients are asymptomatic. Infection most commonly resulted from contaminated blood transfusion and/or blood products or at-risk behaviors (e.g., IV drugs). According to the Centers for Disease Control and Prevention (CDC), approximately 15 to 25 percent of infected patients clear the virus without treatment and are not chronically infected. Of the remaining 75 to 85 percent with chronic infection, 60 to 70 percent will develop chronic liver disease, five to 20 percent will develop cirrhosis over a 20 to 30 year period, and one to five percent will die due to cirrhosis or hepatocellular carcinoma.[14]

Treatment for Hepatitis C is dependent upon the viral load, genotype (strain), presence and degree of liver damage, medical status, co-morbidities (e.g., 300,000 HIV patients – 25 percent of the total – also have Hepatitis C) and history of prior treatment.

One breakthrough therapy costs $84,000 per 12 week treatment for each patient.[15,16] Another treatment by the same company is marketed at a list price of $94,500 for a 12-week treatment.[17] Other versions of the therapy are listed for $83,300 and $66,360. [15, 18] Analysts have reported a PBM price discount of up to 30 percent off the manufacturer's list price.[17]

In exchange for the undisclosed price reductions that PBMs are now receiving, many if not most PBMs likely have made agreements with these companies to remove or weaken the prior authorization requirements/patient eligibility criteria that the PBMs were previously imposing to ensure that only those who actually need the drugs are given them. Those criteria (a) required individuals to obtain and present lab results to demonstrate that they have a chronic disease that is affecting their liver (a Metavir 3 or 4 disease indicative of moderate-to-severe disease); (b) ensured that alcoholics or drug users could not get the drug until they have entered recovery or are "certified clean" for a period of time; and (c) limited the initial dispensing of the drug to 28 or 48 days of treatment to verify the drugs are being properly taken and to monitor patient response, among other matters.

Only 11,904 treated patients are required to generate $1 billion in revenue for each of these companies. It has been estimated that at current costs, if all those who are infected were given the newly available Hepatitis C drugs, our national drug coverage costs would nearly double from approximately $300 billion to $568 billion.

Recognizing that resources are limited, it is imperative that the "right" patients receive the "right" drugs. PBMs and specialty pharmacies have inherent conflicts of interest, given that the more drugs they sell, the greater their profit margins are likely to be.

**Pharmaceutical lobbying expenditures exceed all other industries**

According to OpenSecrets.org, the pharmaceutical/health product category was the most prolific industry spender in Washington D.C. at $231 million in 2014, far exceeding the business associations ($164 million), insurance ($151 million) and oil and gas ($142 million) sectors.[19]

1,419 lobbyists were reported to represent 357 clients. The top seven companies each spent more than $5 million last year.[19]

**Bottom line**

The rise in *all segments* of drug spending represents a somewhat unrecognized driver of health inflation to patients, employers, insurance companies and the government. Generic drug industry consolidation, combined with a strategic shift in focus by manufacturers to specialty and orphan drugs targeting fewer than 100,000 patient users per annum, will represent a major challenge to stakeholders already engaged in payment reform (accountable care organizations, bundled payments, capitation, etc.)

Opportunities exist for employers to renegotiate PBM contracts with those PBMs most able to contain costs through a variety of mechanisms including therapeutic substitution, strengthened prior authorization, detailed lists of branded and generic drugs (inclusive of dosage to ensure appropriate discounts), step therapy protocols and enhanced monitoring of treatment adherence. Transparency remains an issue with many PBMs.

Health system and hospital providers are facing a conundrum. Hospital outpatient departments (HOPDs) remain a profit center for cancer, auto-immune disease and other drug infusions and injections. Cancer, along with orthopedics/neurosurgery and to a lesser extent cardiology, represents a major profit center. Employers can reduce their specialty costs by an estimated 20 to 30 percent, if not higher, if they shift the site of service from HOPDs to free-standing facilities and/or to home. [20,21,22]

Commercial insurers, especially those with capitated or risk sharing contracts, will also be challenged by rising pharmaceutical prices. Value (narrow) networks focused on outcomes, site of service, evidence-based practice and patient engagement are essential.

And lastly, the government, being a major payer with Medicare and Medicaid, requires a greater role to contain costs that may potentially lead to price controls.

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[1]U.S. prescription drug spending rose 13 percent in 2014: IMS report; April 14, 2015 reuters.com/article/2015/04/14/us-health-spending-medicine-dUSKBN0N508I20150414

[2]http://www.medpagetoday.com/special-reports/SpecialReports/47604

[3]http://news.yahoo.com/soaring-generic-drug-prices-draw-senate-scrutiny-141933064--finance.html; http://www.hangthebankers.com/generic-drug-prices-soar-up-to-8000/.

[4] National Health Expenditures Table11 http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html

[5] Calculated by A&M based on CMS National Health Expenditure forecasts for pharmaceutical and total spending, and estimates of specialty drug revenues by Stephen Schondemeyer PharmD, PhD, Director of Prime Institute, College of Pharmacy, University of Minnesota

[6] IMS Health National Prescription Audit, December 2012
http://www.pharmacytimes.com/publications/supplement/2013/generic-supplement-2013/Generics-Outlook-Turning-to-Innovation-After-the-Patent-Cliff.

[7] Presentation by Stephen Schondemeyer PharmD, PhD, Director of Prime Institute, College of Pharmacy, University of Minnesota to the Minnesota Health Action Group, April 2015

[8] CVS Analyst Day; Dec 16, 2014

[9] Specialty drug approvals: Review of 2014 and a forecast for 2015. American Pharmacists Association; January 1, 2015

http://www.pharmacist.com/specialty-drug-approvals-review-2014-and-forec...

[10] http://www.gdahc.org/sites/default/files/Specialty%20Pharm%20Diplomat.pdf

[11] Johnson S., et al. Specialty drugs are forecasted to be 50% of al drug expenditures by 2018. Prime Therapeutics and University of Minnesota College of Pharmacy. AMPC, April 4, 2013

http://cdn2.content.compendiumblog.com/uploads/user/e7c690e8-6ff9-102a-a...

[12] The Transparent PBM Pass-Through Model: Managing Drug Spending Through Aligned Incentives. Employee Benefit Plan Review 62(7); January 2008
http://www.navitus.com/getattachment/7262cce1-fbea-4ab3-9ef2-c4d0f4838c86/The-Transparent-PBM-Pass-Through-Model-Managing-Dr.aspx

[13] Garis R, et al. Shining the Light on Non-Transparent PBM Cash Flow. America's Pharmacist; November 2004
http://www.ncpanet.org/pdf/pbm_shiningthelight1104.pdf

[14] http://www.cdc.gov/hepatitis/HCV/HCVfaq.htm .

[15] nytimes.com/2015/05/20/business/high-cost-of-hepatitis-c-drug-prompts-a-call-to-void-its-patents.html?_r=0

[16] http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm377888.htm

[17] Reuters Press Release. PBM EnvisionRx chooses Gilead hepatitis C drugs for its formulary; Januray 26, 2015

[18] http://hepatitiscnewdrugres.fatcow.com/-olysiotrade-simeprevir-cost.html

[19] http://www.opensecrets.org/lobby/top.php?indexType=c&showYear=2014

[20] http://www.drugchannels.net/2012/10/how-hospitals-inflate-specialty-drug...

[21] Cost Comparisons for Infusion (IV) Center. National Association of Infusion Centers.

[22] http://www.specialtypharmacytimes.com/publications/specialty-pharmacy-ti...