## Overview of Community of Pharmacy Foundation Study

Examination of Generic Drug Cost Reimbursements and Patient Cost-Sharing and Trends in Generic Drugs Dispensed by Independent Community Pharmacies from 2012-2014

By
Marv Shepherd Ph.D.
Professor Emeritus
And
Kristin Richards, Ph.D.
Research Associate

Center for Pharmacoeconomic Studies

June 2016


Funded by a grant from the
Community Pharmacy Foundation

## Introduction

The most widely used cost control program for pharmaceuticals is the mandated requirement for patients to use generic drugs instead of higher cost brand name drug products. Of course these generic products must be FDA approved and appropriate for the patient. In 2013, generic drugs represented $86 \%$ of the prescriptions dispensed. ${ }^{1}$ However they represent less than $30 \%$ of the prescription drug sales, whereas brand name drugs only account for $14 \%$ of the prescriptions dispensed in the U.S., but account for over $70 \%$ of the revenue expended. It is expected that the use of generic drugs will continue to expand and reach $87 \%$ of all dispensed prescriptions by 2017. ${ }^{2}$

Generic drug mandates and generic drug incentive programs primarily come from managed care firms and pharmacy benefit management firms. The primary mechanism to encourage generic drug use is to place generic drug products on the plan's formulary at a no cost or low cost tier for the patient. Such third party pay programs are usually supported by independent and chain store community pharmacy operations. In most cases, the gross margins are higher when dispensing generic drug products compared to brand name drug products. In fact, some community pharmacy operations have offered patient cost incentive programs to encourage the use of generic drug products. For example, Walmart and Target offer a month's supply of certain generic drugs for $\$ 4.00$ a month. ${ }^{3}$

Information on the national growth of the generic drug market by number of prescriptions and total sales dollars is replete. However, information specific to indep endent pharmacies for the dispensing of generic drugs is lacking. More specifically, various cost component information is lacking such as ingredient cost, dispensing fee, and patient cost sharing associated with the dispensing of generic drug products from independent pharmacies.

The aim of this research was to provide an overview of generic prescription drug products dispensed and reimbursed by independent community pharmacies between 2012 and 2014. In addition, patient cost-sharing for dispensed generic drug products was examined.

## Methodology

This research study employed a non-experimental, retrospective design using de-identified commercial prescription claims from 2012 to 2014. DataRx, a prescription drug claims processing company which serves over 1,000 independent pharmacies located in more than 30 states, provided the prescription claim information. Data from pharmacies routing at least 1,000 prescriptions peryear through DataRx were included. Data from 662 pharmacies were included in 2012, 445 and 442 pharmacies in 2013 and 2014, respectively. Included pharmacies dispensed an average of 2,973 prescriptions per month or 97 per day in 2012. This increased to 3,222 per month and 106 per day in 2013, and 3,434 per month and 113 perday in 2014.

[^0]Data set variables included pharmacy number (de-identified), unique prescription number, National Drug Code (NDC), drug name, brand/genericstatus, quantity, days supply, ingredient cost paid by third party payer, dispensing fee paid to independent pharmacy, patient payment (co-payment/co-insurance), and total third party payer reimbursement.

## Results

On a per pharmacy basis, generic prescriptions represented $81.3 \%, 80.1 \%$, and $82.7 \%$ of total number of prescriptions dispensed by the independent pharmacies in 2012, 2013, and 2014, respectively. In other words, less than $20 \%$ of the prescriptions were brand name.

Approximately $60 \%$ of generic prescription claims were dispensed with a 30-day supply, less than $1 \%$ had a 60-day supply. Generic prescriptions with a 90-day supply represented 3.9-4.6\% of generic prescriptions in these pharmacies between 2012 and 2014.

## Generic Prescription Cost Component Information

The following represents the prescription cost components for all generic drug prescription drug claims.

- Average ingredient cost paid by third party payer to the pharmacy for the generic drug product per prescription showed an increase every year. It was \$19.86 in 2012, \$22.33 in 2013 and $\$ 23.88$ in 2014. From 2012 to 2014, average ingredient cost increased $\$ 4.02$ per prescription or 20.2\%.
- Dispensing fee payments to independent pharmacies decrease 4.6\% between 2012 and 2014 or by $\$ 0.10$ per generic prescription. Average dispensing fees paid to independent pharmacies were \$2.19 in 2012, \$1.89 in 2013 and \$2.09 in 2014.
- Patient payment amounts to independent pharmacies also decreased by 1.7\% between 2012 and 2014 or $\$ 0.09$ pergeneric prescription. Average patient payments paid to independent pharmacies were $\$ 5.38$ in 2012, $\$ 5.86$ in 2013 and $\$ 5.29$ in 2014 for generic prescription drugs.
- Average insurance payments to the pharmacy increased $17.4 \%$ between 2012 to 2014 or $\$ 3.84$ per prescription. Average insurance payments paid to independent pharmacies pergeneric prescription were \$22.13 in 2012, \$25.25 in 2013 and \$25.97 in 2014.
- Average total payment per prescription to the pharmacy (insurance payment + patient payment) increased by $13.6 \%$ between 2012 and 2014. The average total payments pergeneric prescription were $\$ 27.51$ in 2012, $\$ 30.13$ in 2013 and $\$ 31.26$ in 2014. Thus, average payment to independent pharmacies increased $\$ 3.75$ per prescription over the three year period.
- Gross profit was calculated using the ingredient costs on the claim. However, caution is advised because actual ingredient cost paid by the pharmacy is unknown. Independent pharmacies may pay more or may pay less for the product than depicted on the insurance claim. Dollar gross profit was defined as total payment -ingredient cost pergeneric prescription. Gross profit declined from $\$ 7.65$ per prescription in 2012 to $\$ 7.38$ in 2014 or a $3.5 \%$ decrease.
- When calculating average gross margin percentage per prescription (gross profit/total revenue) the average gross margin percent forgeneric drug prescriptions declined every year over the three year period. It was $27.8 \%$ in 2012, $25.2 \%$ in 2013 and $23.6 \%$ in 2014. This decline of 4.2 percentage points was a $15.1 \%$ decline.


## Analysis of Top 20 Brand Name Drugs

For comparisons purposes, the cost components for brand name drugs dispensed was as conducted for the top twenty brand name drugs. These 20 medications accounted for $32.6 \%, 35.4 \%$, and $34.7 \%$ of all brand prescription claims from these independent pharmacies in 2012, 2013, and 2014, respectively. The top two medications (1-Nexium ${ }^{\circledR}$, 2-Crestor ${ }^{\circledR}$ ) had the same rankings for 2012, 2013, and 2014. Fourteen of the medications made the top 20 based on number of claims for all three years. The following is the cost results on these top 20 brand name drugs.

## Brand Name Prescription Cost Component Information

The following represents the prescription cost components for top 20 brand name prescription drug claims.

- Average ingredient cost for the brand name drug product per prescription was $\$ 160.18$ in 2012, $\$ 200.40$ in 2013 and $\$ 241.48$ in 2014 . From 2012 to 2014, average ingredient cost for the top twenty brand name drugs increased $\$ 81.30$ which is an increase of $50.8 \%$.
- Dispensing fees from brand name drugs to independent pharmacies decreased 10.4\% between 2012 and 2014 or by $\$ 0.22$ pergeneric prescription. Average dispensing fees paid to independent pharmacies for brand name drugs were $\$ 2.22$ in 2012, $\$ 1.82$ in 2013 and $\$ 1.99$ in 2014.
- Patient payment amounts for brand name drugs from independent pharmacies increased 11.9\% between 2012 and 2014 or $\$ 2.85$ pergeneric prescription. Average patient payments paid to independent pharmacies were $\$ 23.86$ in 2012, $\$ 26.58$ in 2013 and $\$ 26.71$ in 2014 for brand name prescription drugs.
- Average insurance payments to the pharmacy increased 49.9\% over the three year period. This was $\$ 81.06$ per prescription. Average insurance payments paid to independent pharmacies per brand name prescription were \$162.41 in 2012, \$202.28 in 2013 and \$243.47 in 2014.
- Total payment to the pharmacy (insurance payment + patient payment) increased by $45.0 \%$ between 2012 and 2014. The average total payments per brand name prescriptions were \$186.27 in 2012, \$228.87 in 2013 and \$270.17 in 2014.
- Dollar gross profit was calculated using the ingredient costs paid by third party payer. However, caution is advised because the actual ingredient cost paid by the pharmacy operation is unknown. Independent pharmacies may pay more or may pay less for the product than paid by the third party payer. Thus, caution is advised in interpreting these numbers. Dollargross profit was defined as total payment - ingredient cost per brand name prescription. For brand name prescriptions, there was an increase for dollar gross profit from \$26.09 in 2012 to \$28.69 in 2014 or a $10.0 \%$ increase.
- However, when you calculate gross margin percentage per prescription (gross profit/total revenue) the average gross margin percent for brand name prescriptions declined every year overthe three year period. It was $14.0 \%$ in 2012, $12.4 \%$ in 2013 and 10.6\% in 2014. The decline of 3.4 percentage points was a decline of $24.3 \%$.


## Conclusion-"take aways"

There are some important "take aways" from this study. First the proportion, of generic drugs dispensed continues to growing in number and independent pharmacies are following the national trends. Average ingredient cost paid for by third party payers for generic drugs increased $20.2 \%$ over the three year period, whereas average ingredient cost for the top 20 brand name drugs increased at a rate of approximately $50.8 \%$.

Dispensing feepayments declined for both generic and brand name prescriptions; the decrease was approximately $10 \%$ for both types of prescriptions. The results showed an increase in patient payments for generic prescriptions and brand name prescriptions. The increase was $1.7 \%$ for generic drugs and 11.0\% for brand name drugs.

The results also showed a decrease in dollargross profits forgeneric drugs and an increase in dollar gross profits for brand name drugs. However, when examining percent gross margins per prescription there was a steady decline in gross margins percentages for both generic and brand name drugs. Gross margin percentages forgeneric drugs declined from $27.8 \%$ in 2012, to $23.6 \%$ in 2014. This 4.2 percentage point decline is a $15.1 \%$ change from 2012 to 2014. For brand name drugs, gross margin percentages slipped from $14.0 \%$ in 2012, $12.4 \%$ in 2013 and $10.6 \%$ in 2014. This decline of 3.4 percentage points was a decrease of $24.3 \%$ in percent gross margins over the three year period.

The following table depicts the trends in the cost components over the three year period.

## Trend in the Cost Components Controlling For Generic and Brand Name Prescriptions

From 2012-2014

| Cost Component | Generic Drug <br> Prescription Claims |  | Brand Drug <br> Prescription Claims |  |
| :--- | :---: | :---: | :---: | :---: |
| Ingredient cost | $\boldsymbol{\uparrow}$ | $20.2 \%$ | $\boldsymbol{\uparrow}$ | $50.8 \%$ |
| Dispensing feepayments | $\boldsymbol{\downarrow}$ | $4.6 \%$ | $\boldsymbol{\downarrow}$ | $10.4 \%$ |
| Patient payments | $\boldsymbol{\downarrow}$ | $1.7 \%$ | $\mathbf{\uparrow}$ | $11.9 \%$ |
| Insurance payments | $\boldsymbol{\uparrow}$ | $17.4 \%$ | $\mathbf{\uparrow}$ | $49.9 \%$ |
| Total pharmacy payment* | $\boldsymbol{\uparrow}$ | $13.6 \%$ | $\boldsymbol{\uparrow}$ | $45.0 \%$ |
| DollarGross profit* | $\boldsymbol{\downarrow}$ | $3.5 \%$ | $\mathbf{\uparrow}$ | $10.0 \%$ |
| Gross Margin Percentage*** | $\boldsymbol{\downarrow}$ | $15.1 \%$ | $\boldsymbol{\downarrow}$ | $24.3 \%$ |

*Total pharmacy payment = insurance payment + patient payment
**Dollar gross profit = total pharmacy payment - ingredient cost
***Gross margin percent = gross profit/total revenue


[^0]:    ${ }^{1}$ IMS Institute for Healthcare Informatics. Medicine Use and Shifting Costs of Health Care: A Review of the Use of Medicines in the United States in 2013. April 2014:51.
    ${ }^{2}$ IMS. Declining Medicine Use and Costs, 2013.
    ${ }^{3}$ Choundhry NK, Shrank WH. Four-dollar generics -increased accessibility, impaired quality assurance. New England Journal of Medicines 2010;363(20):1885-7.

