Managing the Pharmacy Benefit
Impacts to Pharmacy Trend

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Abstract

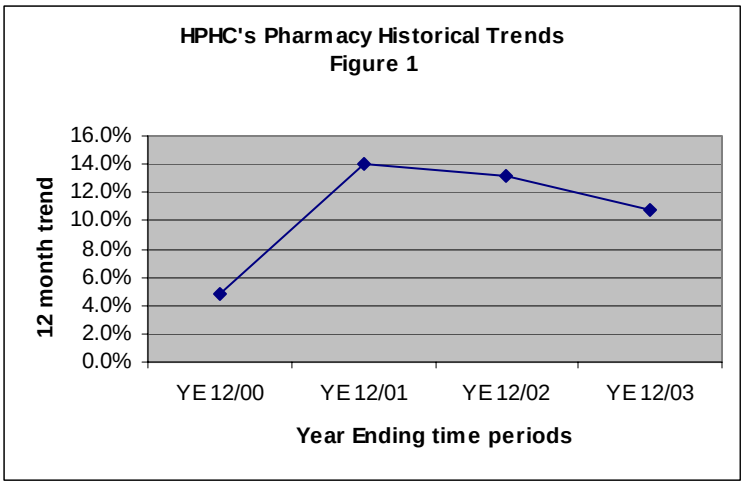
Harvard Pilgrim Health Care (HPHC) has been experiencing pharmacy trends that are lower than national averages. Contributing factors to this pharmacy trend include HPHC's proactive approach to the pharmacy benefit, changes in member and employer group behavior and brand patent expirations. This paper will investigate the impact of the introduction of specialty networks, shifts to mail-order prescriptions, shifts to generic prescriptions and product mix shifts to overall pharmacy trend. This paper quantifies the impact of these changes and also identifies areas where there is the greatest impact. Finally, this paper will also investigate the correlation between risk profiles of members and their corresponding pharmacy benefit.

1. Introduction

National pharmacy trends have ranged from 15-20 percent over the past few years. Pharmacy trends shown in the 2003 Segal Health Plan Cost Trend Survey show national averages ranging from 16-19 percent from 2001-2003. Since CY 2000, HPHC has been experiencing pharmacy trends that are lower than national averages. Influencing factors to HPHC's pharmacy trend range from a disciplined approach to managing the pharmacy benefit, the shift of brand to generic due to brand patent expirations and HPHC's product strategy. This paper will investigate these factors and quantify the impact to pharmacy trend. It will also investigate various pharmacy product designs and differing risks associated with these offerings.

2. Background

HPHC is a leading health insurer in the New England region. For more than 30 years, HPHC has set the pace for outstanding quality and customer service. HPHC's commercial product portfolio ranges from the HMO/POS products (which include a gatekeeper) to the PPO product. HPHC's physician network includes large group model health centers and multispeciality groups, as well as independent practitioners. The health centers have in-house pharmacies to service their patients. Since CY 2000, HPHC's pharmacy trends for its commercial book of business have been lower than expected. Figure 1 shows HPHC's trends over the past four years.



HPHC's current pharmacy benefit design is a three-tier benefit structure. The tiers are generic formulary (tier 1), brand formulary (tier 2), and non-formulary (tier 3).

Member copays per script (up to a 30-day supply) vary by tier. Also, there is a mail-order component of the benefit design. The mail-order benefit provides a 90-day supply, and the copayments are two times the retail for tiers 1 and 2. In other words, a member's copay is 50 percent higher on retail formulary vs. mail-order formulary.

3. Methods

The study population was limited to HPHC's HMO, POS and PPO fully insured members. Due to reporting limitations, the population was further defined to exclude any health center membership. During CY 2000, HPHC experienced large shifts in its population, changes in the pharmacy benefit manager (PBM), as well as substantial changes in the product portfolio, making it difficult to assess trend components from CY 1999 to CY 2000. Although this period was analyzed and is discussed in the paper, the primary analysis focuses on periods after CY 2000.

Gross costs, cost sharing and utilization by tier and benefit design were analyzed for different time periods. Gross cost refers to the total cost of the script including member cost sharing. Net cost refers to plan costs, after member cost sharing. Data was analyzed before application of rebates. Mail-order scripts were adjusted for the 90-day supply by taking day supply and dividing by 30 to estimate equivalent retail scripts.

Since HPHC offers many different pharmacy copay options, and most of the pharmacy costs are attributed to the retail brand formulary category, benefit designs were grouped by the retail brand formulary copay. For example, members in the 5/15/35 (generic/brand/non-formulary) plan and members in the 10/15/30 plan would be grouped together in the $15 benefit category. A table of HPHC's benefit offerings and the corresponding benefit category are shown in Table A.

Finally, we calculated age sex factors and diagnostic cost group (DCG) factors to estimate differences in population risk profiles as a function of benefit category. Average age sex factors were calculated using HPHC's population data. The DCG factors were calculated using the DxCG modeling tool which assesses health status and predicts corresponding resource use.

4. Discussion

4.1 Managing the Pharmacy Benefit

HPHC's pharmacy benefit has experienced many changes since CY 2000. Beginning in January 2000, HPHC switched PBMs and moved from a two-tier

Table 1 - CY 2000 Pharmacy Trends

	Gross Cost/Script	Copay/Script	Net Cost Per Script	Script PMPY	Net PMPM
CY 99	$ 38.60	$ 6.60	$32.00	9.89	$26.36
CY 2000	$ 42.08	$ 9.43	$32.65	10.17	$27.66
Trend	9.0%	43.0%	2.0%	2.9%	4.9%

(formulary vs. non-formulary) copay structure to a three-tier (generic, formulary brand and non-formulary) copay structure. Prior to this change, the pharmacy benefit did not differentiate between brand and generic prescriptions. As a result, the switch to a three-tier structure increased member cost sharing and provided more attractive premium rates on prescription costs. The overall per member per month (PMPM) increase in plan pharmacy costs from CY99 to CY00 was 4.9 percent. During this period, the average member copay per script increased 43 percent as seen in Table 1.

To understand the impact of increased member cost sharing on overall pharmacy trend, a 0 percent copay trend was modeled. As shown in Table 2, overall trend would have increased from 4.9 percent to 14 percent. The increase in member cost sharing due to the shift from a two-tier benefit to a three-tier benefit had a -9 percent impact on overall pharmacy trend.

Table 2 - assume 0% copay trend

	Gross Cost/Script	Copay/Script	Net Cost Per Script	Script PMPY	Net PMPM
CY 99	$ 38.60	$ 6.60	$32.00	9.89	$26.36
CY 2000	$ 42.08	$ 6.60	$35.48	10.17	$30.07
Trend	9.0%	0.0%	10.9%	2.9%	14.0%

Along with a major benefit design change, HPHC has also been active in managing the pharmacy benefit over the past few years. Part of the management program includes a Medication Prior Authorization Program and the MedPreferred Program. These programs were primarily designed to focus on quality of care and not necessarily on controlling cost. The Prior Authorization list is limited with 28 medications representing approximately 3 percent of HPHC's pharmacy expenditures. The MedPreferred Program identifies cost-efficient alternatives and appropriate dosing for specific drugs and works with the prescribing physician to switch prescriptions. Savings from the MedPreferred program have been valued to be approximately $2.4 million over a 33-month time period, which represents less than a 0.1 percent impact on pharmacy expense. While these programs are important, they are difficult to value and due to the low volume, we do not believe they have a significant impact on overall pharmacy trend.

4.2 Specialty Networks

HPHC has also focused its attention on specialty networks for high cost drugs. HPHC has managed cost and quantity through unit cost discounts and a managed distribution of agents. HPHC introduced the Specialty Program in September 2002 and the Infertility Program in January 2003. The Specialty Program was established in response to the escalating costs of injectables covered under the medical benefit. The Program includes self-injected and physician-administered medications. Self-injectables are covered under the pharmacy benefit while physician-administered medications are covered under the medical benefit. Members and physicians were encouraged to purchase these specialty medications at HPHC's preferred vendor. To change behavior, financial incentives were provided to members through benefit design (mail-order copays). Since HPHC already has deep discounts for its self-injectables through its PBM, and the program is not mandatory, the impact to pharmacy expenses is limited However, unit cost savings for physician-administered agents are significant and can impact medical expenses. These savings were not evaluated for this study. The Infertility Program includes infertility medications and this program is mandatory.

Over 7 percent of all pharmacy costs are associated with self-injectables covered by the specialty programs. These costs represent approximately 15-20 medications and six therapeutic classes. After program implementation, data was analyzed for a 12-month time period (YE 8/03). Approximately one-third of eligible scripts or 2.3 percent of pharmacy costs were provided through the program. The unit cost difference for drugs provided via the program versus retail was evaluated and is shown in Table 3. The cost difference after adjusting for mix of medications was 3 percent. Since the cost difference is small and there is low volume, the resulting impact to pharmacy costs due to the specialty program is less than 0.1 percent.

Approximately 3 percent of pharmacy costs are for medications through the Infertility Program. Since this program is mandatory, unit cost savings were estimated by comparing prior year costs before program implementation to current year costs. The unit costs were mix-adjusted but not adjusted for cost trend. Since we are not reflecting cost trend, savings estimates are conservative. The resulting cost savings is estimated at 14 percent, which translates into a pharmacy trend reduction of approximately 0.4 percent. The Specialty and Infertility Programs represent a 0.5 percent impact to overall pharmacy trend. Trends for specialty and infertility drugs were reviewed over a two-year time period, 9/01-8/03, and showed that trends decreased from 10 percent to 3 percent.

Table 3 - Specialty Program

	YE 8/03	
	Retail Program	Specialty Program
Scripts	15,879	7,933
Costs	$ 17,388,082	$ 8,507,471
Avg Cost Script	$ 1,095	$ 1,072

Larger savings, however, can be found with employer populations with high prevalence of medications associated with the Specialty and Infertility Programs. Through employer-based efforts to increase program use, employers can observe a base PMPM impact. It is not unusual for an employer group to incur gonadotropin costs in excess of 10 percent of total pharmacy claims. In these cases, the Infertility Program reduces overall pharmacy costs by over 1.4 percent, a savings that can clearly indicate the value of the plan in managing pharmacy costs.

4.3 Mail-Order Shifts

Over the past few years, HPHC has been actively promoting the use of mail order. Beginning in CY 2000, financial incentives were provided to members through benefit design. Along with the introduction of the three-tier copay structure, mail order (90-day supply) copays were designed to be two times the retail copay (30-day supply). In other words, retail formulary copays were 50 percent higher than mail order. Beginning in March 2002, members that were chronic users of generic formulary and brand formulary were identified, and coupons were mailed out. Chronic users were defined as members who use maintenance medications (as defined by First DataBank) twice in a three-month timeframe. These coupons provided a financial incentive to use mail order by providing $10 off the cost of the first prescription. Lastly, member educational materials were sent out describing the mail-order benefit.

In CY 2000, 2 percent of total scripts were provided through the mail-order benefit. By CY 2003, this percentage had increased to 9.7 percent. To understand the impact of increased mail-order utilization on annual pharmacy trend, two time periods were chosen. Data reviewed was for YE 9/02 and YE 9/03. To isolate the impact of pure mail-order shifts from product-mix shifts, data was analyzed by benefit category.

Table B summarizes pharmacy data into retail and mail-order categories. The overall PMPM trend from YE 9/02 to YE 9/03 is 9.8 percent. Mail-order utilization increased from 6 percent of total scripts to 9 percent. Also it is interesting to note that within each benefit category, mail-order utilization as a percent of total scripts has

increased 2-3 percent. For example, in the $10 benefit category, distribution of mail-order scripts increased from 6 percent to 8 percent. From this, we can conclude that shifts to mail order are taking place regardless of members moving to different plan designs.

To understand the impact of the mail-order shift, we applied the YE 9/02 mail-order/retail distributions by benefit category to YE 9/03 data. This method assumes the mix of medications does not vary depending on mail-order distribution and average cost per script has remained the same. The results are illustrated in Table C. When keeping mail-order distribution and retail distribution constant by benefit category from YE 9/02 to YE 9/03, overall trend increases from 9.8 percent to 9.9 percent. The mail-order shift outside of plan mix had a minimal impact and reduced overall pharmacy trend between 0.1-0.2 percent from YE 9/02 to YE 9/03.

The minimal impact is due to a small differential between retail net costs and mail-order net costs and the small shift from retail to mail order (2-3 percent). Although the gross cost/script differential is 12-13 percent, this differential is reduced to 7-8 percent on net costs. This is due to the different member cost sharing on the mail-order benefit. Health plans have designed pharmacy benefits to create incentives for members to use mail order. If the pharmacy mail-order benefit is not properly designed, mail order could actually increase costs. Common plan designs were modeled to see the impact to net costs per script. Mail-order utilization was held constant. The results were compared to HPHC's current benefit design of two copays per 90-day supply for formulary drugs and are illustrated in Table 4. As copays are reduced on the mail-order benefit, the net cost differential between retail and mail order becomes smaller. In fact, the 1X copay per 90-day supply for formulary drugs actually increases overall pharmacy costs. By keeping the mail-order benefit the same as retail, HPHC would have experienced an additional 0.9 percent savings on pharmacy expense.

Table 4 - Mail Order Benefit Designs

Mail Order Benefit	Retail Net Cost/Script	Mail Order Net Cost/Script	% Variance
3X copay 90 day supply	$ 41.56	$ 34.25	-17.6%
2X copay 90 day supply	$ 41.56	$ 38.43	-7.5%
1X copay 60 day supply	$ 41.56	$ 40.54	-2.4%
1X Copay 90 day supply	$ 41.56	$ 42.63	2.6%

Shifts of mail-order utilization also have the effect of decreasing overall copay income. As evidenced by the data in Table D, HPHC experienced declining copay trends by benefit category from YE 9/02 to YE 9/03. Health plans must be careful when promoting and designing the mail-order benefit, since reduction in copays may increase overall costs.

4.4 Generic Shifts

During the past few years, HPHC has also experienced a shift to generic prescriptions. Distribution of generic scripts moved from 45.4 percent in CY 2000 to 50.9 percent in CY 2003. Contributing factors to this shift include member communication to dispel the myth around generic prescriptions, brand patent expirations and product mix. To understand the impact of the shift to generic prescriptions outside of product mix, data again was analyzed by benefit category.

Table E shows data for YE 9/02 and YE 9/03 separated into tier 1/tier 2/tier 3 categories. The data shows that the distribution of generic (tier 1) scripts increased from 46.9 percent in YE 9/01 to 50.5 percent in YE 9/02. This shift is further supported by high utilization trends in tier 1 (9 percent) and negative utilization trends for tiers 2 and 3 (-5.1 percent and -10.2 percent). Also, net cost trends by tier range from 12-20 percent, which is a result of true gross cost trends, the leverage effect and product mix.

Cost trends were further analyzed by benefit category and are found in Table F. Gross costs per script do not vary significantly by benefit category. From this we may infer that the mix of drugs is not influenced significantly by the pharmacy benefit, and overall cost trends by tier are a result of gross cost trends and the leverage effect of fixed copays. The leverage impact is more significant on tiers 1 and 3 than on tier 2. Since the fixed copay is a lower percentage of the total average drug cost, (approximately 20 percent of gross costs vs. approximately 40 percent for generic and non-formulary drugs), the leverage effect for tier 2 is smaller.

To calculate the impact of the generic shift outside of product mix, Table G applies the YE 9/02 tier 1/tier 2/tier 3 distribution to YE 9/03 utilization. The resulting trend increases from 9.8 percent to 15.1 percent. The impact of the shift within tiers outside of product mix to overall trend was approximately 4.8 percent.

Brand patent expirations coupled with Massachusetts' mandatory generic prescribing law have significantly influenced the generic shift. In order to project future shifts to generic, one must review and model future brand patent expirations. Understanding current volume and costs can provide parameters around trend impact.

Also, an understanding of a health plan's approach to these medications is also needed to model future shifts. For example, in 2002, Claritin, the former market leader in nonsedating antihistamine (NSA) medications moved to OTC status. Health plans had the following options:

Table 5 - NSA Strategies

Strategy	Member Inpact	Savings Impact
Cover OTC Claritin and exclude coverage for all remaining RX NSAs except by medical exception	High	High
Continue to provide coverage for prescription NSAs, but place them in the highest tier	Medium	Low to Medium
Continue to provide coverage for prescription NSAs at their current copay levels	None	Minimal
Begin covering OTC versions of Claritin at the current generic copay, and continue to cover all remaining antihistamines at current copay tiers.	Minimal	Low

Source: A Guide to Drug Cost Management Strategies

Resulting impact to pharmacy trend will vary depending on the options chosen.

HPHC chose to continue coverage of prescription NSAs at current copay levels. With this option, savings were thought to be minimal. Cost and utilization information was reviewed for CY 02 and CY 03 and is shown in Table 6. The data shows that while total scripts for Claritin dropped significantly, scripts for Allegra and Zyrtec did not nearly increase at the same pace. The actual PMPM for these three NSAs went from $1.61 to $1.14, a 28 percent decrease or approximately a $2.5 million savings. To continue on with the NSA strategy, beginning in February 2004, HPHC moved Zyrtec and Clarinex to tier 3.

Table 6 - NSA analysis

	Total Scripts		PMPM	
	CY 2002	CY 2003	CY 2002	CY 2003
Claritin	35,977	1,225	$ 0.41	$ 0.01
Allegra	69,615	72,952	$ 0.41	$ 0.40
Zyrtec	47,251	52,246	$ 0.78	$ 0.73
Total	152,843	126,423	$ 1.61	$ 1.14

Health plans can aggressively promote generics through member communication and cost-sharing structure. HPHC has actively promoted generics through a general member communication as well as copay differentials for its members. Utilization distribution for other key brand drugs with recent patent expirations and their corresponding generic is shown in Table 7. As shown, large shifts did take place from tier 2 to tier 1. Moving into 2004, HPHC has moved these brand medications to tier 3.

Table 7 - Generic/Brand Distribution for Select RX

	YE 9/03 Distribution			YE 9/02 Utilization		
	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3
metformin/Glucophage	98.2%	1.8%	0	52.5%	47.5%	0
lisinopril/ZestrilPrinivil	97.9%	2.1%	0	23.5%	76.5%	0
fluoxetine/Prozac	91.9%	8.1%	0	89.7%	10.3%	0
buspirone/BuSpar	97.9%	2.1%	0	95.7%	4.3%	0

4.5 Product Mix

The most significant impact to pharmacy trend has been product mix. Over the past few years, HPHC has experienced a migration to higher copay benefit designs. Due to the double-digit premium increases of the past few years, employers are seeking ways to reduce healthcare premiums, one of which is reducing the pharmacy benefit. Along with this phenomenon, HPHC has been actively targeting certain market segments with specific pharmacy product designs. This proactive approach has made an impact on overall pharmacy trend. Figure 2 shows the migration of HPHC's regulated market (small employers, one to 50 eligible employees) to higher copay plans. As of September 2001, 53 percent of this market segment was in the richest pharmacy plan design. By September 2003, most business had moved to the highest copay plan designs.

Figure 2
Distribution of Regulated Market Members by Retail Brand Formulary Copay

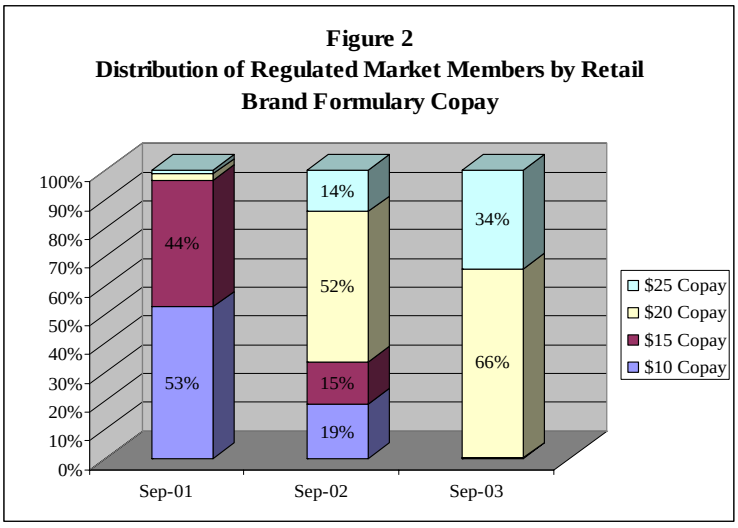
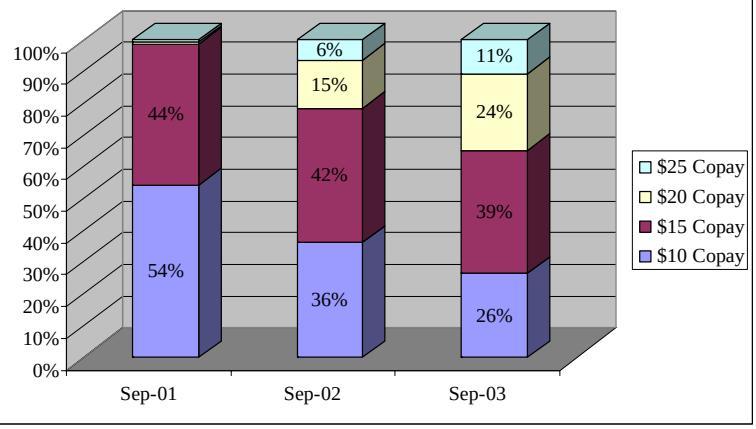


Figure 3 shows the migration of HPHC's large group market to higher copay plan designs. While there has been migration, the shifts are not as great as the small group market. Twenty-six percent of the large group market is still in the richest plan design. The large group market is not as price-sensitive as the small group market and less willing to change benefits. Also, unlike the small group market, HPHC did not actively target the large group market with higher cost-sharing pharmacy plan designs.

Figure 3
Distribution of Large Group Market Members by Retail Brand Formulary Copay



To calculate the impact of product mix on overall trend, data again was reviewed for YE 9/02 and YE 9/03. Table H shows pharmacy PMPMs for YE 9/02 and YE 9/03 by benefit category. It is interesting to note that trends for three of the benefit categories are 18-20 percent, but overall trend is 9.8 percent. As shown in Table H, YE 9/02's product mix distribution was applied to YE 9/03's pharmacy costs. The resulting trend increases from 9.8 percent to 17.6 percent. The impact of product mix to overall trend is 7.1 percent.

HPHC's product strategy has been successful and has had a significant impact on overall pharmacy trend. In order to maintain this success, HPHC needs to continue its proactive approach by being innovative with product design. In CY 2003, HPHC added deductible pharmacy plan designs to its portfolio and is looking into offering coinsurance pharmacy plan designs in the future.

4.6 Benefit Analysis

Table I reviews cost and utilization trends by benefit category. Utilization trends from YE 9/02 to YE 9/03 ranged from 3-5 percent. There does not seem to be a pattern by benefit category, i.e., no obvious correlation between higher trends and richer benefits. Also it is interesting to note that product mix limits the overall utilization trend to 1.1 percent. Gross cost trends for three of the four benefit categories analyzed range from 8-10 percent. Gross trends by tier are much higher than the 8-10 percent as shown in Table F. The mix within tiers (shifts to generic) brings the overall gross cost trend to 8-10 percent. Cost trends for the $20 benefit category appear lower than all other benefit categories. Further investigation shows a high cost/script in YE 9/02. This appears to be an anomaly where the mix of drugs happen to be more expensive in YE 9/02. (The average gross cost per script for formulary brand drugs was $87.35 for the $20 benefit vs. $81.78 overall average. This difference narrowed from $5.57 per script to $0.79 per script in YE 9/03.) In YE 9/03, the mix of drugs by benefit package appears to be more consistent. Also, we should note that net cost trends are much higher than gross cost trends due to leverage. Since copayments do not trend along with pharmacy costs, net cost trends will be much higher.

While there does not appear to be significant variances in trend by benefit category, there does seem to be differences in utilization levels. Mix of medications does not appear to vary by benefit category, since costs seem to be consistent and hover around $55/script for YE 9/03. Table 8 shows the utilization differences between the richest benefit category and all others. There does seem to be some correlation between benefit design and utilization levels. The correlation coefficient between benefit category and average utilization is -0.98 for YE 9/03 indicating that decreased utilization occurs with increased copays.

Table 8 - Utilization reduction

Retail Brand Formulary Copay	YE 9/02 Utilization Savings	YE 9/03 Utilization Savings
$10	1.00	1.00
$15	-6%	-7%
$20	-8%	-9%
$25	-16%	-16%

To understand the populations driving these utilization differences, we performed an age/sex analysis and DCG risk analysis. The DCG analysis was done using the DxCG software to calculate concurrent and prospective scores for the 12 months ending September 2003. The population included all active members as of

September 2003. Table 9 shows age factors, DCG risk scores and pharmacy claims by benefit category. A review of correlations among variables (Table 10) indicates that the strongest positive correlation (93.6 percent) takes place between net pharmacy costs and prospective risk scores. We also observed a strong negative correlation (-90.7 percent) between net pharmacy costs and benefit category. Finally, age factor does not appear to strongly correlate with any of the variables, except indicating a negative correlation with benefit category (-68.2 percent). It does appear that product design can influence behavior. As one would expect, lower costing, healthier populations appear to be choosing less rich benefit designs. We took this analysis one step further and reviewed DCG concurrent risk scores for members without the pharmacy benefit. The risk score was 1.015, which is significantly lower than the rest of the population that had the pharmacy benefit. Health plans must be cautious of risk segmentation when developing

Table 9 - Risk Characteristics

Retail Brand Formulary Copay	YE 9/03 Age Factor	YE 9/03 DxCG Concurrent	YE 9/03 DxCG Prospective	YE 9/03 RX Costs Per Member Per year
$10	1.029	1.23	1.11	$ 375.86
$15	1.010	1.26	1.14	$ 380.84
$20	0.989	1.28	1.12	$ 345.55
$25	1.007	1.16	1.04	$ 291.17

product designs and marketing strategy.

Table 10 - Correlation Table

Variable 1	Variable 2	Correlation
benefit	age factor	-68.2%
benefit	concurrent risk score	-50.5%
benefit	prospective risk score	-71.1%
benefit	net costs	-90.7%
net costs	concurrent risk score	78.2%
net costs	prospective risk score	93.6%
net costs	age factor	36.7%
age factor	concurrent risk score	-28.1%
age factor	prospective risk score	1.6%

5. Conclusions

HPHC's pharmacy trends have been a result of many contributing factors. As this paper has explored, pharmacy management programs, while clinically effective, do not have a large impact on planwide pharmacy trends. We have also concluded that if benefits are not designed properly, shifts to mail order use do not have a significant impact on pharmacy trend. These programs may be effective on trend at the individual employer group level. The major contributors to trend have been shifts to generic and product mix. Figure 4 estimates components of the pharmacy trend. If these shifts in utilization and product mix did not occur, true trend for YE 9/03 would be approximately 24 percent!

Figure 4

YE 9/03 TREND COMPONENTS		
YE 9/03 PHARMACY TREND		9.8%
IMPACT OF SPECIALTY NETWORKS	~	0.5%
IMPACT OF MAIL ORDER SHIFT	~	0.1%
IMPACT OF GENERIC SHIFT	~	4.8%
IMPACT OF PRODUCT MIX	~	7.1%
YE 9/03 ADJUSTED TREND	~	23.9%

What is clear is that without further strategies these shifts in utilization and products will plateau and trends will begin to escalate at alarming levels. Health plans cannot control the number of patent expirations on brand medication, but it can develop strategies to maximize the impact. Focusing on tier placement and copay structure can have a significant impact on trend. Health plans can also control product design and benefit offerings. To mitigate overall planwide trend, a health plan must be innovative in its product offerings. Most of this innovation lies within increased member cost sharing. Pharmacy benefits are moving towards deductible plans, coinsurance plans, as well as adding a fourth tier. HPHC has introduced deductible plans with copays this past year and will be introducing coinsurance plans in the future. Along with product innovation, the health plan must be proactive in its marketing strategy rather than taking a passive approach. Finally, while a health plan must be innovative and proactive in marketing strategy, the health plan must also be cautious of selection and limit product offerings to appropriate market segments.

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Appendix

TABLE A
BENEFIT CATEGORY TABLE

Pharmacy Benefit Index	Retail Generic (Tier 1) Copay	Retail BF (Tier 2) Copay	Retail BNF (Tier 3) Copay	Mail Order Gen (Tier 1) Copay	Mail Order BF (Tier 2) Copay	Mail Order BNF (Tier 3) Copay	Benefit Category
1	10	25	40	20	50	120	25
2	5	10	25	10	20	75	10
3	10	15	30	20	30	90	15
4	5	15	35	10	30	105	15
5	10	25	40	20	50	120	25
6	5	10	25	10	20	75	10
7	5	10	25	15	30	75	10
8	10	15	30	30	45	90	15
9	10	25	40	30	75	120	25
10	5	5	10	10	10	30	5
10	5	10	15	10	20	45	10
11	10	15	30	20	30	90	15
12	15	25	40	30	50	120	25
13	15	25	40	30	50	120	25
14	5	10	10	10	20	30	10
15	5	15	25	10	30	75	15
16	10	20	35	20	40	105	20
17	10	15	25	20	30	75	15
18	10	15	20	30	45	60	15
19	15	15	15	20	20	20	15
20	20	25	30	60	75	90	25
21	15	30	50	45	90	150	30
22	10	25	40	20	50	120	25
23	5	10	25	10	20	75	10
24	10	15	30	20	30	90	15
25	10	25	40	20	50	120	25
27	5	5	25	0	0	75	5
26	5	15	35	10	30	105	15
27	5	15	25	10	30	75	15
28	10	20	40	20	40	120	20
29	10	20	40	20	40	120	20
30	5	10	25	15	30	75	10
31	10	15	30	30	45	90	15
32	5	15	30	10	30	90	15
33	10	25	40	30	75	120	25
34	20	30	50	40	60	150	30
35	20	25	0	60	75	0	25
36	5	10	25	10	20	75	10
37	5	10	15	10	20	45	10

TABLE B
MAIL ORDER ANALYSIS

Retail Brand Formulary Copay	YE 9/02 Member Months Distribution	YE 9/02 Retail Scripts PMPY	YE 9/02 Mail Order Scripts PMPY	YE 9/02 Retail Distribution	YE 9/02 Mail Order Distribution	YE 9/02 Retail Gross Cost/ Script	YE 9/02 Mail Order Gross Cost/Script	YE 9/02 Retail Net Cost/ Script	YE 9/02 Mail Order Net Cost/Script	YE 9/02 Retail PMPM	YE 9/02 Mail Order PMPM	Total PMPM
$10	39.8%	10.78	0.65	94%	6%	$ 49.61	$ 43.48	$ 40.51	$ 37.10	$ 36.38	$ 2.01	$ 38.39
$15	45.0%	10.06	0.69	94%	6%	$ 50.12	$ 43.49	$ 36.82	$ 34.41	$ 30.88	$ 1.97	$ 32.85
$20	10.6%	9.71	0.82	92%	8%	$ 53.55	$ 46.12	$ 36.88	$ 34.70	$ 29.86	$ 2.36	$ 32.22
$25	4.6%	8.75	0.80	92%	8%	$ 50.45	$ 46.60	$ 32.03	$ 33.31	$ 23.35	$ 2.21	$ 25.56
Total		10.25	0.69	94%	6%	$ 50.26	$ 43.98	$ 38.18	$ 35.39	$ 32.61	$ 2.04	$ 34.65

Retail Brand Formulary Copay	YE 9/03 Member Months Distribution	YE 9/03 Retail Scripts PMPY	YE 9/03 Mail Order Scripts PMPY	YE 9/03 Retail Distribution	YE 9/03 Mail Order Distribution	YE 9/03 Retail Gross Cost/ Script	YE 9/03 Mail Order Gross Cost/Script	YE 9/03 Retail Net Cost/ Script	YE 9/03 Mail Order Net Cost/Script	YE 9/03 Retail PMPM	YE 9/03 Mail Order PMPM	Total PMPM
$10	20.6%	11.04	0.94	92%	8%	$ 54.70	$ 47.68	$ 45.92	$ 41.48	$ 42.24	$ 3.23	$ 45.47
$15	29.6%	10.11	1.01	91%	9%	$ 54.48	$ 47.69	$ 41.96	$ 39.04	$ 35.34	$ 3.30	$ 38.64
$20	35.2%	9.86	1.03	91%	9%	$ 55.99	$ 48.88	$ 40.02	$ 37.73	$ 32.90	$ 3.24	$ 36.14
$25	14.5%	8.95	1.09	89%	11%	$ 54.99	$ 47.98	$ 37.10	$ 35.14	$ 27.66	$ 3.18	$ 30.84
Total		10.04	1.01	91%	9%	$ 55.12	$ 48.16	$ 41.56	$ 38.43	$ 34.78	$ 3.25	$ 38.03
Trend		**-2.0%**	**46.8%**			**9.7%**	**9.5%**	**8.8%**	**8.6%**	**6.7%**	**59.4%**	**9.8%**

TABLE C
MAIL ORDER ANALYSIS
Assume 9/02 Mail Order/Retail Distribution

Retail Brand Formulary Copay	YE 9/03 Member Months Distribution	YE 9/03 Retail Scripts PMPY	YE 9/03 Mail Order Scripts PMPY	YE 9/02 Retail Distribution	YE 9/02 Mail Order Distribution	YE 9/03 Retail Gross Cost/ Script	YE 9/03 Mail Order Gross Cost/Script	YE 9/03 Retail Net Cost/ Script	YE 9/03 Mail Order Net Cost/Script	YE 9/03 Retail PMPM	YE 9/03 Mail Order PMPM	Total PMPM
$10	20.6%	11.29	0.68	94%	6%	$ 54.70	$ 47.68	$ 45.92	$ 41.48	$ 43.21	$ 2.35	$ 45.56
$15	29.6%	10.41	0.71	94%	6%	$ 54.48	$ 47.69	$ 41.96	$ 39.04	$ 36.40	$ 2.31	$ 38.71
$20	35.2%	10.05	0.84	92%	8%	$ 55.99	$ 48.88	$ 40.02	$ 37.73	$ 33.52	$ 2.66	$ 36.18
$25	14.5%	9.20	0.84	92%	8%	$ 54.99	$ 47.98	$ 37.10	$ 35.14	$ 28.43	$ 2.45	$ 30.88
Total		10.29	0.77	93%	7%	$ 55.12	$ 48.16	$ 41.56	$ 38.36	$ 35.63	$ 2.46	$ 38.09
New Trend		**0.4%**	**11.5%**			**9.7%**	**9.5%**	**8.8%**	**8.4%**	**9.3%**	**20.8%**	**9.9%**
Mail Order shift reduces overall trend				**0.16%**								

Table D Copay Trends

Retail Brand Formulary Copay	YE 9/02 Script Distribution	YE 9/03 Script Distribution	YE 9/02 Copay/Script	YE 9/03 Copay/Script	Copay Trend
$10	41.5%	22.3%	$ 8.95	8.58	-4.1%
$15	44.2%	29.8%	$ 13.03	12.17	-6.6%
$20	10.2%	34.7%	$ 16.26	15.51	-4.6%
$25	4.0%	13.2%	$ 18.00	17.34	-3.6%
Total			$ 11.86	13.21	11.4%

TABLE E
GENERIC ANALYSIS

RETAIL & MAIL ORDER											
Retail Brand Formulary Copay	YE 9/02 Member Months Distribution	YE 9/02 Gen (Tier 1) Scripts PMPY	YE 9/02 BF (Tier 2) Scripts PMPY	YE 9/02 BNF (Tier 3) Scripts PMPY	YE 9/02 Gen (Tier 1) Distribution	YE 9/02 BF (Tier 2) Distribution	YE 9/02 BNF (Tier 3) Distribution	YE 9/02 Gen (Tier 1) Net Cost/Script	YE 9/02 BF (Tier 2) Net Cost/Script	YE 9/02 BNF (Tier 3) Net Cost/Script	YE 9/02 RX PMPM
$10	39.8%	5.31	5.11	1.00	46.5%	44.8%	8.8%	$ 11.12	$ 69.18	$ 47.78	$ 38.39
$15	45.0%	5.06	4.79	0.90	47.1%	44.5%	8.4%	$ 9.09	$ 64.82	$ 42.06	$ 32.85
$20	10.6%	4.91	4.66	0.96	46.7%	44.2%	9.1%	$ 8.54	$ 65.69	$ 40.34	$ 32.22
$25	4.6%	4.63	4.09	0.82	48.5%	42.9%	8.6%	$ 8.57	$ 57.89	$ 36.68	$ 25.56
Total		5.13	4.87	0.94	46.9%	44.5%	8.6%	$ 9.85	$ 66.46	$ 44.07	$ 34.65

RETAIL & MAIL ORDER											
Retail Brand Formulary Copay	YE 9/03 Member Months Distribution	YE 9/03 Gen (Tier 1) Scripts PMPY	YE 9/03 BF (Tier 2) Scripts PMPY	YE 9/03 BNF (Tier 3) Scripts PMPY	YE 9/03 Gen (Tier 1) Distribution	YE 9/03 BF (Tier 2) Distribution	YE 9/03 BNF (Tier 3) Distribution	YE 9/03 Gen (Tier 1) Net Cost/Script	YE 9/03 BF (Tier 2) Net Cost/Script	YE 9/03 BNF (Tier 3) Net Cost/Script	YE 9/03 RX PMPM
$10	20.6%	5.96	5.06	0.95	49.8%	42.3%	7.9%	$ 13.62	$ 80.69	$ 58.84	$ 45.47
$15	29.6%	5.65	4.64	0.82	50.8%	41.8%	7.4%	$ 12.00	$ 75.63	$ 54.18	$ 38.64
$20	35.2%	5.50	4.56	0.84	50.5%	41.8%	7.7%	$ 11.01	$ 72.53	$ 50.96	$ 36.14
$25	14.5%	5.15	4.11	0.77	51.3%	41.0%	7.7%	$ 11.00	$ 67.65	$ 45.65	$ 30.84
Total		5.59	4.62	0.85	50.5%	41.8%	7.7%	$ 11.88	$ 74.66	$ 53.01	$ 38.03
Trend		9.0%	-5.1%	-10.2%				20.6%	12.3%	20.3%	9.8%

TABLE F
Cost Trend Analysis

Retail Brand Formulary Copay	YE 9/02 Gen (Tier 1) Gross Cost/Script	YE 9/02 BF (Tier 2) Gross Cost/Script	YE 9/02 BNF (Tier 3) Gross Cost/Script	YE 9/02 Gen (Tier 1) Net Cost/Script	YE 9/02 BF (Tier 2) Net Cost/Script	YE 9/02 BNF (Tier 3) Net Cost/Script
$10	$ 16.04	$ 80.69	$ 72.27	$ 11.12	$ 69.18	$ 47.78
$15	$ 17.39	$ 81.37	$ 71.82	$ 9.09	$ 64.82	$ 42.06
$20	$ 18.12	$ 87.35	$ 75.32	$ 8.54	$ 65.69	$ 40.34
$25	$ 18.13	$ 83.71	$ 73.01	$ 8.57	$ 57.89	$ 36.68
Total	$ 16.94	$ 81.78	$ 72.43	$ 9.85	$ 66.46	$ 44.07

Retail Brand Formulary Copay	YE 9/03 Gen (Tier 1) Gross Cost/Script	YE 9/03 BF (Tier 2) Gross Cost/Script	YE 9/03 BNF (Tier 3) Gross Cost/Script	YE 9/03 Gen (Tier 1) Net Cost/Script	YE 9/03 BF (Tier 2) Net Cost/Script	YE 9/03 BNF (Tier 3) Net Cost/Script
$10	$ 18.49	$ 90.76	$ 82.74	$ 13.62	$ 80.69	$ 58.84
$15	$ 19.41	$ 90.40	$ 84.40	$ 12.00	$ 75.63	$ 54.18
$20	$ 20.49	$ 91.93	$ 85.00	$ 11.01	$ 72.53	$ 50.96
$25	$ 20.43	$ 91.36	$ 81.93	$ 11.00	$ 67.65	$ 45.65
Total	$ 19.72	$ 91.14	$ 83.90	$ 11.88	$ 74.66	$ 53.01

Retail Brand Formulary Copay	YE 9/03 Gen (Tier 1) Gross Cost Trend	YE 9/03 BF (Tier 2) Gross Cost Trend	YE 9/03 BNF (Tier 3) Gross Cost Trend	YE 9/03 Gen (Tier 1) Net Cost Trend	YE 9/03 BF (Tier 2) Net Cost Trend	YE 9/03 BNF (Tier 3) Net Cost Trend
$10	15.3%	12.5%	14.5%	22.5%	16.6%	23.1%
$15	11.6%	11.1%	17.5%	32.0%	16.7%	28.8%
$20	13.0%	5.2%	12.9%	29.0%	10.4%	26.3%
$25	12.7%	9.1%	12.2%	28.5%	16.9%	24.5%
Total	16.4%	11.4%	15.8%	20.6%	12.3%	20.3%

TABLE G
GENERIC ANALYSIS
Assume 9/02 Generic/Brand/Non Formulary distribution

RETAIL & MAIL ORDER													
Brand Formulary Copay	YE 9/03 Member Months Distribution	YE 9/03 Gen (Tier 1) Scripts PMPY	YE 9/03 BF (Tier 2) Scripts PMPY	YE 9/03 BNF (Tier 3) Scripts PMPY	YE 9/02 Gen (Tier 1) Distribution	YE 9/02 BF (Tier 2) Distribution	YE 9/02 BNF (Tier 3) Distribution	YE 9/03 Gen (Tier 1) Net Cost/Script	YE 9/03 BF (Tier 2) Net Cost/Script	YE 9/03 BNF (Tier 3) Net Cost/Script	YE 9/03 RX PMPM
$10	20.6%	5.57	5.36	1.05	46.5%	44.8%	8.8%	$ 13.62	$ 80.69	$ 58.84	$ 47.49
$15	29.6%	5.24	4.95	0.93	47.1%	44.5%	8.4%	$ 12.00	$ 75.63	$ 54.18	$ 40.65
$20	35.2%	5.08	4.82	0.99	46.7%	44.2%	9.1%	$ 11.01	$ 72.53	$ 50.96	$ 38.00
$25	14.5%	4.87	4.30	0.86	48.5%	42.9%	8.6%	$ 11.00	$ 67.65	$ 45.65	$ 32.00
Total		5.20	4.89	0.97	47.0%	44.3%	8.7%	$ 11.88	$ 74.68	$ 52.95	$ 39.87

Trend	15.1%

Generic shift reduces overall trend	4.8%

TABLE H
PRODUCT MIX ANALYSIS

Retail Brand Formulary Copay	YE 9/02 RX PMPM	YE 9/03 RX PMPM	Trend	YE 9/02 Member Months	YE 9/03 Member Months	YE 9/02 Distribution	YE 9/03 Distribution
$10	$38.39	$45.47	18.4%	1,871,117	1,063,051	39.8%	20.6%
$15	$32.85	$38.64	17.6%	2,118,702	1,529,966	45.0%	29.6%
$20	$32.22	$36.14	12.2%	497,357	1,819,176	10.6%	35.2%
$25	$25.56	$30.84	20.7%	217,993	749,894	4.6%	14.5%
Grand Total	**$ 34.65**	**$ 38.03**	**9.8%**	**4,705,169**	**5,162,087**		
Assume 9/02 Distribution		**$ 40.73**	**17.6%**				

TABLE I
COST & UTILIZATION

Retail Brand Formulary Copay	YE 9/02 Scripts PMPY	YE 9/03 Scripts PMPY	Utilization Trend	YE 9/02 Gross Cost/Script	YE 9/03 Gross Cost/Script	Gross Cost Trend	YE 9/02 Net Cost/Script	YE 9/03 Net Cost/Script	Net Cost Trend	Net PMPM Trend
$10	11.43	11.97	5%	$ 49.26	$ 54.15	10%	$ 40.32	$ 45.57	13%	18%
$15	10.75	11.12	3%	$ 49.70	$ 53.86	8%	$ 36.67	$ 41.69	14%	18%
$20	10.53	10.90	3%	$ 52.97	$ 55.32	4%	$ 36.71	$ 39.81	8%	12%
$25	9.54	10.03	5%	$ 50.13	$ 54.23	8%	$ 32.13	$ 36.88	15%	21%
Grand Total	**10.94**	**11.06**	**1.1%**	**$ 49.87**	**$ 54.48**	**9.2%**	**$ 38.00**	**$ 41.27**	**8.6%**	**9.8%**