

# Targeted Patient Education Effective in Switching Patients to Generic Fosamax



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## Introduction

Previous research conducted by Express Scripts found that increasing awareness of newly-available, therapeutically-equivalent generic alternatives for Zocor® (simvastatin) and Ambien® (zolpidem) was effective in encouraging patients to switch to the new generics. The patent expiration of Fosamax® (alendronate sodium), a bisphosphonate, in February 2008 provided yet another opportunity to evaluate the impact of a targeted, letter-based program on the conversion to a generic alternative. A mail campaign was designed to inform patients taking a brand-name bisphosphonate about the availability of the generic for Fosamax. This study was conducted to evaluate the success of the campaign.

## Methods

The study used a quasi-experimental, intervention and comparison-group design. The analyses were conducted at the member level. The intervention group receiving the letter was identified as members of plan sponsors who signed up for the program and met the inclusion criteria to receive letters. The comparison group was made up of members of plan sponsors who met the targeting criteria, but were not signed up to receive the mailing. Members meeting the targeting criteria were 18 years old or older, were continuously eligible for the entire study period, were enrolled in a plan with a flat three-tier copayment structure and filled at least one prescription for a brand-name bisphosphonate medication (Actonel®, Actonel® with Calcium or Boniva®) in a 120-day pre-period. Members were targeted for mailing Feb. 1, 2008, through March 31, 2008.

Members were followed for 180 days after the target index claim to determine switching behavior. The index claim was defined as the most recent claim for a brand-name bisphosphonate prior to the mailing campaign. There were four possible outcomes:

1. No Fill — no subsequent claim for brand-name or generic bisphosphonates during the 180-day post-period
2. No Conversion — continuation on brand-name bisphosphonates during the post period
3. Tried Generic — a claim for the generic bisphosphonate in the post-period before returning to a brand-name product
4. Conversion to Generic — claims for generic bisphosphonates for subsequent fills without claims for brand-name bisphosphonates in the post-period

The initial analysis examined the statistical significance of the differences between the intervention and comparison group. It was clear by looking at these descriptive statistics — demographic variables (age, gender and income measured at household ZIP code), distribution channel and brand/generic copayment differential — that there were significant differences between intervention and comparison group members. Members in the comparison group were slightly younger, had lower incomes, were more often taking a non-preferred medication and were less often using Home Delivery. With this in mind, multivariate logistic regression was used to estimate the impact of the letter campaign on switching to a lower-cost alternative, while controlling for several independent variables and examining the effect of Home Delivery on switch rates.

## Results

There were 112,745 unique members and after implementing the exclusionary criteria 27,646 remained. This resulted in 21,778 who received the letters (intervention group) and a comparison group of 5,868. The distribution of demographics, baseline utilization characteristics and switching behavior are shown in Table 1. The comparison of outcomes among members in the intervention and comparison groups suggests that a significantly greater number of individuals in the intervention group switch to a generic when compared to those in the comparison group.

The multivariate logistic regression models were limited to members who continued to fill prescriptions for bisphosphonate medications and were not missing any pertinent variables (n=23,712). Table 2 highlights the results of the analysis, with the intervention group more likely to switch to a generic (Odds Ratio [OR] = 1.54, 95% Confidence Interval [CI] 1.31 to 1.80). Among members filling brand-name bisphosphonate prescriptions the adjusted



switch rate to a generic was 10% for those in retail versus 22% in the Home Delivery group (Table 2 and Table 3). Utilizing an interaction effect based on Home Delivery and intervention group status reinforces the suggestion that there is greater success in Home Delivery (OR = 1.80, 95% CI 1.41 to 2.3). This is consistent with the findings from other analysis. The model also demonstrated a correlation between gender, age, income, dosage and copayment differential and a successful transfer.

### Implications

This study demonstrates three key points. First, a majority of members continue to fill prescriptions with a brand-name prescription even after a letter campaign aimed at changing behavior. Second, those members filling prescriptions through Home Delivery appear to be more inclined to switch to a generic when presented with that information. Finally, members who are utilizing a monthly, brand-name prescription appear less inclined to switch if the generic option requires a different dosing format.

*Those members filling prescriptions through Home Delivery appear to be more inclined to switch to a generic when presented with that information.*

**Table 1. Demographic Comparison of Intervention and Comparison Group**

n	5,868	5,868	21,778	21,778
	Comparison Group	%/Mean	Intervention Group	%/Mean
Index Rx Formulary Status (% Non-Formulary)	2,989	50.9%	7,260	33.3%
Index Rx Distribution Channel — Retail*	2,987	50.9%	9,817	45.1%
Gender (% Female)	5,567	94.9%	20,491	94.1%
Mean Age (± SD)	62.0	10.9	63.9	11.1
†Mean Income* (± SD)	\$45,635.23	\$16,218.13	\$48,216.54	\$17,522.31
Retail Non-Formulary Brand/Generic Copayment Differential*	\$31.10	\$8.28	\$30.16	\$9.18
Mail Non-Formulary Brand/Generic Copayment Differential*	\$18.18	\$8.27	\$19.27	\$9.10

**Table 2. Distribution of Response**

	Control	%	Letter	%
No Follow-Up Claim	776	13.2%	2,500	11.5%
Continued Taking Brand Medication*	4,746	80.9%	15,689	72.0%
Reconversion*	11	0.2%	155	0.7%
Successful Conversion	335	5.7%	3,434	15.8%

**Table 3. Model Results**

Channel	Change in Adjusted* Conversion Rates Between Letter Group and Comparison Group (percentage points)	Adjusted* Odds Ratio	95% Confidence Interval
Both (n = 23,712)	16.7	3.09	2.740 to 3.484
Retail (n = 10,825)	10	2.029	1.686 to 2.443
Mail (n = 12,887)	22.1	3.715	3.162 to 4.365

**Chart 1. Adjusted Switch Rates**

