



Designing Evidence- based Benefits

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Marriott Confidential and Proprietary Information

About Marriott



- 120,000 Associates Worldwide
- 2004 Sales - \$10 Billion
- 2,700 Properties Worldwide
 - Marriott Hotels, Resorts and Suites
 - Residence Inn
 - Courtyard by Marriott
 - TownPlace Suites
 - Fairfield Inn
 - SpringHill Suites
 - The Ritz Carlton
 - Renaissance Hotels
 - Marriott Vacation Club International

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Marriott Medical Plan Expense



- 110,000 U.S. Associates
- 91,000 Eligible Associates
 - 71,000 Participating
 - 156,000 Covered Lives
- \$350 Million Annual Expense
- 67 HMOs, 3 National PPOs

Overall Medical Strategy



- Marriott's medical benefits are an important part of our total compensation package to attract and retain talent
- Marriott, like our competitors, is experiencing double-digit increases in medical costs
- Marriott is developing benefit design strategies to address the immediate issues
- Marriott is also developing longer-term strategies to manage high-risk illnesses, improve patient safety and increase productivity
- This strategy is intended to balance Marriott's need to control costs, improve quality and to retain a competitive benefit program for our associates

Medical Strategy Goals



- Partner with Health plans and providers who are
 - offering effective medical management programs
 - committed to addressing health care disparities
 - dedicated to patient safety programs
 - developing networks of efficient and effective providers
- Offer customized plan designs – associates choose their ideal mix of out-of-pocket costs and coverage priorities
- Launch education and communication campaign focused on consumer empowerment and responsibility and available decision support tools
- Partner with companies who can help us achieve our goals – ActiveHealth Management

ActiveHealth Management



Custom Formulary

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How the Custom Formulary Works



Five therapeutic drug classes for initial program

- Statins
- ACE inhibitors
- Diabetic drugs
- Beta blockers
- Inhaled steroids for asthma

Why target these therapeutic categories?

- They are the most commonly used
- These drugs are used for the treatment of the most common chronic diseases i.e. diabetes, asthma and heart disease
- There is a significant benefit in the appropriate use of these drugs based on a large body of medical literature
- Lack of member compliance with taking these drugs as directed by a physician can result in significant increases in morbidity and mortality

How the Custom Formulary Works



Co-pay reductions

- Eliminate co-pays for generic meds
- Reduce co-pays by 50% for brand meds
- Maintain formularies' relative price levels to encourage efficient consumption

Custom Formulary Goals



- Improved patient compliance
- Improved quality of care
- Decreased adverse health events
- Decreased hospital admissions and emergency room visits
- Decreased health care costs
- Improved member satisfaction

Buy-in Process



- **Express Scripts, Inc. (Marriott's PBM)**
 - Understood the importance of the concept
 - Built a system to enable the customized formulary
- **Marriott's Executive Team**
 - Presented the impact of improving patient's care management through increasing compliance with drugs
 - Understands the quality factor
 - Marriott's nurse case managers, HR managers and associates value the benefit

Marriott Case Study



Pre-post study design with a control group

- Comparing the year before implementation (2004) with the first year of the program (2005)
- Using another ActiveHealth client with similar benefits (but no benefit-based co-pay system) as a control group

Main research questions to be answered

- Will the program increase medication adherence?
- What will be the impact on the frequency of adverse events (acute myocardial infarctions, asthma attacks, etc.) and associated health care utilization?
- What will be the impact on drug costs for Marriott and its covered members?
- What will be the impact on total health care costs for Marriott and its covered members?

Main financial and clinical outcomes being measured

- Medication possession ratio (MPR): number of days in each quarter that a member was in possession of the medication divided by the number of days in the quarter
- Total payments: overall and for prescription drugs in each of the 5 therapeutic classes
- Marriott payments: overall and for prescription drugs in each class
- Total admissions and ER visits
- Admissions and ER visits for conditions targeted by the 5 therapeutic classes of drugs in the program

Marriott Case Study



Additional analyses to be performed (if data is sufficient)

- What is the program's impact on persistence for those who were already taking the drugs?
- What is the program's impact on compliance among those who were not already taking the drugs?
- Does the impact of reduced co-pays on MPR vary for patients with few versus many medications?
- Does the impact of MPR vary for age, sex or socioeconomic subgroups?
- Does the impact of MPR vary for patients with different health status (severity levels)?
- Do reduced co-pays affect the choice of generic versus brand-name drugs?

Initial Findings



- Although 2005 data is not yet complete, we can see a major shift in the co-pay levels for Rx's filled by Marriott members in the 5 target drug classes
- And no similar shift for prescriptions filled in other drug classes
- And no similar shift for prescriptions filled in target drug classes or other drug classes in the control group

This confirms that the program has been implemented largely or completely as planned by the PBM (See data on the next 2 slides)

Initial Findings



Through June, 2005, 11,350 letters were sent advising Marriott members of reduced co-pays.

	Already on drug & should continue	Not on drug & should begin
ACE inhibitors/ARBs	3,117	203
Statins	2,577	732
Diabetic drugs	1,575	0
Beta blockers	1,809	32
Inhaled steroids	1,296	9
Total	10,374	976

Through October, 2005, ExpressScripts reports that 7,798 unduplicated Marriott members actually filled one or more prescriptions at the reduced co-pay levels.

Distribution of Co-pays – Marriott Members (**OLD** and **NEW** Co-pay Levels)



	5 Target Classes		All Other Classes	
Co-pay	2004 Pre	2005 Post	2004 Pre	2005 Post
\$0	4.5%	28.2%	2.5%	2.3%
\$5.00	32.4%	11.4%	49.1%	51.3%
\$12.50	4.6%	29.4%	1.6%	2.5%
\$25.00	45.8%	20.6%	34.5%	31.8%
\$22.50	0.7%	4.6%	1.8%	1.3%
\$45.00+	12.1%	5.9%	10.6%	10.8%
Total	100.0%	100.0%	100.0%	100.0%

Note: Each co-pay level includes lesser payments for drugs that cost less than the designated co-pay.

Distribution of Co-pays – Control Group (OLD and NEW Co-pay Levels)



	5 Target Classes		All Other Classes	
Co-pay	2004 Pre	2005 Post	2004 Pre	2005 Post
\$0	0	0	0	0
\$5.00	0.9%	3.2%	4.2%	5.9%
\$12.50	7.9%	7.3%	16.0%	15.8%
\$25.00	5.7%	1.5%	2.2%	1.6%
\$22.50	52.3%	50.0%	53.9%	52.9%
\$45.00+	33.3%	38.0%	23.6%	23.8%
Total	100.0%	100.0%	100.0%	100.0%

Note: These are Marriott co-pay levels. The control group actually uses percent coinsurance.

Custom Formulary



Conclusion

The use of evidenced based medicine in combination with innovative pharmacy benefit design can significantly improve patient compliance with beneficial drug therapy and improve the overall quality of care - while reducing employer health care cost trend and improving employee satisfaction.