
Health Care Management Strategies – Associate Engagement

Marriott International

Overall Medical Strategy

- Medical benefits are an important part of our total compensation package to attract and retain talent
- Like our competitors, we're experiencing large increases in medical costs
- We're developing benefit design strategies to address the immediate issues
- We're also developing longer-term strategies to manage high-risk illnesses, improve patient safety and increase productivity

Medical Strategy Goals

- Partner with Health plans and providers who are
 - offering effective medical management programs
 - developing value-based plan designs
 - committed to addressing health care disparities
 - dedicated to patient safety programs
 - developing networks of efficient and effective providers
- Offer value based plan designs – associates choose their ideal mix of out-of-pocket costs and coverage priorities
- Launch education and communication campaign focused on associate engagement

Associate Engagement – 2 Case Studies

- **Value-Based Formulary**
- **Health Care Disparity Projects**

Case Study 1 - The Opportunity for Value-Based Formulary

- **The need for a patient-specific, value- formulary is driven by:**
 - Poor member compliance with chronic drug therapy is common
 - Poor compliance leads to increased adverse clinical events and increased cost
 - Several studies show that members are sensitive to co-pays, often resulting in even worse compliance

Active Health Management

How can we get there? ActiveHealth Management

- **A Focus on Innovative Solutions Marrying:**



- **A Health Management Company**

- technology enables a broad range of solutions that look at 100% of a population, 100% of the time
- data analytics enables AH to look at aggregate clinical and financial issues across a population

Data detail: claims/Dx

DIAGNOSIS - Patient ID: M 42 Yrs List based on Matrix: 134351
Date: 09/26/2002

ICD9	DIAGNOSIS	OCCURS STARTING	ENDING	VIEW	DETAILS
564	FUNCT DIGESTIVE DIS NOS	1 06/23/2002	06/23/2002	[X]	[X]
789.9	ABDOMINOPELVIC 5 YR+ NEC	1 06/23/2002	06/23/2002	[X]	[X]
135.6	ENLARGEMENT LYMPH NODES	1 11/02/2001	11/02/2001	[X]	[X]
V72.6	LABORATORY EXAMINATION	1 10/06/2001	10/06/2001	[X]	[X]
276.7	HYPERPOTASSEMIA	2 09/05/2001	10/01/2001	[X]	[X]
786.09	RESPIRATORY ABNORMAL NEC	6 06/05/2001	07/04/2002	[X]	[X]
733.9	BONE/CARTIL DIS NOS NOS*	1 04/19/2001	04/19/2001	[X]	[X]
733.80	KNEE & CARTRIDGE DIS NOS	1 04/19/2001	04/19/2001	[X]	[X]
429.3	CARDIOMEGALY	1 04/05/2001	04/05/2001	[X]	[X]
584.5	LOWER NEPHRON NEPHROSIS	2 03/27/2001	04/07/2001	[X]	[X]
584.7	AC REN FAIL, MEDULL NEUR	1 03/27/2001	03/27/2001	[X]	[X]
585	CHRONIC RENAL FAILURE	4 03/24/2001	09/11/2001	[X]	[X]
786.4	ABDOMINAL SPITUM	1 03/23/2001	03/23/2001	[X]	[X]
V72.5	RADIOLOGICAL EXAM NEC	1 02/26/2001	02/26/2001	[X]	[X]
277	METABOLISM DIS NOS NOS*	4 02/16/2001	09/05/2001	[X]	[X]
518.3	PULMONARY EOSINOPHILIA	3 02/16/2001	10/18/2002	[X]	[X]
491.9	CHRONIC BRONCHITIS NEC	1 02/16/2001	02/16/2001	[X]	[X]
494.0	BRONCHECTASIS W/O AC EXAC	1 02/14/2001	02/14/2001	[X]	[X]
519.9	RESP SYSTEM DISEASE NOS	10 01/17/2001	05/01/2002	[X]	[X]
786.2	COUGH	1 01/11/2001	01/11/2001	[X]	[X]
787.2	DYSPHAGIA	1 01/02/2001	01/02/2001	[X]	[X]
787.3	PLANTAR/FRICTATION PAIN	1 12/06/2000	12/06/2000	[X]	[X]
278.1	HYPOCALCAEMIA	1 12/04/2000	12/04/2000	[X]	[X]
V42.8	LUNG TRANSPLANT STATUS	33 11/24/2000	07/04/2002	[X]	[X]
V60.02	DM W/O CMP UNKNTBLD	19 11/14/2000	06/05/2001	[X]	[X]
584.9	ACUTE RENAL FAILURE NOS	7 11/13/2000	04/01/2001	[X]	[X]
586.9	END PERPH HEMOPHYM NOS	1 11/10/2000	11/10/2000	[X]	[X]
478.1	NASAL S DRUG DIS NEC	1 11/05/2000	11/05/2000	[X]	[X]
793.1	ADM FIBROSIS-LUNG FIELD	6 11/05/2000	07/04/2002	[X]	[X]
516.09	OTHER LUNG DISEASE NEC	5 11/05/2000	04/01/2001	[X]	[X]
401.9	HYPERTENSION NOS	2 11/00/2000	03/22/2001	[X]	[X]
996.04	COMPL LUNG TRANSPLANT	4 11/05/2000	09/08/2001	[X]	[X]

PROCEDURE - Patient ID: 103148978600(M 42 Yrs) List based on Matrix: 134351
Date: 09/26/2002

ICD9	PROCEDURE	OCCURS STARTING	ENDING	VIEW	DETAILS
93.09	Bronchoscopy, diagnostic, (flexible or rigid), with or without end	9 11/06/2000	07/25/2002	[X]	[X]
93.09	OTHER BRONCHOSCOPY	7 11/06/2000	07/25/2002	[X]	[X]
93.09	Rehab: examination, chest, two views, frontal and lateral	20 06/27/2000	07/24/2002	[X]	[X]
93.09	Plethysmography, total body, interpretation and report only	17 01/17/2001	07/24/2002	[X]	[X]
93.09	Carbon monoxide diffusing capacity, any method	17 01/17/2001	07/24/2002	[X]	[X]
93.09	Respiratory flow volume loop	17 01/17/2001	07/24/2002	[X]	[X]
93.09	Rehab: examination, abdomen, complete, including decubitus and/or	2 12/09/2000	06/25/2001	[X]	[X]
93.09	Observation or inpatient hospital care, for the evaluation and	1 06/27/2000	06/27/2000	[X]	[X]
93.09	Nursing services and all necessary supplies for stem home maintenance of imp.	5 11/08/2000	09/11/2001	[X]	[X]
93.09	Office consultation for a new or established patient, which requires	1 12/31/2000	12/31/2000	[X]	[X]
93.09	Subsequent hospital care, per day, for the evaluation and management of	3 03/23/2001	09/11/2001	[X]	[X]
93.09	Hospital discharge day management, more than 30 minutes	2 04/09/2001	09/11/2001	[X]	[X]
93.09	Subsequent hospital care, per day, for the evaluation and management of	9 06/15/2000	09/11/2001	[X]	[X]
93.09	Initial inpatient consultation for a new or established patient, which	3 03/23/2001	09/11/2001	[X]	[X]
93.09	Initial hospital care, per day, for the evaluation and management of a	5 06/05/2000	09/10/2001	[X]	[X]
93.09	Initial inpatient consultation for a new or established patient, which	1 09/09/2001	09/09/2001	[X]	[X]
93.09	Arterial catheterization or cannulation for sampling, monitoring or	1 06/25/2001	06/25/2001	[X]	[X]
93.09	ARTERIAL CATHETERIZATION	1 06/25/2001	06/25/2001	[X]	[X]
93.09	Pulmonary stress testing, complex (including measurements of CO2	1 06/25/2001	06/25/2001	[X]	[X]
93.09	ix carboxidine per 500 mg	3 11/21/2000	05/17/2001	[X]	[X]
93.09	Routine venipuncture or finger/heelstick stick for	06/15/2000	06/15/2000	[X]	[X]
93.09	diabetes/di	11 07/09/2000	04/05/2001	[X]	[X]
93.09	Office or other outpatient visit for the evaluation and management of an	3 09/15/2001	09/15/2001	[X]	[X]
93.09	Dual energy x-ray absorptiometry (DEXA), bone density study, one or more	1 04/19/2001	04/19/2001	[X]	[X]
93.09	Subsequent hospital care, per day, for the evaluation and management of	10 11/15/2000	04/07/2001	[X]	[X]
93.09	Echocardiography, transthoracic, real-time with image documentation (2D)	1 04/05/2001	04/05/2001	[X]	[X]
93.09	Doppler echocardiography, pulsed wave and/or continuous wave with	1 04/05/2001	04/05/2001	[X]	[X]
93.09	Doppler echocardiography color flow velocity mapping (LIVESTREAM)	1 04/05/2001	04/05/2001	[X]	[X]
93.09	Cytopathology, fluid, washings or brushings, conventional	3 11/16/2000	03/23/2001	[X]	[X]

486.	PNEUMONIA, ORGANISM NOS	41	11/06/2000	07/26/2002	[X]
515.	POSTINFLAM PULM FIBROSIS	1	09/27/2000	09/27/2000	[X]
V70.0	ROUTINE MEDICAL EXAM	1	09/22/2000	09/22/2000	[X]
789.07	ABDMNAL PAIN GENERALIZED	2	06/10/2000	12/08/2000	[X]
008.45	INT INF CLSTRDIUM DFCILE	5	06/09/2000	12/29/2000	[X]
789.03	ABDMNAL PAIN RT LWR QUAD	1	06/09/2000	06/09/2000	[X]
558.9	NONINF GASTROENTERIT NEC	4	06/09/2000	07/17/2000	[X]
277.00	CYSTIC FIBROSIS W/O II FLIS	16	03/17/2000	07/31/2000	[X]

DRUG - Patient ID: 103148978600(M 42 Yrs) List based on Matrix: 134351 Date: 09/26/2002

NDC	DRUG	SIZE	DOSE	UNITS	OCCURS STARTING	ENDING	DAYS SUPPLY	VIEW	DETAILS
00006902558	FOSAMAX TABLETS	100	5	MG	3 09/24/2001	08/25/2002	90	[X]	[X]
00045034360	PANCREAZE MT 16 CAPSULES	100	COMBO		7 02/15/2000	08/25/2002	90	[X]	[X]
5766401868	METOPROLOL TR TABLETS				2 06/09/2002	08/25/2002	90	[X]	[X]
00059152056	NORVASC TABLETS	90	2.5	MG	3 09/24/2001	08/25/2002	90	[X]	[X]
5846847090	NRNAGEL				1 09/27/2001	08/25/2002	90	[X]	[X]
00186074231	PRIOLOSEC				1 08/23/2002	08/23/2002	90	[X]	[X]
00002751001	HUMALOG INJECTION	1 X 10 ML	100	UNIT/ML	3 04/30/2002	08/18/2002	30	[X]	[X]
00002831501	HUMULIN N INJECTION	10 ML	100	UNIT	2 04/30/2002	08/18/2002	10	[X]	[X]
00186074231	PRIOLOSEC				2 07/27/2002	08/18/2002	30	[X]	[X]
50242010040	PULMOZYME				1 08/08/2002	08/08/2002	90	[X]	[X]
53885024510	ONE TOUCH ULTRA TEST STRIPS	100			3 09/24/2001	08/06/2002	30	[X]	[X]
56513001104	ARANESP	1	40	MG/ML	2 06/28/2002	08/05/2002	30	[X]	[X]
00002831501	HUMULIN N INJECTION	10 ML	100	UNIT	1 07/09/2002	07/09/2002	30	[X]	[X]
00591505201	PREDNISONE TABLETS	100	5	MG	2 05/21/2002	07/07/2002	75	[X]	[X]
06290309570	B-D SYRING/NEEDLE COMBO LUBERLOK				1 06/26/2002	06/26/2002	20	[X]	[X]
00054408425	AZATHIOPRINE USP TABLETS	100	50	MG	8 02/15/2000	06/09/2002	90	[X]	[X]
52152006002	URSOXICOL	100	300	MG	6 01/08/2001	06/09/2002	90	[X]	[X]
00172426680	ACYCLOVIR CAPSULES	100	200	MG	7 02/15/2000	06/09/2002	90	[X]	[X]
00378019801	CLONIDINE HYDROCHLORIDE TABLETS	100	0.3	MG	3 11/04/2001	06/09/2002	90	[X]	[X]
63430006501	TOBI				1 05/24/2002	05/24/2002	28	[X]	[X]
49884054401	RANITIDINE				2 11/22/2001	05/12/2002	90	[X]	[X]
00378021610	FUROSEMIDE TABLETS	1000	40	MG	1 04/30/2002	04/30/2002	30	[X]	[X]
00517760412	ACETYL CYSTEINE SOLUTION	12 X 4 ML	200	MG/ML	1 04/30/2002	04/30/2002	14	[X]	[X]
52268020001	PHOSLO				1 04/10/2002	04/10/2002	90	[X]	[X]
00469061771	PROGRAF CAPSULES	100	1	MG	5 06/13/2001	04/07/2002	90	[X]	[X]
00591544301	PREDNISONE TABLETS USP	100	20	MG	1 04/07/2002	04/07/2002	30	[X]	[X]
00378019801	CLONIDINE HYDROCHLORIDE TABLETS	100	0.3	MG	1 03/27/2002	03/27/2002	30	[X]	[X]
00093008801	SULFAMETHOXAZOLE AND TRIMETHOPRIM TABLETS	100	400,80	MG/MO	3 01/08/2001	11/04/2001	90	[X]	[X]
00591505201	PREDNISONE TABLETS	100	5	MG	1 11/04/2001	11/04/2001	90	[X]	[X]
00142707901	IBRAFENR	100			1 09/24/2001	09/24/2001	90	[X]	[X]

Informed Care Management – Nurse Care Managers for Members

- **Ongoing monitoring of clinical issues**
- **Engagement of patient with education, targets, monitoring**
- **Nurses speak Spanish**
 - **Materials summarized in Spanish**
 - **For other languages – the nurses will link to the Language Line**

Impact

- **More—and more accurate—Care Considerations made**
 - Opportunities uncovered from patient-supplied data
- **Higher compliance with care considerations**
 - Integration of patient and physician engagement
- **Higher compliance with Care Plans**
 - Active engagement toward understanding clinical targets

How the Value-Based 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 represent the most commonly used drugs
- 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 Value-Based Formulary Works

Co-pay reductions for members qualifying for the program

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

Value-Based 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

University of Michigan 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?

Case Study 2 - Health Care Disparities

Aetna conducted a focus group with employees in Texas

- *Associates Want*
 - Materials in Spanish
 - More information about specific diseases
 - More information about Aetna's disease management programs
 - To know more about how preventive measures help to improve their health
- *Associates Need*
 - To be able to communicate with their physician

Aetna's Response

Multi-pronged program proposal with multiple activities:

■ Provider-Based

- Impact top 20 provider offices in Houston and Miami

■ Employee/Member-Based

- Multi-dimensional outreach to employees in Houston and Miami

■ Employer-Based

- Materials available at Houston and Miami hotels

Goals of the Pilot

- **Improve member medication adherence**
- **Identify candidates for early enrollment in disease management programs**
- **Provide culturally and linguistically appropriate health information to targeted population**
- **Improve health care communication between members and their health care professionals**
- **Improve use of cost effective health care choices**
- **Increase members' health information seeking – increased utilization of the Informed Health[®] Line**
- **Assess access to the Internet**
- **Improve health outcomes**

Next Steps

- **Continue to work with our health plans to support our initiatives**
 - Continue to evaluate health plans on compliance with our performance expectations
 - Publicly acknowledge those plans who are actively addressing the issue
 - Support pilot activities
- **Continue to engage our associates and help them make the right decisions based on data and plan design**