



Value Based Designs

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Agenda

- Current state of affairs
- Why medication adherence matters
- Barriers to adherence
- Overcoming the barriers
- Next steps
- Questions

Medication adherence

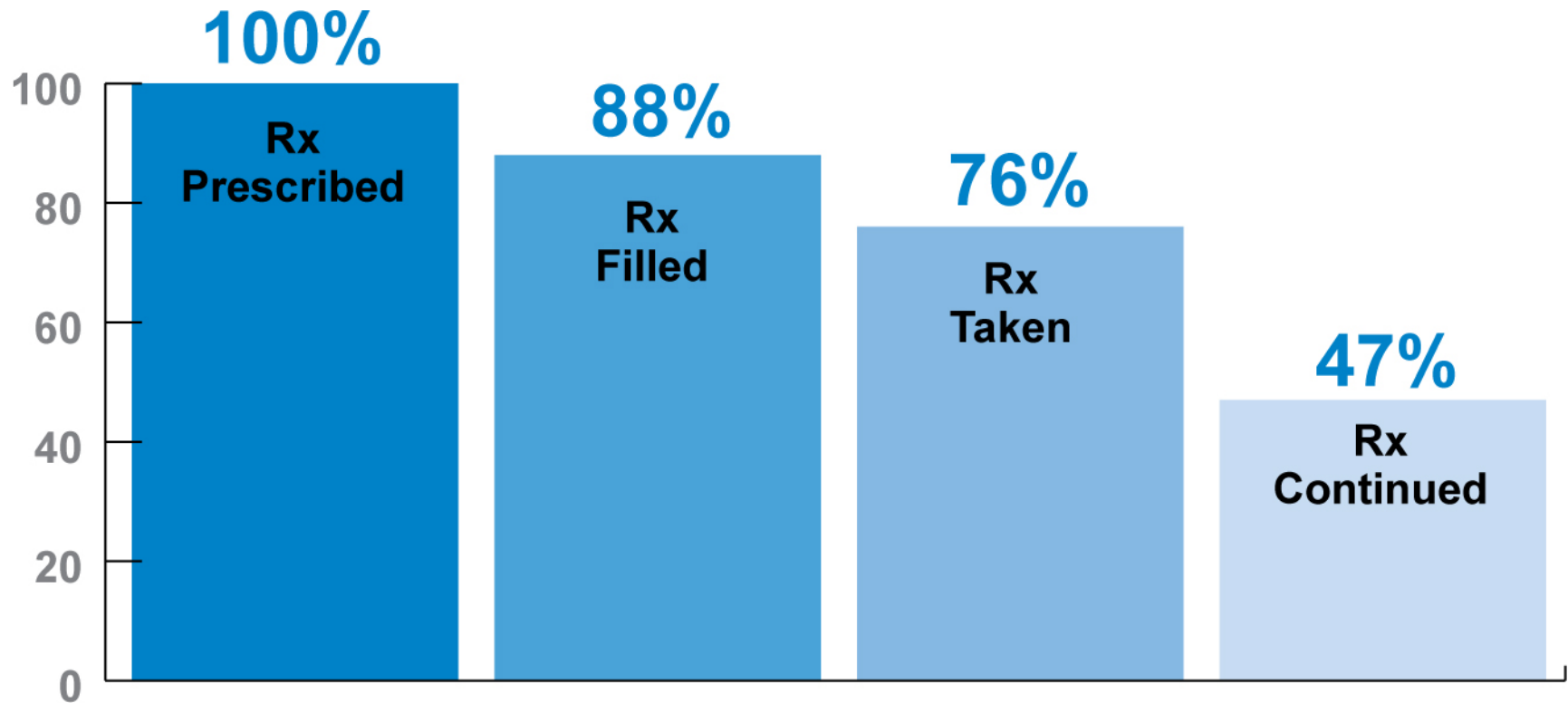


“The degree to which the person’s behavior corresponds with the agreed recommendations from a health care provider.”

– World Health Organization

Medication adherence

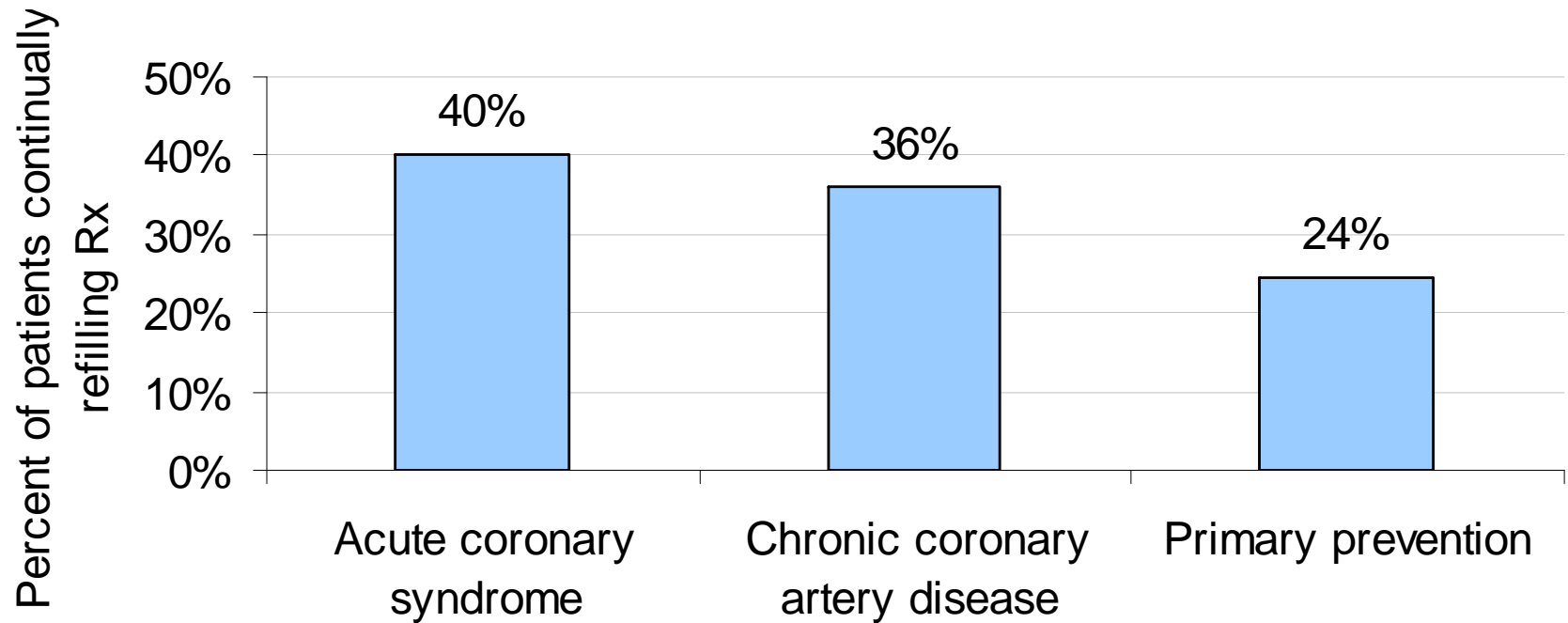
22% of U.S. patients take less of the medication than is prescribed



Statin adherence as measured by proportion of days covered (PDC)

- Below 80% PDC was considered suboptimal adherence.
- Within 3 months, mean PDC had fallen to 79%.
- After 3 months, 40% of patients had suboptimal adherence.
- After 12 months, 61% had suboptimal adherence.

Adherence to statins after two years, by condition



Jackevicius CA, Mamdani M, Tu JV. Adherence with statin therapy in elderly patients with and without acute coronary syndromes. JAMA 2002;288:462-467

Why adherence matters

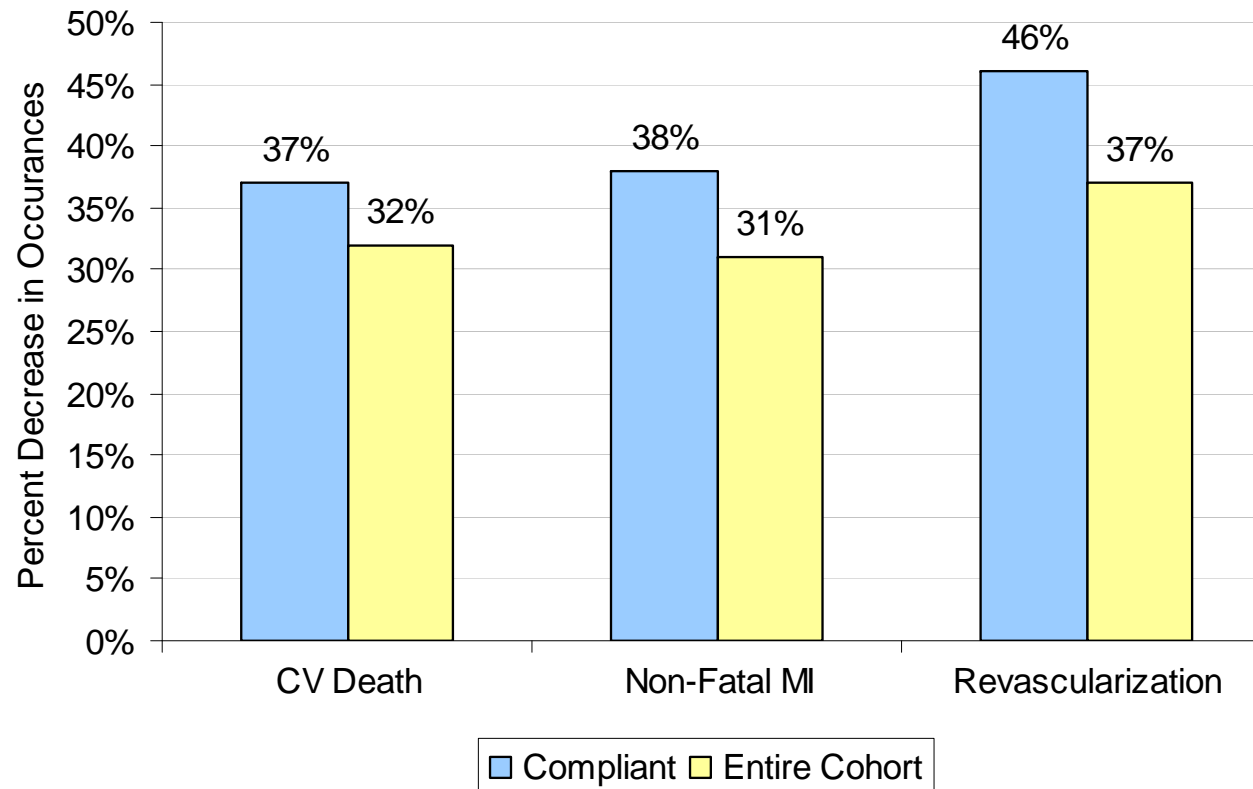
“Of all medication-related hospital admissions in the United States, 33 to 69 percent are due to poor medication adherence, with a resultant cost of approximately \$100 billion a year.”

Results of failure to adhere to prescribed medications:

- Increased hospitalization
- Poor health outcomes
- Increased costs
- Decreased quality of life
- Patient death

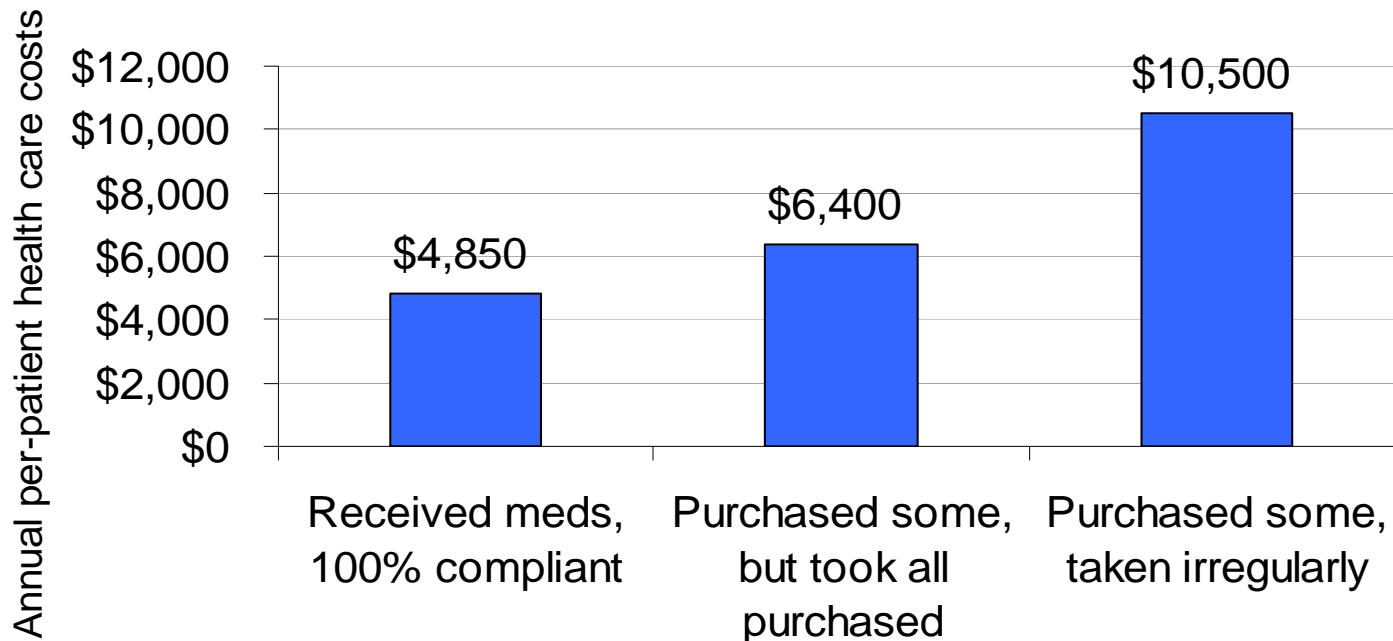
Benner JS, Glynn RJ, Mogun H, Neumann PJ, Weinstein MC, Avorn J. Long-term persistence in use of statin therapy in elderly patients. JAMA 2002;288:455-461

Statin therapy adherence demonstrated to improve three specific outcomes



Poor adherence increases total health care costs

Hypertensive Patients and Total Annual Costs



Smith DL. The effect of patient non-compliance on health care costs. Medical Interface 1993;April; 74-84

Why don't patients adhere to their medication therapy?

- Complex therapies
- Side Effects
- Failure to understand the need for the medication
- High out-of-pocket costs



Benner JS, Glynn RJ, Mogun H, Neumann PJ, Weinstein MC, Avorn J. Long-term persistence in use of statin therapy in elderly patients. JAMA 2002;288:455-461

Overcoming barriers to adherence

Health plan pays member copay

- Reduces member out-of pocket costs
- Emphasizes the importance of continuing therapy

Education and outreach

- Explains the need for medication therapy
- Breaks down complex therapies into manageable parts
- Offers strategies for coping with side effects

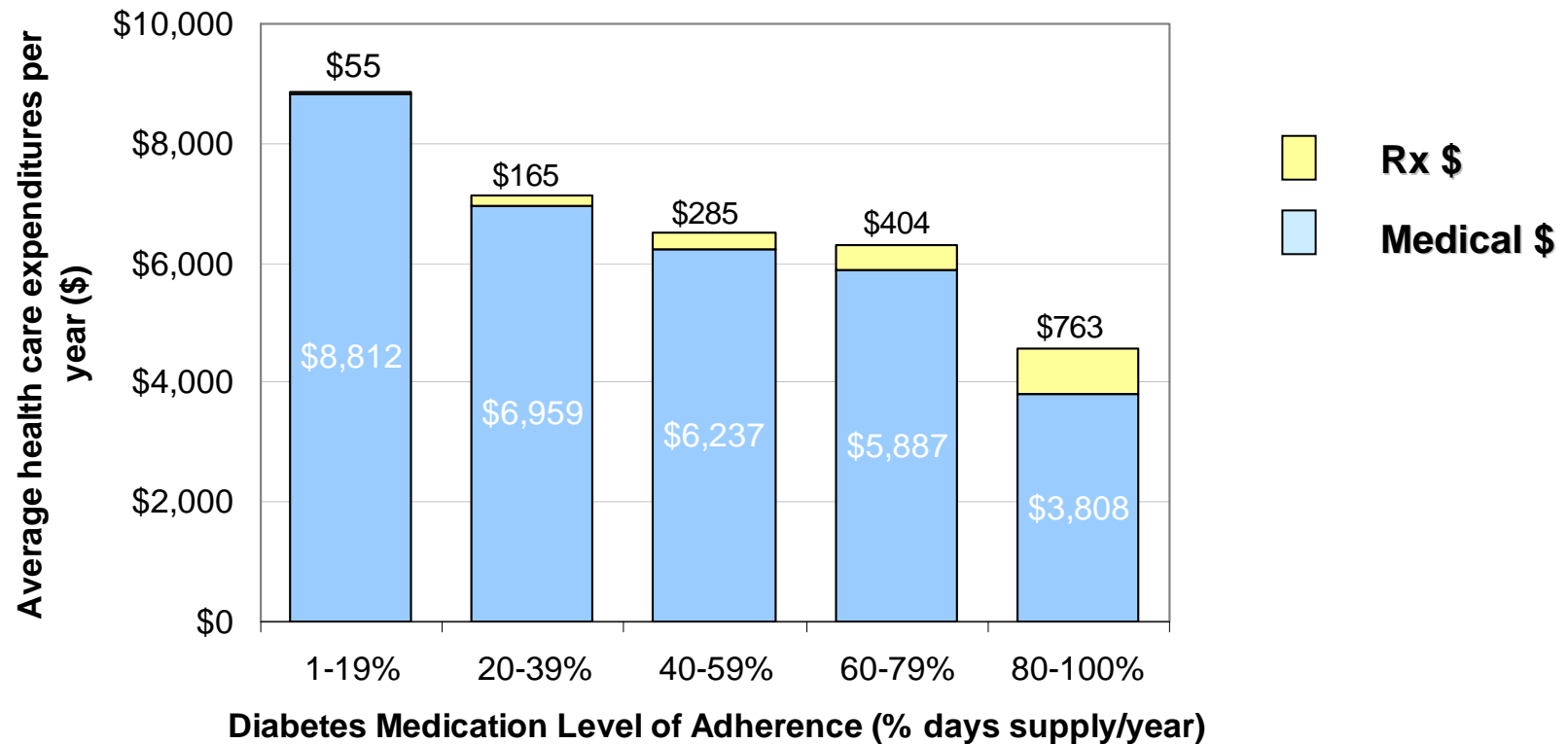
The copay effect

- Adherence with statin therapy consistently found to be far from optimal even in populations with full drug insurance coverage.
- Already bad adherence to newly initiated statin therapy was further reduced by 5 percentage points as a consequence of a fixed copayment policy and a subsequent coinsurance policy.



Schneeweiss S, Patrick AR, Maclure M, et al. Adherence to statin therapy under drug cost sharing in patients with and without acute myocardial infarction. *Circulation* 2007; DOI: 10.1161/circulationaha.106.665992

Investment in medication adherence can lead to dramatic reductions in overall cost of care



Outcome is significantly higher than outcome for 80-100% adherence group ($P < 0.05$). Differences were tested for medical cost and hospitalization risk.

Sokol M et al. Impact of Medication Adherence on Hospitalization Risk and Healthcare Cost. Medical Care. Volume 43, Number 6, June 2005

2008 Aetna consumer research results on value-based insurance design

- Surveyed 1,000 individuals with 5 common conditions -- hypertension, hyperlipidimia, asthma, diabetes, and health disease.
- 61% of individuals found the value-based insurance design (VBID) concept “extremely” or “very appealing”.
- Attractiveness of VBID seems to vary by type of condition a person has --
 - Strongest among individuals with diabetes and asthma
 - “Mid range” for those with hypertension and heart disease; and
 - Lower among individuals with hyperlipidimia.
- Appeal did not vary by income

2008 Aetna consumer research results on value-based insurance design

- Appeal of VBID seems to decline with increasing age –
 - about 70% of those 40 or younger find the VBID idea extremely or very appealing;
 - Compared to less than 60% for those 51-60 age, and less than 50% for those 61-64.
- Those who find the concept appealing state financial benefits of lowered or eliminated copays as the number one reason.
- Results suggests that VBID will likely improve Rx compliance.
 - 86% state they would "always" take their medication if they were participating in a value based disease management program, a 10 percent point improvement
 - Compared to 78% who state they always take their medications currently.

Marriott International Study (2005)

- Although there were previous Value Based Studies, this was one of the first controlled studies and the first in a Disease Management context.
- Pre-post study with a comparable control group
- Outcomes measured
 - Medication adherence (medication possession ratio)
 - Cost of medication
 - Cost of non-Rx health care services
- Medication adherence increase significantly for 4 of 5 targeted drug categories
- Members out-of-pocket costs for brand-name targeted drugs decreased 27% while control group member's cost fell only 1%
- Prescription drug expenditures rose significantly
- Non-Rx medical costs decreased by roughly the same amount
- Overall costs for healthcare did not change significantly

Aetna Healthy Actions – Rx Savings our value-based Rx plan designs

Supported by Aetna's focus on evidence-based medicine
and the Brigham and Women's study

**Drug Class
Driven:** copay
discount based on
member drug class

**CareEngine
Powered:** copay
discount according
to evidence-based
identification for
certain chronic
conditions

**Disease
Management
Engagement:**
copay discount
according to
CareEngine and
participation in
Aetna Health
Connections

Rx Savings offers a targeted copay solution



- Reduce copays selectively for members with chronic conditions
- Motivate members requiring but not receiving essential drugs to begin taking them
- Motivate members already taking essential drugs to remain compliant

Aetna Health ActionsSM – Rx Savings

CareEngine-powered, Value-based Design

Member claims data - history, medical claims, labs, pharmacy and demographic data is fed into the Aetna CareEngine[®]

SITUATION A:

Member already taking the Rx

ACTION:

Member receives targeted communication RE: reduced copay available

OR

SITUATION B:

Member not already taking the Rx

ACTION:

Member and provider receive targeted communications RE: of reduced copay opportunity

Report generated by CareEngine contains eligible members, drug classes, prescription and patient status

Member fills Rx and pays reduced copay amount at the point-of-service

Pharmacy adjudicates member Rx

Member copayment level is applied after first fill at pharmacy

Rx Savings – “CareEngine-powered” targets members with high risk conditions

Medical Condition	Drug Class
<i>High-risk vascular conditions (including diabetes with complications)</i>	<ul style="list-style-type: none">▪ ACE/ARBs* when needed to treat or prevent diseases of the heart and kidney▪ Statins to lower cholesterol for those who have high risk conditions such as diabetes and coronary artery disease.▪ Beta blockers when required for cardioprotection▪ Diabetic medications
<i>Asthma</i>	Inhaled steroids

Choudhry Meta-analysis: Use of Medications Post-MI

		Base case	
	Current Coverage	Full coverage	Difference
Average 3-Year Event Rates (%)			
Fatal MI	3.1	2.1	1.0
Fatal stroke	0.3	0.2	0.1
Fatal CHF	0.2	0.1	0.1
Non-fatal MI	33.4	20.3	13.1
Non-fatal stroke	4.0	2.8	1.2
Non-fatal CHF readmission	31.8	25.2	6.6
Average Insurer's Costs Per Patient (\$)*			
Drug expenditure	644	1,440	796
Event-related costs	21,498	14,729	-6,770
TOTAL	22,428	16,808	-5,974

*Health Affairs 2007; 26: 186

Rationale for Selection of Post Myocardial Infarction Population

- Rationale
 - The analysis of the Harvard model suggests that covering combination drugs for patients who have had a prior Myocardial Infarction will save both lives and money (Health Affairs, January / February 2007)
 - Post myocardial infarction population selected due to the sequelae of medication adherence is severe regarding morbidity and mortality
 - Evidence base is clear on the specific medications of value to this population

Proposed Research Study

- Aetna / Harvard Proposal
 - Aetna to participate with Harvard in a study to formally test the hypothesis that by removing financial barriers (co-pay, co-insurance and deductibles) for certain conditions we would:
 - Increase medication adherence
 - Improve clinical quality
 - Decrease medical costs

Study Description

- Quality improvement initiative partnering with Harvard:
 - 3 year, 2 arm study with a control group and an intervention group
 - Control group - no change to drug insurance coverage
 - Intervention group - zero co-payment for ACEIs / ARBs, Statins and Beta Blockers
 - Collaborate with plan sponsors regarding communication to members enrolled in the study
 - Randomization will occur at the employer level

Inclusion / Exclusion Criteria

- Members must have Aetna Medical and Pharmacy
- Both FI and SI Funding arrangements will be included
- Excludes Medicare population
- Excludes members that have HSA / HRA arrangements

Outcomes Assessment

- Drug use and adherence
 - Clinical
 - » composite of death from cardiovascular causes,
 - » non-fatal recurrent infarction,
 - » non-fatal stroke,
 - » non-fatal congestive heart failure readmission
- Economic
 - health care costs incurred by the insurer (e.g., drug costs, event-related costs, cost of ongoing health care, costs of lost productivity)

Potential Benefits to Plan Sponsor / Members

- Plan Sponsor
 - Lower medical costs
 - Improvement in employee health care quality
 - Improvement in employee satisfaction
 - Decreased disability / Improved productivity
- Members in Intervention Group
 - Improved health / decreased disability
 - Decreased risk for recurrent cardiac events
 - Medication cost savings



Questions?

For Additional Information



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