



Implementing a Disease Management Program within a PBM Environment

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Agenda

- Explore pharmacy benefit managers as disease management providers
- Examine health outcomes from a PBM DM program



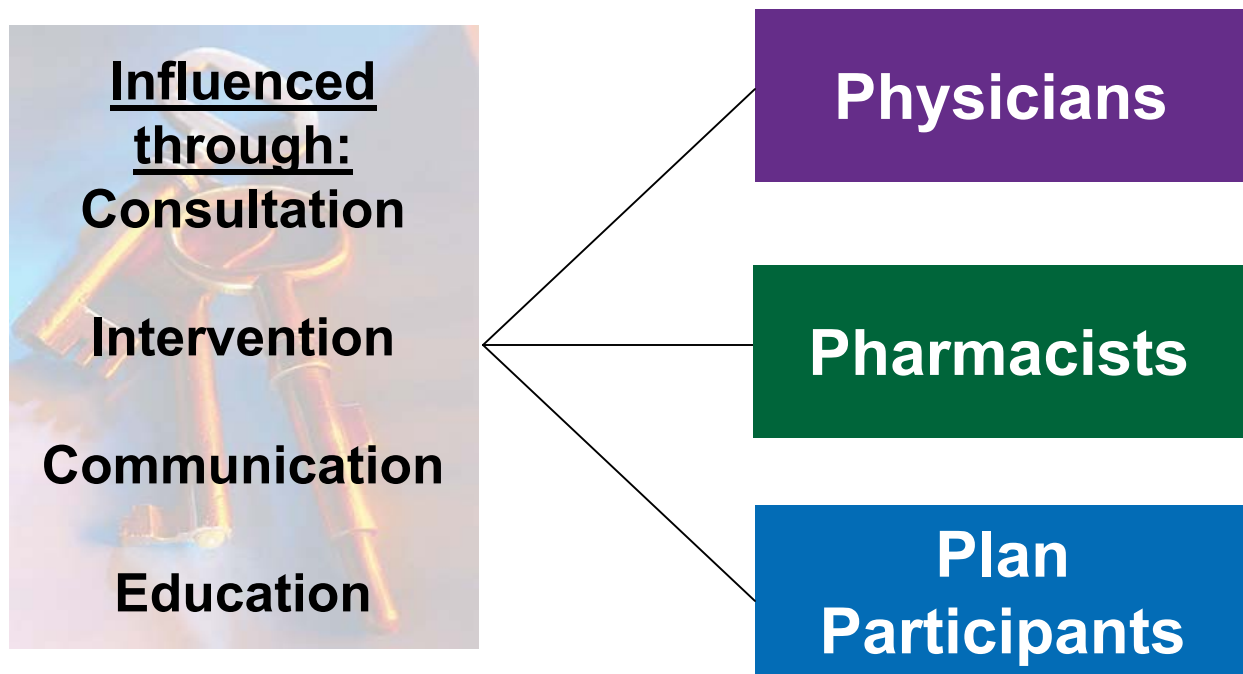
PBM Providers:

Advantages of DM from a PBM

- Optimize most commonly utilized healthcare benefit: pharmacy
- Identify individuals in real-time whose conditions cannot be managed by lifestyle and diet alone
- Benefit from physician familiarity with PBM interventions
- Reap shared goals between DM and PBM
- Integrate plan design with DM interventions across an entire population through pharmacy, lifestyle and clinical initiatives
- Manage polypharmacy
- Address the increasing use of higher-cost biotech therapies



PBM Providers: Improving Outcomes by Influencing Decision Makers



Aligning constituents across the healthcare continuum for consistent application of client goals



PBM Providers:

Solutions for the Entire Population

Wellness programs

- Health risk assessments
- 24/7 nurse line
- Call a pharmacist
- Onsite pharmacy
- Internet tools and resources

In development

- Obesity
- Atrial fibrillation
- Gastro-intestinal disorders
- Stroke management
- Integrated goals, diet and exercise program

Health impact conditions

- Hypertension
- Depression
- Peptic ulcer disease

Common chronic conditions

- Chronic obstructive pulmonary disease
- Heart failure
- Diabetes
- Coronary artery disease
- Asthma (adult and pediatric)
- Musculoskeletal / chronic pain

Rare conditions

- Seizure disorders
- Sickle cell anemia
- Multiple sclerosis
- Scleroderma
- Lupus
- Polymyositis
- Rheumatoid arthritis
- Amyotrophic lateral sclerosis
- Parkinson's disease
- Gaucher's disease
- Cystic fibrosis
- CIDP
- Hemophilia
- Dermatomyositis
- Myasthenia gravis



PBM Providers:

Diabetes Program Intervention Components

PARTICIPANT

Medication adherence (education)
Blood sugar management (HbA1c)
Activity management (evaluation, education)
Smoking cessation (education)
Nutrition modification (healthy eating education)
Test monitoring/sick day plan (diabetes record book)
Cholesterol management (diet modification, monitoring)
Blood pressure management (education)
Associated conditions management (retinopathy, nephropathy education)
Immunizations (flu & pneumonia education)
Depression screening (education)
Participant progress report (after each assessment)
Participant education follow up (after each contact)
Newsletters (quarterly)

PHYSICIAN

Treatment algorithm
ADA guidelines (upon request)
Action interventions:
HbA1c tests
ACEI/ARB therapy
Lipid tests
Influenza and pneumonia vaccination
Depression screening





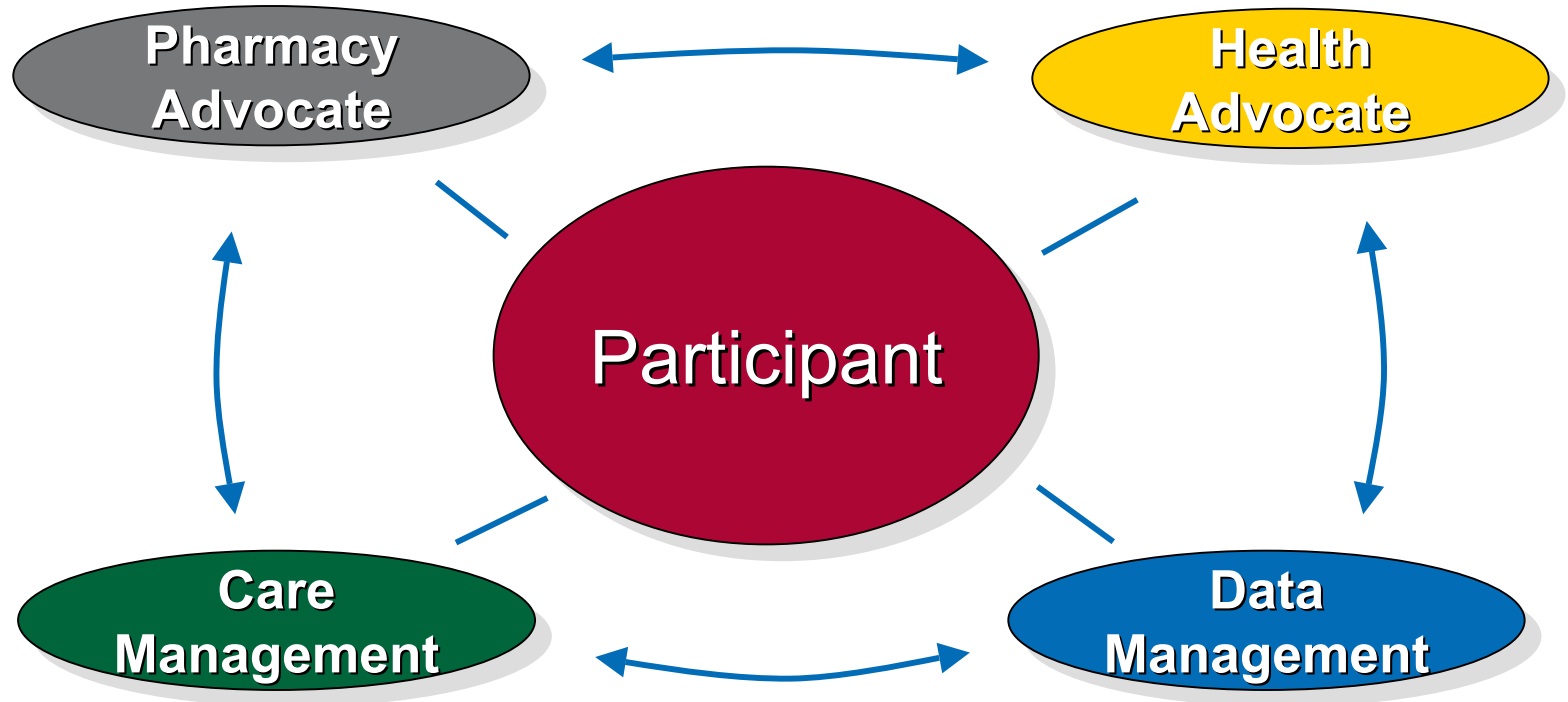
PBM Providers:

Key Data Types and Uses in DM

- Types of data:
 - Administrative claims
 - Biometric measures
 - Participant or clinician reported
- Uses for data:
 - Targeting
 - Stratification for interventions (number, intensity)
 - Self management such as testing, monitoring
 - Outcomes
 - Clinical
 - Quality of life
 - Satisfaction
 - Productivity
 - **Financial**



PBM Providers: Linking Data with Health Partners





PBM Providers:

Utilizing Pharmacy Data as a Primary Source

- Identification from medical claims not necessarily the best identifier for DM participants for all conditions
- Using medical claims has:
 - Significant lag time in receiving medical claims
 - Can be incorrect
- Using pharmacy data:
 - Ability to track and improve adherence to certain therapies: key to improving clinical outcomes and quality of life

Better outcomes yields appropriate resource utilization and reduction of medical expenditures



PBM Providers:

Prevalence and Health Expenditure Client Profile

Condition	2003 Prevalence	Medical Utilizers	Total Medical Paid	Mean Medical Per Utilizer	Total Rx Paid	Mean Rx Per Utilizer	Total Rx Claims	Rx Claims/ Utilizer
COPD	1.9%	764	\$5,101,900	\$6,678	\$211,680	\$2,405	3,574	40.6
HF	1.7%	711	\$6,171,967	\$8,681	\$135,907	\$2,059	2,963	44.9
DIAB	5.5%	2,223	\$9,493,139	\$4,270	\$927,791	\$2,319	16,262	40.7
CAD	4.3%	1,740	\$10,733,738	\$6,169	\$534,121	\$2,244	8,982	37.7
ASTH	4.2%	1,702	\$4,779,433	\$2,808	\$478,735	\$1,266	8,274	21.9
HYPR	15.6%	6,354	\$20,706,197	\$3,259	\$1,710,624	\$1,489	34,357	29.9
DEPR	0.4%	176	\$326,968	\$1,858	\$310,683	\$1,765	5,532	31.4
PAIN	3.5%	1,446	\$5,297,578	\$3,664	\$468,975	\$1,456	8,775	27.3
HEAD	0.7%	283	\$3,324,080	\$11,746	\$39,288	\$1,511	709	27.3
ULCR	1.9%	774	\$4,144,657	\$5,355	\$241,746	\$1,590	4,364	28.7
Unique Identified	25.8%	10,512	\$33,373,777	\$3,175	\$2,819,503	\$1,375	53,894	26.3

Total Population			\$55,964,750	\$1,646	\$6,722,358	\$945	122,777	17.3
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Condition	2003 Total Health Dollars
COPD	\$5,313,580
HF	\$6,307,874
DIAB	\$10,420,930
CAD	\$11,267,859
ASTH	\$5,258,167
HYPR	\$22,416,821
DEPR	\$637,651
PAIN	\$5,766,552
HEAD	\$3,363,369
ULCR	\$4,386,403
Identified	\$36,193,280
Total Population	\$62,687,109

Analysis indicates that hypertension and diabetes have the highest rates of prevalence in this population. However, headache and heart failure show the highest per utilizer medical spending at \$11,746 and \$8,681 respectively.

As detailed in the table at left, the segment of the population identified as having one of the specified chronic conditions accounts for **58% of total healthcare expenditures during estimate time period**. Hypertension and cardiovascular disease are the conditions for which the most healthcare dollars were spent. **Estimate dates:** Jan. 1 through Dec. 31, 2003.

Source: Caremark individual client analysis, 2003



PBM Providers: Outcomes Reporting

Clinical indicators

Heart failure

ACE-I
Beta blocker
DASI score
Influenza vaccine
Pneumonia vaccine

CAD

ACE intervention
Beta blocker
Anti-platelet intervention
Influenza vaccine
Pneumonia vaccine

Asthma

Written action plan
Peak flow meter
Anti-inflammatory medications
SABA
Influenza vaccine

Diabetes

Eye exam
Cholesterol test
HbA1c test
Urine protein test
Foot exam
ACE-I intervention
Influenza vaccine
Pneumonia vaccine

COPD

Written action plan
Spacer
Pneumonia vaccine
Influenza vaccine

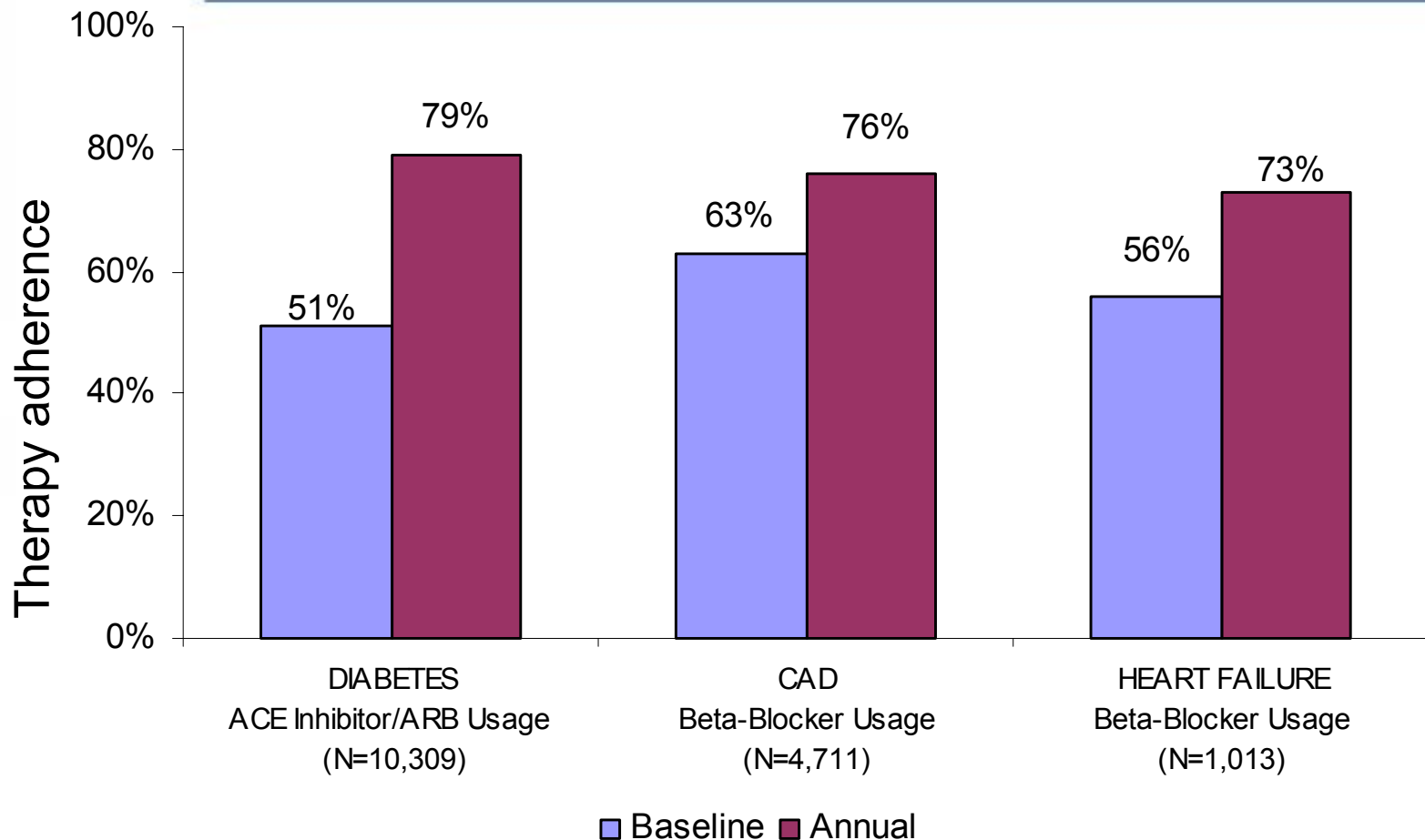
- Clinical indicators
- Quality of life
- Participant satisfaction
- Activity and utilization
- Financial
 - Utilization
 - Direct costs
 - Productivity
- Physician outcomes

*Participant-reported data may be used
for savings calculations at client request*



PBM Outcomes:

2004 CarePatterns® Book of Business Clinical Results



All differences are significant $p < .05$



PBM Outcomes: Managing Compliance

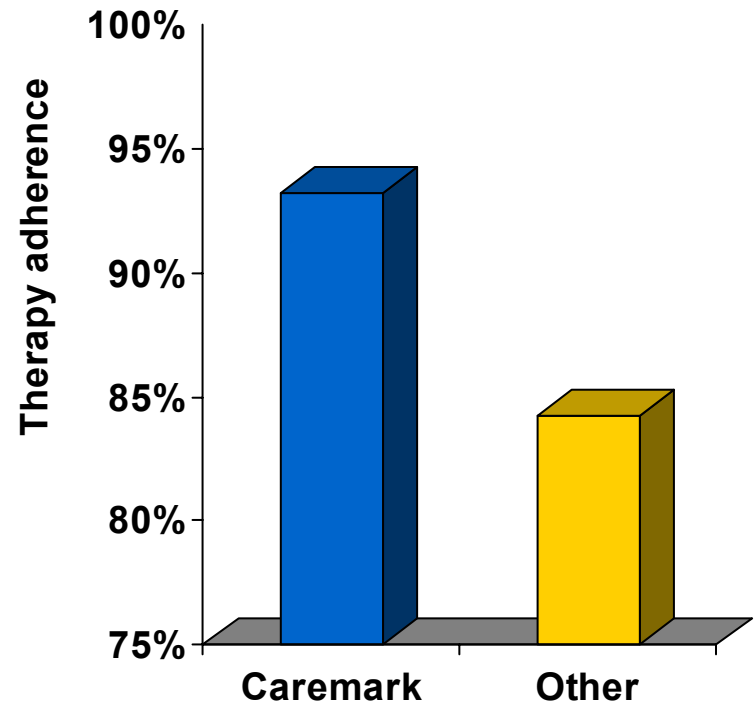
- Underlying assumption
 - People will be compliant with treatment therapy
- Why pharmaceutical treatment
 - Eradicating an illness or condition
 - Relief of symptoms
 - Reducing illness progression
 - Reducing clinical complications associated with illness
- Critical need
 - Monitor compliance to decrease the negative clinical outcomes associated with illness



PBM Outcomes:

Adherence Case Study on Multiple Sclerosis

Compliance was significantly higher among Caremark CarePatterns® plan participants versus non-Caremark CarePatterns plan participants



Notes: Caremark n = 1516,, P < 0.05

Source: Marks, AS., Johnson, KE. Multiple Sclerosis: Adherence to Copaxone Therapy. International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 7th Annual International Meeting. May 19-22, 2002, Arlington, Virginia, USA. *Value in Health*. 2002 May-Jun; 5(3): 272-273.



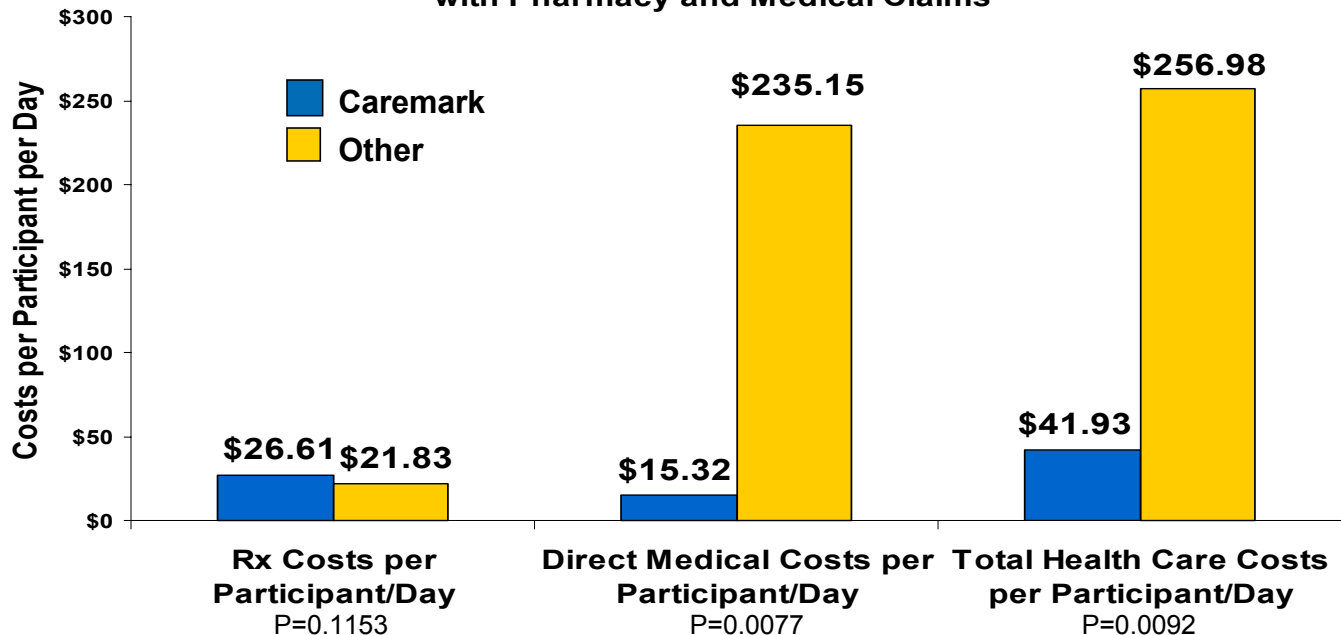
PBM Outcomes:

Adherence Case Study on Multiple Sclerosis

Direct medical costs per day significantly lower for MS participants dispensed by Caremark

Costs Related to Copaxone Therapy by Pharmacy Delivery System

Caremark CarePatterns Plan Participants with Pharmacy and Medical Claims



Source: Marks, AS., Johnson, KE. Multiple Sclerosis: Adherence to Copaxone Therapy. International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 7th Annual International Meeting. May 19-22, 2002, Arlington, Virginia, USA. *Value in Health*. 2002 May-June; 5(3): 272-273.



Conclusion

- DM is necessary to address the continued increases in total healthcare costs
- PBMs are well situated to address the needs of disease management
- Full disease management programs offered within a PBM have been shown to impact both direct and indirect costs