



Harvard Pilgrim  
Health Care



# Cape Cod Municipal Health Group: Review of Cost and Utilization for Plan Year 2010

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# Outline

- Definitions
- Demographic analysis
- Members' health status and risk adjustment
- Utilization patterns
- Cost analysis
  - Claims costs
  - High cost claimants
  - Member cost sharing
  - Pharmacy analysis
- Summary and recommendations

# Definitions

- CCMHG-Specific Data
  - Plan Year (PY) 2010: July 2009 through June 2010
    - Services incurred during plan year and paid through December 2010
  - PY2009: July 2008 through June 2009
    - Services incurred during plan year and paid through December 2010
  - PY2008: July 2007 through June 2008
    - Services incurred during plan year and paid through December 2010
- Municipal Industry – Municipal employer groups in HPHC’s book of business
  - Claims incurred between July 2009 and June 2010 and paid through December 2010
- HPHC Planwide – Commercial Book of Business (all states, all plans)
  - Claims incurred between April 2009 and March 2010 and paid through July 2010



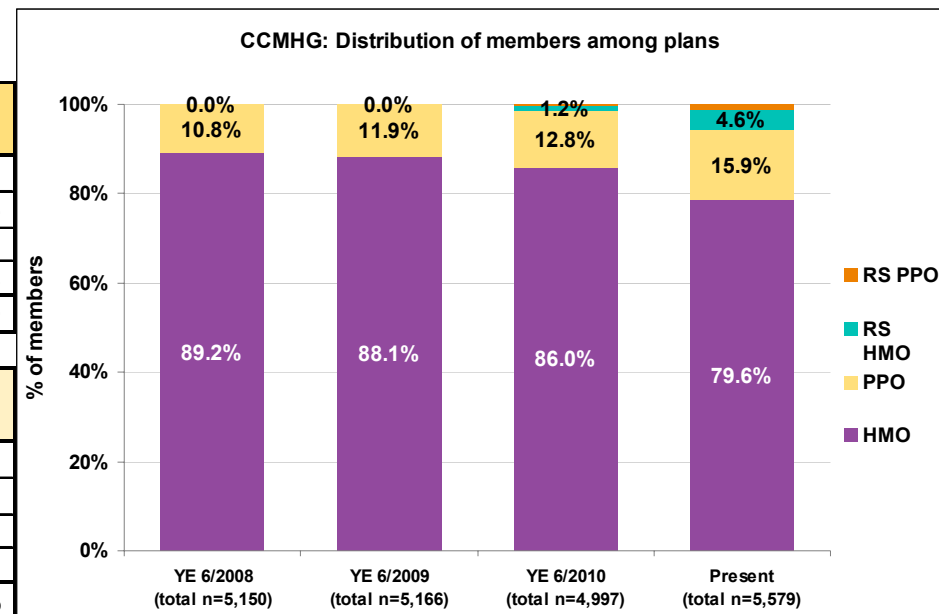
**Who are our members?**

# Demographics: Membership Trends

- Overall growth was -3.3% from June 2009 to June 2010, but membership increased by 11.6% between June 2010 and December 2010
- The HMO population decreased through June 2010, but gained members in PY2011. The PPO continues to grow and is now nearly 16% of membership
- Rate Saver plans started July 2009; HMO Rate Saver now has 254 members, and PPO has 68 (combined 5.8% of members as of December 2010, up from 1.4% at the end of PY2010)

Members	YE 6/2008	YE 6/2009	YE 6/2010	Present
HMO	4,593	4,552	4,296	4,440
PPO	557	614	639	885
RS HMO	0	0	62	254
RS PPO	0	0	8	68
<b>All plans combined</b>	<b>5,150</b>	<b>5,166</b>	<b>4,997</b>	<b>5,579</b>

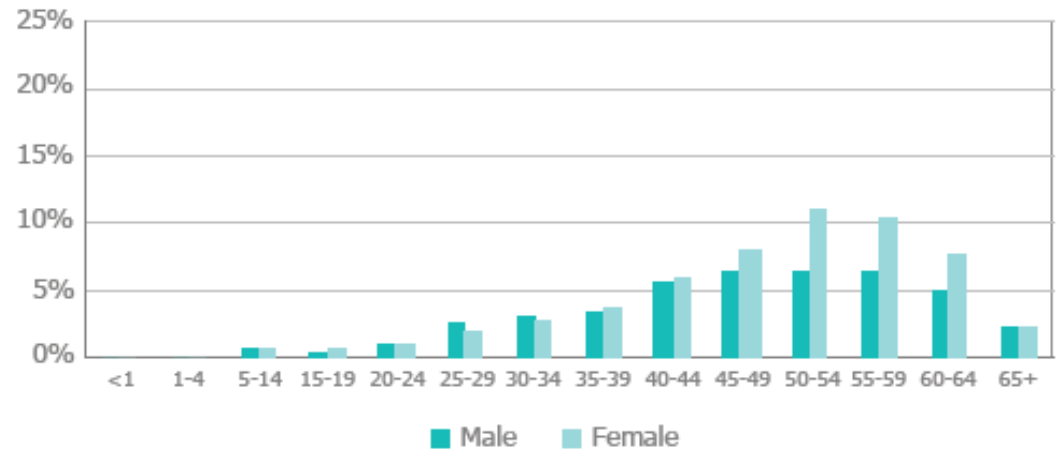
Members: Change from prior period	YE 6/2008- YE 6/2009	YE 6/2009- YE 6/2010	YE 6/2010- Present
HMO	--	-0.9%	-5.6%
PPO	--	10.2%	4.1%
RS HMO	--	N/A	N/A
RS PPO	--	N/A	N/A
<b>All plans combined</b>	<b>--</b>	<b>0.3%</b>	<b>-3.3%</b>



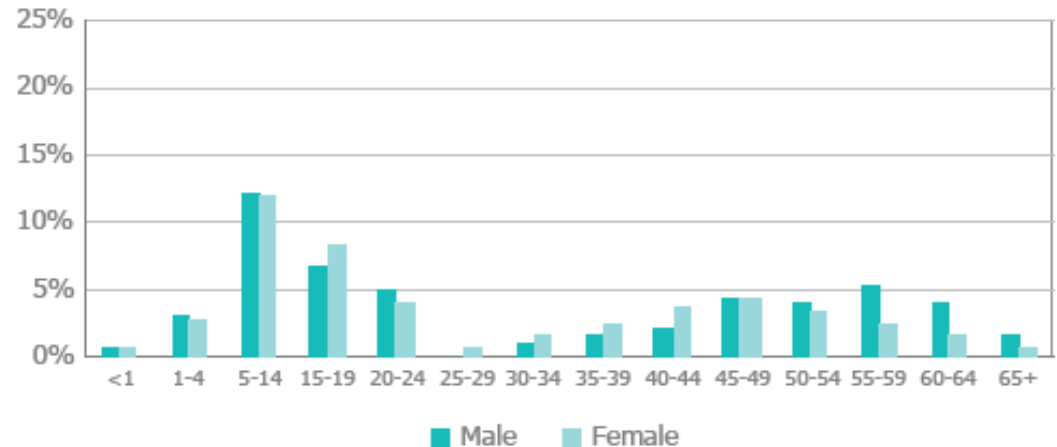
# Demographics: Age and Sex Distribution

- Combined membership: highest percentage of members in the 50-54 age bracket
- 52% of members, and 57% of subscribers, are female

Subscriber Distribution By Age Category and Sex

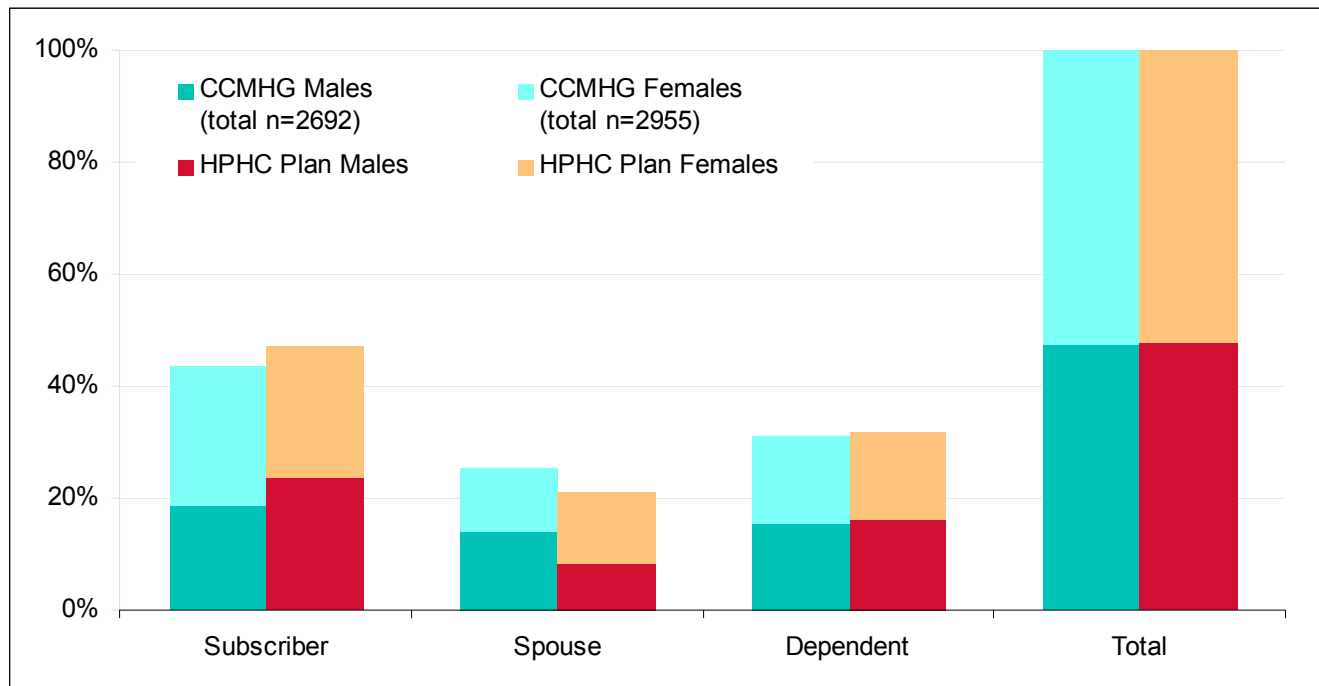


Dependent Distribution by Age Category and Sex



# Demographics: Distribution by member type

- CCMHG has proportionally fewer subscribers, and more spouses, than Plan
- CCMHG has slightly higher percentage of female members



# Other Demographics

- Average age is 37.3 for combined groups—higher than Plan and Industry
- Average contract size (ACS) of 2.3 is higher than Plan, similar to Industry
- Fewer individual contracts than HPHC Plan—due in part to benefit design (rich plan)
- Proportionally more members age 40 and over *and* age 19 and under
- Slightly higher percentage of females than Plan, but fewer of childbearing age than Plan or Industry

	CCMHG	HPHC Plan	Industry
Average Age	37.3	35.1	37.2
Age/Sex Factor	1.13	1.00	1.14
DxCG Score YE 6/2010	1.13	1.00	1.25
Average Contract Size	2.3	2.1	2.3
Average Family Size*	3.2	3.2	3.2
% Female Members	52.3%	52.0%	52.4%
% Women of Childbearing Age**	14.3%	19.2%	16.7%
% Individual Contracts	40.6%	49.8%	41.7%
Members 40 or Older	54.3%	45.4%	51.2%
Members 19 or Younger	27.4%	27.3%	26.1%

\* AFS is calculated based on all non-individual contracts.

\*\* Women of childbearing age defined here as age 20-44.





**How healthy are our members?**

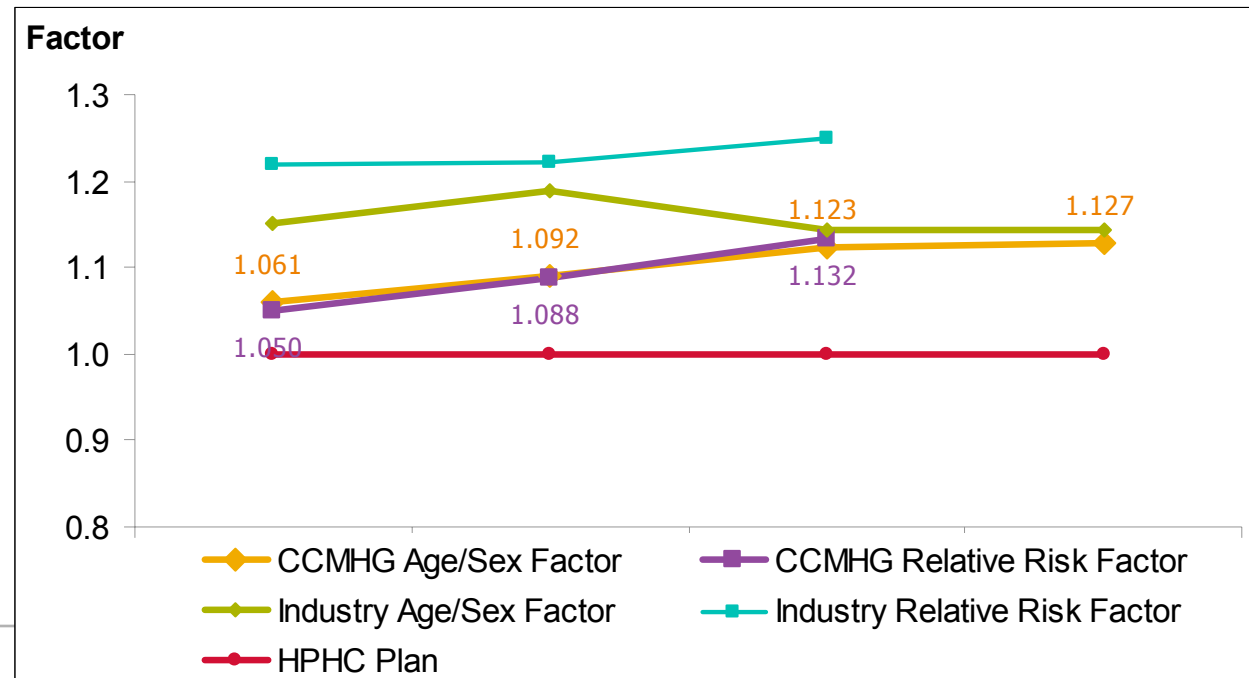
**How do they compare to HPHC benchmarks?**

# Risk Adjustment Analysis

- Diagnosis-based risk models are a way to evaluate a population's cost risk.
- Diagnosis-based risk models can be used to assign members into diagnosis categories, each of which is attributed to a relative risk of resource utilization.
- Harvard Pilgrim uses the Diagnosis Cost Group Model as its diagnosis-based risk model.
  - Purchased DxCG software to implement the model
- DxCG supports comparisons of employer group risk over time and identification of disease prevalence.
  - Disease prevalence is based on evaluating all diagnoses associated with a population

# Age/Sex and Relative Risk Factors: Combined groups

- Based on age/sex and relative risk factors, we would expect claims costs for CCMHG to be higher than those of HPHC Plan but lower than Industry, *given the same level of benefits*—and CCMHG’s benefits are richer than Plan average
- CCMHG’s age/sex factor used to be well below Industry, but member profile has changed



# Change in Disease/Condition Prevalence

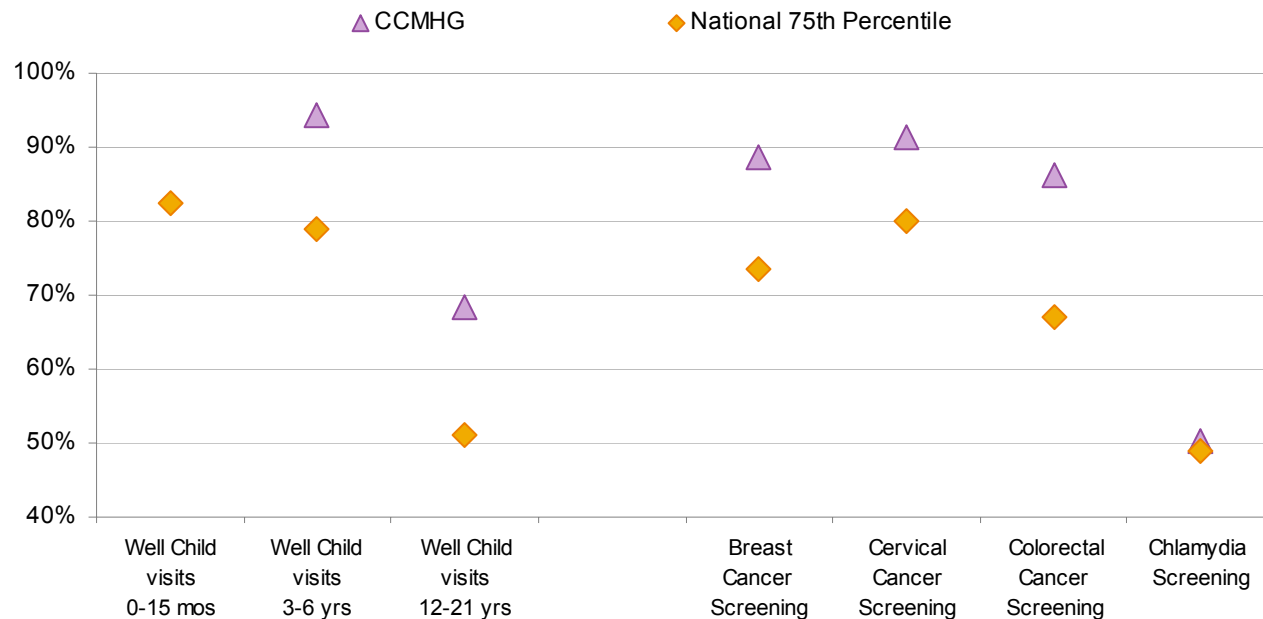
- DxCG software groups conditions into 30 categories
- We calculate prevalence per 1,000 members
- We compare CCMHG's current prevalence to the prior year, as well as to benchmark
- Key:
  - **Bold and gold:** at least 10% higher
  - **Green:** at least 10% lower
- ACCs higher than...
  - Prior: 3
  - Plan: 10
- Some results tied to demographics (e.g., fewer births)

Aggregated Condition Category	Prevalence per 1,000 Members			HPHC Plan	Variance v. Plan
	YE 6/2009	YE 6/2010	% Change YE 6/2009-10		
Screening/History	787.8	800.3	1.6%	812.1	-1.5%
Symptoms, Signs and Ill-Defined Conditions	480.3	497.2	3.5%	482.4	3.1%
Ears, Nose, and Throat	409.4	391.5	-4.4%	361.8	8.2%
Musculoskeletal and Connective Tissue	368.5	363.5	-1.3%	344.3	5.6%
Nutritional and Metabolic	266.3	276.7	3.9%	249.9	<b>10.7%</b>
Skin and Subcutaneous	246.1	264.2	7.4%	242.3	9.0%
Eyes	230.2	237.8	3.3%	223.0	6.6%
Injury, Poisoning, Complications	228.0	219.3	-3.8%	212.4	3.2%
Gastrointestinal	191.9	209.8	9.3%	187.9	<b>11.7%</b>
Mental	205.7	208.6	1.4%	182.5	<b>14.3%</b>
Heart	194.2	205.8	6.0%	174.2	<b>18.2%</b>
Benign/In Situ/Uncertain Neoplasm	183.0	184.9	1.1%	159.3	<b>16.1%</b>
Lung	176.0	172.0	-2.2%	157.5	9.2%
Infectious and Parasitic	160.8	168.2	4.6%	150.6	<b>11.7%</b>
Genital System	156.7	161.5	3.0%	148.6	8.7%
Urinary System	76.9	78.7	2.3%	73.4	7.2%
Neurological	68.8	77.1	<b>12.1%</b>	66.5	<b>15.9%</b>
Diabetes	44.3	46.1	4.1%	47.5	-2.9%
Vascular	38.3	45.9	<b>19.9%</b>	33.2	<b>38.3%</b>
Hematological	40.0	40.5	1.3%	42.8	-5.2%
Substance Abuse	39.0	39.1	0.2%	43.8	<b>-10.7%</b>
Developmental Disability	35.0	31.8	-9.1%	41.7	<b>-23.9%</b>
Malignant Neoplasm	30.5	30.0	-1.6%	29.0	3.4%
Pregnancy-Related	14.8	16.1	9.0%	25.0	<b>-35.6%</b>
Liver	16.9	14.9	<b>-11.8%</b>	18.7	<b>-20.5%</b>
Cerebro-Vascular	12.6	12.1	-4.0%	10.8	<b>12.6%</b>
Cognitive Disorders	9.1	9.5	4.4%	10.4	-8.0%
Neonates	8.4	8.1	-2.5%	11.6	<b>-29.6%</b>
Cardio-Respiratory Arrest	3.3	4.6	<b>38.4%</b>	5.4	<b>-14.8%</b>
Transplants, Openings, Other V-Codes	3.5	3.8	8.0%	3.2	<b>17.4%</b>

# HEDIS measures (1)

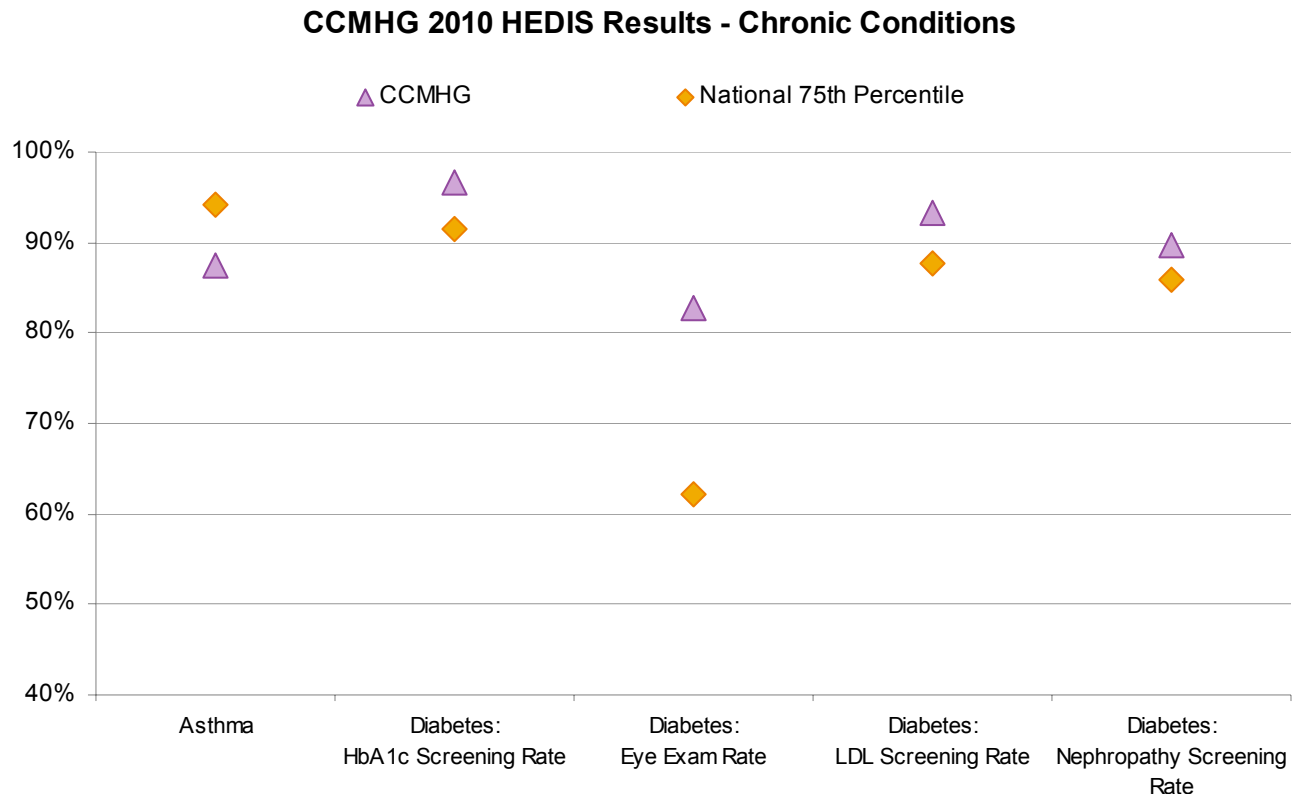
- HEDIS is a set of standardized performance measures designed by the National Committee on Quality Assurance. HEDIS measures allow employers and consumers to evaluate health care plan performance on important dimensions of care and service.
- Included below are specific HEDIS results related to pediatric health and early cancer prevention screenings, including CCMHG and benchmarks from the national 75th percentile (NCQA Quality Compass). In all cases, CCMHG is higher than the benchmark.

CCMHG 2010 HEDIS Results - Preventive



# HEDIS measures (2)

- Included below are specific HEDIS results related to two common chronic conditions, asthma (one measure) and diabetes (four measures).
- CCMHG's diabetes results are better than the benchmarks; asthma is below benchmark





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**What are the utilization patterns of the group?**

# Key Utilization Metrics

- Except for IP claimants, utilization for PY 2010 was similar to prior period
- Utilization higher than HPHC Plan and Industry in some areas, lower in others
  - **Inpatient:** Increased OB admits; lower than Plan on most IP metrics except ALOS
  - **Outpatient:** higher use of preventive services than Plan; use of curative services also higher than Plan; ER visits higher than benchmark (due in part to situation re after-hours care)
  - **Pharmacy:** more prescriptions than Plan; improved generic/tier 1 utilization; lower use of mail order than Plan—due in part to benefit design

Category	Metric	YE 6/2009	YE 6/2010	% Change YE 6/2009-10	HPHC Plan	Variance v. Plan
<b>Hospital Inpatient</b>						
OB Admissions	frequency per 1,000	15.1	16.0	5.7%	22.7	-29.6%
Total Admissions	frequency per 1,000	61.4	64.7	5.3%	73.0	-11.4%
Inpatient Days	frequency per 1,000	306.4	335.8	9.6%	335.6	0.1%
Average Length of Stay	avg. days per admission	5.0	5.2	4.1%	4.6	12.9%
Inpatient Claimants	members per 1,000	38.6	44.2	14.6%	52.8	-16.3%
<b>Outpatient</b>						
Office Visits for Preventive Care	visits per 1,000	721.0	736.9	2.2%	710.5	3.7%
Office Visits for Medical Care	visits per 1,000	4,068.4	4,152.6	2.1%	3,778.1	9.9%
Emergency Room	visits per 1,000	273.5	282.5	3.3%	211.6	33.5%
ER Claimants	members per 1,000	201.0	194.6	-3.2%	158.9	22.5%
Average ER Visits per ER Claimant	visits	1.4	1.5	6.7%	1.3	9.0%
Surgical Day Care	visits per 1,000	100.0	101.3	1.3%	91.1	11.2%
<b>Pharmacy</b>						
Pharmacy Utilization	prescriptions per 1,000	14,526.6	14,739.2	1.5%	13,093.0	12.6%
Mail Order Utilization	% of total prescriptions	10.4%	10.5%	+0.1	15.0%	-4.5
Generic/Tier 1 Utilization	% of total prescriptions	68.2%	72.6%	+4.5	72.2%	+0.4



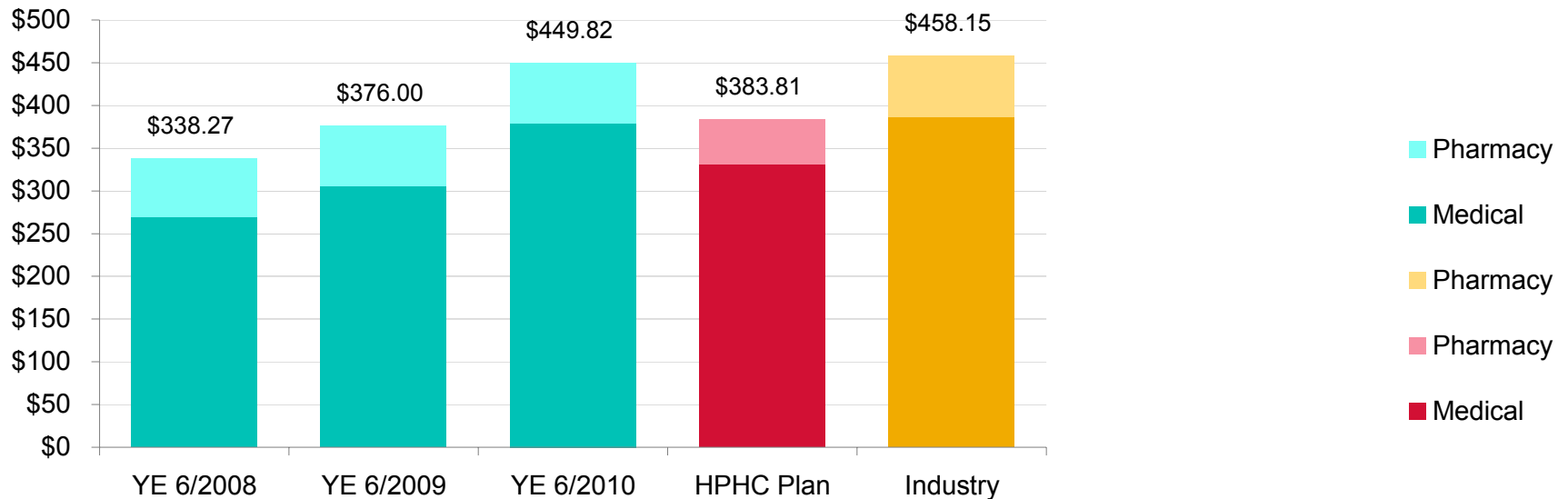


**How do all of these variables affect the cost?**

# Claims Cost PMPM (1)

- CCMHG annualized trend from PY 2008 to PY 2010 is 15.3%
- CCMHG claims cost PMPM is 17.2% higher than Plan, 1.8% lower than Industry

CCMHG: PMPM claims cost trend



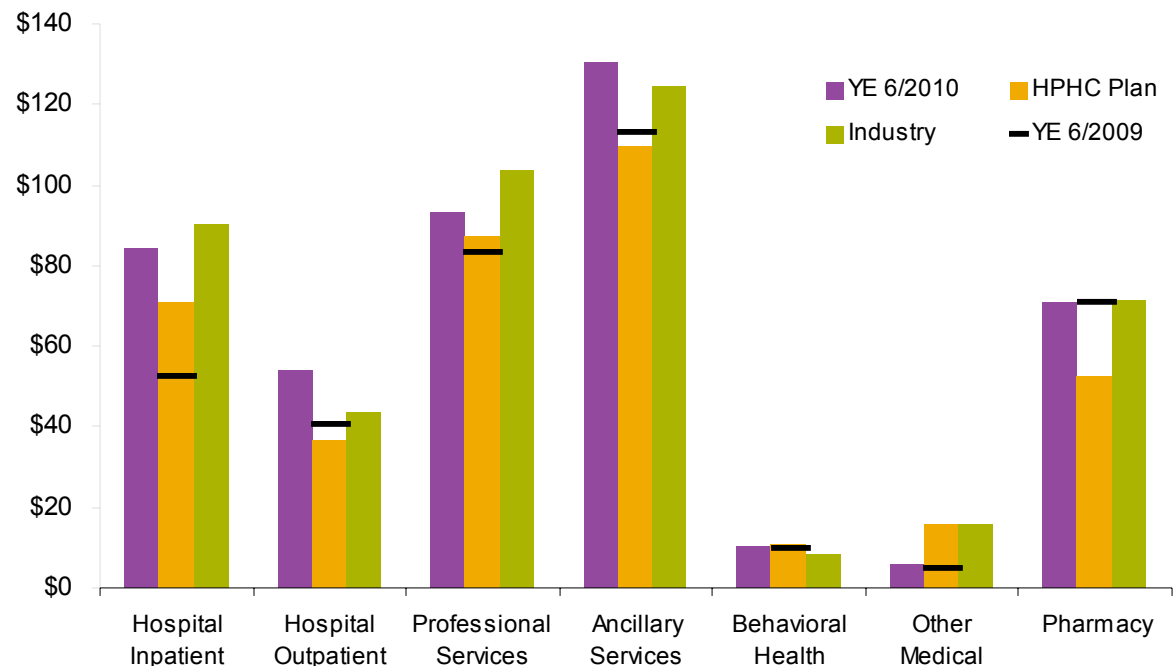
						Variance PY 2008-09	Variance PY 2009-10	Variance v. Plan	Variance v. Industry
<b>Medical</b>	\$269.62	\$304.91	\$378.99	\$331.19	\$386.63	13.1%	24.3%	14.4%	-2.0%
<b>Pharmacy</b>	\$68.66	\$71.09	\$70.83	\$52.62	\$71.52	3.5%	-0.4%	34.6%	-1.0%
<b>Total</b>	<b>\$338.27</b>	<b>\$376.00</b>	<b>\$449.82</b>	<b>\$383.81</b>	<b>\$458.15</b>	<b>11.2%</b>	<b>19.6%</b>	<b>17.2%</b>	<b>-1.8%</b>

Note: apparent addition errors are due to rounding.

# Claims Cost PMPM (2)

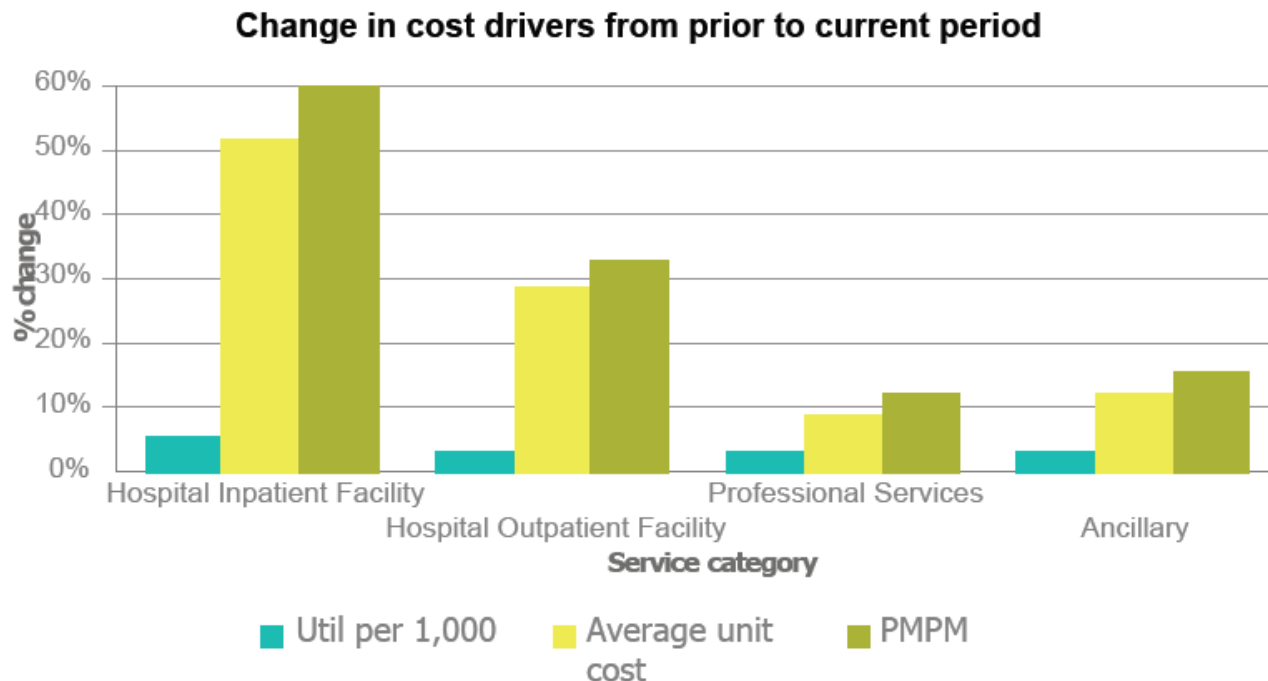
## ■ Detail by area

- PMPM claims costs increased more than 10% in all areas except Behavioral Health (+2.6%) and Pharmacy (-0.4%), especially Hospital Inpatient (+59.8%) as compared to PY 2009
- CCMHG higher than HPHC Plan in all but two areas: BH, Other Medical
- Highest PMPM cost for Ancillary Services, followed by Professional Services



# Claims Cost PMPM (3)

- Major cost increases driven primarily by increased average unit cost
- Hospital Inpatient driving the cost increase
  - Significantly higher average unit cost for Medical, Surgical, and OB admissions
    - Role of high cost claimants



# Top Providers

- Highest percentage of medical costs by far at Cape Cod Hospital
- Variations in benchmark percentages explained by location
- Five of top 10 providers are Boston-area teaching hospitals

Provider	YE 6/2009 % Medical Costs	YE 6/2010 Amount Paid	YE 6/2010 % Medical Costs	HPHC Plan % Medical Costs	Industry % Medical Costs
CAPE COD HOSPITAL	22.1%	\$5,644,615	24.3%	0.8%	1.0%
FALMOUTH HOSPITAL	5.7%	\$1,575,485	6.8%	0.3%	0.3%
CHILDRENS HOSPITAL	2.8%	\$1,238,915	5.3%	2.8%	2.8%
BRIGHAM AND WOMEN'S HOSP	2.8%	\$838,906	3.6%	4.9%	5.6%
MASS GENERAL HOSPITAL	2.4%	\$717,123	3.1%	4.2%	4.4%
MARTHAS VINEYARD HOSP	1.8%	\$290,926	1.3%	0.2%	0.0%
SPAULDING REHAB HOSPITAL	1.3%	\$263,789	1.1%	0.2%	0.0%
TUFTS MEDICAL CENTER	1.3%	\$254,451	1.1%	1.0%	1.2%
BETH ISRAEL DEACONESS	1.1%	\$233,902	1.0%	3.7%	3.4%
LEWIS R LIPSEY	0.2%	\$233,735	1.0%	0.0%	0.0%
<b>Total Top Ten Providers</b>	<b>41.6%</b>	<b>\$11,291,847</b>	<b>48.5%</b>	<b>18.1%</b>	<b>18.9%</b>
All Other Providers	58.4%	\$11,968,867	51.5%	81.9%	81.1%
<b>Total</b>	<b>100.0%</b>	<b>\$23,260,715</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

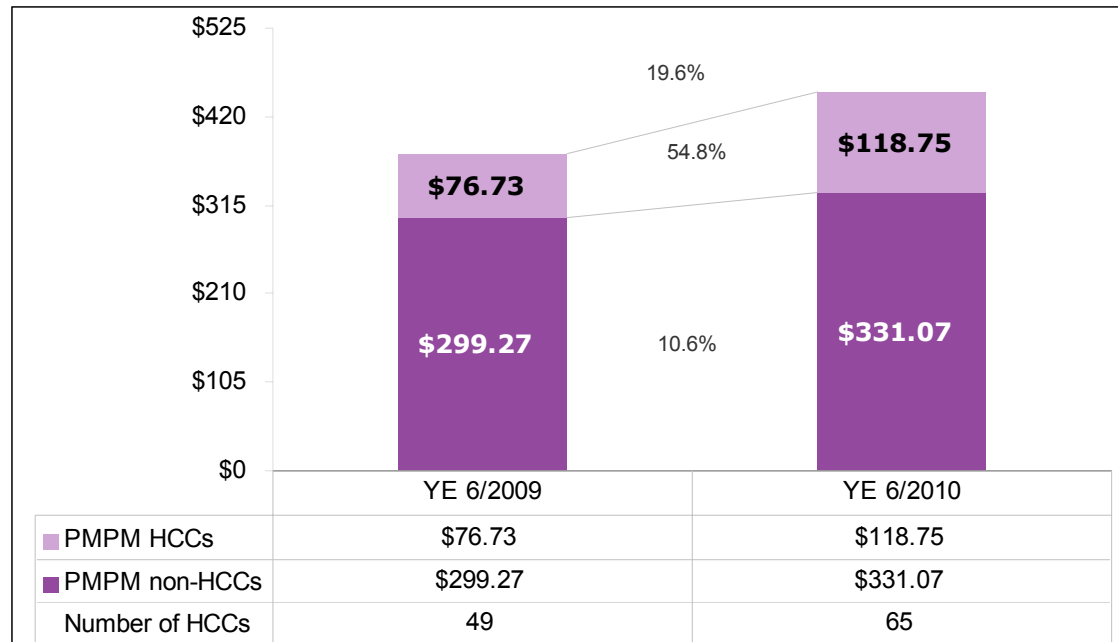
# Major Diagnostic Groups (MDGs)

- Cancers and Digestive System Conditions top the list, with 15.4% and 6.3% of total medical cost, respectively
  - Higher than Plan
- Driven in part by high cost claimants

Key Diagnostic Groups	PMPM Costs		
	Prior	Current	HPHC Plan
Cancers	\$35.03	<b>\$57.13</b>	\$27.91
Digestive system conditions (including cirrhosis and appendicitis)	\$28.06	\$23.53	\$21.41
Injury & poisoning (including fractures & burns)	\$20.80	<b>\$22.63</b>	\$20.20
Cardiac conditions (including heart attacks and high blood pressure)	\$15.43	<b>\$21.37</b>	\$16.73
Arthritis (including rheumatoid arthritis)	\$14.06	<b>\$19.39</b>	\$11.35
General exams & screenings	\$13.56	\$16.37	\$14.96
Pregnancy & birth	\$12.12	\$16.19	\$21.29
Back disorders	\$10.28	\$8.42	\$8.92
Non-cancerous tumors	\$5.42	\$6.83	\$6.38
Mental health & substance abuse conditions	\$3.99	\$4.16	\$7.29
Diabetes	\$2.53	\$3.37	\$3.22
Congenital anomalies	\$2.93	\$2.47	\$3.42
Renal failure (including ESRD)	\$0.78	\$2.01	\$2.07
Fertility assistance	\$1.66	\$1.88	\$2.90
Pneumonia, influenza, and other respiratory infections	\$0.62	\$1.57	\$2.26
COPD	\$0.53	<b>\$1.51</b>	\$1.15
MS, Parkinson's, and other degenerative nervous system conditions	\$0.53	\$0.92	\$1.33
Asthma	\$1.02	\$0.89	\$1.67
<b>Total Key Diagnostic Groups</b>	<b>\$169.37</b>	<b>\$210.63</b>	<b>\$174.45</b>

# High-Cost Claimants

- 65 members with claims of \$50,000 or more; 53 still active
- 26.4% of total claims cost** for PY 2010 (up from 20.4% in PY 2009)
- Percentage of total claims cost** is higher than HPHC Plan (22.0%) and Industry (26.0%)
- Frequency** of high-cost claims is higher than prior year and Plan, but lower than Industry
- Steepest PMPM increase** for HCCs, not other members (54.8%)



	YE 6/2009	YE 6/2010	% Change YE 6/2009-10	HPHC Plan	Variance v. Plan	Industry	Variance v. Industry
Number of Claimants	49	65	32.7%	-	-	-	-
Total Large Claims Costs	\$4,750,513	\$7,417,796	56.1%	-	-	-	-
Average Cost per Claimant	\$96,949	\$114,120	17.7%				
<b>% of Total Claims Cost</b>	<b>20.4%</b>	<b>26.4%</b>	<b>+6.0</b>	<b>22.0%</b>	<b>+4.4</b>	<b>26.0%</b>	<b>-4.0</b>
Frequency per 1,000	9.5	12.6	32.7%	9.4	33.3%	13.2	-28.2%
Claimants Currently Enrolled	45	53	17.8%	-	-	-	-

# Member Cost Sharing

- In PY 2010, despite increases in medical costs overall, benefits for CCMHG remained the same
- As a result, members are paying proportionally less out of pocket; their share of the total cost is decreasing over time, while CCMHG is paying a larger share
  - 18.8% increase in *total* costs, but 19.6% increase in *cost to CCMHG*
- Expect to see changes going forward as more members enroll in Rate Saver plans

	YE 6/2009	YE 6/2010	% Change YE 6/2009- 10	HPHC Plan	Variance v. Plan	Industry	Variance v. Industry
<b>Total Costs PMPM</b>	<b>\$392.53</b>	<b>\$466.47</b>	<b>18.8%</b>	<b>\$420.03</b>	<b>11.1%</b>	<b>\$458.15</b>	<b>-8.3%</b>
Medical Cost Share	2.4%	2.0%	-0.4	6.0%	-4.1	3.9%	+2.1
Pharmacy Cost Share	11.4%	11.3%	-0.1	22.2%	-10.8	15.8%	+6.4
<b>Total Percent Paid by Members</b>	<b>4.2%</b>	<b>3.6%</b>	<b>-0.6</b>	<b>8.3%</b>	<b>-4.7</b>	<b>6.0%</b>	<b>+2.3</b>



# Pharmacy Cost and Utilization Detail

- Pharmacy cost PMPM is higher than HPHC Plan, lower than Industry
  - Driven by higher cost per script as well as utilization, although lower than PY2009
- Increased utilization of Tier 1 drugs since prior period; lower than Industry
- Percentage of mail order drugs lower than Plan and Industry—due in part to other Rx program (not all scripts filled through Harvard Pilgrim), and perhaps some missed opportunities for savings

	YE 6/2009	YE 6/2010	% Change YE 6/2009- 10	HPHC Plan	Variance v. Plan	Industry	Variance v. Industry
<b>PMPM Cost</b>	\$71.09	\$70.83	-0.4%	\$52.62	34.6%	\$71.52	-1.0%
<b>Average Cost per Prescription</b>	\$58.72	\$57.67	-1.8%	\$54.23	6.3%	\$53.14	8.5%
<b>Utilization Per Member Per Year</b>	14.5	14.7	1.5%	13.1	12.5%	16.2	-8.7%
% Utilization Tier 1	68.2%	72.6%	+4.5	72.2%	+0.4	74.1%	-1.4
% Costs Tier 1	26.2%	26.9%	+0.8	24.1%	+2.8	25.5%	+1.4
% Utilization Tier 2	24.3%	20.1%	-4.2	20.9%	-0.8	19.8%	+0.3
% Costs Tier 2	57.8%	54.3%	-3.5	56.4%	-2.1	57.6%	-3.2
% Utilization Tier 3	7.5%	7.2%	-0.3	7.0%	+0.2	6.1%	+1.1
% Costs Tier 3	16.0%	18.7%	+2.7	19.5%	-0.8	16.9%	+1.9
% Prescriptions Mail Order	10.4%	10.5%	+0.1	15.0%	-4.5	16.2%	-5.7

# Top Therapeutic Classes

- Generally, top therapeutic classes consistent with benchmarks
  - CCMHG has higher % of cost for anti-cancer drugs, lower spending on statins

Therapeutic Class	Generally Prescribed for	YE 6/2009	YE 6/2010		HPHC Plan	Industry
		% Rx Costs	Amount Paid	% Rx Costs	% Rx Costs	% Rx Costs
DISEASE-MODIFYING ANTIRHEUMATIC AGENTS	Used to treat rheumatoid arthritis	4.3%	\$245,681	5.6%	4.9%	4.4%
PROTON-PUMP INHIBITORS	Treat gastrointestinal disorders	5.7%	\$234,369	5.3%	5.4%	6.0%
BIOLOGIC RESPONSE MODIFIERS	Used to treat a variety of immunological conditions	3.3%	\$226,375	5.1%	5.0%	4.5%
ANTINEOPLASTIC AGENTS	Cancer	4.3%	\$217,245	4.9%	2.7%	3.0%
HMG-COA REDUCTASE INHIBITORS	High blood-cholesterol level	6.4%	\$170,868	3.9%	4.5%	4.8%
SEL. SEROTONIN & NOREPI REUPTAKE INHIBTR	Depression	2.9%	\$152,034	3.4%	2.7%	2.6%
ANTICONVULSANTS, MISCELLANEOUS	Convulsive disorders (Treat Seizures)	3.4%	\$123,660	2.8%	3.3%	3.2%
CONTRACEPTIVES	Birth Control	2.7%	\$122,620	2.8%	2.4%	2.2%
ATYPICAL ANTIPSYCHOTICS	Treat a variety of psychological conditions	2.3%	\$115,902	2.6%	3.8%	3.7%
SELECTIVE-SEROTONIN REUPTAKE INHIBITORS	Depression	2.9%	\$107,675	2.4%	1.7%	1.6%
<b>Total Top Ten Therapeutic Classes</b>		<b>38.3%</b>	<b>\$1,716,428</b>	<b>38.8%</b>	<b>36.4%</b>	<b>36.1%</b>
All Other Therapeutic Classes		61.7%	\$2,708,180	61.2%	63.6%	63.9%
<b>Total</b>		<b>100.0%</b>	<b>\$4,424,608</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

# The Full Cost of Poor Health to an Employer

Medical &  
Pharmacy Costs **25%**

## Personal Health Costs

Medical Care  
Pharmacy

Health-Related  
Productivity Costs **75%**

## Productivity Costs

Absenteeism

Short Term Disability  
Long Term Disability

Presenteeism

Overtime  
Turnover  
Administrative Costs  
Replacement Training  
Off-site Travel For Care  
Customer Dissatisfaction  
Variable Product Quality

# Visit Our Media-Rich Wellness Portal

Organized to help users easily identify useful tools, information, programs, based on **life stage and need**



[harvardpilgrim.org/wellness](https://www.harvardpilgrim.org/wellness)

# Summary and Recommendations

- Overall membership growth; HMO smaller as percent of total as PPO attracts new members; some shift to new Rate Saver
- Population is older and less healthy than HPHC Plan, but healthier than Municipal Industry
- Inpatient utilization rates are lower than Plan; OP preventive visits are higher, as is ER use; Rx use higher than Plan, but lower than Industry
- Cost PMPM is higher than Plan, slightly lower than Industry
- High cost claims driving substantial PMPM cost increase
- Member liability lower than Plan or Industry
- Claims costs PMPM reflect these realities
- Recommendations:
  - Encourage members to explore more about wellness
  - Increase cost sharing with members