

2010 Part D Symposium



Assessing Trends in Utilization and Cost of the Six Protected Medication Classes in the Part D Program



Background

- ◆ New MIPPA requirement for CMS per section 176 of MIPPA:

CMS to identify, as appropriate, certain categories or classes of drugs which meet a two pronged test.

Background

- ◆ Prong 1:

Restricted access would have major or life threatening clinical consequences for individuals who have a disease or disorder treated by these drugs.

- ◆ Prong 2:

There is a significant need for such individuals to have access to multiple drugs within a category or class due to unique chemical actions and pharmacological effects.

Background

- ◆ Currently, medications within six classes have been identified by CMS.
- ◆ The six classes are as follows:
 - Anticonvulsants
 - Antidepressants
 - Antineoplastics
 - Antipsychotics
 - Antiretrovirals
 - Immunosuppressants

Study Purpose and Analysis Plan

- ◆ To assess trends in the utilization and cost of the six protected medication classes in the Part D program between years 2006 and 2007.
- ◆ Enrollee counts and ingredient costs per enrollee are assessed; Gap phase entry and catastrophic phase entry are assessed.
- ◆ The demographic characteristics of HMO status, Low Income Subsidy (LIS) status, region, gender, ethnicity and age are included in the analysis.

Research Questions

- ◆ What are the trends in utilization and cost for each medication class?
- ◆ What are the trends for gap phase and catastrophic phase entry for each medication class?

Data Sources and Study Population

- ◆ CCW
 - 2006 and 2007 PDE data
 - 2006 and 2007 Denominator file
- ◆ Database of drug information derived from Medi-Span
- ◆ Study Population: Enrollees identified in the denominator file with Part D coverage.

Results and Comments

Table 1			
Part D Enrollee Counts for Six Protected Classes, by Therapeutic Class and Year			
	Year		Percent
Therapeutic Class	2006	2007	Change
Anticonvulsants	2,408,377	2,882,217	19.7%
All Enrollees (%)	16.4%	12.9%	-3.5%
Antidepressants	5,007,925	5,640,133	12.6%
All Enrollees (%)	34.2%	25.3%	-8.8%
Antineoplastics	630,740	728,867	15.6%
All Enrollees (%)	4.3%	3.3%	-1.0%
Antipsychotics	1,777,432	1,938,719	9.1%
All Enrollees (%)	12.1%	8.7%	-3.4%
Antiretrovirals	87,217	95,190	9.1%
All Enrollees (%)	0.6%	0.4%	-0.2%
Immunosuppressants	73,138	73,304	0.2%
All Enrollees (%)	0.5%	0.3%	-0.2%

Therapeutic classes are mutually exclusive, but not exhaustive.

Results and Comments

Table 2			
Part D Ingredient Costs per Enrollee for Six Protected Classes, by Therapeutic Class and Year			
	Year		Percent
Therapeutic Class	2006	2007	Change
Anticonvulsants	\$686	\$789	14.9%
Antidepressants	\$290	\$282	-2.7%
Antineoplastics	\$1,290	\$1,627	26.1%
Antipsychotics	\$2,064	\$2,379	15.3%
Antiretrovirals	\$12,284	\$14,178	15.4%
Immunosuppressants	\$2,000	\$2,137	6.8%

Therapeutic classes are mutually exclusive, but not exhaustive.

Table 3						
Part D Enrollee Counts for Six Protected Classes, by Therapeutic Class, Year, and HMO Status						
Therapeutic Class	Year				Percent	
	2006		2007		Change	
	FFS	HMO	FFS	HMO	FFS	HMO
Anticonvulsants	1,998,618	409,759	2,256,447	625,770		
Therapeutic Class (%)	83.0%	17.0%	78.3%	21.7%	-4.7%	4.7%
HMO Status (%)	21.2%	7.8%	14.7%	9.1%	-6.6%	1.3%
All Enrollees (%)	13.6%	2.8%	10.1%	2.8%	-3.5%	0.0%
Antidepressants	4,007,962	999,963	4,289,311	1,350,822		
Therapeutic Class (%)	80.0%	20.0%	76.0%	24.0%	-4.0%	4.0%
HMO Status (%)	42.6%	19.0%	27.9%	19.6%	-14.7%	0.5%
All Enrollees (%)	27.3%	6.8%	19.3%	6.1%	-8.1%	-0.8%
Antineoplastics	477,892	152,848	528,157	200,710		
Therapeutic Class (%)	75.8%	24.2%	72.5%	27.5%	-3.3%	3.3%
HMO Status (%)	5.1%	2.9%	3.4%	2.9%	-1.6%	0.0%
All Enrollees (%)	3.3%	1.0%	2.4%	0.9%	-0.9%	-0.1%
Antipsychotics	1,555,324	222,108	1,634,312	304,407		
Therapeutic Class (%)	87.5%	12.5%	84.3%	15.7%	-3.2%	3.2%
HMO Status (%)	16.5%	4.2%	10.6%	4.4%	-5.9%	0.2%
All Enrollees (%)	10.6%	1.5%	7.3%	1.4%	-3.3%	-0.1%
Antiretrovirals	78,808	8,409	83,538	11,652		
Therapeutic Class (%)	90.4%	9.6%	87.8%	12.2%	-2.6%	2.6%
HMO Status (%)	0.8%	0.2%	0.5%	0.2%	-0.3%	0.0%
All Enrollees (%)	0.5%	0.1%	0.4%	0.1%	-0.2%	0.0%
Immunosuppressants	59,572	13,566	55,354	17,950		
Therapeutic Class (%)	81.5%	18.5%	75.5%	24.5%	-5.9%	5.9%
HMO Status (%)	0.6%	0.3%	0.4%	0.3%	-0.3%	0.0%
All Enrollees (%)	0.4%	0.1%	0.2%	0.1%	-0.2%	0.0%

Results and Comments

Table 4

Part D Ingredient Costs per Enrollee for Six Protected Classes, by Therapeutic Class, Year, and HMO Status

	Year				Percent Change	
	2006		2007			
Therapeutic Class	<i>FFS</i>	<i>HMO</i>	<i>FFS</i>	<i>HMO</i>	<i>FFS</i>	<i>HMO</i>
Anticonvulsants	\$731	\$468	\$860	\$531	17.7%	13.4%
Antidepressants	\$306	\$225	\$300	\$226	-2.1%	0.3%
Antineoplastics	\$1,318	\$1,202	\$1,653	\$1,559	25.4%	29.7%
Antipsychotics	\$2,180	\$1,246	\$2,548	\$1,473	16.8%	18.2%
Antiretrovirals	\$12,256	\$12,551	\$14,146	\$14,407	15.4%	14.8%
Immunosuppressants	\$2,046	\$1,798	\$2,179	\$2,006	6.5%	11.6%

Therapeutic classes are mutually exclusive, but not exhaustive.

FFS = Fee for Service.

Table 5

Part D Enrollee Counts for Six Protected Classes, by Therapeutic Class, Year, and LIS Status

	Year				Percent	
	2006		2007		Change	
	<i>Non-LIS</i>	<i>LIS</i>	<i>Non-LIS</i>	<i>LIS</i>	<i>Non-LIS</i>	<i>LIS</i>
Therapeutic Class						
Anticonvulsants	1,182,085	1,226,292	1,340,872	1,541,345		
Therapeutic Class (%)	49.1%	50.9%	46.5%	53.5%	-2.56%	2.56%
LIS Status (%)	15.1%	18.0%	9.6%	18.4%	-5.43%	0.43%
All Enrollees (%)	8.1%	8.4%	6.0%	6.9%	-2.04%	-1.44%
Antidepressants	2,838,984	2,168,941	3,009,662	2,630,471		
Therapeutic Class (%)	56.7%	43.3%	53.4%	46.6%	-3.3%	3.3%
LIS Status (%)	36.2%	31.8%	21.7%	31.4%	-14.6%	-0.4%
All Enrollees (%)	19.4%	14.8%	13.5%	11.8%	-5.9%	-3.0%
Antineoplastics	439,514	191,226	495,485	233,382		
Therapeutic Class (%)	69.7%	30.3%	68.0%	32.0%	-1.7%	1.7%
LIS Status (%)	5.6%	2.8%	3.6%	2.8%	-2.0%	0.0%
All Enrollees (%)	3.0%	1.3%	2.2%	1.0%	-0.8%	-0.3%
Antipsychotics	625,573	1,151,859	617,563	1,321,156		
Therapeutic Class (%)	35.2%	64.8%	31.9%	68.1%	-3.3%	3.3%
LIS Status (%)	8.0%	16.9%	4.4%	15.8%	-3.5%	-1.1%
All Enrollees (%)	4.3%	7.9%	2.8%	5.9%	-1.5%	-1.9%
Antiretrovirals	25,177	62,040	22,740	72,450		
Therapeutic Class (%)	28.9%	71.1%	23.9%	76.1%	-5.0%	5.0%
LIS Status (%)	0.3%	0.9%	0.2%	0.9%	-0.2%	0.0%
All Enrollees (%)	0.2%	0.4%	0.1%	0.3%	-0.1%	-0.1%
Immunosuppressants	40,548	32,590	41,907	31,397		
Therapeutic Class (%)	55.4%	44.6%	57.2%	42.8%	1.7%	-1.7%
LIS Status (%)	0.5%	0.5%	0.3%	0.4%	-0.2%	-0.1%
All Enrollees (%)	0.3%	0.2%	0.2%	0.1%	-0.1%	-0.1%

Results and Comments

Table 6

Part D Ingredient Costs per Enrollee for Six Protected Classes, by Therapeutic Class, Year, and LIS Status

Therapeutic Class	Year				Percent Change	
	2006		2007			
	<i>Non-LIS</i>	<i>LIS</i>	<i>Non-LIS</i>	<i>LIS</i>	<i>Non-LIS</i>	<i>LIS</i>
Anticonvulsants	\$408	\$955	\$469	\$1,067	15.0%	11.8%
Antidepressants	\$231	\$368	\$230	\$341	-0.2%	-7.2%
Antineoplastics	\$1,257	\$1,366	\$1,585	\$1,716	26.1%	25.6%
Antipsychotics	\$997	\$2,643	\$1,079	\$2,986	8.2%	13.0%
Antiretrovirals	\$8,726	\$13,728	\$11,278	\$15,088	29.2%	9.9%
Immunosuppressants	\$1,427	\$2,714	\$1,607	\$2,845	12.6%	4.8%

Therapeutic classes are mutually exclusive, but not exhaustive.

Results and Comments

Table 7			
Number of Part D Enrollees Entering the Gap Phase for the Six Protected Classes, by Therapeutic Class and Year			
	Year		Percent
Therapeutic Class	2006	2007	Change
Anticonvulsants	1,482,211	1,839,349	24.1%
All Enrollees (%)	10.1%	8.3%	-1.9%
Antidepressants	2,635,264	3,117,191	18.3%
All Enrollees (%)	18.0%	14.0%	-4.0%
Antineoplastics	329,466	412,945	25.3%
All Enrollees (%)	2.2%	1.9%	-0.4%
Antipsychotics	1,273,268	1,442,548	13.3%
All Enrollees (%)	8.7%	6.5%	-2.2%
Antiretrovirals	80,648	90,187	11.8%
All Enrollees (%)	0.5%	0.4%	-0.1%
Immunosuppressants	50,099	51,099	2.0%
All Enrollees (%)	0.3%	0.2%	-0.1%

Therapeutic classes are mutually exclusive, but not exhaustive.

Results and Comments

Table 8			
Number of Part D Enrollees Entering the Catastrophic Phase for the Six Protected Classes, by Therapeutic Class and Year			
	Year		Percent
Therapeutic Class	2006	2007	Change
Anticonvulsants	672,347	806,011	19.9%
All Enrollees (%)	4.6%	3.6%	-1.0%
Antidepressants	993,083	1,142,328	15.0%
All Enrollees (%)	6.8%	5.1%	-1.6%
Antineoplastics	107,412	133,345	24.1%
All Enrollees (%)	0.7%	0.6%	-0.1%
Antipsychotics	683,225	778,823	14.0%
All Enrollees (%)	4.7%	3.5%	-1.2%
Antiretrovirals	69,150	78,330	13.3%
All Enrollees (%)	0.5%	0.4%	-0.1%
Immunosuppressants	26,337	24,847	-5.7%
All Enrollees (%)	0.2%	0.1%	-0.1%

Therapeutic classes are mutually exclusive, but not exhaustive.

Table 9						
Number of Part D Enrollees Entering the Gap Phase for the Six Protected Classes, by Therapeutic Class, Year, and HMO Status						
	Year				Percent	
	2006		2007		Change	
Therapeutic Class	FFS	HMO	FFS	HMO	FFS	HMO
Anticonvulsants	1,286,170	196,041	1,526,173	313,176		
Therapeutic Class (%)	86.8%	13.2%	83.0%	17.0%	-3.8%	3.8%
HMO Status (%)	13.7%	3.7%	9.9%	4.5%	-3.7%	0.8%
All Enrollees (%)	8.8%	1.3%	6.9%	1.4%	-1.9%	0.1%
Antidepressants	2,239,512	395,752	2,550,939	566,252		
Therapeutic Class (%)	85.0%	15.0%	81.8%	18.2%	-3.1%	3.1%
HMO Status (%)	23.8%	7.5%	16.6%	8.2%	-7.2%	0.7%
All Enrollees (%)	15.3%	2.7%	11.5%	2.5%	-3.8%	-0.2%
Antineoplastics	264,826	64,640	320,699	92,246		
Therapeutic Class (%)	80.4%	19.6%	77.7%	22.3%	-2.7%	2.7%
HMO Status (%)	2.8%	1.2%	2.1%	1.3%	-0.7%	0.1%
All Enrollees (%)	1.8%	0.4%	1.4%	0.4%	-0.4%	0.0%
Antipsychotics	1,143,875	129,393	1,253,761	188,787		
Therapeutic Class (%)	89.8%	10.2%	86.9%	13.1%	-2.9%	2.9%
HMO Status (%)	12.2%	2.5%	8.2%	2.7%	-4.0%	0.3%
All Enrollees (%)	7.8%	0.9%	5.6%	0.8%	-2.2%	0.0%
Antiretrovirals	72,833	7,815	79,235	10,952		
Therapeutic Class (%)	90.3%	9.7%	87.9%	12.1%	-2.5%	2.5%
HMO Status (%)	0.8%	0.1%	0.5%	0.2%	-0.3%	0.0%
All Enrollees (%)	0.5%	0.1%	0.4%	0.0%	-0.1%	0.0%
Immunosuppressants	41,856	8,243	39,691	11,408		
Therapeutic Class (%)	83.5%	16.5%	77.7%	22.3%	-5.9%	5.9%
HMO Status (%)	0.4%	0.2%	0.3%	0.2%	-0.2%	0.0%
All Enrollees (%)	0.3%	0.1%	0.2%	0.1%	-0.1%	0.0%

Table 10						
Number of Part D Enrollees Entering the Catastrophic Phase for the Six Protected Classes, by Therapeutic Class, Year, and HMO Status						
Therapeutic Class	Year				Percent	
	2006		2007		Change	
	FFS	HMO	FFS	HMO	FFS	HMO
Anticonvulsants	621,584	50,763	726,048	79,963		
Therapeutic Class (%)	92.4%	7.6%	90.1%	9.9%	-2.4%	2.4%
HMO Status (%)	6.6%	1.0%	4.7%	1.2%	-1.9%	0.2%
All Enrollees (%)	4.2%	0.3%	3.3%	0.4%	-1.0%	0.0%
Antidepressants	910,571	82,512	1,023,979	118,349		
Therapeutic Class (%)	91.7%	8.3%	89.6%	10.4%	-2.1%	2.1%
HMO Status (%)	9.7%	1.6%	6.7%	1.7%	-3.0%	0.1%
All Enrollees (%)	6.2%	0.6%	4.6%	0.5%	-1.6%	0.0%
Antineoplastics	95,752	11,660	116,023	17,322		
Therapeutic Class (%)	89.1%	10.9%	87.0%	13.0%	-2.1%	2.1%
HMO Status (%)	1.0%	0.2%	0.8%	0.3%	-0.3%	0.0%
All Enrollees (%)	0.7%	0.1%	0.5%	0.1%	-0.1%	0.0%
Antipsychotics	636,977	46,248	712,006	66,817		
Therapeutic Class (%)	93.2%	6.8%	91.4%	8.6%	-1.8%	1.8%
HMO Status (%)	6.8%	0.9%	4.6%	1.0%	-2.1%	0.1%
All Enrollees (%)	4.3%	0.3%	3.2%	0.3%	-1.1%	0.0%
Antiretrovirals	63,569	5,581	70,329	8,001		
Therapeutic Class (%)	91.9%	8.1%	89.8%	10.2%	-2.1%	2.1%
HMO Status (%)	0.7%	0.1%	0.5%	0.1%	-0.2%	0.0%
All Enrollees (%)	0.4%	0.0%	0.3%	0.0%	-0.1%	0.0%
Immunosuppressants	23,706	2,631	21,098	3,749		
Therapeutic Class (%)	90.0%	10.0%	84.9%	15.1%	-5.1%	5.1%
HMO Status (%)	0.3%	0.1%	0.1%	0.1%	-0.1%	0.0%
All Enrollees (%)	0.2%	0.0%	0.1%	0.0%	-0.1%	0.0%

Table 11						
Number of Part D Enrollees Entering the Gap Phase for the Six Protected Classes, by Therapeutic Class, Year, and LIS Status						
	Year				Percent	
	2006		2007		Change	
Therapeutic Class	Non-LIS	LIS	Non-LIS	LIS	Non-LIS	LIS
Anticonvulsants	516,554	965,657	660,875	1,178,474		
Therapeutic Class (%)	34.9%	65.1%	35.9%	64.1%	1.1%	-1.1%
LIS Status (%)	6.6%	14.1%	4.8%	14.1%	-1.8%	-0.1%
All Enrollees (%)	3.5%	6.6%	3.0%	5.3%	-0.6%	-1.3%
Antidepressants	1,060,163	1,575,101	1,283,516	1,833,675		
Therapeutic Class (%)	40.2%	59.8%	41.2%	58.8%	0.9%	-0.9%
LIS Status (%)	13.5%	23.1%	9.2%	21.9%	-4.3%	-1.2%
All Enrollees (%)	7.2%	10.7%	5.8%	8.2%	-1.5%	-2.5%
Antineoplastics	184,265	145,201	238,794	174,151		
Therapeutic Class (%)	55.9%	44.1%	57.8%	42.2%	1.9%	-1.9%
LIS Status (%)	2.4%	2.1%	1.7%	2.1%	-0.6%	0.0%
All Enrollees (%)	1.3%	1.0%	1.1%	0.8%	-0.2%	-0.2%
Antipsychotics	317,696	955,572	359,250	1,083,298		
Therapeutic Class (%)	25.0%	75.0%	24.9%	75.1%	0.0%	0.0%
LIS Status (%)	4.1%	14.0%	2.6%	12.9%	-1.5%	-1.1%
All Enrollees (%)	2.2%	6.5%	1.6%	4.9%	-0.6%	-1.7%
Antiretrovirals	20,451	60,197	19,625	70,562		
Therapeutic Class (%)	25.4%	74.6%	21.8%	78.2%	-3.6%	3.6%
LIS Status (%)	0.3%	0.9%	0.1%	0.8%	-0.1%	0.0%
All Enrollees (%)	0.1%	0.4%	0.1%	0.3%	-0.1%	-0.1%
Immunosuppressants	21,959	28,140	25,023	26,076		
Therapeutic Class (%)	43.8%	56.2%	49.0%	51.0%	5.1%	-5.1%
LIS Status (%)	0.3%	0.4%	0.2%	0.3%	-0.1%	-0.1%
All Enrollees (%)	0.1%	0.2%	0.1%	0.1%	0.0%	-0.1%

Table 12

**Number of Part D Enrollees Entering the Catastrophic Phase for the Six Protected Classes,
by Therapeutic Class, Year, and LIS Status**

Therapeutic Class	Year				Percent	
	2006		2007		Change	
	Non-LIS	LIS	Non-LIS	LIS	Non-LIS	LIS
Anticonvulsants	108,222	564,125	129,212	676,799		
Therapeutic Class (%)	16.1%	83.9%	16.0%	84.0%	-0.1%	0.1%
LIS Status (%)	1.4%	8.3%	0.9%	8.1%	-0.5%	-0.2%
All Enrollees (%)	0.7%	3.8%	0.6%	3.0%	-0.2%	-0.8%
Antidepressants	185,530	807,553	215,716	926,612		
Therapeutic Class (%)	18.7%	81.3%	18.9%	81.1%	0.2%	-0.2%
LIS Status (%)	2.4%	11.8%	1.6%	11.1%	-0.8%	-0.8%
All Enrollees (%)	1.3%	5.5%	1.0%	4.2%	-0.3%	-1.3%
Antineoplastics	33,790	73,622	45,170	88,175		
Therapeutic Class (%)	31.5%	68.5%	33.9%	66.1%	2.4%	-2.4%
LIS Status (%)	0.4%	1.1%	0.3%	1.1%	-0.1%	0.0%
All Enrollees (%)	0.2%	0.5%	0.2%	0.4%	0.0%	-0.1%
Antipsychotics	87,588	595,637	100,483	678,340		
Therapeutic Class (%)	12.8%	87.2%	12.9%	87.1%	0.1%	-0.1%
LIS Status (%)	1.1%	8.7%	0.7%	8.1%	-0.4%	-0.6%
All Enrollees (%)	0.6%	4.1%	0.5%	3.0%	-0.1%	-1.0%
Antiretrovirals	14,024	55,126	13,153	65,177		
Therapeutic Class (%)	20.3%	79.7%	16.8%	83.2%	-3.5%	3.5%
LIS Status (%)	0.2%	0.8%	0.1%	0.8%	-0.1%	0.0%
All Enrollees (%)	0.1%	0.4%	0.1%	0.3%	0.0%	-0.1%
Immunosuppressants	6,736	19,601	7,292	17,555		
Therapeutic Class (%)	25.6%	74.4%	29.3%	70.7%	3.8%	-3.8%
LIS Status (%)	0.1%	0.3%	0.1%	0.2%	0.0%	-0.1%
All Enrollees (%)	0.0%	0.1%	0.0%	0.1%	0.0%	-0.1%

Results and Comments

- ◆ Odds of Enrollees entering the gap and catastrophic phases (among the six classes):
 - Less likelihood for all ethnicity groups compared to whites (Exception: Asian ethnicity for Immunosuppressants).

Table 13: Individual-Level Logistic Regression Model Predicting Catastrophic Phase Entry for Part D Enrollees with Immunosuppressant Medication Use, by Year (Max -rescaled R^2 = 0.2965 for 2006; 0.2481 for 2007)

		Year 2006				Year 2007			
Characteristic*		Odds Ratio	95% Wald		p value	Odds Ratio	95% Wald		p value
		Point Estimate	Confidence Limits	Confidence Limits		Point Estimate	Confidence Limits	Confidence Limits	
Ethnicity	Other	1.078	0.162	0.970	1.197	1.061	0.271	0.955	1.180
	Black	0.830	<.0001	0.792	0.870	0.693	<.0001	0.661	0.728
	Asian	1.179	0.002	1.060	1.312	1.224	0.0002	1.101	1.362
	Hispanic	0.871	0.0004	0.806	0.941	0.906	0.018	0.835	0.983
	Native	0.673	<.0001	0.558	0.811	0.706	0.001	0.578	0.862
	White	1.0--				1.0--			

*Although not shown, the variables of gender, age group, region, LIS status, and HMO status were included in this analysis.

Results and Comments

- ◆ Odds of Enrollees entering the gap and catastrophic phases (among the six classes):
 - Less likelihood for all regions compared to the northeast region (example shown).

Table 14: Individual-Level Logistic Regression Model Predicting Catastrophic Phase Entry for Part D Enrollees with Immunosuppressant Medication Use, by Year (Max -rescaled R^2 = 0.2965 for 2006; 0.2481 for 2007)

		Year 2006				Year 2007			
Characteristic*		Odds Ratio	p value	95% Wald		Odds Ratio	p value	95% Wald	
		Point Estimate		Confidence Limits		Point Estimate		Confidence Limits	
Region	Midwest	0.698	<.0001	0.661	0.736	0.700	<.0001	0.664	0.738
	Other	0.627	0.0004	0.486	0.810	0.997	0.981	0.798	1.246
	South	0.707	<.0001	0.672	0.742	0.680	<.0001	0.648	0.714
	West	0.663	<.0001	0.628	0.701	0.644	<.0001	0.611	0.680
	Northeast	1.0--				1.0--			

*Although not shown, the variables of ethnicity, gender, age group, LIS status, and HMO status were included in this analysis.

Results and Comments

- ◆ Odds of Enrollees entering the gap and catastrophic phases (among the six classes):
 - Odds ratio estimate of gap phase entry increased in 2007 (from 2006) for non-LIS and FFS enrollees for all six classes (example shown).

Table 15: Individual-Level Logistic Regression Model Predicting Gap Phase Entry for Part D Enrollees with Immunosuppressant Medication Use, by Year (Max -rescaled $R^2 = 0.1853$ for 2006; 0.1080 for 2007)

Characteristic*		Year 2006				Year 2007			
		Odds Ratio Point Estimate	p value	95% Wald Confidence Limits		Odds Ratio Point Estimate	p value	95% Wald Confidence Limits	
LIS Status	Non-LIS	0.210	<.0001	0.201	0.218	0.317	<.0001	0.305	0.330
	LIS	1.0--				1.0--			
HMO Status	FFS	1.053	0.021	1.008	1.100	1.112	<.0001	1.069	1.156
	HMO	1.0--				1.0--			

*Although not shown, the variables of ethnicity, gender, age group, and region were included in this analysis.

Results and Comments

- ◆ Odds of Enrollees entering the gap and catastrophic phases (among the six classes):
 - Odds ratio estimate of catastrophic phase entry decreased in 2007 (from 2006) for non-LIS enrollees with Antiretroviral use.

Table 16: Individual-Level Logistic Regression Model Predicting Catastrophic Phase Entry for Part D Enrollees with Antiretroviral Medication Use, by Year (Max -rescaled R^2 = 0.2148 for 2006; 0.2108 for 2007)

		Year 2006				Year 2007			
Characteristic*		Odds Ratio	p value	95% Wald		Odds Ratio	p value	95% Wald	
		Point Estimate		Confidence Limits		Point Estimate		Confidence Limits	
LIS Status	Non-LIS	0.161	<.0001	0.155	0.167	0.145	<.0001	0.139	0.150
	LIS	1.0--				1.0--			

*Although not shown, the variables of ethnicity, gender, age group, region, and HMO status were included in this analysis.

Results and Comments

- ◆ Odds of Enrollees entering the gap and catastrophic phases (among the six classes):
 - Odds ratio estimate of catastrophic phase entry decreased in 2007 (from 2006) for FFS enrollees with Anticonvulsant, Antidepressant, or Immunosuppressant use (example of Anticonvulsant shown).

Table 17: Individual-Level Logistic Regression Model Predicting Catastrophic Phase Entry for Part D Enrollees with Anticonvulsant Medication Use, by Year (Max -rescaled R^2 = 0.274 for 2006; 0.244 for 2007)

		Year 2006				Year 2007			
Characteristic*		Odds Ratio	p value	95% Wald		Odds Ratio	p value	95% Wald	
		Point Estimate		Confidence Limits		Point Estimate		Confidence Limits	
HMO Status	FFS	1.922	<.0001	1.902	1.943	1.863	<.0001	1.847	1.879
	HMO	1.0--				1.0--			

*Although not shown, the variables of ethnicity, gender, age group, region, and LIS status were included in this analysis.

Summary

- ◆ Enrollee counts between 2006 and 2007
 - All classes increased in percentage based on raw numbers. However, as a percentage of total enrollees, all classes decreased (Table 1).
 - In general, FFS showed a moderate decrease in utilization among all classes; HMO showed slight increase (Table 3).
 - In general, non-LIS showed a moderate decrease in utilization; LIS showed slight decrease, if any (Table 5).

Summary

- ◆ Ingredient costs per enrollee between 2006 and 2007:
 - Antineoplastics greatest percent increase (Table 2).
 - Antidepressants decreased in percentage for FFS, non-LIS, and LIS (Tables 4 and 6).

Summary

- ◆ Enrollees entering the gap phase (between 2006 and 2007):
 - All classes increased in percentage based on raw numbers. However, as a percentage of total enrollees, all classes decreased (Table 7).
 - In general, FFS showed moderate decrease for gap entry; HMO showed slight increase, if any (Table 9).
 - In general, both non-LIS and LIS showed a slight decrease (Table 11).

Summary

- ◆ Enrollees entering the catastrophic phase (between 2006 and 2007):
 - Immunosuppressants was the only class that did not increase in percentage based on raw numbers. As a percentage of total enrollees, all classes decreased (Table 8).
 - In general, HMO showed a slight increase, if any; FFS showed a moderate decrease (Table 10).
 - Immunosuppressants decreased for LIS and moderate increase, if any, for non-LIS. The other five categories showed mixed results (Table 12).

Summary

- ◆ Odds of Enrollees entering the gap and catastrophic phases (among the six classes):
 - For both phases: Less likelihood for all ethnicity groups compared to white ethnicity; less likelihood for all regional groups compared to northeast (Exception: Asian ethnicity for immunosuppressants).
 - For gap phase: Less likelihood for non-LIS compared to LIS; greater likelihood for FFS compared to HMO with exception of antiretrovirals.
 - For catastrophic phase: Less likelihood for non-LIS compared to LIS; greater likelihood for FFS compared to HMO.

Future Research and Policy Implications

- ◆ Study findings add to the continual process to examine prescription drug use among the six protected classes.
- ◆ Prescription drug utilization and cost among HMO and LIS enrollees (as compared to non-HMO and non-LIS enrollees) should be continually examined.

Future Research and Policy Implications

- ◆ Future research is needed to examine the mix of agents prescribed from a specific protected class (e.g., brand/generic and therapeutic equivalents) based on demographic characteristics of enrollees.
- ◆ This research should aid policymakers in determining if access to care (regarding medication) is adequate for enrollees irrespective of demographic characteristics.

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