

Medicare Part D: Assessing the Impact for Beneficiaries without Previous Drug Coverage and Dual Eligibles

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This study was commissioned by PhRMA.



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Purpose of Study

- This analysis was designed to identify the nature and quantify the degree of impact that Part D is having on those beneficiaries who had no prescription drug coverage in 2005 — a key group toward which the new benefit was targeted.
- Specific benefits we measured for these patients include:
 - Reduction in patient out-of-pocket costs
 - Access to greater number of medications
 - Access to drug therapies for chronic conditions highly prevalent among the Medicare population
- In addition, we examined the impact of Part D on dual eligible beneficiaries, those patients who qualify for both the Medicare and Medicaid programs. These patients were not expected to experience a significant impact from Part D, as they had coverage under Medicaid in 2005.



Key Findings

- Patients with no drug coverage in 2005 significantly reduced their out-of-pocket costs with Part D.
 - Patient cost per day of supply fell by 69%
 - Total monthly patient cost, even with increased use of medicines, fell by 45%
- Patients with no drug coverage in 2005 significantly improved their access to medications under Part D, and the number of distinct conditions for which they received treatment increased.
- For each chronic condition examined (Alzheimer's, asthma, high cholesterol, diabetes, hypertension, neuro/psychiatric disorders, osteoporosis), there was a significant increase in the number of prescriptions on average filled per month and in the average days of supply obtained per month, suggesting that patients with these conditions are now getting drug treatment under Part D than they were previously receiving.
- Each of these benefits was seen to an even greater extent among the sub-segment of patients receiving a low-income subsidy under Part D.*
- Previously uninsured patients under age 65 with disabilities also experienced significant improvements on all key metrics.*

*Does not include Medicare-Medicaid dual eligible population, which had drug coverage in 2005 under Medicaid.



Methodology Overview

- This analysis is based on anonymous, de-identified patient-level pharmacy transaction data collected by Verispan. Verispan is a health care information company founded by Quintiles Transnational Corp. and McKesson Corp., and is a leading provider of de-identified patient-centric, longitudinal data delivered in near real time, as well as one of the major providers of health care information and services overall.
- For this study, Verispan's pharmacy transaction records were obtained for all patients age 65+ as of 1/1/05; in addition, all transaction records for patients with a Verispan-identified Medicare Part D payer in 2006 were obtained. Data was made available for the period January 1, 2005 through December 31, 2006.
- Unique patient ID numbers assigned by Verispan enabled aggregation of all activity at a patient level, with full patient confidentiality maintained by removing patient-identifiable information.
- In some cases, comparisons were made between all records for 2005 and all records for 2006 following the initiation of Part D coverage. In other cases, comparisons were made patient-by-patient, between each patient's actual experience in 2005 (starting with the month following the patient's first transaction in the data) and that patient's experience after the initiation of Part D coverage in 2006.

Note: For a more detailed discussion of methodology, please visit

<http://www.amundsen.com/news/PhRMA/Methodology-September07.pdf>



Methodology: Key Metrics

- Measures of patient cost:
 - Average total out of pocket cost per patient per month:
 - Overall
 - Low Income Subsidy (LIS) cohort
 - By age cohort
 - Average patient cost per day of supply
 - Overall
 - LIS cohort
- Measures of utilization:
 - Average # Rxs per patient per month
 - Overall
 - LIS cohort
 - By therapeutic area: Alzheimer's, asthma, diabetes, high cholesterol, hypertension, neuro/psychiatric disorders, osteoporosis
 - By age cohort: <65, 65-74, 75-84, 85+
 - Average days of supply of therapy per month: by therapeutic class
 - Number of distinct drug classes utilized over 10-month period - overall



Methodology: How We Quantified Patient Cost and Quantity

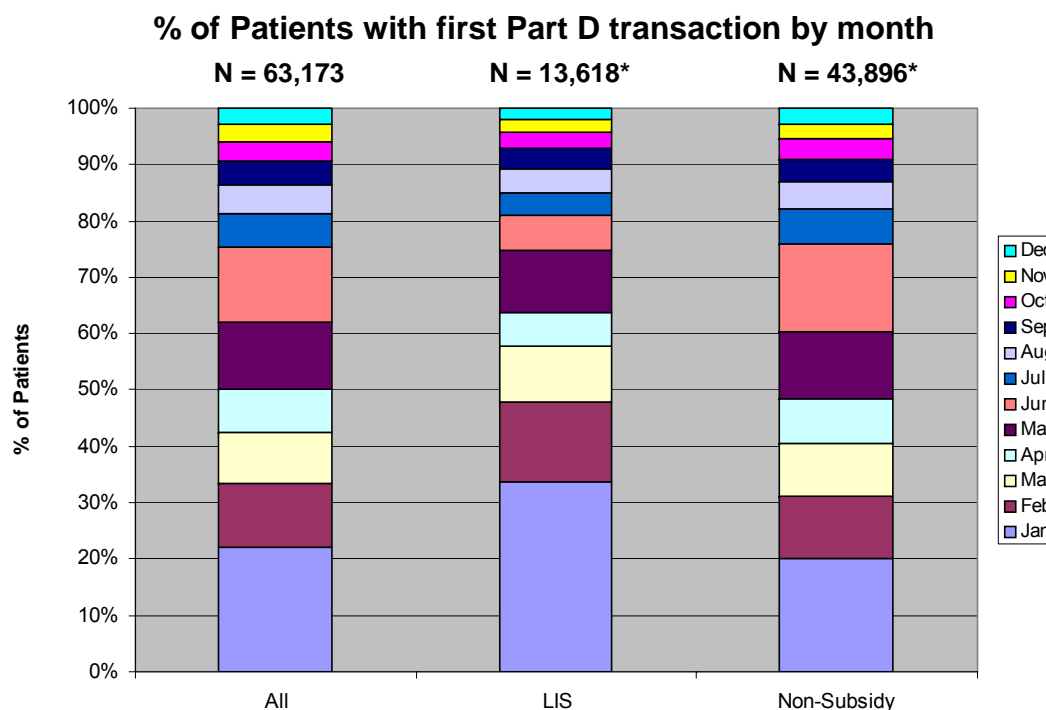
- We evaluated two different cost metrics, each measuring a different aspect of how patient out of pocket cost has been impacted by Part D:
 - **Average monthly cost:** this is a *cumulative* measure which reflects the combined average monthly amount spent per patient for *all* prescriptions they fill. This metric is most reflective of the *total* patient cost.
 - **Average cost per day of supply:** this is a *per unit* measure, which reflects the average amount spent per patient for *each* days' supply of medication, regardless of how many prescriptions they fill. It removes the number of prescriptions from the equation, providing a way to measure cost impact independent of utilization.
 - Note that this analysis is based on pharmacy transaction data and beneficiary premiums are not included in this data; therefore, our analysis does not take into account monthly premiums.

- We evaluated two different quantity metrics, each measuring the extent to which access to medicines has been impacted by Part D:
 - **Average # of normalized Rxs:** this is a measure of how many “normalized” (1-month equivalent) prescriptions each patient filled per month, on average. It is a good measure of overall access to medicines.
 - **Average days of supply:** this is a measure of the average total days of supply of medicine purchased within a specified therapeutic area each month across all patients utilizing that therapy . It is a broad indicator of changes in adherence to therapy.

Impact of Part D on Beneficiaries without Coverage in 2005

Half of beneficiaries had filled their first Part D prescription by April 2006

Low Income Subsidy (LIS) patients started to fill prescriptions using their Part D coverage earlier than did non-subsidy patients.



•Subsidy status could not be determined for 5,659 patients with limited or no 2006 patient pay data available; these patients are not included in the LIS or Non-Subsidy breakdowns, but are included as part of the "All" cohort.

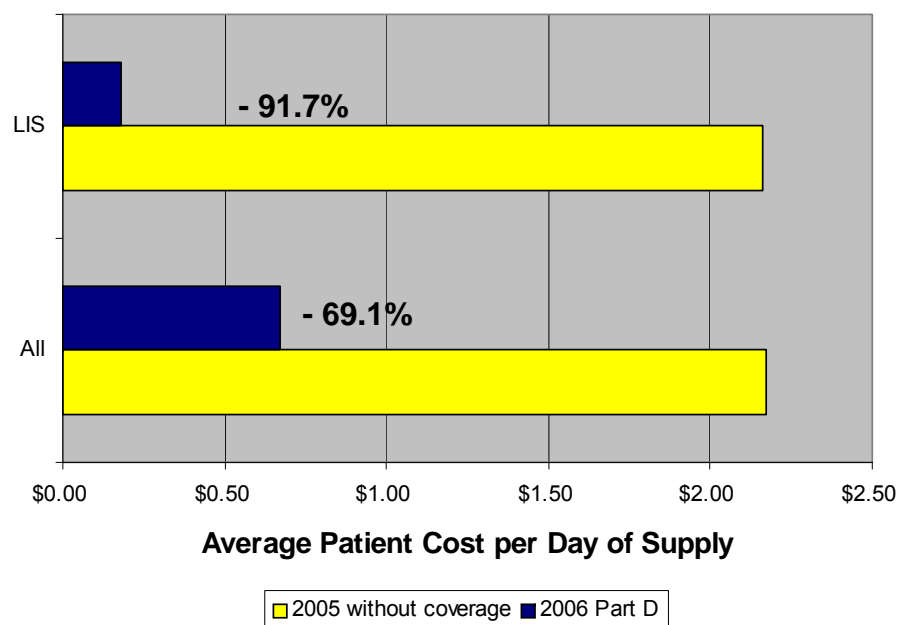
•Note: Month of Part D enrollment may be earlier than month of first Part D transaction.

Sources: Verispan Longitudinal Data, Amundsen Group analysis

Patients without drug coverage in 2005 significantly reduced their per unit out-of-pocket spending with Part D

Overall, patients reduced their cost per day of supply by 69%, from \$2.17 in 2005 to \$0.67 under Part D. The cost for LIS patients decreased even further, to \$0.18 per day of supply under Part D.

Average Patient Cost per Day of Supply: 2005 without coverage vs. 2006 (post Part D coverage)



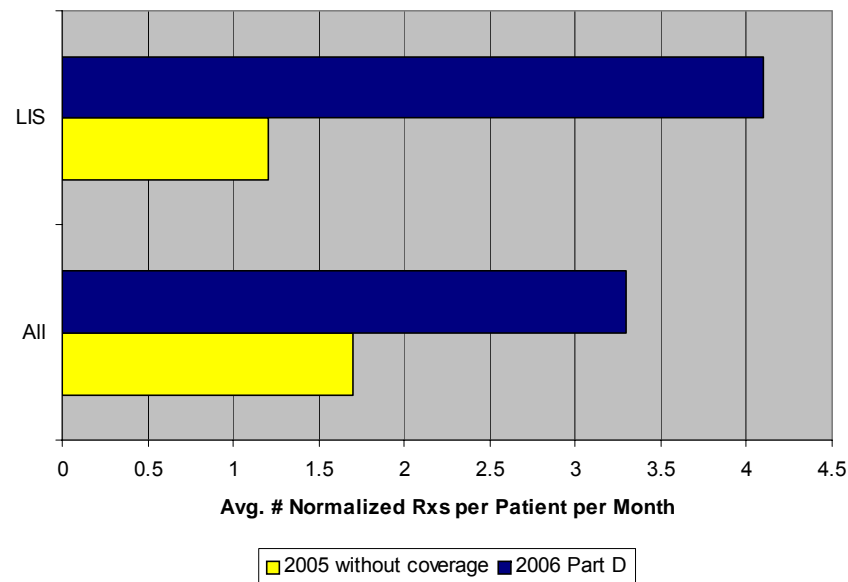
Note: Patient Cost excludes premiums but includes all patient contribution to drug costs, such as co-payments, coinsurance, and any amounts applied to deductible.

Sources: Verispan Longitudinal Data, Amundsen Group analysis

Patients without drug coverage in 2005 now have better access to medicines under Part D

The average number of Rx's filled each month has almost doubled, from 1.7 to 3.3 under Part D, with LIS patients experiencing larger increases.

Average # of Normalized Rx's per Patient per Month: 2005 without coverage vs. 2006 (post Part D coverage)

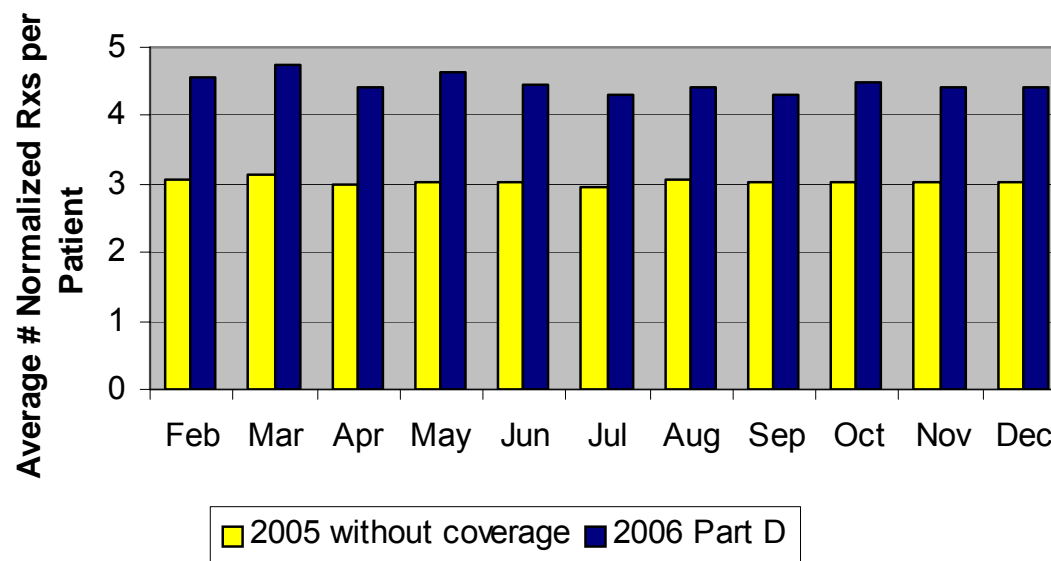


Sources: Verispan Longitudinal Data, Amundsen Group analysis

Patients without drug coverage in 2005 had better access to medicines in each month under Part D

Improvement in access to medicines remained steady throughout 2006, with only minor month-to-month fluctuation.

Average # of Normalized Rxs per Patient within Month: 2005 without coverage vs. 2006 (post Part D coverage)



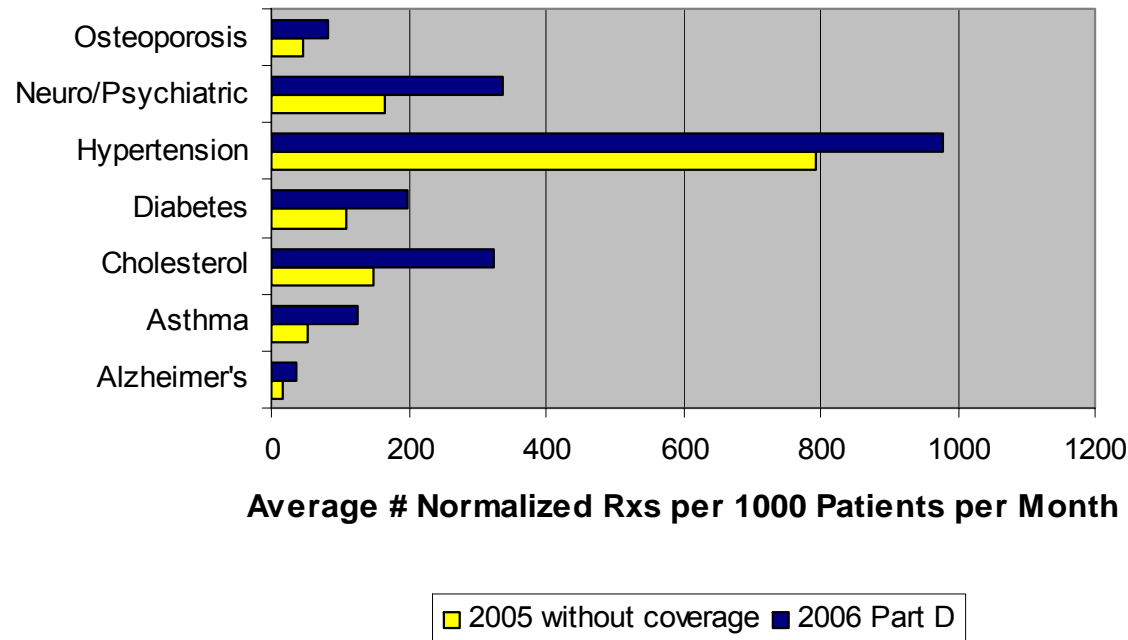
Note: This within-month metric includes only those patients with a transaction in each month in the denominator, unlike the across-months metrics in all other utilization analyses, which include all patients in the cohort in the denominator; the result is higher average values within-month than across months. Also, while the coverage gap may be expected to cause a decrease in utilization for some patients later in the year, this impact is mitigated by the fact that most patients did not have exposure to the coverage gap.

Sources: Verispan Longitudinal Data, Amundsen Group analysis

Patients without drug coverage in 2005 are getting better access to drug treatment for chronic conditions under Part D

The most significant overall gains occurred in the asthma and cholesterol categories.

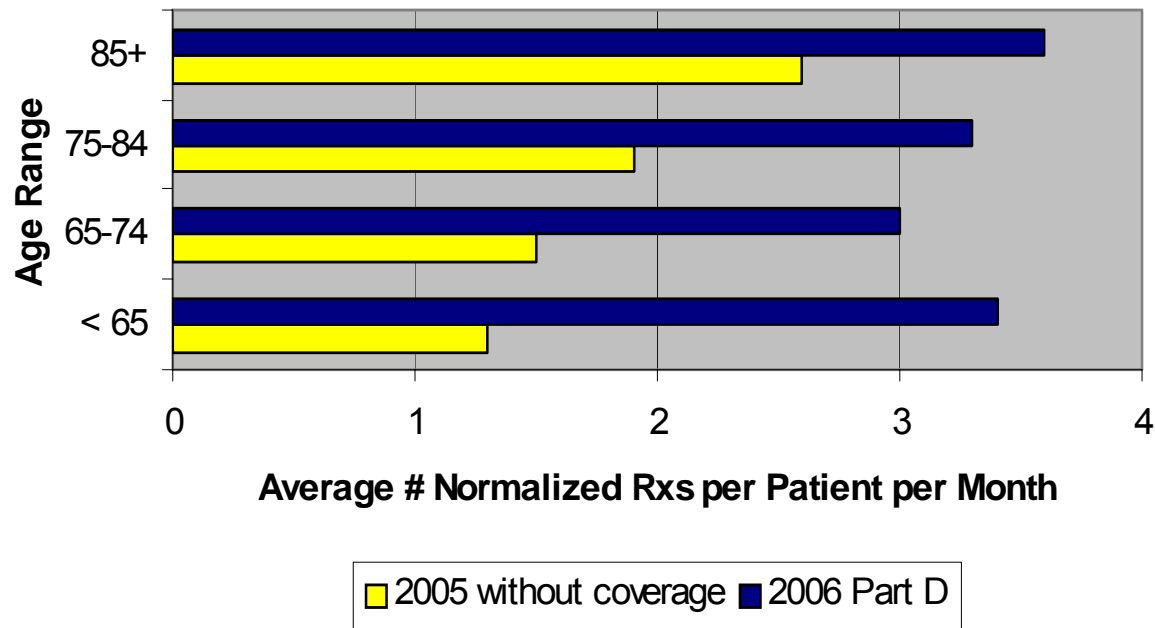
Average # of Normalized Rxs per 1000 Patients per Month: 2005 without coverage vs. 2006 (post Part D coverage)



All age groups have benefited from improved access to medicines

When the Medicare population was examined by age group, all groups exhibited improvement in the average number of monthly Rx's filled per patient.

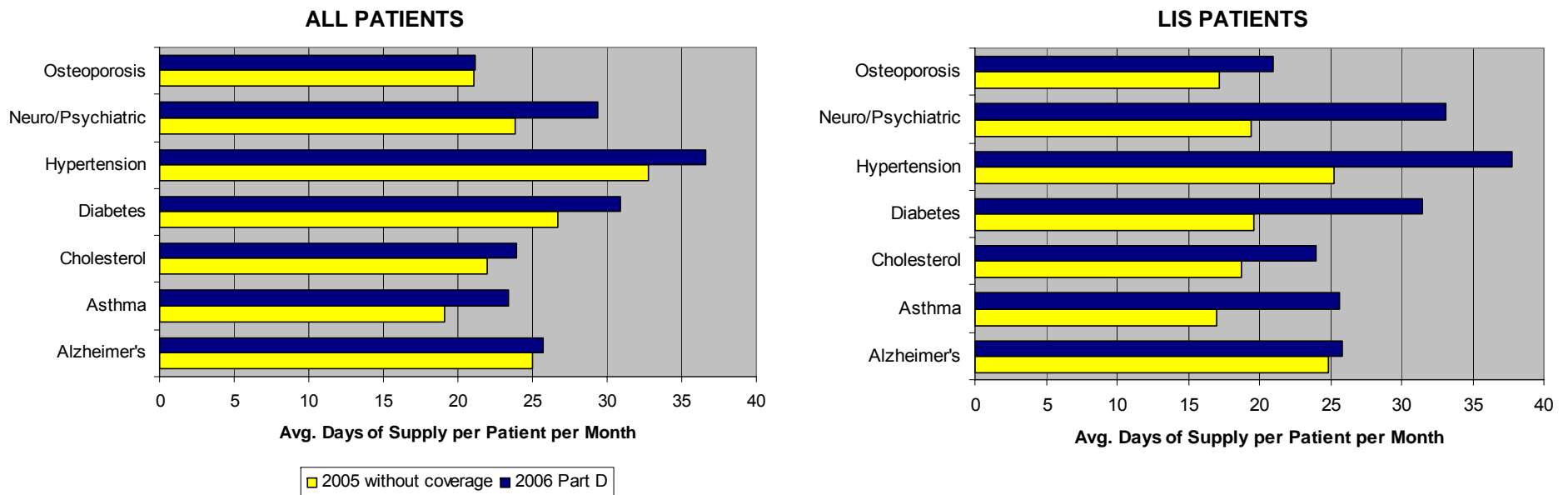
Average # of Normalized Rx's per Patient per Month: 2005 without coverage vs. 2006 (post Part D coverage)



Patients without drug coverage in 2005 increased their monthly days of supply in all therapeutic areas under Part D

Part D resulted in improved access to medicines for chronic conditions, with an indication of greater adherence as well. This impact was especially evident for LIS patients.

Average Days of Supply per Patient per Month: 2005 without coverage vs. 2006 (post Part D coverage)

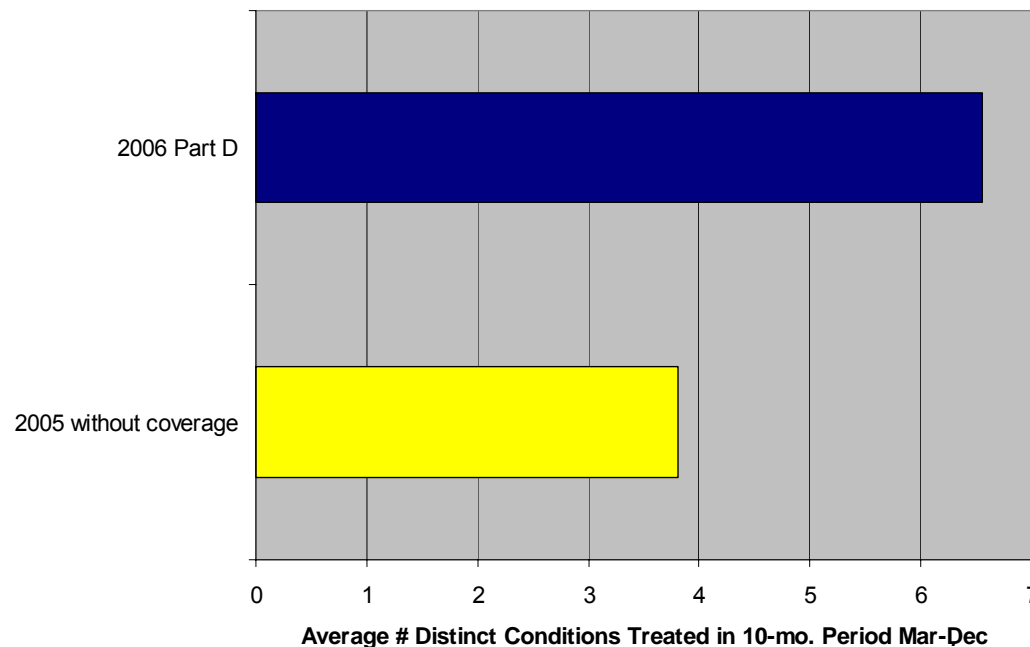


Sources: Verispan Longitudinal Data, Amundsen Group analysis

Patients without drug coverage in 2005 gained access to a greater variety of therapies with Part D coverage

The average number of distinct conditions treated per patient during the 10 mos. Mar.-Dec. in each year increased from 3.8 in 2005 to 6.6 with Part D coverage.*

**Average # of Distinct Conditions Treated in 10-mo. Period:
2005 without coverage vs. 2006 (post Part D coverage)**



* Distinct conditions are defined as those for which the products prescribed are classified into different broad therapeutic categories, e.g., hypertension, cholesterol, etc.

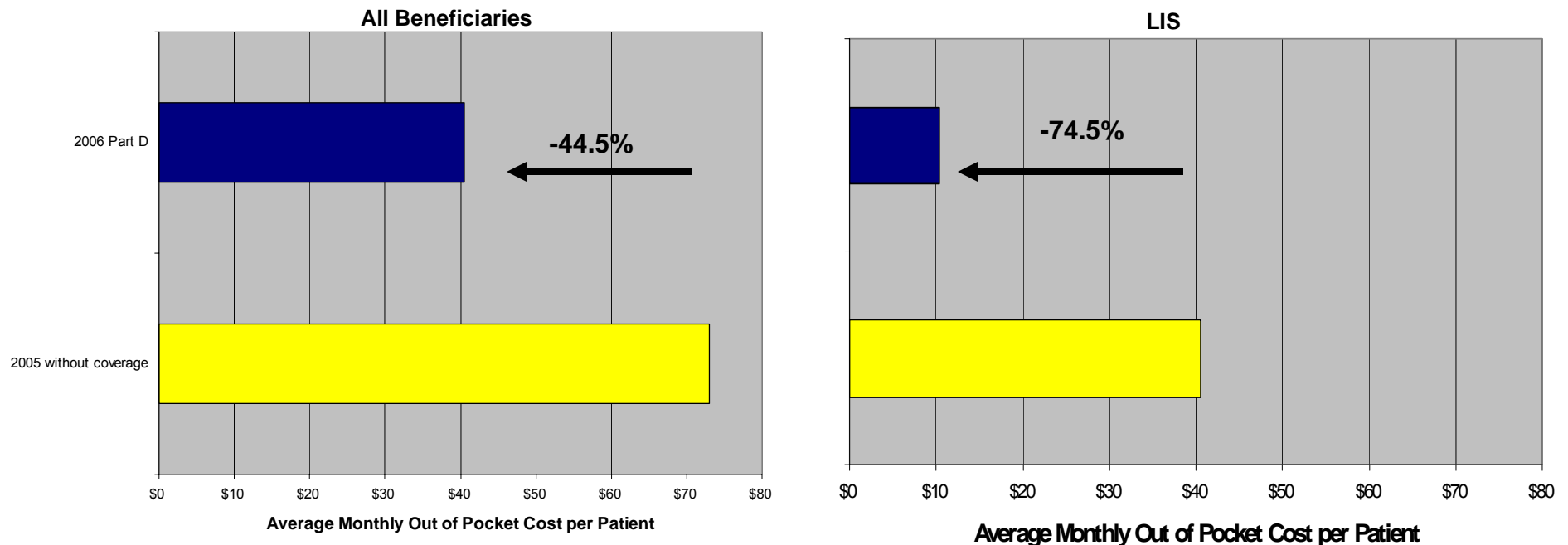
Note: Sample includes only those patients with their first transaction no later than March in 2005 and their first Part D transaction no later than March in 2006

Sources: Verispan Longitudinal Data, Amundsen Group analysis

As access improved, patients without drug coverage in 2005 reduced their monthly out-of-pocket cost under Part D

Out-of-pocket cost savings were sizeable even though patients used more medicines. Savings were especially great for LIS patients, who reduced their average monthly out-of-pocket cost from \$41 to \$10.

Average Total Patient Cost per Month: 2005 without coverage vs. 2006 (post Part D coverage)



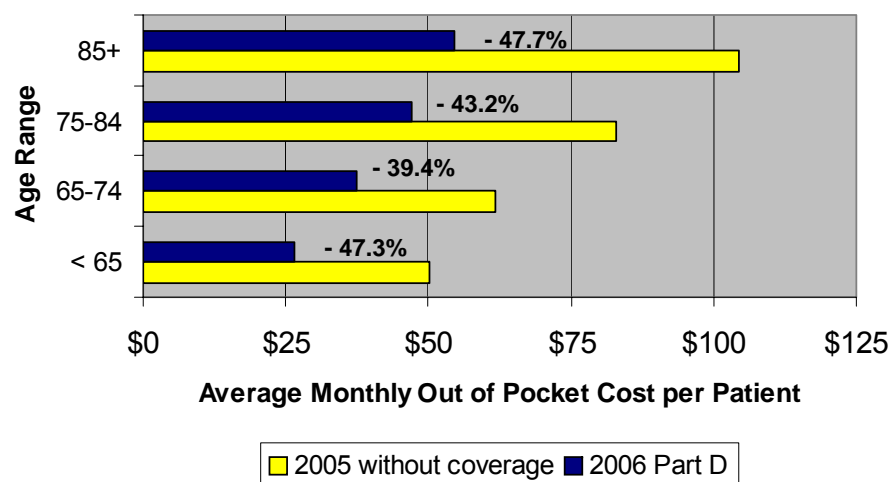
Note: Patient Cost excludes premiums but includes all patient contribution to drug costs, such as co-payments, coinsurance, and any amounts applied to deductible.

Sources: Verispan Longitudinal Data, Amundsen Group analysis

The impact of Part D in reducing cumulative out-of-pocket costs occurred for all age groups

All age groups reduced their monthly drug spending significantly, with the greatest savings realized by the 85+ age group, which had the highest overall spend.

Average Total Patient Cost per Month: 2005 without coverage vs. 2006 (post Part D coverage)



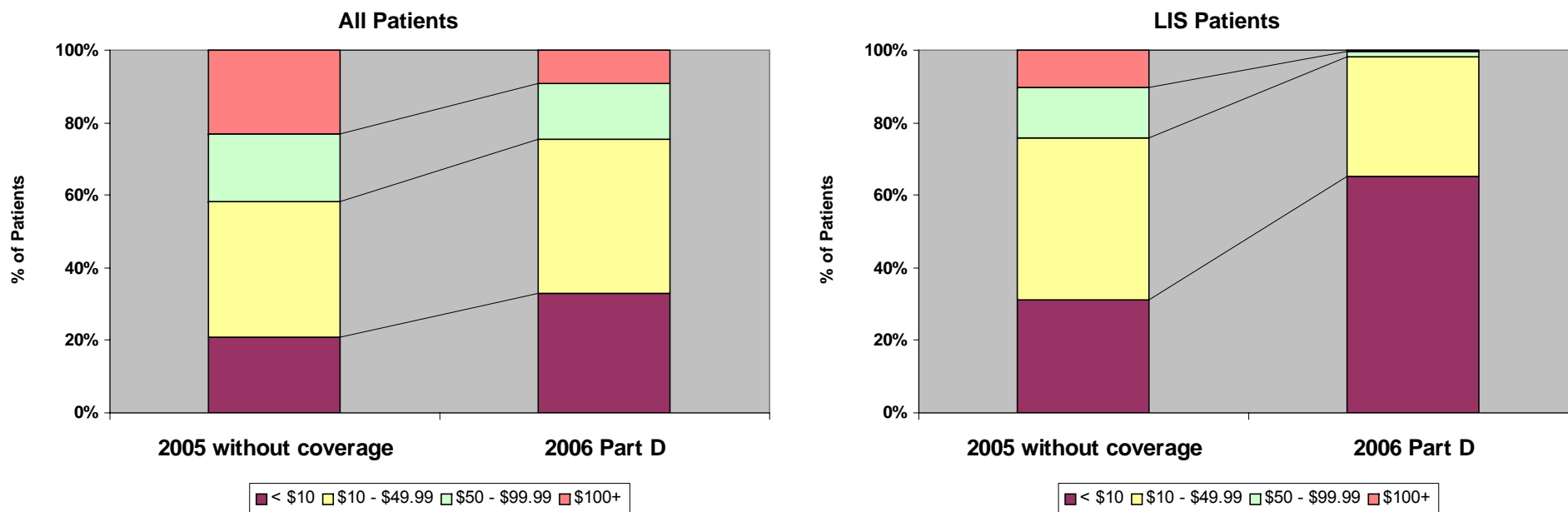
Note: Patient Cost excludes premiums but includes all patient contribution to drug costs, such as co-payments, coinsurance, and any amounts applied to deductible.

Sources: Verispan Longitudinal Data, Amundsen Group analysis

More patients are benefiting from lower out-of-pocket costs with Part D compared to those with no coverage in 2005

The percentage of patients spending less than \$100 per month out-of-pocket increased from 77% in 2005 with no coverage to 91% with Part D coverage in 2006, even though they used more medicines in 2006. Further, 33% of patients with Part D coverage in 2006 spent under \$10 per month, versus 21% in 2005 with no coverage. LIS patients saw the greatest improvement.

Distribution of Average Total Patient Cost per Month: 2005 without coverage vs. 2006 (post Part D coverage)



Note: Patient Cost excludes premiums but includes all patient contribution to drug costs, such as co-payments, coinsurance, and any amounts applied to deductible.

Sources: Verispan Longitudinal Data, Amundsen Group analysis

While Part D benefited all age groups, patients with disabilities under age 65 achieved significant gains

Patients with disabilities experienced higher than average improvements in access and cost savings

Measures	Percent Change from 2005 to 2006
	Patients Under 65
Improvement in Access— (Average # Normalized Rx per Month)	↑ 159% (from 1.3 in 2005 to 3.4 in 2006)
Decrease in Total Out of Pocket Costs— (Avg. Total Patient Cost per month)	↓ 47.3% (from \$50.32 to \$26.51)
Decrease in Cost per Dose— (Avg. Patient Cost per Day of Supply)	↓ 78.7% (from \$2.53 to \$0.54)
Increase in % of Patients with spending less than \$10 per month	↑ 72.4% (from 27.9% to 48.1%)

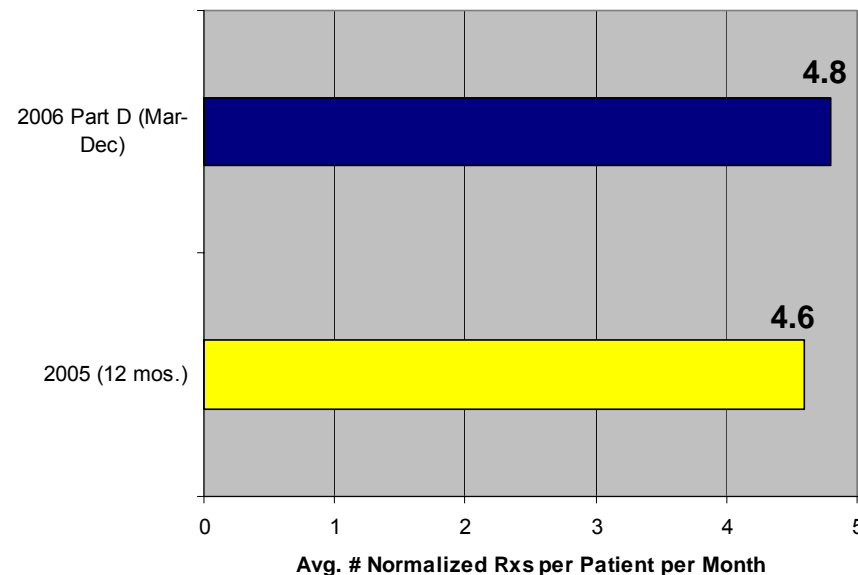
Sources: Verispan Longitudinal Data, Amundsen Group analysis

Dual Eligible Beneficiaries

Dual eligibles' access to medicines in Part D

The average number of monthly Rx's filled per patient slightly increased from 4.6 with Medicaid to 4.8 in Part D.

Average # of Normalized Rx's per Patient per Month: 2005 vs. 2006 (March-December)

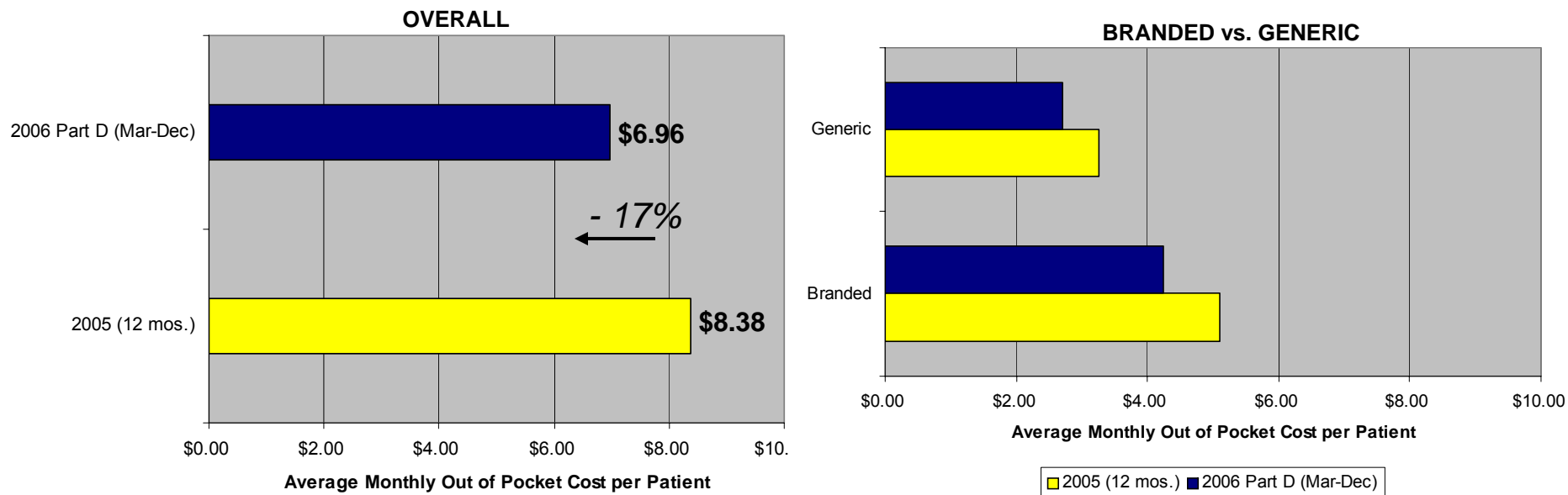


Sources: Verispan Longitudinal Data, Amundsen Group analysis

Dual eligible patients' out of pocket spending with Part D

The average monthly out of pocket cost decreased for both branded and generic drugs in Part D, with a 17% decrease overall.

Average Total Out of Pocket Cost per Patient per Month: 2005 vs. 2006 (March-December)



*Patient Cost is inclusive of patient co-payments, coinsurance or other patient contribution to drug cost; and, any amounts applied to deductible

Sources: Verispan Longitudinal Data, Amundsen Group analysis



APPENDIX

USC Groupings for Analysis of Utilization by Selected Therapeutic Areas

DRUG CLASS	USC NAME	DRUG CLASS	USC NAME	
HIGH CHOLESTEROL	ANTIHYPERLIPID OTHR	ALZHEIMERS	ALZHEIMER'S DISEASE TH	
	BILE ACID SEQUESTRNT		HYPERTENSION	ACE INHIB W/DIURETIC
	CHOLEST ABSORPTN INHIB			ACE INHIB,ALONE
	CHOLEST REDCRS COMBO			ACE INHIB,OTHER
	FIBRIC ACID DERIVTV			ALPHA BLCKR ALONE/COMB
HMG-COA REDUCT INHIB	ALPHA-BETA BLOCKERS			
DIABETES	ALPHA-GLUCOS INHIBTRS	OSTEOPOROSIS	ANGIO II ANTAG,ALONE	
	AMINO ACID DERIVATIVES		ANGIO II ANTAG,COMBO	
	ANLG HUMAN COMBINATNS		ANTIHYPRTNSV OTHER	
	ANLG HUMAN FAST ACTNG		BETA/ALPHA-BET BL/DIUR	
	ANLG HUMAN LONG ACTNG		BETA-BLOCKERS	
	BIGUANIDES		CALCIUM BLOCKERS	
	DIABETES INSULIN OTHR		CENTRAL ACT ALONE/COMB	
	DIABETES THER OTH OTHR		DIURETICS COMBINATIONS	
	DIABETES THERAPY DPP-4 I		DIURETICS LOOP	
	DIABTS THRP INCRIT MITC		DIURETICS OTHER	
	DIABTS THRPY NOINSL CB		DIURETICS POTASSIUM SPAR	
	HUMAN INS INTERMD ACT		DIURETICS THIAZIDE AND R	
	HUMAN INSLN COMBINATNS		SEL ALDOS RECPT ANTAG	
	HUMAN INSLN FAST ACTNG		VASC/ANTIHYPERLIP CMBO	
	HUMAN INSLN LONG ACTNG		NEUROLOGICAL	BISPHOSPHONATES
HUMAN INSULINS OTHER	BONE DENSITY REG OTH			
INSULIN SENSITIZERS	BONE FORMATION AGNTS			
MEGLITINIDES	CALCITONINS			
SULFONYLUREAS	ANALECTICS			
ASTHMA	ANTICHOLINERGICS BRONCHIAL COMBO	NEUROLOGICAL	ANTI-ALS	
	ANTICHOLINERGICS BRONCHIAL PLAIN		ANTI-ANXIETY OTHER	
	ANTI-INFL N ST UNK FRM		ANTIDEP TRI/TETRA	
	ANTI-INFL NON STR BRON		ANTIDEPRESS IN COMBO	
	ANTI-INFL NON STR ORAL		ANTI-DEPRESSANTS SNRIS	
	BETA AGON AEROSOL		ANTI-DEPRESSANTS SSRIS	
	BETA AGON FORM UNK		ANTI-MANIA	
	BETA AGON NEB SOLN		ANTIPRKNSON L-DOPA	
	BETA AGON ORAL LIQ		ANTIPRKNSON OTHER	
	BETA AGON ORAL SOLID		ANTIPSYCHOTICS OTH	
	BETA AGONISTS OTHER		MAO INHIBITORS	
	BRONCHIAL STR INH		NEW GENERTN ANTIDEP	
	BRONCHIAL STR INH COMBOS		NEW GENRTN PSYCH OTR	
	LEUKOTRIENE AGENTS		PHENOTHIAZINE DERIV	
	XANTHINE COMBOS		SEIZURE DISORDERS	
	XANTHINES			



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