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## **Enrollment of Dually Eligible Beneficiaries in Medicare Part D Plans: Autoassignment and Choice**

**Prepared by:**

**Christine E. Bishop, Ph.D.**

**Daniel Gilden, M.S.**

**Cindy Parks Thomas, Ph.D.**

**Joanna Kubisiak, M.S.**

**Evaluation of Medicare Modernization Act Changes on Dual Eligible  
Beneficiaries in Demonstration and Other Managed Care and Fee-For-Service  
Settings**

**Revised PHASE II: Conduct Impact Analysis of Dual Beneficiaries'  
Transition to MMA Part D Pharmacy Coverage**

**Principal Investigator: Christine E. Bishop, Ph.D.**

**(781) 736-3942**

**bishop@brandeis.edu**

**Submitted To**

**Centers for Medicare and Medicaid Services**

**Project Officer: William D. Clark, M.S.**

**Submitted by the**

**Schneider Institutes for Health Policy**

**The Heller School for Social Policy and Management**

**Brandeis University**

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# Table of Contents

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2</b>	<b>BACKGROUND ON KEY CHOICE POINTS .....</b>	<b>3</b>
2.1	<b>Transition of Prior Duals into Part D .....</b>	<b>3</b>
2.2	<b>Enrollment of New Dually Eligible Beneficiaries.....</b>	<b>3</b>
2.3	<b>Beneficiaries in Plans that Move Above Benchmark.....</b>	<b>4</b>
2.4	<b>Choosing Away from Autoassigned Plans over Time.....</b>	<b>4</b>
<b>3</b>	<b>CONCEPTUAL FRAMEWORK FOR PLAN CHOICE .....</b>	<b>5</b>
<b>4</b>	<b>DATA AND METHODS .....</b>	<b>6</b>
4.1	<b>Data .....</b>	<b>6</b>
4.2	<b>Methods .....</b>	<b>9</b>
<b>5</b>	<b>RESULTS .....</b>	<b>9</b>
5.1	<b>First Choices of PDP Plans by Dual Beneficiaries as of January 2006 .....</b>	<b>9</b>
	Exhibit 1: Choices of Dually Eligible Beneficiaries, January 2006.....	11
	Exhibit 2: Means for Dual Beneficiaries Enrolled in Part D, January 2006 .....	12
	Exhibit 3: Logistic Regression (Odds Ratios) for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled, January 2006.....	15
	Exhibit 4: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP, vs. Remain Autoenrolled, January 2006: Include Past Drug Use and Diagnosis .....	18
5.2	<b>Choice of PDP Plans by New Dual Beneficiaries, February 2006 through December 2007 .....</b>	<b>0</b>
	Exhibit 5: New Dually Eligible Beneficiaries by Month, February 2006 through December 2007 .....	2
	Exhibit 6: Proportion New Dually Eligible Beneficiaries Choosing Stand-Alone and MA Plans and Remaining Autoenrolled by Month, February 2006 through December 2007 .....	3

	Exhibit 7: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled (Null Case), New Duals February 2006 – December 2007 .....	4
	Exhibit 8: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled (Null Case) Including State Variables, New Duals February 2006 – December 2007 .....	5
	Exhibit 9: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled (Null Case) Including State Indicators, New Duals February 2006 – December 2007 .....	6
<b>5.3</b>	<b>Choice of PDP Plans by Beneficiaries with Plan Moving Above Benchmark, January 2007 .....</b>	<b>9</b>
	Exhibit 10: Choices of Dually Eligible Beneficiaries with Stand-Alone PDP Moving Above Benchmark, January 2007.....	9
	Exhibit 11: Characteristics of Dually Eligible Beneficiaries with PDP Moving Above Benchmark, January 2007.....	10
	Exhibit 12: Logistic Regression for Choice: Remain in Previous Plan, Different Stand-Alone Plan; Null Case is Autoassigned, January 2007 .....	11
	Exhibit 13: Logistic Regression for Choice of Stand-Alone Plan, Remain in Previous Plan vs. Autoenrolled (Null Case), Duals with Plan Moving Above Benchmark January 2007, Include State and Institutional Status.....	12
	Exhibit 14: Estimated Odds of Choosing Different Plan, Remaining in Past Plan vs. Remaining Autoenrolled, Beneficiary Characteristics .....	14
	Exhibit 15: Estimated Odds of Choosing Different Plan vs. Remaining Autoenrolled, States Ranked Smallest to Largest Odds .....	15
	Exhibit 16: Estimated Odds of Remaining in Past Plan vs. Remaining Autoenrolled, States Ranked Smallest to Largest Odds .....	16
	Exhibit 17: Logistic Regression for Choice of Stand-Alone Plan, Remain in Previous Plan vs. Autoenrolled (Null Case), Duals with Plan Moving Above Benchmark January 2007, Include Diagnosis .....	18
	Exhibit 18: Estimated Odds of Choosing Different Plan, Remaining in Past Plan vs. Remaining Autoenrolled, Beneficiary Characteristics .....	20
	Exhibit 19: Estimated Odds of Choosing Different Plan, Remaining in Past Plan vs. Remaining Autoenrolled, Beneficiary Diagnoses and Past Medicaid Prescription Drug Use (RxRisk Category) .....	21
<b>5.4</b>	<b>Choosing Away from Autoassigned Plans over Time .....</b>	<b>22</b>

	Exhibit 20: Proportion Autoassigned in January 2006 Who Remain in Autoassigned Plan, January 2006 (0) through December 2007 (23) .....	23
	Exhibit 21: Proportion of Dually Eligible Beneficiaries Remaining in Plan of January 2006 Autoassignment, February 2006 – December 2007 .....	24
	Exhibit 22: Proportion Above Benchmark Autoassigned in January 2007(13) Who Remain in Autoassigned Plan through December 2007 (23) .....	25
	Exhibit 23: Proportion of Reassigned Dually Eligible Beneficiaries Remaining in Plan of January 2007 Autoassignment, February 2007 – December 2007.....	26
<b>6</b>	<b>DISCUSSION .....</b>	<b>27</b>
6.1	<b>Summary .....</b>	<b>27</b>
6.2	<b>Limitations .....</b>	<b>27</b>
6.3	<b>Directions for Future Research .....</b>	<b>28</b>
	Loss of Benchmark Status.....	28
	New Dually Eligible Beneficiaries.....	28
	Is Choice Based on Plan Features?.....	29
6.4	<b>Policy Implications.....</b>	<b>30</b>
<b>7</b>	<b>APPENDIX.....</b>	<b>31</b>
	Appendix Exhibit 1 : State Medicare Advantage Penetration, Population Density and Benchmark Plans .....	31
	Appendix Exhibit 2: Logistic Regression for Choice: Choose Different Stand-Alone Plan, Choose MA Plan; Null Case is Remain in Autoassigned Plan, January 2006 (No State Indicators)..	33
	<b>LITERATURE CITED .....</b>	<b>34</b>

## **ABSTRACT**

### **Research Objective:**

To identify factors associated with active plan choice for dually eligible beneficiaries autoassigned to Medicare Part D drug insurance plans.

### **Study Design:**

Dually eligible beneficiaries are automatically assigned to low-cost prescription drug plans (benchmark PDPs). Beneficiaries newly eligible for Part D as duals (about 50,000 per month during the study period) and continuing dual Part D enrollees whose plans fall above benchmark in a new year (22% of duals in stand-alone plans in December 2006) are randomly (re)assigned to qualifying plans unless they actively choose a plan. In addition, the Part D program began with autoassignment of beneficiaries.

Some beneficiaries may be satisfied with their autoassigned plans, and monthly beneficiary choice allows those not satisfied to switch. However, some dually eligible beneficiaries may be less able to make informed plan choices. Beneficiary characteristics and monthly enrollment from the Part D Prescription Drug Plan (PDP) Contract File and the Medicaid Dual Eligibility File for 2006-2007 were linked with health status indicators from 2005 Medicaid claims and PDP characteristics. Multinomial logistic regression was used to estimate impacts of demographic, health, eligibility and location factors on the probability that a beneficiary chooses a plan rather than being passively autoassigned.

### **Population Studied:**

7.1 million beneficiaries who were dually eligible for both Medicare and Medicaid for at least one month between January 2006 and December 2007.

### **Principal Findings:**

One-third (33% ) of the 1.1 million beneficiaries who entered dual eligibility between February 2006 and December 2007 chose a PDP by their first dual month rather than accepting the autoassigned plan. Choice was more likely for older duals and for

those with income greater than the Federal poverty level. With the exception of those under 21, choice was less likely for duals eligible for Medicaid as Disabled.

Seven percent of Part D dual enrollees whose plan moved above benchmark in January 2007 chose a different plan rather than remaining autoassigned; an additional 15% chose to remain in their above-benchmark plans. Choice was more likely for duals with income greater than the FPL. Beneficiaries who had previously actively chosen a plan were more likely to remain in that plan even though it had moved above benchmark.

Dual beneficiaries in both groups were more likely to make active plan choices in some states. Prior health status was also associated with choice.

**Conclusions:**

State of residence and health and disability status affect the probability of active plan choice by dually eligible beneficiaries.

**Implications for Policy, Delivery or Practice:**

Although PDPs enrolling dually eligible beneficiaries must meet coverage standards, formularies vary. While individual choice allows beneficiaries to match their PDPs to drug needs, duals who are less able to make choices may experience gaps in access. Patterns of duals' choice behavior can suggest policies for state Medicaid programs and others to support choice. Results are also a first step in research to assess whether failure to choose is associated with health outcomes.

# 1 Introduction

The implementation of the Medicare Part D benefit assured the availability of an outpatient pharmacy benefit for all Medicare beneficiaries. A portion of the Medicare Part D enrolled population was previously also enrolled in Medicaid. Outcomes of this transition for these 5 million<sup>1</sup> Medicare beneficiaries with concurrent Medicaid enrollment (dual eligibles) are of special concern. These beneficiaries have high levels of disability and chronic disease. Representing only 15% of the total Medicare population, they account for close to 30% of Medicare fee-for-service payments.

To assure a smooth transition as Part D began, dually eligible beneficiaries were automatically randomly enrolled with no out-of-pocket premium in low-cost Part D plans (PDPs) available in each state, called benchmark or low-income subsidy plans. These plans are so designated because their premium costs are at or below the area average. In some ways, the plan of enrollment should not make much difference to a dually-eligible beneficiary: he or she pays standard reduced co-payments for prescriptions and does not face the benefit limits applied to non-Medicaid Part D plan enrollees. However, the benefit design of the low-cost Part D plans may include formulary limitations, varying preferred drugs and prior authorization requirements. So that a dually eligible beneficiary may enroll in the benchmark plan that best meets his or her needs, the regulations allow dual beneficiaries to switch enrollment in any month to any other area benchmark plan at no cost. He may choose to enroll in a non-benchmark plan by paying an incremental premium, although this is rare.

Benchmark status is determined every year, and enrollment of dually eligible beneficiaries in a PDP may be disrupted if it moves above benchmark (or leaves the market). In that case, the beneficiary is informed and autoassigned to an alternative benchmark plan.<sup>2</sup> Of course, he or she can again choose among the remaining benchmark plans in the area, or choose to stay with the original plan of enrollment by paying the incremental premium.

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<sup>1</sup> Source: Authors' analysis of Part D enrollment file; Part D enrollees eligible for full Medicaid (including QMB and SLMB qualified beneficiaries with full Medicaid coverage) numbered 5,020,195.

<sup>2</sup> If the beneficiary has actively chosen that particular plan, he or she receives a letter with information about the change in status, but is not autoenrolled; and the incremental premium is deducted from the monthly Social Security payment.

If benchmark plans vary sufficiently in the access they provide to the prescription drugs that are important to particular individuals, the ability to choose among plans, both initially and if the PDP falls above benchmark, is vital to maintaining the beneficiary's access to prescription drug therapy. In addition, some observers assert that involuntary enrollment changes in themselves may lead to confusion and disruption of continuity of care, as beneficiaries adjust to new administrative details.

Concerns that dually eligible beneficiaries may be less able to choose well for themselves arose well before the transition date (Hall, Moore and Shireman 2005; Jensen and Kaiser Commission on Medicaid and the Uninsured 2005; Kaiser Family Foundation 2005; U.S. Government Accountability Office 2005). The dually eligible disproportionately include cognitively impaired populations, such as nursing home residents with dementia and persons with developmental disabilities and chronic mental illness. In the short run, confusion about plan membership and variations in drug formularies could lead to interruptions in utilization in important therapies for this autoenrolled population. In the longer run, the capacity of these high risk populations to navigate the administrative transition and safely maintain their access to necessary outpatient therapies was at issue. It was feared that therapy interruption would lead to increased use of emergency services, hospitals, nursing facility care and even death. Many state Medicaid agencies addressed these concerns by continuing their pharmacy benefit through the first quarter of 2006, enabling the dually eligible to access both a Medicare and Medicaid financed pharmacy benefits (Fox and Scholfield 2006; Smith, Gifford, Kramer and Elam 2006). Despite these provisions, there were anecdotal reports of difficulties accessing needed prescription medicines, especially for psychotropic medicines (Arizpe 2006; Kaiser Commission on Medicaid and the Uninsured 2006; Kaiser Commission on Medicaid and the Uninsured 2006; Morden and Garrison 2006; Bagchi, Esposito and Verdier 2007; Donohue and Frank 2007; Hall, Kurth and Moore 2007; Huskamp, Stevenson, Donohue, Newhouse et al. 2007; West, Wilk, Muszynski, Rae et al. 2007; Wilk, West, Rae, Rubio-Stipec et al. 2008; Donohue, Huskamp and Zuvekas 2009; Huskamp, West, Rae, Rubio-Stipec et al. 2009; Basu, Yin and Alexander 2010; West, Wilk, Rae, Muszynski et al. 2010).

The first objective of this analysis is to describe the degree to which dually eligible beneficiaries exercise choice in four situations: at initial transition to Medicare Part D; at first

eligibility as dually eligible; if plan of enrollment loses benchmark status; and every month of enrollment, because duals can switch plans at any time.

The second objective is to identify the beneficiary characteristics associated with active choice in these situations.

The plan of the report is as follows. After a discussion of the conceptual framework used to understand and model plan choice, the data sources are described.

Then each “choice point” is considered in turn, first with a presentation of descriptive statistics on the extent of choice, then with the results of multivariate models of choice appropriate for each choice point.

A discussion section summarizing findings, drawing policy implications and highlighting limitations completes the report.

## **2 Background on Key Choice Points**

The choice points are discussed in turn below:

1. At the initial transition from Medicaid drug coverage to Part D, a one-time occurrence that is the foundation for the evolution of duals’ involvement in Part D
2. When individuals first become dually eligible;
3. When the plan of enrollment loses benchmark status.
4. Over time, because dually eligible beneficiaries can switch plans at the start of any month.

### **2.1 Transition of Prior Duals into Part D**

As described above, dually eligible beneficiaries were randomly enrolled in designated benchmark plans starting in October 2005, in preparation for the start of Part D coverage in January 2006. Several states made special efforts to assist dually eligible beneficiaries (U.S. Government Accountability Office 2005; Fox and Scholfield 2006).

### **2.2 Enrollment of New Dually Eligible Beneficiaries**

Individuals become eligible for Medicare and Medicaid continually, so just as soon as CMS had enrolled all prior dually eligible beneficiaries, accomplished starting in October 2005 for a January 2006 start, the inflow of new beneficiaries began.

Individuals may become dually eligible in two ways: as Medicaid eligibles achieving Medicare eligibility and as Medicare eligibles achieving Medicaid eligibility. The two pathways are not symmetric with respect to the issues for Part D enrollment and choice.

Medicare beneficiaries, whether Disabled or Aged, may also become eligible for Medicaid due to loss of income and assets and high health-related spending. This is most likely for Aged Medicare beneficiaries entering nursing homes whose costs in comparison to income make them immediately qualified for Medicaid as medically needy, or who spend down income and assets in a long nursing home stay. Other large health expenses can also trigger Medicaid eligibility in spend-down states, for both Disabled and Aged Medicare beneficiaries.

### **2.3 Beneficiaries in Plans that Move Above Benchmark**

A continuing issue for dually eligible beneficiaries enrolled in Part D is the ever-shifting PDP marketplace. A PDP is eligible for enrollment by beneficiaries receiving the low income subsidy (LIS) if its premium is below a benchmark, set at the mean for the standard plan plus a very small “de minimis” amount. The “de minimis” amount was set at \$2.00 in 2006 and lowered to \$1.00 in 2007.

CMS derived benchmark values for each state based on the premiums submitted by that state’s PDPs for the first year of the program, 2006. The benchmarks changed each year thereafter as the costs and market in each state changed.

### **2.4 Choosing Away from Autoassigned Plans over Time**

Another time for choice occurs every month of enrollment, because dually eligibles beneficiaries are able to enroll in a different PDP each month. A beneficiary may not be aware immediately but may learn over time that the plan he or she was autoenrolled into (or the plan he or she actively chose) is not appropriate to his prescription drug needs. This would happen if experience (presenting a prescription at the pharmacy and discovering that the brand drug he has been taking for years is not on the formulary or requires prior authorization, for example) is a more powerful or accessible teacher than the written descriptions of the PDPs (which presumably contain the same information). The amount of “churn” in PDP enrollment has been of interest to policy makers and plan administrators and will be described here.

### 3 Conceptual Framework for Plan Choice

It is assumed that an informed consumer will choose the PDP that best meets his or her prescription drug needs from among the available PDPs.

The choice set includes all the PDPs in the state, including the PDPs associated with Medicare Advantage plans. The above-benchmark PDPs cannot be ruled out of the choice set in theory, because beneficiaries can choose them; the analysis will examine empirically how often they are chosen, and which beneficiaries are more likely to choose them. The PDP to which the beneficiary has been autoassigned can of course be actively chosen as the best plan.

The plan characteristics affecting the probability that it will be chosen by a beneficiary relate to the specific prescription drugs the beneficiary is using and the details of how each plan formulary affects access to these drugs. (These details are not available for this analysis.) Even without fine-grained measures of appropriateness of each PDP to the individual's needs, the beneficiary's chronic illnesses and intensity of prescription drug utilization reflect the potential value of a good choice. For example, if the beneficiary is not using any prescription drugs, there is no value to be gained by choosing one plan over another. The same is likely true if the beneficiary has a chronic condition where most drugs are generic. A beneficiary with a high intensity of prescription drug use or a condition associated with long-term utilization of brand drugs will be more likely to gain from a choice away from the autoassigned plan, other things constant.

For this analysis, as a foundation for a fine-grained analysis that could include plan characteristics and detailed drug use, the focus is on beneficiary characteristics. Beneficiaries with above average need for brand prescription drugs that are not on every formulary should be more likely to choose away from the plan they are autoassigned (although there is a probability that the autoassigned plan will meet this need). Needs can be indicated by diagnosis and by past drug use. Some personal characteristics, like institutionalization, extreme old age and cognitive disabilities, may make it difficult for individuals to make choices. In addition, the models can assess whether other characteristics (race, sex) are associated with more active choice. Another variable of interest is the number of choices that the beneficiary must consider; recent behavioral economic analysis suggests that it is possible to have too many choices, and that consumers confronted with many choices may stay with their "default" option, the one they hold at baseline (Nielsen and Phillips 2008).

The analysis is able to assess whether each beneficiary chose a Medicare Advantage (MA) drug plan instead of the autoassigned plan. The MA penetration in the state in the previous year is included in some models to account for the varying availability of this option.

Some states have developed programs to assist beneficiaries with PDP choice, and one state (Maine) has developed a directed assignment program to help dually eligible beneficiaries enroll in the plan that is best for them. Thus state of residence should also be considered for inclusion in the models, as an alternative to state market characteristics noted above.

## **4 Data and Methods**

### **4.1 Data**

The core data for the study is monthly Part D enrollment data (Contract File) for 2006 and 2007 merged with information from the Medicaid Dual Status File and the Medicare Denominator File for 2005 through 2007.

For a 5% subset of the dually eligible beneficiaries in the core data set, a link was made to the Medicare 5% denominator records. For this 5% sample, a further link was made to MAX data using Social Security Number. These links were validated using supporting data fields present in both administrative data sources (date of birth and sex).

**Defining the study group.** The Medicaid Dual Status File provided month-to-month Medicaid eligibility so that the study group can be restricted to full duals. It is assumed that any beneficiary who appears on the Contract File is enrolled in Part D and thus is eligible for Medicare, over 7 million in the full group. The observations from this group are somewhat different for each analysis. The total number of dually eligible beneficiaries included in the core merged file for January 2006, the first month of Part D implementation, was 5,013,031. The total number of dually eligible beneficiaries included in the 5% sample file for January 2006 was 244,416. The continuing dual beneficiaries whose 2006 plans were not offered in 2007 or moved above the benchmark make up the study group for the analysis of choice for beneficiaries whose plans were disrupted (N=1,027,492).

**Type of PDP enrollment.** The enrollment file provided month-to-month indicators of the specific PDP of enrollment and enrollment type, most notably for the purpose here whether the beneficiary was autoenrolled into the current plan or had elected it.

**Enrollment Change.** A key variable for the analysis was change in plan of enrollment. This was determined for each month by identifying beneficiaries whose plan number changed from one month to the next. These beneficiaries were assumed to have made a new plan choice. A list of plan numbers for plans that moved above benchmark (or left Part D) as of December 2006 was used to identify all beneficiaries enrolled in newly above-benchmark plans. A special situation obtained in January 2007 for beneficiaries who had been enrolled in a specific group of plans that moved above benchmark. These beneficiaries were administratively enrolled by CMS in plans sponsored by the same companies, so even though their plan numbers changed, this study identified them as being autoenrolled rather than making an active plan choice.<sup>3</sup>

**Demographics.** The Contract File provided basic demographic data. Because these data are missing for individuals not enrolled in Part D in any month, the data items were pulled from the first month when an individual was eligible. Sex was coded 1 for male and zero for female. Age (computed from date of birth to show age in January 2006) was collapsed into 10 age categories as shown in Table 1; for some analyses, age was collapsed still further so that beneficiaries aged 54 or less were a separate category.

An indicator for institutional status was reported on the Contract File. Because this had a substantial proportion of missing values (about 20% of observations), two variables were constructed: a variable indicating that institutional status was indicated (1 if yes, zero otherwise), and a variable indicating that institutional status was unknown (zero if yes or no, 1 if unknown).

The state's report of the beneficiary's poverty status as below 100% of the Federal Poverty Level (FPL) or at or above FPL was recorded, and a code reported whether the beneficiary spent the month in an institution, including nursing facility, intermediate care facility, and inpatient psychiatric hospital. The Medicare Denominator File was used to determine original and current reason for Medicare entitlement. In addition to age and sex

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<sup>3</sup> We are grateful to CMS staff for remembering this administrative action, not reflected in recorded enrollment data, and assisting us with documenting it. Otherwise a great many beneficiaries would have been coded as actively changing plans who in fact were administratively reassigned without individual active choice.

(also available from the Contract File), the Medicare Denominator File included race/ethnicity (White, Black, Hispanic). Date of death was reported in this data source.

**Chronic conditions.** Information on Medicare claims from the standard 5% sample of Medicare beneficiaries was used to determine presence of chronic conditions and diseases in 2005, the year prior to enrollment in Part D. Diagnosis indicators were set based on the presence of the diagnosis in a physician or hospital claim in 2005. The diagnosis indicators include Alzheimer's or dementia; schizophrenia; developmental disability (mental retardation); neurodisability (any diagnosis listed pertaining to a serious neurological disease, for example multiple sclerosis); cancer, any type; Parkinson's disease; congestive heart failure; diabetes; and chronic obstructive pulmonary disease (which here includes asthma, emphysema and chronic bronchitis).

**Prior Drug Utilization.** Medicaid claims from years prior to Part D form a consistent source of prescription drug utilization prior to Part D implementation for the continuously dually eligible population. These claims are present in the linked MAX data for the 5% sample. In this study, rather than using highly detailed information about the amount and type of prescription drugs used, an index named RxRisk was used. This was developed by Jen Associates Inc. in an effort to use patterns of prescription drug utilization as a proxy for severity of illness related to probability of nursing home entry. In a population with substantially complete insurance for prescription drug use, it can be assumed that individuals with severe forms of certain illnesses are using drugs that treat those illnesses; and the number and mix of drugs prescribed for an individual is associated with complexity of chronic illness status. RxRisk was calibrated to vary with diagnostic complexity in the subsequent year associated with nursing home entry and takes values from one to ten.<sup>4</sup> For this study, the Rx Risk index was computed for each beneficiary based on Medicaid drug claims for 2005. Because there is no reason to expect this measure to have a linear impact on choice, indicator variables were created for each RxRisk category, indicating deciles of the importance or intensity of prescription drug use. The omitted category is the lowest risk category.

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<sup>4</sup> A future study could develop variables based on particular drugs used, but these are likely to be relevant only for specific disease populations. RxRisk, although developed for another purpose, provides a valuable adjustment factor for the models.

**State Characteristics.** For several of the analyses, variables were included reflecting Medicare Advantage penetration, state population density and the number of low-income subsidy (LIS or benchmark) plans offered in the state in the relevant year (2006 or 2007) (see Appendix Exhibit 1).

## **4.2 Methods**

Descriptive statistics were used to estimate the degree to which dual beneficiaries in three situations (beneficiaries transitioning to Part D; newly-dual beneficiaries; and beneficiaries displaced from their benchmark plans) actively exercise choice of PDP.

Logistic analysis was used to estimate the association of beneficiary, state and plan characteristics with the probability that a beneficiary will choose away from the initially assigned plan.

Life table (survival) analysis was used to describe the persistence of beneficiaries in the plans they enroll in at a specified time. The beneficiaries who remain enrolled in their original PDP at the beginning of the month are observed, and the proportion who enroll in another PDP is computed. The analysis allows censoring of beneficiaries who leave dual eligibility, through eligibility changes or death.

For the analysis of initial choice and the analysis of choice after benchmark change, the analysis could be conducted with either the relevant full study group or a 5% sample for whom information from Medicare and Medicaid claims is available. Ordinarily it would not be advisable to work with millions of observations, and some thought was given to cutting the sample or restricting analyses to the 5% sample. However, analyses involving sparsely populated age categories and states cannot achieve power in a limited sample, so the full study group is used in several analyses, despite the computational burden. With only about 50,000 beneficiaries becoming new duals each month, cutting that study group was not considered.

## **5 Results**

### **5.1 First Choices of PDP Plans by Dual Beneficiaries as of January 2006**

The first choices of Part D dual enrollees are not the main focus of the report, but analysis of these first efforts form a foundation for the remainder of the analysis.

Approximately five million dually eligible beneficiaries were randomly assigned to Part D

prescription drug plans in October, 2005. Examination of the Enrolment Type Code on the Contract File for all full duals reveals that by January 2006 only 75% of these beneficiaries still had a code of 'A' (Autoenrolled by CMS) in their first month of enrollment (Exhibit 1). Almost 9% were enrolled in Part D through a Medicare Advantage Plan. Approximately one-eighth of the beneficiaries (12.4%, 623,000 dually eligible beneficiaries) had chosen a stand-alone PDP by the first day of Medicare Part D.

Means for the choice and independent variables describing the beneficiaries enrolled in January 2006 are presented in Exhibit 2.

**Exhibit 1: Choices of Dually Eligible Beneficiaries, January 2006**

<b>Choice Status</b>	<b>Number</b>	<b>Percent</b>
<b>Chose: Stand Alone Plan</b>	<b>623,243</b>	<b>12.4%</b>
<b>Chose: MA Plan</b>	<b>447,598</b>	<b>8.9%</b>
<b>Remained Autoassigned</b>	<b>3,781,755</b>	<b>75.3%</b>
<b>Unknown</b>	<b>167,599</b>	<b>3.3%</b>
<b>Total</b>	<b>5,020,195</b>	<b>100.0%</b>

**Exhibit 2: Means for Dual Beneficiaries Enrolled in Part D, January 2006**

<b>Variable Name</b>	<b>Mean or Percent</b>	<b>Standard Deviation</b>
Male	0.3763	0.4845
Age 0 -21	0.0023	0.0476
Age 21-44	0.1851	0.3884
Age 45-54	0.1409	0.3479
Age 55-64	0.1201	0.3250
Age 65-69	0.1404	0.3474
Age 70-74	0.1277	0.3338
Age 75-79	0.1140	0.3178
Age 80-84	0.0871	0.2820
Age 85-89	0.0514	0.2207
Age 90+	0.0311	0.1736
Income>FPL	0.0592	0.2360
Institutional*	0.1285	0.3346
AK	0.20%	
AL	1.42%	
AR	1.04%	
AZ	1.68%	
CA	17.49%	
CO	0.84%	
CT	1.08%	
DC	0.28%	
DE	0.15%	
FL	4.70%	
GA	1.99%	
HI	0.44%	
IA	0.90%	
ID	0.30%	
IL	4.15%	
IN	1.20%	
KS	0.61%	
KY	1.53%	
LA	1.56%	
MA	3.23%	
MD	0.94%	

<b>ME</b>	<b>0.78%</b>	
<b>MI</b>	<b>3.21%</b>	
<b>MN</b>	<b>1.54%</b>	
<b>MO</b>	<b>2.10%</b>	
<b>MS</b>	<b>1.21%</b>	
<b>MT</b>	<b>0.20%</b>	
<b>NC</b>	<b>3.66%</b>	
<b>ND</b>	<b>0.15%</b>	
<b>NE</b>	<b>0.51%</b>	
<b>NH</b>	<b>0.27%</b>	
<b>NJ</b>	<b>2.44%</b>	
<b>NM</b>	<b>0.53%</b>	
<b>NV</b>	<b>0.30%</b>	
<b>NY</b>	<b>9.63%</b>	
<b>OH</b>	<b>2.64%</b>	
<b>OK</b>	<b>1.25%</b>	
<b>OR</b>	<b>0.85%</b>	
<b>PA</b>	<b>4.63%</b>	
<b>RI</b>	<b>0.48%</b>	
<b>SC</b>	<b>2.04%</b>	
<b>SD</b>	<b>0.18%</b>	
<b>TN</b>	<b>3.81%</b>	
<b>TX</b>	<b>5.45%</b>	
<b>UT</b>	<b>0.38%</b>	
<b>VA</b>	<b>1.65%</b>	
<b>VT</b>	<b>0.28%</b>	
<b>WA</b>	<b>1.56%</b>	
<b>WI</b>	<b>1.79%</b>	
<b>WV</b>	<b>0.68%</b>	
<b>WY</b>	<b>0.09%</b>	

N= 5,013,031 except \*: N= 4,164,874

Exhibit 3 presents results of a logistic regression analysis, presented as odds ratios, showing the association of the independent variables with the probability (log odds) that a beneficiary chose a stand-alone PDP or a Medicare Advantage PDP by January 2006 as opposed to remaining autoenrolled. The logistic regression statistics (not shown) show that the model variables are significantly associated with the dependent choice outcome variable. It is notable that the inclusion of the state fixed effects does not change the direction of the effects for the individual characteristics from a reduced model without state effects shown in Appendix Exhibit 2 ; the state identifiers add substantially to the explanatory power. Both versions of the model show that men are slightly less likely than women to choose either stand-alone plans or MA plans versus staying autoenrolled; that older beneficiaries are more likely to make an active choice than are younger (Disabled) beneficiaries (in comparison also to the omitted age category, those aged 70 to 74); and that those on Medicaid with an income above the Federal Poverty Level (most likely to be beneficiaries with high medical expenses who become Medicaid-eligible by spending down) are more likely to choose a stand-alone plan.

The state results indicate that in several states, choosing a MA plan is very likely. These states include: Alabama, California, Arizona, Colorado, Florida, Kentucky, Minnesota, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas and Utah.

**Exhibit 3: Logistic Regression (Odds Ratios) for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled, January 2006**

<b>Variable Name</b>	<b>Choose Stand Alone Plan vs. Remain Autoassigned</b>	<b>Choose MA Plan vs. Remain Autoassigned</b>
Male	0.953	0.898
Age 0 -21	1.159	0.139
Age 21-44	0.773	0.47
Age 45-54	0.967	0.529
Age 55-64	1.025	0.593
Age 65-69	1.023	0.798
Age 75-79	1.04	0.997
Age 80-84	1.095	0.961
Age 85-89	1.167	0.957
Age 90+	1.257	0.951
Income>FPL	1.589	1.081
AK	1.189	0.174
AL	1.204	13.711
AR	2.372	0.826
AZ	1.843	144.954
CA	0.973	13.822
CO	2.247	30.091
CT	0.777	2.528
DC	0.921	4.292
DE	0.841	1.056
FL	1.242	14.66
GA	2.047	2.463
HI	0.815	6.742
IA	2.117	2.262
ID	2.201	2.342
IL	1.189	2.527
IN	1.525	0.406
KS	2.428	1.95
KY	1.541	18.732
LA	1.182	2.578
MA	0.618	6.586
MD	1.141	7.838

ME	3.785	0.296
MN	1.573	76.217
MO	1.39	2.67
MS	1.28	0.973
MT	1.306	0.226
NC	1.036	2.137
ND	5.317	0.222
NE	1.965	2.114
NH	2.916	0.156
NJ	0.91	3.154
NM	0.783	3.956
NV	1.032	10.811
NY	1.124	11.711
OH	1.895	5.838
OK	1.493	3.805
OR	2.216	104.657
PA	2.628	114.306
RI	0.71	14.378
SC	1.128	2.498
SD	2.735	0.31
TN	1.415	16.237
TX	2.293	13.742
UT	1.664	13.237
VA	0.928	1.138
VT	1.242	0.05
WA	0.962	4.8
WI	1.267	4.764
WV	1.213	0.496
WY	1.476	0.436

N= 5,013,031

Note: All odds ratios are significantly different from one at the 5% level. MI is the omitted state indicator.

Exhibit 4 shows a similar model fitted for the 5% sample, which is much smaller but allows race and institutional status as well as the RxRisk index and diagnosis to be included as covariates. Here the pattern by age, after accounting for these other individual factors, appears different: age is not significantly related to choice for those in the older age categories after diagnosis and RxRisk are accounted for. This suggests that in the previous model, which did not account for these factors, age was standing in for a higher probability of institutional status and perhaps for greater need. Black and Hispanic beneficiaries were less likely to pursue active choice in the transition to Part D from Medicaid drug coverage. The RxRisk indicator variables show that beneficiaries with a drug history indicating increasing risk of nursing home entry were increasingly likely to make an active choice of plan, whether for a stand-alone PDP or a MA drug plan (coefficient becomes less negative as RxRisk increases). However, those *most* likely to actively choose are in the omitted null case for RxRisk, RxRisk=0, which represents those with past Medicaid-paid drug use *least* associated with nursing home entry. The positive significant coefficients for a number of the diagnoses, based on 2005 Medicare claims, indicate that active choice was more likely for beneficiaries with some particular diagnoses; it is also notable that beneficiaries with *any* of the available diagnoses were less likely to choose a MA drug plan in the first transition to Part D, shown by the negative coefficients for all the diagnoses in the second three columns of the Exhibit.

**Exhibit 4: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP, vs. Remain Autoenrolled, January 2006: Include Past Drug Use and Diagnosis**

Variable Name	Choose Freestanding Plan vs. Autoassigned			Choose MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
Intercept	-1.567	0.025	<.0001	0.572	0.027	<.0001
Male	-0.017	0.013	0.178	-0.392	0.017	<.0001
Age Less than 55	0.060	0.022	0.005	-1.321	0.027	<.0001
Age 55-64	0.087	0.024	0.000	-0.477	0.032	<.0001
Age 65-69	0.027	0.023	0.245	-0.315	0.029	<.0001
Age 75-79	-0.013	0.024	0.578	0.062	0.030	0.041
Age 80-84	-0.004	0.026	0.889	0.049	0.034	0.143
Age 85-89	-0.001	0.030	0.987	0.115	0.041	0.004
Age 90+	-0.017	0.037	0.645	-0.011	0.049	0.825
Income>FPL	0.334	0.021	<.0001	-0.187	0.039	<.0001
Institution Status Yes	0.529	0.019	<.0001	0.077	0.032	0.016
Unknown Institution Status	-0.303	0.018	<.0001	-0.167	0.021	<.0001
Black	-0.384	0.016	<.0001	-0.060	0.020	0.003
Hispanic	-0.328	0.025	<.0001	0.068	0.028	0.016
RxRisk1	-0.721	0.048	<.0001	-1.055	0.049	<.0001
RxRisk2	-0.591	0.031	<.0001	-0.986	0.034	<.0001
RxRisk3	-0.511	0.032	<.0001	-0.698	0.036	<.0001
RxRisk4	-0.474	0.030	<.0001	-0.761	0.036	<.0001
RxRisk5	-0.417	0.028	<.0001	-0.685	0.034	<.0001
RxRisk6	-0.368	0.026	<.0001	-0.675	0.034	<.0001
RxRisk7	-0.356	0.024	<.0001	-0.527	0.031	<.0001
RxRisk8	-0.261	0.022	<.0001	-0.425	0.029	<.0001
RxRisk9	-0.218	0.021	<.0001	-0.163	0.027	<.0001

Variable Name	Choose Freestanding Plan vs. Autoassigned			Choose MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
Cancer	0.038	0.020	0.059	-0.668	0.047	<.0001
Diabetes	0.051	0.014	0.000	-0.054	0.025	0.028
Lipid disorder	0.089	0.013	<.0001	-0.784	0.024	<.0001
Depression	0.067	0.014	<.0001	-0.785	0.028	<.0001
Mental Retardation	0.475	0.025	<.0001	-1.309	0.076	<.0001
Alzheimer's Disease	0.014	0.023	0.551	-1.036	0.062	<.0001
Macular degeneration/ cataract/ glaucoma	0.121	0.013	<.0001	-1.078	0.028	<.0001
Hypertension	0.084	0.015	<.0001	-1.106	0.023	<.0001
Ischemic Heart Disease	0.029	0.016	0.069	-0.208	0.036	<.0001
Atrial Fibrillation	0.011	0.017	0.542	-0.420	0.042	<.0001
Congestive Heart Failure	0.008	0.018	0.674	-0.269	0.043	<.0001
Stroke	0.008	0.017	0.643	-0.470	0.040	<.0001
Bronchitis Emphysema	-0.094	0.020	<.0001	-0.666	0.048	<.0001
Asthma	-0.009	0.019	0.654	-0.348	0.042	<.0001
Chronic obstructive pulmonary disease	-0.016	0.018	0.361	-0.219	0.037	<.0001
Ulcers	0.081	0.014	<.0001	-0.694	0.036	<.0001
Enteritis/ colitis/ diverticulitis	0.034	0.020	0.088	-0.648	0.054	<.0001
CRF	0.048	0.024	0.040	-0.156	0.060	0.009
Cellulitis	-0.042	0.019	0.026	-0.678	0.048	<.0001
Ulcer of the skin	-0.021	0.024	0.374	-0.280	0.057	<.0001
Arthritis	0.097	0.014	<.0001	-0.762	0.029	<.0001
Osteoporosis	0.109	0.016	<.0001	-0.757	0.039	<.0001

## **5.2 Choice of PDP Plans by New Dual Beneficiaries, February 2006 through December 2007**

As shown in Exhibit 5, about 50,000 persons become eligible for both Medicare and Medicaid each month between February 2006 and December 2007. These beneficiaries were autoenrolled as they became eligible, but some moved away from their plan of enrollment. Exhibit 6 shows the proportion in each enrollment category for their first month.

Exhibit 7 presents results of a multinomial logistic regression for the log odds of each enrollment type. Exhibit 8 presents a similar model including state market characteristic variables, and Exhibit 9 includes state fixed effects to account for all the measured and unmeasured effects of residence in each state. The logistic regressions indicate similar patterns for the new duals as for those who were dually eligible as Part D was beginning: men are less likely to actively choose either a stand-alone PDP or an MA plan; and Aged beneficiaries are more likely to actively choose than younger (Disabled) beneficiaries when diagnosis and previous prescription use is not accounted for.<sup>5</sup> Institution status has a different effect for the new duals, with known institutional residence having a negative rather than a positive effect on the probability of enrolling in a stand-alone plan rather than remaining in the autoassigned plan.

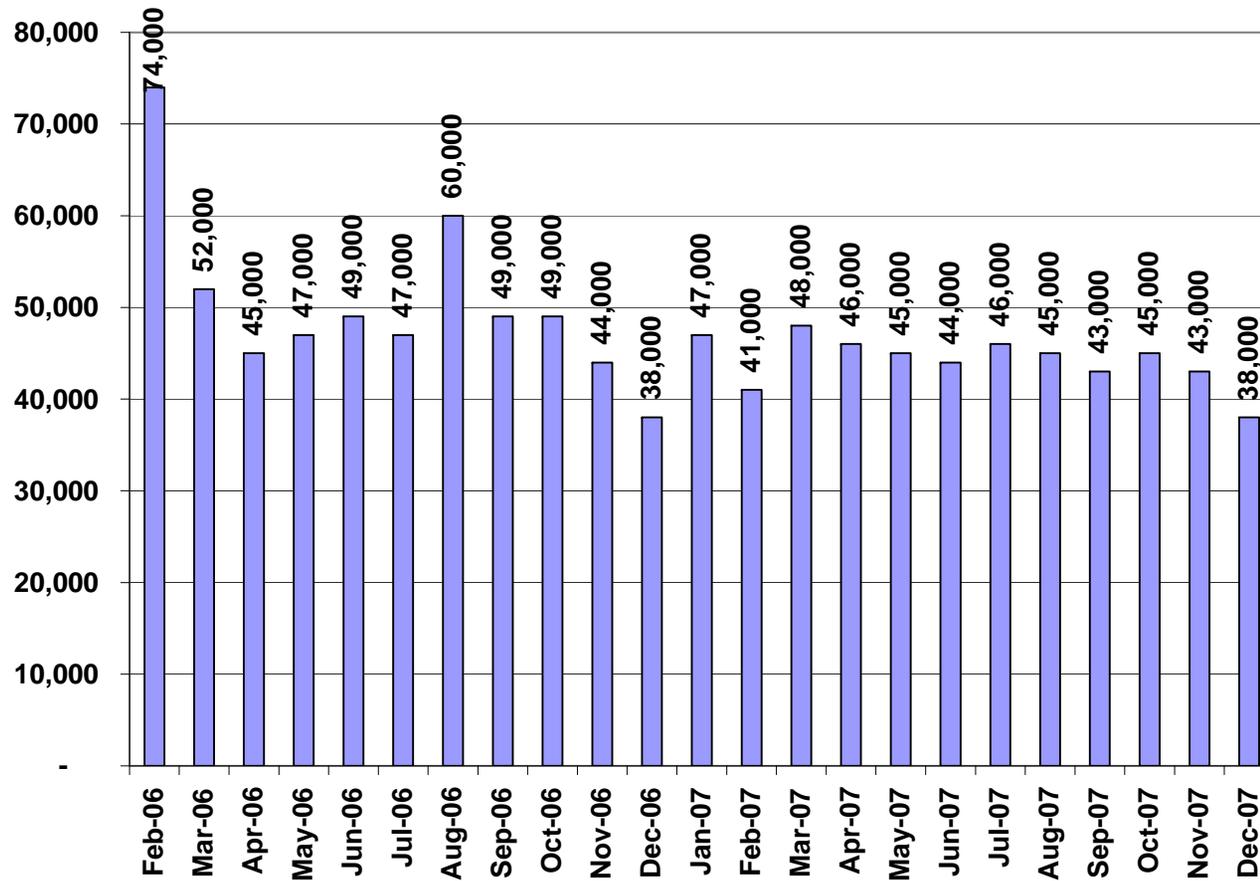
A trend was included to test for a secular increase or decrease in probability of change as Part D became more established. Despite the appearance of a trend toward choice shown in Exhibit 6, when other factors are accounted for by the multivariate analysis there is no significant trend in the probability of enrolling in a different stand-alone plan rather than one's plan of autoassignment (although a small but significant trend appears in the state fixed-effects model). However, there is a significant increase over the two year period in the probability of enrolling in a MA plan. Enrollment in a stand-alone plan was less likely where MA penetration was high and enrollment in a MA drug plan was more likely under these circumstances (coefficient of the MA penetration rate is negative and significant for choose a different free-standing plan and positive and significant for choice of an MA plan). Choosing

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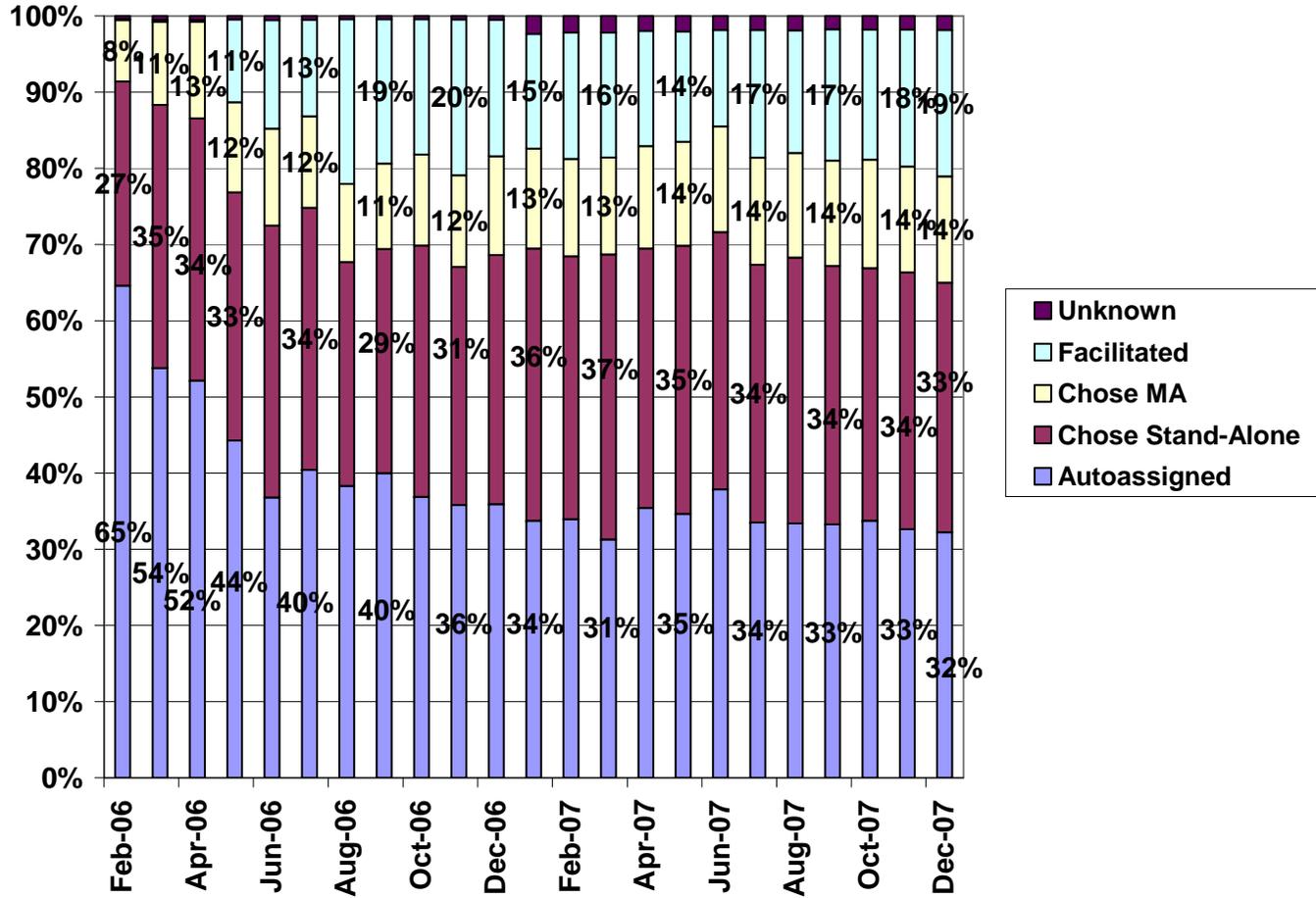
<sup>5</sup> An analysis using diagnosis and prior drug use cannot be carried out for the new duals, because by definition they do not appear in the 5% Duals sample in the prior year.

a different PDP was associated positively with the number of low-income subsidy (benchmark) plans offered in the state in the year the beneficiary became dually eligible.

**Exhibit 5: New Dually Eligible Beneficiaries by Month, February 2006 through December 2007**



**Exhibit 6: Proportion New Dually Eligible Beneficiaries Choosing Stand-Alone and MA Plans and Remaining Autoenrolled by Month, February 2006 through December 2007**



**Exhibit 7: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled (Null Case), New Duals February 2006 – December 2007**

Variable Name	Log Odds Choose Stand Alone Plan vs. Autoassigned			Log Odds Choose MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
Intercept	0.3532	0.0065	<.0001	-0.6550	0.0089	<.0001
Male	-0.2096	0.0036	<.0001	-0.2093	0.0065	<.0001
Age 0 -21	0.3159	0.0164	<.0001	-3.2244	0.0903	<.0001
Age 21-44	-0.4793	0.0074	<.0001	-2.3528	0.0152	<.0001
Age 45-54	-0.3762	0.0077	<.0001	-1.7101	0.0139	<.0001
Age 55-64	-0.466	0.0074	<.0001	-1.4992	0.0119	<.0001
Age 65-69	0.0378	0.0076	<.0001	-0.6077	0.0111	<.0001
Age 75-79	0.0633	0.0092	<.0001	0.1432	0.0121	<.0001
Age 80-84	0.1022	0.0093	<.0001	0.1321	0.0123	<.0001
Age 85-89	0.1653	0.0099	<.0001	0.1041	0.0132	<.0001
Age 90+	0.2228	0.0111	<.0001	0.0332	0.0152	0.0293
Income>FPL	0.2753	0.0048	<.0001	-0.0251	0.0082	0.0023

**Exhibit 8: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled (Null Case)  
Including State Variables, New Duals February 2006 – December 2007**

Variable Name	Choose Freestanding Plan vs. Autoassigned			Choose MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
Intercept	0.524	0.010	<.0001	-1.490	0.016	<.0001
Male	-0.191	0.004	<.0001	-0.253	0.007	<.0001
Age 0-21	0.274	0.017	<.0001	-3.204	0.090	<.0001
Age 21-44	-0.520	0.008	<.0001	-2.299	0.015	<.0001
Age 45-54	-0.409	0.008	<.0001	-1.682	0.014	<.0001
Age 55-64	-0.473	0.007	<.0001	-1.519	0.012	<.0001
Age 65-69	0.057	0.008	<.0001	-0.694	0.011	<.0001
Age 75-79	0.075	0.009	<.0001	0.192	0.012	<.0001
Age 80-84	0.129	0.009	<.0001	0.232	0.013	<.0001
Age 85-89	0.207	0.010	<.0001	0.233	0.014	<.0001
Age 90+	0.280	0.011	<.0001	0.170	0.016	<.0001
Income>FPL	0.198	0.005	<.0001	0.187	0.009	<.0001
Institution Status Yes	-0.158	0.006	<.0001	-0.360	0.009	<.0001
Unknown Institution Status	0.585	0.009	<.0001	0.220	0.013	<.0001
Month	0.000	0.000	0.518	0.028	0.001	<.0001
Population Density, state	0.000	0.000	<.0001	0.000	0.000	<.0001
MA penetration, state, 2005	-2.593	0.022	<.0001	3.206	0.036	<.0001
No MA plans, 2005	-0.229	0.011	<.0001	-1.591	0.048	<.0001
Number LIS plans, current year	0.014	0.001	<.0001	0.001	0.001	0.119

**Exhibit 9: Logistic Regression for Choice of Stand Alone or Medicare Advantage PDP vs. Remain Autoenrolled (Null Case)  
Including State Indicators, New Duals February 2006 – December 2007**

Variable Name	Choose Freestanding Plan vs. Autoassigned			Choose MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
Intercept	-0.251	0.010	<.0001	-0.880	0.014	<.0001
Male	-0.184	0.004	<.0001	-0.251	0.007	<.0001
Age Less Than 55	-0.451	0.007	<.0001	-2.025	0.012	<.0001
Age 55-64	-0.469	0.008	<.0001	-1.529	0.012	<.0001
Age 65-69	0.068	0.008	<.0001	-0.678	0.011	<.0001
Age 75-79	0.071	0.009	<.0001	0.188	0.012	<.0001
Age 80-84	0.124	0.010	<.0001	0.221	0.013	<.0001
Age 85-89	0.204	0.010	<.0001	0.218	0.014	<.0001
Age 90+	0.284	0.012	<.0001	0.159	0.016	<.0001
Income>FPL	0.241	0.006	<.0001	0.291	0.010	<.0001
Institution Status Yes	-0.190	0.006	<.0001	-0.395	0.009	<.0001
Unknown Institution Status	0.719	0.010	<.0001	0.541	0.015	<.0001
Month	0.006	0.000	<.0001	0.032	0.000	<.0001
AK	-0.260	0.040	<.0001	-2.882	0.189	<.0001
AL	0.696	0.017	<.0001	-0.290	0.033	<.0001
AR	0.957	0.018	<.0001	-0.690	0.039	<.0001
AZ	0.134	0.015	<.0001	0.661	0.020	<.0001
CA	-0.130	0.009	<.0001	-0.004	0.013	0.759
CO	1.078	0.022	<.0001	0.851	0.029	<.0001
CT	0.693	0.017	<.0001	-0.603	0.034	<.0001
DC	-0.339	0.034	<.0001	-1.795	0.090	<.0001
DE	0.783	0.039	<.0001	-1.716	0.146	<.0001
FL	0.353	0.010	<.0001	0.125	0.015	<.0001

Variable Name	Choose Freestanding Plan vs. Autoassigned			Choose MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
GA	1.157	0.011	<.0001	-0.249	0.020	<.0001
HI	0.222	0.030	<.0001	0.265	0.040	<.0001
IA	0.730	0.019	<.0001	-0.822	0.041	<.0001
ID	0.945	0.031	<.0001	-0.355	0.064	<.0001
IL	0.679	0.010	<.0001	-0.725	0.020	<.0001
IN	0.277	0.013	<.0001	-1.987	0.038	<.0001
KS	0.945	0.022	<.0001	-0.825	0.051	<.0001
KY	1.359	0.018	<.0001	-0.520	0.040	<.0001
LA	0.847	0.017	<.0001	-0.326	0.036	<.0001
MA	0.321	0.011	<.0001	-0.435	0.019	<.0001
MD	0.651	0.017	<.0001	-1.069	0.043	<.0001
ME	0.661	0.020	<.0001	-2.645	0.103	<.0001
MI	0.732	0.011	<.0001	-0.838	0.025	<.0001
MN	0.695	0.015	<.0001	-0.201	0.026	<.0001
MO	0.217	0.012	<.0001	-0.591	0.023	<.0001
MS	0.768	0.017	<.0001	-1.899	0.063	<.0001
MT	0.887	0.032	<.0001	-1.003	0.083	<.0001
NC	0.857	0.012	<.0001	-0.118	0.021	<.0001
ND	1.292	0.040	<.0001	-1.827	0.151	<.0001
NE	0.775	0.024	<.0001	-0.774	0.054	<.0001
NH	0.733	0.027	<.0001	-2.830	0.155	<.0001
NJ	0.865	0.013	<.0001	-0.802	0.028	<.0001
NM	0.482	0.023	<.0001	-0.185	0.042	<.0001
NV	0.546	0.034	<.0001	0.495	0.045	<.0001
OH	0.665	0.010	<.0001	-0.038	0.017	0.021
OK	0.625	0.016	<.0001	-0.365	0.030	<.0001

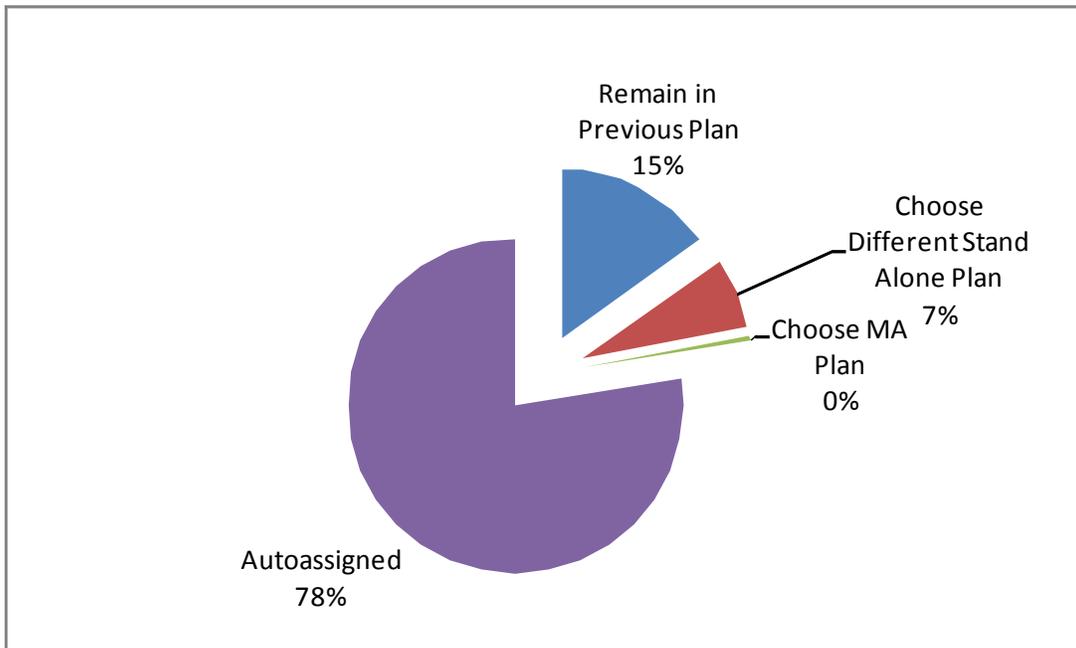
Variable Name	Choose Freestanding Plan vs. Autoassigned			Choose MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
OR	0.955	0.022	<.0001	0.551	0.031	<.0001
PA	0.663	0.011	<.0001	0.479	0.016	<.0001
RI	0.371	0.027	<.0001	0.624	0.036	<.0001
SC	0.607	0.017	<.0001	-0.375	0.032	<.0001
SD	1.125	0.043	<.0001	-1.494	0.131	<.0001
TN	0.650	0.014	<.0001	-0.617	0.031	<.0001
TX	1.282	0.011	<.0001	-0.059	0.019	0.002
UT	0.525	0.026	<.0001	-0.219	0.049	<.0001
VA	1.053	0.015	<.0001	-0.594	0.031	<.0001
VT	0.779	0.031	<.0001	-2.966	0.194	<.0001
WA	0.519	0.013	<.0001	-0.586	0.026	<.0001
WI	0.082	0.015	<.0001	-0.874	0.028	<.0001
WV	1.051	0.021	<.0001	-0.858	0.056	<.0001
WY	1.162	0.055	<.0001	-1.603	0.190	<.0001

Omitted state indicator is NY.

### **5.3 Choice of PDP Plans by Beneficiaries with Plan Moving Above Benchmark, January 2007**

Of the 1.02 million dually eligible beneficiaries (22% of duals in stand-alone plans in December 2006) who saw their plans move above benchmark in January 2007, only 7% (70,644) actively exercised choice and chose a different plan by January 2007 (Exhibit 10). More than three-quarters of those whose plans lost benchmark status (78%, 796,322) were in the new plan to which they were autoassigned in January 2007; this includes beneficiaries who were shifted into specific plans within the same plan sponsor facilitated by CMS. More than one-eighth of beneficiaries in a plan that lost benchmark status for 2007 (15%, 155,581) remained in their December 2006 plan – i.e. they remained in a plan that had lost benchmark status. In addition, a very small handful (about 5,000) of those in plans losing benchmark status moved to MA plans. Exhibit 11 reports means for this population by their choice.

**Exhibit 10: Choices of Dually Eligible Beneficiaries with Stand-Alone PDP Moving Above Benchmark, January 2007**



**Exhibit 11: Characteristics of Dually Eligible Beneficiaries with PDP Moving Above Benchmark, January 2007**

Variable Name	Autoassigned		Chose Stand-alone Plan		Chose Medicare Advantage		Chose to Stay in Previous Plan	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
<b>N</b>	<b>631,822</b>		<b>235,144</b>		<b>4,935</b>		<b>155,591</b>	
<b>Male</b>	<b>0.387</b>	<b>0.4871</b>	<b>0.361</b>	<b>0.4804</b>	<b>0.341</b>	<b>0.4741</b>	<b>0.353</b>	<b>0.4778</b>
<b>Age less than 55</b>	<b>0.324</b>	<b>0.4681</b>	<b>0.253</b>	<b>0.4349</b>	<b>0.250</b>	<b>0.4331</b>	<b>0.272</b>	<b>0.4448</b>
<b>Age 55-64</b>	<b>0.113</b>	<b>0.3170</b>	<b>0.113</b>	<b>0.3160</b>	<b>0.134</b>	<b>0.3404</b>	<b>0.121</b>	<b>0.3257</b>
<b>Age 65-69</b>	<b>0.144</b>	<b>0.3510</b>	<b>0.160</b>	<b>0.3667</b>	<b>0.199</b>	<b>0.3991</b>	<b>0.157</b>	<b>0.3634</b>
<b>Age 75-79</b>	<b>0.118</b>	<b>0.3224</b>	<b>0.127</b>	<b>0.3332</b>	<b>0.115</b>	<b>0.3189</b>	<b>0.122</b>	<b>0.3277</b>
<b>Age 80-84</b>	<b>0.089</b>	<b>0.2844</b>	<b>0.102</b>	<b>0.3027</b>	<b>0.083</b>	<b>0.2763</b>	<b>0.099</b>	<b>0.2989</b>
<b>Age 85-89</b>	<b>0.051</b>	<b>0.2195</b>	<b>0.066</b>	<b>0.2490</b>	<b>0.045</b>	<b>0.2064</b>	<b>0.061</b>	<b>0.2390</b>
<b>Age 90+</b>	<b>0.030</b>	<b>0.1700</b>	<b>0.044</b>	<b>0.2048</b>	<b>0.022</b>	<b>0.1457</b>	<b>0.036</b>	<b>0.1871</b>
<b>Income&gt;FPL</b>	<b>0.047</b>	<b>0.2124</b>	<b>0.070</b>	<b>0.2547</b>	<b>0.059</b>	<b>0.2360</b>	<b>0.090</b>	<b>0.2868</b>
<b>Institutionalized</b>	<b>0.114</b>	<b>0.3183</b>	<b>0.230</b>	<b>0.4205</b>	<b>0.060</b>	<b>0.2367</b>	<b>0.139</b>	<b>0.3456</b>

Exhibit 12 presents results of a logistic regression for choice for the beneficiaries whose plans moved above benchmark, omitting those who chose a Medicare Advantage plan (because their numbers are too small for accurate modeling). Men were less likely than women both to choose a different plan and to remain in a plan that moved above benchmark. Beneficiaries with income above FPL were both more likely to choose away from their autoassigned plan and to remain in their previous plan, paying the premium difference. Those who had previously actively chosen their plan (designated enrollment type “B” in December 2006; indicated by Chooser Dec06 variable = 1) were more likely than others to choose a different plan in 2007 rather than remaining autoassigned and were much more likely to remain in the plan that they had previously actively chosen. Exhibit 13 presents a similar model including variables for institutional status and state indicators; beneficiaries reported as in institutions were much less likely to actively choose or to remain in a previous plan, i.e. were more likely to accept the autoassigned plan. Exhibit 14 shows the odds ratios based on these estimates for beneficiary characteristics in graphic form. After accounting for beneficiary characteristics, odds by state of residence for actively choosing a plan (Exhibit 15) and remaining in the previous plan (Exhibit 16) are shown graphically from smallest to largest.

**Exhibit 12: Logistic Regression for Choice: Remain in Previous Plan, Different Stand-Alone Plan; Null Case is Autoassigned, January 2007**

Variable Name	Choose Different Plan			Remain in Previous Plan		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
Intercept	-2.700	0.0122	<.0001	-3.345	0.011	<.0001
Male	-0.082	0.0084	<.0001	-0.085	0.007	<.0001
Age less than 55	0.298	0.0135	<.0001	0.204	0.011	<.0001
Age 55-64	0.267	0.0161	<.0001	0.177	0.013	<.0001
Age 65-69	0.212	0.0153	<.0001	0.128	0.012	<.0001
Age 75-79	-0.023	0.0168	0.1688	-0.049	0.013	0.0001
Age 80-84	-0.008	0.0179	0.6601	-0.052	0.013	<.0001
Age 85-89	0.059	0.0206	0.004	-0.117	0.016	<.0001
Age 90+	0.092	0.0243	0.0002	-0.222	0.019	<.0001
Income>FPL	0.309	0.0156	<.0001	0.307	0.012	<.0001
Chooser Dec06	0.526	0.0088	<.0001	3.104	0.008	<.0001

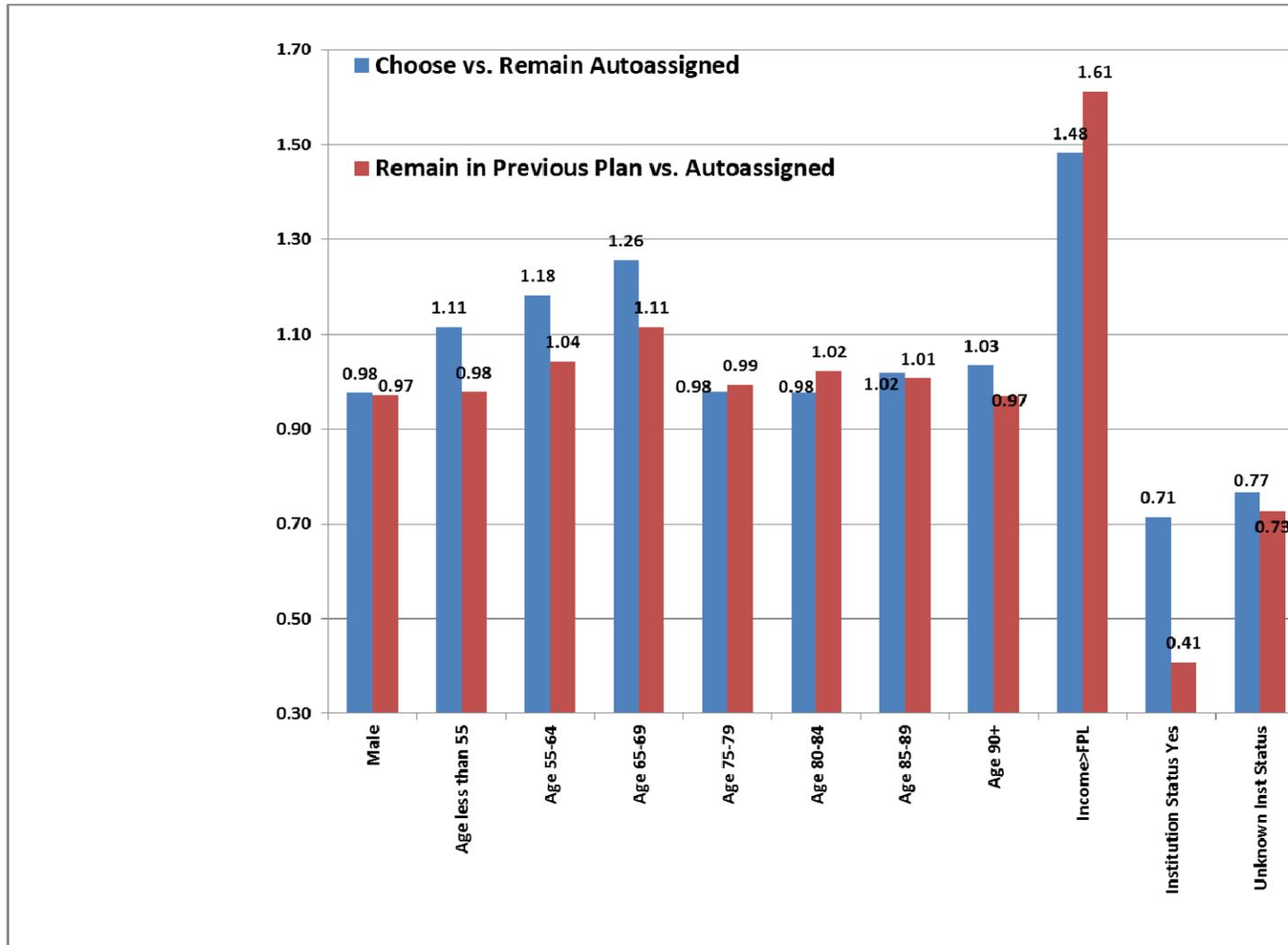
N = 1,022,547 Chi-squared test for probability that all coefficients are zero: p<.0001

**Exhibit 13: Logistic Regression for Choice of Stand-Alone Plan, Remain in Previous Plan  
vs. Autoenrolled (Null Case), Duals with Plan Moving Above Benchmark  
January 2007, Include State and Institutional Status**

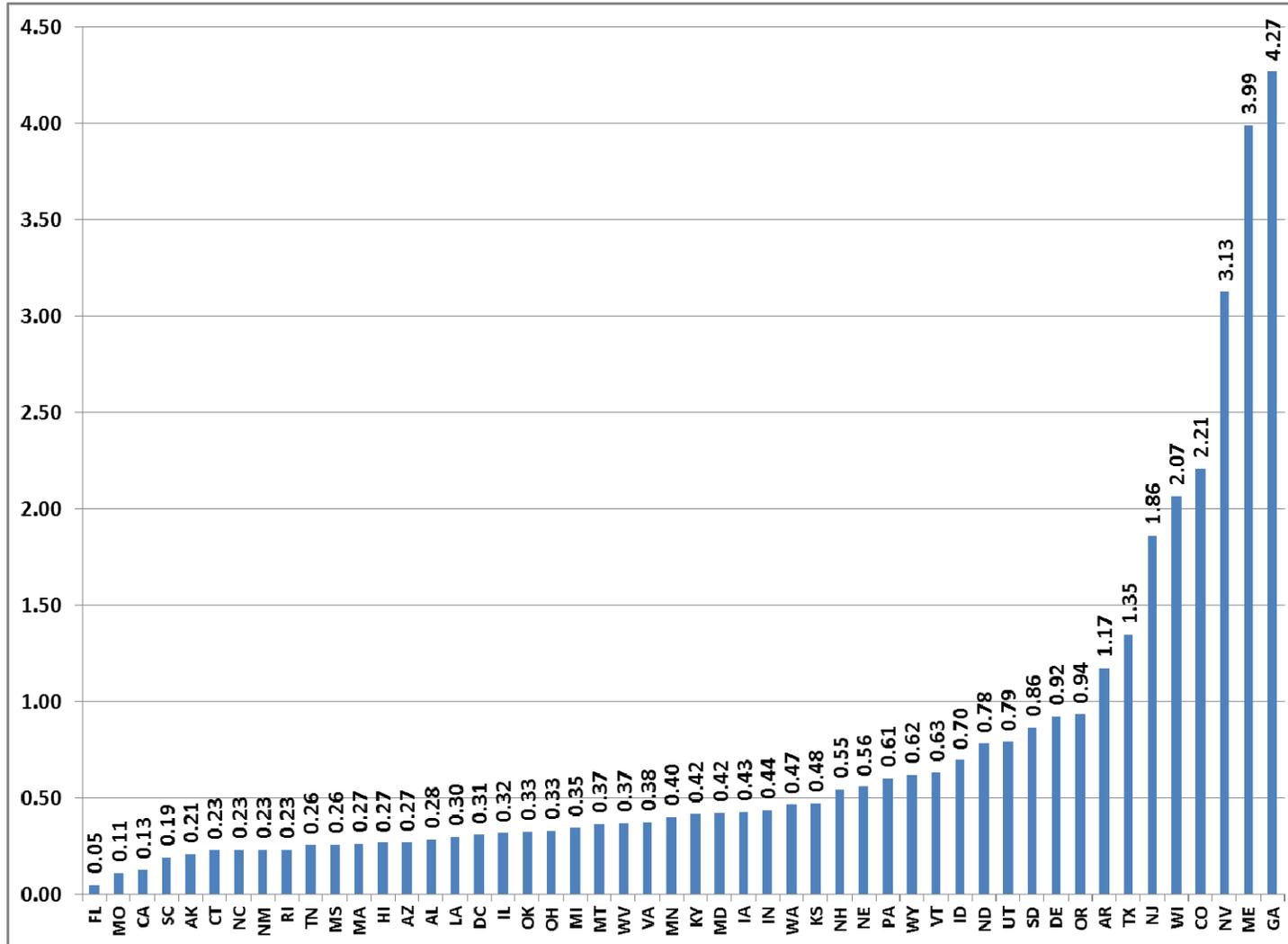
Variable Name	Choose Different Plan			Remain in Previous Plan		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
Intercept	-1.932	0.014	<.0001	-3.789	0.015	<.0001
Male	-0.025	0.009	0.005	-0.030	0.007	<.0001
Age less than 55	0.108	0.014	<.0001	-0.022	0.012	0.055
Age 55-64	0.167	0.017	<.0001	0.042	0.014	0.002
Age 65-69	0.227	0.016	<.0001	0.108	0.013	<.0001
Age 75-79	-0.022	0.018	0.209	-0.008	0.013	ns
Age 80-84	-0.023	0.019	0.223	0.022	0.014	0.123
Age 85-89	0.020	0.022	ns	0.007	0.017	ns
Age 90+	0.034	0.026	ns	-0.030	0.020	0.142
Income>FPL	0.394	0.018	<.0001	0.478	0.014	<.0001
Chooser Dec06	0.808	0.010	<.0001	3.558	0.009	<.0001
Institution Status Yes	-0.337	0.015	<.0001	-0.896	0.012	<.0001
Institution Status Unknown	-0.265	0.046	<.0001	-0.318	0.024	<.0001
AK	-1.576	0.124	<.0001	0.192	0.093	0.0386
AL	-1.258	0.047	<.0001	0.081	0.041	0.045
AR	0.161	0.035	<.0001	1.881	0.033	<.0001
AZ	-1.304	0.034	<.0001	-0.016	0.024	0.5002
CA	-2.073	0.046	<.0001	0.132	0.024	<.0001
CO	0.792	0.124	<.0001	2.205	0.096	<.0001
CT	-1.475	0.060	<.0001	0.713	0.039	<.0001
DC	-1.168	0.156	<.0001	1.253	0.094	<.0001
DE	-0.080	0.105	ns	0.924	0.100	<.0001
FL	-2.960	0.033	<.0001	-1.271	0.016	<.0001
GA	1.452	0.027	<.0001	1.562	0.037	<.0001
HI	-1.316	0.083	<.0001	0.036	0.082	ns
IA	-0.846	0.058	<.0001	0.716	0.045	<.0001
ID	-0.362	0.070	<.0001	1.446	0.052	<.0001
IL	-1.141	0.035	<.0001	1.049	0.025	<.0001
IN	-0.827	0.048	<.0001	1.113	0.037	<.0001
KS	-0.743	0.066	<.0001	0.950	0.050	<.0001
KY	-0.872	0.047	<.0001	0.852	0.039	<.0001
LA	-1.209	0.031	<.0001	0.316	0.026	<.0001

Variable Name	Choose Different Plan			Remain in Previous Plan		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
MA	-1.329	0.032	<.0001	0.424	0.025	<.0001
MD	-0.858	0.060	<.0001	0.988	0.043	<.0001
ME	1.384	0.023	<.0001	-0.670	0.042	<.0001
MI	-1.063	0.053	<.0001	1.028	0.032	<.0001
MN	-0.906	0.057	<.0001	0.992	0.042	<.0001
MO	-2.182	0.056	<.0001	0.149	0.029	<.0001
MS	-1.351	0.087	<.0001	0.494	0.049	<.0001
MT	-1.007	0.136	<.0001	1.260	0.088	<.0001
NC	-1.467	0.038	<.0001	0.832	0.025	<.0001
ND	-0.246	0.118	0.036	0.636	0.100	<.0001
NE	-0.583	0.069	<.0001	0.911	0.057	<.0001
NH	-0.603	0.073	<.0001	1.266	0.052	<.0001
NJ	0.621	0.024	<.0001	1.866	0.026	<.0001
NM	-1.467	0.049	<.0001	-0.675	0.040	<.0001
NV	1.140	0.029	<.0001	0.950	0.050	<.0001
OH	-1.102	0.027	<.0001	0.425	0.023	<.0001
OK	-1.116	0.052	<.0001	0.905	0.038	<.0001
OR	-0.067	0.048	0.160	1.244	0.041	<.0001
PA	-0.502	0.033	<.0001	1.381	0.025	<.0001
RI	-1.467	0.093	<.0001	0.323	0.069	<.0001
SC	-1.643	0.091	<.0001	0.904	0.043	<.0001
SD	-0.146	0.111	0.188	1.227	0.102	<.0001
TN	-1.356	0.034	<.0001	0.459	0.026	<.0001
TX	0.299	0.014	<.0001	1.463	0.016	<.0001
UT	-0.234	0.062	0.000	1.356	0.050	<.0001
VA	-0.981	0.047	<.0001	0.846	0.037	<.0001
VT	-0.460	0.071	<.0001	0.261	0.076	0.001
WA	-0.758	0.038	<.0001	1.228	0.029	<.0001
WI	0.725	0.019	<.0001	1.916	0.0245	<.0001
WV	-0.998	0.073	<.0001	1.039	0.0489	<.0001
WY	-0.472	0.151	0.002	1.097	0.1242	<.0001

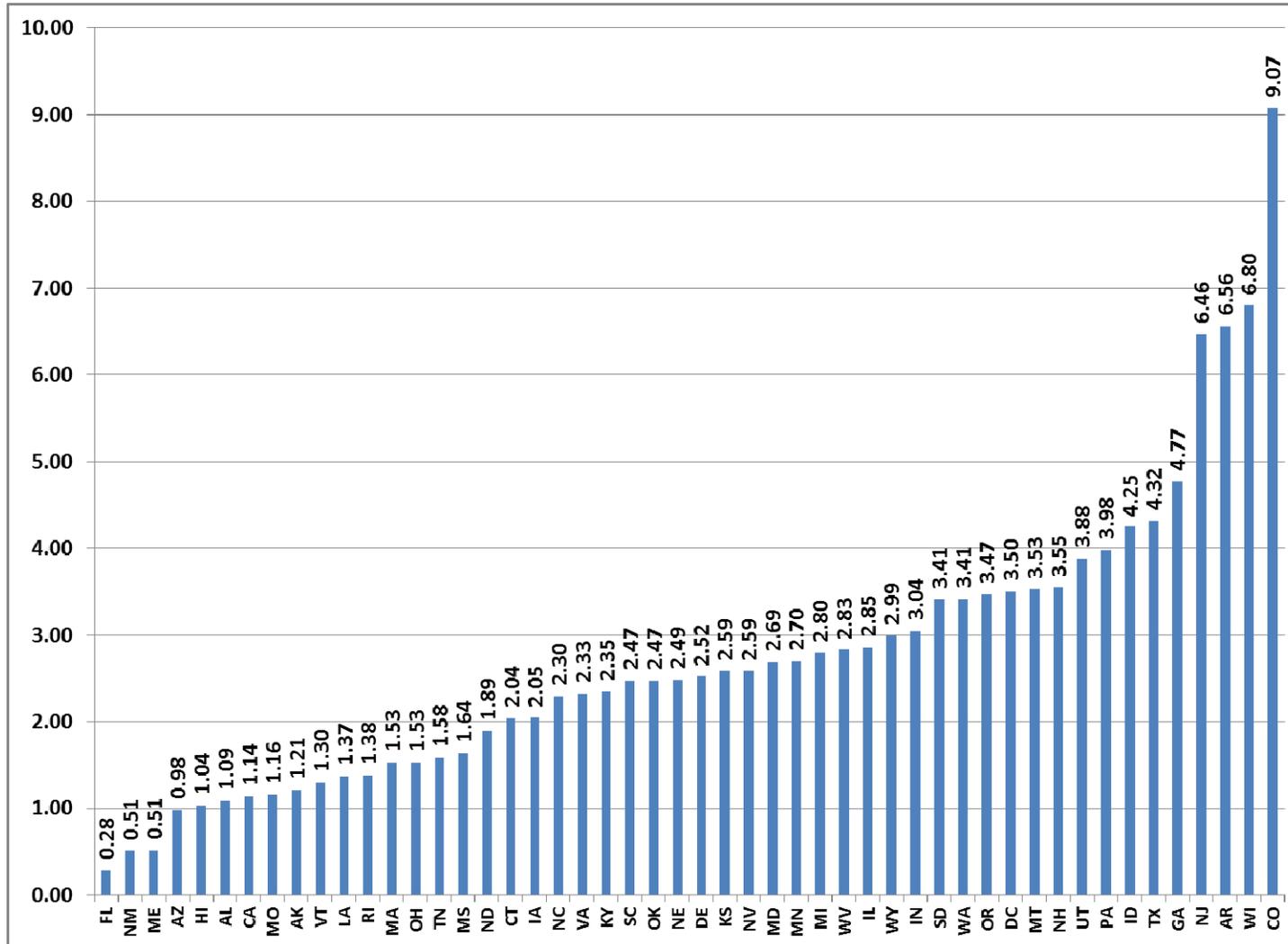
**Exhibit 14: Estimated Odds of Choosing Different Plan, Remaining in Past Plan vs. Remaining Autoenrolled, Beneficiary Characteristics**



**Exhibit 15: Estimated Odds of Choosing Different Plan vs. Remaining Autoenrolled, States Ranked Smallest to Largest Odds**



**Exhibit 16: Estimated Odds of Remaining in Past Plan vs. Remaining Autoenrolled, States Ranked Smallest to Largest Odds**



Diagnosis, race, and RxRisk reflecting prior drug use are available for the 5% sample, which for the group with plans moving above benchmark was too small to include state fixed effects. As with the previous choice models, men were less likely to make active choices, and age carried less explanatory power when diagnostic indicators was included. The special group indicated by income greater than FPL were more likely to choose a different plan rather than remaining autoassigned, but were less likely than average, other things constant, to stay with a plan moving above benchmark. Those in institutions were more likely to stay with the autoassigned plan. Black beneficiaries were less likely than Whites to actively choose a plan but more likely to stay with a plan moving above benchmark; Hispanic beneficiaries were less likely than Whites to do either.

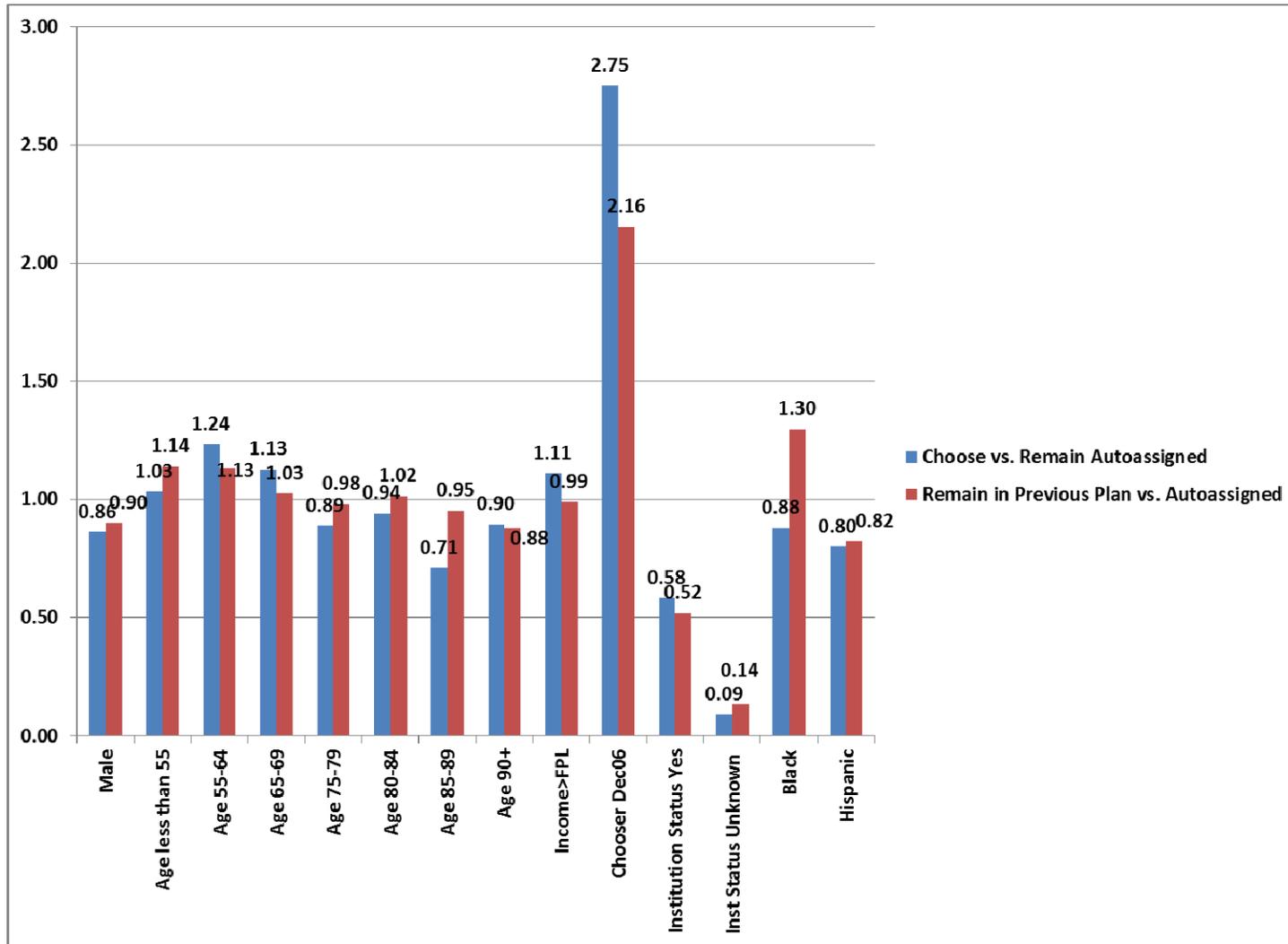
The graphical presentation of these results (Exhibit 17 for beneficiary characteristics, Exhibit 18 for diagnoses and RxRisk) demonstrate more clearly that past choice was a very important predictor of future choice for beneficiaries in plans that moved above benchmark in December 2006.

**Exhibit 17: Logistic Regression for Choice of Stand-Alone Plan, Remain in Previous Plan vs. Autoenrolled (Null Case), Duals with Plan Moving Above Benchmark January 2007, Include Diagnosis**

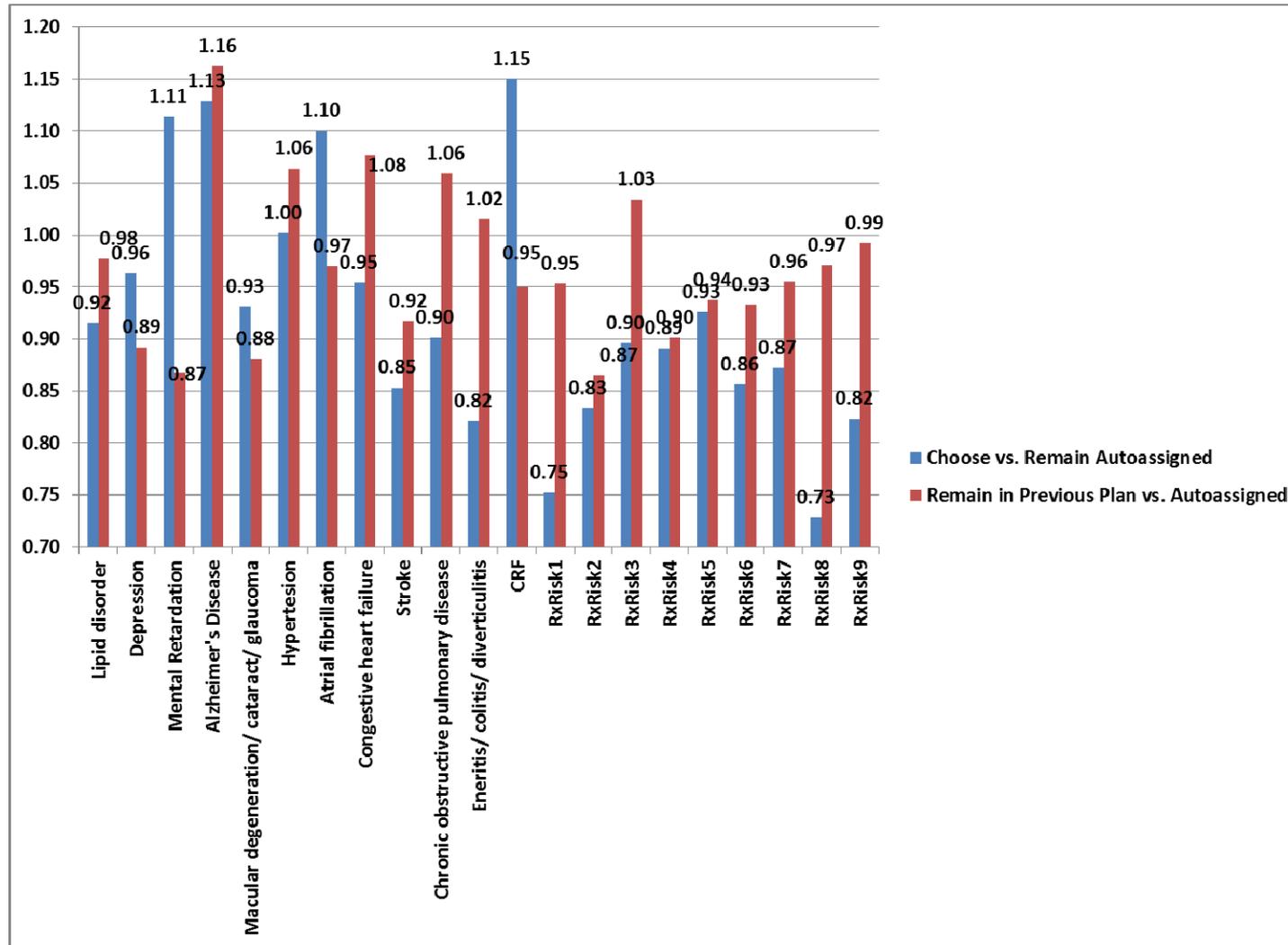
Variable Name	Choose Different Plan			Remain in Previous Plan		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
<b>Intercept</b>	-2.186	0.083	<.0001	-1.396	0.055	<.0001
<b>Male</b>	-0.148	0.042	0.001	-0.105	0.027	0.000
<b>Age less than 55</b>	0.032	0.072	ns	0.131	0.046	0.004
<b>Age 55-64</b>	0.211	0.078	0.007	0.126	0.051	0.014
<b>Age 65-69</b>	0.121	0.076	0.113	0.026	0.050	ns
<b>Age 75-79</b>	-0.117	0.084	0.161	-0.019	0.052	ns
<b>Age 80-84</b>	-0.060	0.089	ns	0.016	0.056	ns
<b>Age 85-89</b>	-0.339	0.114	0.003	-0.048	0.068	ns
<b>Age 90+</b>	-0.111	0.127	ns	-0.128	0.084	0.129
<b>Income&gt;FPL</b>	0.105	0.078	0.177	-0.010	0.054	ns
<b>Chooser Dec06</b>	1.012	0.042	<.0001	0.768	0.029	<.0001
<b>Institution Status Yes</b>	-0.537	0.069	<.0001	-0.654	0.047	<.0001
<b>Institution Status Unknown</b>	-2.385	0.090	<.0001	-1.996	0.048	<.0001
<b>Black</b>	-0.128	0.052	0.014	0.261	0.031	<.0001
<b>Hispanic</b>	-0.222	0.073	0.002	-0.195	0.047	<.0001
<b>Lipid disorder</b>	-0.089	0.044	0.043	-0.023	0.028	ns
<b>Depression</b>	-0.038	0.046	ns	-0.114	0.030	0.000
<b>Mental Retardation</b>	0.108	0.083	0.191	-0.141	0.060	0.019
<b>Alzheimer's Disease</b>	0.122	0.083	0.143	0.150	0.053	0.005
<b>Macular degeneration/ cataract/ glaucoma</b>	-0.072	0.046	0.121	-0.127	0.030	<.0001
<b>Hypertension</b>	0.002	0.049	ns	0.062	0.032	0.049
<b>Atrial fibrillation</b>	0.096	0.059	0.107	-0.031	0.038	ns
<b>Congestive heart failure</b>	-0.047	0.065	ns	0.074	0.040	0.066
<b>Stroke</b>	-0.159	0.061	0.009	-0.087	0.038	0.022

Variable Name	Choose Different Plan			Remain in Previous Plan		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
<b>Chronic obstructive pulmonary disease</b>	-0.104	0.057	0.069	0.057	0.035	0.104
<b>Enteritis/ colitis/ diverticulitis</b>	-0.197	0.072	0.006	0.015	0.043	ns
<b>CRF</b>	0.140	0.082	0.087	-0.052	0.054	ns
<b>RxRisk1</b>	-0.285	0.146	0.051	-0.048	0.089	ns
<b>RxRisk2</b>	-0.183	0.092	0.046	-0.145	0.061	0.018
<b>RxRisk3</b>	-0.109	0.099	ns	0.033	0.064	ns
<b>RxRisk4</b>	-0.116	0.093	ns	-0.104	0.063	0.097
<b>RxRisk5</b>	-0.077	0.087	ns	-0.066	0.059	ns
<b>RxRisk6</b>	-0.155	0.085	0.069	-0.070	0.056	ns
<b>RxRisk7</b>	-0.137	0.077	0.074	-0.046	0.051	ns
<b>RxRisk8</b>	-0.318	0.074	<.0001	-0.030	0.048	ns
<b>RxRisk9</b>	-0.194	0.066	0.003	-0.008	0.044	ns

**Exhibit 18: Estimated Odds of Choosing Different Plan, Remaining in Past Plan vs. Remaining Autoenrolled, Beneficiary Characteristics**



**Exhibit 19: Estimated Odds of Choosing Different Plan, Remaining in Past Plan vs. Remaining Autoenrolled, Beneficiary Diagnoses and Past Medicaid Prescription Drug Use (RxRisk Category)**

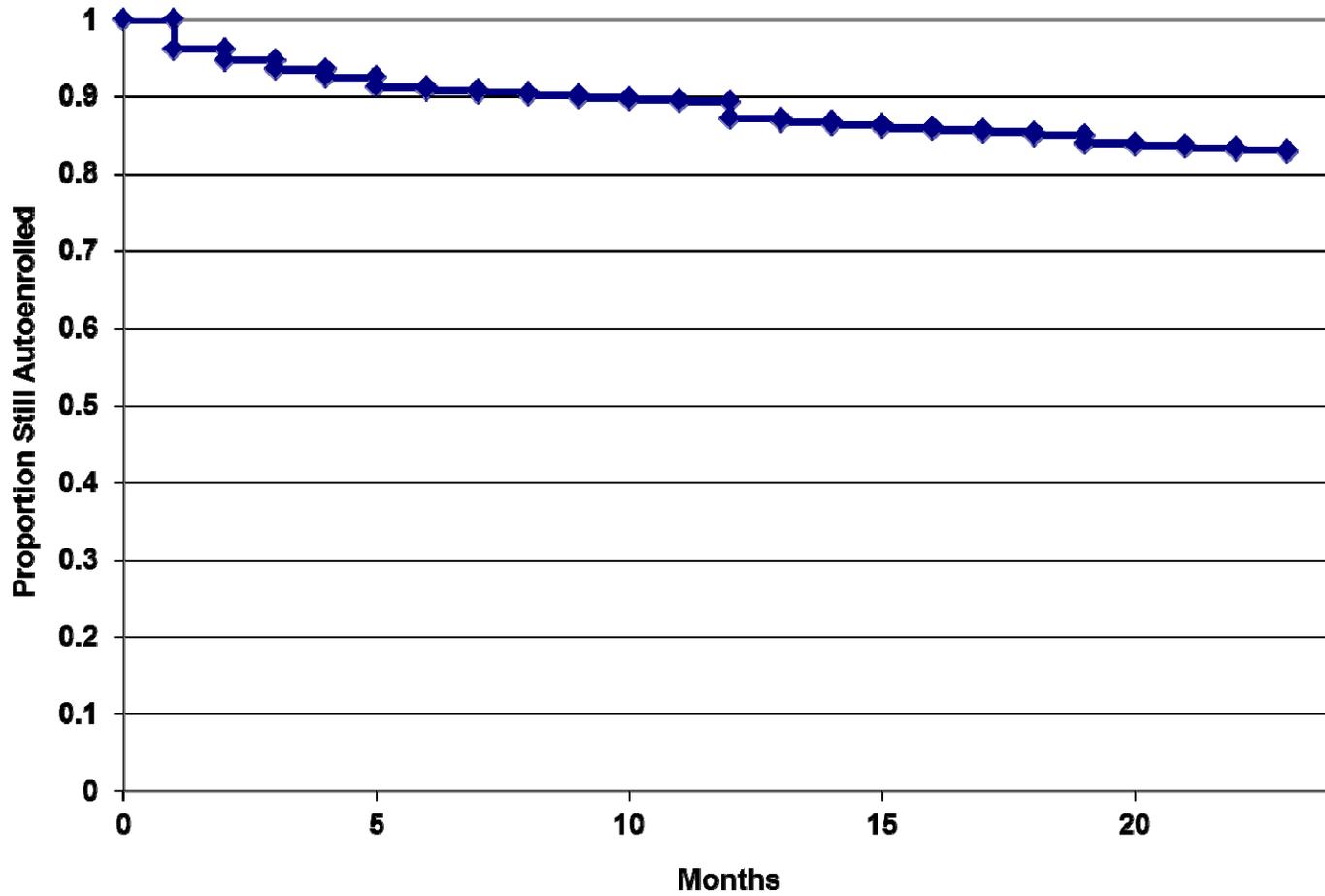


#### **5.4 Choosing Away from Autoassigned Plans over Time**

Beneficiaries who did not choose away from their plan of autoenrollment by the beginning of Part D in January 2006 had the chance to make another choice in any succeeding month. In order to assess the “churn” in PDP enrollment for duals, a life table analysis was carried out. This presents the proportion of eligible individuals enrolled in their original PDP in any one month who choose another PDP. It does not count beneficiaries as choosers who leave their original PDP for reasons other than active choice. The possible reasons for censoring (i.e. removal from the sample) are loss of Medicaid eligibility, plan moving above benchmark, and death. Exhibit 19 presents the survival curve graphically. Exhibit 20 presents the computations on which the survival curve is based. The cumulative probability that a beneficiary would remain in the January 2006 plan of autoenrollment through December 2007, assuming he or she did not become ineligible for Medicaid or die and that the plan did not leave Part D or go above benchmark, was .83.

The statistics show that the probability that a beneficiary will choose away from his autoenrolled plan in any month, conditional on having remained eligible and in the plan through the beginning of that month, was greatly elevated in February 2006, after the first month of experience with coverage, and substantially greater in the next four months of the Part D program (see Conditional Probability Choosing Away column in Exhibit 21). It was also elevated in the first month of the next plan year (January 2007) and in August of 2007. Note the large number of beneficiaries censored in January 2007 as their plans went above benchmark; this took them out of the pool of beneficiaries able to make a choice to stay with or choose away from their first plan of autoassignment.

**Exhibit 20: Proportion Autoassigned in January 2006 Who Remain in Autoassigned Plan, January 2006 (0) through December 2007 (23)**

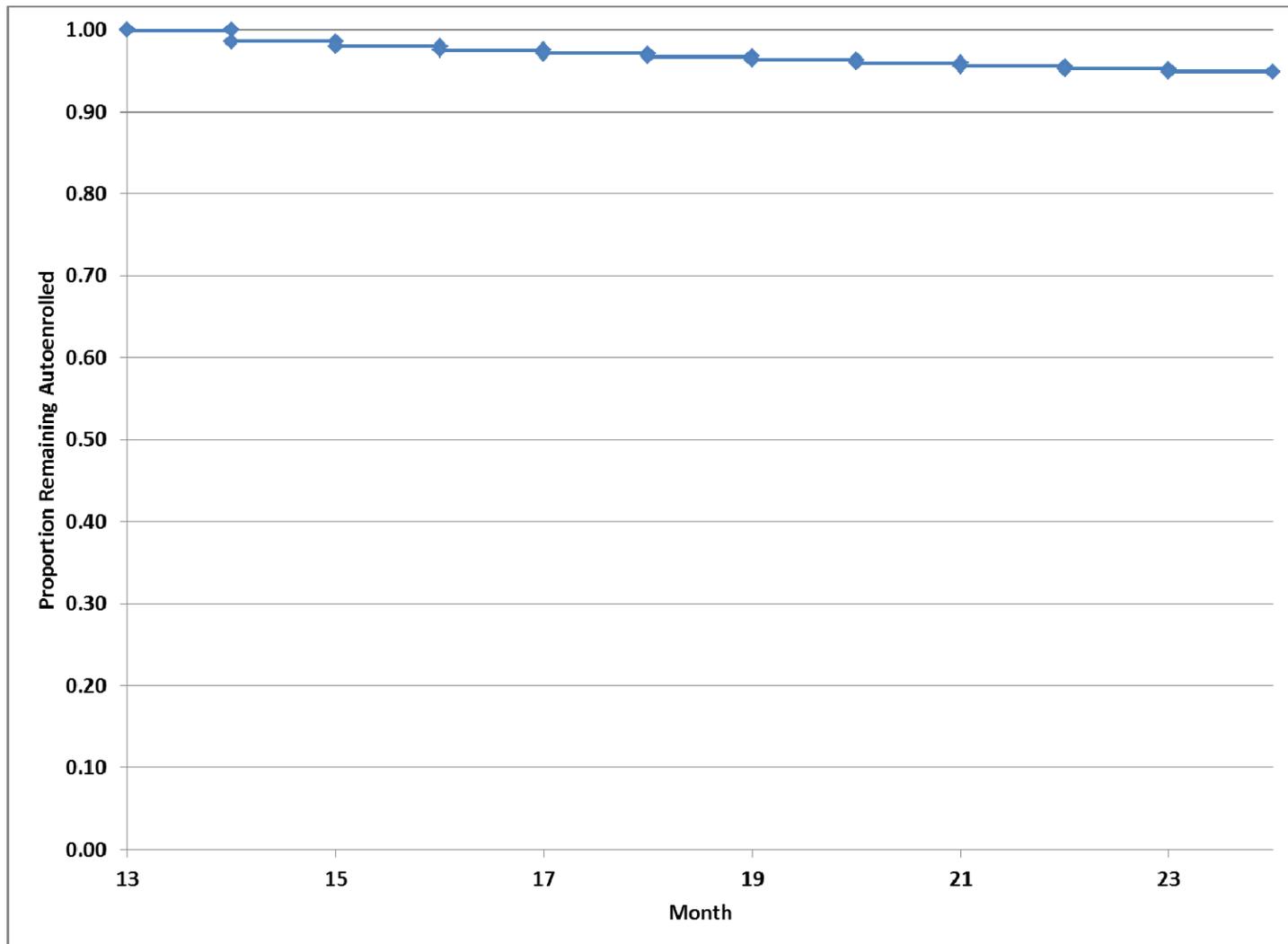


Note: Computed by authors from data set described in this report. Censoring conditions include loss of Medicaid eligibility, plan moving above benchmark and death.

**Exhibit 21: Proportion of Dually Eligible Beneficiaries Remaining in Plan of January 2006 Autoassignment, February 2006 – December 2007**

Month	Chose Away from Autoassigned Plan	Censored*	Effective Sample Size	Conditional Probability Choosing Away	Standard Error	Proportion Remaining in Autoassigned Plan	Cumulative Proportion Chosen Away
January-06	-	-	3,781,758	-	-	1.0000	0.0000
February-06	142,872	66,313	3,748,602	0.03810	0.000099	1.0000	0.0000
March-06	50,976	38,058	3,553,544	0.01430	0.000063	0.9619	0.0381
April-06	44,098	38,253	3,464,413	0.01270	0.000060	0.9481	0.0519
May-06	37,451	31,911	3,385,233	0.01110	0.000057	0.9360	0.0640
June-06	45,701	29,396	3,317,128	0.01380	0.000064	0.9257	0.0743
July-06	14,315	24,237	3,244,611	0.00441	0.000037	0.9129	0.0871
August-06	11,475	21,328	3,207,513	0.00358	0.000033	0.9089	0.0911
September-06	12,417	21,367	3,174,691	0.00391	0.000035	0.9056	0.0944
October-06	10,173	19,851	3,141,665	0.00324	0.000032	0.9021	0.0979
November-06	9,654	19,388	3,111,872	0.00310	0.000032	0.8992	0.1008
December-06	8,396	20,993	3,082,028	0.00272	0.000030	0.8964	0.1036
January-07	65,572	672,268	2,727,001	0.02400	0.000093	0.8939	0.1061
February-07	13,228	18,520	2,316,035	0.00571	0.000050	0.8724	0.1276
March-07	9,025	12,952	2,287,071	0.00395	0.000041	0.8675	0.1325
April-07	10,328	13,222	2,264,959	0.00456	0.000045	0.8640	0.1360
May-07	7,750	11,030	2,242,505	0.00346	0.000039	0.8601	0.1399
June-07	8,426	10,660	2,223,910	0.00379	0.000041	0.8571	0.1429
July-07	8,571	10,055	2,205,127	0.00389	0.000042	0.8539	0.1461
August-07	26,721	10,115	2,186,471	0.01220	0.000074	0.8506	0.1494
September-07	8,310	9,672	2,149,856	0.00387	0.000042	0.8402	0.1598
October-07	7,054	8,971	2,132,225	0.00331	0.000039	0.8369	0.1631
November-07	6,852	11,106	2,115,132	0.00324	0.000039	0.8341	0.1659
December-07	7,567	14,472	2,095,491	0.00361	0.000041	0.8314	0.1686

**Exhibit 22: Proportion Above Benchmark Autoassigned in January 2007(13) Who Remain in Autoassigned Plan through December 2007 (23)**



**Exhibit 23: Proportion of Reassigned Dually Eligible Beneficiaries Remaining in Plan of January 2007 Autoassignment,  
February 2007 – December 2007**

<b>Month</b>	<b>Chose Away from Autoassigned Plan</b>	<b>Censored*</b>	<b>Effective Sample Size</b>	<b>Conditional Probability Choosing Away</b>	<b>Standard Error</b>	<b>Proportion Remaining in Autoassigned Plan</b>	<b>Cumulative Proportion Chosen Away</b>
January-07	--	--	796322	--	--	1.0000	0.0000
February-07	11384	261	796192	0.01430	0.000133	1.0000	0.0000
March-07	4171	156	784599	0.00532	0.000082	0.9857	0.0143
April-07	4164	162	780269	0.00534	0.000082	0.9805	0.0195
May-07	3009	148	775950	0.00388	0.000071	0.9752	0.0248
June-07	3194	136	772799	0.00413	0.000073	0.9714	0.0286
July-07	3011	111	769482	0.00391	0.000071	0.9674	0.0326
August-07	2992	166	766332	0.00390	0.000071	0.9636	0.0364
September-07	3134	312	763101	0.00411	0.000073	0.9599	0.0401
October-07	2819	223	759700	0.00371	0.000070	0.9559	0.0441
November-07	2782	353	756593	0.00368	0.000070	0.9524	0.0476
December-07	4663	427	753421	0.00619	0.000090	0.9489	0.0511

## **6 Discussion**

### **6.1 Summary**

The descriptive analysis presented here depicts the choices of dually eligible beneficiaries in four situations: at the start of Part D, a one-time event that still can provide insight into choice and access for dual beneficiaries; as new individuals become dually eligible; at the beginning of 2007, when a group of beneficiaries found themselves in PDPs which had moved above benchmark; and over time as beneficiaries make month-to-month decisions about whether to stay in an autoassigned PDP. The analyses reveal some consistent patterns in characteristics of those who actively choose prescription drug plans: women are more likely to choose, for example. It appears the beneficiaries younger than 65, eligible as Disabled, are significantly less likely to choose than their aged counterparts. Age categories for those older than 65 appear to be associated with different propensities to choose until diagnoses are included in the models, suggesting that the effect of age on propensity to actively choose is in reality an effect of diagnosis. Beneficiaries residing in different states face different policy and market environments with respect to Medicare Advantage, causing estimated state fixed effects to vary across states and to explain substantial variation.

Of greatest interest were hypotheses concerning the association of cognitive impairment and diagnosis with the probability of choice. The age differences noted above are part of this picture. Diagnosis information, available only for a 5% sample, did not reveal striking patterns in choice. The past use of prescription drugs, indicated by an index created for another purpose but highly associated with complexity of drug use, does appear to be associated with propensity to choose: those with higher-stakes drug use in the past year (drug use associated with conditions leading to greater institutionalization risk) were more likely to choose a stand-alone drug plan in models where these variables could be included.

### **6.2 Limitations**

The study relies on accurate month-to-month measurement of plan enrollment, and data systems at the beginning of Part D implementation were known to have problems. Several variables, most notably the variable for institutional status from the enrollment file, have not

been adequately investigated; this variable in particular included many unexplained missing values.

### **6.3 Directions for Future Research**

This study has only scratched the surface of what can be learned from Part D enrollment data. Myriad issues remain to be investigated in the descriptive analyses. But most important is continuing future studies to monitor the wellbeing of dually eligible beneficiaries navigating these important choices.

#### **Loss of Benchmark Status**

The data available to this study stopped at December 2007, so only one changeover point for plans going above benchmark could be studied (December 2006-January 2007). In addition, CMS actively mitigated this change by administratively assigning beneficiaries to very similar plans within the same companies, so that choice behavior was guided. In later years, the number of beneficiaries affected by plans moving above benchmark is known to be much greater, providing better insight into choice patterns. It is also important to study trends over time, as beneficiaries learn about how to navigate the program.

#### **New Dually Eligible Beneficiaries**

The choices exercised by new duals should be further explored, especially because of the continuing importance of the entry of new dually eligible beneficiaries into Part D. Medicaid beneficiaries who become Medicare-eligible are of several distinct types. Persons who meet the definition for Social Security disability may also meet state eligibility standards for Medicaid due to low income and assets, and/or may have high health care expenditures related to their condition that makes them Medicaid-eligible in states with provisions for the medically needy. Individuals who qualify for Social Security disability payments under the Old Age, Survivors and Disability Insurance (OASDI) program eventually qualify for Medicare, but only after a two-year waiting period. Thus one stream into dual eligibility is persons ending this two-year waiting period, eligible for Medicaid and becoming eligible for Medicare. A second stream is made up of older individuals who qualify for Medicaid due to low income and assets and/or medically need by state definitions who turn 65 years of age and thus become Medicare-eligible for the first time. Medicaid recipients who qualify due to end stage renal disease make up a third stream.

These two pathways suggest that there may be some differences in the choice patterns for new duals autoassigned to a benchmark PDP.

1. Those previously eligible for Medicare have been eligible for Part D and may have already been enrolled in a PDP, paying the required premium. At the least, they are assumed to have been exposed previously to information about Part D. However, lower income Medicare beneficiaries, those likely to qualify for Medicaid, may have avoided enrolling in Part D to premium costs. A further group within this pathway are Medicare beneficiaries whose incomes are low enough to qualify for the Low Income Subsidy (but not Medicaid) so that they are enrolled in a benchmark plan prior to Medicaid eligibility. Further, the duals previously eligible for Medicare only are more likely to have high health expenses not covered by Medicare which tip them into Medicaid eligibility – we hypothesize that they are more likely to be nursing home residents, for example – and may have more chronic diseases and conditions than duals previously eligible for Medicaid only. This may make choosing an appropriate PDP more valuable to them, making them more likely to reject the autoassigned plan.

It should be possible to examine whether individuals coming to dual eligibility from Medicare have special characteristics: more likely to be institutional residents; more likely to be enrolled in an above-benchmark plan. Medicare beneficiaries who enter dual eligibility by becoming eligible for Medicaid may have more experience with Medicare Part D than duals who enter from Medicaid and are thus more likely to make active PDP choices.

2. Those previously eligible for Medicaid but not Medicare have not been eligible for enrollment in Part D. This may affect their knowledge of Part D as they enroll. They are transitioning from Medicaid drug coverage to Part D similarly to the beneficiaries in the January 2006 transition period.

### **Is Choice Based on Plan Features?**

It was beyond the scope of the current analysis to investigate whether beneficiaries using certain drugs were able to choose LIS plans that covered them. Of course, this is of interest only to the extent that plans vary in their coverage of specific drugs. Analyses for high-risk populations, for example the chronically mentally ill, could fit choice models that include variables reflecting the beneficiary's past utilization and coverage features of the plans available to him or her.

## 6.4 Policy Implications

Although PDPs enrolling dually eligible beneficiaries must meet coverage standards, formularies vary. While individual choice allows beneficiaries to match their PDPs to drug needs, duals who are less able to make choices may experience gaps in access. Stable, reliable access to prescription drugs is crucially important to good health, especially for individuals with chronic illness. Dually eligible beneficiaries are empowered to choose plans that best meet their needs. However, if they do not exercise this choice, they may find themselves in jeopardy. Continuing monitoring of the choice patterns of new duals and autoassigned duals after benchmark changes can assist in the design of policies to assure drug access based on individual choice. Patterns of duals' choice behavior can suggest policies for state Medicaid programs and others to support choice. Results are also a first step in research to assess whether failure to choose is associated with health outcomes.

## 7 Appendix

### Appendix Exhibit 1 : State Medicare Advantage Penetration, Population Density and Benchmark Plans

State Abbreviation	Medicare Advantage Enrollment as Proportion of Medicare Beneficiaries 2005	Population Density, 2006	Low Income Subsidy (Benchmark) Plans	
			2006	2007
AK	0	1.18	8	17
AL	0.079	90.61	9	17
AR	0.001	54.07	13	23
AZ	0.26	54.49	6	10
CA	0.31	230.70	10	14
CO	0.258	45.83	10	19
CT	0.053	719.36	11	20
DC	0.062	9511.04	15	21
DE	0.003	436.65	15	21
FL	0.186	335.43	6	10
GA	0.018	161.12	14	21
HI	0.322	198.61	8	18
IA	0.045	53.06	14	20
ID	0.091	17.70	14	20
IL	0.045	228.81	15	23
IN	0.021	175.70	13	19
KS	0.026	33.68	11	20
KY	0.016	106.21	13	19
LA	0.112	97.34	11	12
MA	0.159	824.79	11	20
MD	0.04	574.21	15	21
ME	0	42.61	14	21
MI	0.014	177.50	14	26
MN	0.152	64.67	14	20
MO	0.117	85.09	10	15
MS	0	61.76	12	21
MT	0.004	6.50	14	20
NC	0.052	182.03	13	21
ND	0.009	9.23	14	20
NE	0.034	22.90	14	20
NH	0.006	146.28	14	21
NJ	0.076	1162.64	14	20

State Abbreviation	Medicare Advantage Enrollment as Proportion of Medicare Beneficiaries 2005	Population Density, 2006	Low Income Subsidy (Benchmark) Plans	
			2006	2007
NM	0.154	16.01	8	14
NV	0.275	22.70	7	9
NY	0.18	409.98	15	16
OH	0.124	280.66	10	22
OK	0.077	52.05	12	20
OR	0.311	38.31	15	20
PA	0.237	278.27	15	26
RI	0.328	1014.61	11	20
SC	0.005	144.12	16	26
SD	0.001	10.39	14	20
TN	0.082	147.74	9	17
TX	0.075	89.26	16	19
UT	0.012	31.45	14	20
VA	0.015	193.13	16	21
VT	0	67.03	11	20
WA	0.148	95.76	15	20
WI	0.07	102.59	14	21
WV	0.02	75.06	15	26
WY	0	5.28	14	20

Sources: Medicare Advantage penetration: (Kaiser Family Foundation 2010); population density: state population : (U. S. Bureau of the Census 2010) state land area (U. S. Bureau of the Census 2010); LIS Plans: (Hoadley, Summer, Cubanski, Neuman et al. 2009)

**Appendix Exhibit 2: Logistic Regression for Choice: Choose Different Stand-Alone Plan,  
Choose MA Plan; Null Case is Remain in Autoassigned Plan, January 2006  
(No State Indicators)**

Variable Name	Log Odds Stand Alone Plan vs. Autoassigned			Log Odds MA Plan vs. Autoassigned		
	Estimated Coefficient	Standard Error	Significance	Estimated Coefficient	Standard Error	Significance
<b>Intercept</b>	<b>-1.6902</b>	<b>0.00378</b>	<b>&lt;.0001</b>	<b>-1.8272</b>	<b>0.00409</b>	<b>&lt;.0001</b>
<b>Male</b>	<b>-0.0667</b>	<b>0.00275</b>	<b>&lt;.0001</b>	<b>-0.0653</b>	<b>0.00338</b>	<b>&lt;.0001</b>
<b>Age 0 -21</b>	<b>0.2883</b>	<b>0.0243</b>	<b>&lt;.0001</b>	<b>-1.5613</b>	<b>0.0599</b>	<b>&lt;.0001</b>
<b>Age 21-44</b>	<b>-0.1843</b>	<b>0.00488</b>	<b>&lt;.0001</b>	<b>-0.6179</b>	<b>0.00578</b>	<b>&lt;.0001</b>
<b>Age 45-54</b>	<b>0.0133</b>	<b>0.00501</b>	<b>0.0078</b>	<b>-0.5362</b>	<b>0.00615</b>	<b>&lt;.0001</b>
<b>Age 55-64</b>	<b>0.0631</b>	<b>0.00515</b>	<b>&lt;.0001</b>	<b>-0.4393</b>	<b>0.00628</b>	<b>&lt;.0001</b>
<b>Age 65-69</b>	<b>0.0256</b>	<b>0.00503</b>	<b>&lt;.0001</b>	<b>-0.1642</b>	<b>0.00562</b>	<b>&lt;.0001</b>
<b>Age 75-79</b>	<b>0.0416</b>	<b>0.00529</b>	<b>&lt;.0001</b>	<b>-0.00923</b>	<b>0.00576</b>	<b>0.1092</b>
<b>Age 80-84</b>	<b>0.0992</b>	<b>0.00562</b>	<b>&lt;.0001</b>	<b>-0.0446</b>	<b>0.0063</b>	<b>&lt;.0001</b>
<b>Age 85-89</b>	<b>0.1715</b>	<b>0.00652</b>	<b>&lt;.0001</b>	<b>-0.043</b>	<b>0.00757</b>	<b>&lt;.0001</b>
<b>Age 90+</b>	<b>0.2559</b>	<b>0.00765</b>	<b>&lt;.0001</b>	<b>-0.0465</b>	<b>0.00929</b>	<b>&lt;.0001</b>
<b>Income&gt;FPL</b>	<b>0.5206</b>	<b>0.00469</b>	<b>&lt;.0001</b>	<b>-0.2831</b>	<b>0.00772</b>	<b>&lt;.0001</b>

N= 5,013,031

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