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MEDICARE HEALTH OUTCOMES SURVEY

FINAL REPORT

ON

HEALTH-RELATED QUALITY OF LIFE AND QUALITY OF CARE IN SPECIALIZED MEDICARE MANAGED CARE PLANS

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CMS CENTERS for MEDICARE & MEDICAID SERVICES

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Table of Contents

List of Tables

List of Figures

Executive Summary

The primary purpose of this report is to provide the results of an investigation of the demographics, health status, function, Health-Related Quality of Life (HRQOL), and quality of care received by Medicare beneficiaries enrolled in specialized managed care plans and to compare the results with those of Medicare Advantage (MA) beneficiaries enrolled in traditional models of care. An additional research question addresses survey response rates and characteristics of responders and non-responders among enrollees in specialized plans relative to their traditional MA counterparts.

The analyses were conducted using Medicare data from the 2008-2009 Health Outcomes Survey (HOS) *Cohorts 11-12 Baseline* and 2008-2009 Health Outcomes Survey-Modified (HOS-M) data.

BACKGROUND

The Centers for Medicare & Medicaid Services (CMS) is responsible for administering the Medicare and Medicaid programs, and monitors the quality of care provided by Medicare managed care organizations (MCOs). A Medicare Advantage Organization (MAO) is an MCO participating in Medicare Part C, an alternative to the original fee-for-service Medicare, and may be a coordinated care plan, including plans offered by health maintenance organizations (HMOs); provider-sponsored organizations (PSOs); regional or local preferred provider organizations (PPOs); private fee-for-service (PFFS) plans; medical savings accounts (MSA) plans and special needs plans (SNPs). Almost one quarter of Medicare's 46 million beneficiaries are enrolled in MAOs.[1]

The Program of All-Inclusive Care for the Elderly (PACE) is a capitated benefit enacted by the Balanced Budget Act (BBA) of 1997 and not considered part of the MA program. PACE Organizations provide medical and social services to the frail elderly, featuring a comprehensive service delivery system of acute and long term care services and integrated Medicare and Medicaid financing.

SNPs were created under the Medicare Modernization Act (MMA) of 2003, and the Medicare Improvements for Patients and Providers Act (MIPPA) of 2008 extended the SNP authority through December 31, 2010.[2] The Patient Protection and Affordable Care Act of 2010 has further extended the authority through December 31, 2013.[3] SNPs are offered by MAOs and focus on individuals who require more coordinated care than anticipated by other types of Medicare Advantage plans. Many beneficiaries who receive care from SNPs are dually eligible for Medicare and Medicaid and have multiple co-morbid conditions. Three types of special needs individuals may be targeted for SNP enrollment: institutionalized beneficiaries, persons who are dually eligible for Medicare and Medicaid, and persons with severe or disabling chronic conditions. The goal of these plans is to "…focus on monitoring health status, managing chronic diseases, avoiding inappropriate hospitalizations and helping beneficiaries move from high risk to lower risk on the care continuum." [2]

A subgroup of dual eligible SNPs formerly were CMS demonstration projects prior to the legislated creation of MA SNPs, and similar to the PACE program, provide comprehensive and coordinated care while extending the eligibility. These targeted SNPs are Minnesota Senior/Minnesota Disability Health Options, Wisconsin Partnership Program and Massachusetts (MassHealth) Senior Care Options plans.

There are five categories of specialized managed care plans that are the focus of this report: 1) Institutional SNPs, 2) Chronic Condition SNPs, 3) Dual Eligible SNPs, 4) Dual Demonstration SNPs, and 5) PACE Organizations.

INSTRUMENTS AND DATA SOURCE

We used data from beneficiaries responding to one of two Medicare surveys, the HOS and the HOS-M. The HOS was first fielded nationally in 1998, and is the first patient-based outcomes measure in Medicare managed care. It is a longitudinal survey that assesses the physical and mental health functioning of beneficiaries. The Medicare HOS-M, first fielded in the spring of 2005 by CMS, is a modified and shortened version of the HOS. Prior to 2005, the survey was called the *PACE Health Survey* and targeted vulnerable Medicare beneficiaries at greatest risk for poor health outcomes in PACE Organizations. Unlike the HOS, the HOS-M is a cross-sectional survey that measures the physical and mental health functioning of beneficiaries at a single point in time without a follow up.

Data from the HOS and HOS-M surveys are merged to conduct these analyses. The *2008 HOS Cohort 11 Baseline* and *2009 HOS Cohort 12 Baseline* provide data for SNP beneficiaries who received services through Institutional SNPs, Chronic Condition SNPs, and Dual Eligible SNPs, and for beneficiaries who responded to the HOS. The *2008 HOS-M* and *2009 HOS-M* provide data for beneficiaries in former CMS Dual Demonstration Projects (hereafter referred to as Dual Demonstration SNPs) and PACE Organizations who responded to the HOS-M.

A total of 306,190 observations (70,987 from specialized plans consisting of the SNPs and PACE Organizations) were analyzed from the combined 2009 HOS and HOS-M data. A total of 250,305 observations (56,450 from specialized plans consisting of the SNPs and PACE Organizations) were analyzed from the combined 2008 HOS and HOS-M data. For the purposes of this report, all analyses included observations from seniors, aged 65 or over, as well as younger disabled beneficiaries, less than 65 years of age.

The table on the next page provides details of plan and survey types, as well as the sample size and number of contracts specific to the 2008 and 2009 data.

Plan Type	Survey Type	2008 Sample Size	Number of Contracts 2008	2009 Sample Size	Number of Contracts 2009
Institutional SNP	HOS	2,649	23	2,776	31
Chronic Condition SNP	HOS	6,350	24	12,231	78
Dual Eligible SNP	HOS	31,091	138	38,584	200
Dual Demonstration SNP	HOS-M	8,813	16	8,907	16
PACE Organization	HOS-M	7,547	36	8,489	42
Other MA	HOS	193,855	323	235,203	380
Totals		**250,305**		**306,190**	

For the 2009 data, most beneficiaries who responded to the HOS were enrolled in a traditional MA plan, which was not a SNP, from 380 contracts (76.8%, *n*=235,203). The remaining HOS respondents were enrolled in one of the three SNP types: 0.9% (*n*=2,776) were enrolled in Institutional SNPs from 31 contracts, 4.0% (*n*=12,231) were enrolled in Chronic Condition SNPs from 78 contracts, 12.6% (*n*=38,584) were enrolled in Dual Eligible SNPs from 200 contracts. The respondents from the HOS-M surveys were approximately evenly divided: 2.9% (*n*=8,907) were enrolled in one of 16 Dual Demonstration SNPs and 2.8% (n=8,489) were enrolled in one of 42 PACE Organizations.

Enrollment in each of the plan types was larger in 2009 than in 2008, especially for Chronic Condition SNPs. Because the larger sample size of the 2009 data resulted in more statistical power and results were similar in 2008 and 2009, the presentation of the results focuses on 2009 data, with results for the 2008 data appearing in the Appendix.

METHODS

Demographic characteristics, health status, function, HRQOL, and performance measures, such as Healthcare Effectiveness Data and Information Set (HEDIS)®[A] measures for Medicare beneficiaries in the three HOS plan types (Institutional SNPs, Chronic Condition SNPs, and Dual Eligible SNPs), and the two HOS-M plan types (Dual Demonstration SNPs, and PACE Organizations) are compared to those of other MA beneficiaries enrolled in traditional models of care. In addition, response rate analyses compare overall response rates and characteristics for responders and non-responders by plan type.

The results are presented using a series of unadjusted descriptive tables organized by subject matter and supported by simple statistical tests. Parallel, multivariate, and demographically adjusted comparisons are also presented. All comparisons consider 2008 and 2009 data separately.

Due to the shortened HOS-M questionnaire used for the Dual Demonstration SNPs and PACE Organizations, some information was not fully available for evaluation in this study since it was not collected for these plans. For instance, some sociodemographic data, all chronic medical

[A] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

condition data, self-reported height and weight used for BMI measurement, and all HEDIS measure questions were not collected by the HOS-M.

KEY FINDINGS

Though beneficiaries of specialized plans are similar to those in traditional managed care plans in some regards, the following key findings emphasize the ways in which they differ. The results discussed in this Executive Summary report the demographically adjusted means and proportions. In general, the conclusions drawn hold both with and without adjustment.

As detailed below, compared to other MA beneficiaries, beneficiaries in specialized plans are characterized by:

- substantially different response rates to surveys by plan type
- more racial/ethnic minorities
- more females and fewer married
- lower education and household income levels
- greater difficulty performing activities of daily living (ADLs)
- worse self-rated health and HRQOL
- more chronic conditions
- receiving more prevention for fall risk management
- receiving less osteoporosis testing

More details about each of the key findings are provided below.

Substantially different response rates to surveys by plan type

Unadjusted response rates were considerably higher for the HOS-M plans, with 73% for Dual Demonstration SNPs and 76% for PACE Organizations, and lower for all HOS plan types, such as Chronic Condition SNPs (62%), Dual Eligible SNPs (54%), and, in particular, Institutional SNPs (34%), as compared to other MA beneficiaries (65%). Within HOS plan types, there was a fairly consistent demographic pattern of non-response with those younger than 65 years, males and minorities responding less. The response pattern in Institutional SNPs was somewhat different, with females responding less and little difference among racial/ethnicity groups, except for Asians who responded more. Within HOS-M plan types, those less than 65 years responded the most, although non-response increased slightly with age and had less distinct patterns by gender and race/ethnicity than was the case for HOS.

More racial/ethnic minorities

Racial/ethnic minorities comprise a significantly higher proportion of the beneficiaries in the specialized plans, ranging from 21% for Dual Demonstration SNPs to 45% for PACE Organizations, compared to 15% of other MA beneficiaries ($p<0.05$ for most comparisons). With the exception of Dual Demonstration SNPs, each of the specialized plan types has greater percentages of African Americans and Hispanics than is found among other MA beneficiaries.

More females and fewer married

Four of the specialized plan types have more females (64% for Dual Eligible SNPs, 68% for Institutional SNPs and approximately 73% for both HOS-M plan types) than the 56% of females found among other MA beneficiaries ($p<0.0001$). The exception is the Chronic Condition SNPs with 55%. Significantly fewer married beneficiaries are found among all HOS SNP types. In particular, only half as many respondents are married in the Institutional and Dual Eligible SNPs (28% and 23%) compared with 56% for other MA beneficiaries ($p<0.0001$). Marital status information is not available for the HOS-M Dual Demonstration SNPs and PACE Organizations.

Lower education and household income levels

The beneficiaries among the HOS SNP types report lower education levels and lower annual household income levels than other MA beneficiaries. Dual Eligible SNPs show the lowest educational attainment, with 49% not graduating from high school, compared with 23% for other MA beneficiaries ($p<0.0001$). Institutional SNPs report the highest educational attainment among SNP types, with 29% who attended some college or had a college degree, but still below other MA beneficiaries for whom 38% attended some college ($p<0.05$ for most comparisons). Dual Eligible SNPs have the lowest income, with 65% of beneficiaries reporting income of less than $20,000, compared to 29% for other MA beneficiaries. Chronic Condition (46%) and Institutional SNPs (42%) also have large proportions of beneficiaries reporting income of less than $20,000. Education level and annual household income information are not available for the HOS-M Dual Demonstration SNPs and PACE Organizations.

Greater difficulty performing activities of daily living (ADLs)

Results indicate that beneficiaries enrolled in all types of specialized plans have significantly greater difficulty performing the ADL measured, for example, bathing, dressing, eating, getting in or out of chairs, using the toilet, and walking, than other MA beneficiaries ($p<0.001$ for most comparisons). Beneficiaries in PACE Organizations (77%) have the most difficulty or inability to walk compared to 32% of other MA beneficiaries. For the remaining specialized plans, there is a range of 44% for Chronic Condition SNPs to 63% for Dual Demonstration SNPs for walking difficulty or inability. This is followed by any difficulty bathing (68% of PACE Organizations and 15% of MA beneficiaries), and any difficulty getting in or out of chairs (61% for PACE and 23% for MA beneficiaries).

Worse self rated health and health related quality of life

Mean self-rated health is worse for beneficiaries in all specialized plan types than for other MA beneficiaries. Beneficiaries in PACE Organizations report the worst health, with nearly two-thirds rating their health as "Poor" or "Fair," and less than 10% reporting "Very good" or "Excellent." Beneficiaries in Dual Eligible SNPs have 58% who rate their health as "Poor" or "Fair" and 12% who rate their health as "Very Good" or "Good" ($p<0.0001$ for all comparisons). In contrast, approximately one-third of other MA beneficiaries rate their health as "Very good" or "Excellent" and about one-third as "Poor" or "Fair."

Beneficiaries in each of the specialized plan types have worse physical and worse mental HRQOL as measured by lower adjusted physical component summary (PCS) and mental component summary (MCS) scores compared to other MA beneficiaries. Beneficiaries in PACE Organizations have the lowest average PCS scores, with a mean of 27.7 that is approximately one standard deviation (very large effect size) lower than the 36.3 average score for other MA beneficiaries ($p<0.0001$). It's important to note that the average PCS scores for the specialized plan types as well as the other MA beneficiaries are lower than what is traditionally seen in the HOS baseline reports which are limited to seniors. When disabled members are removed from the other MA group, the average adjusted PCS score for the seniors is about two points higher (results not presented) than the 36.3 average score reported above for other MA beneficiaries.

Beneficiaries in PACE Organizations also have the lowest average MCS scores with a mean of 39.3, that is approximately one standard deviation lower than the 47.6 average score for other MA beneficiaries ($p<0.0001$).

More chronic conditions

HOS SNP type beneficiaries report a greater mean number of chronic medical conditions (3.3 for Institutional SNPs, 3.4 for Dual Eligible SNPs and 3.7 for Chronic Condition SNPs) than the 3.1 conditions found for other MA beneficiaries ($p<0.0001$). Differences are more dramatic for specific conditions than for others. For example, diabetes has a higher prevalence for Chronic Condition SNPs (46%), Dual Eligible SNPs (35%), and Institutional SNPs (29%), compared to 25% for other MA beneficiaries ($p<0.0001$). The prevalence of stroke is also higher for Institutional SNPs (19%), Chronic Condition SNPs (14%) and Dual Eligible SNPs (13%), compared to 9% for other MA beneficiaries ($p<0.0001$).

Receiving more prevention for fall risk management

Several measures of clinical process were examined and used to compare the HOS SNP types to other MA beneficiaries. Differences for the HEDIS Management of Urinary Incontinence in Older Adults measure and the HEDIS Physical Activity in Older Adults measure are small; however, there is one measure where results showed consistently better performance by the SNP types compared to other MA beneficiaries.

Two rates are calculated for the HEDIS Fall Risk Management measure. The *Discussing Fall Risk* rate measures the proportion of senior beneficiaries who talked with their doctor about falling. Results for this rate are significantly higher for Institutional SNPs (37%), Chronic Condition SNPs (34%), and Dual Eligible SNPs (42%) compared to 28% for other MA beneficiaries ($p<0.0001$). The *Managing Fall Risk* rate measured the proportion of senior beneficiaries whose doctor provided prevention strategies to manage their risk of falls. Results for this rate also are significantly higher for all three HOS SNP types (70% in Institutional SNPs, 68% in Dual Eligible SNPs, and 60% in Chronic Condition SNPs) compared to the 54% found for other MA beneficiaries ($p<0.0001$).

Receiving less osteoporosis testing

The HEDIS *Osteoporosis Testing in Older Women* rate measures the proportion of older women who reported they ever had a bone density test to check for osteoporosis. These results indicate consistently worse performance for all HOS SNPs, which experienced significantly lower rates for osteoporosis testing (56% for Dual Eligible SNPs, 59% for Institutional SNPs and 61% for Chronic Condition SNPs) compared to 72% for other MA beneficiaries.

IMPLICATIONS

The findings that beneficiaries in specialized managed care plans are more often single and have lower income and education levels suggest that the group is likely to have low health literacy, which may present significant challenges to treatment and compliance. These factors, as well as substantially worse function and health than other MA beneficiaries, must be borne in mind when comparing the costs and quality of care provided by specialized plans to other MA alternatives. While one can never rule out non-response bias, the results have been demographically adjusted to attempt to control for any influence that differential non-response might have had on comparisons of health status, function, and HEDIS performance measures. Although the SNP beneficiaries fare better on some HEDIS measures compared to the non-SNP MA group, all MA beneficiaries would benefit from enhanced plan performance on these measures.

LIMITATIONS

Several limitations should be noted when interpreting these results. While these analyses point to clear differences in beneficiaries served by specialized plans, such as SNPs and PACE Organizations, and by those served by traditional MAOs, cross-sectional observational data cannot be used to distinguish cause from effect. Similarly, with cross-sectional data, we cannot tell if beneficiaries in specialized plans decline less than they would have if they were in other forms of Medicare coverage. This study did not consider healthcare costs which would assess whether SNPs and PACE Organizations are reducing overall healthcare costs for this difficult to treat population.

FUTURE WORK

This research suggests that Medicare beneficiaries enrolled in specialized health plans are significantly sicker than other MA beneficiaries; however, it is critical to assess whether the coordinated care provided by specialized plans is more effective than care provided by traditional MAOs. Future work might examine the longitudinal change in health status measures and healthcare costs for HOS beneficiaries in SNPs as compared to non-SNP MA beneficiaries included in the HOS. In 2010, the Dual Demonstration SNPs will participate using the full HOS questionnaire, instead of the HOS-M questionnaire. The additional information provided from the longer survey will benefit future research involving the SNP beneficiaries.

Chapter 1: Introduction

PURPOSE

The primary purpose of this report is to provide the results of an investigation of the demographics, health status, function, Health-Related Quality of life (HRQOL), and quality of care received by Medicare beneficiaries enrolled in specialized managed care plans and to compare the results with those of Medicare Advantage (MA) beneficiaries enrolled in traditional models of care. An additional research question addresses survey response rates and characteristics of responders and non-responders for enrollees in specialized plans relative to MA counterparts. The analyses were conducted using data from the 2008-9 Medicare Health Outcomes Survey (HOS) *Cohorts 11-12 Baseline* and 2008-9 Medicare Health Outcomes Survey-Modified (HOS-M) data. Results of the analyses for the 2009 data are the main focus of the report and results from the 2008 data are listed in supplementary tables in the Appendices.

BACKGROUND

SNPs were created under the Medicare Modernization Act (MMA) of 2003, and the Medicare Improvements for Patients and Providers Act (MIPPA) of 2008 extended the SNP authority through December 31, 2010.[2] The Patient Protection and Affordable Care Act of 2010 has further extended the authority through December 31, 2013.[3] SNPs are offered by Medicare Advantage Organizations (MAOs) and focus on individuals who require more coordinated care than anticipated by other types of Medicare Advantage plans. Many beneficiaries who receive care from SNPs are dually eligible for Medicare and Medicaid and have multiple co-morbid conditions. Three types of special needs individuals were targeted for SNP enrollment: institutionalized beneficiaries, persons who are dually eligible for Medicare and Medicaid, and persons with severe or disabling chronic conditions.

For the most part, SNPs must comply with the same requirements as other MAOs; however, three key differences include the statutory authority to exclusively enroll a subset of the Medicare population, the ability of institutional and dually eligible beneficiaries to enroll in a SNP at any time, and a requirement that all SNPs offer Part D prescription drug benefits.

SNPs are expected to improve the well-being of their enrollees through "improved coordination and continuity of care."[2] Administrative and funding mechanisms were established to facilitate the improved coordination and continuity of care (rather than episodic care) to disabled, seriously ill or frail elderly persons. The goal of these plans is to "…focus on monitoring health status, managing chronic diseases, avoiding inappropriate hospitalizations and helping beneficiaries move from high risk to lower risk on the care continuum."[2] To this end, an interdisciplinary team of medical and other staff delivers the comprehensive care the SNPs provide, such as integrative care networks for high-risk beneficiaries, management of acute care utilization and nursing facility services, management of poly-pharmacy, and referrals as needed from the interdisciplinary team. This integrative and coordinated approach is also referred to as "wrap-around care."

If large differences in sociodemographic characteristics and health status are found for the beneficiaries in specialized plans compared to other MA beneficiaries, this research may suggest the importance of fully controlling for those differences in future comparisons of SNPs and other plans.

DESCRIPTIONS OF SPECIALIZED MANAGED CARE PLANS

There are five categories of specialized managed care plans that are the focus of this report: 1) Institutional SNPs, 2) Chronic Condition SNPs, 3) Dual Eligible SNPs, 4) Dual Demonstration SNPs, and 5) PACE Organizations.

Institutional SNPs

Beneficiaries may be assigned to Institutional SNPs when they reside or are expected to reside for 90 days or longer in a Medicare-certified long term care facility, which is defined as a skilled nursing facility (SNF), nursing facility (NF), intermediate care facility (ICF) or inpatient psychiatric facility. Inclusion in these SNPs may be extended to those living in the community who require an equivalent level of care to those residing in a long term care facility.

Chronic Condition SNPs

A detailed definition of chronic conditions was not set forth in the original MMA legislation in 2003 that created the chronic condition SNPs, in order to provide flexibility in the industry and to allow the Centers for Medicare & Medicaid Services (CMS) to gain experience for future refinements. In July 2008, MIPPA further refined the definition of "severe" and "disabling" chronic conditions to restrict the enrollment for these SNPs, referred to in this report as Chronic Condition SNPs. It stipulated the beneficiary must "have one or more co-morbid and medically complex chronic conditions that are substantially disabling or life-threatening, have a high risk of hospitalization or other significant adverse health outcomes, and require specialized delivery systems across domains of care."[2,4]

Any MAO is able to offer MIPPA-defined chronic condition care. The MAOs are expected to develop SNP products to suit their markets. Thus, some MAOs would be SNP only while others would offer SNPs as one of different types of *plans* or benefit packages. The MIPPA required that a list of SNP-specific chronic conditions be developed by a special panel.[4] The list of 15 conditions included the following general categories with specific subcategories that were further defined in the panel's report: 1) Chronic alcohol and other drug dependence, 2) Autoimmune disorders, 3) Cancer excluding pre-cancer conditions or in-situ status, 4) Cardiovascular disorders, 5) Chronic heart failure, 6) Dementia, 7) Diabetes mellitus, 8) End-stage liver disease, 9) End-stage renal disease (ESRD) requiring dialysis, 10) Severe hematologic disorders, 11) HIV/AIDS, 12) Chronic lung disorders, 13) Chronic and disabling mental health conditions, 14) Neurologic disorders, and 15) Stroke.

Dual Eligible SNPs

Dual eligibles are individuals who are entitled to Medicare Part A and/or Part B and are eligible for some form of Medicaid benefit through a state plan under Title XIX. Although many SNP

beneficiaries in general are dual eligible, the beneficiaries in Dual Eligible SNPs are those identified as not receiving care in more specialized plans. SNPs may enroll all dual eligible beneficiaries, such as *full dual eligibles*, who are eligible for all Medicaid benefits, and *zero cost sharing dual eligibles*, that are qualified Medicare beneficiaries (QMBs and QMB Pluses) who meet specific state income guidelines. If a dual eligible plan contracts with a state for a Medicaid wrap, then the plan can further subset; for example, full dual eligibles with mental illness or duals over 65 years old.

Dual Demonstration SNPs

Dual Demonstration SNPs are made up of targeted SNPs. The targeted SNPs are Minnesota Senior/Minnesota Disability Health Options,[5] Wisconsin Partnership Program[6] and Massachusetts (MassHealth) Senior Care Options plans.[7]

The three Dual Demonstration SNPs extend the eligibility of the PACE program while attempting to provide the comprehensive and coordinated care offered by the PACE program. Like PACE, most of the enrollees tend to be dually eligible. However, there are some differences. For example, the Minnesota programs and Wisconsin programs exclude Medicare-only beneficiaries, but enroll Medicaid-only recipients.[5, 6] MassHealth enrolls institutionalized individuals, but excludes Medicare-only beneficiaries and those with ESRD.[7]

Program of All Inclusive Care for the Elderly

The Program of All Inclusive Care for the Elderly (PACE) is a capitated plan that was authorized by the Balanced Budget Act of 1997. The PACE program is modeled on the ON LOK Senior Health Services in San Francisco.[8] The program delivers all needed medical and supportive services to provide the entire continuum of care and services to seniors with chronic care needs, while maintaining their independence in their homes for as long as possible. Although PACE addresses challenges similar to those for SNPs, PACE is authorized differently and must meet several criteria. It must have a defined service area, a governing board, and be fiscally sound, it must provide a complete package of services including an adult day health center, and a formal Bill of Rights for enrollees as well as safeguards against conflicts of interest.[9] The PACE Organizations provide wrap-around services that offer comprehensive medical and social services to the frail elderly. They provide both Medicare-covered and Medicaid-covered services. A PACE Organization can be public or private, but must be not-for-profit.

An interdisciplinary team of medical and other staff delivers coordinated services through adult day health centers, in home, and inpatient facilities, such as nursing home and hospice, as well as provides referrals for other needed services.[9] Comprehensive care includes medical services; nursing; physical, occupational and recreational therapies; meals; nutritional counseling; social work; personal care, and transportation.

To receive PACE services, individuals must be 55 years of age or older, certified to receive nursing home care and live in the PACE service area. While the PACE Organizations provide both Medicare and Medicaid covered services, the enrollees do not have to be eligible for Medicaid. Medicare-only eligible enrollees can pay the Medicaid capitation amount each month.[10]

Chapter 2: Methods

The analyses that follow compare beneficiaries of five specialized plan types to other MA beneficiaries from traditional models of care using data from the HOS and HOS-M. These comparisons take the form of (1) a series of unadjusted descriptive tables organized by subject matter and supported by simple statistical tests, and (2) parallel, multivariate, demographically adjusted comparisons of the same topic areas. All comparisons consider 2008 and 2009 data separately.

DATA SOURCES

The 2009 HOS data are nationally representative of 424 MAOs, hereafter referred to as *contracts*; and contain a larger set of measures than the 2009 HOS-M data, which include 58 plans. For 2008, there were 361 MAO contracts participating in the HOS, and 52 plans in the HOS-M. The *2008 HOS Cohort 11 Baseline* and *2009 HOS Cohort 12 Baseline* provide data for SNP beneficiaries who received services through Institutional, Chronic Condition and Dual Eligible SNPs, and for other HOS MA beneficiaries. The *2008 HOS-M* and *2009 HOS-M* provide data for beneficiaries in Dual Demonstration SNPs and PACE Organizations. Although all enrollees in HOS-M contracts are also in plans such that 100% of members have designated special needs status, the special needs status of HOS contracts can vary from 0% to 100% of membership. An HOS contract may have one or more SNP plans or plan benefit packages (PBPs), one or more traditional PBPs, or may consist of 100% SNP or 100% traditional PBPs. Thus some contracts in HOS may be comprised of only SNP plans or benefit packages, others of both SNP and non-SNP plans, and others of only non-SNP plans.

The analyses compare available demographics and beneficiary characteristics, health status, measures of function, HRQOL, and performance measures such as the Healthcare Effectiveness Data and Information Set (HEDIS)® measures, for beneficiaries in SNPs and PACE Organizations, by plan type, to non-SNP MA beneficiaries. In addition, response rate analyses compare overall response rates and characteristics of responders and non-responders within the same groups.

For the purposes of these analyses, beneficiaries who were seniors (aged 65 or over) or disabled (less than 65 years of age) were included. Records for beneficiaries, who were in the original samples and were excluded, fell into the following categories: were deceased, not enrolled in the MAO from which they were sampled, had ESRD, or had a language barrier that prevented participation. For both HOS and HOS-M surveys, a responder was defined as a beneficiary with enough information reported on the survey to calculate either a PCS or MCS score by VR-12 scoring rules. This definition was applied both for purposes of including cases for analyses in Chapter 3 results and in non-response analyses in Chapter 4.

A total of 556,495 respondents were available from the combination of the *2008 HOS Cohort 11 Baseline* and *2009 HOS Cohort 12 Baseline* surveys and the *2008* and *2009 HOS-M* surveys. Most of the respondents were derived from the HOS surveys and were not enrolled in a SNP

(77.1%, *n*=429,058). The remaining HOS respondents were enrolled in three types of SNPs: Institutional (1.0%, *n*=5,425), Chronic Condition (3.3%, *n*=18,581), and Dual Eligible (12.5%, *n*=69,675). The respondents from the HOS-M surveys were approximately evenly divided between Dual Demonstration SNPs (3.2%, *n*=17,720) and PACE Organizations (2.9%, *n*=16,036). The distribution of respondents among the various plan types was generally similar between the *2008 HOS Cohort 11 Baseline* and *2009 HOS Cohort 12 Baseline,* and between *2008* and *2009 HOS-M,* although the sample sizes were larger in 2009, especially for Chronic Condition SNPs.

The table below provides details of plan and survey types, as well as the sample size and number of contracts specific to the 2008 and 2009 data. Since an HOS contract may vary as to number and type of PBPs, the total number of contracts for a given year will not add to the total number of original contracts. For the 2009 data, most beneficiaries who responded to the HOS were enrolled in a traditional MA PBP, which was not a SNP, from 380 contracts (76.8%, *n*=235,203). The remaining HOS respondents were enrolled in one of the three SNP types: 0.9% (*n*=2,776) were enrolled in Institutional SNPs from 31 contracts, 4.0% (*n*=12,231) were enrolled in Chronic Condition SNPs from 78 contracts, 12.6% (*n*=38,584) were enrolled in Dual Eligible SNPs from 200 contracts. For respondents from the HOS-M surveys, 2.9% (*n*=8,907) were enrolled in one of 16 Dual Demonstration SNPs and 2.8% (n=8,489) were enrolled in one of 42 PACE Organizations.

Plan Type	Survey Type	2008 Sample Size	Number of Contracts 2008	2009 Sample Size	Number of Contracts 2009
Institutional SNP	HOS	2,649	23	2,776	31
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Other MA	HOS	193,855	323	235,203	380
Totals		**250,305**		**306,190**	

SURVEY INSTRUMENTS

Data from the HOS and HOS-M surveys were merged to carry out these analyses. Beneficiaries who received services through Dual Demonstration SNPs and PACE Organizations responded to the HOS-M survey. Beneficiaries who received services through Institutional, Chronic Condition, and Dual Eligible SNPs, and those who were enrolled in traditional MA plans responded to the HOS survey. Both surveys have English, Spanish, and Chinese language versions available. Survey vendors are certified each year by the National Committee for Quality Assurance (NCQA) and follow the current NCQA Quality Assurance Plan guidelines.[11] Descriptions of these instruments appear below and copies may be accessed from the www.HOSonline.org Web site.

Medicare HOS

The Medicare HOS survey was first implemented in 1998 by CMS to measure a health plan's ability to maintain or improve the physical and mental health of its beneficiaries over time.[12] The HOS is a longitudinal survey that assesses the physical and mental functioning of the aged and disabled beneficiaries in MAOs over a two-year period (baseline and follow up surveys). The HOS is administered annually to a random sample of individuals drawn from all plan benefit packages of each participating MAO. Each spring a baseline survey is administered to a new cohort of Medicare beneficiaries. Each cohort of beneficiaries is resurveyed in two years.

All MAOs with a minimum enrollment of 500 members, including local and regional preferred provider organizations (PPOs), and continuing cost contracts that held §1876 risk or cost contracts, with Medicare contracts in effect on or before January 1, 2008, and all Social HMOs (SHMO), regardless of contract effective date, were required by CMS to administer the HOS *Cohort 12 Baseline* survey in 2009. MAOs composed exclusively of SNP benefit packages, regardless of institutionalized, chronically ill or dually eligible enrollment, are also included in this requirement. Some Private Fee-for-Service (PFFS) contracts voluntarily reported the HOS in 2009.[13] For 2008, similar requirements were applicable; however, the HOS *Cohort 11 Baseline* was administered in 2008 and the contract effective date was January 1, 2007.

The HOS instrument collects data from beneficiaries about physical and mental health status, demographics, selected chronic disease conditions, Activities of Daily Living (ADLs), height, weight, and HEDIS ® measures. Body Mass Index (BMI) is calculated from the patient-reported height and midpoint of the weight category. In addition, beneficiary responses are summarized into a PCS score and a MCS score which are used to measure the HRQOL of beneficiaries. The PCS and MCS scores are derived from the Veterans RAND 12 Item Health Survey (VR-12) component of the HOS survey. Norm-based algorithms utilizing 1990 norms yield measures that have a mean of 50 and standard deviation of 10 in the general U.S. population, with higher scores corresponding to better health.[14] For PCS, very high scores indicate no physical limitations or disabilities or declines in well being, high energy level, and a rating of health as "excellent." For MCS, very high scores indicate frequent positive effect, absence of psychological distress, and no limitations in usual social and role activities due to emotional problems.

The HOS is a patient-reported survey with mail (two survey mailings) and telephone components. Survey vendors attempt telephone follow up with at least six attempts in those instances when beneficiaries fail to respond after the second mail survey. Beneficiaries were defined as eligible for the baseline survey if they had been continuously enrolled in their health plan for at least six months, and did not have ESRD for the 2008 *Cohort 11 Baseline.* The six-month enrollment requirement was waived for the 2009 *Cohort 12 Baseline.* The present analyses were limited to baseline, rather than follow up, surveys.

Medicare HOS-M

The Medicare HOS-M, first fielded in spring 2005 by CMS, is a modified version of the HOS. Prior to 2005, the survey was called the *PACE Health Survey* and targeted vulnerable Medicare beneficiaries at greatest risk for poor health outcomes in PACE Organizations. Since 2005, the

HOS-M has been administered annually to enrollees in PACE Organizations, as well as targeted SNPs including Minnesota Senior/Disability Health Options, Wisconsin Partnership Program, and Massachusetts MassHealth Senior Care Options plans. Unlike the HOS, the HOS-M is a cross-sectional survey that measures the physical and mental health functioning of beneficiaries at a single point in time without a follow up.

The HOS-M assesses the frailty of the enrollees in PACE Organizations and targeted SNPs for payment adjustments. The assessment utilizes the same set of ADL questions that are provided in the HOS. As with the HOS, PCS and MCS scores are derived from the VR-12 component of the HOS-M. The survey also contains the following items: lifting or carrying objects as heavy as 10 pounds; walking a quarter mile; health or physical problems interfering with daily activities; receiving help with ADLs; physical and emotional health compared to one year ago; memory loss; urinary incontinence; and a question on whether the survey was self-completed or completed by a proxy. If the participant received assistance completing the survey, the respondent was asked information about the proxy respondent.[15]

The HOS-M is administered annually to a random sample of individuals from each participating PACE Organization and Dual Demonstration SNP. The survey follows a similar administration protocol to the HOS, with two survey mailings and telephone follow up; however, additional survey support (e.g., working with smaller plans to develop a detailed contact information file that contains the name and contact information for potential proxies) is provided to plans in order to reach as many members of the sample as possible. In addition, the Minnesota Senior/Disability Health Options plans offer telephonic translation services in other languages besides English, Spanish and Chinese. Beneficiaries were defined as eligible for the HOS-M if they were enrolled in a participating HOS-M plan, resided in the community, and did not have ESRD. In addition age restrictions were applied, with eligibility limited to age 65 or older for the MassHealth Senior Care Options plan and to age 55 and older for all other HOS-M plans.

VARIABLE DESCRIPTIONS

Sociodemographics

The sociodemographic characteristics available in both HOS and HOS-M data include age (calculated using the survey date and date of birth and classified as less than 65, 65-74, 75-84, and 85 or older), CMS Gender, and CMS Race/Ethnicity (White, African American, Hispanic, Asian/Pacific Islander, Native American, Other, and Unknown). Several patient-reported characteristics are available only for the HOS: marital status (married vs. never married/separated/divorced/widowed); educational attainment (8^{th} grade or less, some high school but did not graduate, high school graduate or GED, some college or 2 year degree, 4 year college degree, and more than a 4 year college degree); and income categories (elicited in categories of less than $5,000, $5,000-$9,999, $10,000-$19,999, $20,000-$29,999, $30,000-$39,999, $40,000-$49,999, and $50,000 or greater).

Health Status and Function

ADL questions available from both surveys address limitations with bathing, getting in or out of chairs, dressing, eating, using the toilet, and walking. The percentage of responses of "Yes, I

have difficulty" and "I am unable to do this activity" is examined as the percentage with "Any difficulty;" and the percentage of those who are unable to do the activity is also examined separately. The self-rated general health question asks the respondent "In general, would you say your health is excellent, very good, good, fair, or poor?"

Health Related Quality of Life (HRQOL)

PCS and MCS summary scores were calculated from the VR-12 portion of both surveys, using the Modified Regression Estimate (MRE) algorithm, which also imputes values for missing fields required in the calculation of PCS and MCS where allowed.[16] PCS and MCS scores are standardized to a mean of 50 and standard deviation of 10 in a general U.S. reference population.

Chronic Conditions and BMI

The HOS questionnaire asked about 14 chronic medical conditions and included questions about whether the respondent is receiving treatment for any of four types of cancer. The conditions assessed were: hypertension; angina pectoris or coronary artery disease; congestive heart failure; myocardial infarction or heart attack; other heart conditions, such as heart valve defects or arrhythmias; stroke; emphysema, asthma, or chronic obstructive pulmonary disease (COPD); inflammatory bowel disease, including Crohn's disease and ulcerative colitis; arthritis of the hip or knee; arthritis of the hand or wrist; osteoporosis; sciatica; diabetes, hyperglycemia, or glycosuria; any cancer (other than skin cancer); and receiving treatment for breast cancer, colon cancer, lung cancer, or prostate cancer. The total number of chronic conditions was summed by beneficiary, resulting in a range of 0-18.

BMI is calculated from the HOS questionnaire using the survey height and midpoint of survey weight categories.[B] BMI was then classified into underweight (BMI less than 20), normal (BMI 20-24), overweight (BMI 25-29), obese (BMI 30-34), and morbid obesity (BMI 35 or more) categories.

HEDIS® Effectiveness of Care Measures

Four NCQA HEDIS® Effectiveness of Care measures are included in the HOS: Fall Risk Management, Management of Urinary Incontinence in Older Adults, Physical Activity in Older Adults, and Osteoporosis Testing in Older Women. The HEDIS measures are scored using the rules detailed in the HEDIS manual and summarized below.[13] Each HEDIS score is calculated as the proportion of "Yes" responses among beneficiaries eligible for each measure. The eligibility rate for each measure is calculated as the proportion of all responding beneficiaries eligible for

[B] Body Mass Index (BMI) is defined as weight in kg divided by height in meters squared, and may be converted from English units (pounds per square inch of height) by multiplying by 703. Self-reported weight was elicited as categorical response options of 91 lbs. or less, ten pound intervals from 91-100 lbs. through 311-320 lbs., and 321 lbs. or more. For the BMI calculation, the midpoint of the weight category in pounds is used, except a value of 90 is used for the lowest weight category (90 lbs. or less) and a value of 321 is used for the highest weight category (321 lbs. or more). Self-reported height was elicited as response options of 5 ft 00 in. or less, from 5 ft 01 in. through 6 ft 02 in. to the nearest inch, and 6 ft 03 in. or more. For the BMI calculation, the reported height in inches is used, except a value of 60 is used for the smallest height (5 ft. 00 in. or less) and a value of 75 is used for the largest height (6 ft. 3 in. or more).

each measure. Additionally, males were omitted from the calculation for the Osteoporosis Testing in Older Women eligibility and HEDIS rates.

For the Fall Risk Management measure, two rates are calculated. The *Discussing Fall Risk* rate is the number of respondents aged 75 or older (or aged 65-74 with a history of a fall or problems with balance or walking in the past 12 months) who reported they had discussed their falls or balance problems with their provider, divided by the number of respondents aged 75 or older (or aged 65-74 with a history of a fall or balance problems in the past 12 months) who indicated they had a visit with their provider in the last 12 months. The *Managing Fall Risk* rate is the number of respondents aged 65 or older who had a fall or problems with balance or walking in the past 12 months who reported that they received fall risk prevention strategies from their provider, divided by the number or respondents aged 65 or older who had a fall or problems with balance or walking in the past 12 months and who indicated they had a visit with their provider in the last 12 months. Prevention strategies may include use of a cane or walker, exercise or physical therapy program, vision or hearing testing, and blood pressure checks while lying or standing.

For the Urinary Incontinence in Older Adults measure, two rates are calculated. The *Discussing Urinary Incontinence* rate is the number of respondents who reported they discussed their urine leakage problem with their provider, divided by the total number of respondents who indicated they had a urine leakage problem, in the last six months. The *Receiving Urinary Incontinence Treatment* rate is the number of respondents who reported they received treatment for their urine leakage problem, divided by the total number of respondents who indicted they had a urine leakage problem in the last six months. Treatment may include bladder training, exercises, medication, and surgery.

For the Physical Activity in Older Adults measure, two rates are calculated. The *Discussing Physical Activity* rate is the number of respondents who reported they discussed their level of exercise or physical activity with a doctor or other health provider, divided by the number of respondents who indicated they had a visit with a doctor or other health provider in the last 12 months. The *Advising Physical Activity* rate is the number of respondents who reported that a doctor or other health provider advised them to start, increase or maintain their level of exercise divided by the number or respondents who indicated they had a visit with a doctor or other health provider in the last 12 months.

One rate is calculated for the Osteoporosis Testing in Older Women Measure. The *Osteoporosis Testing in Older Women* rate is the number of female respondents who reported they ever had a bone density test to check for osteoporosis, divided by the number of female respondents who answered the question about ever having a bone density test to check for osteoporosis.

ANALYSES

The analyses include comparisons of sociodemographics, ADLs, self-rated general health, PCS and MCS scores, chronic conditions, BMI, and HEDIS measures (bivariate and adjusted). The analyses also included response rates (adjusted and unadjusted) for each of the five specialized plan types (Institutional SNPs, Chronic Condition SNPs, Dual Eligible SNPs, Dual Demonstration SNPs and PACE Organizations) and for other MA beneficiaries. All bivariate/descriptive tables using 2009 data, as well as all response rate tables (which compare

2008 and 2009 data) are displayed in the main body of the report. The remaining tables using 2008 data appear in the Appendix.

Table 1 compares unadjusted sociodemographic characteristics with tests of significance. A mean is calculated for each continuous variable. The first row for age and income displays the arithmetic mean and standard deviation, while the second row displays the standard error of the mean from a linear regression model with only plan type as the independent variable. Unadjusted proportions are presented for each categorical variable (gender, race/ethnicity, marital status, education, and household income), and significance levels come from a logistic regression model with only plan type as the independent variable.

Even numbered tables 2-12 present unadjusted results for ADLs, self-rated health, PCS and MCS scores, chronic conditions, BMI, and HEDIS measures. The tables follow the same structure as Table 1 and employ similar tests of significance. The means are calculated for each continuous outcome. The first row displays the arithmetic mean and standard deviation for all plan types, while the second row displays the standard error of the mean from a linear regression model with only the plan type as the independent variable, and considers only the three HOS plan types. Unadjusted proportions are presented for each categorical variable, and significance levels come from a logistic regression model with only plan type as the independent variable.

Odd numbered tables 3-13 present adjusted results for the same variables summarized in even numbered tables 2-12. Two regression models are estimated for each outcome. The first model is estimated from a (linear or logistic) regression model that uses plan type as the independent variable and only age, gender, and race/ethnicity, which are available for the HOS-M as well as the HOS, as covariates. In light of the potential for systematic differences between the characteristics of beneficiaries in specialized plans compared to other MA beneficiaries and because there are some who believe that performance on HEDIS and health status measures may be affected by patient characteristics, additional covariate-adjusted comparisons of the measures were performed.[17] A second model type was used that adds to the first model additional covariates unique to the HOS: marital status, income, and education. Since the HOS-M survey does not have marital status, income and education questions, the HOS-M data are omitted from all analyses that use the second model. In addition, outcomes in Tables 8-9 (chronic conditions), and 10-11 (BMI) that were not available in the HOS-M use the second model only and omit the first type of model with the more restricted set of covariates. All tests of significance are based on these multivariate models. However, the means and proportions that appear use the following convention: (1) all proportions displayed are unadjusted, identical to those used in the corresponding even numbered tables, and (2) adjusted means (and their associated standard errors) appear in two rows, with estimates that adjust for fewer covariates appearing first in each pair of rows.

The response rate analyses are specified and organized somewhat differently. Unadjusted response rates (Table 14) are displayed as overall rates by plan type and rates within demographically defined categories of beneficiaries. Logistic regression is used to model the probability of response to the 2008 and 2009 HOS and to the 2008 and 2009 HOS-M by beneficiary characteristics and plan types (Tables 15-16). The multivariate analyses for HOS in Table 15 control for age, gender, race/ethnicity, enrollment duration, Medicaid status and CMS region. Similar analyses for HOS-M in Table 16 control for age, gender, race/ethnicity and CMS

region. Characteristics of responders and non-responders are compared overall for the specialized plans and for other MA beneficiaries, and also by plan type in the 2009 HOS and 2009 HOS-M (Tables17-19).

SAS® Statistical Analysis Software, version 9.1.3, was used for all analyses. Additional detail about the analyses is provided below.

Descriptive Tables/Bivariate (Table 1)

The sociodemographic table (Table 1) describes the mean age, and the percentages by age, gender (female), race/ethnicity, marital status, education, and income categories from the 2009 data, comparing beneficiaries by plan type to other MA beneficiaries. As previously described, marital status, education and income are not available from the HOS-M survey.

Descriptive Tables/Bivariate (Tables 2-12, Even Numbers)

For each of six topic areas, a table (even numbered tables, Tables 2-12) describes unadjusted comparisons of beneficiaries by plan type to other MA beneficiaries. The six topic areas include: ADLs, self-rated general health, health related quality of life (PCS and MCS scores), chronic conditions, BMI, and HEDIS measures.

ADLs (Table 2) are analyzed in terms of the proportion having any difficulty performing each of the six individual activities as well as the mean number of difficulties reported. For this analysis *any difficulty* is defined as having difficulty or the inability to perform the ADL. Similar analyses were also performed for the *unable* category, using the stricter "inability to perform" criterion.

Self-rated general health (Table 4) was analyzed by category and as a linear mean (poor=1, fair=2, good=3, very good=4, and excellent=5). For PCS and MCS scores (Table 6), overall mean scores for each plan type and other MA beneficiaries are compared. Chronic conditions (Table 8) are compared both in terms of prevalence by specific condition and the mean number of reported conditions. The prevalence and count of chronic conditions are calculated as the proportion responding "yes" among all beneficiaries, thus treating item missingness as equivalent to "no" for these items." Mean BMI and the proportions of beneficiaries in each BMI category are compared, with no imputation for missing height, weight, or BMI (Table 10).

The HEDIS measures are compared individually. Since some of the rates had specific inclusion criteria, for example, the Managing Fall Risk rate was calculated for those 65 or older who had a fall or problems with balance or walking in the past 12 months and who indicated they had a visit with their provider in the last 12 months, the proportion of beneficiaries that were eligible for each measure was calculated in addition to the HEDIS measures themselves.

Demographically Adjusted Analyses (Tables 3-13, Odd Numbers)

For each of the six topic areas described by even numbered Tables 2-12, an additional set of tables (odd numbered Tables 3-13) describe demographically adjusted comparisons by plan type to other MA beneficiaries.

Unadjusted Response Rates (Table 14)

Response rates are calculated for beneficiaries in the three types of SNPs represented in the HOS (Institutional, Chronic Condition, and Dual Eligible), as well as for other MA beneficiaries, in the 2009 HOS data. For the 2009 HOS-M, response rates are calculated for Dual Demonstration SNPs and PACE Organizations. Response rates are also calculated by age, gender, race/ethnicity, and CMS region for each of the plan types, and additionally by Medicaid status and enrollment duration for the HOS respondents. The response rates by plan types, for other MA beneficiaries, and for all sub-categories within these groups are calculated as respondent sample divided by the total sample and multiplied by 100%.[C]

Comparison of Adjusted Response Rates (Tables 15-16)

Logistic regression is used to test for differences in response rates comparing beneficiaries by plan type to other MA beneficiaries (reference group) in 2008 and 2009 HOS data (Table 15), controlling for specific demographics described above. A similar regression analysis is used to test for differences in response rates in 2008 and 2009 HOS-M data (Table 16), which compares PACE Organizations to Dual Demonstration SNPs (reference group) adjusting for available demographics.

Comparison of Characteristics of Responders and non-Responders (Tables 17-19)

For the 2009 HOS data, characteristics of responders are compared with those of non-responders for all HOS SNPs combined and for other MA beneficiaries (Table 17) and within each HOS plan type (Table 18). Available demographics of responders in the 2009 HOS-M are compared with non-responders within the Dual Demonstration SNPs and PACE Organizations (Table 19).

[C] Response Rate = [Respondent Sample/Total Sample] x 100%.

Chapter 3: Results of Comparison of Beneficiary Characteristics and Health Status

All analyses are done separately for 2008 and 2009. Most results are highly consistent between the two years, but the larger sample size in 2009 resulted in more statistical power for these analyses. Therefore, the findings reported below focus on the 2009 results only, and the 2008 results are presented in the Appendix.

FINDINGS

The findings below describe the differences among the specialized plan types (HOS Institutional SNPs, HOS Chronic Condition SNPs, HOS Dual Eligible SNPs, HOS-M Dual Demonstration SNPs, and HOS-M PACE Organizations) compared with other MA beneficiaries from the HOS.

SOCIODEMOGRAPHIC CHARACTERISTICS (TABLE 1)

Complete results for demographic characteristics are presented in Table 1 for 2009 and Appendix – Table 1 for 2008. Results for 2009 are summarized below.

All but one of the plan types have greater percentages of females (64% - 73%) than other MA beneficiaries (56%). The exception was the Chronic Condition SNPs (55%).

Dual Eligible SNP beneficiaries are younger than beneficiaries in the other categories. The mean age of Dual Eligible SNP beneficiaries was 66.2 years (vs. 74.3 for other MA beneficiaries), with 38% less than 65 years (vs. 9% for other MA beneficiaries). Institutional SNPs served the oldest beneficiaries, with a mean age of 80.0 years and 33% in the 85 or older category (vs. 10% for other MA beneficiaries). Beneficiaries in Dual Demonstration SNPs (mean age 78.0 years) and PACE Organizations (mean age 79.9 years) were only slightly younger than those in Institutional SNPs.

All specialized plans have significantly higher proportions of racial/ethnic minorities compared to other MA beneficiaries ($p<0.0001$). Chronic Condition and Institutional SNPs have two to three times as many African Americans (27% and 18%, respectively) as other MA beneficiaries (9%). Dual Eligible SNPs and PACE Organizations also have more than twice as many African Americans (24% for both), as other MA beneficiaries, as well as higher percentages of Asians and Hispanics. The Dual Demonstration SNPs have fewer African Americans, but more Asians and Hispanics, than the other MA beneficiaries.

Significantly fewer married beneficiaries are found among HOS SNPs compared to other MA beneficiaries ($p<0.0001$). Only half as many respondents are married in the Institutional and Dual Eligible SNPs (28% and 23%) compared with other MA beneficiaries (56%). Many of the Institutional SNP beneficiaries are widowed (42% vs. 24% for other MA beneficiaries), and a large number of Dual Eligible SNP beneficiaries were never married, or were separated or

divorced (47% vs. 16% for other MA beneficiaries). Marital status is not available for the HOS-M Dual Demonstration SNPs and PACE Organizations.

The beneficiaries in the HOS SNPs report lower education levels than other MA beneficiaries. Dual Eligible SNPs show the lowest educational attainment, with 49% not graduating from high school, compared with 23% for other MA beneficiaries. Similarly, only 19% of those in Dual Eligible SNPs attended at least some college, compared with 38% of other MA beneficiaries. Chronic Condition SNPs show education levels that are intermediate among the SNPs, with 37% who did not graduate from high school and 27% who attended some college. Institutional SNPs report the highest educational attainment among the SNPs, but still well below other MA beneficiaries, with 33% who did not graduate from high school and 29% who attended some college. Education level is not available for the HOS-M Dual Demonstration SNPs and PACE Organizations.

Similarly, HOS SNP beneficiaries generally have lower annual household income levels than other MA beneficiaries, with the ranking among the SNPs mirroring that seen with education level. Dual Eligible SNPs have the lowest income, with 65% of beneficiaries reporting less than $20,000, compared to 29% for other MA beneficiaries. Chronic Condition SNPs (46%) and Institutional SNPs (42%) also have large proportions of beneficiaries reporting income of less than $20,000. Of all HOS items, the household income question has the greatest proportion of "Don't know" and missing responses that are unrelated to intended skip patterns. Institutional SNPs have the highest proportion of missing or "Don't know" responses at 32% followed by Dual Eligible SNPs at 25%. Chronic Condition SNPs and other MA beneficiaries have the lowest combined responses for missing or "Don't know" at 20% each. Household income is not available for HOS-M Dual Demonstration SNPs and PACE Organizations.

HEALTH STATUS AND FUNCTION (TABLES 2-5)

Activities of Daily Living (ADLs)

The results of the analyses for ADLs are presented in Tables 2 and 3 for 2009 and in Appendix Table 2 and 3 for 2008. Both sets of tables summarize the ADL responses in two ways. The first section of each table counts the proportions of those having *any difficulty* performing an ADL from the "Yes, I have difficulty" or "I am unable to do this activity" responses, and the second section counts only the proportions of "I am unable to do this activity" responses for those *unable* to do the activity.

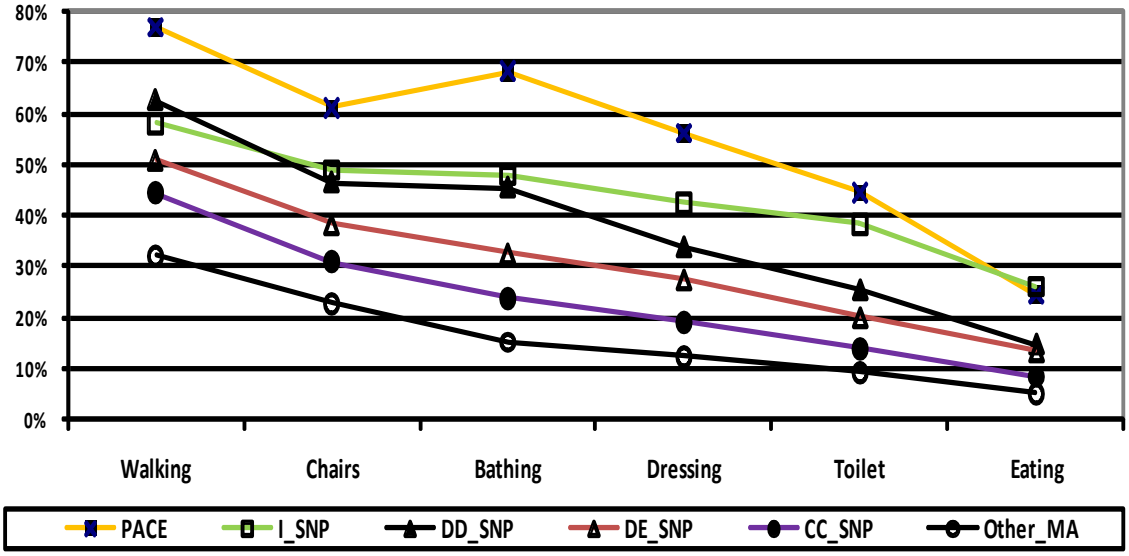
These results indicate that beneficiaries enrolled in all specialized plans have significantly greater difficulty performing all ADLs that were measured, such as bathing, dressing, getting in or out of chairs, using the toilet and walking, than other MA beneficiaries ($p<0.0001$). The results do not change substantially after adjusting for demographic characteristics, and are the same whether the HOS-M and HOS are combined or analyzed separately.

The largest (adjusted) mean number of ADL limitations for those having any level of difficulty ("Difficulty" or "Unable to do") is reported for PACE Organizations (3.3), followed by Institutional SNPs (2.6), Dual Demonstration SNPs (2.3), Dual Eligible SNPs (1.8), and Chronic Condition SNPs (1.4). In comparison, other MA beneficiaries reported an average of only 1.0 ADL limitation. Institutional SNPs have the highest mean number of ADL inabilities (1.4),

exceeding PACE (1.0) and the Dual Demonstration SNPs (0.5). Other MA beneficiaries average only 0.1 ADL inabilities. Chronic Condition SNPs have only slightly higher mean ADL inabilities (0.2) than other MA beneficiaries.

The patterns described above for the ADL counts generally hold for the specific ADLs as well, as can be seen by the approximately parallel lines in Figure 1. The most prevalent ADL limitation for all plan types is "Walking," followed by "Difficulty getting in or out of chairs" and "Bathing." The least difficulty is reported with "Eating;" however, one-fourth of beneficiaries in PACE Organizations and Institutional SNPs report difficulty with this ADL, as compared to only 5% of other MA beneficiaries.

FIGURE 1: ADLS - DIFFICULTY OR UNABLE TO PERFORM



Self-Rated Health

Self-rated health results are presented in Tables 4 and 5 for 2009 and in Appendix Tables 4 and 5 for 2008. The format of the tables and the presentation of unadjusted and adjusted means are similar to those for ADLs. The unadjusted percentages of beneficiaries in each category are presented in both sets of tables. The significance levels in Table 4 are unadjusted, and those in Table 5 are adjusted for age, race, and gender.

All specialized plans report far worse self-rated health than other MA beneficiaries. Beneficiaries in PACE Organizations report the worst health, with nearly 63% rating their health as "Poor" or "Fair," and 9% reporting "Very good" or "Excellent." Dual Eligible SNPs have 58% rating their health as "Poor" or "Fair" and 12% as "Very good" or "Excellent." Other plan types are slightly better, with about half of beneficiaries rating their health as "Poor" or "Fair" and 13% - 16% as "Very good" or "Excellent." In contrast, only 30% of other MA beneficiaries

rate their health as "Poor" or "Fair" and about 30% as "Very good" or "Excellent." A large number (38%) of this group report their health as "Good."

HEALTH-RELATED QUALITY OF LIFE (TABLES 6-7)

The HRQOL of beneficiaries is measured by the PCS and MCS scores. Results are presented in Tables 6 and 7 for 2009 and in Appendix Tables 6 and 7 for 2008. The presentation of unadjusted and adjusted means is similar to that of the preceding tables.

Physical Component Summary (PCS) Score

Beneficiaries in PACE Organizations have the lowest average unadjusted PCS scores, with a mean of 28.1 that is approximately 10 units lower than the 38.6 average score for other MA beneficiaries. The mean PCS scores for the other specialized plans, compared to other MA beneficiaries, range from 7.3 units lower for Dual Demonstration SNPs (0.73 standard deviation a "large" effect size) to 4.2 units lower for Chronic Condition SNPs (0.42 standard deviation a "moderate" effect size).[18] The size of the differences does not change substantially after controlling for demographic variables. It's important to note that the average PCS scores for the specialized plan types as well as the other MA beneficiaries are lower than what is traditionally seen in the HOS baseline reports which are limited to seniors. When disabled members were removed from the other MA group, the average unadjusted PCS score for seniors was about one point higher (results not presented in the table) than the 38.6 average score reported above for the other MA beneficiaries.

Mental Component Summary (MCS) Score

The MCS pattern is similar to the PCS pattern. Again, beneficiaries in PACE Organizations have the lowest average unadjusted MCS scores, with a mean of 41.6 that is approximately 10 units lower than the 51.2 average score for other MA beneficiaries. The mean MCS score for the remaining specialized plans, compared to other MA beneficiaries, ranges from 8.0 units lower for Dual Eligible SNPs (0.8 standard deviation a "large" difference) to 4.1 units lower (0.41 standard deviation a "moderate" difference) for Chronic Condition SNPs.[19] The size of the differences does not change substantially after controlling for demographic variables.

CHRONIC CONDITIONS AND BMI (TABLES 8-11)

Results for chronic conditions are presented in Tables 8 and 9 for 2009 and in Appendix Tables 8 and 9 for 2008. All percentages discussed below are based on a denominator which includes only non-missing responses. Information about chronic conditions was not collected in the HOS-M survey for the HOS-M Dual Demonstration SNPs and PACE Organizations.

All three HOS SNPs have a significantly higher mean unadjusted number of chronic conditions per beneficiary than other MA beneficiaries ($p<0.001$). Chronic Condition SNPs have the highest mean number (3.9 vs. 3.1 for other MA beneficiaries, a difference of almost 30%). Dual Eligible SNPs have a mean number of 3.7 conditions and Institutional SNPs a mean of 3.4 conditions. The size of the differences does not change substantially after controlling for demographic variables. The prevalence of certain conditions is also significantly different

among the SNPs and other MA beneficiaries, and the magnitude of the difference is notable. Chronic Condition SNPs have a higher prevalence of diabetes, both types of arthritis, COPD and cardiovascular conditions (high blood pressure, coronary artery disease, myocardial infarction, congestive heart failure, and other heart conditions). Dual Eligible SNPs have a higher prevalence of both types of arthritis, sciatica, inflammatory bowel disease, and COPD. Institutional SNPs had a higher prevalence of stroke and osteoporosis.

High Blood Pressure

High blood pressure is the most prevalent of the chronic conditions. The proportion of beneficiaries with high blood pressure is highest in the Chronic Condition SNPs (78%) and least for other MA beneficiaries (66%). The prevalence of high blood pressure in Institutional and Dual Eligible SNPs is only slightly higher than for other MA beneficiaries.

Arthritis of the Hip or Knee

Arthritis of the hip or knee has the second highest prevalence of the chronic conditions and is higher in SNPs than in other MA beneficiaries. The percentage reporting arthritis of the hip or knee ranges from 47% for Institutional SNPs to 53% for Dual Eligible SNPs, compared to 43% for other MA beneficiaries.

Diabetes Mellitus

Diabetes is most prevalent in the Chronic Condition SNPs (46%) compared to other MA beneficiaries (25%). The prevalence of diabetes in Institutional (29%) and Dual Eligible (35%) SNPs is also higher than for other MA beneficiaries.

Stroke

The prevalence of stroke is higher in all HOS SNP types than in other MA beneficiaries. Institutional SNPs are highest (19%), followed by Chronic Condition SNPs (14%) and Dual Eligible SNPs (13%), compared to other MA beneficiaries (9%).

Cancer

The prevalence of any cancer (except for skin cancer) is fairly similar, although significantly less for Institutional SNPs (13%), Chronic Condition SNPs (14%), and Dual Eligible SNPs (10%) compared to MA beneficiaries (15%). There are no statistically significant differences in the percentage of beneficiaries currently under treatment for cancer among the SNP types and other MA beneficiaries. The percentages for specific cancer treatments, of those who ever had cancer, range from less than 1% for current lung cancer treatment to 2%-3% for current prostate cancer treatment among all plan types.

Body Mass Index

Results for BMI are presented in Tables 10 and 11 for 2009 and in Appendix Tables 10 and 11 for 2008. The HOS-M survey does not collect beneficiary weight and height, so BMI could not be calculated for HOS-M respondents.

The mean unadjusted BMIs for the Dual Eligible SNPs (28.8) and Chronic Condition SNPs (29.0) are significantly greater than the mean of 27.5 for other MA beneficiaries ($p<0.0001$). The mean unadjusted BMI for Institutional SNPs (26.8) is significantly lower than BMI for other MA beneficiaries; however, this difference was not significant after adjustment. The unadjusted percentage of morbidly obese beneficiaries is much higher in Chronic Condition SNPs (15%) and Dual Eligible SNPs (16%) than for other MA beneficiaries (9%). In contrast, the percentage of underweight beneficiaries is twice as high in Institutional SNPs (10%) as for other MA beneficiaries (5%).

HEDIS EFFECTIVENESS OF CARE MEASURES (TABLES 12-13)

Four HEDIS measures, comprising seven rates, are assessed only for those 65 or older who responded to the HOS. No HEDIS measures are collected in the HOS-M survey. Results for HEDIS Measures for the HOS are presented in Table 12A-B and Table 13A-B for 2009 and in Appendix Table 12A-B and Table 13A-B for 2008. Both Table 12A and 13A present the unadjusted percentage of the total population who met the eligibility criteria for the HEDIS intervention (eligible rate). Table 12A includes significance flags based on the regression model that adjusted only for plan type, while Table 13A includes flags based on the model that adjusted for plan type, age, race, gender, marital status, education, and income.

Both Table 12B and 13B present the unadjusted percentage of the eligible population from the HOS who received the care specified by HEDIS standards (HEDIS rate). Table 12B includes significance flags based on the regression model that adjusted only for plan type, while Table 13B includes flags based on the model that adjusted for plan type, age, race, gender, marital status, education, and income.

Fall Risk Management

Significantly more senior beneficiaries are eligible for discussing fall risk (eligible rate) in Chronic Condition SNPs (64%) and Dual Eligible SNPs (68%) compared to 60% for other MA beneficiaries ($p<0.0001$). Although the eligible rate is also higher for Institutional SNPs, it is not significantly different after adjustment for demographics. Similarly, more beneficiaries are eligible for managing fall risk (eligible rate) in all three SNP types (47%, 43%, and 49%, respectively) compared to other beneficiaries (35%). For the *Discussing Fall Risk* rate, the proportion of senior beneficiaries who talked with their doctor about falling is significantly higher for Institutional SNPs (37%), Chronic Condition SNPs (34%), and Dual Eligible SNPs (42%) compared to 28% for other MA beneficiaries ($p<0.0001$). For the *Managing Fall Risk* rate, the proportion of senior beneficiaries whose doctor provided prevention strategies to manage the risk of falling is also significantly higher for all three SNP types (70%, 60%, 68%, respectively) compared to the 54% found for other MA beneficiaries ($p<0.0001$).

Management of Urinary Incontinence in Older Adults

Significantly more senior beneficiaries experienced urinary incontinence (eligible rate) in Institutional SNPs (39%), Chronic Condition SNPs (30%), and Dual Eligible SNPs (31%) compared to 27% of other MA beneficiaries ($p<0.0001$). Similarly, more are eligible for receiving urinary incontinence treatment in all three SNP types (39%, 30%, and 31%, respectively) compared to other MA beneficiaries (27%). For the *Discussing Urinary Incontinence* (*UI*) rate, Institutional SNPs and Dual Eligible SNPs have significantly higher proportions of beneficiaries who had discussed the problem with their health care provider (68% and 61%) compared with 57% of other MA beneficiaries ($p<0.0001$). For the *Receiving UI Treatment* rate, only the Institutional SNPs have a significantly higher proportion who received treatment for urinary incontinence (38% vs. 36% for other MA beneficiaries) after adjusting for demographics ($p<0.05$), although the difference is somewhat small.

Physical Activity in Older Adults

The proportions eligible for discussing and advising on physical activity are lower, in general, for all HOS SNPs compared to other MA beneficiaries, although some rates are higher after adjusting for demographics. For instance, both eligibility rates are higher after adjustment for Dual Eligible SNPs, and the eligibility rate for advising on physical activity is higher for Chronic Condition SNPs (adjusted proportions not shown in Table 13A). For the *Discussing Physical Activity* rate, the proportion of senior beneficiaries who discussed physical activity with their provider is significantly higher for Chronic Condition SNPs and Dual Eligible SNPs after adjusting for demographics (adjusted rates not shown in Table 13B). For the *Advising Physical Activity* rate, the proportion who were advised to start, increase, or maintain physical activity is also significantly higher in Chronic Condition SNPs (49%) and Dual Eligible SNPs (48%) compared to 46% of other MA beneficiaries ($p<0.001$), although the differences are somewhat small. The rate for Institutional SNPs is lower, although the rate is not significantly lower after adjusting for demographics. The lower rate may indicate only that these beneficiaries are less capable of physical activity and not that they are receiving inferior care.

Osteoporosis Testing in Older Women

The proportions eligible for osteoporosis testing in older women are significantly lower for all HOS SNPs, and ranged from 87% in Institutional SNPs to 92% for both Chronic Condition and Dual Eligible SNPs vs. 95% for other MA beneficiaries ($p<0.05$). For the *Osteoporosis Testing in Older Women* rate, all plan types also have lower rates of osteoporosis testing, ranging from 56% for Dual Eligible SNPs and 59% for Institutional SNPs up to 61% for Chronic Condition SNPs compared to 72% for other MA beneficiaries ($p<0.0001$).

Chapter 4: Results of Response Rate Comparisons

This chapter investigates response rates for MA beneficiaries in specialized managed care plans and in traditional models by plan type and compares the characteristics of responders and non-responders for the HOS and HOS-M surveys. It presents the results of an analysis testing whether the response rate for each specialized plan type differs from the response rate for other MA beneficiaries, after controlling for differences in beneficiary characteristics. It also describes the difference between responders and non-responders for specialized plans and other MA beneficiaries, and among plan types, with respect to beneficiary characteristics.

FINDINGS

The results for 2009 HOS *Cohort 12 Baseline* and 2009 HOS-M are presented in Table 14 and results for 2008 HOS *Cohort 11 Baseline* and 2008 HOS-M are presented in Appendix Table 14.

UNADJUSTED RESPONSE RATES (TABLE 14)

Overall response rates were higher for the HOS-M plan types compared to the HOS plan types. In 2009, the HOS-M response rate ranged from 73% for the Dual Demonstration SNPs to 76% for the PACE Organizations. This compared to a range of 34% to 62% for the HOS SNPs. For HOS in 2009, the response rate for Chronic Condition SNPs (62%) was slightly higher than for Dual Eligible SNPs (54%). The rate for Institutional SNPs was much lower (34%), compared to other MA beneficiaries (65%). The results were highly consistent between the two years. The 2008 and 2009 response rates for HOS-M were almost identical. The rates for HOS were slightly higher in 2009 compared to 2008 for other MA beneficiaries and for each plan type except Chronic Condition SNPs.

In the HOS surveys, response rates followed a pattern typical in survey research. Rates were lowest for beneficiaries younger than 65, increased in the 65-75 age group, and decreased in the 85 or older age group. Response rates began to decrease sooner for Institutional SNPs and Dual Eligible SNPs (75-85 age group) and later for Chronic Condition SNPs and other MA beneficiaries (85 or older age group). However, this pattern did not hold for the HOS-M surveys, where response rates were highest in the beneficiaries younger than 65, fell slightly in the 65-75 age group, and then remained flat. There were tendencies for lower response rates for males in the HOS; however, this was less pronounced in the HOS-M. In the HOS, females had higher response rates than males (generally by 2-6 percentage points) in every group except HOS Institutional SNPs, where response rates for males were 5% higher in both cohorts. For the HOS-M, females also had higher response rates than males in the Dual Demonstration SNPs (by 3 percentage points); however, for the PACE group, there was little difference between males and females in both cohorts. These age and gender patterns found for HOS are commonly seen in survey research in general and in Medicare surveys in particular.[20, 21] Response rates tended to be higher for Whites than for other races, generally by 3-18 percentage points.

The specialized plans are not uniformly distributed geographically in either HOS or HOS-M, making it difficult to compare response rates by region for these groups. MA beneficiaries in traditional models of care had the lowest response rate in the Atlanta region in both 2008 and 2009 (57% and 61%). The Chicago and Kansas City regions tied for the highest rate in 2008 (65%), and the Denver region had the highest rate in 2009 (69%).

Medicaid status and enrollment duration were available only for HOS. In 2009, Medicaid beneficiaries had lower response rates than non-Medicaid beneficiaries (by 5-29 percentage points) for all plan types except Dual Eligible SNPs, where Medicaid beneficiaries had a 3% higher response rate than non-Medicaid beneficiaries. In 2009, response rates declined with increasing enrollment duration for all plan types except Institutional SNPs. The response rate decreased from 65% for beneficiaries enrolled in Chronic Condition SNPs for less that 6 months to 45% for those enrolled 37 months or more. Smaller declines were noted for Dual Eligible SNPs (56% to 51%) and for other MA beneficiaries (67% to 64%) between those enrolled for less than 6 months and those enrolled 37 months or more. The response rate for Institutional SNPs, on the other hand, increased from 28% for beneficiaries enrolled for less than 6 months to 42% for those enrolled 37 months or more.

COMPARISON OF RESPONSE RATES ADJUSTED FOR DEMOGRAPHICS (TABLES 15-16)

A logistic regression was performed to test whether the response rates for each plan type differ from the response rates for other MA members, after controlling for differences in characteristics of their beneficiaries. Results for the 2008 HOS *Cohort 11 Baseline* and 2009 HOS *Cohort 12 Baseline* are presented in Table 15 and results for 2008 HOS-M and 2009 HOS-M are in Table 16.

A positive coefficient estimate indicates a greater likelihood of responding. The reference categories were "Other MA" for plan type, "less than 65" for age, "male" for gender, "White" for race/ethnicity, "6-12 months" for enrollment, "out of Medicaid" for Medicaid status, and "Region 4 – Atlanta" for CMS region. For 2008, the P-values of the regression coefficients for all three HOS plan types were highly significant ($p<0.0001$). These results showed that demographically matched beneficiaries in Chronic Condition SNPs are more likely to respond than other MA beneficiaries, while beneficiaries in Dual Eligible SNPs and Institutional SNPs are less likely to respond. The results were similar for Dual Eligible SNPs and Institutional SNPs for 2009; however, the coefficient for Chronic Condition SNPs was not significant, indicating no evidence of a difference between this group and other MA beneficiaries.

The regression results for HOS-M showed no significant difference in the likelihood of response between Dual Demonstration SNPs and PACE Organizations for either 2008 or 2009. The reference categories for these analyses were "Dual Demonstration SNP" for plan type, "less than 65" for age, "male" for gender, "White" for race/ethnicity, and "Region 4 – Atlanta" for CMS region.

COMPARISON OF CHARACTERISTICS OF RESPONDERS AND NON-RESPONDERS (TABLES 17-19)

Characteristics of responders were compared with non-responders within each HOS and HOS-M plan type, for all HOS SNPs combined, and for other MA beneficiaries. These results are presented in Tables 17 and 18 for 2009 HOS *Cohort 12 Baseline*, and in Appendix Tables 15 and 16 for 2008 HOS

Cohort 11 Baseline. The results for 2009 HOS-M are presented in Table 19 and for 2008 in Appendix Table 17.

While differential response rates had some influence, for example, increasing percentages of females, Whites, etc., among respondents as compared to non-respondents, differential response rates were not so pronounced as to greatly alter the composition of these subgroup characteristics. To illustrate, the percentage of females among responders compared to non-responders was not markedly different among the HOS plan types (68% vs. 73% for Institutional SNPs, 55% vs. 50% for Chronic Condition SNPs, and 64% vs. 58% for Dual Eligible SNPs) and other MA beneficiaries (56% vs. 54%).

For HOS-M, differential response rates by age had little effect on the distribution of age among responders as compared to non-responders. Females constituted a somewhat higher percentage of responders than non-responders for the Dual Demonstration SNPs (72% vs. 69%), but there was little difference within the PACE group (73% vs. 74%). There was a higher percentage of Whites among responders compared to non-responders in the Dual Demonstration SNPs (79% vs. 68%), but little difference within the PACE group (56% vs. 53%).

Chapter 5: Discussion

SNPs were created under the MMA of 2003[2] to focus on individuals who required more coordinated care than anticipated by other types of MAOs. Three types of special needs individuals were identified for SNP enrollment: institutional beneficiaries, persons who are dually eligible for Medicare and Medicaid, and persons with severe or disabling chronic conditions.

SNPs were expected to improve the well-being of their enrollees that were purported to be sicker, and frailer, through improved coordination and continuity of care. SNPs were viewed as an opportunity to integrate acute and long-term care services, as well as Medicare and Medicaid financing for high cost, high-need populations, which has been an interest of state and federal policymakers for many years. [22] Although the SNPs were created with this mandate, there has been a paucity of research demonstrating the differences in health status and HRQOL of SNP beneficiaries, as well as beneficiaries in PACE Organizations and targeted Dual Demonstration SNPs, compared to other MA beneficiaries. The purpose of this research was to investigate the health status, measures of function, HRQOL and quality of care of Medicare beneficiaries enrolled in specialized managed care plans compared to those of other MA beneficiaries, and ultimately provide information to answer the question of whether the specialized plan enrollees are sicker and have worse HRQOL. Five categories of specialized managed care plans are the focus of this report: 1) Institutional SNPs, 2) Chronic Condition SNPs, 3) Dual Eligible SNPs, 4) Dual Demonstration SNPs, and 5) PACE Organizations.

The results are highly consistent in 2008 and 2009 for every measure. Since the sampling and interview methods were the same in 2008 and 2009, the results suggest that the health status of the sampled populations did not change markedly from 2008 to 2009. The larger sample size of the 2009 data resulted in more statistical power for the analyses.

FINDINGS AND IMPLICATIONS

The beneficiaries in the five specialized plans are, for the most part, significantly different from the MA beneficiaries in traditional models of care. In general, the specialized plan populations described in this study represent a more challenging and difficult to treat population. This group is older on average, with the exceptions that the Dual Eligible SNPs in particular, and the Chronic Condition SNPs to a lesser degree, tend to serve a greater number of disabled members under age 65.

Table A below summarizes the major differences in demographic characteristics, health status, function, and response rates between the beneficiaries in the specialized plans compared to other MA beneficiaries. A blank cell indicates small or inconsistent differences for the plan type indicated in the column when compared to other MA beneficiaries. A more detailed discussion of results for the statistical tests can be found in Chapters 3 and 4 of this report.

TABLE A – SUMMARY OF DEMOGRAPHICS, HEALTH STATUS, FUNCTION, AND RESPONSE RATES FOR SPECIALIZED PLANS COMPARED TO TRADITIONAL MA BENEFICIARIES

Characteristics For Plan Type vs. Other MA	Type of Plan				
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE
More Females	√		√	√	√
More Minorities	√	√	√		√
Older Age	√	–	–	√	√
Fewer Married	√	√	√	N/A	N/A
Less Education	√	√	√	N/A	N/A
Lower Income	√	√	√	N/A	N/A
More ADL Limitations	√	√	√	√	√
Worse Self-rated Health	√	√	√	√	√
Lower PCS Score	√	√	√	√	√
Lower MCS Score	√	√	√	√	√
More Chronic Conditions	√	√	√	N/A	N/A
More Underweight	√	–		N/A	N/A
More Morbid Obesity		√	√	N/A	N/A
Lower Response Rate	√		√	–	–

Legend:

√ Generally differs substantially from other MA group in the direction indicated
– Generally differs substantially from other MA group in opposite direction indicated
Blank cell indicates small or inconsistent differences compared to other MA group
N/A indicates that data is not available for these categories

Beneficiaries in specialized plans have a greater proportion of minority members (except for the Dual Demonstration SNPs) and females (except for the Chronic Condition SNPs). Where additional information is available from the HOS, the beneficiaries in the HOS SNPs report lower education levels, lower annual household incomes, and are less often married. Higher education and higher income are both associated with better health status than lower education and lower income categories.[23, 24] Being married has been reported to be associated with a potential protective health benefit and with lower mortality risk, especially for males, when compared with non-married groups.[25] Persons in non-married groups may lack social and moral support or may lack a motivation for personal care.

Health care professionals face additional challenges when treating older minority adults, including a lack of understanding of cultural attitudes, inconsistent referral patterns, and a lack of health literacy in this older minority adult population.[26] Health literacy involves the ability to read and comprehend materials encountered in the health care setting and is known to be associated with lower socio-economic status, which is common among older minority adults. Data from the 1992 National Adult Literacy Survey resulted in 44% of adults aged 65 years or older who scored at the lowest reading level, indicating interference with their ability to perform basic reading tasks which would affect their use of health related information.[26]

Beneficiaries in specialized plans have worse measures of health status and function than other MA beneficiaries, as assessed by ADL limitations and self-rated health. Since physical disability is largely a result of underlying chronic conditions and changes associated with aging, an understanding of how these factors interrelate, and a focus on care management and coordination may help forestall functional decline in these beneficiaries.[26] Beneficiaries in all specialized plans reported far worse self-rated health than other MA beneficiaries, with PACE Organizations reporting the worst health. Research suggests that self-rated health is a sensitive predictor of future morbidity and mortality.[27]

Beneficiaries in all specialized plans have worse physical and mental HRQOL than other MA beneficiaries, as measured by the PCS and MCS scores. Lower PCS and MCS scores are associated with physical and mental limitations, such as disabilities and decline in wellbeing. For the Chronic Condition SNPs, prequalifying conditions such as cardiovascular disorders, chronic heart failure, diabetes, chronic lung disorders, or disabling mental health conditions are likely factors in the lower HRQOL for this group.

These HRQOL findings are corroborated by the greater number of chronic medical conditions among beneficiaries in all the HOS SNP types compared to other MA beneficiaries, who also have the smallest percentages for most of the individual chronic conditions. For instance, a greater number of beneficiaries in Institutional SNPs reported having a stroke, which was likely the cause for Institutional certification in some cases, and osteoporosis, which reflects the older age of this group. The members of Institutional SNPs, due to the nature of their nursing home eligibility status, are expected to be frailer and have more chronic medical conditions than a non-nursing home eligible group. Those in the Chronic Condition SNPs have a greater number of heart related conditions, diabetes, and COPD, which is expected given these are prequalifying conditions. Persons in the Chronic Condition SNPs and Dual Eligible SNPs also have higher prevalence for both types of arthritis and sciatica, which were not prequalifying conditions. Members of Dual Eligible SNPs also reported more diabetes, congestive heart failure, COPD, and osteoporosis. The prevalence of any cancer was slightly lower for the Institutional SNPs and Dual Eligible SNPs compared to other MA beneficiaries, and the prevalence of four types of current cancer treatments was similar, although very low for all HOS SNP types and other MA beneficiaries. The low prevalence of current treatment for cancer limits statistical power for comparing the HOS SNPs and other MA beneficiaries, and results are therefore inconclusive as to whether the groups truly differ on this dimension.

The HOS survey provides patient self-reported information, rather than administrative documentation about chronic conditions. An evaluation of the reliability of patient self-report questions about their morbidity was undertaken by the Veterans Health Administration (VHA).

In the VHA study, information was obtained from a group of beneficiaries within the VHA that responded to both the HOS and a VHA HRQOL survey. The findings demonstrated good agreement of over 75% for most diseases, between the self-reported information obtained from the two surveys for the same persons, and the self-reported information from the HOS agreed reasonably well with diagnostic codes from VHA medical data, with specificity of 70-94% and sensitivity of 65-85 for most conditions.[28] Relatively poor measures of agreement for some of the conditions may be related to differences in the wording of questions between the two surveys, the extent to which diagnostic codes in the VHA are complete, and to other factors such as how well patients recall their medical conditions. These findings varied only slightly by age, race, and education. The results of the VHA study suggest that patient self-reports of their morbidity in surveys are reasonably good and may be used reliably in case-mix adjustments and in stratifications of patients by diseases.

Differences in BMI, although not striking, are in the directions expected. Frailer beneficiaries in Institutional SNPs have a larger underweight group, and beneficiaries in the Chronic Condition SNPs and Dual Eligible SNPs have larger proportions in the morbid obesity category, when compared to other MA beneficiaries.

Response rates were considerably higher for the HOS-M plans (Dual Demonstration SNPs and PACE Organizations) and lower for all HOS SNP plan types (Institutional SNPs, Chronic Condition SNPs, and Dual Eligible SNPs), compared to other MA beneficiaries. The reasons for higher response rates in the HOS-M are likely due to the successful effort to increase response rates for more accurate measures of frailty in this population. To that end, the survey was shortened and additional survey support was provided to obtain proxy information whenever possible. Plans also have a monetary incentive to assist in the effort, since higher payments are provided when more ADL limitations can be calculated. Within HOS SNP types, response rates were somewhat higher for Chronic Condition SNPs than for Dual Eligible SNPs and much lower for Institutional SNPs. Although the beneficiaries in Dual Eligible SNPs are younger, they have lower physical functioning, lower education levels, and more minorities than beneficiaries in the Chronic Condition SNPs, which may account for the difference in response between the two SNP types. Lower rates for Institutional SNPs would be expected due to the low physical functioning and frailer nature of these beneficiaries.

Within HOS plan types, there was a fairly consistent demographic pattern of non-response with those younger than 65 years, males, and minorities responding less. The response pattern in Institutional SNPs was somewhat different with females responding less and a similar non-response pattern across most racial/ethnicity groups (except for Asians). Within HOS-M plan types the pattern was different; non-response increased slightly with age, and had less distinct patterns by gender and race/ethnicity than was the case for HOS. For instance, response rates were higher for Hispanics across the HOS-M plans, and mixed for Asians, who responded more in PACE Organizations and less in the Dual Demonstration SNPs.

Research from the pilot version of the Consumer Assessment of Health Care Providers and Systems (CAHPS®) Hospital Survey found that survey non-response was highest for younger patients and patients other than non-Hispanic Whites, and non-response to one or more survey items increased steadily with age.[20, 29] In general, previous research using mailed surveys has found that non-elderly non-respondents were healthier than respondents, while elderly non-

respondents were sicker.[20, 29] Among the Medicare population, non-respondents to mailed surveys were more likely to be minorities, age 85 or older, Medicaid enrollees, and young disabled enrollees. Research using the PCS and MCS scores as measures of health status from a Medicare Fee-For-Service (FFS) HOS pilot, found that these scores may be slightly higher (approximately 0.7 points for PCS and 0.5 points for MCS) due to non-response than would have occurred had all members responded; however, these levels were small and didn't substantially affect estimates of average health status for this population.[20, 29] As previously discussed, differential response rates had some influence over increasing the proportions of females, Whites and those aged 65-85 among respondents as compared to non-respondents; however, the differential response rates did not greatly alter the composition by these subgroup characteristics. In particular, the proportions that were male, African American, and 85 or older were fairly similar for both non-respondents and respondents in HOS SNPs and when compared with the corresponding MA populations in traditional models of care.

HOS-M plans, which are predominantly Dual Eligible populations, had higher response rates when compared to the HOS SNP types, including the HOS Dual Eligible SNPs. The HOS might achieve higher response rates if resources similar to those for the HOS-M were available. Response rates for 2008 were slightly lower than 2009 for other MA beneficiaries and for each of the HOS SNP types, except for the Chronic Condition SNPs, which had a somewhat higher response rate in 2008. The response rates for the HOS-M plans remained high for both years.

Across the four HEDIS measure domains, there aren't consistent results for the HOS SNP types versus other MA beneficiaries when comparing performance on the HEDIS measures. The most meaningful pattern of results is by domain. The results suggest better performance of all SNP types related to the *Fall Risk Management* measure. All SNP types have worse performance for the *Osteoporosis Testing in Older Women* measure. There are small differences indicating slightly better performance for some SNP types but not for others related to the *Management of Urinary Incontinence in Older Adults* measure and the *Physical Activity in Older Adults* measure.

Table B on the next page summarizes the major differences in results for the four HEDIS measures that comprise seven rates among the beneficiaries in specialized plans compared to other MA beneficiaries. Only HOS SNPs have available data for this table. Similar to Table A, a blank cell indicates small or inconsistent differences for the plan types indicated in the column when compared to other MA beneficiaries.

For the *Fall Risk Management* measure (two rates), all six of the unadjusted comparisons by plan type are significantly higher compared to the corresponding rates for other MA beneficiaries. After demographic adjustment, all six comparisons remain significantly higher. All three SNP types do a better job of (1) discussing fall risk management, and (2) managing fall risk with prevention strategies for their members. The higher rates for the SNP types suggest that falls and prevention strategies are addressed by their providers to a greater degree.

TABLE B – SUMMARY OF PERFORMANCE ON HEDIS MEASURES FOR SPECIALIZED PLANS COMPARED TO TRADITIONAL MA BENEFICIARIES

HEDIS Rate For Plan Type vs. Other MA	Type of Plan				
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE
Higher Discussing Fall Risk Rate	√	√	√	N/A	N/A
Higher Managing Fall Risk Rate	√	√	√	N/A	N/A
Higher Discussing Urinary Incontinence (UI) Rate	√		√	N/A	N/A
Higher Receiving UI Treatment Rate	√			N/A	N/A
Higher Discussing Physical Activity Rate		√	√	N/A	N/A
Higher Advising Physical Activity Rate		√	√	N/A	N/A
Higher Osteoporosis Testing in Women Rate	–	–	–	N/A	N/A

Legend:

√ Generally differs substantially from other MA group in direction indicated
– Generally differs substantially from other MA group in opposite direction indicated
Blank cell indicates small or inconsistent differences compared to other MA group
N/A indicates that data is not available for these categories

For the *Osteoporosis Testing in Older Women* measure (one rate), all three of the unadjusted comparisons by plan type are significantly lower compared to other MA beneficiaries, and all three comparisons remain significantly lower after demographic adjustment. Research indicates that osteoporosis incidence increases with age and persons with osteoporosis are particularly prone to hip fractures after a fall.

Results for the *Management of Urinary Incontinence in Older Adults* measure (two rates) are somewhat mixed; three of the six unadjusted comparisons by plan type are significantly different (two higher and one lower) from other MA beneficiary results. After demographic adjustment three comparisons are significantly higher, and the lower comparison is no longer significantly different. Two of the plan types (Institutional SNPs and Dual Eligible SNPs) are better at (1) discussing urinary incontinence, and Institutional SNPs also do a better job of (2) providing UI treatment to members. Since UI is a more common problem among older women and persons in long term care facilities, the beneficiaries in Institutional SNPs are more likely to have urinary incontinence problems requiring interventions.[30] Members of Dual Eligible SNPs have multiple

co-morbidities that may contribute to more UI problems. It is recognized that UI may contribute to a wide range of morbidities including urinary tract infections, pressure ulcers, and falls with fractures, as well as social consequences including withdrawal and depression. A heightened awareness of these problems by the Institutional and Dual Eligible SNPs may contribute to their better performance on this measure.

Results for the *Physical Activity in Older Adults* measure (two rates) are also mixed. Five of the six unadjusted comparisons by plan type are different (three lower and two higher) from those of other MA beneficiaries. After demographic adjustment four comparisons are significantly higher. For example, the two comparisons for (1) discussing physical activity and the two comparisons for (2) receiving advice on physical activity are significantly higher for the Chronic Condition SNPs and Dual Eligible SNPs compared to other MA beneficiaries, although the differences are small. The recognition by these two types of SNPs of the greater proportions of obese and morbidly obese members, as well as younger disabled members, may account for the somewhat better performance of these SNP types. The comparisons for the Institutional SNPs are lower for both rates, although not significantly so. It is likely that the teams caring for the Institutional SNP beneficiaries consider them unable to benefit from increased physical activity due to their poor health. However, studies have reported that increased physical activity is beneficial to individuals in poor health, and that overweight/obese individuals, even without loss of weight, would benefit from exercise.[31, 32]

CONCLUSIONS

While there are some ways in which enrollees in Institutional SNPs, Chronic Condition SNPs, Dual Eligible SNPs, Dual Demonstration SNPs, and PACE Organizations are demographically similar to traditional MA beneficiaries, there are other ways in which they are fairly systematically different. The specialized managed care plans treat predominantly dually eligible Medicare beneficiaries in worse health than the general Medicare population, taking a coordinated approach in an attempt to slow their physical/mental health decline, manage multiple chronic medical conditions, and reduce or prevent costly hospitalizations and institutionalization. Treating a population that is less healthy (more co-morbid conditions), less often married (more widowed and single), and which contains a higher proportion of racial and ethnic minorities (African American, Asian and Hispanic) than the general Medicare managed care population entails significant challenges. Unadjusted comparisons of performance, whether patient experiences with care, HEDIS measures, or healthcare utilization, are likely to be biased against specialized plans due to these differences in population treated.

While some aspects, such as cancer treatment rates, are similar among the plan types, the results of this study suggest that, as anticipated, beneficiaries in specialized plans have worse function, health status, and HRQOL than other MA beneficiaries. These beneficiaries reported more difficulty with six measured ADLs, and a greater number of chronic medical conditions. HRQOL, as measured by PCS and MCS scores, was worse for SNP beneficiaries than for their other MA counterparts. In all, this suggests a population predisposed to requiring more medical care, more physical and social supports, as well as increased poly-pharmacy costs. Members of specialized plans also reported worse self-rated health, which predicts higher future morbidity and mortality.

In general, there are a number of domains in which the performance of specialized plans is similar or presents a mixed pattern compared to other MA beneficiaries. There is one domain, fall risk management that shows higher performance by the HOS SNP types. This may be due to the recognition by SNP providers of the sicker and frailer nature of the SNP beneficiaries, whose lower physical functioning necessitates assistance with daily activities such as walking and getting in or out of chairs. Falls are the most common cause of injuries among the elderly.[33] Fall prevention is instrumental in reducing serious injury and avoiding more costly types of medical care and procedures. For instance, falls in the elderly more often lead to hip fractures, nursing home admissions and increased risk of mortality, and fall related injuries are associated with significant functional decline, and decreased quality of life.[33] These specialized plans may serve as models to other MAOs on this measure.

All of the SNP types show lower performance regarding osteoporosis testing. Osteoporosis is a major cause of disability and mortality in older adults, with more than 1.5 million fractures annually associated with osteoporosis. The risk of developing osteoporosis increases with age, is higher in females than males, and is also higher in Whites and Asians than other race/ethnicity groups.[34] Clearly, both beneficiaries and plans may benefit from enhanced diagnosis and treatment of osteoporosis.

Higher performance is indicated for Institutional SNPs related to management of urinary incontinence, which is a common concern for the largely female and nursing home-eligible population. Both Institutional SNPs and Dual Eligible SNPs have higher performance on discussing UI problems. UI may contribute to a wide range of morbidities including urinary tract infections, pressure ulcers, and falls with fractures, and social consequences including withdrawal and depression. Combined direct and indirect costs of UI totals in the billions.[35] Incontinence is also a valid predictor of heavy nursing home use. Two thirds of nursing home costs are covered by Medicare and Medicaid, thus adding to the financial impact of incontinence. Because persons with urinary incontinence are frequently not being asked about UI by health care professionals, UI remains significantly underreported and underdiagnosed.[36]

There is no evidence of consistently higher or lower performance by HOS SNPs when compared to other MA beneficiaries related to physical activity. The Chronic Condition SNPs and Dual Eligible SNPs seem to do somewhat better compared to other MA beneficiaries regarding discussion and advice on physical activity. Physical activity is important since the lack of regular physical activity contributes to obesity and increases the risk of falls.[37] Regular physical activity is also associated with decreased risk for several medical conditions such as heart disease, hypertension, diabetes, certain cancers, arthritis, osteoporosis and premature mortality.[38]

Survey response rates were highest for the HOS-M plans (Dual Demonstration SNPs and PACE Organizations). Within the HOS, response rates were somewhat similar for SNP types and other MA beneficiaries, with the exception of Institutional SNPs, for which response rates were considerably lower. The HOS might also achieve higher response rates if comparable resources, such as the additional survey support provided for HOS-M, were also made available for the HOS. Differences in response rates are unlikely to have significant effects on adjusted comparisons of SNP and other MA beneficiaries.

In 2010, the Dual Demonstration SNPs will report the HOS survey rather than the HOS-M. The longer survey will provide more measures for comparison than are available with the HOS-M. A

disadvantage is that the response rates may not remain as consistently high when the longer survey is utilized and additional survey support is no longer available to these plans.

LIMITATIONS

Some limitations should be borne in mind when interpreting these results. While these analyses point to clear differences in beneficiaries served by the specialized plans, cross-sectional data cannot be used to distinguish cause from effect. Similarly, with cross-sectional data we cannot tell if beneficiaries in specialized plans decline less than they would have if they were in other forms of Medicare coverage.

This study did not consider healthcare utilization costs, which would assess whether specialized plans reduce overall healthcare costs for this difficult to treat population.

While one can never rule out non-response bias, the demographically adjusted results presented in Chapter 3 at least control for any influence that the differential non-response seen in Chapter 4 might have had on comparisons of health and HEDIS measures.

FUTURE WORK

Though this research suggests that Medicare beneficiaries in specialized managed care plans are significantly sicker than MA beneficiaries in traditional models of care, it is critical to assess whether the coordinated care provided by specialized plans is more highly effective than the care provided by the traditional MAO.

Despite hopes that SNPs would increase the overall quality of care through better coordination, results of the four HEDIS measures assessed here are mixed, with better performance on one measure, worse performance on one measure, and two measures presenting mixed patterns of performance. Although the SNP beneficiaries fared better on some HEDIS measures compared to the non-SNP MA group, all MA beneficiaries would benefit from enhanced plan performance on these measures, and therefore, the results should be interpreted with caution. Future research should consider a broader sense of measures of plan performance, quality of care, and cost.

Future work might also examine the longitudinal change in health status of beneficiaries in specialized plans and compare it to change among other MA beneficiaries. In addition to controls for health status, matching or propensity-score based approaches may further increase the comparability of specialized plans to other plans.

Healthcare utilization costs should be explored, if feasible. Comparisons of beneficiaries in specialized plans to a demographically and functionally similar group in the traditional MA population may help to determine if the increased resources and expenditures for specialized managed care are warranted.

In 2010, the Dual Demonstration SNPs will use the full HOS questionnaire. The additional information provided will benefit future research involving the beneficiaries in specialized plans.

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Tables

TABLE 1 – 2009 SOCIODEMOGRAPHIC CHARACTERISTICS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Sample Size (n)	2,776	12,231	38,584	8,907	8,489	235,203
Gender						
Female	68.4	54.5**	63.5	72.3	73.0	56.0
Age Category						
Age, mean (SD)	80.0 (10.2)	72.4 (10.2)	66.2 (14.8)	78.0 (8.7)	79.9 (9.6)	74.3 (8.9)
(SE)	(0.2)	(0.1)	(0.1)	N/A	N/A	(0.1)
Less than 65	5.3	16.0	38.1	4.3	7.5	9.0
65 to 74.9	26.5	43.4	32.3	36.3	22.9	45.4
75 to 84.9	34.8^{NS}	31.7	22.4	36.3*	36.5*	35.2
85 or older	33.4	8.9	7.2	23.1	33.1	10.4
Race/Ethnicity						
White	74.7	67.1	56.6	78.9	55.5	85.3
African American	18.2	26.8	24.2	7.1	23.5	9.2
Native American, Other, Unknown	2.6*	1.9^{NS}	2.9	3.4	2.9	2.1
Asian/Pacific Islander	1.9^{NS}	1.1***	5.3	5.3	9.0	1.5
Hispanic	2.6**	3.1	10.9	5.3	9.1	1.9
Marital Status						
Married	28.2	44.9	23.2	N/A	N/A	55.9
Never married, Separated, Divorced	23.4	23.0	47.2	N/A	N/A	16.2
Widowed	41.6	26.9	24.4*	N/A	N/A	24.2
Missing	6.8	5.2	5.2	N/A	N/A	3.7
Education Category						
8th Grade or less	16.1	17.5	28.8	N/A	N/A	9.7
Some high school, but did not graduate	16.4	19.6	19.7	N/A	N/A	13.4
High school graduate or GED	29.9	30.5	25.8	N/A	N/A	35.3
Some college or 2 year degree	17.8***	18.1	13.6	N/A	N/A	21.8
4 year college degree	5.8**	4.4	2.9	N/A	N/A	7.6
More than a 4 year college degree	5.0	4.0	2.0	N/A	N/A	8.2
Missing	8.9	5.9	7.2	N/A	N/A	4.1

All differences by Plan Type are significant at p<0.0001 when compared to Other MA category unless otherwise indicated (missing rows were not tested).
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 1 (CONTINUED) – 2009 SOCIODEMOGRAPHIC CHARACTERISTICS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

	HOS (%)			HOS-M (%)		HOS (%)
Characteristics	**Institutional SNP**	**Chronic Condition SNP**	**Dual Eligible SNP**	**Dual Demonstration SNP**	**PACE**	**Other MA**
Annual Household Income Category						
Income, mean (SD) - excludes "Don't know"	3.4 (1.7)	3.5 (1.5)	2.5 (1.2)	N/A	N/A	4.3 (1.7)
(SE)	(0.04)	(0.02)	(0.01)	N/A	N/A	(0.01)
Less than $5,000	9.4	7.1	15.3	N/A	N/A	3.3
$5,000 to $9,999	9.3	10.4	28.5	N/A	N/A	5.2
$10,000 to $19,999	22.8	28.7	21.5*	N/A	N/A	20.6
$20,000 to $29,999	11.6	16.6***	4.6	N/A	N/A	17.6
$30,000 to $39,999	6.0	8.0	2.1	N/A	N/A	11.5
$40,000 to $49,999	3.2	4.3	1.2	N/A	N/A	7.7
$50,000 or greater	6.3	5.0	1.6	N/A	N/A	13.1
Don't know	12.8	9.5NS	15.4	N/A	N/A	9.2
Missing	18.7	10.3	9.9	N/A	N/A	11.8

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated (missing rows were not tested).
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 2 – 2009 LIMITATIONS IN ACTIVITIES OF DAILY LIVING BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
ADL Limitations Category						
Any Difficulty§, mean (SD)	2.7 (2.5)	1.4 (1.8)	1.9 (2.0)	2.3 (2.1)	3.3 (2.1)	1.0 (1.6)
(SE)	(0.03)	(0.02)	(0.01)	N/A	N/A	(0.01)
Any Difficulty Bathing	47.9	23.9	32.7	45.5	68.3	15.2
Any Difficulty Getting in/out of Chairs	49.0	30.9	38.4	46.5	61.2	22.9
Any Difficulty Dressing	42.6	19.2	27.6	33.8	56.2	12.5
Any Difficulty Eating	26.1	8.5	13.5	14.8	24.5	5.2
Any Difficulty Using Toilet	38.4	14.0	20.2	25.4	44.6	9.3
Any Difficulty Walking	58.1	44.4	51.0	62.6	76.9	32.2
Unable to do, mean (SD)	1.4 (2.1)	0.2 (0.7)	0.3 (1.0)	0.5 (1.3)	1.0 (1.7)	0.1 (0.6)
(SE)	(0.013)	(0.007)	(0.004)	N/A	N/A	(0.004)
Unable to Bathe	30.5	4.3	7.5	17.3	30.3	2.8
Unable to Get in/out of Chairs	22.8	2.1	4.1	6.7	13.1	1.4
Unable to Dress	25.3	2.5	5.0	9.2	18.7	1.7
Unable to Eat	8.2	1.2	2.2	2.8	5.2	0.7
Unable to Use Toilet	21.9	1.8	3.6	6.2	12.5	1.2
Unable to Walk	27.4	4.4	6.9	12.2	20.5	2.7

§- Any difficulty with ADL limitations is defined as having difficulty or inability to perform one or more of the six individual activities.

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

TABLE 3 – 2009 ADJUSTED LIMITATIONS IN ACTIVITIES OF DAILY LIVING BY PLAN TYPE 2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
ADL Limitations Category						
Any Difficulty§, mean (SE)[1]	2.9 (0.03)	1.7 (0.02)	1.9 (0.01)	2.6 (0.02)	3.4(0.02)	1.4 (0.01)
Any Difficulty§, mean (SE)[2]	2.7 (0.04)	1.6 (0.02)	1.7 (0.01)	N/A	N/A	1.3 (0.02)
Difficulty Bathing[3]	47.9	23.9	32.7	45.5	68.3	15.2
Difficulty Getting in/out of Chairs	49.0	30.9	38.4	46.5	61.2	22.9
Difficulty Dressing	42.6	19.2	27.6	33.8	56.2	12.5
Difficulty Eating	26.1	8.5	13.5	14.8	24.5	5.2
Difficulty Using Toilet	38.4	14.0	20.2	25.4	44.6	9.3
Difficulty Walking	58.1	44.4	51.0	62.6	76.9	32.2
Unable to do, mean (SE)[1]	1.4 (0.02)	0.2 (0.01)	0.3 (0.005)	0.6 (0.01)	1.0 (0.01)	0.2 (0.005)
Unable to do, mean (SE)[2]	1.3 (0.01)	0.2 (0.01)	0.3 (0.005)	N/A	N/A	0.2 (0.007)
Unable to Bathe[3]	30.5	4.3	7.5	17.3	30.3	2.8
Unable to Get in or out of Chairs	22.8	2.1	4.1	6.7	13.1	1.4
Unable to Dress	25.3	2.5	5.0	9.2	18.7	1.7
Unable to Eat	8.2	1.2	2.2	2.8	5.2	0.7
Unable to Use Toilet	21.9	1.8	3.6	6.2	12.5	1.2
Unable to Walk	27.4	4.4	6.9	12.2	20.5	2.7

§- Any difficulty with ADL limitations is defined as having difficulty or inability to perform one or more of the six individual activities.

[1] Adjusted means from models including Plan type and three covariates (age, gender, race/ethnicity)
[2] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)
[3] Unadjusted proportions with significance from adjusted models including Plan type and three covariates (age, gender, race/ethnicity)
All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

TABLE 4 – 2009 SELF-RATED GENERAL HEALTH BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Self-rated General Health Category						
Self-rated General Health, mean (SD) §	2.5 (1.0)	2.6 (1.0)	2.4 (1.0)	2.5 (0.9)	2.3 (0.9)	3.0 (1.0)
(SE) §	(0.02)	(0.01)	(0.01)	N/A	N/A	(0.01)
Poor	19.3	12.8	17.4	13.7	19.4	6.6
Fair	33.0	35.1	40.8	38.8	43.7	23.7
Good	30.5	34.5	27.7	33.4	26.0	37.9
Very Good	13.0	13.4	9.4	10.2	7.2	24.4
Excellent	2.9	2.3	2.9	2.4	2.0	5.9
Missing	1.2	1.9	1.7	1.5	1.6	1.5

§ - Excludes "Missing"

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated (missing rows were not tested).
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 5 – 2009 ADJUSTED SELF-RATED GENERAL HEALTH BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Self-rated General Health Category						
Self-rated General Health, mean (SE) §[1]	2.3 (0.02)	2.4 (0.01)	2.3 (0.01)	2.2 (0.01)	2.1 (0.01)	2.7 (0.01)
Self-rated General Health, mean (SE) §[2]	2.4 (0.02)	2.6 (0.01)	2.6 (0.01)	N/A	N/A	2.8 (0.01)
Poor[3]	19.3	12.8	17.4	13.7	19.4	6.6
Fair	33.0	35.1	40.8	38.8	43.7	23.7
Good	30.5	34.5	27.7	33.4	26.0	37.9
Very Good	13.0	13.4	9.4	10.2	7.2	24.4
Excellent	2.9	2.3	2.9	2.4	2.0	5.9
Missing	1.2	1.9	1.7	1.5	1.6	1.5

§ - Excludes "Missing"

[1] Adjusted means from models including Plan type and three covariates (age, gender, race/ethnicity)
[2] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)
[3] Unadjusted proportions with significance from adjusted models including Plan type and three covariates (age, gender, race/ethnicity)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated (missing rows were not tested).
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 6 – 2009 HEALTH RELATED QUALITY OF LIFE (PCS & MCS SCORES) 2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

	HOS (%)			HOS-M (%)		HOS (%)
Characteristics	**Institutional SNP**	**Chronic Condition SNP**	**Dual Eligible SNP**	**Dual Demonstration SNP**	**PACE**	**Other MA**
PCS, mean (SD)	32.1 (13.0)	34.4 (11.9)	33.0 (11.8)	31.3 (11.6)	28.1 (10.2)	38.6 (12.4)
(SE)	(0.2)	(0.1)	(0.1)	N/A	N/A	(0.06)
MCS, mean (SD)	45.0 (14.5)	47.1 (12.6)	43.2 (13.2)	46.2 (13.1)	41.6 (13.5)	51.2 (11.5)
(SE)	(0.2)	(0.1)	(0.1)	N/A	N/A	(0.06)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 7 – 2009 ADJUSTED HEALTH RELATED QUALITY OF LIFE (PCS & MCS SCORES) 2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

	HOS (%)			HOS-M (%)		HOS (%)
Characteristics	**Institutional SNP**	**Chronic Condition SNP**	**Dual Eligible SNP**	**Dual Demonstration SNP**	**PACE**	**Other MA**
PCS, mean (SE)[1]	31.3 (0.2)	32.7 (0.1)	33.1 (0.07)	29.7 (0.1)	27.7 (0.1)	36.3 (0.08)
PCS, mean (SE)[2]	33.2 (0.3)	34.5 (0.1)	35.4 (0.1)	N/A	N/A	37.0 (0.11)
MCS, mean (SE)[1]	41.9 (0.2)	44.5 (0.1)	43.2 (0.07)	42.8 (0.1)	39.3 (0.1)	47.6 (0.08)
MCS, mean (SE)[2]	43.1 (0.2)	45.8 (0.1)	45.8 (0.1)	N/A	N/A	47.9 (0.11)

[1] Adjusted means from models including Plan type and three covariates (age, gender, race/ethnicity)
[2] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 8 – 2009 CHRONIC CONDITIONS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Chronic Conditions, mean (SD)	3.4 (2.3)	3.9 (2.4)	3.7 (2.6)	N/A	N/A	3.1 (2.2)
(SE)	(0.04)	(0.02)	(0.01)	N/A	N/A	(0.01)
Arthritis of hip or knee						
Yes - All observations	42.9	47.1	50.1	N/A	N/A	41.0
Yes - Among non-missing	47.1	49.7	52.8	N/A	N/A	42.5
Missing	8.8	5.1	5.1	N/A	N/A	3.6
Arthritis of hand or wrist						
Yes - All observations	38.1	41.5	43.7	N/A	N/A	36.7
Yes - Among non-missing	42.3	43.9	46.3	N/A	N/A	38.1
Missing	9.8	5.5	5.6	N/A	N/A	3.9
Diabetes						
Yes - All observations	26.7	43.4	33.2	N/A	N/A	23.8
Yes - Among non-missing	29.0	45.5	34.9	N/A	N/A	24.6
Missing	8.2	4.8	4.8	N/A	N/A	3.3
Inflammatory Bowel Diseases						
Yes - All observations	5.9	5.7	8.4	N/A	N/A	5.3
Yes - Among non-missing	6.6*	6.1**	9.0	N/A	N/A	5.5
Missing	9.8	6.5	6.7	N/A	N/A	4.2
High Blood Pressure						
Yes - All observations	62.3	74.7	64.4	N/A	N/A	63.5
Yes - Among non-missing	67.6*	78.0	67.3	N/A	N/A	65.5
Missing	7.9	4.3	4.3	N/A	N/A	3.0
Other Heart Conditions[∞]						
Yes - All observations	20.6	27.1	22.2	N/A	N/A	22.2
Yes - Among non-missing	23.0[NS]	28.9	23.6*	N/A	N/A	23.1
Missing	10.3	6.1	6.0	N/A	N/A	4.0
Myocardial Infarction						
Yes - All observations	10.3	15.5	11.2	N/A	N/A	10.8
Yes - Among non-missing	11.5[NS]	16.4	11.9***	N/A	N/A	11.2
Missing	9.8	5.8	5.9	N/A	N/A	3.8
Osteoporosis						
Yes - All observations	27.4	19.3	24.1	N/A	N/A	20.1
Yes - Among non-missing	30.4	20.6[NS]	25.6	N/A	N/A	21.0
Missing	9.9	6.1	6.1	N/A	N/A	4.1

[∞] Other Heart Conditions, such as problems with heart valves, or the rhythm of the heartbeat.

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 8 (CONTINUED) – 2009 CHRONIC CONDITIONS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Sciatica						
Yes - All observations	20.2	26.3	30.2	N/A	N/A	22.8
Yes - Among non-missing	22.6 NS	28.0	32.2	N/A	N/A	23.8
Missing	10.7	6.2	6.1	N/A	N/A	4.1
Stroke						
Yes - All observations	16.9	13.6	11.8	N/A	N/A	8.6
Yes - Among non-missing	18.5	14.3	12.5	N/A	N/A	8.9
Missing	8.6	5.1	5.5	N/A	N/A	3.6
Coronary Artery Disease						
Yes - All observations	15.0	19.6	15.5	N/A	N/A	14.6
Yes - Among non-missing	16.7 NS	21.1	16.6	N/A	N/A	15.3
Missing	10.4	6.9	6.7	N/A	N/A	4.5
Congestive Heart Failure						
Yes - All observations	14.0	15.4	13.2	N/A	N/A	8.8
Yes - Among non-missing	15.5	16.4	14.0	N/A	N/A	9.2
Missing	9.7	6.0	6.3	N/A	N/A	4.1
COPD						
Yes - All observations	14.9	22.0	23.0	N/A	N/A	15.2
Yes - Among non-missing	16.5 NS	23.3	24.3	N/A	N/A	15.8
Missing	9.4	5.3	5.6	N/A	N/A	3.6
Any Cancer						
Yes – All observations	12.9	13.5	9.8	N/A	N/A	15.2
Yes – Among non-missing	14.1*	14.2	10.3	N/A	N/A	15.7
Missing	8.5	4.8	5.0	N/A	N/A	3.2
Under Treatment for Breast Cancer ‡						
No	98.1	98.3	98.4	N/A	N/A	98.2
Yes	2.1 NS	1.8 NS	1.7 *	N/A	N/A	1.9
Under Treatment for Colon Cancer						
No	99.1	99.0	99.1	N/A	N/A	99.1
Yes	0.9 NS	1.0 NS	1.0 NS	N/A	N/A	1.0
Under Treatment for Lung Cancer						
No	99.6	99.3	99.4	N/A	N/A	99.4
Yes	0.5 NS	0.7 NS	0.6 NS	N/A	N/A	0.6
Under Treatment for Prostate Cancer †						
No	98.1	97.4	98.6	N/A	N/A	97.3
Yes	2.1 *	2.7 NS	1.4	N/A	N/A	2.8

† - Prostate Cancer includes 236 observations from CMS data reporting female gender
‡ - Breast Cancer includes 167 observations from CMS data reporting male gender

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 9 – 2009 ADJUSTED CHRONIC CONDITIONS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Chronic Conditions, mean (SE)[1]	3.3 (0.05)***	3.7 (0.02)	3.4 (0.02)	N/A	N/A	3.1 (0.02)
Arthritis of hip or knee[2]						
Yes - All observations	42.9	47.1	50.1	N/A	N/A	41.0
Yes - Among non-missing	47.1 NS	49.7	52.8	N/A	N/A	42.5
Missing	8.8	5.1	5.1	N/A	N/A	3.6
Arthritis of hand or wrist						
Yes - All observations	38.1	41.5	43.7	N/A	N/A	36.7
Yes - Among non-missing	42.3 NS	43.9	46.3	N/A	N/A	38.1
Missing	9.8	5.5	5.6	N/A	N/A	3.9
Diabetes						
Yes - All observations	26.7	43.4	33.2	N/A	N/A	23.8
Yes - Among non-missing	29.0	45.5	34.9	N/A	N/A	24.6
Missing	8.2	4.8	4.8	N/A	N/A	3.3
Inflammatory Bowel Diseases						
Yes - All observations	5.9	5.7	8.4	N/A	N/A	5.3
Yes - Among non-missing	6.6 NS	6.1 NS	9.0	N/A	N/A	5.5
Missing	9.8	6.5	6.7	N/A	N/A	4.2
High Blood Pressure						
Yes - All observations	62.3	74.7	64.4	N/A	N/A	63.5
Yes - Among non-missing	67.6NS	78.0	67.3NS	N/A	N/A	65.5
Missing	7.9	4.3	4.3	N/A	N/A	3.0
Other Heart Conditions∞						
Yes - All observations	20.6	27.1	22.2	N/A	N/A	22.2
Yes - Among non-missing	23.0NS	28.9	23.6	N/A	N/A	23.1
Missing	10.3	6.1	6.0	N/A	N/A	4.0
Myocardial Infarction						
Yes - All observations	10.3	15.5	11.2	N/A	N/A	10.8
Yes - Among non-missing	11.5NS	16.4	11.9	N/A	N/A	11.2
Missing	9.8	5.8	5.9	N/A	N/A	3.8
Osteoporosis						
Yes - All observations	27.4	19.3	24.1	N/A	N/A	20.1
Yes - Among non-missing	30.4	20.6NS	25.6	N/A	N/A	21.0
Missing	9.9	6.1	6.1	N/A	N/A	4.1

∞ Other Heart Conditions, such as problems with heart valves, or the rhythm of the heartbeat.

[1]Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)
[2] Unadjusted proportions with significance from adjusted models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 9 (CONTINUED) 2009 ADJUSTED CHRONIC CONDITIONS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Sciatica[2]						
Yes - All observations	20.2	26.3	30.2	N/A	N/A	22.8
Yes - Among non-missing	22.6[NS]	28.0	32.2	N/A	N/A	23.8
Missing	10.7	6.2	6.1	N/A	N/A	4.1
Stroke						
Yes - All observations	16.9	13.6	11.8	N/A	N/A	8.6
Yes - Among non-missing	18.5	14.3	12.5	N/A	N/A	8.9
Missing	8.6	5.1	5.5	N/A	N/A	3.6
Coronary Artery Disease						
Yes - All observations	15.0	19.6	15.5	N/A	N/A	14.6
Yes - Among non-missing	16.7 *	21.1	16.6	N/A	N/A	15.3
Missing	10.4	6.9	6.7	N/A	N/A	4.5
Congestive Heart Failure						
Yes - All observations	14	15.4	13.2	N/A	N/A	8.8
Yes - Among non-missing	15.5	16.4	14.0	N/A	N/A	9.2
Missing	9.7	6.0	6.3	N/A	N/A	4.1
COPD						
Yes - All observations	14.9	22.0	23.0	N/A	N/A	15.2
Yes - Among non-missing	16.5[NS]	23.3	24.3	N/A	N/A	15.8
Missing	9.4	5.3	5.6	N/A	N/A	3.6
Any Cancer						
Yes – All observations	12.9	13.5	9.8	N/A	N/A	15.2
Yes – Among non-missing	14.1*	14.2[NS]	10.3	N/A	N/A	15.7
Missing	8.5	4.8	5.0	N/A	N/A	3.2
Under Treatment for Breast Cancer ‡						
No	98.1	98.3	98.4	N/A	N/A	98.2
Yes	2.1[NS]	1.8[NS]	1.7*	N/A	N/A	1.9
Under Treatment for Colon Cancer						
No	99.1	99.0	99.1	N/A	N/A	99.1
Yes	0.9[NS]	1.0[NS]	1.0[NS]	N/A	N/A	1.0
Under Treatment for Lung Cancer						
No	99.6	99.3	99.4	N/A	N/A	99.4
Yes	0.5[NS]	0.7 [NS]	0.6 [NS]	N/A	N/A	0.6
Under Treatment for Prostate Cancer †						
No	98.1	97.4	98.6	N/A	N/A	97.3
Yes	2.1 [NS]	2.7 [NS]	1.4 [NS]	N/A	N/A	2.8

† - Prostate Cancer includes 236 observations from CMS data reporting female gender
‡ - Breast Cancer includes 167 observations from CMS data reporting male gender

[2] Unadjusted proportions with significance from adjusted models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 10 – 2009 BODY MASS INDEX BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
BMI Category						
BMI, mean (SD)	26.8 (6.2)	29.0 (6.6)	28.8 (7.2)	N/A	N/A	27.5 (5.7)
(SE)	(0.1)	(0.1)	(0.03)	N/A	N/A	(0.03)
Underweight (BMI less than 20)	10.3	4.7**	6.9	N/A	N/A	5.4
Normal (BMI 20-24)	27.8*	21.7	23.1	N/A	N/A	27.3
Overweight (BMI 25-29)	29.8	32.7	28.8	N/A	N/A	36.5
Obese (BMI 30-34)	15.4^{NS}	19.4	18.4	N/A	N/A	17.2
Morbid Obesity (BMI 35 or more)	7.5*	15.3	15.6	N/A	N/A	9.1
Missing	9.1	6.4	7.3	N/A	N/A	4.5

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated (missing rows were not tested).
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 11 – 2009 ADJUSTED BODY MASS INDEX BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
BMI Category						
BMI, mean (SE)[1]	26.6[NS] (0.1)	27.4 (0.06)	26.9 (0.04)	N/A	N/A	26.6 (0.06)
Underweight (BMI less than 20)[2]	10.3	4.7[NS]	6.9 **	N/A	N/A	5.4
Normal (BMI 20-24)	27.8 ** (<)	21.7	23.1 ***	N/A	N/A	27.3
Overweight (BMI 25-29)	29.8[NS]	32.7	28.8	N/A	N/A	36.5
Obese (BMI 30-34)	15.4[NS]	19.4**	18.4 [NS]	N/A	N/A	17.2
Morbid Obesity (BMI 35 or more)	7.5[NS]	15.3	15.6	N/A	N/A	9.1
Missing	9.1	6.4	7.3	N/A	N/A	4.5

[1] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)
[2] Unadjusted proportions with significance from adjusted models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

(<) - Indicates proportion is significantly lower compared to other MA beneficiaries after adjustment (adjusted proportion not shown in table)

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated (missing rows were not tested).
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

TABLE 12A – 2009 ELIGIBILITY STATUS FOR HEDIS MEASURES BY PLAN TYPE 2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Eligible for Discussing Fall Risk	71.6	64.1	67.7	N/A	N/A	60.1
Eligible for Managing Fall Risk	46.9	43.1	49.0	N/A	N/A	35.0
Management of Urinary Incontinence (UI) in Older Adults						
Eligible for Discussing UI	39.1	30.2	31.1	N/A	N/A	26.7
Eligible for Receiving UI Treatment	38.6	30.1	31.0	N/A	N/A	26.6
Physical Activity in Older Adults						
Eligible for Discussing Physical Activity	84.5	88.0	86.9	N/A	N/A	89.7
Eligible for Advising Physical Activity	86.6	91.3*	90.5	N/A	N/A	91.9
Osteoporosis Testing in Older Women						
Eligible for Osteoporosis Testing in Older Women	87.0	92.1	92.0	N/A	N/A	94.8

Unadjusted proportions with significance level based on adjustment for Plan Type only.

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

TABLE 12B – 2009 HEDIS MEASURE RESULTS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Discussing Fall Risk Rate	37.1	34.3	41.8	N/A	N/A	27.9
Managing Fall Risk Rate	69.5	60.2	68.0	N/A	N/A	54.3
Management of Urinary Incontinence (UI) in Older Adults						
Discussing UI Rate	68.2	57.6^{NS}	61.2	N/A	N/A	56.9
Receiving UI Treatment Rate	38.2 ^{NS}	35.3^{NS}	34.9*	N/A	N/A	36.3
Physical Activity in Older Adults						
Discussing Physical Activity Rate	49. 1***	52.5^{NS}	48.0	N/A	N/A	52.7
Advising Physical Activity Rate	41.1	48.8	47.5***	N/A	N/A	46.1
Osteoporosis Testing in Older Women						
Osteoporosis Testing in Older Women Rate	59.0	61.4	55.6	N/A	N/A	72.0

Unadjusted proportions with significance level based on adjustment for Plan Type only.

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 13A – 2009 ADJUSTED ELIGIBILITY STATUS FOR HEDIS MEASURES BY PLAN TYPE 2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Eligible for Discussing Fall Risk	71.6[NS]	64.1	67.7	N/A	N/A	60.1
Eligible for Managing Fall Risk	46.9	43.1	49.0	N/A	N/A	35.0
Management of Urinary Incontinence (UI) in Older Adults						
Eligible for Discussing UI	39.1	30.2	31.1	N/A	N/A	26.7
Eligible for Receiving UI Treatment	38.6	30.1	31.0	N/A	N/A	26.6
Physical Activity in Older Adults						
Eligible for Discussing Physical Activity	84.5[NS]	88.0[NS]	86.9* (>)	N/A	N/A	89.7
Eligible for Advising Physical Activity	86.6[NS]	91.3*** (>)	90.5**(>)	N/A	N/A	91.9
Osteoporosis Testing in Older Women						
Eligible for Osteoporosis Testing in Older Women	87.0	92.1*	92.0**	N/A	N/A	94.8

Unadjusted proportions with significance level based on adjustment for Plan Type, age, race, gender, marital status, education, and income.
(>) - Indicates proportion is significantly higher compared to other MA beneficiaries after adjustment (adjusted proportion not shown in table)

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

TABLE 13B – 2009 ADJUSTED HEDIS MEASURE RESULTS BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Discussing Fall Risk Rate	37.1	34.3	41.8	N/A	N/A	27.9
Managing Fall Risk Rate	69.5	60.2	68.0	N/A	N/A	54.3
Management of Urinary Incontinence (UI) in Older Adults						
Discussing UI Rate	68.2	57.6^{NS}	61.2	N/A	N/A	56.9
Receiving UI Treatment Rate	38.2*	35.3^{NS}	34.9^{NS}	N/A	N/A	36.3
Physical Activity in Older Adults						
Discussing Physical Activity Rate	49.1^{NS}	52.5(>)	48.0 ***(>)	N/A	N/A	52.7
Advising Physical Activity Rate	41.1^{NS}	48.8	47.5	N/A	N/A	46.1
Osteoporosis Testing in Older Women						
Osteoporosis Testing in Older Women Rate	59.0	61.4	55. 6	N/A	N/A	72.0

Unadjusted proportions with significance level based on adjustment for Plan Type, age, race, gender, marital status, education, and income.
(>) - Indicates proportion is significantly higher compared to other MA beneficiaries after adjustment (adjusted proportion not shown in table)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

TABLE 14 – 2009 RESPONSE RATES BY PLAN TYPE
2009 HOS-M AND 2009 HOS *COHORT 12 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Sample Size	2,776	12,231	38,584	8,907	8,489	235,203
Overall Response Rate	33.6	61.9	54.0	72.9	75.5	64.9
Age						
Less than 65	25.0	51.1	52.2	76.5	76.8	59.0
65 - 74.9	44.1	63.8	56.7	72.8	75.2	65.2
75 - 84.9	36.6	67.0	54.8	73.0	74.7	67.2
85 or older	27.4	60.0	49.4	72.3	76.4	62.4
CMS Gender						
Male	37.1	59.6	50.3	70.5	76.2	64.0
Female	32.2	64.0	56.3	73.9	75.3	65.7
CMS Race						
White	33.1	65.0	56.6	75.8	76.2	66.7
African American	33.3	57.5	53.7	62.6	69.2	57.2
Native American, Other, Unknown	44.0	60.1	49.3	67.5	75.9	58.6
Asian	46.8	53.3	53.4	54.6	86.9	59.8
Hispanic	34.3	48.0	44.8	76.3	79.6	49.1
CMS Region						
Boston (1)	19.8	64.2	58.1	71.5	74.1	66.3
New York (2)	38.8	58.7	54.8	N/A	77.4	62.8
Philadelphia (3)	21.1	59.3	56.5	N/A	75.5	66.7
Atlanta (4)	21.7	64.5	57.7	N/A	67.2	61.3
Chicago (5)	26.1	62.4	56.3	73.4	72.1	67.8
Dallas (6)	25.8	63.3	51.1	N/A	77.0	63.3
Kansas City (7)	28.6	69.4	52.5	N/A	78.7	68.3
Denver (8)	26.8	67.2	53.6	N/A	70.0	68.8
San Francisco (9)	59.1	47.1	51.1	N/A	84.3	63.6
Seattle (10)	19.0	69.7	51.0	N/A	72.1	67.5
Medicaid Status						
Out of Medicaid	53.0	63.7	51.1	N/A	N/A	65.4
In Medicaid	23.9	55.0	54.1	N/A	N/A	60.2
Enrollment Duration						
Less than 6 months	27.6	64.9	56.0	N/A	N/A	67.4
6 to 12 months	25.1	60.9	53.6	N/A	N/A	62.5
13 to 36 months	30.8	61.6	54.8	N/A	N/A	64.2
37 months or more	41.7	45.0	50.9	N/A	N/A	64.2

TABLE 15 – 2008-2009 HOS LIKELIHOOD OF RESPONSE
2008 HOS *COHORT 11* AND 2009 HOS *COHORT 12 BASELINE*

Characteristics[§]	2008 HOS *Cohort 11*		2009 HOS *Cohort 12*	
	Estimate	**Odds Ratio**	**Estimate**	**Odds Ratio**
Intercept	0.1915	N/A	0.3055	N/A
Chronic Condition SNP	0.2628	1.301	-0.0113[NS]	0.989
Dual Eligible SNP	-0.2308	0.794	-0.1205	0.886
Institutional SNP	-1.2378	0.290	-1.1536	0.316
Age 65 - 74.9	0.2642	1.302	0.2100	1.234
Age 75 – 84.9	0.2877	1.333	0.2881	1.334
Age 85 or older	-0.00643[NS]	0.994	0.0510	1.052
Female	0.1114	1.118	0.1059	1.112
Race – Black	-0.3087	0.734	-0.2990	0.742
Race – Native American, Other, Unknown	-0.2539	0.776	-0.2907	0.748
Race – Asian/Pacific Islander	-0.1614	0.851	-0.2351	0.790
Hispanic	-0.5072	0.602	-0.5800	0.560
Enrolled < 6 months	N/A	N/A	0.1508	1.163
Enrolled 13 – 36 months	-0.0404	0.960	0.0249*	1.025
Enrolled 37 months or more	-0.1054	0.900	-0.0119[NS]	0.988
In Medicaid	-0.0657	0.936	-0.1531	0.858
Region 1 – Boston	0.0281[NS]	1.028	0.0762	1.079
Region 2 - New York	0.0694	1.072	0.0526	1.054
Region 3 – Philadelphia	0.1915	1.211	0.1298	1.139
Region 5 – Chicago	0.2520	1.287	0.1743	1.190
Region 6 – Dallas	-0.00118[NS]	0.999	0.0319**	1.032
Region 7 - Kansas City	0.2444	1.277	0.1990	1.220
Region 8 – Denver	0.1230	1.131	0.1455	1.157
Region 9 - San Francisco	0.0769	1.080	0.0257*	1.026
Region 10 – Seattle	0.0989	1.104	0.1032	1.109

[§] Note the reference categories were "other MA" for plan type, "less than 65" for age, "male" for gender, "White" for race/ethnicity, "6-12 months" for enrollment, "out of Medicaid" for Medicaid status, and "Region 4 – Atlanta" for CMS region.

All differences in characteristics compared to reference categories are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

TABLE 16 – 2008-2009 HOS-M LIKELIHOOD OF RESPONSE 2008 HOS-M AND 2009 HOS-M

Characteristics[§]	2008 HOS-M		2009 HOS-M	
	Estimate	Odds Ratio	Estimate	Odds Ratio
Intercept	1.1435	N/A	1.0775	N/A
PACE	0.0473[NS]	1.048	0.0918[NS]	1.096
Age 65 - 74.9	-0.2475**	0.781	-0.1383[NS]	0.871
Age 75 – 84.9	-0.1989*	0.820	-0.1760*	0.839
Age 85 or older	-0.2265**	0.797	-0.1841*	0.832
Female	0.0812*	1.085	0.0782*	1.081
Race – Black	-0.4863	0.615	-0.5396	0.583
Race – Native American, Other, Unknown	-0.3176***	0.728	-0.3316	0.718
Race – Asian/Pacific Islander	-0.4078	0.665	-0.4730	0.623
Hispanic	-0.1282*	0.880	0.0166[NS]	1.017
Region 1 – Boston	0.1487[NS]	1.160	0.0737[NS]	1.076
Region 2 - New York	0.3493**	1.418	0.4086***	1.505
Region 3 – Philadelphia	0.2337*	1.263	0.3929***	1.481
Region 5 – Chicago	0.1352[NS]	1.145	0.1238[NS]	1.132
Region 6 – Dallas	0.4356***	1.546	0.1917[NS]	1.211
Region 7 - Kansas City	0.5640**	1.758	0.4683**	1.597
Region 8 – Denver	-0.1226[NS]	0.885	-0.1543[NS]	0.857
Region 9 - San Francisco	0.5767	1.780	0.8850	2.423
Region 10 – Seattle	0.4599***	1.584	-0.0249[NS]	0.975

[§] Note the reference categories were "Dual Demonstration SNP" for plan type, "less than 65" for age, "male" for gender, "White" for race/ethnicity, and "Region 4 – Atlanta" for CMS region.

All differences in characteristics compared to reference categories are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

TABLE 17 – 2009 BENEFICIARY CHARACTERISTICS FOR RESPONDERS AND NON-RESPONDERS BY COMBINED PLAN TYPE FOR 2009 HOS *COHORT 12 BASELINE*

Characteristics	All HOS SNPs Combined		Other MA	
	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)
Sample Size	45,943	53,591	126,962	235,203
Age				
Less than 65	15,770 (34.3)	16,817 (31.4)	14,787 (11.6)	21,244 (9.0)
65 - 74.9	13,426 (29.2)	18,490 (34.5)	57,062 (44.9)	106,844 (45.4)
75 - 84.9	10,711 (23.3)	13,474 (25.1)	40,426 (31.8)	82,762 (35.2)
85 or older	6,036 (13.1)	4,810 (9.0)	14,687 (11.6)	24,353 (10.4)
CMS Gender				
Male	19,176 (41.7)	20,527 (38.3)	58,213 (45.9)	103,431 (44.0)
Female	26,767 (58.3)	33,064 (61.7)	68,749 (54.1)	131,772 (56.0)
CMS Race				
White	25,343 (55.2)	32,133 (60.0)	100,338 (79.0)	200,675 (85.3)
African American	11,463 (25.0)	13,113 (24.5)	16,226 (12.8)	21,699 (9.2)
Native American, Other, Unknown	1,410 (3.1)	1,434 (2.7)	3,422 (2.7)	4,852 (2.1)
Asian/Pacific Islander	1,971 (4.3)	2,242 (4.2)	2,378 (1.9)	3,537 (1.5)
Hispanic	5,756 (12.5)	4,669 (8.7)	4,598 (3.6)	4,440 (1.9)
CMS Region				
Boston (1)	2,038 (4.4)	2,470 (4.6)	5,840 (4.6)	11,478 (4.9)
New York (2)	7,927 (17.3)	8,853 (16.5)	16,211 (12.8)	27,341 (11.6)
Philadelphia (3)	3,927 (8.5)	4,618 (8.6)	11,106 (8.7)	22,238 (9.5)
Atlanta (4)	6,626 (14.4)	9,448 (17.6)	24,318 (19.2)	38,569 (16.4)
Chicago (5)	4,057 (8.8)	4,215 (7.9)	20,254 (16.0)	42,579 (18.1)
Dallas (6)	4,223 (9.2)	5,216 (9.7)	13,928 (11.0)	23,989 (10.2)
Kansas City (7)	776 (1.7)	1,288 (2.4)	6,947 (5.5)	15,000 (6.4)
Denver (8)	2,450 (5.3)	2,537 (4.7)	3,710 (2.9)	8,192 (3.5)
San Francisco (9)	10,652 (23.2)	11,135 (20.8)	16,220 (12.8)	28,313 (12.0)
Seattle (10)	3,267 (7.1)	3,811 (7.1)	8,428 (6.6)	17,504 (7.4)
Medicaid Status				
Out of Medicaid	9,178 (20.0)	13,747 (25.7)	114,180 (89.9)	215,890 (91.8)
In Medicaid	36,765 (80.0)	39,844 (74.3)	12,782 (10.1)	19,313 (8.2)
Enrollment Duration				
Less than 6 months	7,183 (15.6)	9,736 (18.2)	31,735 (25.0)	65,567 (27.9)
6 to 12 months	11,380 (24.8)	13,431 (25.1)	9,958 (7.8)	16,617 (7.1)
13 to 36 months	18,762 (40.8)	22,076 (41.2)	50,376 (39.7)	90,452 (38.5)
37 months or more	8,618 (18.8)	8,348 (15.6)	34,893 (27.5)	62,567 (26.6)

TABLE 18 – 2009 BENEFICIARY CHARACTERISTICS FOR RESPONDERS AND NON-RESPONDERS BY PLAN TYPE FOR 2009 HOS *COHORT 12 BASELINE*

Characteristics	Institutional SNP		Chronic Condition SNP		Dual Eligible SNP	
	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)
Sample Size	5,493	2,776	7,516	12,231	32,934	38,584
Age						
Less than 65	437 (8.0)	146 (5.3)	1,877 (25.0)	1,962 (16.0)	13,456 (40.9)	14,709 (38.1)
65 - 74.9	933 (17.0)	736 (26.5)	3,007 (40.0)	5,310 (43.4)	9,486 (28.8)	12,444 (32.3)
75 - 84.9	1,670 (30.4)	966 (34.8)	1,910 (25.4)	3,874 (31.7)	7,131 (21.7)	8,634 (22.4)
85 or older	2,453 (44.7)	928 (33.4)	722 (9.6)	1,085 (8.9)	2,861 (8.7)	2,797 (7.2)
CMS Gender						
Male	1,488 (27.1)	878 (31.6)	3,772 (50.2)	5,562 (45.5)	13,916 (42.3)	14,087 (36.5)
Female	4,005 (72.9)	1,898 (68.4)	3,744 (49.8)	6,669 (54.5)	19,018 (57.7)	24,497 (63.5)
CMS Race						
White	4,190 (76.3)	2,074 (74.7)	4,417 (58.8)	8,213 (67.1)	16,736 (50.8)	21,846 (56.6)
African American	1,013 (18.4)	505 (18.2)	2,417 (32.2)	3,273 (26.8)	8,033 (24.4)	9,335 (24.2)
Native American, Other, Unknown	93 (1.7)	73 (2.6)	153 (2.0)	230 (1.9)	1,164 (3.5)	1,131 (2.9)
Asian/Pacific Islander	59 (1.1)	52 (1.9)	121 (1.6)	138 (1.1)	1,791 (5.4)	2,052 (5.3)
Hispanic	138 (2.5)	72 (2.6)	408 (5.4)	377 (3.1)	5,210 (15.8)	4,220 (10.9)
CMS Region						
Boston (1)	529 (9.6)	131 (4.7)	604 (8.0)	1,084 (8.9)	905 (2.7)	1,255 (3.3)
New York (2)	1,431 (26.1)	909 (32.7)	399 (5.3)	566 (4.6)	6,097 (18.5)	7,378 (19.1)
Philadelphia (3)	613 (11.2)	164 (5.9)	983 (13.1)	1,431 (11.7)	2,331 (7.1)	3,023 (7.8)
Atlanta (4)	256 (4.7)	71 (2.6)	1,549 (20.6)	2,809 (23.0)	4,821 (14.6)	6,568 (17.0)
Chicago (5)	1,248 (22.7)	440 (15.9)	427 (5.7)	708 (5.8)	2,382 (7.2)	3,067 (7.9)
Dallas (6)	46 (0.8)	16 (0.6)	1,233 (16.4)	2,123 (17.4)	2,944 (8.9)	3,077 (8.0)
Kansas City (7)	20 (0.4)	8 (0.3)	383 (5.1)	868 (7.1)	373 (1.1)	412 (1.1)
Denver (8)	708 (12.9)	259 (9.3)	295 (3.9)	604 (4.9)	1,447 (4.4)	1,674 (4.3)
San Francisco (9)	518 (9.4)	749 (27.0)	1,237 (16.5)	1,103 (9.0)	8,897 (27.0)	9,283 (24.1)
Seattle (10)	124 (2.3)	29 (1.0)	406 (5.4)	935 (7.6)	2,737 (8.3)	2,847 (7.4)
Medicaid Status						
Out of Medicaid	1,291 (23.5)	1,454 (52.4)	5,708 (75.9)	10,017 (81.9)	2,179 (6.6)	2,276 (5.9)
In Medicaid	4,202 (76.5)	1,322 (47.6)	1,808 (24.1)	2,214 (18.1)	30,755 (93.4)	36,308 (94.1)
Enrollment Duration						
Less than 6 months	427 (7.8)	163 (5.9)	1,685 (22.4)	3,119 (25.5)	5,071 (15.4)	6,454 (16.7)
6 to 12 months	1,009 (18.4)	339 (12.2)	2,772 (36.9)	4,324 (35.4)	7,599 (23.1)	8,768 (22.7)
13 to 36 months	2,329 (42.4)	1,036 (37.3)	2,900 (38.6)	4,658 (38.1)	13,533 (41.1)	16,382 (42.5)
37 months or more	1,728 (31.5)	1,238 (44.6)	159 (2.1)	130 (1.1)	6,731 (20.4)	6,980 (18.1)

TABLE 19 – 2009 BENEFICIARY CHARACTERISTICS FOR RESPONDERS AND NON-RESPONDERS BY PLAN TYPE FOR 2009 HOS-M

Characteristics	Dual Demonstration SNP		PACE	
	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)
Sample Size	3,311	8,907	2,751	8,489
Age				
Less than 65	117 (3.5)	381 (4.3)	193 (7.0)	640 (7.5)
65 - 74.9	1,208 (36.5)	3,234 (36.3)	643 (23.4)	1,947 (22.9)
75 - 84.9	1,198 (36.2)	3,235 (36.3)	1,050 (38.2)	3,096 (36.5)
85 or older	788 (23.8)	2,057 (23.1)	865 (31.4)	2,806 (33.1)
CMS Gender				
Male	1,032 (31.2)	2,468 (27.7)	717 (26.1)	2,293 (27.0)
Female	2,279 (68.8)	6,439 (72.3)	2,034 (73.9)	6,196 (73.0)
CMS Race				
White	2,246 (67.8)	7,024 (78.9)	1,470 (53.4)	4,709 (55.5)
African American	380 (11.5)	636 (7.1)	891 (32.4)	1,999 (23.5)
Native American, Other, Unknown	147 (4.4)	305 (3.4)	78 (2.8)	246 (2.9)
Asian/Pacific Islander	391 (11.8)	470 (5.3)	115 (4.2)	766 (9.0)
Hispanic	147 (4.4)	472 (5.3)	197 (7.2)	769 (9.1)
CMS Region				
Boston (1)	846 (25.6)	2,122 (23.8)	423 (15.4)	1,212 (14.3)
New York (2)	0	0	366 (13.3)	1,251 (14.7)
Philadelphia (3)	0	0	302 (11.0)	932 (11.0)
Atlanta (4)	0	0	190 (6.9)	389 (4.6)
Chicago (5)	2,465 (74.4)	6,785 (76.2)	382 (13.9)	986 (11.6)
Dallas (6)	0	0	228 (8.3)	764 (9.0)
Kansas City (7)	0	0	61 (2.2)	225 (2.7)
Denver (8)	0	0	286 (10.4)	668 (7.9)
San Francisco (9)	0	0	262 (9.5)	1,412 (16.6)
Seattle (10)	0	0	251 (9.1)	650 (7.7)

Appendix

APPENDIX/TABLE 1 – 2008 SOCIODEMOGRAPHIC CHARACTERISTICS BY PLAN TYPE 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Sample Size (n)	2,649	6,350	31,091	8,813	7,547	193,855
Gender						
Female	66.8	51.4	63.6	73.0	74.3	57.4
Age Category						
Age, mean (SD)	79.3 (11.2)	71.3 (11.4)	65.4 (14.8)	78.0 (8.6)	80.1 (9.5)	73.9 (9.0)
Age, mean (SE)	79.3 (0.2)	71.3 (0.1)	65.4 (0.06)	N/A	N/A	73.9 (.06)
Less than 65	7.4**	20.1	39.7	3.1	6.9	9.1
65 to 74.9	26.8	40.9	33.3	37.8	22.5	46.6
75 to 84.9	32.0*	29.3	20.5	35.7**	37.2	34.1
85 or older	33.7	9.7^{NS}	6.5	23.4	33.3	10.2
Race/Ethnicity						
White	74.5	69.8	59.1	77.7	56.2	85.6
African American	18.0	24.1	22.0	7.9*	23.4	8.6
Native American, Other, Unknown	2.2^{NS}	1.4	3.1	3.6	2.8***	2.2
Asian/Pacific Islander	2.3**	0.5	5.4	5.0	8.1	1.5
Hispanic	3.0**	4.2	10.4	5.8	9.6	2.1
Marital Status						
Married	28.7	48.6	23.3	N/A	N/A	54.2
Never married, Separated, Divorced	23.1	21.5	47.6	N/A	N/A	16.6
Widowed	42.5	24.4^{NS}	23.7	N/A	N/A	25.1
Missing	5.7	5.4	5.4	N/A	N/A	4.1
Education Category						
8th Grade or less	16.8	18.5	27.4	N/A	N/A	9.5
Some high school, but did not graduate	17.0	19.4	19.6	N/A	N/A	13.4
High school graduate or GED	29.8	30.7	26.5	N/A	N/A	35.0
Some college or 2 year degree	17.6	17.6	14.5	N/A	N/A	21.8
4 year college degree	6.2*	3.8	3.0	N/A	N/A	7.6
More than a 4 year college degree	5.6	3.6	1.9	N/A	N/A	8.2
Missing	6.9	6.3	7.1	N/A	N/A	4.5

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated (missing rows were not tested).

NS = not significant
* = p<0.05
** -= p<0.01
*** = p<0.001

APPENDIX/TABLE 1 – 2008 SOCIODEMOGRAPHIC CHARACTERISTICS BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Annual Household Income Category Income, mean (SD) - excludes "Don't know" (SE)	3.4 (1.7) (0.04)	3.5 (1.5) (0.02)	2.5 (1.2) (0.01)	N/A	N/A	4.3 (1.7) (0.01)
Less than $5,000	10.7	6.3	14.9	N/A	N/A	3.2
$5,000 to $9,999	10.0	11.4	32.1	N/A	N/A	6.0
$10,000 to $19,999	22.3*	29.5	21.7[NS]	N/A	N/A	21.4
$20,000 to $29,999	11.4	16.6[NS]	4.8	N/A	N/A	17.0
$30,000 to $39,999	7.0	7.5	2.0	N/A	N/A	11.2
$40,000 to $49,999	3.4	4.1	1.1	N/A	N/A	N/A
$50,000 or greater	6.0	4.6	1.7	N/A	N/A	N/A
Don't know	13.4	9.9**	12.9	N/A	N/A	N/A
Missing	15.9	10.2	8.7	N/A	N/A	N/A

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated (missing rows were not tested).

NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 2 – 2008 LIMITATIONS IN ACTIVITIES OF DAILY LIVING BY PLAN TYPE 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
ADL Limitations Category						
Any Difficulty§, mean (SD)	2.8 (2.5)	1.5 (1.9)	1.9 (2.0)	2.3 (2.1)	3.3 (2.1)	1.0 (1.6)
(SE)	(0.03)	(0.02)	(0.01)	N/A	N/A	(0.01)
Any Difficulty Bathing	49.3	25.1	32.7	44.1	68.5	15.4
Any Difficulty Getting in/out of Chairs	49.2	33.1	38.4	46.1	60.9	23.0
Any Difficulty Dressing	44.1	20.9	27.1	33.2	56.4	12.6
Any Difficulty Eating	26.0	8.8	13.1	15.0	24.4	5.3
Any Difficulty Using Toilet	40.5	15.1	20.3	25.9	44.0	9.3
Any Difficulty Walking	59.3	45.1	51.7	61.1	77.4	32.4
Unable to do, mean (SD)	1.4 (2.1)	0.2 (0.7)	0.3 (1.0)	0.6 (1.3)	1.1 (1.7)	0.1 (0.6)
(SE)	(0.01)	(0.01)	(0.004)	N/A	N/A	(0.005)
Unable to Bathe	32.0	4.5	7.3	18.3	31.7	2.9
Unable to Get in/out of Chairs	22.9	2.0**	3.9	7.2	13.4	1.5
Unable to Dress	26.3	2.5	4.6	9.6	19.1	1.8
Unable to Eat	8.6	1.1**	2.3	2.8	5.3	0.8
Unable to Use Toilet	21.9	1.7***	3.4	6.7	13.3	1.3
Unable to Walk	28.0	3.8	7.0	12.4	21.8	2.9

§Any difficulty with ADL limitations is defined as having difficulty or inability to perform one or more of the six individual activities.

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 3 – 2008 ADJUSTED LIMITATIONS IN ACTIVITIES OF DAILY LIVING BY PLAN TYPE 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
ADL Limitations Category						
Any Difficulty§, mean (SE)[1]	2.9 (0.03)	1.7 (0.02)	1.9 (0.01)	2.5 (0.02)	3.4 (0.02)	1.4(0.01)
Any Difficulty§, mean (SE)[2]	2.7 (0.04)	1.6 (0.02)	1.7 (0.01)	N/A	N/A	1.3 (0.01)
Any Difficulty Bathing[3]	49.3	25.1	32.7	44.1	68.5	15.4
Any Difficulty Getting in/out of Chairs	49.2	33.1	38.4	46.1	60.9	23.0
Any Difficulty Dressing	44.1	20.9	27.1	33.2	56.4	12.6
Any Difficulty Eating	26.0	8.8	13.1	15.0	24.4	5.3
Any Difficulty Using Toilet	40.5	15.1	20.3	25.9	44.0	9.3
Any Difficulty Walking	59.3	45.1	51.7	61.1	77.4	32.4
Unable to do, mean (SE)[1]	1.4 (0.02)	0.2 (0.01)***	0.3 (0.01)	0.6 (0.01)	1.0 (0.01)	0.2 (0.01)
Unable to do, mean (SE)[2]	1.4 (0.02)	0.2 (0.01)*	0.3 (0.01)	N/A	N/A	0.2 (0.01)
Unable to Bathe[3]	32.0	4.5	7.3	18.3	31.7	2.9
Unable to Get in or out of Chairs	22.9	2.0**	3.9	7.2	13.4	1.5
Unable to Dress	26.3	2.5***	4.6	9.6	19.1	1.8
Unable to Eat	8.6	1.1*	2.3	2.8	5.3	0.8
Unable to Use Toilet	21.9	1.7**	3.4	6.7	13.3	1.3
Unable to Walk	28.0	3.8**	7.0	12.4	21.8	2.9

§Any difficulty with ADL limitations is defined as having difficulty or inability to perform one or more of the six individual activities.

[1] Adjusted means from models including Plan type and three covariates (age, gender, race/ethnicity)
[2] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)
[3] Unadjusted proportions with significance from adjusted models including Plan type and three covariates (age, gender, race/ethnicity)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 4 – 2008 SELF-RATED GENERAL HEALTH BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Self-rated General Health Category						
Self-rated General Health, mean (SD) §	2.5 (1.0)	2.5 (0.9)	2.4 (1.0)	2.5 (0.9)	2.3 (0.9)	3.0 (1.0)
(SE) §	(0.02)	(0.01)	(0.01)	N/A	N/A	(0.01)
Poor	19.3	13.9	17.8	13.8	19.2	6.9
Fair	34.2	38.0	40.4	39.1	43.2	23.7
Good	29.6	33.5	28.1	32.8	26.7	38.0
Very good	12.7	10.7	9.2	9.7	7.6	24.1
Excellent	3.0	2.1	2.8	2.3	1.7	5.8
Missing	1.3	1.8	1.7	2.3	1.7	1.5

§ - Excludes "Missing"

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated (missing rows were not tested).
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

APPENDIX/TABLE 5 – 2008 ADJUSTED SELF-RATED GENERAL HEALTH BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Self-rated General Health Category						
Self-rated General Health, mean (SE) §[1]	2.3 (0.2)	2.3 (0.1)	2.3 (0.1)	2.2 (0.1)	2.2 (0.1)	2.7(0.01)
Self-rated General Health, mean (SE) §[2]	2.5 (0.02)	2.5 (0.01)	2.6 (0.01)	N/A	N/A	2.8 (0.01)
Poor[3]	19.3	13.9	17.8	13.8	19.2	6.9
Fair	34.2	38.0	40.4	39.1	43.2	23.7
Good	29.6	33.5	28.1	32.8	26.7	38.0
Very good	12.7	10.7	9.2	9.7	7.6	24.1
Excellent	3.0	2.1***	2.8	2.3	1.7	5.8
Missing	1.3	1.8	1.7	2.3	1.7	1.5

§ - Excludes "Missing"

[1] Adjusted means from models including Plan type and three covariates (age, gender, race/ethnicity)
[2] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)
[3] Unadjusted proportions with significance from adjusted models including Plan type and three covariates (age, gender, race/ethnicity)

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated (missing rows were not tested).
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

APPENDIX/TABLE 6 – 2008 HEALTH RELATED QUALITY OF LIFE (PCS & MCS SCORES) 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
PCS, mean (SD)	31.9 (12.9)	33.4 (11.7)	32.9 (11.9)	31.5 (11.8)	28.0 (10.2)	38.6 (12.5)
(SE)	(0.24)	(0.16)	(0.08)	N/A	N/A	(0.08)
MCS, mean (SD)	44.5 (14.4)	46.3 (13.0)	43.0 (13.3)	46.2 (13.1)	42.0 (13.4)	51.1 (11.6)
(SE)	(0.24)	(0.15)	(0.07)	N/A	N/A	(0.07)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 7 – 2008 ADJUSTED HEALTH RELATED QUALITY OF LIFE (PCS & MCS SCORES) 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
PCS, mean (SE)[1]	31.5 (0.23)	32.1 (0.15)	33.1 (0.08)	30.0 (0.13)	27.8 (0.14)	36.4 (0.08)
PCS, mean (SE)[2]	33.2 (0.25)	34.1 (0.16)	35.5 (0.09)	N/A	N/A	37.1 (0.09)
MCS, mean (SE)[1]	41.7 (0.23)	44.1 (0.15)	43.1 (0.08)	42.8 (0.13)	39.8 (0.14)	47.6 (0.08)
MCS, mean (SE)[2]	43.1 (0.24)	45.7 (0.15)	45.7 (0.09)	N/A	N/A	47.9 (0.09)

[1] Adjusted means from models including Plan type and three covariates (age, gender, race/ethnicity)
[2] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 8 – 2008 CHRONIC CONDITIONS BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Chronic Conditions, mean (SD) §	3.4 (2.3)	4.1 (2.5)	3.7 (2.6)	N/A	N/A	3.0 (2.1)
(SE) §	(0.04)	(0.03)	(0.01)	N/A	N/A	(0.01)
Arthritis of hip or knee						
Yes - All observations	44.1	47.3	49.3	N/A	N/A	40.5
Yes - Among non-missing	47.8	50.0	52.1	N/A	N/A	42.2
Missing	7.7	5.4	5.3	N/A	N/A	4.0
Arthritis of hand or wrist						
Yes - All observations	39.4	41.7	43.7	N/A	N/A	36.7
Yes - Among non-missing	43.0	44.1	46.4	N/A	N/A	38.3
Missing	8.3	5.4	5.8	N/A	N/A	4.3
Diabetes						
Yes - All observations	26.6	44.9	33.1	N/A	N/A	23.4
Yes - Among non-missing	28.7	47.1	34.9	N/A	N/A	24.2
Missing	7.3	4.8	5.0	N/A	N/A	3.6
Inflammatory Bowel Diseases						
Yes - All observations	6.3	7.0	8.6	N/A	N/A	5.2
Yes - Among non-missing	6.9**	7.5	9.2	N/A	N/A	5.5
Missing	9.0	6.6	6.7	N/A	N/A	4.5
High Blood Pressure						
Yes - All observations	58.8	72.8	63.2	N/A	N/A	62.7
Yes - Among non-missing	63.3[NS]	75.8	66.0	N/A	N/A	64.8
Missing	7.1	4.0	4.3	N/A	N/A	3.3
Other Heart Conditions[∞]						
Yes - All observations	21.1	32.3	22.8	N/A	N/A	22.0
Yes - Among non-missing	23.1[NS]	34.5	24.2	N/A	N/A	23.0
Missing	8.7	6.3	5.9	N/A	N/A	4.2
Myocardial Infarction						
Yes - All observations	10.5	20.1	11.3	N/A	N/A	10.5
Yes - Among non-missing	11.5[NS]	21.3	12.0	N/A	N/A	11.0
Missing	8.9	5.7	6.2	N/A	N/A	4.2
Osteoporosis						
Yes - All observations	28.7	18.9	24.0	N/A	N/A	19.9
Yes - Among non-missing	31.4	20.1[NS]	25.6	N/A	N/A	20.8
Missing	8.8	6.1	6.5	N/A	N/A	4.5
Sciatica						
Yes - All observations	21.3	27.4	30.7	N/A	N/A	22.7
Yes - Among non-missing	23.3[NS]	29.3	32.8	N/A	N/A	23.7
Missing	8.8	6.3	6.3	N/A	N/A	4.5

[∞] Other Heart Conditions, such as problems with heart valves or the rhythm of the heartbeat

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 8 (CONTINUED) -- 2008 CHRONIC CONDITIONS BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Stroke						
Yes - All observations	18.6	15.1	11.4	N/A	N/A	8.4
Yes - Among non-missing	20.2	15.9	12.1	N/A	N/A	8.7
Missing	7.9	5.3	5.7	N/A	N/A	3.9
Coronary Artery Disease						
Yes - All observations	15.6	25.3	15.2	N/A	N/A	14.6
Yes - Among non-missing	17.1*	27.2	16.2	N/A	N/A	15.3
Missing	8.9	7.1	6.6	N/A	N/A	4.7
Congestive Heart Failure						
Yes - All observations	13.8	20.5	13.2	N/A	N/A	8.7
Yes - Among non-missing	15.1	21.8	14.1	N/A	N/A	9.1
Missing	8.2	6.3	6.4	N/A	N/A	4.4
COPD						
Yes - All observations	14.7	22.1	23.7	N/A	N/A	15.2
Yes - Among non-missing	15.9^{NS}	23.4	25.1	N/A	N/A	15.8
Missing	7.6	5.7	5.6	N/A	N/A	3.9
Any Cancer						
Yes – All observations	14.0	13.6	9.7	N/A	N/A	14.8
Yes – Among non-missing	15.1^{NS}	14.3*	10.2	N/A	N/A	15.3
Missing	7.1	4.7	5.1	N/A	N/A	3.5
Under Treatment for Breast Cancer ‡						
No	98.0	98.2	98.4	N/A	N/A	98.1
Yes	2.0^{NS}	1.8^{NS}	1.6**	N/A	N/A	1.9
Under Treatment for Colon Cancer						
No	98.9	98.8	99.0	N/A	N/A	99.0
Yes	1.1 ^{NS}	1.2 ^{NS}	1.0^{NS}	N/A	N/A	1.0
Under Treatment for Lung Cancer						
No	99.6	99.2	99.4	N/A	N/A	99.4
Yes	0.4^{NS}	0.8*	0.6 ^{NS}	N/A	N/A	0.6
Under Treatment for Prostate Cancer †						
No	98.2	97.3	98.7	N/A	N/A	97.3
Yes	1.8**	2.7^{NS}	1.3	N/A	N/A	2.7

† - Prostate Cancer includes 214 observations from CMS data reporting female gender
‡ - Breast Cancer includes 126 observations from CMS data reporting male gender

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

APPENDIX/TABLE 9 – 2008 ADJUSTED CHRONIC CONDITIONS BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Chronic Conditions, mean (SE)[1]	3.2 (0.05)***	3.9 (0.03)	3.4 (0.02)	N/A	N/A	3.0 (0.02)
Arthritis of hip or knee[2]						
Yes - All observations	44.1	47.3	49.3	N/A	N/A	40.5
Yes - Among non-missing	47.8[NS]	50.0	52.1	N/A	N/A	42.2
Missing	7.7	5.4	5.3	N/A	N/A	4.0
Arthritis of hand or wrist						
Yes - All observations	39.4	41.7	43.7	N/A	N/A	36.7
Yes - Among non-missing	43.0[NS]	44.1	46.4	N/A	N/A	38.3
Missing	8.3	5.4	5.8	N/A	N/A	4.3
Diabetes						
Yes - All observations	26.6	44.9	33.1	N/A	N/A	23.4
Yes - Among non-missing	28.7***	47.1	34.9	N/A	N/A	24.2
Missing	7.3	4.8	5.0	N/A	N/A	3.6
Inflammatory Bowel Diseases						
Yes - All observations	6.3	7.0	8.6	N/A	N/A	5.2
Yes - Among non-missing	6.9[NS]	7.5	9.2	N/A	N/A	5.5
Missing	9.0	6.6	6.7	N/A	N/A	4.5
High Blood Pressure						
Yes - All observations	58.8	72.8	63.2	N/A	N/A	62.7
Yes - Among non-missing	63.3	75.8	66.0[NS]	N/A	N/A	64.8
Missing	7.1	4.0	4.3	N/A	N/A	3.3
Other Heart Conditions[∞]						
Yes - All observations	21.1	32.3	22.8	N/A	N/A	22.0
Yes - Among non-missing	23.1[NS]	34.5	24.2	N/A	N/A	23.0
Missing	8.7	6.3	5.9	N/A	N/A	4.2
Myocardial Infarction						
Yes - All observations	10.5	20.1	11.3	N/A	N/A	10.5
Yes - Among non-missing	11.5[NS]	21.3	12.0	N/A	N/A	11.0
Missing	8.9	5.7	6.2	N/A	N/A	4.2
Osteoporosis						
Yes - All observations	28.7	18.9	24.0	N/A	N/A	19.9
Yes - Among non-missing	31.4	20.1**(>)	25.6	N/A	N/A	20.8
Missing	8.8	6.1	6.5	N/A	N/A	4.5
Sciatica						
Yes - All observations	21.3	27.4	30.7	N/A	N/A	22.7
Yes - Among non-missing	23.3[NS]	29.3	32.8	N/A	N/A	23.7
Missing	8.8	6.3	6.3	N/A	N/A	4.5

[∞] Other Heart Conditions, such as problems with heart valves or the rhythm of the heartbeat

[1] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

[2] Unadjusted proportions with significance from adjusted models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

(>) - Indicates proportion is significantly higher compared to other MA beneficiaries after adjustment (adjusted proportion not shown in table)

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

APPENDIX/TABLE 9 (CONTINUED) 2008 ADJUSTED CHRONIC CONDITIONS BY PLAN TYPE 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Stroke[2]						
Yes - All observations	18.6	15.1	11.4	N/A	N/A	8.4
Yes - Among non-missing	20.2	15.9	12.1	N/A	N/A	8.7
Missing	7.9	5.3	5.7	N/A	N/A	3.9
Coronary Artery Disease						
Yes - All observations	15.6	25.3	15.2	N/A	N/A	14.6
Yes - Among non-missing	17.1 NS	27.2	16.2	N/A	N/A	15.3
Missing	8.9	7.1	6.6	N/A	N/A	4.7
Congestive Heart Failure						
Yes - All observations	13.8	20.5	13.2	N/A	N/A	8.7
Yes - Among non-missing	15.1	21.8	14.1	N/A	N/A	9.1
Missing	8.2	6.3	6.4	N/A	N/A	4.4
COPD						
Yes - All observations	14.7	22.1	23.7	N/A	N/A	15.2
Yes - Among non-missing	15.9 NS	23.4	25.1	N/A	N/A	15.8
Missing	7.6	5.7	5.6	N/A	N/A	3.9
Any Cancer						
Yes – All observations	14.0	13.6	9.7	N/A	N/A	14.8
Yes – Among non-missing	15.1 NS	14.3 NS	10.2	N/A	N/A	15.3
Missing	7.1	4.7	5.1	N/A	N/A	3.5
Under Treatment for Breast Cancer ‡						
No	98.0	98.2	98.4	N/A	N/A	98.1
Yes	2.0 NS	1.8 NS	1.6 NS	N/A	N/A	1.9
Under Treatment for Colon Cancer						
No	98.9	98.8	99.0	N/A	N/A	99.0
Yes	1.1 NS	1.2 NS	1.0 NS	N/A	N/A	1.0
Under Treatment for Lung Cancer						
No	99.6	99.2	99.4	N/A	N/A	99.4
Yes	0.4 NS	0.8 NS	0.6 NS	N/A	N/A	0.6 NS
Under Treatment for Prostate Cancer †						
No	98.2	97.3	98.7	N/A	N/A	97.3
Yes	1.8 NS	2.7 NS	1.3 NS	N/A	N/A	2.7

† - Prostate Cancer includes 214 observations from CMS data reporting female gender
‡ - Breast Cancer includes 126 observations from CMS data reporting male gender

[2] Unadjusted proportions with significance from adjusted models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)

Statistical tests were performed only for the non-missing results.
All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

APPENDIX/TABLE 10 – 2008 BODY MASS INDEX BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
BMI Category						
BMI, mean (SD)	26.7 (6.1)	28.9 (6.4)	28.9 (7.3)	N/A	N/A	27.5 (5.7)
(SE)	(0.12)	(0.08)	(0.04)	N/A	N/A	(0.04)
Underweight (BMI less than 20)	10.6	4.2	6.8	N/A	N/A	5.5
Normal (BMI 20-24)	28.3[NS]	21.5	22.8	N/A	N/A	27.4
Overweight (BMI 25-29)	30.7	33.6**	28.2	N/A	N/A	35.9
Obese (BMI 30-34)	15.1*	20.2	18.2	N/A	N/A	17.0
Morbid Obesity (BMI 35 or more)	7.5*	14.0	16.5	N/A	N/A	9.1
Missing	7.9	6.5	7.5	N/A	N/A	5.3

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated (missing rows were not tested).

NS = not significant
* = p<0.05
** = p<0.0
*** = p<0.001

APPENDIX/TABLE 11 – 2008 ADJUSTED BODY MASS INDEX BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
BMI Category						
BMI, mean (SE)[1]	26.3 (0.13)[NS]	27.2 (0.08)	26.9 (0.05)	N/A	N/A	26.5 (0.05)
Underweight (BMI less than 20)[2]	10.6	4.2**	6.8[NS]	N/A	N/A	5.5
Normal (BMI 20-24)	28.3[NS]	21.5	22.8**	N/A	N/A	27.4
Overweight (BMI 25-29)	30.7[NS]	33.6*	28.2	N/A	N/A	35.9
Obese (BMI 30-34)	15.1[NS]	20.2***	18.2[NS]	N/A	N/A	17.0
Morbid Obesity (BMI 35 or more)	7.5[NS]	14.0	16.5	N/A	N/A	9.1
Missing	7.9	6.5	7.5	N/A	N/A	5.3

[1] Adjusted means from models including Plan type and six covariates (age, gender, race/ethnicity, marital status, education, household income)
[2] Unadjusted proportions with significance from adjusted models including Plan type and six covariates(age, gender, race/ethnicity, marital status, education, household income)

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated (missing rows were not tested).
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

APPENDIX/TABLE 12A – 2008 ELIGIBILITY STATUS FOR HEDIS MEASURES BY PLAN TYPE 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Eligible for Discussing Fall Risk	71.3	65.2	66.3	N/A	N/A	58.4
Eligible for Managing Fall Risk	49.2	44.1	48.7	N/A	N/A	34.1
Management of Urinary Incontinence (UI) in Older Adults						
Eligible for Discussing UI	41.7	30.7	30.8	N/A	N/A	26.4
Eligible for Receiving UI Treatment	41.1	30.6	30.6	N/A	N/A	26.3
Physical Activity in Older Adults						
Eligible for Discussing Physical Activity	84.6	88.7[NS]	86.5	N/A	N/A	89.3
Eligible for Advising Physical Activity	86.8	91.4[NS]	90.6	N/A	N/A	91.5
Osteoporosis Testing in Older Women						
Eligible for Osteoporosis Testing in Older Women	88.1	92.0	92.1	N/A	N/A	94.6

Unadjusted proportions with significance level based on adjustment for Plan Type only.

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.

NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 12B – 2008 HEDIS MEASURE RESULTS BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Discussing Fall Risk Rate	40.7	34.1	42.2	N/A	N/A	28.1
Managing Fall Risk Rate	73.0	59.7	67.2	N/A	N/A	54.2
Management of Urinary Incontinence (UI) in Older Adults						
Discussing UI Rate	68.6	57.5^{NS}	61.0	N/A	N/A	56.9
Receiving UI Treatment Rate	35.9^{NS}	34.6^{NS}	35.9^{NS}	N/A	N/A	35.7
Physical Activity in Older Adults						
Discussing Physical Activity Rate	48.4	53.4^{NS}	49.0	N/A	N/A	52.8
Advising Physical Activity Rate	40.3	49.6	47.9	N/A	N/A	46.0
Osteoporosis Testing in Older Women						
Osteoporosis Testing in Older Women Rate	59.3	61.1	54.1	N/A	N/A	70.5

Unadjusted proportions with significance level based on adjustment for Plan Type only.

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.
NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 13A – 2008 ADJUSTED ELIGIBILITY STATUS FOR HEDIS MEASURES BY PLAN TYPE 2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Eligible for Discussing Fall Risk	71.3[NS]	65.2	66.3	N/A	N/A	58.4
Eligible for Managing Fall Risk	49.2	44.1	48.7	N/A	N/A	34.1
Management of Urinary Incontinence (UI) in Older Adults						
Eligible for Discussing UI	41.7	30.7	30.8	N/A	N/A	26.4
Eligible for Receiving UI Treatment	41.1	30.6	30.6	N/A	N/A	26.3
Physical Activity in Older Adults						
Eligible for Discussing Physical Activity	84.6[NS]	88.7** (>)	86.5**(>)	N/A	N/A	89.3
Eligible for Advising Physical Activity	86.8[NS]	91.4*** (>)	90.6 (>)	N/A	N/A	91.5
Osteoporosis Testing in Older Women						
Eligible for Osteoporosis Testing in Older Women	88.1	92.0*	92.1	N/A	N/A	94.6

Unadjusted proportions with significance level based on adjustment for Plan Type, age, race, gender, marital status, education, and income.
(>) - Indicates proportion is significantly higher compared to other MA beneficiaries after adjustment (adjusted proportion not shown in table)

All differences by Plan Type compared to Other MA category are significant at $p<0.0001$ unless otherwise indicated.
NS = not significant
* = $p<0.05$
** = $p<0.01$
*** = $p<0.001$

APPENDIX/TABLE 13B – 2008 ADJUSTED HEDIS MEASURE RESULTS BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

Characteristics	HOS (%)			HOS-M (%)		HOS (%)
	Institutional SNP	Chronic Condition SNP	Dual Eligible SNP	Dual Demonstration SNP	PACE	Other MA
Fall Risk Management						
Discussing Fall Risk Rate	40.7	34.1	42.2	N/A	N/A	28.1
Managing Fall Risk Rate	73.0	59.7	67.2	N/A	N/A	54.2
Management of Urinary Incontinence (UI) in Older Adults						
Discussing UI Rate	68.6	57.5^{NS}	61.1	N/A	N/A	56.9
Receiving UI Treatment Rate	35.9^{NS}	34.6^{NS}	35.9***	N/A	N/A	35.7
Physical Activity in Older Adults						
Discussing Physical Activity Rate	48.4^{NS}	53.4	49.0 (>)	N/A	N/A	52.8
Advising Physical Activity Rate	40.3^{NS}	49.6	47.9	N/A	N/A	46.0
Osteoporosis Testing in Older Women						
Osteoporosis Testing in Older Women Rate	59.3**	61.1^{NS}	54.1	N/A	N/A	70.5

Unadjusted proportions with significance level based on adjustment for Plan Type, age, race, gender, marital status, education, and income.

(>) - Indicates proportion is significantly higher compared to other MA beneficiaries after adjustment (adjusted proportion not shown in table)

All differences by Plan Type compared to Other MA category are significant at p<0.0001 unless otherwise indicated.

NS = not significant
* = p<0.05
** = p<0.01
*** = p<0.001

APPENDIX/TABLE 14 – 2008 RESPONSE RATES BY PLAN TYPE
2008 HOS-M AND 2008 HOS *COHORT 11 BASELINE*

	HOS (%)			HOS-M (%)		HOS (%)
Characteristics	**Institutional SNP**	**Chronic Condition SNP**	**Dual Eligible SNP**	**Dual Demonstration SNP**	**PACE**	**Other MA**
Sample Size	2,649	6,350	31,091	8,813	7,547	193,855
Overall Response Rate	29.0	64.5	50.5	73.6	75.5	61.4
Age						
Less than 65	25.6	51.7	48.8	79.3	77.4	54.9
65 - 74.9	39.3	68.1	54.3	72.7	74.1	62.5
75 - 84.9	29.8	70.1	50.7	74.4	75.1	63.4
85 or older	24.1	67.9	43.8	73.4	76.6	57.0
CMS Gender						
Male	32.4	61.6	46.8	71.5	75.5	60.3
Female	27.5	67.6	52.9	74.5	75.6	62.3
CMS Race						
White	29.2	67.6	52.1	76.0	77.4	63.1
African American	26.4	59.4	50.5	65.9	68.5	53.3
Native American, Other, Unknown	36.2	64.7	47.9	68.4	75.9	56.0
Asian	41.6	47.1	54.2	59.2	83.1	56.9
Hispanic	30.4	53.0	42.2	73.1	78.0	47.2
CMS Region						
Boston (1)	19.1	53.6	44.0	72.9	74.2	61.9
New York (2)	39.1	69.6	48.2	N/A	76.7	59.8
Philadelphia (3)	19.7	66.6	49.5	N/A	72.4	64.9
Atlanta (4)	24.0	65.8	55.0	N/A	67.3	57.4
Chicago (5)	18.7	N/A	57.1	73.9	72.9	65.2
Dallas (6)	N/A	69.5	45.9	N/A	80.3	57.9
Kansas City (7)	27.8	70.6	56.6	N/A	80.0	65.2
Denver (8)	24.2	78.8	52.5	N/A	70.2	62.2
San Francisco (9)	54.0	44.9	50.4	N/A	79.4	60.3
Seattle (10)	23.6	N/A	47.8	N/A	80.7	63.6
Medicaid Status						
Out of Medicaid	36.8	67.7	40.5	N/A	N/A	62.0
In Medicaid	23.1	51.9	52.1	N/A	N/A	56.2
Enrollment Duration						
6 to 12 months	28.8	65.0	52.5	N/A	N/A	60.7
13 to 36 months	26.3	63.7	49.8	N/A	N/A	61.9
37 months or more	33.1	N/A	46.3	N/A	N/A	59.8

APPENDIX/TABLE 15 – 2008 BENEFICIARY CHARACTERISTICS FOR RESPONDERS AND NON-RESPONDERS BY COMBINED PLAN TYPE FOR 2008 HOS *COHORT 11 BASELINE*

Characteristics	All HOS SNPs Combined		Other MA	
	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)
Sample Size	40,456	40,090	121,834	193,855
Age				
Less than 65	14,756 (36.5)	13,830 (34.5)	14,590 (12.0)	17,733 (9.1)
65 - 74.9	11,016 (27.2)	13,665 (34.1)	54,294 (44.6)	90,344 (46.6)
75 - 84.9	8,994 (22.2)	9,077 (22.6)	38,062 (31.2)	66,067 (34.1)
85 or older	5,690 (14.1)	3,518 (8.8)	14,888 (12.2)	19,711 (10.2)
CMS Gender				
Male	16,624 (41.1)	15,281 (38.1)	54,376 (44.6)	82,526 (42.6)
Female	23,832 (58.9)	24,809 (61.9)	67,458 (55.4)	111,329 (57.4)
CMS Race				
White	23,793 (58.8)	24,776 (61.8)	97,064 (79.7)	165,867 (85.6)
African American	9,066 (22.4)	8,837 (22.0)	14,701 (12.1)	16,762 (8.6)
Native American, Other, Unknown	1,199 (3.0)	1,109 (2.8)	3,328 (2.7)	4,233 (2.2)
Asian/Pacific Islander	1,547 (3.8)	1,780 (4.4)	2,268 (1.9)	2,994 (1.5)
Hispanic	4,851 (12.0)	3,588 (8.9)	4,473 (3.7)	3,999 (2.1)
NCQA Region				
Boston (1)	1,820 (4.5)	816 (2.0)	4,638 (3.8)	7,529 (3.9)
New York (2)	6,516 (16.1)	6,039 (15.1)	14,586 (12.0)	21,737 (11.2)
Philadelphia (3)	4,325 (10.7)	3,892 (9.7)	9,790 (8.0)	18,123 (9.3)
Atlanta (4)	5,989 (14.8)	7,102 (17.7)	25,642 (21.0)	34,484 (17.8)
Chicago (5)	2,586 (6.4)	2,526 (6.3)	19,990 (16.4)	37,390 (19.3)
Dallas (6)	3,132 (7.7)	3,732 (9.3)	12,280 (10.1)	16,920 (8.7)
Kansas City (7)	56 (0.1)	83 (0.2)	5,811 (4.8)	10,907 (5.6)
Denver (8)	2,978 (7.4)	3,319 (8.3)	3,828 (3.1)	6,292 (3.2)
San Francisco (9)	9,019 (22.3)	9,040 (22.5)	16,215 (13.3)	24,633 (12.7)
Seattle (10)	4,035 (10.0)	3,541 (8.8)	9,054 (7.4)	15,840 (8.2)
Medicaid Status				
Out of Medicaid	10,171 (25.1)	10,265 (25.6)	107,327 (88.1)	175,262 (90.4)
In Medicaid	30,285 (74.9)	29,825 (74.4)	14,507 (11.9)	18,593 (9.6)
Enrollment Duration				
6 to 12 months	11,908 (29.4)	14,092 (35.2)	14,031 (11.5)	21,636 (11.2)
13 to 36 months	25,496 (63.0)	24,130 (60.2)	85,889 (70.5)	139,632 (72.0)
37 months or more	3,052 (7.5)	1,868 (4.7)	21,914 (18.0)	32,587 (16.8)

APPENDIX/TABLE 16 – 2008 BENEFICIARY CHARACTERISTICS FOR RESPONDERS AND NON-RESPONDERS BY PLAN TYPE FOR 2008 HOS *COHORT 11 BASELINE*

Characteristics	Institutional SNP		Chronic Condition SNP		Dual Eligible SNP	
	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)
Sample Size	6,491	2,649	3,492	6,350	30,473	31,091
Age						
Less than 65	572 (8.8)	197 (7.4)	1,193 (34.2)	1,275 (20.1)	12,991 (42.6)	12,358 (39.7)
65 - 74.9	1,096 (16.9)	709 (26.8)	1,215 (34.8)	2,599 (40.9)	8,705 (28.6)	10,357 (33.3)
75 - 84.9	2,004 (30.9)	849 (32.0)	793 (22.7)	1,860 (29.3)	6,197 (20.3)	6,368 (20.5)
85 or older	2,819 (43.4)	894 (33.7)	291 (8.3)	616 (9.7)	2,580 (8.5)	2,008 (6.5)
CMS Gender						
Male	1,838 (28.3)	880 (33.2)	1,928 (55.2)	3,088 (48.6)	12,858 (42.2)	11,313 (36.4)
Female	4,653 (71.7)	1,769 (66.8)	1,564 (44.8)	3,262 (51.4)	17,615 (57.8)	19,778 (63.6)
CMS Race						
White	4,792 (73.8)	1,973 (74.5)	2,125 (60.9)	4,432 (69.8)	16,876 (55.4)	18,371 (59.1)
African American	1,327 (20.4)	476 (18.0)	1,048 (30.0)	1,532 (24.1)	6,691 (22.0)	6,829 (22.0)
Native American, Other, Unknown	104 (1.6)	59 (2.2)	49 (1.4)	90 (1.4)	1,046 (3.4)	960 (3.1)
Asian/Pacific Islander	87 (1.3)	62 (2.3)	36 (1.0)	32 (0.5)	1,424 (4.7)	1,686 (5.4)
Hispanic	181 (2.8)	79 (3.0)	234 (6.7)	264 (4.2)	4,436 (14.6)	3,245 (10.4)
CMS Region						
Boston (1)	1,170 (18.0)	277 (10.5)	77 (2.2)	89 (1.4)	573 (1.9)	450 (1.4)
New York (2)	1,026 (15.8)	660 (24.9)	204 (5.8)	466 (7.3)	5,286 (17.3)	4,913 (15.8)
Philadelphia (3)	1,008 (15.5)	248 (9.4)	390 (11.2)	777 (12.2)	2,927 (9.6)	2,867 (9.2)
Atlanta (4)	868 (13.4)	274 (10.3)	813 (23.3)	1,566 (24.7)	4,308 (14.1)	5,262 (16.9)
Chicago (5)	833 (12.8)	192 (7.2)	0	0	1,753 (5.8)	2,334 (7.5)
Dallas (6)	1 (0.0)	0	748 (21.4)	1,708 (26.9)	2,383 (7.8)	2,024 (6.5)
Kansas City (7)	13 (0.2)	5 (0.2)	20 (0.6)	48 (0.8)	23 (0.1)	30 (0.1)
Denver (8)	748 (11.5)	239 (9.0)	236 (6.8)	878 (13.8)	1,994 (6.5)	2,202 (7.1)
San Francisco (9)	578 (8.9)	678 (25.6)	1,004 (28.8)	818 (12.9)	7,437 (24.4)	7,544 (24.3)
Seattle (10)	246 (3.8)	76 (2.9)	0	0	3,789 (12.4)	3,465 (11.1)
Medicaid Status						
Out of Medicaid	2,483 (38.3)	1,443 (54.5)	2,529 (72.4)	5,312 (83.7)	5,159 (16.9)	3,510 (11.3)
In Medicaid	4,008 (61.7)	1,206 (45.5)	963 (27.6)	1,038 (16.3)	25,314 (83.1)	27,581 (88.7)
Enrollment Duration						
6 to 12 months	977 (15.1)	396 (14.9)	2,127 (60.9)	3,956 (62.3)	8,804 (28.9)	9,740 (31.3)
13 to 36 months	3,430 (52.8)	1,221 (46.1)	1,365 (39.1)	2,394 (37.7)	20,701 (67.9)	20,515 (66.0)
37 months or more	2,084 (32.1)	1,032 (39.0)	0	0	968 (3.2)	836 (2.7)

APPENDIX/TABLE 17 – 2008 BENEFICIARY CHARACTERISTICS FOR RESPONDERS AND NON-RESPONDERS BY PLAN TYPE FOR 2008 HOS-M

Characteristics	Dual Demonstration SNP		PACE	
	Non-Responders N (%)	Responders N (%)	Non-Responders N (%)	Responders N (%)
Sample Size	3,155	8,813	2,443	7,547
Age				
Less than 65	72 (2.3)	275 (3.1)	152 (6.2)	522 (6.9)
65 - 74.9	1,251 (39.7)	3,328 (37.8)	593 (24.3)	1,701 (22.5)
75 - 84.9	1,084 (34.4)	3,147 (35.7)	930 (38.1)	2,811 (37.2)
85 or older	748 (23.7)	2,063 (23.4)	768 (31.4)	2,513 (33.3)
CMS Gender				
Male	949 (30.1)	2,378 (27.0)	630 (25.8)	1,943 (25.7)
Female	2,206 (69.9)	6,435 (73.0)	1,813 (74.2)	5,604 (74.3)
CMS Race				
White	2,157 (68.4)	6,847 (77.7)	1,237 (50.6)	4,244 (56.2)
African American	358 (11.3)	693 (7.9)	812 (33.2)	1,763 (23.4)
Native American, Other, Unknown	147 (4.7)	318 (3.6)	66 (2.7)	208 (2.8)
Asian/Pacific Islander	304 (9.6)	441 (5.0)	124 (5.1)	610 (8.1)
Hispanic	189 (6.0)	514 (5.8)	204 (8.4)	722 (9.6)
CMS Region				
Boston (1)	811 (25.7)	2,185 (24.8)	356 (14.6)	1,026 (13.6)
New York (2)	0	0	343 (14.0)	1,126 (14.9)
Philadelphia (3)	0	0	249 (10.2)	654 (8.7)
Atlanta (4)	0	0	188 (7.7)	387 (5.1)
Chicago (5)	2,344 (74.3)	6,628 (75.2)	345 (14.1)	927 (12.3)
Dallas (6)	0	0	180 (7.4)	733 (9.7)
Kansas City (7)	0	0	49 (2.0)	196 (2.6)
Denver (8)	0	0	256 (10.5)	603 (8.0)
San Francisco (9)	0	0	321 (13.1)	1,241 (16.4)
Seattle (10)	0	0	156 (6.4)	654 (8.7)