Below please find the Fall 2008 edition of *News from ORDI*, a quarterly publication summarizing recent work undertaken in ORDI and the results we've produced. Highlights from this quarter's *News* include:

- Publication of the Fall 2008 edition of the *Health Care Financing Review*, CMS' journal of information, analysis, and research on a broad range of issues affecting the Medicare, Medicaid, and State Children's Health Insurance (SCHIP) programs.
- Research conference presentations by ORDI staff.
- New research reports.
- Program demonstrations and research projects. ORDI is developing and managing a number of demonstrations and research projects for CMS, some of which are summarized below.

I hope you find this information useful. For additional ORDI-related information, please visit our website.

Timothy P. Love

Director, Office of Research, Development, and Information

1. *Health Care Financing Review*

Since our last newsletter, ORDI released the Fall 2008 edition of the *Health Care Financing Review*, the agency's journal of information, analysis, and research on a broad range of health care financing and delivery issues. The theme of this issue is Disease Management. Included are articles on impacts of a disease management program for dually-eligible beneficiaries, evaluation of the Medicare health support chronic disease pilot program, and identifying potentially preventable readmissions. Click here to view the Fall edition, as well as previous issues.

To request copies of the printed edition, please contact Patty Manger at 410-786-3253.

2. Research Conference Presentations

"Post-Transplant Survival and Rehospitalization for Medicare Heart Transplant Patients," presented at the American Public Health Association's 2008 Research Meeting in San Diego, CA.

Heart transplantation has become an effective, standard treatment for end-stage heart failure patients. Refinements in patient\donor selection, immunosuppression, and surgical procedures have improved outcomes and made transplantation a possible option for older patients and diabetics with end-stage heart disease. Prior studies have found 1-year survival rates exceeding 80 percent for several populations. Long-term survival (10 years or more) is likely for a majority of heart transplant patients. Survival rates for heart transplant patients under Medicare and the subsequent service use patterns of Medicare heart transplant patients had not been examined to date. This study examines survival rates and post-transplant hospitalizations for Medicare beneficiaries receiving heart transplants.

MEDPAR discharge data are examined for Medicare fee-for-service beneficiaries who received a heart transplant (DRG 103) during CY 2002 (N=597). Demographic data for this group are presented. Survival rates at discharge and at 1-5 years post-discharge are presented. Post-transplant hospitalizations are obtained from CY 2002 - 2007 MEDPAR discharge data. The percentage of the group hospitalized in each year is presented, as are the total number of hospitalizations and number of hospitalizations for cardiovascular surgical and medical conditions.

The heart transplant patients examined were 77 percent male and averaged 57 years of age. Only 30 percent were age 65 or older. The patients ranged from 21 to 76 years of age. Slightly over 80 percent of heart transplant patients were white and 13.6 percent were black. Nearly 17 percent of these patients also had diabetes and 22.4 percent had hypertension. Only 9.2 percent of the patients selected died during their hospitalization. Over 85 percent of the patients in this study survived 1 year post-discharge, 77.7 percent survived 3 years post-discharge and 73.5 percent survived 5 years post-discharge. Nearly 80 percent of this group of patients (n=477) were hospitalized during the period from discharge after transplant to 12/31/2007. They averaged 5 hospitalizations and 34 days of care during this period. Only 30 percent of these hospitalizations were for cardiovascular conditions (nearly exclusively medical). Nearly 42 percent of the study group (n=250) were rehospitalized after their transplant in 2002, 47 percent (n=280) were hospitalized during 2003, 34.6 percent (n=207) were hospitalized during 2004, 29 percent (n=172) were hospitalized during 2005, 28 percent (n=168) were hospitalized during 2006 and 18.6 percent (n=111) were hospitalized during 2007. The majority of hospital stays were for non-cardiovascular conditions. Most Medicare heart transplant patients were likely to survive several years after transplant, even though a significant percent are hospitalized during the 5-year period following transplant.

For additional information or to obtain a copy of the report, please contact Bill Buczko at 410-786-6593.

"Medicare Medical Home Demonstration Project," presented at the 6th Annual World Congress Leadership Summit on Healthcare Quality

The upcoming Medicare Medical Home Demonstration Project, which is scheduled to begin January 2010 and continue for 3 years, will provide for monthly care management payments to personal physicians in medical home practices. During 2009, CMS will be conducting outreach and soliciting applications. Slides from the presentation are available here.

Additional information on the demonstration is available here or you may contact Mary Kapp at 410-786-0360.

3. New Research Reports

"Easing the Part D Transition: An Evaluation of Federal and State Efforts to Ensure Dual Eligibles and Other Low-income Beneficiaries Maintain Prescription Drug Coverage"

The Medicare Modernization Act of 2003 created Medicare Part D, which provides coverage for outpatient prescription drugs. This study evaluates the state-to-plan (S2P) demonstration, which covered the period January 1, 2006, through March 31, 2006, to transition unassigned full dual eligibles and other low income subsidy individuals to a Medicare Part D plan at point-of-sale to eliminate lapses in drug coverage due to delays in receipt of eligibility information. In August 2007, CMS contracted Acumen, LLC, (sub-contractor Mathematica Policy Research, Inc.) to conduct an evaluation study to compare the administrative efficiencies of the S2P demonstration and the contractor-based point-of-sale facilitated enrollment process; explore the characteristics of beneficiaries utilizing the two programs; and examine the feasibility of alternative models for transitioning new dual-eligible beneficiaries into Part D. The findings were based on key informant interviews and secondary data analysis.

The report is available here. For additional information, please contact Iris Wei at 410-786-6539.

“Evaluation of the Background Check Pilot Program: Final Report”

This final report responds to Section 307 of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 which requires the Department, in consultation with the Attorney General, to conduct an evaluation of the Background Check Pilot Program. The evaluation study was to recommend procedures and payment mechanisms for a national criminal background check program implemented by long-term care providers to check prospective employees who would have direct patient access. Seven states participated in the pilot program: Alaska, Idaho, Illinois, Michigan, Nevada, New Mexico, and Wisconsin. The pilot program ended on September 30, 2007. The final report presents the findings and considerations from the evaluation. In general, the pilot states felt the MMA pilot model legislation struck an appropriate balance between the mandated core requirements and state flexibility. The evaluation considerations include allowing a check to be valid for 1-3 years, rather than for each potential new hire. Of the 204,356 applicants, 7,453 (3.6 percent) were disqualified, with

an additional unknown number deterred because they knew that they would be disqualified. There was no consensus on how or who should pay for this program.

For additional information or to obtain a copy of the report, please contact M. Beth Benedict, Dr.P.H., J.D., at 410-786-7724.

"Evaluation of MSA Plans under the Medicare Program Case Study Report"

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 included Medical Savings Accounts (MSA) as a permanent Medicare Advantage plan type for beneficiaries. CMS contracted with L&M Policy Research, LLC, to conduct an evaluation of the MSA program. The case study report focuses on why plans chose to offer an MSA product. The discussions focused on the health plans' core competencies and weaknesses, and how they may have influenced the plans' decisions about whether to enter the MSA market. Overall, the plans that offered an MSA product had generally positive experiences in offering and managing their MSA product. Although plans reported several challenges, they were generally able to work around issues. The most significant issues included matters related to developing MSA-specific marketing materials, setting up the MSA, recovering funds from disenrollees, and prorating the plan deductible. Plans' views of items that were issues for beneficiaries included when the member would receive the deposit and be able to use their debit card.

For additional information or to obtain a copy of the report, please contact Melissa A. Montgomery, Ph.D., at 410-786-7596.

"Part D Reinsurance Demonstration Enrollment Analysis"

The central objective of the Part D Payment Demonstration is to increase beneficiaries' choices of, and access to, supplemental drug coverage. Therefore, a major focus of RTI's evaluation of the demonstration is from the beneficiary perspective, including an analysis of demonstration enrollment. This evaluation addressed three main topics: enrollment in demonstration versus non-demonstration plans; selection bias for demonstration plans; and whether these trends varied by enrollee characteristics.

The sample for the enrollment analysis was the Medicare population, including beneficiaries enrolled in the Part D program and beneficiaries not enrolled. The time period for the enrollment analysis was 2006 to 2007. The evaluation found that the vast majority of beneficiaries enrolled in basic plans (69 percent in 2006 and 64 percent in 2007). In both 2006 and 2007, the distribution of enrollment characteristics varied little between plan types, and the risk scores of those in demonstration vs. non-demonstration plans did not vary.

For additional information or to obtain a copy of the report, please contact Aman Bhandari at 410-786-2313.

"Part D Reinsurance Demonstration Plan Benefit Design Analysis"

This is a Medicare Part D payment demonstration allowing plans to choose alternative payment methodologies for reinsurance. CMS launched this 5-year demonstration (2006-2011) allowing plans to choose alternative payment methods for re-insurance for the Part D program via three main options (fixed capitation, flexible capitation, and Medicare Advantage rebate). RTI analyzed the impact of this demonstration on beneficiaries, sponsors, and Medicare program costs. Plan benefit information in this study was derived primarily from the CMS 2006 and 2007 Health Plan Management System data sets. RTI found many enhanced benefit plans that do not take advantage of the reinsurance demonstration. This suggests that, even without the reinsurance demonstration, there would be variety in enhanced benefit plans, including plans that provide gap coverage. The analysis showed, however, that demonstration plans were more generous than both basic plans and enhanced non-demonstration plans. Most notably, this study is the first comprehensive report comparing benefit designs across the whole Part D program. It compares and contrasts deductibles, premiums, coverage gaps, and formulary structured across basic and enhanced benefit designs to those offered by plans participating in the demonstration.

For additional information or to obtain a copy of the report, please contact Aman Bhandari at 410-786-2313.

"Evaluation of the Erickson Advantage Continuing Care Retirement Community (CCRC) Demonstration"

In August 2005, CMS approved a demonstration program to set up a Medicare Advantage (MA) plan exclusively within Erickson CCRCs and managed by Evercare/UnitedHealth Group. Typically, MA plans are bound by the county integrity rule, preventing them from limiting the availability of their plans to geographic areas smaller than a county. Putting in place an Erickson MA plan available only to residents of the CCRCs required a waiver of this rule. ORDI funded an evaluation to examine the effect of the waiver.

To identify innovative, effective services for Medicare beneficiaries, CMS sponsored an evaluation of the Erickson Advantage (EA) CCRC demonstration. Begun in 2005, the demonstration created an MA plan exclusively within the Erickson CCRCs, managed by Evercare/UnitedHealth Group. Pacific Consulting Group and the University of Minnesota examined the county integrity waiver's effect on the demonstration to help determine whether MA plans can be limited to residential settings without encouraging selection bias for low-risk enrollees. Case studies, focus groups, and secondary data analyses were used to understand how Erickson CCRCs provide services and deliver care. Outcomes and effects on utilization and costs were not evaluated. Differences in demographics and disease burden were found within the Erickson populations and between Erickson residents and the surrounding communities, but there was no evidence of selection bias favoring EA. Erickson's geriatric focus and care continuum offer an advantage over other MA plans, but these merits are due more to the Erickson model than the EA plan itself. The waiver may encourage enhanced clinical operations and additional services within CCRCs by enabling them to recoup the cost of their investment in better geriatric care.

For additional information or to obtain a copy of the report, please contact Gerald Riley at 410-786-6699.

"Medicare Advantage Plan Availability, Premiums and Benefits, and Beneficiary Enrollment in 2007, Final Report"

This is the third report in a series of four reports, the first of which was a report to Congress measuring the impact of increased payments to Medicare Advantage (MA) providers. The second report analyzed the trends in plans, premiums, and benefits in 2006; developments were put in context of 2000 to 2005 trends in MA that were identified in the report to Congress. The current report focuses especially on key recently implemented features of MA, including the Part D benefit, the regional Preferred Provider Organization plan type, the Special Needs Plan plan type, and the new Medical Savings Account option.

For additional information or to obtain a copy of the report, please contact Melissa Montgomery at 410-786-7596.

"Comparison of Cancer Diagnosis and Treatment in Medicare Fee-For-Service and Managed Care Plans"

This paper, by Gerald Riley et al., was published in *Medical Care*, volume 46, pp 1108-1115, October 2008. It compares the Medicare managed care (MC) and fee-for-service (FFS) sectors on stage at diagnosis and treatment patterns for prostate, female breast, and colorectal cancers, and to examine patterns across MC plans.

Among cases diagnosed at ages 65-79 between 1998 and 2002, the authors selected all MC enrollees (n=42,467) and beneficiaries in FFS (n=82,998) who resided in the same counties. MC and FFS samples were compared using logistic regression, adjusting for demographic, geographic, and clinical covariates.

The percentage of late stage cases was similar in MC and FFS for prostate and colorectal cancers; there were slightly fewer late stage breast cancer cases in MC (7.3 percent vs. 8.5 percent, $p < 0.001$). Within MC, radical prostatectomy was performed less frequently for clinically localized prostate cancer (18.3 percent vs. 22.4 percent, $p < 0.0001$), and twelve or more lymph nodes were examined less often for resected colon cancer cases (40.9 percent vs. 43.0 percent, $p < 0.05$). Treatment patterns for early stage breast cancer were similar in MC and FFS. Analyses of treatment patterns at the individual plan level revealed significant variation among plans, as well as within the FFS sector, for all three types of cancer.

On average, there are few significant differences in cancer diagnosis and treatment between MC and FFS. Such comparisons, however, mask the wide variability among managed care plans, as well as FFS providers. Observed variation in patterns of care may be related to patient selection, but can potentially lead to outcome differences. These findings support the need for quality measures to evaluate plan practices and performance.

For additional information or to obtain a copy of the report, please contact Gerald Riley at 410-786-6699.

"Trends in Out-of-Pocket Health Care Costs Among Elderly Community Dwelling Medicare Beneficiaries"

This paper, by Gerald Riley et al., was published in the *American Journal of Managed Care*, volume 14, number 10, pages 692-696, October 2008. It describes trends in out-of-pocket health care costs, including insurance premiums, for elderly Medicare beneficiaries living in the community. Specific questions include: 1) How much have out-of-pocket costs increased absolutely and relative to income? 2) Has the distribution of out-of-pocket costs changed over time? 3) How do costs vary by beneficiary characteristics such as income and health status? 4) To what extent do high out-of-pocket costs persist from year to year?

Medicare Current Beneficiary Survey data were analyzed for community dwelling beneficiaries aged 65 or over, between 1992 and 2004. The primary focus of the analysis was out-of-pocket health care costs and out-of-pocket costs as a percent of income. Descriptive statistics are presented for four years: 1992, 1996, 2000, 2004.

Inflation-adjusted median out-of-pocket costs were relatively stable between 1992 and 2000, then rose by 22 percent between 2000 and 2004. Costs as a percent of income declined between 1992 and 1996, but increased from 12.6 percent in 2000 to 15.5 percent in 2004. Out-of-pocket costs increased fastest at the upper percentiles of the distribution. High out-of-pocket costs tended to persist from year to year, exacerbating the financial burden for some beneficiaries.

Following a period of declining burden between 1992 and 1996, out-of-pocket health care costs rose significantly between 2000 and 2004, increasing the financial burden for many elderly Medicare beneficiaries. These data provide a baseline for evaluating the impact of Medicare reform proposals that may impact beneficiary spending.

For additional information or to obtain a copy of the report, please contact Gerald Riley at 410-786-6699.

"Disenrollment from Medicare Managed Care Among Beneficiaries With and Without a Cancer Diagnosis"

This paper, by multiple authors, including ORDI's Gerald Riley, was published in the *Journal of the National Cancer Institute*, volume 100, issue 14, pages 1013-1021, July 16, 2008. Medicare managed care may offer enrollees lower out-of-pocket costs and provide benefits that are not available in the traditional fee-for-service Medicare program. However, managed care plans may also restrict provider choice in an effort to control costs. This paper compares rates of voluntary disenrollment from Medicare managed care to traditional fee-for-service Medicare among Medicare managed care enrollees with and without a cancer diagnosis.

The authors identified Medicare managed care enrollees aged 65 years or older who were diagnosed with a first primary breast (n=28331), colorectal (n=26494), prostate (N=29046) or lung (n=31243) cancer from January 1, 1995 through December 31, 2002, in Surveillance, Epidemiology, and End Results (SEER) cancer registry records linked with Medicare enrollment files. Cancer patients were pair-matched to cancer-free enrollees by age, sex, race and geographic location. The authors estimated rates of voluntary disenrollment to fee-for-service Medicare in the 2 years after each cancer patient's diagnosis, adjusted for plan characteristics and Medicare managed care penetration, by use of Cox proportional hazards regression.

In the 2 years after diagnosis, cancer patients were less likely to disenroll from Medicare managed care than their matched cancer-free peers (for breast cancer, adjusted hazard ratio [HR] for disenrollment = 0.78, 95% confidence interval [CI] = 0.74 to 0.82; for colorectal cancer, HR = 0.84, 95% CI = 0.80 to 0.88; for prostate cancer, HR = 0.86, 95% CI = 0.82 to 0.90; and for lung cancer, HR = 0.81, 95% CI = 0.76 to 0.86). Results were consistent across strata of age, sex, race, SEER registry and cancer stage.

A new cancer diagnosis between 1995 and 2002 did not precipitate voluntary disenrollment from Medicare managed care to traditional fee-for-service Medicare.

For additional information or to obtain a copy of the report, please contact Gerald Riley at 410-786-6699.

"Medicare Home Health Patients' Transitions Through Acute and Post-Acute Care Settings"

This paper, by multiple authors, including ORDI's Ann Meadow, Sc.D., was published in *Medical Care*, volume 46, number 11, pages 1188-1193, November 2008. It reports on a study whose objectives were to describe Medicare beneficiaries' transitions through home health care within the context of other acute and post-acute services, and to examine agreement between administrative claims and Outcome and Assessment Information Set (OASIS) measures of health services use.

Using data from the 2004 Chronic Condition Data Warehouse, the authors studied 66,510 Medicare beneficiaries with a home health start of care (SOC) assessment between 1/15/2004 and 7/15/2004 and who were discharged prior to 12/1/2004. Results showed that home health patients frequently incurred acute and post-acute services during the 14 days preceding admission and the 30 days following discharge, predominantly in acute hospitals. Substantial differences were observed in beneficiaries' health and functioning across living arrangements; patients living alone were less medically complex, less disabled, and received less assistance than those living with others. Agreement between OASIS and administrative claims was uniformly low with regard to inpatient hospital, inpatient rehabilitation, and skilled nursing facility use in the 14 days preceding the home health start of care. Agreement between OASIS and administrative claims was uneven for the period following discharge from home health care; it was determined to be near perfect for inpatient hospital (kappa=0.85), but was lower for inpatient rehabilitation and

hospice (kappa=0.22 and 0.10, respectively). Findings reinforce the potential merit of patient- rather than setting-specific measures of quality, but underscore practical challenges to constructing measures that span data sources and episodes of care.

For additional information or to obtain a copy of the report, please contact Ann Meadow at 410-786-6602.

4. Current Demonstrations and Research Projects

Medicare Medical Home Demonstration

As directed in Section 204 of the Tax Relief and Health Care Act, the Department is required to conduct a demonstration project "to redesign the health care delivery system to provide targeted, accessible, continuous and coordinated, family-centered care to high need populations." The ultimate goals of the demonstration are to improve the quality of care of Medicare beneficiaries, reduce the need for expensive medical services, and generate savings. Medical homes are expected to accomplish this by making changes to the way they practice medicine -- improving access to care and communication, planning care for patients, coordinating care across specialists and settings, tracking tests and referrals, reviewing patient medications, using evidence-based guidelines for preventive and chronic care, and for certain practices, using electronic medical records.

The Medicare Medical Home Demonstration will operate over a period of 3 years in up to eight states (or portions of states), and will include urban, rural, and medically underserved areas. The demonstration will target practices that formally demonstrate they have the capability to provide medical home services. Physicians in the practices who serve as personal physicians under the demonstration must be board certified and provide first contact and continuous care for individuals enrolled in the demonstration under their care as stipulated in the legislation.

CMS expects the demonstration to serve approximately 400,000 Medicare beneficiaries under the care of 2,000 physicians in the treatment group over the course of the demonstration. These will be split among eight sites (whole states or portions of states). The intervention period during which personal physicians serve patients in medical home practices is 3 years (2010 through 2012). No new patients will be enrolled during the last year of this period, to ensure each patient has a minimum of a year of exposure to the intervention.

For more information on this demonstration, please contact Jim Coan at 410-786-9168 or visit the demonstration website here.

Nursing Home Value Based Purchasing Demonstration

The Nursing Home Value-Based Purchasing (NHVBP) Demonstration is part of the CMS initiative to improve the quality and efficiency of care furnished to Medicare beneficiaries. Under this demonstration, CMS will offer financial incentives to nursing homes that meet certain conditions for providing high quality care. The demonstration will be open to free-standing and hospital-based facilities and will include beneficiaries who are on a Part A stay as well as those with Part B coverage only. CMS intends to conduct the demonstration in up to four states.

The approach will be to assess the performance of nursing homes based on selected quality measures, and then to make payments to those nursing homes that achieve the best performance or the most improvement based on those measures. Quality will be assessed in the following four domains: nurse staffing, appropriate hospitalizations, minimum data set (MDS) outcome measures, and survey deficiencies. The payment pool for each state will be determined based on Medicare savings that result from reductions in Medicare expenditures, primarily from reductions in avoidable hospitalizations.
The Office of Management and Budget approved the demonstration waivers in late October 2008. CMS is conducting a two-stage solicitation process. First, we are selecting states to host the demonstration. Next, we will solicit nursing homes within those states. We anticipate that the demonstration will begin in summer 2009.

For more information on this demonstration, please contact Ron Lambert at 410-786-6624 or visit the demonstration website here.

Medicare Care Management for High Cost Beneficiaries (CMHCB) Demonstration

This 3-year demonstration is a test for models of care management for beneficiaries under the Medicare fee-for-service program, incorporating relevant features from traditional disease management programs, but allowing sufficient flexibility to adapt the design to meet the unique needs of the high-cost Medicare population.

ORDI recently released a report on the results of the Medicare Health Services Survey, one of the components of the overall CMHCB evaluation conducted by RTI International. RTI surveyed a sample of beneficiaries in each of the six programs separately to determine the impact of the intervention on beneficiary experiences with care, self-care behaviors, physical functioning, and mental functioning. Program effects were estimated by comparing the experiences of intervention group members to those for randomized controls or matched comparison group beneficiaries. Further, the overall design of the CMHCB demonstration follows an intent-to-treat model, so that the underlying population for the survey sample included all beneficiaries assigned to the intervention regardless of their level of participation in the demonstration program.

Overall, the findings show that beneficiaries in the CMHCB intervention groups did not report more favorable experiences with care, that is getting help to set goals, create a care plan, or cope with a chronic condition, compared with the control groups. With only few exceptions, the interventions had little impact on the frequency of self-care activities or self-efficacy to perform these activities. RTI also did not find consistent significant differences in beneficiary physical and mental functioning with the exception of two

programs where beneficiaries reported better physical health and another where beneficiaries reported fewer depressive symptoms. The focus of the CMHCB demonstration interventions was largely on impacting beneficiary behavior to better manage chronic illnesses. Yet these results show little evidence of changes in self-efficacy or self-care.

For more information on this demonstration, please contact Dave Bott at 410-786-0249 or visit the demonstration website here.
