U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

Minnesota Managed Care Longitudinal Data Analysis

March 2016

Office of the Assistant Secretary for Planning and Evaluation

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This report was prepared under contract #HHSP23320100021WI between HHS's ASPE/DALTCP and Research Triangle Institute. For additional information about this subject, you can visit the DALTCP home page at https://aspe.hhs.gov/office-disability-aging-and-long-term-care-policy-daltcp or contact the ASPE Project Officers, John Drabek and Pamela Doty, at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201; John.Drabek@hhs.gov, Pamela.Doty@hhs.gov.

MINNESOTA MANAGED CARE LONGITUDINAL DATA ANALYSIS

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March 31, 2016

Prepared for
Office of Disability, Aging and Long-Term Care Policy
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
Contract #HHSP23320100021WI

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ACKNOWLEDGMENT

The authors wish to thank staff from the Minnesota Department of Human Services for consultation on Minnesota programs and data access that made this project possible, and to JEN Associates in Cambridge, Massachusetts for providing access to the data and technical support for using it.

ACRONYMS

The following acronyms are mentioned in this report and/or appendices.

ACA	Affordable Care Act
ADL	Activity of Daily Living
AOR	Adjusted Odds Ratio
CMS	Centers for Medicare and Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
DHS	Minnesota Department of Human Services
ED	Emergency Department
FAI	Financial Alignment Initiative
HCBS	Home and Community-Based Services
IRR	Incidence Rate Ratio
LTSS	Long-Term Services and Supports
MACPAC	Medicaid and CHIP Payment and Access Commission
MCO	Managed Care Organization
MDS	Minimum Data Set
MedPAC	Medicare Payment Advisory Commission
MSC+	Minnesota Senior Care Plus
MSHO	Minnesota Senior Health Option
OLS	Ordinary Least Square
PCA	Personal Care Assistance
PCP	Primary Care Physician
SNF	Skilled Nursing Facility

EXECUTIVE SUMMARY

This study tests the hypothesis that delivery of Medicare-funded and Medicaid-funded services to dually eligible beneficiaries aged 65 and older via fully integrated managed care plans is associated with stronger community-based service utilization patterns compared to service delivery when Medicare- and Medicaid-funded services are delivered independently. The hope is that integrated Medicare-Medicaid managed care plans will emphasize primary care physician (PCP) visits versus specialty physician visits, reduce preventable hospital stays and emergency department (ED) visits, and enable chronically disabled elders to obtain services at home or in "assisted living" settings in preference to long-stay nursing home use--strategies that are not easily accomplished under the fragmented delivery systems of separate Medicare and Medicaid programs.

To test the hypothesis, we compare service delivery patterns among elderly dually eligible beneficiaries enrolled in two alternative managed care service delivery systems in Minnesota: Minnesota Senior Care Plus (MSC+) and the Minnesota Senior Health Option (MSHO). MSC+ is a Medicaid-only program, while MSHO is a fully integrated Medicare-Medicaid program. With few exceptions, elderly dual eligible beneficiaries in Minnesota are required to enroll in an MSC+ managed care plan for their Medicaid-covered services or, if they choose, enroll in an MSHO managed care plan that provides both Medicare-funded and Medicaid-funded services in one program. MSC+ members are assigned a case manager who helps them with their Medicaid-funded services (largely long-term care services and supports), while MSHO members are assigned a care coordinator who helps them with all of their Medicare-funded and Medicaid-funded services. MSC+ enrollees receive their Medicare-funded services through traditional fee for service Medicare or a Medicare Advantage plan, along with a Medicare Part D prescription drug plan, and must coordinate their own Medicare services.

Because dual eligibles in Minnesota can choose to enroll in MSHO rather than MSC+, and can switch between MSHO and MSC+, we examine MSHO enrollment rates and changes in MSHO enrollment over time as well as the beneficiary characteristics and community factors that are associated with the decision to enroll in MSHO. Subsequent comparisons of service use patterns across MSC+ and MSHO control for differences in beneficiary characteristics and community factors to estimate the effects of MSHO relative to MSC+ on service use patterns for similar individuals. We also explore the potential impact of unmeasured differences in the characteristics of those making a choice between the MSHO and MSC+ on the estimated differences in MSHO and MSC+ service use. Finally, we briefly describe characteristics that differentiate Medicare-only beneficiaries and dual eligibles enrolled in MSC+ and MSHO and then examine differences in their service use patterns. The study used an extensive dataset that measures beneficiary characteristics, enrollment status, and service use.

In recent years, Minnesota has increased the number of people served under MSHO while also reducing nursing home use.[1] Analyses that shed light on how this has been accomplished and whether MSHO enrollment and reduced nursing home use are related may be useful to Centers for Medicare and Medicaid Services (CMS) as it partners with states to test various Medicare-Medicaid integrated care options, some as part of the Affordable Care Act implementation.

Data and Methods

We created person-year level files containing three years (2010-2012) of data from the person-month file provided by JEN Associates to create the following measures. We created a variable reflecting yearly MSHO enrollment, coded 1 if in the MSHO program throughout the year, and 0 otherwise (that is, in the MSC+ program throughout the year). We created nine measures of service utilization pertaining to any hospital inpatient care, outpatient ED use, long-term care nursing home use, overall physician use, PCP use, specialist use, home and community-based services (HCBS), assisted living, and hospice care. We also created five count measures for levels of use reflecting the number of hospital inpatient stays, outpatient ED visits, overall physician visits, PCP visits, and specialist visits. We performed descriptive and multivariate analyses controlling for characteristics of the individuals and their communities.

Key Results

Enrollment Analysis Highlights

- MSHO enrollees tended to be older, female, to have more medical conditions and disabilities, to have died during the year, and were slightly more likely to live in rural areas of the state.

- Very few MSHO enrollees ever switched to MSC+ during a year, but 12.8 percent of MSC+ enrollees switched to MSHO after the beginning of a year.

Outcomes Analyses Highlights

- Controlling for differences in observed individual-level and area-level characteristics of MSHO and MSC+ enrollees, MSHO enrollees were:

    - 48 percent less likely to have a hospital stay, and if so, had 26 percent fewer stays than if in MSC+.
    - 6 percent less likely to have an outpatient ED visit, and if so, had 38 percent fewer visits than if in MSC+.

[1] Unpublished tabulations from Minnesota Department of Human Services Medicaid Management Information System Data Warehouse as of October 15, 2013. Provided by Pam Parker on August 24, 2015.

- 2.7 times more likely to have a PCP visit, but if so, had 36 percent fewer visits than in MSC+.
- No more likely to have a specialist visit, but if so, had 36 percent fewer visits than in MSC+.
- No more likely to have a long-term nursing home admission than in MSC+.
- 13 percent more likely to have any HCBS than in MSC+.
- 16 percent less likely to have any assisted living services than in MSC+.
- 9 percent more likely to have any hospice care use than in MSC.
- In urban areas, less likely to have inpatient care and more likely to have PCP care over time between 2010 and 2012.
- In rural areas, no more likely to have assisted living facility use.

Discussion

- Minnesota dual eligibles electing MSHO enrollment differed from those remaining in the MSC+ program on a range of individual characteristics. MSHO enrollees tended to be older, female, to have more medical conditions and disabilities, to have died during the year, and were slightly more likely to live in rural areas of the state.

- Although MSC+ enrollees were increasingly likely to enroll in MSHO over time, MSHO enrollees rarely opted out of the MSHO program once enrolled. Very few of those who were in MSHO in January of a year ever switched to MSC+ during that year, but 12.8 percent of those who were in MSC+ in January of a year switched to MSHO by the end of the year. Although MSHO enrollees can disenroll from MSHO and elect MSC+ effective at the beginning of the next month, the finding that almost none do suggests high satisfaction with services received under MSHO.

- Compared to MSC+ enrollees, MSHO enrollees had lower hospital and ED use, but greater prevalence of primary care service use. Both before and after controlling for differences in observed individual- and area-level characteristics, MSHO enrollees received less care in hospital settings than MSC+ enrollees. This finding that hospital use was lower even prior to controlling for differences in MSC+ and MSHO enrollee's characteristics was unexpected because MSHO enrollees were somewhat older and had somewhat greater prevalence of selected medical conditions and disabilities. MSHO enrollees also had a much higher prevalence of primary care use both before and after controlling for differences in MSC+ and MSHO enrollees' characteristics.

- Prior to controlling for enrollee differences, MSHO enrollees were more likely than MSC+ enrollees to have a long-term nursing home stay as would be expected based on their being older, more female, and having more complex medical conditions. They were also more likely to have any HCBS and assisted living facility use. After controlling for differences in enrollee characteristics,

MSHO enrollees continued to be more likely to use HCBS but were less likely to use assisted living services compared to enrollees in MSC+ and no more likely to have a long-term nursing home stay.

- Finally, it is always important to consider the potential for selection bias in analyses comparing enrollees in different programs. Our ability to quantitatively assess the potential for selection bias due to unobserved characteristics in our impact estimates using the method developed by Oster (2015) is an advancement from prior studies. We found that, if we had been able to incorporate the unmeasured variables, our estimates of MSHO effects would be unlikely to change direction, and, in many cases, could potentially be much larger in magnitude.

Conclusion

These findings suggest that adopting fully integrated care models similar to MSHO may have merit for other states. CMS and 12 states (including Minnesota) are currently participating in the Financial Alignment Initiative to improve care for dual eligibles using either managed fee for service or fully capitated models. This study found that one type of capitated model, as represented by the MSHO program, is associated with improved patterns of care which has the potential for improving health and health care outcomes for dual eligibles.