

**MULTI STATE EVALUATION OF DUAL ELIGIBLES DEMONSTRATION**

**FINAL REPORT**

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The statements contained in this report are solely those of the authors and do not necessarily reflect the views or policies of the Centers for Medicare and Medicaid Services. The contractor assumes responsibility for the accuracy and completeness of the information contained in this report.

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## EXECUTIVE SUMMARY

Governments face special problems in dealing with the portion of the elderly and disabled population who are dual eligible for both Medicare and Medicaid. Their dual status is often the result of severe disability, physical frailty, or increased age and is thus associated with higher medical costs. The complex medical, social, and long-term care needs of the dual eligible population require a comprehensive coordinated set of acute and long-term care services. However, the administratively complex, complementary yet separate coverage provided by Medicare and Medicaid creates a fragmented service delivery system. The benefit packages overlap, yet are different. Coverage is not continuous between the two programs. Duplication and inefficiency are difficult to manage. Given the duplications in coverage, there is a real potential for cost shifting.

Programs that address this population are important. They offer a way of rationalizing overlapping (and often discordant) funding policies. They allow for more flexible use of these pooled funds to address salient issues that might not be covered under the more rigid fee-for-service rules, but which may prevent more expensive subsequent care. Pooling of funds under managed care may not only help to control costs and provide a more coordinated framework for care but may offer the opportunity to incorporate geriatric approaches into the care of the more complex dual eligible population, using case management and chronic disease management techniques.

Several national demonstrations including the Program of All-inclusive Care for the Elderly (PACE), Social Health Maintenance Organizations (SHMO) and Evercare, as well as several state initiatives have been developed to merge pieces of different concepts to better meet the needs of the elderly and disabled populations. These programs have varied in terms of the extent to which they merge Medicare and Medicaid funds, the target populations served, and the extent to which they incorporate case management and geriatric care into their delivery systems. Experience to date with actual integration of Medicare and Medicaid funding is limited.

With the encouragement of the Department of Health and Human Services, two demonstration programs have been developed - Minnesota Senior Health Options (MSHO) and Wisconsin Partnership Program (WPP). A third program (Senior Care Options) was recently launched in Massachusetts. The two demonstrations in Minnesota and Wisconsin are pursuing different options or approaches for designing and operating integrated care, yet they share a common goal to provide acute and long-term care services to dual eligible elderly and disabled persons that provide increased coordination, improve access to quality services, and control or more appropriately allocate future costs.

The Centers for Medicare and Medicaid Services (CMS) contracted with the University of Minnesota to conduct formal evaluations for these two programs. The evaluation is largely a quantitative outcome evaluation of the effectiveness and costs of these new programs. The basic quasi-experimental design was intended to compare the



populations served by the demonstration program with suitable controls: a combination of two different comparison groups—one made up of those individuals who lived in the same counties the demonstrations covered but did not enroll in MSHO or WPP (Control-In group) and one made up of individuals who lived in a comparable area that was not covered by the demonstration (Control-Out group). A variety of issues were to be explored, including disability, satisfaction, care burden, and various utilization parameters. A participant survey was conducted to compare the general levels of health and disability (along with unmet need) as well as the satisfaction of both enrollees and their families and the care burdens of the latter. In the case of MSHO, a second survey was done of community enrollees to look for change in status, and data from a statewide nursing home case mix data set was used to measure change in functional status over time for nursing home residents. The utilization, cost, and quality of care evaluation included analysis of claims data to determine if the outcomes of care, including inpatient hospitalization, emergency room visits, and preventable hospitalizations, were different for demonstration enrollees compared to matched control groups. The cost to the government for the provision of services measured through demonstration capitation payments are compared to fee-for-service Medicare and Medicaid payments for the control groups. Quality of care was measured in terms of preventable hospitalizations, delay in nursing home admission, and mortality. This material was supplemented by periodic case studies and site visits designed to expand on the quantitative data and to trace the evolution of the projects.

This report summarizes the evaluation activities conducted by the University of Minnesota, highlighting information previously reported, in the form of lessons learned. Complete detailed information relating to the site visits, beneficiary surveys, and utilization, cost, and quality analyses conducted by the University of Minnesota can be found in previous reports to CMS (RL Kane, 2000; RL Kane, Homyak, & Rudolph, 2003; RL Kane, Homyak, & Rudolph, 2004; RL Kane & Rudolph, 1999; RL Kane & Rudolph, 2002a, 2002b; RL Kane & Rudolph, 2002c; Mollica, Kane, & Rudolph, 2000) as well as published articles (R Kane, Homyak, Bershadsky, Lum, & Siadaty, 2003; RL Kane, Homyak, & Bershadsky, 2002; RL Kane, Homyak, Bershadsky, Flood, & Zhang, In press; RL Kane, Homyak, Bershadsky, & Lum, 2002; RL Kane, Weiner, Homyak, & Bershadsky, 2001).

### **Description of Dual Eligible Demonstrations**

MSHO uses a conventional managed care approach. WPP is an adaptation of PACE. The following table highlights the major characteristics of the two dual eligible demonstration programs.

## Characteristics of WPP and MSHO

Characteristic	WPP	MSHO
Target	Nursing home certifiable (NHC) seniors and disabled persons living in the community	Dual eligible seniors living in the community and in nursing homes, both nursing home certifiable (NHC and non-NHC)
Organization	Contracted with four organizations: two PACE sites to provide care to elders, a center for independent living to provide care to disabled; a rural site that cares for both elders and disabled. Care is provided by the organizations or contracted out. Basic model is an extension of the PACE model but clients have wider choice of primary care physician.	Contracted with three health plans: one was already serving dual clients through an informal arrangement; one was formerly a Medicaid only Managed Care Organization (MCO); one was specifically formed to treat public clients. Plans in turn contract with various programs to provide care; programs work with panels of providers.
Model	PACE/Independent Practice Associations (IPAs); care management teams	MCOs with subcapitation to Care Systems, and providers
Context	Built on well-established Medicaid waiver programs for home and community based care as well as experience with PACE demonstration	Built on long history of mandatory Prepaid Medical Assistance Program (PMAP) and waiver programs for home and community based services, as well as regional experience with other national programs including Evercare and Social Health Maintenance Organization (SHMO)
Role of case management	Team of nurse, social worker, nurse practitioner (NP) oversees every case, NP acts as liaison with Primary Care Physician (PCP).	Case manager assigned to every member; required to assess service needs annually, frequency of contact varies depending on needs of client, case manager acts as liaison to PCP
Primary care physician	Client's choice	Client's choice among those contracting with health plan
Payment	Medicare: uses PACE rate adjuster Medicaid: negotiated rate comparable to nursing home (NH) rate	Medicare: payments are the same as those for M+C except for community members who meet the NHC level of care who also receive the PACE rate adjuster (2.39) Medicaid: 1] Community members: PMAP managed care rate plus nursing home liability add on 2] Community frail: PMAP plus nursing home liability and average Elderly Waiver (EW) payment 3] Community frail discharged from the nursing home: PMAP and enhanced EW payment 4] Nursing home members: PMAP managed care rate

Characteristic	WPP	MSHO
Coverage	All Medicare and Medicaid services	All Medicare services. All Medicaid services except NH care after 180 days
Enrollment	Voluntary	Voluntary
Sites	Four sites: two urban sites that also operated PACE programs (seniors only), one urban site for disabled only, one rural site that served both seniors and disabled	Initially seven metropolitan counties, expanded to ten

## Evaluation Results

### MSHO

The results from the quantitative evaluation of MSHO are mixed. MSHO showed some modest positive results in terms of enrollee and family satisfaction. The enrollee survey did not find significant differences in the change in function over time for the community enrollees (positive or negative) compared to the two control groups; however, the comparison in Morris ADL scores for the nursing home sample did show a smaller decline in Activities of Daily Living (ADLs) for MSHO nursing home residents than for the control groups.

MSHO community enrollees showed a lower rate of preventable hospital admissions and preventable emergency room visits than the Control-In group; however, there were no differences in the overall number of hospital admission and emergency room (ER) visits. MSHO nursing home enrollees had significantly fewer hospitalizations, ER visits, and preventable emergency services than either control group. Hospital days and preventable hospital admissions were also significantly lower for MSHO nursing home enrollees compared to the Control-In group. The reduced number of hospital days appears to be as a result of fewer admissions, not shorter lengths of stay. The effect of MSHO on hospital admissions and ER services may reflect the extensive use of a nurse practitioner model for primary care. Both the community and nursing home MSHO enrollees had fewer physician visits than either control group, but the data used did not fully account for nurse practitioner visits provided by individuals directly employed by MSHO groups.

In terms of quality, the results were again mixed. There were no differences in mortality rates for either community or nursing home MSHO enrollees compared to controls. MSHO community enrollees showed some decline in nursing home admission rates but only for short stay admissions (less than 30 days). Admission rates for MSHO enrollees for longer stays were comparable with the two control groups. In general, the nursing home Quality Indicator (QI) results suggest that there were no impressive quality differences between the MSHO nursing home clients and those in the control groups, and those differences that emerged generally did not favor MSHO. The generally low rate of significant differences in part likely reflects the low incidence or prevalence of some adverse events.

The cost of MSHO to the government in the form of Medicare and Medicaid capitation payments was generally higher than the fee-for-service Medicare and capitated PMAP payments made for the Control-In group. The cost of MSHO, however, largely reflected the rate setting procedures in place for the Minnesota PMAP program and the Medicare+Choice (M+C) program. For Medicare cost comparisons, only the frail NHC population (rate cell B) received added per capita payments. For all other populations, including those in the nursing home, MSHO plans received the same amount from Medicare as they would have without the demonstration.

#### WPP

Overall there were mixed results in terms of satisfaction and few differences in utilization between the WPP enrollees and the two control groups. WPP elderly enrollees (in the direct cohort comparison<sup>1</sup> had fewer hospital days compared to both control groups, fewer preventable hospital admissions compared to the Control-In group, and more physician visits than the Control-Out group. The hospital admission rates were lower for PACE enrollees than for WPP enrollees. There was no difference in the number of hospital days between WPP and PACE enrollees, but PACE enrollees had fewer ER admissions. In terms of the disabled population, there was no difference in hospital admissions or number of hospital days. WPP disabled enrollees had fewer preventable hospital admissions compared to the Control-In cohort. WPP had fewer emergency room visits than either control group. WPP disabled had fewer preventable emergency room visits than the Control-Out group in the 18 months after enrollment after adjustment.

There was no significant difference in the mortality rates or the time to nursing home admission for the WPP elderly. There was a modest difference in mortality rates for WPP disabled enrollees compared to controls. The two WPP disabled cohorts had lower rates of death than both control groups, but the pattern of significance varied by comparison group. The rate of nursing home admission was lower for the WPP disabled enrollees than the Control-Out group for stays greater than 30 days.

Comparison of payments made to the WPP in the form of Medicare and Medicaid capitation showed that for elderly enrollees the combined Medicare and Medicaid capitation payments were higher for the WPP than for the Control-In group. For the disabled population the combined WPP capitation payments were lower than fee-for-service Medicare and Medicaid payments for the comparison group. The WPP capitation rate for elderly and disabled Medicaid only was higher than the Control-In fee-for-service costs of the Medicaid only, but not across all years. Again, the capitation amounts were a reflection of the rate settings procedures in place during the evaluation period used by the State and M+C. Wisconsin is currently revising the rate setting procedure for Medicaid managed care payments.

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<sup>1</sup> The direct cohort comparison matched WPP enrollees with COP-W enrollees, both of whom enrolled directly into the respective programs from having at least six months immediately prior enrollment in Medicaid and Medicare.

## **Lessons Learned**

Several lessons were learned from these comparisons. Combining Medicare and Medicaid funding into a single pooled capitated payment program is feasible. MSHO and WPP represent two different approaches to applying managed care for the dual eligible population. Taken together the two programs address a wide range of target populations among the dual eligible. The MSHO program addressed the full range of older persons in the community and the nursing home, whereas WPP addressed two distinct populations (older persons and younger disabled persons) who shared a common trait of being judged to be nursing home eligible but lived in the community. WPP represents a relaxation of the PACE model, which features restricted primary care by limited designated providers who are employed by the PACE program. Under WPP, enrollees could generally utilize the physicians they chose. MSHO is a more traditional application of managed care through plans that contract with a variety of providers.

Developing these programs requires substantial effort. The rationale lay in eliminating conflicts and allowing more flexible use of the pooled resources. This goal was achieved, but the extent to which it led to larger achievements is not clear. As with any managed care enterprise, resources that previously went to care delivery are shifted to cover administrative costs in the hopes of achieving greater efficiencies that justify these expenditures.

There was some indication of greater participant satisfaction but it was not overwhelming, especially given the voluntary nature of enrollment. One difference between the WPP and MSHO samples and their controls is their tenure in their respective programs. On average the WPP and MSHO clients had been in the program for a little over a year at the time of the survey, whereas the controls had been in COP-W or PMAP for more than five and half years. This difference in exposure could be associated with differences in satisfaction. In addition, the flexibility given to clients to retain or choose their own primary care physicians, viewed as critical to encourage potential clients to select the demonstration program over other care options, may adversely impact satisfaction. Participating physicians serve a small number of WPP or MSHO clients. As a result this modest level of physician participation makes it unlikely that physicians will change their practice styles to meet the needs of WPP or MSHO clients.

Neither managed care program achieved substantial reductions in utilization for community-dwelling persons, but the effects on the nursing home group in MSHO were quite dramatic. However, as is common with demonstration programs, the evaluation focused on the early phases of the programs. It is possible that as the programs mature they may demonstrate changes in utilization patterns. The nursing home effect strongly resembles other experience with similar efforts conducted under the auspices of Evercare, which featured active use of nurse practitioners as primary care providers and case managers. The bulk of this effect was achieved by changing the locus of care (i.e., promoting more care for an event in the nursing home rather than transferring the patient to the hospital) (RL Kane, Keckhafer, Flood, Bershadsky, & Siadaty, 2003).

Both programs featured case management, but the actual extent of such activity varied. Newer forms of management, such as disease management, which more closely tracks and intervenes with specific disease problems, might prove useful with these high risk groups.

Any effort to change the overall pattern of care will likely have to actively involve physicians as active participants. A lesson from the PACE and Evercare programs seems to be that changing fundamental practice styles is a key element in changing utilization patterns. In MSHO and WPP the numbers of patients for any given physician varied widely. In many cases these numbers represented only a small proportion of that doctor's practice and hence participation would not likely motivate the physician to change fundamental practice patterns.

Capitation payments are more likely to be useful to government programs in establishing predictable costs than in saving money. Capitated managed care did not save money for Medicare. Even if the actual usage had been reduced, the savings would have accrued to the managed care organization rather than to the government. In the case of MSHO, the Medicare and Medicaid capitation was applied on top of an already capitated Medicaid program.

Setting capitation rates is always tricky. It involves both business and science. In general, the actuarial process requires applying some average rate to a subgroup with problems of accuracy. The predominant adjuster used here for MSHO community frail and WPP (above the M+C capitation rate), which was originally developed for the PACE program, seems a little generous based upon comparisons to fee-for-service payments in the control groups. The Medicare capitation payments used in MSHO and WPP were negotiated and finally agreed upon by CMS and the States. Rate setting by government agencies requires balancing priorities of saving money for the government while at the same time, being sufficiently attractive to managed care organizations to convince them that they can do well financially by achieving some reasonable level of efficiency compared to traditional fee-for-service care. Some consideration might be given to establishing some sort of risk sharing arrangement, which would reduce the risk for managed care organizations and facilitate savings for governments.



## INTRODUCTION

In 1997 the University of Minnesota was awarded a contract from CMS to evaluate four state demonstration programs designed to create alternative delivery services for the dual eligible—people who are eligible for both Medicare and Medicaid. The demonstrations were to be conducted in four states: Minnesota (Minnesota Senior Health Options), Wisconsin (Wisconsin Partnership Program), Colorado (Colorado Integrated Care and Financing Project), and Rochester, New York (Monroe County Continuing Care Network). Subsequent to 1997 the Colorado participants decided that they were no longer interested in taking part in the demonstration so that component of the project was cancelled. The New York site has not yet become operational and is no longer part of the evaluation contract.

The evaluation in Minnesota and Wisconsin is largely a quantitative outcome evaluation of the effectiveness and costs of these new programs. The basic design was intended to compare the populations served by the demonstration program with suitable controls: one selected from the same geographic areas where the plans operate (i.e., composed of persons who were eligible but declined to participate) and a second from comparable locations in the state where the plan is not offered (to minimize the effects of selection bias). A variety of issues were to be explored, including disability, satisfaction, care burden, and various utilization parameters. A participant survey was conducted to compare the general levels of health and disability (along with unmet need) as well as the satisfaction of both enrollees and their families and the care burdens of the latter. In the case of MSHO, a second survey was done of community enrollees to look for change in status, and data from a statewide nursing home case mix data set was used to measure change in functional status over time for nursing home residents. The utilization, cost, and quality of care evaluation included analysis of claims data to determine if the outcomes of care, including inpatient hospitalization, emergency room visits, and preventable hospitalizations, were different for demonstration enrollees compared to matched control groups. The cost to the government for the provision of services measured through demonstration capitation payments are compared to fee-for-service Medicare and Medicaid payments for the control groups. Quality of care was measured in terms of preventable hospitalizations, delay in nursing home admission, and mortality. This material was supplemented by periodic case studies and site visits designed to expand on the quantitative data and to trace the evolution of the projects.

Some of the information used in the evaluation was gathered from site visits with demonstration programs (see page 67 of Notes section for complete list of dates), member materials including marketing materials provided by the demonstration sites, and various independent reports including: The Wisconsin Partnership Program: An Integrated Care Model, September 2000; WPP Final Grant Report, March 2000, submitted to the Robert Wood Johnson Foundation; Community Options Program: Purpose and Guiding Principles, July 2002; WPP Detailed Summary; WPP Operational Protocol; 2003 WPP Model Contract; as well as other information available on the WPP web site <http://www.dhfs.state.wi.us/WIpartnership/> and provided by WPP staff; MSHO



Waiver Report for 1997-1999; MSHO Annual Report, 1999; MSHO Annual Report, 2000; MSHO Waiver Extension Report; MSHO Operational Protocol; 2002 MSHO Model Contract; 2001 Model PMAP/ PGAMCE/MinnesotaCare Model Contract; as well as other information available on the MSHO web site <http://www.dhs.state.mn.us/main/groups/healthcare/documents/pub/dhs> and provided by MSHO staff.

This final report summarizes the evaluation activities conducted by the University of Minnesota, highlighting information previously reported, in the form of lessons learned. Complete detailed information relating to the site visits, beneficiary surveys and utilization, cost, and quality analyses conducted by the University of Minnesota can be found in previous reports to CMS (RL Kane, 2000; RL Kane, Homyak, & Rudolph, 2003; RL Kane, Homyak et al., 2004; RL Kane & Rudolph, 1999; RL Kane & Rudolph, 2002a, 2002b; RL Kane & Rudolph, 2002c; Mollica et al., 2000) as well as published articles (R Kane, Homyak, Bershadsky et al., 2003; RL Kane, Homyak, & Bershadsky, 2002; RL Kane et al., In press; RL Kane, Homyak, Bershadsky et al., 2002; RL Kane et al., 2001).

## **BACKGROUND**

### **Special Case of Dual Eligibles**

Persons eligible for both Medicare and Medicaid present specific challenges to both programs. Their dual status is often the result of severe disability or physical frailty and is thus associated with higher medical costs. At the same time, the administrative complexity associated with participating in two different but overlapping programs results in fragmented care from often separate service delivery systems.

The population of dual eligibles is comprised of diverse subgroups. Individuals qualify for Medicare primarily as a result of age or physical disability. Individuals become dual eligible through a variety of Medicaid eligibility methods, although all of them focus on income limits. Some individuals qualify for Medicaid based on income alone. States are generally required to provide Medicaid coverage to elderly and disabled individuals who are receiving cash assistance through the Supplemental Security Income (SSI) program or whose income does not exceed SSI levels. Individuals can also qualify for Medicaid as a result of being medically needy. In that case, either an acute care event or the onset of significant chronic conditions resulting in significant and overwhelming medical expenses, causes individuals whose incomes normally exceed the SSI eligibility limits to “spend down” to Medicaid eligibility. Thirty-nine states offer an optional eligibility category based upon medical need. Spending on institutional care such as extended hospital stays or a permanent move into a nursing facility can typically result in Medicaid eligibility due to spend down. Those individuals who qualify for Medicaid as a result of being medically needy are more likely to cycle on and off Medicaid on a monthly basis.

As a result, in comparison to other Medicare beneficiaries, dual eligibles are more likely to be disabled and either younger (under 65) or older (over age 85). The dual eligible population is also more likely to be female and living alone. Over 40% of the dual eligible population is from a minority population. Dual eligibles are less likely to have a high school diploma. Dual eligible beneficiaries are also more likely to report serious or chronic health problems. Over half the dual eligible population self reports their health as being poor or fair, compared to one quarter of the non-dual eligible. The dual eligibles are also more likely to suffer from cognitive impairment, mental disorders, or limitations in their ability to perform routine activities of daily living such as walking, eating, and dressing. Most dual eligibles have some type of functional limitation resulting in a need for long-term care services. Dual eligibles are also more likely to live in institutional settings such as nursing facilities (Clark & Hulbert, 1998; Ryan & Super, 2003; Walsh & Clark, 2002).

Given the demographic characteristics and overall health status of the dual eligible population, it is understandable that they account for a disproportionate share of both Medicare and Medicaid expenditures. In calendar year 2000, approximately 15.8% of Medicare enrollees were also enrolled in Medicaid and accounted for over \$50 billion in Medicare expenditures, representing 23.3% of total Medicare spending. Dual eligibles

represented 18% of the Medicaid population and accounted for approximately \$63 billion in Medicaid expenditures or 38% of total Medicaid spending (CMS/Office of Research Development, and Information and Office of the Actuary: 2001 MCBS, MSIS, and CMS-64 data). When all sources of health care spending are factored in (Medicare, Medicaid, private, and out-of-pocket spending) health expenditures for dual eligibles are more than double those of the non-dual eligible. In 1999 total annual health expenditures averaged \$16,278 per dual eligible recipient compared with \$7,396 on average for those who were not dual eligible (Clark & Hulbert, 1998; Ryan & Super, 2003; Walsh & Clark, 2002).

The complex medical, social, and long-term care needs of the dual eligible population require a comprehensive coordinated set of acute and long-term care services. Yet the administratively complex complementary, yet separate coverage provided by Medicare and Medicaid creates a fragmented service delivery system. The benefit packages overlap, yet are different. Coverage is not continuous between the two programs. Duplication and inefficiency is difficult to manage.

Traditional Medicare has two parts. Part A covers institutional services such as inpatient hospital, skilled nursing facility, hospice, and certain home health care services. Part B covers some physician services, outpatient services, and other services such as diagnostic tests, durable medical equipment, and some preventive services. Cost sharing expenses include premiums (for Part B), deductibles, and copayments. These expenses are covered by Medicaid through the State's buy-in program for the dual eligible.

Medicare was not designed as a comprehensive health care program. It remains a highly "medical model" insurance program. Medicare does not cover many services such as long-term nursing home care, most outpatient prescription drugs, eyeglasses, hearing aids, routine dental care, and non-professional care designed to help individuals maintain functioning such as personal attendant care and homemaker services.

In contrast, Medicaid serves as a wrap-around plan for the dual eligible population, filling in gaps where Medicare coverage falls short and sometimes providing additional benefits. Because the Medicaid program is administered by the states within broad federal guidelines, the eligibility and benefit coverage varies significantly across states. While the states must meet certain minimum benefit standards for federal matching funds, states are free to define a more comprehensive scope of Medicaid coverage for the elderly and disabled. Some services, such as home and community base programs, are only offered by states outside of both Medicare and Medicaid, often funded by the state, through the Older Americans Act of 1965 or additional Medicaid waivers.

Dual eligible beneficiaries often face problems of access, lack of continuity of care, limited administrative coordination between Medicare and Medicaid, and confusion relating to coverage and payment. Depending upon funding source, care for dual eligibles may be more focused on primary versus specialty medical care, acute versus chronic care, medical versus social programs, and institutional versus community based care.

Some providers choose to serve individuals in one program but not both (Clark & Hulbert, 1998; Ryan & Super, 2003; Walsh & Clark, 2002).

Medicare is the primary payer, while Medicaid is the payer of last resort. However, Medicaid fills in the gaps where Medicare coverage ends. As a result, each program has strong incentives to shift financial responsibility for care to the other program. Care decision-making can be driven by reimbursement coverage rather than optimal care and coordination for the individual (Ryan & Super, 2003; Walsh & Clark, 2002). For example, care might be more efficiently delivered in a nursing home, but due to reimbursement rules beneficiaries may be transferred to a hospital if an acute care need arises. Conversely, admission to a long-term care setting may occur to receive limited Medicare coverage for post acute care services even if longer-term support for functional impairments could be provided in a community setting at a lower cost.

### **Managed Care**

One possible solution to the fragmentation, poor coordination, and potential cost shifting between Medicare and Medicaid could be pooling the funds for these two programs into a single capitated plan. Pooling funds into a single managed care program could reduce overall cost of care under a risk-based system while offering a comprehensive benefit package. Managed care programs could offer a high degree of coordination and integration of services through broad flexibility in the allocation of services. This arrangement could lead to greater efficiency and cost-effectiveness (Walsh & Clark, 2002).

Both Medicare and Medicaid have been amended since enactment in 1965 in order to permit development of managed care options. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 was the latest amendment to Title XVIII that makes M+C plans into Medicare Advantage plans. Medicaid managed care is possible through Title XIX section 1915(a) and 1915(b) and through section 1115 waivers. Like with fee-for-service Medicare and Medicaid, there are many different participation and coverage options for dual eligible beneficiaries depending upon the state of residence. Managed care arrangements for dual eligibles fall into four general types depending upon market factors and state regulations: M+C combined with Medicaid fee-for-service, M+C combined with Medicaid managed care within the same MCO, M+C combined with an unrelated Medicaid MCO, and Medicare fee-for-service combined with Medicaid MCO. Enrollment into Medicaid managed care can be voluntary or mandatory depending upon the state. Enrollment into M+C must be voluntary (Ryan & Super, 2003; Walsh & Clark, 2002; Walsh et al., 2003).

These different combinations of managed care arrangements do not necessarily facilitate improved benefit coordination for dual eligible beneficiaries (Walsh & Clark, 2002; Walsh et al., 2003). Beneficiaries lack knowledge about their coverage and how they interact. As a result, beneficiaries may pay more for services than necessary, go without needed services because of the assumed expense, or receive interrupted or uncoordinated services by using providers from different MCOs. In addition, dual

eligible beneficiaries experience discontinuities of care due to provider network restrictions, involuntary disenrollment, and difficult transitions from acute to post acute to long-term care if contracted providers do not participate in the same MCO network or do not accept both Medicare and Medicaid enrollees. For example, many states cover long-term nursing home stays only through fee-for-service Medicaid. Once the individual moves permanently into a nursing home they must disenroll from the Medicaid MCO. The nursing home they enter may or may not participate with the M+C provider.

### **Specialized Managed Care**

#### National Demonstrations

The potential for lower costs and expanded coverage offered by MCOs may not be sufficient to address the complexity of care requirements associated with chronic illnesses and disabilities common to the dual eligible population. Evidence points to needed changes in the way care should be offered to chronically ill, frail older persons (Boult, Kane, & Brown, 2000). At minimum, major changes are needed to foster the adoption of geriatric approaches, using case management and chronic disease management techniques. The Centers for Medicare and Medicaid Services (CMS) (then HCFA) sought to address the specific needs of the dual eligible population by granting a series of waivers to a number of states to implement programs specifically geared to this population. The largest and best known were the Program for the All-Inclusive Care for the Elderly (PACE) projects, which targeted a subset of dual eligible enrollees, seniors who were eligible for nursing home care but were still living in the community. Other national demonstrations included the Social Health Maintenance Organizations demonstration begun in 1985 and the Evercare demonstration providing primary care to nursing home residents. (See page 67 of Notes section for more descriptive information.)

#### State Initiatives

Several states have developed programs designed to create a cost-effective delivery system within Medicaid that will appropriately serve frail elderly and disabled enrollees. In most cases these programs rely on fee-for-service Medicare for dual eligible beneficiaries. State initiatives have been developed in Arizona, Minnesota, Wisconsin, Texas, and Massachusetts. (See page 70 of Notes section for more descriptive information on these programs.)

## EVALUATION DESIGN

The evaluation is largely a quantitative outcome evaluation of the effectiveness and costs of the two operational dual eligible programs in Minnesota and Wisconsin. The basic design compared the populations served by the demonstration program with suitable controls. A variety of issues were explored, including physical functioning, satisfaction, care burden, various utilization parameters, and quality of care. This material was supplemented by case studies and site visits, providing descriptive information about the programs and tracing the evolution of the projects. The evaluation design does not directly address the issue of whether the demonstration achieved its operational goals.

The evaluation was charged to address a variety of questions grouped into four major areas: 1) improved coordination of care and benefits; 2) change in utilization (toward more community care, both acute and chronic); 3) improved outcomes (including satisfaction); and 4) reduced net costs, and/or more appropriately borne costs across payers.

Although the two programs differ in some fundamental respects (e.g., MSHO addresses all older dual eligible persons whereas WPP is targeted at those who are deemed to be eligible for nursing home care but are living in the community whether elderly or disabled), the basic evaluation design for the programs in Minnesota and Wisconsin was the same. Parallel but separate studies were completed looking at the MSHO program and the WPP program. Because the dual eligible demonstrations are based upon voluntary enrollment without exclusion, we could not use an experimental design. All dual eligible beneficiaries in the designated communities who met the states' criteria for enrollment were allowed to participate. Since the demonstrations did not establish a control group, the evaluation used a quasi-experimental design and constructed a comparison group that tried to address issues of possible selection bias. The study design included an experimental group (MSHO or WPP enrollees) and a combination of two different comparison groups: one made up of those individuals who lived in the same counties the demonstrations covered but did not enroll in MSHO or WPP (Control-In group) and one made up of individuals who lived in a comparable area that was not covered by the demonstration (Control-Out group). Control-Out areas were chosen from areas that were of a population size and similar characteristics such that they had health care service availability similar to the areas where the demonstration was available. Control-Out areas were selected in consultation with staff from the respective state demonstration programs. By comparing the enrollees to a group that was comparable but did not have the option to enroll (they were outside the enrollment area), we attempted to control for the effect of selection. Using a group that is exposed to the same potential group of providers but chose not to enroll in the demonstration program (the Control-In group), we can examine the effect of enrollment. These two control groups included individuals enrolled in comparable health care programs found in the respective areas—Medicaid (provided through PMAP in Minnesota), fee-for-service Medicare, and, where applicable, home and community based service waivers. In addition, the WPP evaluation included a PACE control group. WPP is, to a large extent,

patterned after the PACE model of care and two of the four demonstration programs also participated in the PACE demonstration. Therefore, PACE enrollees were used as a third type of control group for the elderly subset.

The analyses were based on subgroups relevant to the specific demonstration. In the case of MSHO, separate analyses were completed for community and nursing home residents. In the case of WPP, separate analyses were completed for elderly and disabled.

The evaluation included a survey of enrollees and two matched control groups. The survey compared the general levels of health and disability (along with unmet need) as well as the satisfaction of both enrollees and their families and the care burdens of the latter. In the case of MSHO, a second survey was done of community enrollees to look for change in status and data from a statewide nursing home case mix data set was used to measure change in functional status over time for nursing home residents. Areas covered by the survey instruments included a description of the person, information regarding enrollment/disenrollment, quality of life, satisfaction including issues of access to services, advance medical directives, general health, functional status, and informal caregiver burden (for community respondents). Three potential sources of information were used: the client, a family proxy or a staff proxy when the client was unable to complete the interview, and a family member. In the majority of cases a beneficiary and their family member were interviewed. Questions regarding satisfaction with the demonstration program specifically and health care in general were asked of both parties. A full description of the survey methodology was previously reported to CMS (R Kane, Homyak, Bershadsky et al., 2003; RL Kane et al., 2001).

Periodic case studies were done through site visits. The initial visits provided insights into the workings of the programs. Subsequent visits were used to update progress and to focus on specific aspects of the programs. (See page 67 of Notes section for specific dates).

A major component of the evaluation was an analysis of utilization, cost, and quality of care data from both the enrollees and controls. Encounter and fee-for-service claims data were analyzed to determine if the outcomes of care, including inpatient hospitalization, emergency room visits, and preventable hospitalizations, were different for demonstration program compared to matched control groups. The cost to the government for the provision of services measured capitation payments was compared to fee-for-service Medicare payments for the control groups. Quality of care was measured in terms of preventable hospitalizations, delay in nursing home admission, and quality indicators for nursing home residents (for MSHO enrollees).

Analysis of utilization was conducted using two distinctly different approaches: 1) a cross-sectional longitudinal analysis and 2) a matched cohort longitudinal analysis. Each method answers questions from a slightly different perspective. The cross-sectional approach involved calculating the utilization for each month, creating, in effect, a new sample each month. Assignment into a specific study group occurred on a monthly basis. Thus a person could be in a control group one month and enroll in the demonstration

program the next. This approach yields a series of cross-sectional analyses where all months are treated equally. The individual months are aggregated to create an average monthly rate. Adjustment for repeated measures of the same people at different time points is implemented by using generalized estimating equations. The cross-sectional approach uses the full sample available and produces results that are generalizable to the entire population. Questions of selection bias are addressed through statistical adjustments for patient characteristics.

The matched cohort design is a more traditional approach that involves selecting a comparison sample that is similar to the experimental group, in this case the dual eligible demonstration. The cohort analysis emphasizes the effect of demonstration enrollment on a personal or individual level, aggregated across the cohort. Because the enrollment into the demonstrations was continuous (i.e., people continue to enroll during the course of the study), there was no clear starting point for the demonstration; therefore, the experimental cohort was a moving cohort. A person was classified as a member of the experimental group if he/she participated in the demonstration program at some point in time. Control people were matched based on pair-wise selection with replacement. It allowed every control person to serve as a match for different study people at different time moments and to participate in the corresponding control cohort more than once. The overall sample was smaller using the cohort method as compared to the cross-sectional method. Questions of selection bias are not adequately dealt with by creating the retrospective cohorts and were addressed through statistical adjustments.

In both methods (cross-sectional and cohort) variables used to match groups or as risk adjustors included gender, race (white/non-white), age, original reason for entitlement in Medicare (elderly/disabled), dual eligibility, diagnoses (where available using the HCC predictive cost measure—WPP analyses only)<sup>2</sup>, and county of residence. Additional adjustment variables for the WPP analysis include whether the subject was living at home or in a community-based residential facility (other than a skilled nursing home) at the time of enrollment and for what level of care the subject was evaluated to be eligible at the time of enrollment. The statistical significance of the difference between the demonstration program (MSHO or WPP) and each of the control groups was calculated by using regressions that adjusted for these various factors. The regression equations used two different levels of adjustment: 1) raw data with no adjustment and 2) fully adjusting for the variables listed above. Each person month was treated equally in the regression analysis.

A full detailed description of methods used in the utilization, cost, and quality analyses for MSHO and WPP can be found in the respective reports submitted to CMS in August 2003 and August 2004 (RL Kane, Homyak, & Rudolph, 2003; RL Kane, Homyak et al., 2004).

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<sup>2</sup> A data quality analysis showed that the rate of diagnoses reported in the MSHO claims data (number of diagnoses per encounter) was approximately half of all diagnoses found in the study group. We decided not to use diagnoses in these risk adjustment models to avoid penalizing MSHO due to significant underreporting.





## DUAL ELIGIBLES DEMONSTRATIONS

Two demonstrations have been implemented specifically to address the health care needs of the dual eligible population; one in Minnesota (MSHO) and one in Wisconsin (WPP). Both programs include the merging of Medicare and Medicaid into one capitated program. Each program, however, has taken a different approach, developing a program that targets specific groups within the dual eligible population and that takes into account the health and long-term care environment in that state at the time of implementation. Table 1 summarizes the programmatic differences.

Table 1  
Characteristics of WPP and MSHO

Characteristic	WPP	MSHO
Target	Nursing home certifiable (NHC) seniors and disabled persons living in the community	Dual eligible seniors living in the community and in nursing homes, both nursing home certifiable (NHC and non-NHC)
Organization	Contracted with four organizations: two PACE sites to provide care to elders, a center for independent living to provide care to disabled; a rural site that cares for both elders and disabled. Care is provided by the organizations or contracted out. Basic model is an extension of the PACE model but clients have wider choice of primary care physician.	Contracted with three health plans: one was already serving dual clients through an informal arrangement; one was formerly a Medicaid only Managed Care Organization (MCO); one was specifically formed to treat public clients. Plans in turn contract with various programs to provide care; programs work with panels of providers.
Model	PACE/Independent Practice Associations (IPAs); care management teams	MCOs with subcapitation to Care Systems, and providers
Context	Built on well-established Medicaid waiver programs for home and community based care as well as experience with PACE demonstration	Built on long history of mandatory Prepaid Medical Assistance Program (PMAP) and waiver programs for home and community based services, as well as regional experience with other national programs including Evercare and Social Health Maintenance Organization (SHMO)
Role of case management	Team of nurse, social worker, nurse practitioner (NP) oversees every case, NP acts as liaison with Primary Care Physician (PCP).	Case manager assigned to every member; required to assess service needs annually, frequency of contact varies depending on needs of client, case manager acts as liaison to PCP
Primary care physician	Client's choice	Client's choice among those contracting with health plan

Characteristic	WPP	MSHO
Payment	Medicare: uses PACE rate adjuster Medicaid: negotiated rate comparable to nursing home (NH) rate	Medicare: payments are the same as those for M+C except for community members who meet the NHC level of care who also receive the PACE rate adjuster (2.39) Medicaid: 1] Community members: PMAP managed care rate plus nursing home liability add on 2] Community frail: PMAP plus nursing home liability and average Elderly Waiver (EW) payment 3] Community frail discharged from the nursing home: PMAP and enhanced EW payment 4] Nursing home members: PMAP managed care rate
Coverage	All Medicare and Medicaid services	All Medicare services. All Medicaid services except NH care after 180 days
Enrollment	Voluntary	Voluntary
Sites	Four sites: two urban sites that also operated PACE programs (seniors only), one urban site for disabled only, one rural site that served both seniors and disabled	Initially seven metropolitan counties, expanded to ten

### **Minnesota Senior Health Options**

The State of Minnesota received CMS (then HCFA) approval in April 1995 and in February 1997 began enrolling members into MSHO. MSHO integrates Medicare and Medicaid financing for dual eligible seniors into a market-based managed care delivery system offering both acute and long-term care services. Enrollment into MSHO is completely voluntary. Enrollment is available to dual eligible seniors living in the seven-county metropolitan area and in three rural counties in Minnesota.<sup>3</sup> MSHO enrolls individuals living in the community or living in nursing homes. All levels of need or frailty are eligible, ranging from healthy to including hospice and end stage renal disease patients.

The MSHO demonstration operates under the authority of Section 402 of the Social Security Act for Medicare and Medicaid 1915(a) and 1915(c) waivers from CMS (MSHO originally began operation under Medicaid 1115 waivers and converted to 1915 in May 2000). The Federal waiver was renewed in 2001 and is approved through 2004. These waivers permit MSHO to combine the purchase of Medicare and Medicaid services into one contract managed by the State of Minnesota as well as to contract with managed care organizations that are not currently M+C providers. The waivers also permit MSHO to offer a Medicare rate cell capitation payment for frail elderly living in the community.

<sup>3</sup> At the time of this evaluation MSHO operated in only seven counties.

The single contract arrangement with managed care organizations merges Medicare and Medicaid managed care requirements including enrollment processes, marketing and member materials, and grievance procedures, all reviewed and pre approved by CMS and the State. Participating managed care organizations receive the Medicare capitation payment directly from CMS and the Medicaid capitation payment from the State of Minnesota. While participating managed care plans do not need to participate in M+C, they do need to be a State PMAP provider.

The goals of MSHO (as stated in MSHO’s original Operational Protocol and subsequent reports to CMS) are to:

- Align fiscal incentives to support clinical practices and reduce cost shifting between acute and long-term care services and Medicare and Medicaid
- Reorganize service delivery systems to reduce administrative duplication and provide a seamless point of access for enrollees
- Create a single point of accountability for tracking total costs and outcomes of care across a full range of acute and long-term care services

The State of Minnesota has contracted with three nonprofit (all HMOs in Minnesota are required to be nonprofit) managed care organizations to participate in MSHO (UCare, Medica, and Metropolitan Health Plan [MHP]). These health plans are required to provide integrated Medicare and Medicaid services including primary, acute, and long term care services to MSHO enrollees. All health plans participate in MSHO on a risk basis. Table 2 describes the structure, scope, and location of the three health plans.

Table 2  
Description of three MSHO health plans, as of April 2002

Feature	Medica	UCare	Metropolitan Health Plan
Care Systems	Evercare Fairview Partners Access Alliance Park Nicollet North Clinic	HealthEast Evercare University Affiliated Family Physicians & Other Clinics Fairview Partners Tao and Ramos Clinics	No specific care systems; rely on primary care clinics; use some case management services from Hennepin County Community Services
Counties	Hennepin, Ramsey, Anoka, Dakota, and Scott (Scott added in June 1999) Mille Lacs, Wright and Sherburne (added in 2002)	Hennepin, Ramsey, Anoka, Dakota; expanded into Washington County in May 2000; expanded into Mille Lacs, Sherburne, Wright, and Carver in 2001	Hennepin
Scope	20 hospitals, 79 clinics, 532 physicians, 115 nursing homes	10 hospitals, 48 clinics, 89 nursing homes	1 hospital, 28 clinics, 348 physicians (some in residency training), 28 nursing homes

\* Information gathered during the second MSHO site visit in March 2000 and reported in April 2002

Each health plan must provide a full range of services including care coordination. The clinic models used vary by health plan. MSHO health plans may contract with care systems and/or clinics to provide primary care and care coordination. Care systems may subcontract with clinics for primary care services as well as other providers for acute and long-term care services. Care systems are sponsored by a variety of provider organizations from long-term care providers in partnership with hospital systems or clinics or hospital and physician systems. Upon enrollment the enrollee chooses a primary care clinic or a care system based upon the health plan model, usually determined by where their existing primary care physician is located.

MSHO includes all Medicare covered services, all Medicaid covered services provided by the State under PMAP, and all home and community based services covered under the State's 1915(c) waiver for the elderly. For those MSHO enrollees who enter a nursing home from the community, the first 180 days of nursing home care is paid through MSHO. Nursing home care after 180 days is covered through the fee-for-service Medicaid program. Likewise, nursing home care for seniors who are already in a nursing home when they enroll in MSHO is paid through the fee-for-service Medicaid program. Few additional services have been added to the MSHO benefit package beyond what is already covered through the existing federal and state programs. Health plans are permitted, however, to provide alternative services if such services are judged to be medically appropriate and cost-effective.

MSHO health plans are required to provide care management systems designed to ensure access and to coordinate the provision of primary, acute, and long-term care services, including Elderly Waiver services, to MSHO enrollees. Care coordination models vary across the three health plans and for nursing home and community residents.

The MSHO Rate Structure includes the following components.

- the Medicare Adjusted Average Per Capita Costs (AAPCC) with a frailty adjustor (2.39) added for Cells B and C. The 2.39 adjustment is the same as set for the PACE and WPP programs. The Medicare base capitation rate (used for rate cells A—Community non-frail and D—nursing home residents) is the same amount paid to any M+C provider.
- the Minnesota PMAP rates for Medicaid acute and ancillary services
- the average monthly Elderly Waiver payments for home and community-based long-term care services
- 180-day Medicaid nursing facility add-on.

At enrollment and thereafter the MSHO enrollee must be assigned or reassigned to an appropriate rate cell. These are:

- Rate Cell A: community-dwelling residents not functionally eligible for nursing homes or in the Elderly Waiver program
- Rate Cell B: community-dwelling residents who are functionally eligible for nursing homes (NHC)
- Rate Cell C: a conversion rate for enrollees who have been in a nursing home for

180 consecutive days and then move into the community; enrollees must meet NHC criteria

- Rate Cell D: an enrollee who at enrollment is in an institution or who after enrollment has been in an institution for at least 30 days.

Enrollment has grown steadily since the beginning of MSHO operations in February 1997. Enrollment reached 4,767 members by June 2002, an increase of 94% over June 1998 and 12% over June 2001. Enrollment in August 2004 is 5,577.

### **Wisconsin Partnership Program**

The Wisconsin Partnership Program (WPP) was initiated by the State of Wisconsin in the late 1990s, as a variant of PACE. WPP is a managed care program, serving individuals who are elderly or have physical disabilities. WPP integrates funding from existing Medicaid and Medicare programs into one program through an 1115/222 dual waiver. The combined benefits provide health and long-term care services to enrollees, primarily living in the community.

WPP was first implemented as a partially capitated Medicaid pre-paid program in December 1995. Between 1995 and 1999 Medicare payments for dual eligible enrollees were fee-for-service. In January 1999 the program began operating under a fully-capitated, dual Medicaid and Medicare 1115/222 waiver that combined Medicaid and Medicare funds into one funding stream. Since that time, WPP has become a self-sustaining program within the State of Wisconsin system.

Participation in the WPP is voluntary. To be eligible to enroll in the program, individuals must be either age 65 or older, age 55 or older with a disability determination, or age 18-55 with a disability determination. They must be eligible for Medicaid and meet the Wisconsin Medicaid nursing home level of care requirement. Individuals who are eligible for Medicaid alone and individuals who are eligible for both Medicaid and Medicare can enroll in the program if they meet the other age and level of care requirements.

WPP was designed as an extension of PACE (already in operation) and was expanded to cover persons with disabilities as well as older persons. Whereas PACE requires enrollees to use a PACE physician, who is often based in a PACE-operated day care center, WPP lets enrollees retain their current primary care doctor. The PACE model relies on care through a day care center, where there is access to primary care from a PACE employed physician and increased monitoring. WPP does not rely on such a center. WPP has adapted the PACE model of service delivery based on collaborative teams to an interdisciplinary case management team where experts from several disciplines interact to arrive at a single course of action to an issue or problem. The teams typically consist of a WPP enrollee, his/her physician, a registered nurse, a nurse practitioner, and a social worker or social services coordinator. The nurse practitioner serves as the liaison to the physician, who does not usually directly participate in team

meetings. Other team members may be added as the circumstances of a particular member's needs necessitate.

The broad goals of WPP are to:

- Improve the quality of health care and service delivery while containing costs
- Reduce fragmentation and inefficiency in the existing health care delivery system
- Increase people's ability to live in the community and to participate in decisions about their own health care

The State of Wisconsin contracts with four community-based organizations in different geographic areas to provide the Partnership Program. WPP organizations must provide directly or arrange for all Medicaid and Medicare covered services including nursing facility, primary and acute health care, and long-term support services. Services are delivered in the WPP member's home or a setting of his/her choice. Individuals enrolled in the WPP are offered a choice of care, setting, and manner in which service is delivered. Participants are also able to choose their primary care physician within very broad parameters. Each organization serves a different mix of clients and geographic area. These community-based organizations in turn subcontract with hospitals, clinics, and other health care providers to deliver services to enrollees. Table 3 describes the structure, scope, and location of the four WPP community-based providers.

Table 3  
Description of four WPP Sites, as of October 2000

Site	Elder Care of Dane County	Community Living Alliance (CLA)	Community Care for the Elderly (CCE)	Community Health Program (CHP)
County	Dane (Madison)	Dane (Madison)	Milwaukee	3 counties (Eau Claire area)
Population Served	Elderly (also operated a PACE program through March 2001)	Physically disabled	Elderly (also operates a PACE program)	Both elderly and physically disabled
Prior capitation experience	Yes	No	Yes	No
Philosophic base	PACE	Independent Living Center (ILC)	PACE	Pragmatic; tempered ILC
Number of Primary Care Physicians (PCPs)	87; limited or restricted panel; clients may have to change MD; originally enrolled all new PCPs, now more restrictive	34; clients may have to change MD, prefer fixed panel with a minimum of 5 WPP clients	34	55
Number of Care Teams	7	6	4	5

Site	Elder Care of Dane County	Community Living Alliance (CLA)	Community Care for the Elderly (CCE)	Community Health Program (CHP)
Care Team Composition	NP, 2 registered nurses (RNs), and 1 social worker (SW)	½ FTE NP, SW, RN, and a float nurse or team coordinator that assists the RN and facilitates assessments and follow-up on health concerns	NP, RN, and SW, as well as a team assistant (clerical). They also use a part-time RN as float for direct care	NP, RN, SW, team assistant/coordinator (clerical)
Number of clients/team	284/7	162/6	207/4	226/5
Provider Network	4 hospitals and 5 participating physician group practices with 32 clinics	19 clinics, 3 hospitals, and 2 health systems	7 area clinics and 3 hospital networks	148 health and long term care providers across three counties
Primary source of clients	COP waiting list, county social services, hospitals and clinics	COP waiting list, county social services, hospitals and clinics	Family members, COP waiting list	COP waiting list, NH referrals

\* Information gathered during the WPP site visit conducted in October 2000 and reported in April 2002.

The WPP capitation rate is composed of two components—Medicare and Medicaid. Because WPP serves the NHC population, the Medicare component consists of a capitation based on the Medicare Average Adjusted Per Capita Cost (AAPCC) in the target group in the county as established by M+C, multiplied by 2.39 to adjust for a frailty factor. Therefore, the Medicare base capitation rate is the same amount paid to any M+C provider but includes the 2.39 adjustment that is also set for the PACE Program..

The Medicaid capitation is designed to be less than the cost of providing the same services to a comparable Medicaid population on a fee-for-service basis. The capitation rate is calculated on an actuarial basis based on the Medicaid cost for nursing home care for nursing home eligible individuals in the community per member per month plus the average cost of additional Medicaid fee-for-service costs for eligible enrollees in the target group (elderly or physically disabled). The Medicaid capitation rate is further adjusted for enrollee age, Medicare status, and nursing home level of care. Payments are based on assumptions about the relative proportions of each age group, Medicare only versus Medicaid and Medicare, and the nursing home level of care needed. At the end of the year, the assumed case mix is compared with the actual case mix, and funds are transferred between the state and the contractor to reflect the final rates. This calculated capitation amount is further discounted by 5% to assure that the state achieves cost savings. Required participant contributions (spend downs) and third party liabilities reduce the actual rate paid by the state.

Enrollment has grown steadily since the beginning of WPP operations as a fully capitated program in January 1999. Enrollment reached 1,218 members by December



2001, an increase of 137% over January 1999 and 62% over January 2000. Enrollment as of July 31, 2004 was 1,694.

### **Target Population**

MSHO and WPP each target a different segment of the dual eligible population, based in large part on the identified needs and expertise of the health care market in those states. The composition of the target market significantly influences the approach taken to service delivery and the type of services provided.

#### **MSHO Target Population**

MSHO serves elderly dual eligible individuals living in the community and in nursing homes.<sup>4</sup> By serving the entire dual eligible elderly population MSHO serves some low-income elderly people who were eligible for Medicaid based on income alone even before they aged into Medicare and as such, they may function for decades with no need for long-term care at all. MSHO enrollees also include people whose eligibility for Medicaid comes about in part from having exhausted financial resources during a long life (the oldest old) and in part because of the expenses of health care and long-term care. These individuals are likely to have more chronic illnesses and put greater demands on the health care delivery system. The rate cell mechanism established for MSHO takes into account the potential variation in care needs of its enrollees.

Enrollment into MSHO was initially dominated by individuals living in the nursing home, consistent with the enrollment base the three participating MCOs brought to the program (particularly Medica) and the health care strengths of the providers participating as care systems. The base of clientele living in the community is slowly and steadily growing as the care systems are all making investments in developing a capability for providing home and community based services. Table 4 gives a picture of the distribution of enrollees in MSHO at one point in time early in the demonstration period relative to level of frailty.

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<sup>4</sup> Since the beginning of this evaluation Minnesota has expanded its dual eligible program to include the disabled dual eligible population—Minnesota Disability Health Options; however, this program is not included in this evaluation.

Table 4  
Number and percentage of MSHO enrollees, by level of care needs, January 1999

Level of care needs/rate cell category	Number	Percent
Community (Rate Cell A)	449	16.57
Nursing home certifiable (Rate Cell B, eligible for Elderly Waiver)	121	4.47
Nursing home conversion (Rate Cell C)	3	.11
Residing in a nursing home (Rate Cell D)	2,136	78.85

\* Information based upon the study sample used in the utilization analysis

#### WPP Target Population

WPP serves the frail elderly and disabled living in the community who meet the Wisconsin Medicaid nursing home level of care requirement. These criteria also apply to the PACE programs and Medicaid home and community based services waiver programs. The Community Options Program Waiver (COP-W) program waiting list is a primary source of referrals for the WPP. Two of the WPP sites started as PACE sites serving only the elderly, this continued with WPP. Another site served both elderly and disabled and one site served only disabled. WPP accepted individuals who were dual eligible for Medicare and Medicaid or eligible for Medicaid only. As a result of focusing on a specific subset of the dual eligible population, enrollment at the WPP sites was expected to remain relatively low (approximately 300 members per site). Table 5 gives a description of WPP enrollees by elderly and disabled as well as Medicaid only and dual eligible in July 2000, approximately 1½ years after the official start of the demonstration.

Table 5  
Number and percentage of WPP enrollees, by dual eligibility status and study group, July 2000

Enrollee group	Medicaid only or dual eligibility status	Number	Percent
Elderly	Medicaid only	33	5
	Dual eligibility	570	95
	Total	603	
Disabled	Medicaid only	97	46
	Dual eligibility	115	54
	Total	212	
Medicaid only total		130	16
Dual total		685	84
Grand total		815	

\* Information based upon the study sample used in the utilization analysis

## Context

Each dual eligible demonstration reflects the health care history and environment in the years preceding implementation.

### Minnesota Health Care History

In 1983 the state of Minnesota began its involvement in Medicaid managed care with PMAP. PMAP providers offer primary care and acute care services to certain Medicaid-eligible residents in the counties where PMAP is implemented. PMAP was established through state legislation and an 1115 Medicaid waiver, and began its operations in three counties in 1985. By September 1995 PMAP operated in eight counties and served 141,521 people, 13,919 of whom were elderly (RA Kane & Starr, 1996). A year later the program was operating in 16 counties. Almost all the elderly PMAP members are also eligible for Medicare. For seniors, the PMAP capitation covers Medicare coinsurance and deductibles, prescription drugs, and other acute and long-term care services that Minnesota makes available to Medicaid recipients. However, at that time the PMAP capitation did not cover nursing home costs, which the state continued to fund for Medicaid beneficiaries on a fee-for-service, case-mix adjusted basis. Coverage of the first 180 days of nursing care was a unique feature of the MSHO program at its onset. Subsequently, PMAP has added coverage of the first 90 days of a nursing home stay. Thus, Minnesota moved into its MSHO program with more than a decade's worth of experience with Medicaid managed care for seniors. The MSHO program was built on top of PMAP: all those who chose to enroll in MSHO would need to be eligible for PMAP.

Other contextual features of Minnesota influenced MSHO's initial shape. First, Minnesota has had high penetration of managed care in general and Medicare managed care in particular. Second, Minnesota has a high rate of nursing home beds, nursing home use, and state expenditures on nursing homes. A comparison of all states using 1996 data (Ladd, Kane, & Kane, 1999) showed that Minnesota ranked 11th for supply of nursing homes in terms of the population over 85. Minnesota's investment in home and community based service has been below average. It ranked 24<sup>th</sup> among states in terms of state expenditures on home and community based care per person age 65 or over, and 37<sup>th</sup> in overall Medicaid expenditures for home and community based care. National Medicare Home Health care spending fell from a high in 1997 to a low in 1999 and 2000. The decline from 1997 to 1998 was about 28%; the drop from 1998 to 1999 was about 38%. There was almost no change between 1999 and 2000 (Medicare Payment Advisory Commission, 2003). A generally similar pattern of decline was seen in Minnesota Medicare fee-for-service population (as seen through the study Control-In group) (60% decline from 1998 to 1999); but Minnesota showed a further decline (35%) from 1999 to 2000 not seen nationally.

Minnesota has been a forerunner in innovative long-term care demonstrations, particularly those with a managed care component. It was a site for one of the four original SHMOs, a partnership between a large HMO, Group Health, and a long-term care organization (Ebenezer). Minnesota is also the place where the Evercare program originated. Evercare is an M+C program that attempts to combine better care outcomes

and cost savings by bringing state-of-the-art primary care into nursing homes and, when appropriate, avoiding hospitalizations while improving health and functional outcomes. However, because of the prohibition against for-profit HMOs, Evercare has operated in Minnesota as a subcontractor to nonprofit HMOs.

#### Wisconsin Health Care History

The state of Wisconsin has a long history of long-term care and community-based demonstrations as well as Medicaid managed care programs. The state of Wisconsin funds an extensive array of home and community based service programs for elderly beneficiaries and people with disabilities. The COP or "regular Community Options" is a state funded program, monitored by the Department of Health and Family Services and administered by local county agencies, that provides community-based services to individuals who are not eligible for Medicaid but qualify for admission to a nursing home. This program began as a pilot in eight counties in 1982. The program was implemented in conjunction with a moratorium on the construction of new nursing facilities. In 1986 the program was expanded statewide. The COP-W is a Medicaid program that provides home and community-based care for elderly and physically disabled beneficiaries who qualify for admission to a nursing facility. COP-W was approved in 1987 and participation of all counties was mandated effective January 1, 1990. In addition to COP-W, the State implemented the Community Integration Program (CIP II) to shift funds from institutional to home and community services. Medicaid funds are made available to counties for each nursing home bed closed. Counties are able to use the funds to serve elderly and physically disabled beneficiaries.

In many respects the WPP model resembles the PACE model, one of the few programs that fully integrates health care and long-term care into a single managed care program. Two of the WPP sites have served as PACE sites in Wisconsin. The Elder Care PACE program was subsequently rolled into the Partnership Program in April 2001. Community Care for the Elderly (CCE) continues to offer both WPP and PACE.

All four of the WPP sites were operational prior to implementation of the demonstration and had experience in providing care under Medicaid managed care. There were no Medicare managed care organizations in Wisconsin at the start of WPP.

#### Care Models

In general, MSHO and WPP have taken different approaches to designing the care model—MSHO focused on existing managed care organizations and their care delivery systems while WPP modified the PACE model within established providers. The different models have some commonalities. Both models chose to give increased freedom to enrollees to retain or choose their own primary care physician. Relying on a more independent practice model of primary care was a conscious choice for both demonstrations. Flexibility for clients to retain or choose their own primary care physicians was viewed as critical to encourage potential clients to select the demonstration program over other care options. This has forced each of the demonstrations to develop

methods to manage a clinical program and care coordination effectively within larger physician networks. Both demonstrations include care coordination or management as a core part of their care model. However, how it is implemented varies widely between MSHO and WPP and to some extent within each of the demonstration models. Both demonstration models include a geriatric presence and chronic disease management in their models but again the degree of intervention varies between MSHO and WPP. The low number of enrollees compared to physicians has impacted the ability of both MSHO and WPP programs to integrate geriatric care and change physician behavior. MSHO and WPP care models are described in further detail below.

#### MSHO Care Model

MSHO is organized around managed care organizations. Capitation for both Medicare and Medicaid goes directly to the health plans. By design, all participating health plans also must be PMAP providers. MSHO enrollees have a choice of three health plans. Within the structure of MCOs and Care Systems, MSHO wanted to permit flexibility in clinical design, plans for case management, and protocols for care, and as a result has three distinct models for its three health plans. There is no single structure of health plans and care systems, although all use an IPA primary care model with care coordination provided either through nurse practitioners for nursing home residents and RNs or social workers for community members. Three quite different systems exist that together exhibit a continuum of management styles. Medica is the more traditional MCO prototype whereby a health plan provides some administrative services and passes through the remainder of the funds to providers and Care Systems. Medica requires an enrollee to choose a care system upon joining MSHO. UCare seems to be a mixed model with some subcapitation, but in one case the capitation goes to entities that comprise the parent organization. UCare requires choice of a primary clinic and, depending on that choice, a clinic or a care system will provide primary care coordination. MHP, in contrast to both, more closely resembles a single source county provider, though some subcontracting occurs. MHP offers a variety of primary care clinics and care coordination related to an enrollee's level of risk.

MSHO staff observed a wide range of potential physician involvement among care systems and plans. A small number of physicians have relatively large numbers of MSHO members in their practice. Yet, a sizeable group of physicians have limited members. Although more controlled physician networks would increase the effect of the program, planners opted for broader networks during program design to increase the viability of the program through higher enrollment. Smaller networks were seen as a barrier to attracting sufficient enrollment as beneficiaries may be less likely to enroll if they have to change providers. As a result, higher enrollment spread among a larger number of physicians means it may be less likely that physicians will modify their practice patterns.

Table 6  
Percent of Primary Care Physicians (PCP) in care system, by number of enrollees per PCP,  
as of March 2000

Care system (number of physicians included on active roster)	Related health plan(s)	Number of enrollees per PCP						
		1-2	3-5	6-10	11-20	21-50	51-100	101 or more
Evercare (240)	UCare Medica	55%	20.8%	8.3%	8.3%	3.3%	3.3%	1%
Fairview Partners (18)	UCare	17%	0	17%	28%	38%	0	0
Access Alliance (15)	Medica	60%	20%	0	7%	13%	0	0
Columbia Park (4)	UCare	100%						
Creekside Clinic (5)	UCare	100%						
UAFP (50)	UCare	100%						
Thao Clinic/Ramos Clinic (2)	UCare				50%	50%		

NOTE: HealthEast Clinic and Hennepin County Medical Center assign patients by clinic and not by physician. Patients seen at these centers are widely dispersed across the organization, being seen by residents and staff.

NOTE: The percentage reported reflects both community and nursing home enrollees. A number of physicians see a large number of nursing home residents (e.g. one Evercare physician seeing 277 nursing home residents). The number of community enrollees seen by a single physician is usually less than 20.

NOTE: This table counts number of enrollees per physician by care system. Many physicians serve enrollees from more than one care system. As a result, in some cases the number of enrollees per physician may be slightly higher than reflected in the table.

\* Information gathered during the MSHO site visit conducted in March 2000 and reported in April 2002.

Each MSHO enrollee is assigned a care coordinator to assist with care planning and service access. Some care coordinators work for the clinics, some for the care systems, and some for plans, depending on the clinical model. Care coordination varies depending upon the setting (nursing home versus community) and the presence of a nurse practitioner. For example, in the nursing home setting, care coordinators in Evercare perform utilization review activities and other support functions for nurse practitioners as well as members and their families, with primary care services and other care coordination activity being done by the nurse practitioner. Care coordinators have a broader role in care systems that do not use nurse practitioners.

### WPP Care Model

The WPP model is based on PACE, which uses a staff model of care built around day care. The WPP variation attempts to address aspects of that approach that have made it difficult to market; namely, WPP allows enrollees to remain with their own primary care physician and to make substantially less use of day care. In order to achieve the same level of teaming that has been a PACE hallmark, WPP utilizes an interdisciplinary care management team composed of a nurse, a social worker/social services coordinator, and a nurse practitioner. The nurse practitioner is largely responsible for coordinating closely with the PCP in order to bring him/her into the care planning and implementation loop. The level of delegation from PCP to NP varies with the rapport developed.

The operation protocol emphasizes the need for the WPP member to be a critical part of the team. The member shares responsibilities with the health care professionals in identifying health and social service needs and services to support the member in the context of their own resources, capabilities, and goals regarding work and participation in the community. These preferences are reflected in an individualized service plan. The protocol requires that teams meet at least weekly and review member service plans at least every six months. The number of teams relative to the number of participants and the organization and functions of each team member varies among the sites. The number of professionals comprising a team is flexible and other professionals may be involved as needed.

The PACE philosophy was evident in the two sites operating PACE programs. One Independent Living Center (ILC) carried its philosophy over to WPP and the second developed a very pragmatic approach, embracing the ILC philosophy, but it was not emphasized as dramatically. Community Health Partnership (CHP) broadened its target population to include frail elderly beneficiaries, in part in order to expand the potential market to increase the viability of the program.

The philosophy of the program differed at each site. CCE voiced a philosophy that integrates acute and long-term care while Elder Care focused primarily on social services with medical back up. Community Living Alliance (CLA) strongly emphasized client direction even if it compromised medical needs. CLA's belief that the prevalence of a significantly higher percent of members with alcohol and drug abuse problems may warrant such a philosophy as staff indicated that this program was "the last stop" for many of their members.

The general style of medical management also differs across the sites. Some are more clinically proactive (i.e., more active in detecting clinical problems and treating them before they become serious). The extent of proactive clinical management ranged from very low at CLA to moderate at Elder Care and CHP to high at CCE. Another indication of the degree of medical involvement is the participation of the medical director. The medical director was more actively involved with multidisciplinary teams at Elder Care and CCE, both PACE sites, than at CLA, perhaps due to the different origins of the PACE and ILC organizations. The CHP medical director was also actively involved in

the program. He had prepared clinical guidelines and wrote columns to urge the participating physicians to become more diligent.

The ratio of patients per PCP varies widely within and across sites.<sup>5</sup> CCE stands out as having generally more enrollees per PCP (24% of participating physicians seeing 11 or more WPP enrollees), but at least part of this difference may be the result of a bookkeeping artifact because they often credit all patients with a given clinic to a single physician. Among the rest, CLA has the heaviest concentration of clients per PCP. Within CLA's physician panel of 34, 13% see more than 11 WPP members. Seventy-nine percent of the physicians participating in Elder Care were treating fewer than five WPP enrollees while less than 7% of the participating physicians served more than 11 WPP enrollees. CHP has the smallest percentage of physicians seeing 11 or more WPP members (3%), largely due to the fact that a single clinic seeing over one-quarter of the WPP enrollees is a branch of the University of Wisconsin Medical School and includes a large number of physicians (mostly residents), each with a small number of WPP patients.

The trade-off between the consumer's flexibility to retain their physician and tightly organized teams that include physicians adds to the complexity of the Partnership Program. The programs may not comprise a sufficient volume of any physician's practice to leverage change in physician practice patterns. However, the monitoring and coordination by team members offers an opportunity to make significant improvements in continuity and outcomes over the fee-for-service system. Physicians interviewed during the site visits described the improvements and increased information provided by team members to them.

WPP moved away from the PACE model in terms of use of the adult day center. Attendance at adult day centers increased monitoring and access to PCPs under the original PACE model. WPP serves clients in their home or wherever the client chooses. This dispersed model of care has had an impact on marketing, care delivery, and staff recruitment and retention. Two sites implemented initiatives to move their service capacity (i.e., offices and sometimes clinics) into different neighborhoods. The moves brought services closer to where people live, reducing travel time and improving access to community organizations and referrals through partnerships.

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<sup>5</sup> Data gathered during the second WPP site visit conducted in October 2000 and reported in April 2002.





## EVALUATION QUANTITATIVE RESULTS

This section highlights some of the more important findings from the client surveys as well as the utilization, cost, and quality analyses. A full description of all of the results can be found in separate reports to CMS.

### Enrollee/Family Surveys

#### MSHO Results—First Survey

A survey of MSHO nursing home and community enrollees along with two matched control groups was completed in 1999. The survey revealed few differences in satisfaction comparing MSHO to the two control groups but the MSHO nursing home residents and especially their families expressed more satisfaction with several aspects of care. The results of that study are summarized in Table 7 (all differences found in Table 7 represent statistically significant differences).

Table 7  
Summary of the MSHO survey results

Topic	MSHO Community sample		MSHO Nursing home sample	
	Compared to Control-In	Compared to Control-Out	Compared to Control-In	Compared to Control-Out
Pain moderate to severe	No difference in prevalence; less likely to interfere with normal activity	No difference in prevalence or interference	No difference in prevalence or interference	No difference in prevalence; less likely to interfere with normal activity
Depression	No difference	No difference	No difference	No difference
ADLs	No difference	More dependency in feeding and walking	More dependency in feeding	Less dependency in toileting and transferring
IADLs	Less dependency in light housework and meal preparation	More dependency in shopping and using transportation; less in taking medications	NA	NA
Unmet needs	No difference	More in bathing	No difference	More in putting on clean clothes
Use of formal care	More nurse visits, special transportation	More special transportation	NA	NA
Use of informal care	No difference	More help making sure patient is safe	NA	NA
Advance directives	More refusal of CPR, ventilator; less pressured to establish advance directives	More refusal of CPR, infections treated, hospital admission	More refusal of CPR, ventilator, tube feeding	More refusal of ventilator, tube feeding, infections treated, hospital admission, surgery
Satisfaction	Beneficiaries more satisfied with getting OT/PT	Families more satisfied with involvement in decisions and health professional response to serious health problems	Families more satisfied with MD response in emergency, frequency of MD visits, MD time spent, MD explanations	Beneficiaries more satisfied with being treated with respect; families more satisfied with hearing and vision screening, MD response in emergency, frequency of MD visits, MD time spent, MD explanations

The results in Table 7 suggest that the MSHO and control groups appear basically similar with regard to pain, depression, ADLs, IADLs, and unmet need; but because we do not know what they were like prior to MSHO we cannot infer anything about the effect of MSHO. The satisfaction data does allow some causal inference because it is not necessary to have change over time information. While there were some items that favored MSHO, in particular families of nursing home residents who expressed more satisfaction with several aspects of care, the lack of any strong indications of differences in satisfaction among MSHO clients and their families suggest that the program has not had a major impact on enrollee satisfaction with their health care.

#### MSHO Results—Second Survey

To look more directly at the effects of the MSHO program by examining change over time, a second survey was conducted with the original sample approximately one year later (Fall 2000). The survey was restricted to those who were community-dwelling enrollees at baseline because another source of data was available to trace the changes over time in functioning among the nursing home group. (See Quality Analysis Nursing Home section beginning on page 55). The analysis of enrollee surveys included: 1) the change between the original and resurvey of the community sample in regards to pain, ADLs, IADLS, unmet needs, and use of formal and informal services, and 2) pooled data across the two surveys relating to enrollee and family satisfaction.

In general, as expected, all measures declined over time for all groups, with a few exceptions. There were a few significant differences in change over time between the MSHO sample and the two control groups, but none of them remained statistically significant after Bonferroni correction for comparisons of repeated measures. There were a few differences in satisfaction, MSHO enrollees felt more involved in making decisions about medical care and that their physician would hospitalize when necessary. If one simply calculates a mean score across all the satisfaction items, MSHO clients score better than the in-area controls. MSHO families showed significantly less burden than controls on two items after a Bonferroni correction for multiple comparisons. The average burden score for MSHO caregivers was significantly lower than that for in-area controls. Table 8 summarizes the results of the second MSHO enrollee survey (all differences found in Table 8 represent statistically significant differences).

Table 8  
Summary of the MSHO second survey results for the community sample,  
Change over time

Topic	Compared to Control-In	Compared to Control-Out
Pain Moderate to Severe	No difference	No difference
ADLs	No difference	No difference
IADLs	No difference	No difference
Unmet needs	No difference	No difference
Use of formal care	No difference	No difference
Use of informal care	No difference	No difference
Satisfaction	MSHO enrollees felt more involved in making decision about medical care and that their physician would hospitalize when necessary; no difference in family satisfaction	No difference in either enrollee or family satisfaction
Family caregiver burden	MSHO families more likely to feel caring for patient makes them feel good and enjoy caring for patient	No difference

#### WPP Results

Primary data collection in Wisconsin included surveying beneficiaries and family members regarding enrollment decisions, access to care and providers, and outcomes for both the enrollee and family members associated with the demonstration. The questionnaire was modeled after one used with MSHO but was modified to emphasize elements the WPP team felt were especially salient to their approach; namely, attention to team care and respect for client autonomy. A second round of surveys was not conducted. Table 9 summarizes the results (all differences found in Table 9 represent statistically significant differences).

Table 9  
Summary of WPP survey results

Topic	WPP vs. Controls			
	Elderly Sample		Disabled Sample	
	Compared to Control-In	Compared to Control-Out	Compared to Control-In	Compared to Control-Out
Pain	No difference in prevalence; less likely to interfere with normal activity	No difference in prevalence or interference	More pain prevalence and more interference with normal activity	No difference in prevalence or interference with normal activity
Depression	No difference	No difference	More depression	More depression
ADLs	Controls more disabled in all 6 ADLs	Controls more dependent in bathing	Controls more disabled in 5 ADLs, but less disabled in walking	Controls more dependent in bathing and dressing
IADLs	Controls more disabled in all 8 IADLs	Controls more disabled in all IADLs except using phone and transportation	Controls more dependent in using transportation	Controls more dependent in managing finances and arranging services
Unmet needs	Controls less likely to be wet or soiled	Controls less likely to be wet or soiled	More often did not get help dressing	No difference
Use of formal care	Fewer homemaker visits, more nurse visits, more home delivered meals, more special transportation, more day care, more outpatient rehab	Fewer homemaker visits, more nurse visits, more home delivered meals, more special transportation, more daycare, more outpatient rehab, and physical therapy	Less homemaker visits; more nurse visits, outpatient rehab	More nurse visits and occupational therapy
Use of informal care	Less help with patient safety	No difference	No difference	No difference
Advance directives	More refusal of CPR, ventilator; tube feeding, infections treated, hospital admission	More refusal of CPR, ventilator	Advance directives more often suggested	Advance directives more often suggested

Topic	WPP vs. Controls			
	Elderly Sample		Disabled Sample	
	Compared to Control-In	Compared to Control-Out	Compared to Control-In	Compared to Control-Out
Satisfaction	Beneficiaries more satisfied with being seen often enough by physician, less satisfied with respect shown them and care coordination; families more satisfied with needing to spend energy getting needed care and confidence in the ability of the care teams to communicate internally	Beneficiaries more satisfied with having hearing and eyesight checked, families more satisfied with needing to spend energy getting needed care and confidence in the ability of the care teams to communicate internally	Beneficiaries more satisfied with having hearing and eyesight checked, doctor explains health problems; families more satisfied with involvement in decisions, case management	Beneficiaries more satisfied with having hearing and eyesight checked; less satisfied with care coordination; families more satisfied with explaining health problems, energy needed to get health services
Caregiver burden	No difference	Fewer problems paying for caregiving and family activities were less likely to center around caregiving	Less burden on financial resources, resentment of caring for patient	Family enough physical strength and more healthy

The mixed differences in satisfaction indicate that the WPP has not produced a noticeable improvement in satisfaction over the care provided through the COP waiver program and fee-for-service Medicare. WPP beneficiaries expressed more satisfaction about the frequency of preventive services and the frequency of physician contacts. But, in some areas central to the goals of WPP such as care coordination and team work, the control groups showed significantly greater satisfaction. For example, controls expressed more satisfaction with having their needs taken seriously and the coordination of their care. However, given the large number of comparisons, it is not clear that these differences might not have occurred by chance, and probably should not be over interpreted. The limited difference in the rate of unmet needs suggests that the care is comparable between WPP and the control groups.

The survey results suggest that WPP enjoys some favorable selection. The disability rates among this sample are generally lower than those in the control groups. One difference between the WPP sample and the controls is their tenure in their respective programs. On average the WPP clients had been in the program for a little over a year at the time of the survey, whereas the controls had been in COP-W for more than five and a half years. This difference in exposure could also be associated with differences in satisfaction. Although the cross-sectional design does not permit separating the effects of enrollment from the benefits of treatment, it seems unlikely that these differences in

disability rates are due to the care received, especially in light of the modest differences in services reported.

### **Utilization**

Utilization tables (Tables 10-16) are arranged to show the mean monthly rates per 100 enrollees. In calculating this number, the monthly rate for each measure was first calculated, and then the average of the monthly averages was reported. This approach downplayed months with particularly high numbers of persons.

Utilization tables then show the results of the fully adjusted regression models. Two different types of regressions were used. For discrete events (e.g., being admitted to the hospital) we used a logistic regression. For continuous variables (e.g., length of stay) we used an ordinary least squares (OLS) regression. The results of statistical adjustment are presented differently for the two types of models. For the OLS models, we show the actual coefficients. For the logistic models we employ odds ratios.

For each regression the statistical significance is marked. Statistical significance indicates the certainty with which one can say that the coefficient is different from zero—in other words, whether the control groups differed significantly from the experimental group. The sign of the regression coefficient is positive when the control rate is higher than the experimental rate and negative when it is lower. Caution should be used when directly comparing regression results to the mean monthly rates, as the two methods do not weight each person month equally. Discrepancies between the two approaches are greatest when there is wide variation in utilization rates over time and great variation in sample sizes between months. Direct comparison between regression coefficients and the mean monthly rates are also complicated by the fact that 1) adjusted coefficients are used versus unadjusted rates and 2) coefficients are based on a person month while rates are based on 100 person months. Except for analyses of length of stay, all coefficients are off by a factor of 100, even after accounting for the other corrections.

The results of logistic regressions used for binary dependent variables are presented as odds ratios (ORs). ORs should be read as the comparison of the control to experimental; therefore, an OR of 2 means a control group person is twice as likely to experience that type of utilization as an experimental person. An OR of 0.5 indicates they are half as likely to utilize the particular service. The tables explicitly state whether regression results are presented as coefficients or odds ratios.

### **MSHO Results**

In general, the results of the utilization evaluation are mixed but favor MSHO. The effect of MSHO is stronger for nursing home enrollees as compared to community enrollees.<sup>6</sup>

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<sup>6</sup> Claims and encounter data from 1998 through 2000 were used in the utilization analysis.

*Community*

The lower rate of preventable hospitalizations and emergency room visits among community MSHO enrollees compared to the Control-In group suggests that MSHO may have an impact on the process of care by providing more of some types of preventive and community care services for community residents, although the number of face-to-face physician visits is significantly less than in either control group. The rates of physician visits do not capture the care from nurse practitioners who were directly employed by MSHO groups or other non-traditional providers. Table 10 presents the results from the cohort analysis in the period 18 months after enrollment.

Table 10

Hospital utilization and professional encounters for community dwelling persons, Cohort analysis

Outcomes	Average monthly number per 100 after 18 months		
	MSHO	Control-In	Control-Out
<b>Hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	3.90	3.74	3.75
Odds Ratio from Adjusted Model		1.022	1.087
<b>Hospital days</b>			
Unadjusted mean monthly rates per 100 enrollees	20.11	21.45	21.75
Regression coefficient adjusted model		0.012	0.019
<b>Preventable hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	0.71	0.92	0.76
Odds Ratio from Adjusted Model		1.314 *	1.151
<b>Emergency services</b>			
Unadjusted mean monthly rates per 100 enrollees	5.88	6.20	5.26
Regression coefficient adjusted model		0.004	-0.001
<b>Preventable emergency services</b>			
Unadjusted mean monthly rates per 100 enrollees	1.89	2.42	1.71
Regression coefficient adjusted model		0.006 **	-0.001
<b>Face-to-face physician visits</b>			
Unadjusted mean monthly rates per 100 enrollees	79.50	121.60	107.44
Regression coefficient adjusted model		0.411 ***	0.275 ***

\* p<.05, \*\* p<.01, \*\*\*p<.001  
n=49,841 person months

*Nursing Home*

MSHO nursing home enrollees have significantly fewer hospitalizations, emergency room services, and preventable emergency services than either control group. Hospital days and preventable hospital admissions are also significantly lower for MSHO nursing home enrollees compared to the Control-In group. The reduced number of hospital days appears to be a result of fewer admissions, not shorter lengths of stay. The effect of MSHO on hospital admissions and emergency room services may reflect the extensive use of a nurse practitioner model for primary care. Again, MSHO nursing home residents had fewer physician visits than either control group, but the rates of physician visits do no



capture the care from nurse practitioners who were directly employed by MSHO groups. Table 11 presents the results from the cohort analysis in the period 18 months after enrollment.

Table 11  
Hospital utilization and professional encounters for nursing home residents, Cohort analysis

Outcomes	Average monthly number per 100 nursing home residents after 18 months		
	MSHO	Control-In	Control-Out
<b>Hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	2.90	4.10	3.33
Odds Ratio from Adjusted Model		1.335 ***	1.178 **
<b>Hospital days</b>			
Unadjusted mean monthly rates per 100 enrollees	15.84	22.13	16.76
Regression coefficient adjusted model		0.053 ***	0.013
<b>Preventable hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	0.44	0.73	0.56
Odds Ratio from Adjusted Model		1.425 **	1.212
<b>Emergency services</b>			
Unadjusted mean monthly rates per 100 enrollees	4.05	6.22	5.19
Regression coefficient adjusted model		0.019 ***	0.013 ***
<b>Preventable emergency room visits</b>			
Unadjusted mean monthly rates per 100 enrollees	1.73	2.59	2.34
Regression coefficient adjusted model		0.007 ***	0.006 ***
<b>Face-to-face physician visits</b>			
Unadjusted mean monthly rates per 100 enrollees	87.93	131.28	151.68
Regression coefficient adjusted model		0.393 ***	0.620 ***

\* p<.05, \*\* p<.01, \*\*\*p<.001  
n=63,637 person months

## WPP Results

### *Elderly*

Tables 12 and 13 present information from the direct cohort analysis and the transfer cohort analysis.<sup>7</sup> In the direct cohort analysis, WPP elderly enrollees had fewer hospital days compared to both control groups, fewer preventable hospital admissions compared to the Control-In group, and more physician visits than the Control-Out group. There were no significant differences found in the transfer cohort analysis (Table 13). Overall, looking at the two cohort analyses together, there were relatively few differences in utilization between WPP enrollees and the two control groups.

<sup>7</sup> Claims data from 1999 through 2001 were used in the utilization analysis.

Table 12  
Hospital utilization and professional encounters for elderly enrollees, Direct<sup>a</sup> cohort analysis

Outcomes	Average monthly number per 100 after 18 months		
	WPP	Control-In	Control-Out
Hospital admissions			
Unadjusted mean monthly rates per 100 enrollees	6.84	6.16	5.99
Odds Ratio from Adjusted Model		1.195	1.025
Hospital days			
Unadjusted mean monthly rates per 100 enrollees	40.69	40.25	42.58
Regression coefficient adjusted model		.158*	.158*
Preventable hospital admissions			
Unadjusted mean monthly rates per 100 enrollees	1.54	2.00	1.51
Odds Ratio from Adjusted Model		2.071**	.918
Emergency services			
Unadjusted mean monthly rates per 100 enrollees	10.32	8.90	10.48
Regression coefficient adjusted model		.001	.012
Preventable emergency services			
Unadjusted mean monthly rates per 100 enrollees	4.26	3.71	3.66
Regression coefficient adjusted model		.003	-.005
Face-to-face physician visits			
Unadjusted mean monthly rates per 100 enrollees	98.20	91.89	74.08
Regression coefficient adjusted model		-.014	-.369***

p<.05, \*\* p<.01, \*\*\*p<.001  
N = 8407

<sup>a</sup> The direct cohort comparison matched WPP enrollees with COP-W enrollees, both of whom enrolled into their respective programs after having at least six month prior enrollment in Medicaid and Medicare.

Table 13  
Hospital utilization and professional encounters for elderly enrollees, Transfer<sup>a</sup> cohort analysis

Outcomes	Average monthly number per 100 after 18 months		
	WPP	Control-In	Control-Out
Hospital admissions			
Unadjusted mean monthly rates per 100 enrollees	7.23	8.87	6.35
Odds Ratio from Adjusted Model		1.148	.996
Hospital days			
Unadjusted mean monthly rates per 100 enrollees	44.39	45.88	30.43
Regression coefficient adjusted model		.063	-.079
Preventable hospital admissions			
Unadjusted mean monthly rates per 100 enrollees	1.89	1.31	1.38
Odds Ratio from Adjusted Model		.473	.984
Emergency services			
Unadjusted mean monthly rates per 100 enrollees	10.20	12.97	10.72
Regression coefficient adjusted model		.032	.005
Preventable emergency services			
Unadjusted mean monthly rates per 100 enrollees	4.79	4.57	3.91
Regression coefficient adjusted model		-.003	-.011
Face-to-face physician visits			
Unadjusted mean monthly rates per 100 enrollees	97.29	104.03	100.42
Regression coefficient adjusted model		-.034	-.029

p<.05, \*\* p<.01, \*\*\*p<.001  
N = 2990

<sup>a</sup> Transfer cohort analysis compared WPP enrollees who transferred from participation in COP-W with enrollees who were in COP-W for six months prior to the virtual enrollment date assigned to match a corresponding WPP enrollment date and remained in COP-W for the period of the analysis.

*PACE*

Table 14 presents summary information from the comparison of WPP elderly enrollees with the PACE enrollees. This utilization analysis was limited to a few outcome variables due to constraints related to available data and was limited to the cross-sectional analysis (size of cohort groups was too small to permit a cohort comparison). PACE enrollees had lower hospital admission rates than WPP enrollees. There was no difference in the number of hospital days. PACE enrollees had fewer ER admissions than WPP enrollees.

Table 14  
Hospital utilization and professional encounters for elderly enrollees,  
Comparison of elderly WPP to PACE sample

Outcomes	Average monthly number per 100	
	WPP	PACE
Hospital admissions		
Unadjusted mean monthly rates per 100 enrollees	5.39	3.62
Odds Ratio from Adjusted Model		0.720 **
Hospital days		
Unadjusted mean monthly rates per 100 enrollees	33.34	20.47
Regression coefficient adjusted model		-0.055
Preventable hospital admissions		
Unadjusted mean monthly rates per 100 enrollees	1.34	0.84
Odds Ratio from Adjusted Model		0.678
Emergency services		
Unadjusted mean monthly rates per 100 enrollees	8.43	6.28
Regression coefficient adjusted model		-0.024***
Preventable emergency services		
Unadjusted mean monthly rates per 100 enrollees	3.42	2.73
Regression coefficient adjusted model		-0.005

p<.05, \*\* p<.01, \*\*\*p<.001  
N= 12,061

*Disabled*

The pattern of use of inpatient and emergency room services is mixed for the disabled direct cohort WPP analysis (Table 15). There was no difference in hospital admissions or number of hospital days after 18 months from enrollment. WPP disabled enrollees have fewer preventable hospital admissions compared to the Control-In cohort after adjustment. WPP has fewer emergency room visits than either control group after adjustment. WPP disabled have fewer preventable emergency room visits than the Control-Out group in the 18 months after enrollment after adjustment.

Table 15  
Hospital utilization and professional encounters for disabled enrollees,  
Direct<sup>a</sup> cohort analysis

Outcomes	Average monthly number per 100 after 18 months		
	WPP	Control-In	Control-Out
<b>Hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	7.57	8.87	6.81
Odds Ratio from Adjusted Model		1.246	1.301
<b>Hospital days</b>			
Unadjusted mean monthly rates per 100 enrollees	43.87	27.07	35.96
Regression coefficient adjusted model		.123	.143
<b>Preventable hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	2.18	1.68	2.13
Odds Ratio from Adjusted Model		2.793**	1.600
<b>Emergency services</b>			
Unadjusted mean monthly rates per 100 enrollees	18.21	14.01	18.35
Regression coefficient adjusted model		.130***	.121***
<b>Preventable emergency services</b>			
Unadjusted mean monthly rates per 100 enrollees	8.04	4.19	8.69
Regression coefficient adjusted model		-.009	.036**
<b>Face-to-face physician visits</b>			
Unadjusted mean monthly rates per 100 enrollees	124.57	87.70	106.10
Regression coefficient adjusted model		.132	.014

p<.05, \*\* p<.01, \*\*\*p<.001  
N = 4095

<sup>a</sup> The direct cohort comparison matched WPP enrollees with COP-W enrollees, both of whom enrolled into the respective programs from having at least six month prior enrollment in Medicaid and Medicare.

The pattern of use of inpatient and emergency room services is again mixed in the transfer cohort comparison (Table 16). WPP has more hospital admissions than the Control-Out group 18 months after enrollment. There is no significant difference between the groups in terms of hospital days. There is no difference between the groups in terms of preventable hospital admissions. WPP disabled enrollees have more ER visits than either control group during the 18 months after enrollment. There is no difference between the groups in the number of preventable emergency room visits. WPP disabled enrollees received more face-to-face provider visits and more WPP disabled enrollees had provider visits per month than the Control-Out group.

Table 16  
Hospital utilization and professional encounters for disabled enrollees,  
Transfer<sup>a</sup> cohort analysis

Outcomes	Average monthly number per 100 after 18 months		
	WPP	Control-In	Control-Out
<b>Hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	5.82	4.33	3.75
Odds Ratio from Adjusted Model		.887	.671*
<b>Hospital days</b>			
Unadjusted mean monthly rates per 100 enrollees	39.33	52.96	23.19
Regression coefficient adjusted model		.162	-.229
<b>Preventable hospital admissions</b>			
Unadjusted mean monthly rates per 100 enrollees	1.17	1.08	0.64
Odds Ratio from Adjusted Model		1.139	.624
<b>Emergency services</b>			
Unadjusted mean monthly rates per 100 enrollees	14.14	9.14	7.13
Regression coefficient adjusted model		-.032*	-.062***
<b>Preventable emergency services</b>			
Unadjusted mean monthly rates per 100 enrollees	4.51	3.78	3.00
Regression coefficient adjusted model		-.003	-.010
<b>Face-to-face physician visits</b>			
Unadjusted mean monthly rates per 100 enrollees	93.67	93.72	65.81
Regression coefficient adjusted model		-.036	-.313***

p<.05, \*\* p<.01, \*\*\*p<.001  
N = 4948

<sup>a</sup> Transfer cohort analysis compared WPP enrollees who transferred from participation in COP-W with enrollees who were in COP-W for six months prior to the virtual enrollment date assigned to match a corresponding WPP enrollment date and remained in COP-W for the period of the analysis.

## Cost

### MSHO Results

Costs for purposes of this analysis refer to the cost to the government (federal or state) for the provision of acute and long-term care services. In the case of MSHO, this means a Medicaid capitation payment, a Medicare capitation payment, and, where applicable, direct reimbursement to providers for nursing home services on a fee-for-service basis. For the control group the cost to the government includes a Medicaid capitation payment, Medicare fee-for-service payments, and may include elderly waiver claims and fee-for-service nursing home payments. The Control-In group was compared to MSHO. We did not compare MSHO to the Control-Out group due to geographic variations that would impact both the capitation calculation for MSHO as well as PMAP and could impact FFS costs as well. Table 17 presents data for the community population and Table 18 presents data for the nursing home population.

The cost to the state government for MSHO was calculated based on the actual Medicaid capitation (including the applicable PMAP rate, nursing facility add on, and average monthly Elderly Waiver payment appropriate to each rate cell) per member per month, averaged across 12 months for each year 1998, 1999, and 2000. Similarly the actual Medicare capitation rates paid by the government per member per month were averaged over 12 months for each year 1998, 1999, and 2000. In some cases the State of Minnesota also paid fee-for-service nursing home claims for some MSHO members. This amount is broken out separately from the capitation payments. There is no attempt to track capitations per member per month with actual service utilization using encounter data—we are only looking at monthly cost to the government over time. Indeed, the costs to the government under a capitated program are not related to actual utilization.

It is important to note that MSHO Medicare capitation payments are based upon a rate structure approved by CMS using the established M+C payment rates. For Medicare cost comparisons, only the frail nursing home certifiable population (rate cell B) resulted in added per capita payments. For all other populations, including those in the nursing home, MSHO plans received the same amount as they would have absent the demonstration. In addition, key policy changes enacted by congress during the study period had an impact on the M+C rates paid in Minnesota.

Table 17  
Comparative mean monthly costs per enrollee for each of three years for community residents

Cost	MSHO	Control-In
	<i>1998†</i>	
Unadjusted mean monthly costs per enrollee	\$1,296	\$1,070
Medicaid	668	538
Medicaid capitation (PMAP) <sup>a</sup>	663	430
Medicaid FFS (nursing home) <sup>b</sup>	5	72
Elderly Waiver Community Services	0 <sup>c</sup>	35
Medicare capitation/FFS	628	532
Part A	371	326
Part B	258	206
Regression differences		
Raw		-254***
Adjusted model		NA
	<i>1999‡</i>	
Unadjusted mean monthly costs per enrollee	\$1,426	\$1,092
Medicaid	755	586
Medicaid capitation (PMAP) <sup>a</sup>	749	452
Medicaid FFS (nursing home) <sup>b</sup>	6	67
Elderly Waiver Community Services	0 <sup>c</sup>	66
Medicare capitation/FFS	671	506
Part A	395	329
Part B	276	177
Regression differences		
Raw		-332***
Adjusted model		-167***
	<i>2000§</i>	
Unadjusted mean monthly costs per enrollee	\$1,610	\$1,156
Medicaid	860	658
Medicaid capitation (PMAP) <sup>a</sup>	843	483
Medicaid FFS (nursing home) <sup>b</sup>	17	65
Elderly Waiver Community Services	0 <sup>c</sup>	109
Medicare capitation/FFS	750	498
Part A	434	314
Part B	316	184
Regression differences		
Raw		-453***
Adjusted model		-297***

† The N for the Raw group was 74,871 person months.

‡ The N for the Raw group was 83,190 person months. The N for the Adjusted Model was 55,000 person months.

§ The N for the Raw group was 93,144 person months. The N for the Adjusted Model was 61,013 person months.

\*p<.05, \*\*p<.01, \*\*\*p<.001

<sup>a</sup> Medicaid capitation for MSHO includes non-institutional PMAP rate, nursing facility add-on and average monthly elderly waiver payment amounts.

<sup>b</sup> For MSHO Medicaid FFS payments for nursing home days occurring after the 180 days covered by nursing facility add-on.

<sup>c</sup> Elderly waiver services for MSHO are included in Medicaid capitation.



Table 18  
Comparative mean monthly costs per enrollee for each of three years for nursing home residents

Cost	MSHO	Control-In
	<i>1998†</i>	
Unadjusted mean monthly costs per enrollee	\$4,095	\$3,660
Medicaid	3,301	3,083
Medicaid capitation (PMAP)	389	385
Medicaid FFS (nursing home) <sup>a</sup>	2,912	2,698
Medicare capitation/FFS	793	578
Part A	495	366
Part B	298	212
Regression differences		
Raw		-384***
Adjusted model		NA
	<i>1999‡</i>	
Unadjusted mean monthly costs per enrollee	\$4,119	\$3,643
Medicaid	3,309	3,089
Medicaid capitation (PMAP)	408	403
Medicaid FFS (nursing home) <sup>a</sup>	2,901	2,686
Medicare capitation/FFS	810	554
Part A	505	355
Part B	305	199
Regression differences		
Raw		-450***
Adjusted model		-494***
	<i>2000§</i>	
Unadjusted mean monthly costs per enrollee	\$4,472	\$3,952
Medicaid	3,594	3,344
Medicaid capitation (PMAP)	436	432
Medicaid FFS (nursing home) <sup>a</sup>	3,158	2,911
Medicare capitation/FFS	878	608
Part A	542	386
Part B	336	222
Regression differences		
Raw		-508***
Adjusted model		-506***

† The N for the Raw group was 87,558 person months.

‡ The N for the Raw group was 86,814 person months. The N for the Adjusted Model was 52,986 person months.

§ The N for the Raw group was 86,832 person months. The N for the Adjusted Model was 51,125 person months.

\*p<.05, \*\*p<.01, \*\*\*p<.001

<sup>a</sup> For MSHO Medicaid FFS payments for nursing home days occurring after the 180 days covered by nursing facility add-on.

### WPP Results

The monthly capitation amounts for WPP elderly dual eligible enrollees (including Medicare and Medicaid capitation payments) were higher than fee-for-service payments for the Control-In group (Table 19). Similar capitation payments for WPP disabled dual eligible enrollees were lower than fee-for-service payments for the Control-In group (Table 20). The WPP capitation rate for elderly and disabled Medicaid only was higher than the Control-In fee-for-service costs of the Medicaid only but not across all years (Tables 21 and 22).

The Medicaid capitation rate for WPP is calculated on an actuarial basis based on the Medicaid cost for nursing home care for a comparable Medicaid nursing home eligible population. The method of calculating Medicaid capitation rates is under review by the State. A new Medicaid rate setting approach is being considered that will move away from calculating rates based upon a comparable nursing home population toward a more sophisticated risk adjustment model using diagnoses. The Medicaid capitation rate is further adjusted for enrollee age, Medicare status, and actual nursing home level of care. The Medicare capitation rate is calculated by multiplying the Medicare average adjusted per capita cost in the county's target group (as established by Medicare) by 2.39 to adjust for a frailty factor. This cost analysis does not measure the accuracy of the actuarial assumptions built into the capitation rate but analyzes the cost to the government given the capitation rate as established compared to the control population.

Table 19  
Comparative mean per member per month costs for each of three years  
for elderly dual eligible enrollees

Cost	WPP	Control-In
<i>1999†</i>		
Unadjusted Mean PMPM Costs	\$3,289	\$2,515
Medicaid Capitation/FFS	2,327	1,642
Medicare Capitation/FFS	965	873
Part A	553	526
Part B	411	347
Regression Difference Adjusted		-772***
<i>2000‡</i>		
Unadjusted Mean PMPM Costs	\$3,430	\$2,640
Medicaid Capitation/FFS	2,401	1,764
Medicare Capitation/FFS	1,031	876
Part A	584	543
Part B	447	333
Regression Difference Adjusted		-818***
<i>2001§</i>		
Unadjusted Mean PMPM Costs	\$3,882	\$2,867
Medicaid Capitation/FFS	2,687	1,996
Medicare Capitation/FFS	1,195	870
Part A	683	560
Part B	513	310
Regression Difference Adjusted		-1074***

Notes: \*p<.05, \*\*p<.01, \*\*\*p<.001

† The N for Raw model - 19,603 person months; for Adjusted model - 14,250 person months.

‡ The N for Raw model - 31,699 person months; for Adjusted model - 21,966 person months.

§ The N for Raw model - 23,152 person months; for Adjusted model - 16,005 person months.

Table 20  
Comparative mean per member per month costs for each of three years  
for disabled dual eligible enrollees

Cost	WPP	Control-In
<i>1999†</i>		
Unadjusted mean PMPM costs	\$3,497	\$4,086
Medicaid capitation/FFS	2,602	3,297
Medicare capitation/FFS	895	789
Part A	513	327
Part B	382	462
Regression difference adjusted		673***
<i>2000‡</i>		
Unadjusted mean PMPM costs	\$3,813	\$4,601
Medicaid capitation/FFS	2,866	3,718
Medicare capitation/FFS	947	883
Part A	512	423
Part B	435	460
Regression difference adjusted		842**
<i>2001§</i>		
Unadjusted mean PMPM costs	\$4,230	\$4,782
Medicaid capitation/FFS	3,049	4,081
Medicare capitation/FFS	1,181	701
Part A	649	300
Part B	532	402
Regression difference adjusted		731***

Notes: \*p<.05, \*\*p<.01, \*\*\*p<.001

† The N for Raw model - 1,814 person months; for Adjusted model - 1,681 person months.

‡ The N for Raw model - 3,035 person months; for Adjusted model - 2,816 person months.

§ The N for Raw model - 3,062 person months; for Adjusted model - 2,797 person months.

Table 21  
Comparative mean per member per month costs for each of three years  
for elderly Medicaid only enrollees

Cost	WPP	Control-In
<i>1999†</i>		
Unadjusted mean PMPM costs		
Medicaid capitation/FFS	\$2,631	\$2,760
Regression difference adjusted		816
<i>2000‡</i>		
Unadjusted mean PMPM costs		
Medicaid capitation/FFS	\$2,908	\$2,859
Regression difference adjusted		132
<i>2001§</i>		
Unadjusted mean PMPM costs		
Medicaid capitation/FFS	\$3,194	\$2,121
Regression difference adjusted		-1,057**

Notes: \*p<.05, \*\*p<.01, \*\*\*p<.001

† The N for Raw model - 830 person months; for Adjusted model - 557 person months.

‡ The N for Raw model - 1,291 person months; for Adjusted model - 750 person months.

§ The N for Raw model - 1,966 person months; for Adjusted model - 1,351 person months.

Table 22  
Comparative mean per member per month costs for each of three years  
for disabled Medicaid only enrollees

Cost	WPP	Control-In
<i>1999†</i>		
Unadjusted mean PMPM costs		
Medicaid capitation/FFS	\$3,658	\$3,251
Regression difference adjusted		-\$463**
<i>2000‡</i>		
Unadjusted mean PMPM costs		
Medicaid capitation/FFS	\$4,116	\$3,824
Regression difference adjusted		-364
<i>2001§</i>		
Unadjusted mean PMPM costs		
Medicaid capitation/FFS	\$4,404	\$3,490
Regression difference adjusted		-723***

Notes: \*p<.05, \*\*p<.01, \*\*\*p<.001

† The N for Raw model - 1,110 person months; for Adjusted model - 1,070 person months.

‡ The N for Raw model - 1,971 person months; for Adjusted model - 1,892 person months.

§ The N for Raw model - 2,079 person months; for Adjusted model - 1,911 person months.

## Quality Analysis

### MSHO Results

#### *Community*

In analyzing the community sample there was no difference in mortality. There was some decline in nursing home admission rates for short stays (less than 30 days) but no difference for long stays ( more than 60 days) (Table 23).

Table 23  
Comparison of rates of nursing home admission for community cohort by length of nursing home stay

	MSHO	Control-In	Control-Out
<i>Nursing home stay less than 30 days</i>			
Rates of nursing home admission	4.0%	6.0%	7.5%
Odds Ratios			
Raw		1.496*	1.863***
Adjusted model		1.487*	1.964***
<i>Nursing home stay more than 60 days</i>			
Rates of nursing home admission	5.9%	5.7%	7.6%
Odds Ratios			
Raw		0.963	1.283
Adjusted model		0.984	1.423*
<i>Nursing home stay more than 90 days</i>			
Rates of nursing home admission	5.4%	4.7%	6.1%
Odds Ratios			
Raw		0.858	1.126
Adjusted model		0.864	1.251

\*p<.05, \*\*p<.01, \*\*\*p<.001

#### *Nursing Home*

There was no difference in mortality. In general, the nursing home QI results derived from the Minimum Data Set suggest that there were no impressive quality differences between the MSHO clients and those in the control groups. The QIs did not show strong differences, and those differences that emerged generally did not favor MSHO (Table 24). The generally low rate of significant differences in part likely reflects the low incidence or prevalence of some adverse events. Although the late loss QI showed no significant difference, the decline in ADLs was greater for controls than MSHO (Table 25).

Table 24  
Odds ratios from quality indicator comprehensive regression model for nursing home residents

Quality Indicator	Period 1 <sup>a</sup>		Period 2		Period 3	
	Control-In	Control-Out	Control-In	Control-Out	Control-In	Control-Out
New fractures	0.74	1.66	0.77	0.25*	1.84	1.95
Prevalence of falls	1.28	1.00	1.08	1.17	1.07	1.11
Behavioral symptoms affecting others	0.83	0.98	0.80*	0.75*	0.89	0.80*
Symptoms of depression	0.84	0.71	0.73**	0.67**	0.80*	0.61***
Depression without antidepressant therapy	1.24	1.20	0.89	0.74	0.73*	0.62**
Use of 9 or more different medications	0.92	0.51***	0.83	0.70**	1.08	0.86
Incidence of new diagnosis of cognitive impairment	1.04	0.25*	1.13	0.93	1.30	1.01
Prevalence of bladder or bowel incontinence	0.79	0.73	1.06	0.81	0.86	0.75*
Occasional incontinence without toileting plan	1.21	1.05	1.21	1.19	1.01	0.79
Prevalence of indwelling catheters	1.00	0.76	1.29	1.03	1.48	1.28
Prevalence of fecal impaction	2.46	5.84	0.42	0.62	2.09	0.97
Prevalence of urinary tract infections	1.41	1.09	1.33	1.29	0.99	0.93
Prevalence of weight loss	1.39	1.28	0.92	0.66*	1.25	1.05
Prevalence of tube feeding	1.13	0.56	0.72	0.73	1.04	0.78
Prevalence of dehydration	0.74	1.83	1.73	1.02	1.22	0.70
Prevalence of bedfast residents	0.72	1.01	0.83	0.26	1.36	0.95
Incidence of decline in late loss ADLs	0.91	0.88	0.96	0.91	0.97	0.92
Incidence of decline in range of motion	1.14	1.55	1.42*	1.60*	1.30	1.45*
Antipsychotic use with no psychotic related conditions	0.83	0.95	0.99	0.97	1.07	0.79
Prevalence of anti-anxiety/hypnotic use	1.39*	1.78**	0.93	1.05	0.96	0.98
Hypnotic use more than 2 times in the last week	2.07	2.56	0.71	0.68	1.36	1.48
Daily physical restraints	1.23	0.82	0.80	1.16	1.01	1.01
Prevalence of little or no activity	1.17	1.20	1.10	1.04	1.04	1.35*
Prevalence of stage 1-4 pressure ulcers	1.19	2.26	0.82	1.09	0.78	0.56

\*p<.05, \*\*p<.01, \*\*\*p<.001

Comprehensive Model Results are adjusted for: age, gender, race, and baseline ADLs (Morris, Fries, & Morris, 1999), length of stay, and difference between assessment dates and facilities.

<sup>a</sup> Period 1: 6-9 months after enrollment; Period 2: 12-15 months after enrollment; and Period 3: 18-21 months after enrollment.

Note: Odds ratio (OR) should be read as the comparison of the Control to MSHO; therefore, a high OR means the rate is higher for the control group. Because the QIs reflect quality problems, higher rates imply poorer quality

Table 25  
Descriptive statistics for ADLs and change in ADLs for nursing home residents by MSHO status

	MSHO	Control-In	Control-Out
Sample size	3,510	4,869	2,391
Morris ADLs first record	14.1	13.5	14.7
Morris ADLs last record	16.2	16.2	17.6
Morris ADLs change	2.2	2.8	3.0
OLS regression			
No adjustment		0.61***	0.61***
Basic adjustment		0.31*	0.51**
Comprehensive adjustment		0.31*	N/A

Basic adjustment: Age, gender, race, and baseline ADLs (Morris et al., 1999), length of stay, and difference between assessment dates

Comprehensive adjustment: Basic adjustment plus facilities.

\*p<.05, \*\*p<.01, \*\*\*p<.001

### WPP Results

The quality analysis for the WPP evaluation included looking at mortality and time to nursing home admission. There were only a few modest differences found in the quality analysis and only for the disabled group.

#### *Elderly*

- There was no significant difference in the rate of death or the time to nursing home admission for the WPP elderly.

#### *Disabled*

- There was a modest difference in mortality with WPP disabled enrollees. The two WPP disabled cohorts had lower rates of death than both control groups, but the pattern of significance varied by comparison group (Table 26).
- The rate of nursing home admission was lower for the WPP disabled enrollees than the Control-Out group for stays greater than 30 days (Table 27). None of the differences in nursing home admission rates except for the transfer cohort was significant for the transfer cohort comparison (Table 28).



Table 26  
Comparison of rates of time to death by cohort

	WPP	Control-In	Control-Out
Disabled			
<i>Direct cohort comparison<sup>a</sup></i>			
Rates of death	4.0%	7.9%	11.9%
Relative risk compared to WPP adjusted model		6.709**	1.414
Disabled			
<i>Transfer cohort comparison<sup>b</sup></i>			
Rates of death	4.8%	6.4%	8.1%
Relative risk compared to WPP adjusted model		2.772	4.198*

Ns are 320 for Disabled Direct, 303 for Disabled Transfer  
\*p<.05, \*\*p<.01, \*\*\*p<.001

<sup>a</sup>The direct cohort comparison matched WPP enrollees with COP-W enrollees, both of whom enrolled into the respective programs from having at least six month prior enrollment in Medicaid and Medicare.

<sup>b</sup>Transfer cohort analysis compared WPP enrollees who transferred from participation in COP-W with enrollees who were in COP-W for six months prior to the virtual enrollment date assigned to match a corresponding WPP enrollment date and remained in COP-W for the period of the analysis.

Table 27  
Time to nursing home admission, Matched disabled direct<sup>a</sup> cohort comparison

	WPP	Control-In	Control-Out
Nursing home stay of < 30 days <sup>b</sup>			
Percent with stay	6.5%	0%	16.9%
Relative risk compared to WPP adjusted model			1.998
Nursing home stay of ≥ 30 Days			
Percent with stay	3.2%	2.4%	18.5%
Relative risk compared to WPP adjusted model <sup>c</sup>		1.061	6.171*
Nursing home stay of ≥ 90 days <sup>d</sup>			
Percent with stay	2.4%	0.0%	2.4%
Relative risk compared to WPP adjusted model <sup>c</sup>			0.753

<sup>a</sup> The direct cohort comparison matched WPP enrollees with COP-W enrollees, both of whom enrolled into the respective programs from having at least six month prior enrollment in Medicaid and Medicare.

<sup>b</sup> Because no nursing home admission of this type occurred for the Control-In population, those persons were removed from the analysis and age categories were reconfigured to allow the model to properly converge.

<sup>c</sup> Age categories were reconfigured and race was removed to allow the model to properly converge.

<sup>d</sup> Because no nursing home admission of this type occurred for the Control-In population, those persons were removed from the analysis, and age categories were reconfigured, and race was removed to allow the model to properly converge.

NOTE: Cases available for analysis and not censored before earliest event in a stratum: 239, 298, and 201 respectively.

\*p<.05, \*\*p<.01, \*\*\*p<.001

Table 28  
Time to nursing home admission, Matched disabled transfer<sup>a</sup> cohort comparison

	WPP	Control-In	Control-Out
<b>Nursing home stay of &lt; 30 days</b>			
Percent with stay	9.9%	8.9%	6.9%
Relative risk compared to WPP adjusted model		0.819	0.787
<b>Nursing home stay of ≥ 30 days</b>			
Percent with stay	5.0%	5.0%	5.9%
Relative risk compared to WPP adjusted model		0.798	1.116
<b>Nursing home stay of ≥ 90 days</b>			
Percent with stay	2.0%	4.0%	3.0%
Relative risk compared to WPP adjusted model <sup>b</sup>		1.456	1.304

<sup>a</sup> Transfer cohort analysis compared WPP enrollees who transferred from participation in COP-W with enrollees who were in COP-W for six months prior to the virtual enrollment date assigned to match a corresponding WPP enrollment date and remained in COP-W for the period of the analysis.

<sup>b</sup> Model would not converge with standard set of adjustors. Age categories were reconfigured and Medicare status was removed. Unknown original level of care removed because redundant.

NOTE: Cases available for analysis and not censored before earliest event in a stratum: 303 for all analyses.

\*p<.05, \*\*p<.01, \*\*\*p<.001

## LESSONS LEARNED

Several lessons were learned from these comparisons. Combining Medicare and Medicaid funding into a single pooled capitated payment program is feasible. MSHO and WPP represent two different approaches to applying managed care for the dual eligible population. Taken together the two programs address a wide range of target populations among the dual eligible. The MSHO program addressed the full range of older persons in the community and the nursing home, whereas WPP addressed two distinct populations (older persons and younger disabled persons) who shared a common trait of being judged to be nursing home eligible but lived in the community. WPP represents a relaxation of the PACE model, which features restricted primary care by limited designated providers who are employed by the PACE program. Under WPP, enrollees could generally utilize the physicians they chose. MSHO is a more traditional application of managed care through plans that contract with a variety of providers.

Developing these programs requires substantial effort. The rationale lay in eliminating conflicts and allowing more flexible use of the pooled resources. This goal was achieved, but the extent to which it led to larger achievements is not clear. As with any managed care enterprise, resources that previously went to care delivery are shifted to cover administrative costs in the hopes of achieving greater efficiencies that justify these expenditures.

There was some indication of greater participant satisfaction but it was not overwhelming, especially given the voluntary nature of enrollment. One difference between the WPP and MSHO samples and their controls is their tenure in their respective programs. On average the WPP and MSHO clients had been in the program for a little over a year at the time of the survey, whereas the controls had been in COP-W or PMAP for more than five and half years. This difference in exposure could be associated with differences in satisfaction. In addition, the flexibility given to clients to retain or choose their own primary care physicians, viewed as critical to encourage potential clients to select the demonstration program over other care options, may adversely impact satisfaction. Participating physicians serve a small number of WPP or MSHO clients. As a result this modest level of physician participation makes it unlikely that physicians will change their practice styles to meet the needs of WPP or MSHO clients.

Neither managed care program achieved substantial reductions in utilization for community-dwelling persons, but the effects on the nursing home group in MSHO were quite dramatic. However, as is common with demonstration programs, the evaluation focused on the early phases of the programs. It is possible that as the programs mature they may demonstrate changes in utilization patterns. The nursing home effect strongly resembles other experience with similar efforts conducted under the auspices of Evercare, which featured active use of nurse practitioners as primary care providers and case managers. The bulk of this effect was achieved by changing the locus of care (i.e., promoting more care for an event in the nursing home rather than transferring the patient to the hospital) (RL Kane, Keckhafer et al., 2003).

Both programs featured case management, but the actual extent of such activity varied. Newer forms of management, such as disease management, which more closely tracks and intervenes with specific disease problems, might prove useful with these high risk groups.

Any effort to change the overall pattern of care will likely have to actively involve physicians as active participants. A lesson from the PACE and Evercare programs seems to be that changing fundamental practice styles is a key element in changing utilization patterns. In MSHO and WPP the numbers of patients for any given physician varied widely. In many cases these numbers represented only a small proportion of that doctor's practice and hence participation would not likely motivate the physician to change fundamental practice patterns.

Capitation payments are more likely to be useful to government programs in establishing predictable costs than in saving money. Capitated managed care did not save money for Medicare. Even if the actual usage had been reduced, the savings would have accrued to the managed care organization rather than to the government. In the case of MSHO, the Medicare and Medicaid capitation was applied on top of an already capitated Medicaid program.

Setting capitation rates is always tricky. It involves both business and science. In general, the actuarial process requires applying some average rate to a subgroup with problems of accuracy. The predominant adjuster used here for MSHO community frail and WPP (above the M+C capitation rate), which was originally developed for the PACE program, seems a little generous based upon comparisons to fee-for-service payments in the control groups. The Medicare capitation payments used in MSHO and WPP were negotiated and finally agreed upon by CMS and the States. Rate setting by government agencies requires balancing priorities of saving money for the government while at the same time, being sufficiently attractive to managed care organizations to convince them that they can do well financially by achieving some reasonable level of efficiency compared to traditional fee-for-service care. Some consideration might be given to establishing some sort of risk sharing arrangement, which would reduce the risk for managed care organizations and facilitate savings for governments.

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## GLOSSARY

Acronym	Definition
AAPCC	Adjusted Average Per Capita Costs
ADL	Activities of Daily Living
ALTCS	Arizona Long-Term Care System
CCE	Community Care for the Elderly
CHP	Community Health Partnership
CIP II	Community Integration Program
CLA	Community Living Alliance
CMO	Care Management Organizations
CMS	Centers for Medicare and Medicaid Services
COP	Community Options Program
COP-W	Community Options Program Waiver
ER	Emergency Room
EW	Elderly Waiver
FFS	Fee for Service
FTE	Full Time Equivalent
HCFA	Health Care Financing Administration
IADL	Instrumental Activities of Daily Living
ILC	Independent Living Center
IPA	Independent Practice Association
M+C	Medicare+Choice
MCO	Managed Care Organization
MHP	Metropolitan Health Plan
MSHO	Minnesota Senior Health Options
NA	Not Applicable
NH	Nursing Home
NHC	Nursing Home Certifiable
NP	Nurse Practitioner

Acronym	Definition
OR	Odds Ratio
OT	Occupational Therapy
PACE	Program of All-inclusive Care for the Elderly
PCP	Primary Care Physician
PMAP	Prepaid Medical Assistance Program
PMPM	Per Member Per Month
PT	Physical Therapy
QI	Quality Indicator
RN	Registered Nurse
SCO	Senior Care Options
SHMO	Social Health Maintenance Organizations
SSI	Supplemental Security Income
SW	Social Worker
WPP	Wisconsin Partnership Program

## NOTES

### Meetings

#### WPP Site Visits

December 1998  
August 1999  
October 2000  
January 2003

#### Other WPP Meetings

January 1999  
April 2002

#### MSHO Site Visits

October 1997  
December 1997  
August/September 1998  
February/March 2000

#### Other MSHO Meetings

February 1999  
July 1999  
November 1999  
February 2000  
May 2000  
October 2000  
January 2002  
February 2002

#### Rochester, NY

October/November 1998

### Specialized Managed Care

#### National Demonstrations

##### *PACE*

One of the first such specialized managed care demonstrations was PACE. PACE seeks to replicate On Lok Senior Health Services in San Francisco. The demonstration began in 1986 in six sites. PACE programs became a permanent Medicare and Medicaid service delivery model in the Balanced Budget Act of 1997. There are now 28 PACE sites operating in 17 states. The primary goal of the PACE model is to help frail elderly remain in the community through support from adult day health centers and interdisciplinary teams of physicians, nurses, social workers, case managers, and

therapists. PACE serves frail elderly adults who are eligible for nursing home care but are living in the community. While dual eligibility is not a requirement, the majority of PACE enrollees are eligible for both Medicare and Medicaid. Payment for PACE is based on a combined Medicare and Medicaid capitation rate that includes an additional frailty adjustor to account for the more intensive care needs of the population. Most PACE sites are small in size, in part due to the focus on frail adults living in the community. The staff model of coordinated care focuses on providing active primary care with an emphasis on comprehensive assessments and monitoring. Enrollment in PACE requires that clients receive care from a PACE physician as their primary medical care provider. This requirement, combined with the requirement for attending adult day health centers has often kept enrollment in the program low. Adult day care is a central feature of the original PACE model and is used as a method to monitor patients regularly and to proactively address changes in health status in the hope of avoiding more costly care in hospitals or nursing homes (Chatterji, Burstein, Kidder, & White, 1998; Eleazer & Fretwell, 1999; Eng, Pedulla, Eleazer, McCann, & Fox, 1997; RL Kane, 1999; RL Kane, Illston, & Miller, 1992). Generally, outcomes from PACE programs have been positive. In the formal demonstration evaluation, hospital days and hospital admissions for PACE clients were lower than those for fee-for-service Medicare beneficiaries in general. PACE clients had more ambulatory visits and fewer nursing home days. There were fewer differences, however, between PACE clients and controls in terms of functional status over time, self-rated health status, quality of life, or satisfaction (Chatterji et al., 1998; Eng et al., 1997; RL Kane, 1999).

### *SHMO*

Medicare's SHMO demonstration has been in operation since 1985. It tests a model of service delivery intended to integrate acute and post acute care offered through traditional fee-for-service Medicare with limited long-term care services within a capitated managed care framework. Four features defined the first generation SHMOs: 1) a risk based managed care organization providing the full range of mandatory acute and post-acute Medicare benefits plus additional chronic care benefits including short-term nursing home and home health care not covered by Medicare, adult day care, and homemaker services; 2) coordinated case management to authorize and allocate limited chronic care benefits; 3) controlled enrollment of a cross-section of functionally impaired older adults; and 4) financing through prepaid capitation based on funds from Medicare, Medicaid (if applicable), and member premiums as well as co-payments and deductibles for the chronic care benefit. Additional coverage included a limited package of home and community based services as well as drug and eyeglass benefits (RL Kane et al., 1997).

Under capitation the SHMOs had incentives to under use expensive hospital care, use preventive health care, and use downward substitutions among types of care when less expensive options were available. The incentives were not always realized, however, because among other reasons no specific efforts were directed at changing physician behavior, case management was directed to only a small subset of enrollees deemed nursing home certifiable, and long-term care benefits were circumscribed (RL Kane et al., 1997). The second generation SHMOs, initiated in 1996, focused more attention on

organized case management and use of geriatrically trained personnel and/or employment of geriatric protocols with primary care physicians, targeted at a broad range of older clients with chronic illness (RL Kane et al., 1997). The current SHMO demonstration, which serves approximately 113,000 enrollees, mostly private pay, in four locations, is scheduled to end December 31, 2004. The SHMOs have been able to offer expanded care benefits to enrollees within the current payment structure, with and without charging additional premiums. Members have shown positive satisfaction related to having needs met and having a relationship with a care coordinator. Success at implementation of coordinated chronic illness care with a geriatric focus has differed between staff/group model MCOs and network/independent practice association (IPA) model sites. More needs to be learned about the outcomes associated with providing expanded care services under the SHMO model (Leutz et al., 2003; Wooldridge et al., 2000).

### *Evercare*

The Evercare demonstration, based on a program developed in the Twin Cities, uses capitated Medicare funding to provide primary care for nursing home residents in order to prevent hospitalizations or shorten their duration (RL Kane & Huck, 2000). The demonstration was initially replicated in six cities and has now expanded to 11 states. Evercare also participates in several state programs designed to serve both community and nursing home dual eligible clients. Under the original Evercare model nurse practitioners are utilized to deliver primary care to nursing home residents in addition to that offered by their primary care physician. The model also encourages the primary care physician to spend as much time as needed with their patients. Under Medicare capitation, Evercare is responsible for both Part A and B Medicare coverage. Primary care physicians are reimbursed at or above regular Medicare rates for all patient contacts and paid a premium for making emergency visits to the nursing home or attending family conferences and care planning meetings. In the original Evercare model the primary care physician was under contract with Evercare. Under the demonstration, Evercare needed to work with existing physicians. Physicians with large nursing home practices are offered an opportunity to work with Evercare. To be efficient, Evercare needs to recruit enough residents per nursing home to establish a relationship with the nursing home sufficient to shape its practices and to justify having the nurse practitioner spend substantial time in that home. The homes are targeted on the basis of the physician's pattern of services and their receptivity to the concept. Nursing homes must have the capability of providing more intensive services in lieu of hospitalization (RL Kane & Huck, 2000). The use of active primary care provided by nurse practitioners under the Evercare model appears to prevent the occurrence of some hospitalizable events but primarily manages those events by utilizing nursing home care to delay or shorten the hospital stay (RL Kane, Keckhafer et al., 2003). Use of more intensive primary care produces comparable quality of care measured by mortality and rates of nursing home quality indicators and change in functional status (RL Kane, Flood, Bershadsky, & Keckhafer, 2004). Families appreciate the additional attention provided to nursing home residents (RL Kane, Flood, Keckhafer, Bershadsky, & Lum, 2002).

## State Initiatives

### *Arizona Long-Term Care System*

Arizona Long-Term Care System (ALTCS), begun in 1989 under the Arizona Health Care Cost Containment System, provides a full range of acute home-base, community-based services and nursing care through a limited range of plans to Medicaid enrollees at risk of institutionalization. Acute care plans and long-term care providers are capitated by the state. Covered services for Medicare beneficiaries are paid for on a fee-for-service basis by Medicare. Evaluation of the program suggests that the program provides better access to quality care at a lower cost, although close monitoring is required to insure quality of care and appropriate access to services (McCall, 1997).

### *Minnesota Prepaid Medical Assistance Program*

Prepaid Medical Assistance Program (PMAP), a mandatory prepaid capitated program for Medical Assistance participants, has been operating in Minnesota since 1985. PMAP is a mandatory program operating in 83 of Minnesota's 87 counties. PMAP covers approximately 170,000 low-income and medically needy children, adults, families, and seniors. PMAP health plans are required to provide all Medicaid covered services including the first 90 days of a nursing home stay. Medicaid covered services include Medicare deductibles and co-insurance, physician visits, medical supplies, dental, hospitalizations, therapies, prescription drugs, eyeglasses, hearing aides, medical transportation, home care services, and translator services. For dual eligible enrollees Medicare pays providers directly for Medicare covered services. PMAP does not include home and community based services but is responsible for all state plan home care services which includes coverage of home health aides, personal care, and private duty nursing services. PMAP enrollees may receive home and community services not otherwise covered by Medicaid through the state's 1915(c) waiver for the elderly, which are paid on a fee-for-service basis. Seniors enrolled in PMAP and who are dual eligible may voluntarily choose to enroll in a Medicare + Choice plan.

### *Wisconsin Family Care*

Family Care is a new managed long-term care demonstration project initiated in Wisconsin in 1999 for the elderly and people with disabilities. Family Care melds 1915(c), and 1915(b) waivers and a pre-paid health plan contract. Long-term care services, exclusive of primary and acute care, are provided through a county-based management organization using capitated rates. In each participating county Aging and Disability Resource Centers provide one-stop shopping for information and assistance to help members connect with all kinds of services and community resources. Care Management Organizations (CMOs) help people arrange and manage their services. CMOs receive a capitated payment—monthly per person payment—based on average actual costs for groups of people at various functional levels. The state and the CMO share financial risk for services provided. Services are offered in three basic categories: Community Options (in home services, supported apartment and community day services); Nursing Home Options (intermediate and skilled nursing facilities); and Other Residential Options (residential care apartment complex, community-based residential

facility, and adult family home). Members are placed in one of two levels of eligibility based upon his or her care needs (comprehensive equivalent to nursing home care and intermediate, less severe disability than comprehensive level.). The level of eligibility determines access to resources if funds are limited.

#### *Texas STAR+PLUS*

STAR+PLUS is a Texas Medicaid pilot project designed to integrate delivery of acute and long-term care services through a managed care system. STAR+PLUS enrollment started in 1997. The project serves approximately 58,000 SSI and SSI-related aged and disabled Medicaid recipients in Harris County (Houston). Of these, about half are dual eligible for Medicare and Medicaid services. Participants may choose from two health maintenance organizations or a primary care case management option. Prescription drugs are provided through the state's Medicaid pharmacy assistance program, outside of the capitated benefit. STAR+PLUS enrollees, however, who enroll with the same MCO for both Medicare and Medicaid coverage have access to an unlimited number of prescriptions (instead of the three prescriptions per month currently available in Texas). Care Coordination is provided even if the dual eligible client receives Medicare from a provider who is not affiliated with the STAR+PLUS HMO's Medicare risk product.

#### *Massachusetts MassHealth Senior Care Options*

Massachusetts has launched a managed care program for dual eligible enrollees. The Senior Care Options (SCO) will include a fully integrated managed care program covering acute and long-term care benefits for dual eligible and Medicaid-only recipients age 65 and over. Medicare waivers will be requested in order to pool Medicare and Medicaid funding. The SCO benefit package will include Medicare and Medicaid covered services as well as alternative services. The program is designed to encourage geriatric care by requiring that each SCO provider organization include a primary care program with evidence of geriatric expertise and a case management capacity. To assure that the SCOs address geriatric problems effectively, the SCO program will include accountability standards for a series of common geriatric conditions. The program is encouraging a wide range of different delivery systems to participate including hospital networks, long-term care management companies, community agencies, rehabilitation networks, and M+C plans. SCO will serve both community and nursing home dual eligible beneficiaries.