Challenges and Accomplishments of the Second-Generation Social Health Maintenance Organization

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Purpose: This study traces the implementation of the second-generation Social HMO demonstration program within the Health Plan of Nevada among more than 35,000 Las Vegas members. Design and Methods: This case study uses health plan reports, claims data, and administrator and clinician interviews covering the years 1999–2001. Results: Care coordination, geriatric services, communications, and support infrastructure development has been extensive. Implementation has occurred at different rates among staff model and network practice physicians. Hospital days and discharges were fewer among clinic than network participants; physician and emergency room visits were more frequent, as were day care, respite care, and home help. Implications: Integrating medical and social care is difficult. Despite great efforts, it took several years before key benefits could be adequately developed and linkages created. Evaluations that target start-up rather than steady-state operation may not capture these accomplishments. Further, federal government efforts to encourage experimentation and innovation in care for aged and disabled individuals may require programs other than time-limited demonstrations.

Key Words: Managed care, Aged, Medicare, Care management

The Centers for Medicare & Medicaid Services (CMS) has supported a demonstration program known as the Social Health Maintenance Organization (Social HMO) since 1985. This capitated program provides standard Medicare coverage for hospital and physician services and expanded care benefits (e.g., personal care, homemaker, adult day care, in-home and short-term institutional respite care, home modification, and personal emergency response systems) intended to support the social needs of beneficiaries. Its underlying rationale is that social services will ultimately improve medical care. Social HMOs also include prescription coverage. To help cover the cost of the expanded care Social HMOs receive a 5% higher risk-adjusted reimbursement from CMS than do other Medicare managed care plans.

Congress will determine whether this program, with its more than 100,000 enrollees, becomes a permanent option or transitions into a Medicare + Choice plan. One of the factors affecting this decision is the performance of the Health Plan of Nevada (HPN), whose Social HMO program is the prototype for the second generation of this demonstration. HPN is a for-profit health maintenance organization serving both commercial and Medicare members. Its Social HMO program is currently provided in the Las Vegas area and rural Pahrump. Reno and other areas of Nevada are presently excluded, although the Reno area had been included before 1999. The HPN model represents an explicit attempt to provide geriatric services and to support primary care with improved coordination between ambulatory care, posthospital continuity of care, home health, and chronic care providers. This geriatric service approach is combined with population-based risk identification and disability prevention programs. Care coordination and expanded care are directed to those at risk for avoidable health care use, not just those at risk of long-term care.

HPN initiated its Social HMO program in late 1996 by expanding its then existing Medicare risk plan (known as Senior Dimensions) into a Social HMO plan. About 75% of the more than 30,000 Senior Dimensions members were administratively upgraded to this richer benefit package without a change in premiums or physicians. This permitted the demonstration to begin with a substantial enrollment base and one that had not been affected by selection bias.
The remaining 25% of Senior Dimensions members became the comparison group and continued to receive their original benefits. The assignment into Social HMO or comparison groups was determined on the basis of members’ primary care physicians. The comparison group was retained only until April 1999, when at HPN’s request the Senior Dimensions comparison group members were converted to Social HMO status. As of August 2001, there were 38,200 Senior Dimensions Social HMO members.

HPN has shown consistent growth in access to Social HMO-related expanded care benefits and refinement of care coordination processes since 1996. Development and implementation of these service innovations has required substantial organizational commitment and shifts in clinical practice. The necessary communications and support infrastructure have been implemented at different rates among staff model practices and independent practice association (IPA) physicians. In spite of great efforts, some program components are not well integrated. As a consequence, evidence of clinical outcomes (e.g., hospital use, emergency room use, extended care use) has differed between the staff and IPA medical groups.

This paper describes the implementation of HPN’s Social HMO program and the changes in operational performance between 1999 and 2001, the period when most geriatric and care coordination program components became established. (See Newcomer, Harrington, & Kane, 2000, for a description of HPN’s Social HMO start-up phase during 1996–1998.)

Methods

The information and findings reported here were collected over 3 years, using a combination of the plan’s administrative data, internal and public documents, and administrator and clinician interviews. These materials were obtained during annual site visits and in the plan’s follow-up to our data requests. Where possible, a triangulation of sources was used to document program operations and performance. These included separate interviews with administrators, clinicians, and care coordination teams about key operational features such as care coordination, continuity of care, and provider communication. In addition, field observation of support groups, case conferences, and specialty clinic consultation meetings was conducted. The utilization and expenditure data reported herein were obtained from administrative sources. We have not audited or verified these data against external and independent sources, but they are subject to review by external review agencies, such as CMS.

These various data sources have been compiled and integrated into a case study that chronicles the efforts of a single health plan to reinvent itself into a structure tailored to meet the needs of high healthcare risk elderly members. This endeavor complements and provides a contextual basis for the interpretation of any future efforts to examine client-level data on the service use and health outcomes of this program.

Program Benefits and Eligibility

The Social HMO program has been available as a basic or nonpremium product throughout its existence at HPN. A premium option, known as Optima, has also been available for $34.95 per month over and above the monthly Medicare Part B premium of $45.50. Services normally covered by Medicare are included in both options, plus supplemental coverage for outpatient prescription drugs and preventive health services like annual checkups, pap smears, routine radiological diagnostic imaging, and laboratory procedures. The advantage of Optima over the nonpremium product is mainly medication coverage (i.e., $6 vs $7 copayment on generic medications, $15 vs $20 for brand names, and $3,500 vs $2,500 in annual maximum drug coverage). Both options include the identical set of Social HMO expanded care benefits for those eligible. More than 90% of those in Senior Dimensions elect the Part B–only premium plan.

Expanded care benefits are available only to those enrolled as Senior Dimensions Social HMO members (see Appendix, Note 1). These include adult day care, care coordination, counseling for situational disorders, homemaker, maintenance therapy, home safety, personal care, personal emergency response system, respite care (both in-home and institutional), and transportation benefits. Since May 1999, there have been minor copayments for most of these services, ranging from $3 per day for homemaker services to $10 per day for short-term institutional care. Access to these benefits (other than for transportation) requires an evaluation by the care coordination staff or another designated provider and an approved plan of care. There are no explicit limits on the amount or duration of service, but need is usually reevaluated every 60 days. In practice, those receiving homemaker, personal care assistance, and personal emergency response system benefits generally have them for more than 180 days. Recipients receiving other expanded benefits usually receive the benefit for fewer than 90 days. Social HMO extended benefits are not available outside of the Las Vegas area.

Expenditures for the expanded care benefits increased from $21.50 per member per month in 1998 to $41.28 per member per month in 2000. This reflects a steady increment in the portion of expanded care expenditures relative to total Social HMO revenue. This rate was 4.1% in 1998 while the Social HMO program had not been extended to all the Southwest Medical Associates (SMA) clinics and network providers. It reached 5.6% in 1999, the first year in which all the major components of the Social HMO program were in place and operational. By 2000, the proportion was 7.4%. The CMS-established target level for expanded care expenditures is 5%. Not included in these expenses are the cost of health-risk screening, continuity-of-care activities, and chronic home care benefits (a program added in 2001). Nor do they include the Geriatrics Department's special clinic programs or pharmacy expenses, which are not considered as extended care benefits.
Care Coordination

Care coordination and management are integral to the functioning of managed care within Senior Dimensions. Multiple separate levels of care coordination occur within the program, including the medical provider’s role in primary and specialty care, the hospital’s role in the coordination of ancillary postacute care, and nurse care coordination as components of home health care. Additional features linking to all these are ambulatory care management teams. HPN’s Geriatrics Department also maintains case managers for institutional and group housing settings.

HPN delivers the majority of its medical care services in Southern Nevada through seven SMA clinics with a combined total of 78 staff primary care physicians (PCPs). About 70% of the Senior Dimensions membership is empanelled with SMA clinics. SMA is a wholly owned subsidiary of HPN. SMA-based PCPs are well aware of the Social HMO program, including all its care coordination and health-risk screening components. This was achieved during 1997–1998 with the assignment of care coordination teams to each clinic and the conduct of interdisciplinary team meetings involving first the Geriatrics Department and later ambulatory care management (ACM) teams. Physicians in HPN’s affiliated IPA network locations (153 physicians in 2001) were slower to establish working collaboration with the ACM teams assigned to them. This difference between network and clinic physicians occurred in part because of the absence of convenient physical access between the care coordinators and the physicians and the unwillingness of most network physicians to participate in interdisciplinary team meetings and other geriatric training without reimbursement for their time. Changes in physician contracts, with groups and providers coming in or leaving HPN affiliation during 1997–1999, was a further complication. Care coordination relationships stabilized by 2000 with the alignment of the 12 ACM teams and medical group networks by region.

HPN’s care coordination system, designed to support physician practice, has taken multiple forms. These involve ACM teams, continuity of care after hospital discharge, home care, chronic home care management, geriatric consultation and specialty clinics, and information exchange. Each of these activities is described in the following sections. As measured by an unpublished survey of SMA PCPs conducted early in 2001 by the health plan, 29 of the 37 physicians available for the survey said they would vote to continue the Social HMO on the basis of the program’s effects on their practice.

ACM

ACM teams within the Social HMO are multidisciplinary, consisting of a nurse, social worker, care coordination assistant (CCA), and some administrative support staff. One team is assigned in each of the seven SMA clinics (staff model practices). There is also a team assigned for each of the HPN network IPA service regions. The caseload for clinic-based teams averaged between 225 and 300 patients in 2001, and the network team caseloads ranged between 150 and 200 cases. A registered nurse was added to any team where the caseload was higher than these targets. Between 25% and 40% of the caseloads may be in a monitoring status (average caseload per CCA is 150) rather than an active care plan development and implementation status (average caseload per professional team member is 75–100). The ACM structure has an orientation to early systematic identification, an ability to authorize or plan a broader array of interventions, explicit coordination with PCPs, and more recently clear communications between the various other levels of care management.

The starting point for ACM is HPN’s enrollment and annual health-risk screening questionnaire and any needed follow-up assessments. The health-risk-screening instrument provides the basis for a risk-adjusted reimbursement to the health plan, as well as information on risk factors and conditions associated with health care use and disability. By identifying members with chronic illnesses, functional and cognitive limitations, and other potential risks, the plan is able to offer early intervention with health education, disease prevention and management, and screening for those who may require expanded benefits or other services. About half those receiving care management are identified by health-risk screening trigger criteria. The balance come from physician referrals or events (e.g., hospital discharge, durable medical equipment orders). Health-risk screening factors used to trigger members for physician referrals or assessments are described elsewhere (Newcomer et al., 2000).

ACM teams are responsible for the care planning relative to expanded care benefits and the coordination of access to community services. Care planning involves defining specific goals for the patient, preparing a plan of care, and working to facilitate the care plan’s implementation. Plans are developed with client participation, and the allocation of services is approved with the client’s concurrence. The eligibility for expanded care benefits is protocol driven, but the amount and duration of service allows clinical discretion. The care plan and benefit authorization is reviewed and approved by the PCP. Active care plans are reviewed every 60 days (for those in nursing or group homes, the interval is 90 days). Review also occurs if there is an episodic health event (e.g., hospitalization). In early 1999, home health, hospice, and ACM began to use a universal care plan. Those in “monitoring” caseloads, including high-risk chronic disease cases (i.e., congestive heart failure [CHF], chronic obstructive pulmonary disease [COPD], diabetes), are those considered to be stable, but with a risk of declining. These individuals are contacted at least every 90 days with a scripted set of questions designed to identify potential problem triggers. The ACM team also uses the health plan’s scheduling and encounter system to review the patients’ history, including office visits and hospitalizations.

Most of the ACM elements (e.g., risk screening,
assessments, care planning, monitoring) were in place in SMA clinics in 1999 or earlier; however, the situation (even into 2001) was not as developed among IPA network providers. A particular difference was the access that clinic-assigned ACM teams had to PCPs. This is best reflected in a process known as interdisciplinary teams. Beginning in March 1999, a process of rounds was initiated at the SMA clinics to formalize the care-plan review of complex cases (see Appendix, Note 2). Each PCP schedules 30 min a week for these meetings. The meetings consist of ACM team presentations of cases in care coordination or for which the PCP or care manager has requested a discussion. A problem list is created for each case, along with an action plan and expected outcomes. This document is placed into the medical record. These interdisciplinary team rounds were suspended in late 1999, at the request of HPN’s geriatrician, to allow her more direct oversight and consultation. Weekly interdisciplinary team meetings involving the ACM teams and the PCPs resumed in July 2001 at the request of the PCPs and ACM care coordinators.

Interdisciplinary team meetings among network PCPs were more limited, as few physicians have been willing to participate in interdisciplinary team care conferences due to the time lost from their practices and HPN’s unwillingness to provide additional reimbursement outside of the current contractual rates. The most common form of need and care-plan communication was a fax or phone message from the care management team to the physician’s nurse. The specific gain or other effects of the interdisciplinary teams has not been directly documented, but as discussed later, SMA clinic patients have lower hospital use and greater use of extended care benefits than do patients of network physicians.

**Hospital Inpatient Continuity of Care**

Hospitalists and hospital-based case managers are the core of HPN’s inpatient care management or continuity-of-care system. The focus of their work is to minimize hospital lengths of stay. The hospitalists are responsible for inpatients in the contracted hospitals and those receiving emergency room care from noncontracted facilities. Between 1998 and July 2001, HPN doubled the number of internists used as hospitalists (increasing from 8 to 16). This was necessitated in part by HPN’s opening a contract with a second hospitalist at the clinic level. Early in 2000, the clinical nurse coordinator proposed a process by which hospitalists would coordinate more timely initiation of home health occurs. Although a causal connection has not been formally documented, the rate of hospital readmissions dropped (from 14% in the first quarter of 2001 to 10% in the second quarter) following implementation of this new communication process. Further improvement of posthospital continuity of care is ongoing, with the next scheduled step being linkage of continuity-of-care staff into HPN’s computerized integrated care management system. This process was scheduled for implementation after the first quarter of 2003. Integrated care management systems will give continuity-of-care staff access to patients’ assessments, care plans, and other interventions in place before hospital admission. This information is expected to eliminate redundancies in discharge planning and the other care-planning activities. In addition, integrated care management systems allow for electronic referrals to multiple sites and the inclusion of documentation of the inpatient stay. This is expected to reduce hospitalist and care-coordination time and improve communication among units and with PCPs.

Not fully resolved in the continuity-of-care process is how to incorporate urgent and emergent care and scheduling a physician follow-up visit, routine visits with the clinical nurse coordinator to monitor health status, the ordering of diagnostic tests, specialist consultations, home health care, and ongoing ambulatory care. Communication between the hospital and the clinical nurse coordinator was through telephone voice mail from the hospital discharge case manager.

Early in 2000, the clinical nurse coordinator program was discontinued due to its cost and replaced by a system relying on direct physician-to-physician communication. It involved having the hospitalist physician leave necessary information in the PCP’s voice mail. In addition, continuity of care was responsible for making postdischarge appointments with the member’s PCP. Copies of hospital information (e.g., history, physical, applicable laboratory and diagnostic results, discharge medications, and discharge summary) were faxed to the PCP’s office at the time the appointment was made. This process was modified in Spring 2001 in response to feedback from PCPs. The main change was to first determine the provider most appropriate and available for the postdischarge follow-up visit (within the time frame of 7–10 days after discharge). The appointment is given to the hospitalist and the patient at discharge; then a hospitalist contacts the PCP and communicates the hospital’s information. The appropriate information is then faxed to the PCP’s office. In addition, on a daily basis admission, discharge, and specialty reports (for CHF and COPD) are sent by continuity of care to both home health and ACM. A weekly list of readmissions is also sent to these areas. A monthly meeting is held with HPN’s provider for skilled and subacute services. Continuity of care, home health, and ACM participate in these meetings.

The communication enhancements for continuity-of-care cases have helped ensure that patients have follow-up visits within the desired 7–10 days and that timely initiation of home health occurs. Although a causal connection has not been formally documented, the rate of hospital readmissions dropped (from 14% in the first quarter of 2001 to 10% in the second quarter) following implementation of this new communication process. Further refinement of posthospital continuity of care is ongoing, with the next scheduled step being linkage of continuity-of-care staff into HPN’s computerized integrated care management system. This process was scheduled for implementation after the first quarter of 2003. Integrated care management systems will give continuity-of-care staff access to patients’ assessments, care plans, and other interventions in place before hospital admission. This information is expected to eliminate redundancies in discharge planning and the other care-planning activities. In addition, integrated care management systems allow for electronic referrals to multiple sites and the inclusion of documentation of the inpatient stay. This is expected to reduce hospitalist and care-coordination time and improve communication among units and with PCPs.
day surgery into continuity-of-care. In all these instances, continuity of care and the other care coordination linked to it become involved with patients only on referral from the attending physician. Neither continuity of care nor ACM are automatically notified of urgent, emergent, or day surgery admissions or discharges. Notification is complicated by an absence of linkage or access to electronic records systems in the various hospitals, but this could be worked around with voice mail as have other communication barriers.

Home Health Care

Home health services include skilled nursing, social work, therapy services, and home health aides (but not personal care services). Home health patients are generally seen on a weekly basis or more often. Patients receive an average of 20 visits each. Each home health case management team includes a primary care team leader (who is a registered nurse), a treatment nurse, a licensed practical nurse (LPN), and a half-time home health aide. Each team member has about 35 patients. There is a nurse division manager for every 200 patients. Each home health division (there are three for HPN members, each with 6–7 teams) also has a therapy team, consisting of a physical therapist, occupational therapist, social worker, and dietitian.

Until late 1999, HPN provided home health in a traditional Medicare manner with short-term, part-time, and intermittent services. Once a case was no longer eligible for Medicare skilled services, the case was either closed or referred to ACM. At the end of 1999, home health began to extend benefits for those too frail to return to ACM. This practice evolved into a chronic home care program, discussed shortly.

Communication between home health and ACM has been refined since June 1998. Most particularly refined have been the transmission of hospital discharge information between inpatient continuity of care and both home health and ACM (noted earlier), the adoption of a common assessment instrument for both home health and ACM, and permitting home health care managers to recommend and monitor extended-care benefits. The uniform assessment integrates Outcome Assessment Information Set measures (required by Medicare for all home health agency patients) with the ACM assessment of social, cognitive, and functional ability. At discharge from home health care, the case manager determines if the patient's needs would be best served in the Chronic Home Care Program or Ambulatory Care Program and then makes the appropriate transfer.

Chronic Home Care Program

The intention of the Chronic Home Care Program is to augment care for patients who no longer meet the criteria for Medicare home health care. Typical chronic home care patients have had three or more hospitalizations in the prior 6 months or are considered to be too frail or at risk to be appropriately referred to ACM. Examples of the criteria defining risk include healed wound requiring nursing treatment to prevent skin breakdown; frail elderly or disabled person with inadequate support system, malnourished, or with multiple limitations in activities of daily living (e.g., dressing, eating, toileting, ambulation); medication noncompliance that can be improved with weekly or monthly visits; and monthly Foley catheter changes.

Chronic home care includes education about the chronic condition, medication set-up and compliance training; evaluation of physical condition relative to risk of imminent hospitalization; assurance of the adequacy of food and the ability to prepare and eat it; monitoring the adequacy of support system (including community resources); and monitoring basic safety and functional ability. The chronic home care nurse develops and monitors any expanded care plan. Patients can stay on chronic home care for as long as necessary, but they are reassessed every 6 months and visited at least every 60 days. Transfers to ACM occur once patients or their caregivers can appropriately recognize the signs and symptoms of the disease process and can maintain compliance with medications and other treatments.

The chronic home care program was initially housed within home health and integrated into home health team caseloads. Separate chronic care teams were formed in 2000 as the program grew. Each team consists of a team leader, two nurse case managers, two LPNs, two home health aides, and a care coordination assistant. Social work services continue as a shared service with the other home health care teams.

An HPN comparison of hospital use in the 6 months before chronic home care admission with use in the subsequent 6 months suggests that the program produced net savings of over a quarter million dollars during its first year. Hospital use dropped by more than 50% during that period, but this finding could be a statistical artifact known as regression to the mean because high users were initially targeted. There have been no experimental designs implemented to formally test this finding.

Geriatrics Department and Geriatric Education

The Geriatrics Department was formed in January 1998. Staff include two geriatricians, two nurse practitioners/physician assistants, a nurse case manager, and a social worker. There was turnover in all these positions during 2000–2001. A clinical pharmacist was added to the department in mid-2000. The Geriatrics Department supports the Social HMO program through a combination of clinics, consultation, care management, and education.

Geriatric Clinics and Consultation

Five specialty clinics are provided in addition to case consultation. Referrals to these clinics average more than 170 cases per month (combining the volume among each clinic). These come from either a PCP referral or a trigger item on the health risk screen.

- Cognition/Dementia Clinic. This clinic was started in January 2000 (a pharmacist was added in 2001)
to address the special needs of group home patients who are frequent emergency room or hospital users as a result of behavior problems. The team reviews patients' medications, assesses their environment, and works with caregivers to provide training in behavioral techniques.

- **Falls and Immobility Clinic.** This clinic has been in place since the initiation of the Social HMO. It evaluates patients for strength, medications that could cause balance problems, and techniques in the use of mobility devices.
- **Extended Assessment Clinic.** This clinic (initiated in early 1998) allows the geriatrician to provide consultative recommendations to the PCP on complex cases. It can include, among other consultation, ordering and reviewing laboratory tests, follow-up evaluation after medication changes, or an evaluation of findings from a home evaluation.
- **Incontinence Clinic.** This clinic, developed in 1997, includes an assessment of possible factors contributing to incontinence and training in how to manage these factors.
- **Polypharmacy Clinic.** This clinic was formalized in 2001. Before then, polypharmacy was identified mainly from the annual health risk screens. This is now supplemented by the pharmacist's using paid claims data to flag cases with potential polypharmacy problems. Patients with five or more prescriptions are asked to come in to the clinic. In addition to the claims-based case finding, the polypharmacy clinic receives up to 100 referrals weekly from physicians and care managers. The pharmacist also attends the falls clinic.

In addition to these clinics, the geriatrician, nurse practitioner, and pharmacist twice monthly participate in the SMA weekly interdisciplinary team conferences between PCPs and the ACM teams. This participation rotates among the various clinics.

**Nursing Home and Group Home Care Management**

Senior Dimensions patients in custodial care status in Las Vegas nursing facilities and group homes are impaneled to one of the two physicians in the Geriatrics Department. Patients admitted for skilled rehabilitation are attended by physicians contracted for this care. The Geriatrics Department oversees care of approximately 400 long-term care and skilled rehabilitation patients in 18 nursing facilities in Las Vegas; the majority of these patients are located in three facilities. A similar number of patients are in group homes. Other staff in the Geriatrics Department's long-term care group include two advanced practice nurses, one nurse case manager, and one CCA. The nurse case manager and the CCA work out of the Geriatrics Department. The team also conducts urgent care visits to group homes to reduce emergency room and hospital use.

**Geriatric Care Education**

The Geriatrics Department participates in monthly physician continuing medical education programs and has been instrumental in the selection of topics. SMA staff physicians are allowed time for these sessions and funds to attend continuing medical education conferences in specialty areas. There is no similar ongoing geriatric education for non-PCP staff. Network physicians are not reimbursed for continuing medical education expenses or attendance time.

Another forum for provider education has been clinical guidelines and the lectures associated with their development, promulgation, and use in the context of interdisciplinary teams. Among HPN's protocols are CHF, coronary artery disease, COPD, dementia, depression, diabetes, falls, polypharmacy, and urinary incontinence. Most of these were in place by 1999 or earlier. Data documenting how extensively these guidelines are used are not available, but both clinic and network groups have regular quality assurance review committees and processes that monitor treatment practices. In addition, each clinic and group medical director audits a sample of charts for each physician annually. Group physicians participate in the audits of other group physicians.

**Service Innovations**

The combination of a risk-adjusted payment methodology and the fact that most of HPN's Medicare membership is enrolled in the Social HMO program provides strong incentives for service innovations. Several of these are briefly described in this section. Each is oriented to both risk reduction and improvements in service quality. These examples are in addition to the expanded care benefits and care coordination activities described in the preceding sections.

**Heart Failure Clinic**

HPN began offering an interdisciplinary clinic for patients with advanced heart failure in November 1998. It provides focused medical care, disease and self-monitoring education, and consistent and frequent evaluations. The clinic is staffed by a physician, a nurse, a social worker, and a CCA. It is supplemented by twice-monthly meetings of a heart failure support group. These have been offered since June 1999. Each session has a featured topic and speaker. A total of 653 patients had been seen by the clinic as of September 2001: Of these, 289 were active cases. The median age was 72, with about 14% below the age of 60. Ongoing care includes telephone follow-up to assess clinical stability, reinforcement of self-management techniques, and reeducation in areas of poor disease understanding. Clinical outcomes appear promising, although the results are not based on a comparison sample:

- There were 39% who showed improvement in their functional class score versus 8% who worsened.
- There were 65% who improved on their symptom score versus 7% who worsened.
- Emergency room use dropped by 47% between preenrollment and postenrollment year.
Situational Disorders Counseling

Hospital admissions dropped by 57% between preenrollment and postenrollment year.

Restorative rehabilitation and exercise training, as a supplement to clinic participation, are also available as covered benefits to Senior Dimensions members. At minimum, clinic patients are invited to maintenance therapy for a group exercise session. This introduces appropriate exercises for increasing conditioning, strength, and stamina. Coordination with ambulatory care begins as patients are discharged from the clinic.

Maintenance Therapy Program

This program provides physical therapy beyond the traditional Medicare-approved benefit. Services are provided in the member’s home when necessary; individual and group sessions at provider locations are more common. The objective of this benefit is to reduce physical deterioration, maintain physical and motor function, and reduce associated stress for both the patient and the caregiver. This is the single largest expense within HPN’s expanded care benefits. There is a continuum of supervised therapy: one-on-one therapy for homebound clients, one-on-one therapy for nonhomebound clients, chair-based group exercise classes for medically stable clients who do not require one-on-one supervision, and pool exercise class for those who require an exercise program with reduced impact on joints (especially appropriate for those with arthritis). Pool participants must be medically stable and not require one-on-one supervision in chest-deep water. In addition, there is an independent exercise program for medically stable clients who do not require one-on-one supervision and who demonstrate the ability to operate gym equipment. Pool and independent exercise are not covered as extended care benefits.

HPN has conducted a preliminary evaluation of the clinical benefits from this program. Using 142 compliant cases distributed among all programs, HPN measured change in balance, activities of daily living, timed “up and go,” and distance covered in a 6-min walk. Each measure showed the expected direction of improvement: Balance scores improved an average of 17% over two reevaluation periods, “up and go” time diminished by an average of 33% (about 15 s), and the distance walked in 6 min increased by an average of 40% (about 130 ft).

Situational Disorders Counseling

Short-term counseling is available as an expanded care benefit for situational disorders (such as depression, grief, or loss), family (including caregiver) stress related to disease or the aging process, and noncompliance with treatment or pharmacological regimen. It is also appropriate for those who could benefit from increased socialization. Typically, the initial authorization is for six individual or family counseling sessions. Ongoing participation in therapy or support groups following the individual/family sessions is often encouraged but not funded under this benefit. In spite of the rather general criteria defining eligibility for this benefit, expenditures on it have been the lowest among the Social HMO expanded care benefits, and at a relatively constant level between 1998 and 2000 (ranging from $119,000 to $132,000). A preliminary evaluation of change in depression scores has been conducted by HPN, using a sample of 221 beneficiaries. Participants were measured on the Short Geriatric Depression scale at intake into therapy and at time of discharge. The scores improved on average by 4 points on this 15-point scale, reducing from an average of 8 to 4. This change represents a move from moderate depression to no depression.

Group Home Operator Training Seminars

Continuing education credit seminars are offered for group home operators by the Geriatrics Department. These are intended to help improve the quality of care in these facilities, to alert the providers to HPN’s resources, and to build relationships facilitating ongoing care coordination with HPN members in these settings. Sessions have been held monthly since January 2000 and are free to participants. Topics covered have included alcohol and substance abuse, CHF, COPD, dementia, depression, diabetes, exercise and falls, hypertension, medication supervision and compliance, nutrition, and sleep problems.

Medical Resident Rotations

A potentially important development affecting HPN over the long term is a contract with the Nevada Geriatrics Education Center. HPN offers a geriatrics rotation for internal medicine residents. The rotation occurs with the Geriatrics Department, and includes primary care visits, patient consults, incontinence clinics, interdisciplinary team meetings, nursing home rounds, and home visits. Patient consults may include a geriatric patient assessment, falls and mobility issues, and cognitive impairment. This geriatrics rotation was initiated during the 2000–2001 academic year when three internal medicine residents completed the rotation. During the 2001–2002 academic year, 11 residents participated. There is a direct benefit to those trained and an indirect benefit to HPN. Currently about one third of the SMA-affiliated physicians have had training at the University of Nevada Medical School.

Information Systems

The information system priorities for HPN’s Social HMO program have been to (a) automate the care planning and assessment process, (b) integrate the care management system into HPN’s medical records and other systems, and (c) be able to generate a “member snapshot.” This snapshot would be available to providers, showing the patient’s diagnoses, problem list, care plan, dates of service, and providers. HPN has invested substantial time and funding developing a viable information system. In May 1999,
work began with a third vendor to develop a multifaceted application that came to be known as the Integrated Care Management System. The system incorporates the health-risk screen, assessments, and care plans and provides a number of case status and productivity reports. ACM began using the Integrated Care Management System in August 2001. Hospital continuity of care and home health care linkage into the system will be phased in during 2003.

The Integrated Care Management System is most important in taking the care manager from assessments (including supplemental assessments) to protocol-driven care plans. Care plans then trigger and record case management activity. Many of the reports generated by the system monitor the status of this activity. The electronic care plan and associated activity is designed to be used by ambulatory care coordination, home health, chronic home care, hospital discharge, and other HPN units.

The Integrated Care Management System effort at HPN shows the importance of vendor selection and the complexities of designing a system to meet the complex needs of an HMO. Implementation of the system occurred too late for its effects on program practices to be examined and incorporated into the present analysis. It is likely that this information system will improve provider communications, help standardize care planning, and improve guideline adherence. Issues of operating costs and efficiencies remain open concerns for future analysis.

Service Utilization Trends

The development and implementation of the Social HMO program within HPN did not occur instantaneously in 1997. Many programmatic elements, as delineated in the preceding sections, were initiated and modified at varying times between 1997 and 2001. Recognizing this, the question nevertheless remains, Is there a demonstrable effect of HPN’s Social HMO program? Four measures of health plan use (i.e., hospital discharges, bed days, emergency room use, and access to selected of the Social HMO expanded care benefits) are examined here as one basis for answering this question. Data come from unpublished utilization reports (Health Plan Employee Data and Information Set) prepared by HPN (2001) for CMS. These data are aggregated on a per-1,000-member basis. Analyses of individual-level data were not included in our case study contract. Analyses are limited to a utilization rate comparison of HPN’s staff clinic and the network medical groups (see Appendix, Note 3). These comparisons take advantage of the naturally occurring difference between these groups in when the care coordination and geriatric support features of the Social HMO model were implemented. Most features were available earlier and more consistently in the SMA clinics than among network physicians.

Inpatient Acute Bed Days

Given the phased implementation of care coordination and other programmatic elements, one might assume that Social HMO effects (i.e., differences between clinic and networks) would be minimal in 1998 and would grow over time. Such a pattern is shown in Table 1, with clinic and network patients evidencing little difference in bed days and discharges per 1,000 members in 1998 and 1999, but with a more than 20% difference in bed days and discharges per 1,000 members emerging by 2000.

<table>
<thead>
<tr>
<th>Services and Physician Groups</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA clinics (per 1,000 members)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient bed days</td>
<td>1,110</td>
<td>1,240</td>
<td>1,099</td>
</tr>
<tr>
<td>Inpatient discharges</td>
<td>238</td>
<td>266</td>
<td>222</td>
</tr>
<tr>
<td>Physician visits</td>
<td>6,574</td>
<td>6,619</td>
<td>8,110</td>
</tr>
<tr>
<td>Emergency room visits</td>
<td>246</td>
<td>172</td>
<td>173</td>
</tr>
<tr>
<td>Network PCP (per 1,000 members)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient bed days</td>
<td>1,211</td>
<td>1,294</td>
<td>1,412</td>
</tr>
<tr>
<td>Inpatient discharge</td>
<td>271</td>
<td>266</td>
<td>285</td>
</tr>
<tr>
<td>Physician visits</td>
<td>5,469</td>
<td>5,795</td>
<td>7,436</td>
</tr>
<tr>
<td>Emergency room visits</td>
<td>257</td>
<td>204</td>
<td>158</td>
</tr>
</tbody>
</table>


Physician and Emergency Room Use

The Social HMO program includes preventative risk identification, support to primary care, and the coordination of primary care with extended care benefits. These processes are intended to generate timely medical attention and other assistance. Over the short term, such processes might be expected to increase physician encounters, and over the intermediate and long term to reduce emergency room and hospital use. Returning to Table 1, SMA clinics show higher (which might be expected) physician and higher (which might be unexpected) emergency room utilization per 1,000 members than do network physicians. Emergency room visit rates, however, are decreasing in both groups, and physician use is increasing. Of note, too, is that as physician use rates have gone up in the clinic sites inpatient days and discharges have declined. A similar pattern is not present for IPA sites. Taking hospital and emergency room patterns together, it is unclear what portion of inpatient day changes may be the result of aggressive hospital management versus primary care coordination.

Extended Care Benefit Use

Access to extended-care benefits is another defining feature of the Social HMO program. Table 2 shows the rate of use for selected of these benefits. Access to all services, measured by units of use per 1,000 members, has expanded markedly over these 3 years. One might expect no substantial differences among the clinic and network members in the use of these services
Conclusions and Recommendations

There are important lessons from HPN’s implementation of the Social HMO program. One of these stems from this plan’s experience initiating a demonstration in a health plan where almost the whole Medicare membership (rather than a small sample) came into the demonstration at baseline. On the positive side, this created a strong incentive for the organization to adapt its communication and service support infrastructure to the needs and expectations inherent in the Social HMO’s geriatric service model. HPN’s good-faith commitment to making needed changes offset many of the logistical challenges inherent in enrolling such large numbers of members (e.g., backlogs in completing assessments and care plans; evolving operational procedures while recruiting and training critical staff). HPN’s commitment is evident in a number of ways, many of which came to fruition between 1999 and 2001:

• allocation of strong, determined, and consistent administrative leadership for this program
• development and refinement of an ACM structure that is built off of the health-risk screening data and functions as a communications center linking risk identification, home assessment, and expanded-care benefits with primary care
• development of the Chronic Home Care Program to provide nursing, therapy, and other direct services in the homes of high-risk individuals
• continued refinement of care coordination and communications processes that connect hospital continuity of care, home health care, and ambulatory care
• creation of care-planning protocols that link social and health needs assessments to extended-care benefits and other HPN resources
• recruitment of geriatricians and the creation of a Geriatrics Department with geriatric clinics (e.g., cognition/dementia, falls and mobility, extended assessment, incontinence, and polypharmacy) and special programs for managing nursing home and group home patients
• creation of program innovations such as maintenance therapy, care management for group housing residents, interdisciplinary team rounds between the ACM teams and PCPs, and the provision of a geriatrics rotation for the University of Nevada Medical School
• effort (and expenditures) to implement a comprehensive on-line information system known as the Integrated Care Management System that links physicians, hospitalists, care coordinators, and other HPN providers.

Although it might be argued that some of these innovations could be done under conventional Medicare funding or even in fee-for-service reimbursement, it should be recognized that the impetus leading to these developments came under the incentives and risks associated with Social HMO funding. Further study of this infrastructure and innovative geriatric programs could possibly identify the most effective of these practices and perhaps help stimulate their adoption by Medicare + Choice HMOs and other programs. Such analyses may require experimental designs and the generation of comparison samples not currently present in the HPN operation.

A second lesson has to do with the time needed for program development, refinement, and acceptance—all before outcomes can be realistically achieved. HPN took on the challenge of reengineering its clinical operations while accepting financial risk (under a new reimbursement formula) for the health care of more than 25,000 Medicare beneficiaries. Much has happened since 1996 when this program was first launched, but none of it happened instantaneously. Programs and approaches had to be initiated, phased in, appraised, and refined. These processes were generally easier to accomplish within staff model clinics than among a network of independent practices, but even in the clinics progress was uneven. Ideas were tried, abandoned, revised, and retried. The net result is that HPN took 3 years to establish its Social HMO program among its staff physicians and somewhat longer among network physicians.

The third lesson is connected to the second and has to do with program evaluations and how they are timed relative to program operations. Whereas HPN took a mere 3 years to establish its program among its clinics, the health plan was unwilling to maintain a comparison sample drawn from its members further into a period of steady-state operation. As a consequence, analyses of health plan performance comparing the Social HMO and comparison sample of those under “usual care” is limited to the period 1997

Table 2. Extended Care Benefit Utilization, 1998–2000, Clinic Compared With Network Members

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SMA clinics (per 1,000 members)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daycare visits</td>
<td>133</td>
<td>193</td>
<td>453</td>
</tr>
<tr>
<td>In-home respite visits</td>
<td>255</td>
<td>435</td>
<td>1,296</td>
</tr>
<tr>
<td>Home help visits</td>
<td>1,930</td>
<td>3,222</td>
<td>7,670</td>
</tr>
<tr>
<td>Nutrition visits</td>
<td>40</td>
<td>403</td>
<td>1,147</td>
</tr>
<tr>
<td><strong>Network PCP (per 1,000 members)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daycare visits</td>
<td>65</td>
<td>91</td>
<td>181</td>
</tr>
<tr>
<td>In-home respite visits</td>
<td>124</td>
<td>77</td>
<td>991</td>
</tr>
<tr>
<td>Home help visits</td>
<td>1,316</td>
<td>1,909</td>
<td>5,072</td>
</tr>
<tr>
<td>Nutrition visits</td>
<td>35</td>
<td>279</td>
<td>1,052</td>
</tr>
</tbody>
</table>

through March 1999 (Wooldridge et al., 1999). In this particular situation, there is a mismatch between the evaluation period (i.e., the program start-up) and the presence of “testable” programmatic features. The potential of Type II error, the failure to identify program effectiveness when it exists, is very high in this situation.

Any future evaluation of HPN’s outcomes, either with or without a comparison sample, may be informed by differentiating the clinics from the network members. More ideally, any such evaluation should measure outcomes across a time frame appropriate to programs that have an expected delay between a preventative intervention and effects on utilization and health status outcomes. As the maintenance of an uncontaminated comparison group across an extended period proved to be impractical within a single health plan (in this Social HMO demonstration), it may be necessary to use other approaches for comparison samples in any future evaluations of Social HMO program effectiveness and of its payment methodology.

In spite of the limitations in the evaluation design, some conclusions can be drawn about the performance of HPN’s Social HMO program and the extent to which it met the government’s expectations. Findings reported here compare utilization between patients empanelled with SMA clinic physicians and those enrolled with the network physicians. Both groups showed higher use of physicians in 2000 than in 1998, lower emergency room use, and use of expanded-care benefits that well exceed CMS’s minimum requirements. These trends are presumably in the desired direction and are perhaps indicative of system inputs to the model. More indicative of a prevention outcome is that clinic patients (who have been exposed to a higher and earlier “dose” of care coordination) had lower hospital use than patients who used network physicians. These findings are not definitive as they do not adjust for possible differences in case mix among the groups, or for how this case mix may have changed over time, but they at least suggest that elements of the model may be beginning to work as expected.

The final lesson is a reflection on a broader policy challenge and possible secondary outcomes of the Social HMO program. How important is it for the government to stimulate experimentation and innovation in care for aged and disabled persons? If it is important, how might this be done? In the specific example of HPN, a number of service innovations have been implemented, along with an extensive infrastructure for care coordination. Within fewer than 5 years, these programs acquired a role within medical education and have the potential for adoption by other health plans. Is public policy better served by abandoning these accomplishments or by somehow working to refine, document, and disseminate them? Further, assuming that many of HPN’s operational features are (or can be made) efficacious, is it necessary (or even desirable) that all Medicare health plans have a similar infrastructure and risk-adjusted payment methodology? An alternative might be to have a limited number of Social HMO-type plans, but with each having the mission of developing and maintaining an infrastructure appropriate for a high-risk frail population. Working with CMS, such programs could perhaps serve as centers of excellence, innovation, and experimentation.

The Social HMO program, as implemented by HPN, has produced one example of how Medicare and health providers might work together to further test and refine clinical practice, but there are many unresolved issues in how to integrate acute and long-term care that might help define the priorities for any future centers for clinical excellence. In addition, there are the challenges of how to effectively diffuse care coordination and geriatric service innovations in network models and how to track the interrelationship between good community-based geriatric care and the quality and duration of long-term care.

References

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Appendix

Notes
1. Almost all (97.3%) Senior Dimensions members are enrolled as Social HMO members. Those not in this status had not completed their health-risk screening questionnaire, were living outside the Social HMO’s service area, or were not eligible for both Parts A and B of Medicare.
2. Before this, staff from the Geriatrics Department held voluntary monthly lunch time meetings with physicians to discuss complex cases. These were also called interdisciplinary team meetings.
3. Comparisons between HPN’s Social HMO and in Medicare + Choice members are limited by the small number of HPN’s Medicare members in the Las Vegas area who are not enrolled in the Social HMO (about 3%).
4. The increase in use between 1998 and 1999 includes a transition from the demonstration evaluation design, when about 30% of the HPN members had been excluded from access to these benefits, to the extension of benefits to virtually all Senior Dimensions members.