RECORD OF SOCIETY OF ACTUARIES
1990 VOL. 16 NO. 1

HOME HEALTH CARE PRODUCT DEVELOPMENT ISSUES

Moderator: DAVID B. TRINDLE
Panelists: SANDRA L. CASHMAN*
ROBERT L. MOLLICA**
GUENTHER RUCH***
JOSEPH J. WALLACE
Recorder: WILLIAM H. WATSON, III

- o The marketing challenge
- o Insurability of the risk
- o Plan design
- o Sources and limitations of pricing data
- o Managed care programs
- o The provider's viewpoint
- o Experience under public programs

MR. DAVID B. TRINDLE: Our discussion will focus on the issues involved in designing and pricing home health products. These issues include: (1) the viability of home care as an insurable risk; (2) sources and limitations of available statistics; (3) the economics of home care providers; (4) how regulators view the market; (5) experience under public programs; and (6) the nuts and bolts of putting together an actual policy.

Over the past 12 months, I have seen a tremendous growth in the number of products providing substantial home care benefits both in the form of stand-alone coverage and combined nursing home health coverage. Clearly, the concept of home care insurance is generating a great deal of activity and interest within the insurance community. When I begin working with a client on a home care product, I try to stress three key points:

1. This is an experimental coverage, very little is known about home care practice or its utilization pattern. Useful statistics are virtually nonexistent;

2. Home care is not simply another product upgrade like inflation coverage or respite care. It represents a major increase in the potential liability of a long-term care program. It represents a substantial increase in the uncertainty of future profits.

* Ms. Cashman, not a member of the sponsoring organizations, is Account Executive at Upjohn Healthcare Services in Kalamazoo, Michigan.

** Mr. Mollica, not a member of the sponsoring organizations, is Assistant Secretary of the Executive Office of Elder Affairs in Boston, Massachusetts.

*** Mr. Ruch, not a member of the sponsoring organizations, is Director of the Bureau of Market Regulation at the State of Wisconsin Office of the Commissioner of Insurance in Madison, Wisconsin.

3. Like nursing home coverage, home care utilization will experience a steep aging curve. Loss ratios will increase dramatically as the business matures. Therefore, it's important to put short-term results in perspective.

Overall, our recommendation to carriers considering a home care product is to proceed with caution. The developments in the field of home care represent a great challenge to the actuarial profession. The introduction of new products and liberalization of existing products has intensified at a frantic pace. Favorable, early loss ratio experience on long-term care has created an unjustified sense of euphoria in the insurance community. As a result, carriers are freely taking on enormous additional risks.

The financing of home care and long-term care is emerging as an important social and political issue. As government leaders face the ever increasing budget pressures, the private sector is moving forward to fill this tremendous need. The question remains whether the private sector can pull it off. With the recent savings and loan scandal fresh in the minds of the public, there is a growing concern as to whether the private alternative is any more viable then a public one. There's going to be a great deal of focus on the performance of the private sector. As with Medigap there is a potential for criticism for sales practices, product design, claims practices, underwriting and loss ratios. The actuarial professional is clearly on the forefront of this issue. Our role is to bring as much factual information and actuarial discipline to the decision making process as possible. We must draw attention to the nature of the risk being taken and its potential financial consequences. Finally, we must constantly remind companies of the long-term nature of the risk that they are taking and insure that adequate provision is made to fund the expected increase in claims as the business matures.

Our first panelist is Sandy Cashman. Sandy is Account Executive with the National Sales and Marketing Division of Upjohn Services, a major national provider of home care services. She is both a registered nurse and an MBA. Prior to her current position at Upjohn, she was the director of home care for a hospital based agency. She is now responsible for negotiations of national contracts and agreements for home care services with both case management and insurance companies. Sandy will start off the discussion with the general description of the home care provider market place. She will give us the provider's perspective on the current trends in home care and the impact of private insurance.

MS. SANDRA L. CASHMAN: Home health care is one of the fastest-growing areas in health care today. Why? Because it is cost-effective and humane. For the next few minutes, I'd like to briefly discuss the definition and history of home care, then talk about its relationship with third-party payors, and last, I'll explain how home health care and the typical agency works and how it can reduce your costs and deliver optimal service to your insurance customers.

First, let's look at a very simple definition of home care: It is health care, social support, and environmental services outside an institution. That may seem simplistic, but you'll soon see that this definition sums it up well.

HOME HEALTH CARE PRODUCT DEVELOPMENT ISSUES

Home care is not new. Back in the late 1700s, the well-to-do patient was treated by the physician at home. Only the poor and homeless went to the hospital.

The roots of our present day system of home care can be found in 19th century England. William Rathbone showed how well nurses could be used to care for the sick poor in their home. The reasons for the effectiveness of home health nursing are the same today as those cited in 1859:

1. Many long-term illnesses are better treated in the home.
2. People prefer to be with their family in their homes.
3. The cost of health care in the home is usually far less than care in hospitals.

The end of the 19th century, many large cities had formed some sort of home nursing service.

Let's now move to the present century. After World War II, Montefiore Hospital started a hospital-based home care program which provided medical, nursing, and social service; housekeeping; medications, transportation; and occupational and physical therapy. The program was unique because service was not limited to the poor or the elderly.

However, even as Montefiore was promoting the advantages of home care, advances in medical technology following the war led to close monitoring of patients who required complex medical equipment and/or treatment regimens. This resulted in increased emphasis on the hospital as the site for health care services.

In recent decades, the extension of life expectancy, the increasing number of elderly, the prevalence of chronic disease among older patients, and fewer family support systems, have also increased our dependency on nursing homes and other institutions, especially for long-term care.

In recent years, however, the health care pendulum has begun to swing back. Now, home and community-based care are again being recognized and emphasized. Legislators, payors, and the public are realizing that home care, in conjunction with physician supervision, results in greater patient satisfaction and, in many cases, improved patient outcomes. Psychologically, people recover more quickly at home.

Medical technology has increased both general life expectancy and the survival of patients with serious, long-term illnesses who would have died not many years ago. These patients often need ongoing medical supervision and other health and personal care services to be rehabilitated to the highest possible level and to be maintained in safety, comfort, and dignity.

For many, this kind of long-term care is very costly when delivered in an institutional setting. Prospective payment for hospital care was Medicare's response to rising hospital costs, and the implementation of DRGs increased the demand for home care services. Advances in medical technology and the high-tech skills of nurses have also made it feasible to move high-technology services and equipment into the home setting and provide care safely and effectively.

However, no one fully anticipated in the 1950s and 1960s the kind of demand for home care that would develop as funding, limited as it was, became available for home care.

Perhaps the most publicized driving force for third-party coverage is the economic advantage of home care over institutional care.

To illustrate this, let's look at some cost-comparisons between treatment in a hospital and treatment in the home. Our first three examples were compiled by the National Association for Home Care in 1988.

The monthly cost of treating a newborn with feeding problems in the hospital can run more than $60,000 monthly. Costs for comparable home care would cost approximately $20,000, a savings of $40,000.

The annual cost of care for a ventilator-dependent person in a hospital? $270,830. Costs for home care? Under $21,192. The per-month in-hospital cost of care for a quadriplegic patient with spinal cord injury? $23,862. Comparable care at home? $13,931. And a final example. In a cost-comparison provided by Aetna insurance, intermediate care for an elderly patient in a nursing home is approximately $2,450 per month as compared with $1,650 per month for home care.

This last example is especially significant in today's aging society. When one examines the difference between services covered by Medicare with the services not covered -- one can see a real need for long-term care insurance for the senior population.

The Medicare program provides services that are skilled, acute and short-term through certified agencies.

Because the private insurance industry has closely followed Medicare's guidelines for reimbursement for home care, the need for long-term care insurance that can fill the gaps becomes even more urgent.

When one looks at the number of people over the age of 65 with major growth occurring in the 85 and older group, it is significant to note that these people will not die from the usual things but they will live on with decreased independence. Thus, they will really need support services in the home, not necessarily skilled medical services, but support services. Something that I'd like to call low-tech home care. These are home care services that are not traditionally covered by Medicare and they are full time nursing or personal care, custodial or preventive care, housekeeping, comfort and convenience supplies and equipment and drugs and biologicals.

Care-giving has been profoundly affected by social changes in families. The narrowing of family size, a decrease in extended families in which several generations live together, the overall aging of our population, the mobility of family members, the increased proportion of older people without family members who are living alone, and most of all the need for increasingly sophisticated methods of care which family members are usually not able to provide.

HOME HEALTH CARE PRODUCT DEVELOPMENT ISSUES

Much of the care for disabled elderly persons at home is provided by their spouses, who are often elderly themselves. Responsibility also often falls to grown children, leading to the term "the sandwich generation." This generation is made up of middle-aged people who are helping their children become independent while at the same time helping their elderly parents stay independent.

Even where there is a dependable and committed family to care for the patient, the stress of long-term care may be more than the family can handle if respite care is not available. Therefore, you may find that families need assistance from home care agencies in order to maintain the patient at home.

Today, over 15,000 organizations in the United States provide home care services. One-third of these are certified home health agencies. The 15,000 home health organizations represent several different business structures:

1. "Official agencies." Ex: public health departments
2. Not-for-profit home health agencies.
3. Hospital-based home health agencies.
4. A proprietary agency. Ex: Upjohn HealthCare Services.
5. Or individual private duty nurses who are self-employed.

Most home care companies have services available 24 hours/day, seven days/week. Each certified agency is required by law to have a registered nurse to oversee the clinical aspects of care.

But how does home care work? Well, at Upjohn we establish an appropriate plan of care for each client, after first visiting the person and his or her family and talking with the doctor to determine their precise needs before home health care begins.

After the appropriate home care workers have been selected, we work with the client's physician to prepare a written plan of care and a schedule for the client. This schedule includes provisions for daily care, case supervision by an RN and follow-up for long-term cases. During this follow-up, caregivers note the client's progress, and if a client's needs change, we see to it that the care he or she receives changes appropriately.

For instance, a seriously ill person may at first need a full-time nurse. But as this person recuperates, he or she may need only the care of a home health aide. Delivering the right level of care is an important part of our service so that people don't receive unnecessary care, and payors don't pay for it.

In the typical client management process, the following functions are ongoing:

1. Assessment -- data and physical findings always change
2. Planning -- setting goals for the patient almost always with the ideal goal of discharge in mind
3. Intervention -- doing what you plan -- e.g., teaching, woundcare, custodial care
4. Evaluation -- how did it work -- then reassessing

Home care personnel can assist clients to maintain their independence by providing assistance with one or more activities of daily living (ADL) and several (instrumental) IADLs.

Now let's examine what a typical long-term care (LTC) policy covers. If I use a model of 20 or 100 days deductible and $25-50/day home care benefit this is what I see: First lets look at some pricing for RN's and Home Health Aides around the country. If we use a national average we get about $11.62/hr for Home Health Aids and $35/hr for Registered nurses.

If someone had to have daily care to meet the deductible period and we use a base of two hours (that's the minimum most agencies will send staff out for) you have a base of $23.24 HHA X 20 days = $464.80 deductible. $70 RN X 20 days = $1400 deductible.

This doesn't even begin to speak to the 80% insurance portion and the 20% copay on the remainder.

Obviously if the individual needs more than two hours of service you can all figure what the proportionate costs will be.

Let me use Physical Therapy as an example. Assume Medicare has ceased coverage and your client needs Physical Therapy daily or maybe the spouse needs to learn transfer techniques.

Assume the average Physical Therapy visit is about $75 -- then 7 days = $525 and 20 days = $1500. If they had a $25 benefit, they would have $50/day liability out of pocket.

I am not placing judgment on these policies only trying to highlight how critical it is to access what area of the country your dealing with and making sure your customers can distinguish between what Medicare covers and what their LTC policy will cover: Be sure your customer understands their potential liability.

Now lets go back and look at the potential markets. The projected volume for home health care in 1992 is $8.7 billion, a substantial increase from the 1987 figure of $6.8 billion. That's a growth rate of 5% per year.

During the same period, the number of individuals receiving home care is projected to rise to 3,218,000 -- a 6% increase per year -- with the largest increase in drug/IV therapy at home. Obviously, home care is a growing market. Here are some of the reasons.

As we've discussed, one reason is the "graying of America," or with our youth-oriented generation, perhaps I should say, the "tinting" of America.

By the next century there will be 50 million persons over 65 years old -- the age group needing the most medical care. Surveys show that these people are generally healthier and happier in their home than in hospitals or nursing homes. Some researchers estimate that by 2030, 18% of the U.S. population will be over age 65!

HOME HEALTH CARE PRODUCT DEVELOPMENT ISSUES

FACT: Two-thirds of all the people in the history of the world who have ever lived past the age of 65 are alive today.

How does aging figure into the growth of home care? In 1980, the 65 and over population accounted for 38% of all hospital inpatient days and 89% of all home health agency visits. By 2040, those figures are projected to rise to 59% of hospital inpatient days and 95% of home health agency visits.

Since over 80% of private insurance policies now offer home care coverage, and home care is definitely less expensive than hospitalization, you can see the reason for increased interest in home care.

As we outlined earlier, a reason for the growth of home care is cost-containment. Both government agencies and insurance companies are supporting home health care programs, which often prove far less expensive than hospital care.

In general, we are moving away from our longstanding reliance on institutional care, even for long-term care cases. Comprehensive long-term care encompasses the physical, medical, emotional, and financial well-being of the patient. More loosely, it can also refer to assistance with the activities of daily living on an extended basis.

Distinguishing characteristics of most long-term care insurance include the following: The condition covered is a serious functional disability. The type of care is frequently of long duration, provided by both formal and informal caregivers in both institutional and noninstitutional settings.

Success in reducing long-term care costs requires full coordination between the acute and long-term sides of the health care business. Cost-control must be a planned joint effort.

And increased coordination is inevitable because public attitudes on long-term care are changing. Some polls indicate that as many as 78% of the U.S. population favor increases in spending for senior health programs and that 50% of adults age 40-79 would purchase long-term care insurance.

I think sometimes we worry about the elderly not having adequate revenues, but according to *Modern Maturity,* the magazine of the American Association of Retired Persons (AARP), people over 50 represent $100 billion in discretionary income -- that's over one-half of all the disposable income in the United States. Eighty percent of all dollars in banks and savings and loan institutions belong to the 65 and over age group.

All of this -- a change in attitude, a change in options, a change in priorities -- is evidenced by the number of companies selling long-term care insurance.

A 1988 Health Insurance Association of America analysis of nine employer-sponsored long-term care insurance plans revealed that the typical plan looked like this:

Services covered included skilled, intermediate, and custodial nursing home care; home health care and adult day care. Persons eligible for these services included employees and spouses and usually parents of both as well as retirees and their spouses.

We have a growing financial imperative to manage care and the cost associated with that care. The risk is shifting from the public side to the private side.

Medical breakthroughs such as chemotherapy, total parenteral nutrition (TPN), IV antibiotic therapy and respiratory care have allowed even more patients to return to their homes. Just a few years ago, they wouldn't have been able to leave the hospital. And as we've seen, the difference between the cost of a visiting nurse versus the cost of a hospital stay can be significant.

Personal desire is another factor in the growing home care market. There is an increasing awareness of the limits of modern medicine. Many patients and families seek a more humane and holistic approach to health care as evidenced by the hospice movement.

The benefits of home care include the comfort of being at home instead of a nursing home, hospital or other institution . . . of being as independent as possible so that other family members can maintain their usual routines . . . of having the assurance that you are receiving the right kind of health care and the right amount of care . . . so that costs are kept to a minimum.

So now you know why when Dorothy found herself back in Kansas after her travels to Oz, she learned something that all of us in this room already know: "There's no place like home."

MR. TRINDLE: Our next speaker is Robert Mollica. Bob is currently Assistant Secretary of the Massachusetts Executive Office for Elder Affairs. He's the author of *Use of Home Health Care Services* by Frail Elders. This is one of the most useful papers available on the subject of home health care. It's one of the few that looks at home health care utilization in an environment not strictly constrained by the Medicare program. Bob will describe how the study was conducted and its primary findings and how the information might be useful to insurance companies in designing and pricing home health care coverage.

MR. ROBERT L. MOLLICA: Long-term care continues as a leading challenge to federal and state policy makers and insurers offering or developing long-term care products. While discussion on a national policy continues, states are accumulating valuable experience as they operate and refine models to manage long-term care systems. This experience is drawing interest from insurance companies interested in contracting with case management systems to manage their long-term care benefits. A number of states have well developed case management systems that:

- screen and assess eligible applicants;
- authorize and manage services; and
- operate in a cost effective manner.

Across the nation, the capacity and the models for managing such an extensive system vary, but the basic elements have been working for several years in states with the larger community based service systems.

Questions about state systems include: how do they operate? Can they be managed effectively? What do the benefits cost? Can states manage programs within set budget guidelines? Do they accurately screen people for services?

This presentation describes the community based system in the Commonwealth of Massachusetts. The Executive Office of Elder Affairs was established in 1974 as one of the nation's first cabinet level agencies serving senior citizens. While our mandate is broad, the majority of our state resources are devoted to helping frail elders live independently.

STRUCTURE AND STATE ROLE

Elder Affairs contracts with 27 nonprofit Home Care Corporations (HCCs). Home Care Corporation staff determine client income and functional eligibility for services, assess service needs, authorize and monitor services, and coordinate with other community agencies to meet client needs. Actual services are delivered through subcontracts between the 27 Home Care Corporations and local provider agencies. In 20 areas, the Home Care Corporation is also designated as the Area Agency on Aging (AAA) under the Older Americans Act. In three areas, covering seven Home Care service areas, the AAA is a separate agency from the Home Care Corporation.

The state agency has a very strong role in managing the program. Elder Affairs sets policy, issues program regulations and guidelines, allocates funds, approves contracts, conducts audits and training, and generally manages all aspects of the program.

Elder Affairs approves contracts with case management agencies with two separately negotiated budgets -- services and case management/administration. The separation of funding into two major components allows decisions to be made in conjunction with, but independent of one another. There are no incentives for agencies to artificially increase caseloads to expand case management staff. In fact, caseloads and service levels must be managed within the allocation of service funds.

SERVICES

The home care service package includes homemaker, personal care, respite care, home delivered meals, chore, transportation, social day care, companion and protective services. Skilled nursing, home health aide and therapies are available to elders who are not eligible for Medicaid.

The nursing home preadmission screening functions are currently being transferred from the Medicaid program to the Elder Affairs' system. Locating staff who control nursing home admissions and access to community services increases the opportunity to create a service plan that allows elders to live at home. The number of people seeking placement in nursing homes who have been "diverted" and maintained in the community has doubled.

Personal care and home health were added in 1984-1986 to improve our ability to provide a more comprehensive array of services to frail elders. Personal care assists frail elders with the primary activities of daily living -- personal hygiene, dressing, eating, getting to the bathroom -- that are critical to helping elders avoid placement in a nursing home. Home Care Corporation nurses assess, authorize and monitor personal care and home health services to make sure appropriate care is provided.

RESPITE CARE

The Home Care Program has historically focused on clients who live alone, or with their spouses, and need services to remain at home. Seventy-five percent of our clients live alone, and 15% live with their spouses. The program was expanded in 1986 to help support the care rendered by families and relatives. Respite care is a valuable service for families trying to cope with demands and strains of frail relatives, particularly relatives with Alzheimer's Disease.

The program spends $3.1 million to provide relief to 1200 caregivers each month who live with, or near, a frail relative and who provide daily care.

CASELOAD AND SPENDING

In fiscal year 1990, the Executive Office of Elder Affairs will spend $123 million on Home Care services to an average of 39,000 clients a month. Recent fiscal difficulties have reduced the state funds available to support the program.

CASE MANAGEMENT

The core service of our Home Care Program is case management. It is the primary gatekeeper and case managers who determine health and functional problems, the services needed to supplement family and friends, eligibility for other programs and how multiple agencies serving the same client will coordinate their activities.

The Home Care Corporation nurses and case managers determine a client's income and functional eligibility for services, assess service needs, authorize and monitor services, and coordinate with other community agencies to meet client needs.

TARGETING RESOURCES

An effective community care network requires an accurate tool for assessing functional impairments and identifying elders who are at the greatest risk of placement in a nursing home. We base our eligibility on functional impairments. A standardized, statewide tool is used that assesses the functional status in activities of daily living, instrumental activities of daily living, the cognitive and emotional status of the client, informal supports, and the medical and physical conditions requiring treatment.

Case managers rate the client's functional status based on their ability to perform ADL and IADL tasks either without assistance, with assistance, or not at all. See Table 1 for the functional areas covered by the assessment tool.

Elders are rated as impaired in an ADL if they need another person to assist with the activity. Case managers note whether the client is unable to perform an activity (client assists minimally with less than half the activity) or performs the activity with assistance

TABLE 1

Activities of Daily Living	Instrumental Activities of Daily Living
Bathing	Housework
Dressing	Shopping
Continence	Meal preparation
Toileting	Transportation
Eating	Money management
Mobility (Inside)	Taking medications
Transferring (Bed/Chair)	Using telephone
	Outside mobility
	Laundry

(client does more than half the activity). These distinctions are necessary to determine the appropriate service. Elders are not considered impaired in an activity if they require mechanical assistance or perform the activity with difficulty. A client has an IADL impairment if they are unable to perform the task at all, or if they require assistance in performing the task.

In each ADL and IADL area of impairment, case managers note the reason for the impairment (physical, cognitive or emotional) and who helps the client, if anyone, with the activity (formal support, informal support). The case manager also records whether a family member, spouse, or other caregiver is available and willing to help with these activities. If not, home care services are authorized to assist the elder. If others are available to meet the need, services are not authorized.

After completion of the assessment, case managers determine the number of ADL and IADL impairments and assign a Functional Impairment Level (FIL) rating. Clients with more than four ADL impairments receive the highest service priority (see Table 2).

TABLE 2

FIL I	4-7 ADL Impairments
FIL II	2-3 ADL Impairments
FIL III	6-10 ADL/IADL Impairments
FIL IV	4-5 ADL/IADL Impairments
FIL V	2-3 ADL/IADL Impairments

Clients with two to three impairments (FIL V) are eligible for a limited service package which includes companion, chore and transportation. Seventy-two percent of the elders receiving services are rated FIL I through FIL III.

Once the assessment is completed, the case manager uses the Comprehensive Services Plan to document the care provided by family members, the services available from other funding sources, and the needs that will be met by our program. If personal care is needed, a personal care plan is completed by a nurse. The form, with its detailed instructions, is sent to a provider agency. Service planning is the critical phase that helps control our program costs.

We are presently field testing a new integrated assessment instrument that will be used for nursing home care and home health services in addition to our home care services. The new tool will consolidate the documentation for all health and functional areas.

SERVICE COSTS

That is a pretty complete summary of how our system operates. Now lets talk about what it costs. Clients who receive home health and home care services under our program are comparable to those who would be served under many insurance policies and several proposed federal programs (2 ADLs).

We followed a sample of home health clients for two years. During that time, 41% were discharged in the first-year and 29% in the second year (total 70% discharged in two years). The average length of stay for those discharged was 6.8 months. Thirty percent of the sample remained in the program at the end of the second year and their average length of stay was 16.7 months. Clients used an average of $1,047 in home health services the first-year and $1,405 the second. Home care utilization was between $2,100 and $2,150 each year and total costs were $3,194 the first-year and $3,527 the second. Rates have increased about 10% since the data were collected.

The first-year was a start up period. Average lengths of stay increased from 6.5-8.4 months in the second year. Table 3 also shows the importance of the service mix. Eighty-three percent of the clients used both home health and regular home care program services such as personal care, homemaker, home delivered meals, and other services. While many policies cover home health care, homemaker, personal care, chore services and home delivered meals are also important. The availability of these services, and a case management agency with access to them, may determine whether a policy-holder uses community care or their nursing home benefit.

AVERAGE COSTS BY SERVICE

The average monthly costs give a better picture of service utilization. Table 4 shows the average cost per month for home health services was $212.52 in the first-year and just under $200 in the second year with the bulk of the costs for home health aides. The average monthly cost for other home care services for all clients was $241.35 and $261.28 per client month, and the total costs for both home health and home care services were $453.87 and $458.20 each year per client month.

TABLE 3

Average Total Costs for All Clients

Service	Percent	1st year	2nd year
Skilled nursing	93.3%	$288.77	$384.23
Home health aide	65.3	744.32	1,012.75
Physical therapy	14.7	12.81	8.08
Total home health		$1,047.90	$1,405.06
Homemaker	72.7%	$1,388.36	$1,392.13
Personal care	39.3	556.94	531.73
Heavy chore	3.3	22.78	2.92
Light chore	4.0	14.86	6.37
Delivered meals	34.7	163.11	189.56
Total home care	82.7%	$2,146.05	$2,122.71
Total combined		$3,193.95	$3,527.77

TABLE 4

Average Cost Per Month for Home Health Services

Service	First-Year Cost	Second-Year Cost
Skilled nursing	$ 63.13	$ 61.77
Home health aide	143.58	128.78
Physical therapy	5.81	6.37
Total	$212.52	$196.92
Homemaker	$153.40	$175.43
Personal care	63.75	58.87
Heavy chore	1.90	.74
Light chore	1.69	.86
Meals	20.62	25.38
Total home care	$241.35	$261.28
Total combined	$453.87	$458.20

Table 5 looks at the average costs for clients who use specific services. In year 2, the average cost per month for home health aides was $128.78 for all clients. Yet only 65% of the clients used the service. For those who used home health aides, the average cost was $205.59.

TABLE 5

Monthly Costs for Clients Using Service

Service	First-Year	Second-Year
Skilled nursing	$ 68.76	$ 63.16
Home health aide	235.05	205.59
Physical therapy	68.77	82.97
Homemaker	213.05	221.72
Personal care	159.38	140.97
Meals	63.12	67.94

Average nursing costs were $63.16 per month in the second year. Clients who just received skilled nursing services, 25% of the sample, had an average cost per month of $129.80, almost two times higher than the average nursing costs.

COST AND ADL IMPAIRMENTS

Clients with more ADL impairments had higher costs than those with fewer ADL impairments. Table 6 presents costs by FIL for discharged clients who used each service. Total costs are averaged across all clients. FIL I clients had an average monthly cost for home health services of $265.33, compared to $237.73 for FIL II clients and $208.75 for FIL III clients. FIL I clients used less skilled nursing than either FIL II or FIL III clients.

Costs for home care services also varied by FIL. Homemaker costs were highest for FIL II clients, and about the same for other clients. However, personal care costs were highest for FIL I clients and lowest FIL III clients. Home delivered meals were fairly even for all FIL ratings. Variations in home care costs were attributable to the availability of support from caregivers.

COST AND LIVING ARRANGEMENT

Except for FIL III clients, elders who lived alone had lower home health costs than elders who lived with a spouse or family member. However, elders who lived alone had higher homemaker costs than those who lived with someone else, regardless of their FIL rating, and they had higher total combined home health and home care costs (Table 7). Home Care costs for FIL I elders were generally lower since relatively more FIL I clients received home health services and did not receive home care services and Table 6 costs were averaged among all sample members. Personal care costs were comparable

for elders regardless of their living arrangements. Costs for home delivered meals were slightly lower for clients who had caregivers.

TABLE 6

FIL and Monthly Cost of Services for Discharged Clients

Average Cost Per Month	FIL I	FIL II	FIL III
Nursing services*	$ 47.54	$ 80.92	$ 72.54
Home health aide*	265.33	237.73	208.75
Physical therapy*	65.91	105.40	67.77
Total home health	[259.18	239.23	175.04]
Homemaker*	$201.24	$233.48	$200.38
Personal care*	202.11	179.43	130.22
Meals*	75.26	65.96	62.70
Total home care	[282.67	324.01	250.23]
Total combined	$459.12	$510.70	$415.99

* Average cost for the clients who utilized the service.
[ ] Average based on all clients.

TABLE 7

Average Monthly Cost by FIL and Living Arrangement for All Clients

FIL	Alone	With Family/Spouse
Home Health		
I	$256.48	$262.30
II	179.03	242.32
III	180.62	110.93
IV	61.44	--
Home Care		
I	$375.20	$268.66
II	345.50	290.57
III	290.28	236.14
IV	217.60	--
Total Combined		
I	$551.28	$445.48
II	502.95	486.40
III	470.90	276.23
IV	279.04	--

Data on the amount and mix of services suggest that differences in total home health and home care costs between elders who lived alone and those who lived with a caregiver were attributable to differences in the amounts of homemaker services provided.

There were also some key findings about frailty and family supports. The program supports family caregivers. Over 53% of the sample had caregivers. This group had higher home health costs and more ADL impairments than elders who did not receive daily care from family members. The program helped elders with more complex needs remain in their homes.

LENGTH OF STAY AND REASONS FOR DISCHARGE

Forty-one percent of the clients receiving home health services were discharged during the first-year, and 29% were discharged in the second year. Most clients were from the home health services program because of death (30%), institutionalization (29%), or improvement in their health condition (12%) (Table 8). Improvement declined as the reason for discharge from 22.6% the first-year to 4.4% the second year.

TABLE 8

Reasons for Discharge

Death	29.5%
Institutionalization	28.6
Health improvement	12.3
Medicaid eligible	6.7
Moved out of state	3.8
Withdrew	2.9
Funding shortage	2.9
Hospitalization	1.9
Not stated	11.4

Elders who lived alone tended to be discharged sooner than elders who lived with a caregiver. In the first-year, 37% of those discharged received services for one month or less. Thirty percent of the clients discharged within one month either died or entered a nursing home. An equal number were discharged within one month because their health had improved.

FIL II and III clients were more likely than FIL I clients to be discharged after one month of service.

After two years, 18.1% were discharged within a month; 39% stayed between two and six months; 23.8% stayed 7-12 months, and 19.1% stayed longer than 12 months.

Cost patterns varied by length of stay. Clients who were discharged within one month received almost twice as much skilled nursing service as clients who stayed longer.

Table 9 shows that the highest monthly costs for skilled nursing are incurred by clients who use one month of service. Those who stay more than two months have chronic needs for home health aide services and ongoing nursing monitoring and supervision.

TABLE 9

Monthly Service Costs for Clients Discharged by LOS

Months	Percent	Skilled Nursing	Home Health Aide
0-1	18.1%	$116.81	$134.59
2-6	39.0	58.53	276.85
7-12	23.8	65.71	242.91
> 12	19.1	45.00	235.88
Average	100.0%	$ 65.61	$245.18

SUMMARY

Our program is effective. It helps frail elders live safely in their homes. It is also constantly changing as new ideas and new methods of structuring services develop. As I mentioned, we are developing a single multi-purpose assessment tool and we are now developing integrated teams of case managers, nurses and supervisors to better address the combined health, functional, cognitive and other needs of elders. Nurses and case managers will adjust their roles and responsibilities as the needs of the client dictate.

In short, our experience offers some useful data on how much community care costs, how it can be delivered efficiently, how it adjusts to changing financial climates and how it can develop care plans based on what a person needs, who is available to provide it, and what programs they are eligible for to pay for it.

MR. TRINDLE: Our next speaker is Guenther Ruch. Guenther is Director of Market Regulation with the Wisconsin Insurance Department. He's the primary author of the NAIC long-term care model. Guenther will describe the NAIC model and some of the thought process that went in to its formulation. He will give the regulators perspective on the sale process, the underwriting process and some of the product design issues.

MR. GUENTHER RUCH: I've been asked to give a regulators perspective to our discussions of home health care in long-term care insurance. The NAIC long-term care task force headed up by Commissioner Earl Pomeroy of North Dakota has been extremely busy over the past 18 months in developing model regulations concerning long-term care insurance. I'm sure that most of you are aware of some of the issues which the task force has addressed. These include things like eliminating the three day prior hospitalization stay, the mandatory offer of inflation protection, and the prohibition of post-claim underwriting.

At its December 1989 meeting, the task force, its parent committee, which is the Action Health B Committee, and the NAIC, as a body, adopted many of the amendments to the long-term care insurance model act and regulation which the task force proposed. One of these dealt with the minimum benefit standard for home health care.

My state, Wisconsin, was the chair of the working group which along with assistance from some other states and from the task force's advisory consul developed the standards for home health care found in the current NAIC model regulation. In developing a framework for home health care coverage, there were several factors we tried to keep in mind. First, the home health care benefit and long-term care insurance should not be illusory, it must conform to the purpose of buying a long-term care insurance product and that is to obtain long-term care insurance. Second, we understood that this is a developing marketplace and therefore we're cognizant of allowing the industry, to be creative to develop products which fulfill a need. However, we also recognized that the consumer needed to be protected during this time of instability and product development. Third, we recognized that the insurance industry must be able to price its long-term care products including the home health care benefits so that they do not adversely impact the financial solidity of the carriers offering other coverage. Insurers must be allowed to price their products so that they can stay in business.

As illustrated by Sandy and Bob here, I think the home health care benefit will become a more significant benefit in the context of long-term care insurance. As our population tints, and more desire to receive care in their home rather than in a nursing home or institution, and as cost containment measures are introduced in long-term care, community based care including home health care will become an increasingly major benefit in the long-term care insurance marketplace.

In developing the minimum benefit standards for home health care, the task force attempted to identify benefit restrictions, gatekeepers if you will, that would be too restrictive for home health care benefits and long-term care insurance. I'd like to list these as follow:

1. Requiring that the insured would need skilled care in a skilled nursing facility if home health care services were not provided;

2. Requiring that the insured first or simultaneously receive nursing home and/or therapeutic services in a home or community setting before home health care services are covered;

3. Limiting eligible services to services provided by home health care professionals such as Registered Nurses or Licensed Practical Nurses;

4. Requiring that a nurse or therapist provide services covered by the policy that can legally be provided by a home health aid, chore worker, or other licensed or certified home care worker;

5. Requiring that the insured obtain nonmedical eligible services by medical providers;

6. Requiring that the insured have an acute condition before home health care services are covered; and

7. Limiting benefits to services provided by Medicare certified agencies or providers.

In general, I think the purpose of these standards is to recognize that in long-term care, the event which would trigger coverage is one which is not acute in nature but rather is chronic and affects one's ability to function. Home health care benefits in long-term care insurance should recognize this and not be based nor administered as they would under Medicare. That is the traditional medically necessary acute care model. There is a place for home health care coverage in the Medicare setting, but not as a long-term care product.

The early thought processes of the working group included defining ADLs and then requiring insurers who provide home health care coverage to provide the coverage when the insured is not able to preform at least two ADLs. We also thought about mandating certain types of coverages such as adult day care and setting minimum benefit amounts. However, as work on the standards continued, it became evident that the market was in such a constant change that it would not be feasible nor desirable to set minimum benefits or specific triggers. Instead, it was decided to develop minimum benefit standards (as opposed to minimum benefits) under which the insurance industry could develop its long-term care products. As time goes on and the market stabilizes, we as regulators may find a need to tighten up the standards or loosen the ones that are currently in place.

I think regulation also has to be able to change with the times.

I do not envy those of you who are charged with the responsibility of pricing these products. The certainty of benefit limitations contained in the more traditional health insurance products are not as clear in home health care nor long-term care.

The minimum benefit standards for home health care in the NAIC model essentially eliminate the medical necessity gatekeeper for these products. The idea of acute versus chronic and the impact it has on when a home health care benefit is triggered is not clearly defined and thus results in more uncertainty. But I do know that as a regulator, one of my charges is to make sure that these benefits are real and I'm going to examine these benefits very carefully so that the person who buys the product has a reasonable expectation of receiving the coverage that was desired at the time the product was purchased. I think the regulator's point of view in this area is one of balance. It is our job to ensure that policyholders and claimants are treated fairly and equitably. It is also our job to ensure that there is an adequate and healthy insurance market characterized by competitive conditions and the exercise of initiative. We are also charged with ensuring that the insurance marketplace has insurers with the financial wherewithal to discharge its obligations to its policyholders, that is, pay the claims. In this context, it is important that the regulator be knowledgeable about the market and be sensitive to the needs of all the parties who make up the marketplace.

MR. TRINDLE: Our final speaker is Joe Wallace, Vice President and Chief Actuary of Guaranteed Trust Life, one of the pioneers in stand alone home health coverage. A native of Wisconsin, Joe began his career at New York Life specializing in health insurance and taxation issues. Later he moved on to Washington National and All American. In 1976, he took the position with Guaranteed Trust Life, as its first in-house actuary. Joe's now serving on the health research committee and is a member of the Board of Directors of the Florida Insurance Council. Joe has been involved in the actual design and pricing of real live stand alone home care products and he will be talking about some of the practical issues involved in introducing a viable product to the marketplace.

MR. JOSEPH J. WALLACE: Having heard from Sandy Cashman on home health services and how they function and Bob Mollica on the use of home health services, as well as Guenther Ruch regarding the long-term care model, the only remaining item that we have before us is the development of a profitable product and placing a price on it while still being able to support the statement that benefits are reasonable in relation to the premiums charged.

Guaranteed Trust Life Insurance Company (GT) is a medium size mutual company with its principal line of business being individual A&H geared toward the senior market. In developing its products, it employs a consulting actuarial firm and in conjunction with home office personnel from actuarial, product development, underwriting and claims, it endeavors to develop a product based on company experience as we know it and industrial trends as they're happening today.

GT first became interested in home health care services when in 1978 the state of Wisconsin suggested that if we wish to continue to market Medicare policies or any other A&H product in their state, we would make available an optional home health care benefit. It would be made available to all policies being issued or renewed after a specific date, i.e., August 1, 1978, at an appropriate rate. Benefits for the Medicare policies were to supplement those of Medicare's Parts A and B, such that an aggregate of 365 home care visits per year were covered. For other types of individual and group policies, the benefits must provide at least 40 home health care visits per year. The optional rider as developed in 1978 for Medicare policies, due to the then available home health care services, had a very low frequency of utilization and a relatively short duration of claims resulting in an annual premium at that time of $6 per year. This premium proved to be adequate for quite a period of time until such time as utilization and longer periods of use became evident and it was necessary to increase our premiums.

In 1987, we introduced our first HHC policy and while it will not meet the long-term care regulations as they exist today, it does appear to be meeting the original objectives. As a company, the development of a product begins with the initial drafting of the policy form, listing the benefits to be provided and associated definitions which will be employed in administering the policy form. It was felt desirable to establish a clear cut benefit period, thus, giving our claims administrators the ability to adjudicate claims and the actuaries, the capability of establishing a firm claim liability. We also felt a need to establish that a home health care agency by definition means a service or agency which is

certified under title 18 of the Social Security Act of 1965 as amended to provide HHC services, or recognized through licensing by the states. Another item which needed clarification by definition was that of a home. We felt that a home should be defined as a place where you normally live, would include a private home, a home for the retired or aged, or a place providing residential care. It does not mean or include a hospital, a sanitarium or a nursing home by any definition. The intent is to exclude establishments where home health care services are included in the normal overall package of services offered and covered under other forms of insurance. There are other definitions which we feel should be included in the policy such as home health care plan, custodial care, home health aides, homemakers, immediate family, doctors, usual and customary, etc.

Having drafted a policy form we next turn our attention to the development of an application to be used for this product. The principal questions on the application would yield such insight as to possible antiselection or possibly higher utilization than would be considered reasonable in the pricing assumptions. These questions are as follows:

1. Are you currently receiving Medicare or are you on Social Security Disability?

2. Have you had, within a one year period, any surgery, cataracts, joints or any heart problems?

3. Within the last two years, have you been diagnosed or had cancer treatment, heart surgery, kidney dialysis or Alzheimer's Disease?

4. Do you have or use medical appliances, i.e., walkers, a wheel chair, respiratory equipment?

5. Are you currently in a hospital, skilled nursing home or receiving home health care or have you been advised to do so in the near future?

6. Provide an explanation of any recent doctor visits.

The last item to discuss is pricing assumptions and how do you go about it. Our first-year expenses are the standard issuance expense for a senior market product. Claims administration expense is a little higher as we feel there is a need to do more claim investigation. Interest rates, fees and taxes are pretty much standard. Lapses and mortality are about the same as our Medicare Supplement Policies and maybe a little better.

The only remaining thing to talk about is where do you get your morbidity. There is a vast array of statistical data available, but these data are mainly for noninsured recipients. Most of it is for home health care services and is included in such reports as:

1. Use Of Home Heath Care Services By Frail Elders;
2. The National Nursing Home Survey of 1977 And 1985;
3. The Connecticut Nursing Home Patient Registry;
4. The Connecticut Community Care Program; and
5. Social Health Maintenance Organization Data.

These are just to name a few and I'm sure that you will find others available. However, I want to emphasize that these data bases are for noninsured individuals as opposed to insured prospects. This material must then be reviewed and from the numbers, frequency of utilization and duration of coverage developed as it relates to your specific policy provisions. There is no ready answer to developing a standard morbidity cost at this time.

In conducting a mini-survey as to how actuaries produce morbidity costs, I visited with a consulting firm who used, of all sources, a visiting nurses' registry. They spent some 40 hours of one-on-one meetings discussing such things as durations by cause and by age, so they had a cost per duration and to that they applied a frequency and came away with a morbidity cost. Analysis of their three years of experience has shown an actual to expected of about 100% give or take five points.

MR. TRINDLE: Obviously, there is a great number of issues facing actuaries as we approach the development and pricing of home care products.

MR. THOMAS M. INCHALIK: Sandy, I wanted to ask you about the average cost data you presented for registered nurses and home health aides. Those were for several metropolitan areas, do you find that that's fairly representative of the cost, say state wide or is it significantly different by rural or urban or is the utilization much greater for urban versus rural?

MS. CASHMAN: Utilization is greater in urban versus rural because population density is greater in the urban areas. As to pricing, if I were to take the state of Illinois and say Chicago versus Quincy, there is a significant difference in pricing and what I did on that graph was really give you mostly major metropolitan markets rather than rural markets.

MR. INCHALIK: I have a follow-up question. Your chart showed that it was about $35 an hour for a registered nurse and $12 for a home health aid. Is that the amount that is billed to the client?

MS. CASHMAN: Yes.

MR. INCHALIK: Okay, is it typical to have a longer home health aid visit than a professional visit?

MS. CASHMAN: Correct.

MR. INCHALIK: Are professional visits in the range of an hour and home health visits in the range of two hours?

MS CASHMAN: Correct.

MR. INCHALIK: So, if you looked at the cost per visit, if you had a per visit type policy, you might want to use something like the same average amount per visit, $35 for a professional, but well not quite as much but $26 for the home health aid because the visit tends to be longer.

MS. CASHMAN: An average visit is about two hours. But a visit can be as long as four hours or six hours depending on what the needs are in that particular situation. It depends on how many ADLs are involved. If you have to go out and bathe as well as do light housekeeping, and do some cooking and maybe running to the store for the individual it can take much more than two hours.

MR. TRINDLE: How do you differentiate between a home health aid and a personal care or a companion aid. It seems to me that if somebody were a personal care aid or a personal care person and they were being paid less than a home health aid, they would want to go through whatever training process there is so that they could earn a higher income, but yet you still have plenty of people who do the personal care.

MS. CASHMAN: There are some people that don't want to do personal care and want to do just homemaking services, they want to do the housekeeping, they want to do the dishes, cook or clean, or do chores. Home health aides traditionally do personal care. They do bathing, they can do some minor treatments if they been trained, and usually they have a much greater training period than a homemaker does.

MR. TRINDLE: Then is there a third person, a personal care aid?

MS. CASHMAN: There's a companion.

MR. TRINDLE: Bob, in your report you referred to a personal care aid.

MR. MOLLICA: Yes, it can be the same person. In some agencies they are trained to do all the services -- homemaker, personal care, and home health aid. In other agencies, there are just homemakers and personal care workers and the line between personal care and home health aid is that the personal care worker can only help with the ADLs and they cannot do the entire ADL for the person. For example, if an older person needs help getting into the bathroom or to the shower, the personal care worker can do it. If the client is so impaired that they need complete assistance, then a home health aid will have to do that. So at some points it's an artificial distinction but the home health aid requires a little more training to give complete assistance plus some of the minor medical treatments, and for us, the important distinction is that we pay for it differently. We don't need the mandatory skilled nursing visit from a certified individual in our personal care program. We do have nurses on our home care corporation staff that do the monitoring. But we pay the provider a little bit lower rate than we would if they were billing for a home health aid visit. The worker generally makes the same amount of money because of the way the regulatory system works in Massachusetts. It almost doesn't matter which service they are providing. The hourly wages are similar.

MR. PETE L. GATENBY*: In the U.K., we've got a tremendous shortage of caregivers and so actually we're trying to stop pricing products in this market. We're having to

* Mr. Gatenby, not a member of the sponsoring organizations, is Consultant of William M. Mercer Fraser Ltd. in London, England.

build in very high inflation of cost well over the normal salary inflation. Do you have the same problem over here?

MS. CASHMAN: Definitely, it is one of the major problems facing the health care industry today, a critical shortage of registered nurses and licensed nurses and a subsequential shortage in health care providers.

MR. MOLLICA: One of the things we're doing is diversifying our services. If we could pay for modification to put in grab bars and other things in a person's house, we wouldn't need to send the worker as often. If we can design our publicly assisted housing with walk-in showers that have seats, with cabinets that are lower with more adaptive design, we wouldn't need as much service. We're also considering paying for more day care. Our program covers social day care but not day health care. The costs are different, because on the social model, there's not a nurse there that provides services. So we're trying to look at our service package and diversify it so that we can meet the needs if there is a shortage of workers.

MR. ROBERT YEE: I have a question for Bob Mollica. Could you briefly describe your cognitive assessment tools and maybe comment a little bit on the reliability of that and the ADL assessment instrument.

MR. MOLLICA: That's one of the most controversial areas in our program. Right now, there are two issues: The case manager will, mostly by observation, determine whether there are cognitive or emotional problems. There are a few questions in the instrument that address that area. Nobody's really happy with them because we're testing some new ones, and the more you do there, the more training you need to provide to the people doing assessment. It mattered less what questions were asked and how they were asked. What was more important was the confidence and the training that the people administering the tool felt they had or didn't have. So, I'd be happy to send you a copy of the tool and questions, both the one we have now and the one we are field testing.

MR. YEE: And can you tell me a little bit about reliabilities of these instruments.

MR. MOLLICA: That has been the second issue in developing the new tool, coming up with a way to do that. We have not measured the tool for reliability, but we do plan to do that for the new one that we're field testing and plan to introduce in June.