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# Issues Surrounding the Extension of Medicaid Coverage to Assisted Living Services in Minnesota

John A. Nyman, Ph.D. October 24, 1993

**Minnesota Housing Finance Agency** 

The opinions expressed in this publication are those of the author and do not necessarily represent the views of the Minnesota Housing Finance Agency.



#### **Executive Summary**

I his report is intended to address the major issues associated with Minnesota's coverage of assisted living services under Medicaid. The State of Minnesota's interest in assisted living appears to stem from two potential advantages of assisted living over nursing home care. First, there is the possibility that funding assisted living would reduce Medicaid expenditures from what they otherwise would have been. In order for this to happen, it is necessary that the unit (patient day) cost of assisted living be lower than the unit (patient day) cost of nursing home care, and that providing this alternative does not unduly increase the number of patients who are funded by Medicaid. Second, there is the possibility that assisted living, even if not necessarily cheaper, might represent a better—i.e., more desirable, higher quality, or more appropriate—alternative form of care for some Medicaid recipients.

1. To what extent is the extension of Medicaid to assisted living likely to result in fewer nursing home residents, and to what extent is it likely to result in people becoming Medicaid residents who otherwise would not?

Defining assisted living - services. To answer this question, we must first define assisted living. Assisted living can be defined relative to two dimensions: (1) the nature of the commodity that is sold—that is, the list of services that are typically delivered under this label, and (2) the needs of the typical person who is receiving those services. The definition consists of both parts.

There is no one universally accepted definition of assisted living services. Rosalie Kane and Keren Brown Wilson's (1993) definition of assisted living is relatively precise:

"any group residential program other than a licensed nursing home that provides personal care for persons with impairments in performance of activities of daily living...and has the capacity to meet unscheduled needs for assistance." The authors go on to note that under their definition, assisted living is not represented by board and care homes and (most) congregate housing situations because these care models do not typically provide direct personal care. They also note that not being a licensed nursing home is an important distinguishing feature; assisted living facilities are therefore not bound by the constraining regulations that govern care in nursing homes.

Defining assisted living - residents. The second part of the definition establishes the need characteristics of persons who would typically receive assisted living. Here, again, there is a range of opinion. Kane and Wilson (1992) appear to focus on those with ADL impairments sufficient to require nursing home care. However, they also include

"others who have no ADL impairments or have less severe ADL impairments...[T]oo, assisted living is not designed to serve the entire range of people who are nursing home certifiable. Persons who are comatose or in vegetative states can not benefit from the environmental improvements possible in assisted living, and persons with extremely unstable and serious medical conditions that require constant professional monitoring need a more hospital-like environment." (Kane and Wilson, 1992, p. 6)

This suggests that within the disability range of nursing home patients, there is some lower portion of that range for whom assisted living is appropriate.

Assisted living—a substitute or complement to nursing home care? The "woodwork effect"—the idea that there are more dependent elderly than researchers had expected and that these people "came out of the woodwork" to use government programs intended primarily to reduce the number of nursing home patients—for assisted living may have two dimensions. First, Medicaid eligible elderly, who are living at home because they disliked the nursing home option, may opt for assisted living because it represents a relatively more attractive living arrangement. Second, dependent elderly who are not poor and who otherwise would have remained at home

may opt to both divest to Medicaid eligibility and move to an assisted living facility, either because assisted living represented a better alternative to living at home or because it represented a cheaper alternative by virtue of the savings achieved through Medicaid eligibility. Presumably, the divestiture would not have happened with nursing homes because, although it is cheaper to be in a nursing home with Medicaid paying for it than to be at home, very few people would ever opt to be admitted to a nursing home if they could help it.

## 2. To what extent can we target assisted living eligibility to reduce nursing home use?

In order for assisted living to reduce Medicaid expenditures, it is necessary that the reduction in Medicaid nursing home patients be greater than the number of new assisted living Medicaid patients who would otherwise have been living at home or in the community. In order to assure that the reduction in nursing home patients would dominate, it is necessary to direct or "target" eligibility for a Medicaid assisted living program at persons who would otherwise have been Medicaid nursing home residents.

Targeting in the demonstrations. Weissert et al. (1988) suggest that the demonstrations which have been more successful at targeting used either people who already reside in nursing homes or people who had already applied for nursing home care and had successfully gone through the preadmission screening. In other words, the closer one is to actually being a nursing home patient, the more effective the targeting.

It is important to note, however, that this conclusion is derived from a review of a series of temporary experiments where the targeting rules were imposed on persons who had, in many cases, already made their decisions. The implementation of a policy rule for eligibility in a government program (as opposed to a targeting rule for inclusion in a one-time-only demonstration) may show entirely different behaviors. That is, if one establishes "application to a nursing home" as a condition for admission into an assisted living program, people would learn this rule and apply for nursing home admission just to become eligible for assisted living. Clearly, this would

reduce the level of substitutability from such a program. In general, it is safe to say that any targeting rule will be learned and used in unintended ways to "game" the system.

Targeting in the Oregon adult day care program. The program which appears to have one of the most successful records in targeting and substitution is Oregon's Adult Day Care program (Kane, Kane, Illston, Nyman, Finch, 1991). Oregon's adult foster homes are private residences that are licensed by the state and can take up to 5 disabled adults. The Medicaid waiver for this program required that the adult foster care resident be eligible for nursing home care on the basis of functional disabilities. Moreover, the state embarked on an ambitious program to divert persons already in nursing homes and to promote adult foster home care as an alternative for those in need of nursing home level care. The evidence suggests that this program has been unusually successful in reducing the number of nursing home patients.

## 3. What are the costs of assisted living compared with nursing home care, and what is the trade-off between regulatory requirements and costs of assisted living?

Assisted living costs v. nursing home costs. The second requirement for assisted living to be expenditure reducing is that the unit cost of assisted living be less than the unit cost of nursing home care. Evidence suggests that this is generally the case.

Regulation and costs. Little empirical work has been done showing the connection between regulation and costs in nursing homes, and no studies have been done for assisted living.

In Minnesota, regulatory restrictions are also embodied in the reimbursement system for nursing homes. Because of the fear that nursing homes would reduce quality of care in order to reduce expenditures, nursing homes are paid rates for their patients that are determined largely by last year's expenditures. Were the nursing homes to reduce costs for nursing-related care in the present year, the reimbursement rate would be set next year to match that decrease.

Under this reimbursement system, if a nursing home resident instead becomes an assisted living resident, state expenditures may not decline commensurately. During the year in which the patient is lost from the nursing home, the state will pay for fewer days at the nursing home's rate for that type of patient. In response, the nursing home will attempt to cut its expenditures. If we categorize nursing home costs into three groups—nursing care costs, other nonnursing care costs, and other operating costs—it is likely that the easiest place for the nursing home to cut expenditures to reflect the loss of one patient is in the nursing care cost area. Other operating costs may remain almost as high and other non-nursing care costs may not drop commensurately. In other words, expenditures will probably not be cut commensurate with the loss of revenue.

In the next year, however, because the reimbursement rate is set to reflect average case-mix costs from last year, the rate will have increased for each case-mix patient day to reflect the spreading of the other operating costs and the non-nursing care costs from last year over fewer patients. This increase in state expenditures (due to increased reimbursement rates in the next and future years) will partially offset the reduction of state expenditures (due to the decreased patient day payments for all the days the person would have been in the nursing home). In other words, the most important cost issue in Minnesota may not be to what extent assisted living costs are less than nursing home care costs, but instead to what extent state nursing home expenditures will actually decline to reflect a loss of patients to assisted living facilities.

While regulations no doubt explain a large portion of the cost differences, other explanations exist. Advocates of assisted living such as Ladd (1993) argue that most important explanation of the difference in costs is that nursing home must be staffed to provide care for the sickest patients. This increases costs over what is necessary to care for patients at the lower end of the case-mix spectrum. Because assisted living does not staff for these heavy-care types of patients, they can reduce costs. Other explanations are of course possible.

4. What is the logic behind the "savings" that would occur to Medicaid in this state when we distinguish the room and board services from the health care services, and let Medicaid pay for only the health care portion of assisted living costs?

The distinction between health care services and room and board services stems from the constraint placed on Medicaid that it cannot fund room and board services except in hospitals and licensed nursing homes. Therefore, in order to take a Medicaid nursing home resident and instead serve her in an assisted living facility under Medicaid, it is necessary to distinguish the costs of care services from those of room and board services, and specify that Medicaid will cover only the former services.

If one considers an A-type person with no income who has gone from a nursing home to an assisted living situation, the 1993 savings to Medicaid is \$1233 on average. The savings to all government subsidizers is about 2/3 of that, and the savings to the state of Minnesota is about 1/2. This assumes that the assisted living resident has no additional Medicaid covered services delivered.

5. What is the market for assisted living? Would rural areas be excluded? Would private payers receive different care than Medicaid payers?

The market for assisted living. Having already discussed the demand side, the supply side can be characterized by a diversity of facilities according to size and according to whether the facility is new construction or a converted building. Some existing assisted living facilities are small enough to be located in rural areas.

It would probably be impolitic for the state to pay for care in those assisted living facilities that only the wealthiest of private patients could afford. Therefore, it is not necessarily the case that the care received by private and Medicaid patients would be equal.

## 6. What are the nature of the gains and losses to the state and its citizens?

The state will gain from assisted living primarily by promoting the development of an industry that provides a type of service that more closely matches the preferences of a portion of the dependent elderly in this state, both private and public payers.

There is also the possibility that the state will gain if it is able to reduce its expenditures by providing access to assisted living. For this to happen, however, it is necessary that a number of conditions be met. First, it is necessary that assisted living be successfully targeted at persons who would otherwise be Medicaid nursing home patients. Second, it is necessary that the state's paying for these services does not entice those who would otherwise have been cared for at home as private patients to divest in order to receive assisted living services paid for by Medicaid. Third, it is necessary that the additional Medicaid services received by Medicaid assisted living residents be sufficiently small so that they do not eliminate the savings to the state. And finally, it is necessary that nursing homes be able to reflect the loss of nursing home patients to assisted living by lowering their costs and reimbursements accordingly.

If a successful assisted living program is developed in Minnesota, whether the State will experience reduced long-term care expenditures depends on other things. "Success" simply means that expenditures will be lower than what they otherwise would have been. Clearly, it is possible that assisted living could be successful in reducing long-term care expenditures, but at the same time the population would age so that nursing home occupancy rates would remain essentially unchanged and State expenditures could continue to grow.

#### Introduction

This report is intended to address the major issues associated with Minnesota's coverage of assisted living services under Medicaid. The State of Minnesota's interest in assisted living appears to stem from two potential advantages of assisted living over nursing home care. First, there is the possibility that funding assisted living would reduce Medicaid expenditures from what they otherwise would have been. In order for this to happen, it is necessary that the unit (patient day) cost of assisted living be lower than the unit (patient day) cost of nursing home care, and that providing this alternative does not unduly increase the number of patients who are funded by Medicaid. Second, there is the possibility that assisted living, even if not necessarily cheaper, might represent a better-i.e., more desirable, higher quality, or more appropriate—alternative form of care for some Medicaid recipients.

This report summarizes the existing literature relating to how likely these two possibilities actually are. It is organized according to the following questions:

- 1. To what extent is the extension of Medicaid to assisted living likely to result in fewer nursing home residents, and to what extent is it likely to result in people becoming Medicaid residents who otherwise would not?
- 2. To what extent can we target assisted living eligibility to reduce nursing home use?
- 3. What are the costs of assisted living compared with nursing home care, and what is the trade-off between regulatory requirements and costs of assisted living?
- 4. What is the logic behind the "savings" that would occur to Medicaid in this state from distinguishing the room and board services from the health care services, and letting Medicaid pay for only the health care portion of assisted living costs?
- 5. What is the market for assisted living? Would rural areas be excluded? Would private payers receive different care than Medicaid payers?
- 6. What is the nature of the gains and losses to the state and its citizens?

Because the literature on assisted living is still in its infancy, we were not always able to draw on specific assisted living studies to answer each of these questions. Instead, this paper tends to rely on studies of related services. Nevertheless, it appears that existing information is sufficient to be able to address the above questions with a certain amount of confidence.

1. To what extent is the extension of Medicaid to assisted living likely to result in fewer nursing home residents, and to what extent is it likely to result in people becoming Medicaid residents who otherwise would not?

#### Defining assisted living - services.

To answer this question, we must first define assisted living. Assisted living can be defined relative to two dimensions: (1) the nature of the commodity that is sold—that is, the list of services that are typically delivered under this label, and (2) the needs of the typical person who is receiving those services. The definition consists of both parts.

There is no one universally accepted definition of assisted living services. Rosalie Kane and Keren Brown Wilson's (1993) definition of assisted living is relatively precise:

"any group residential program other than a licensed nursing home that provides personal care for persons with impairments in performance of activities of daily living...and has the capacity to meet unscheduled needs for assistance."

The authors go on to note that under their definition, assisted living is not represented by board and care homes and (most) congregate housing situations because these care models do not typically provide direct personal care. They also note that not being a licensed nursing home is an important distinguishing feature; assisted living facilities are therefore not bound by the constraining regulations that govern care in nursing homes.

Other definitions are somewhat less restrictive. For example, the assisted living trade group, the Assisted Living Facilities Association of America (ALFAA), defines it as

"a special combination of housing and personalized health care designed to respond to the individual needs of those who need help with activities of daily living. Care is provided in a professionally managed group living environment, in a way that promotes maximum independence and dignity for each resident and involves the resident's family, neighbors, and friends." (Holbrook, 1992)

Holbrook goes on to say that assisted living "services normally include 3 meals a day and comprehensive services," without specifying whether those services are personal care services or services that are less essential (e.g., housekeeping services) in nature. Rappaport (n.d.), another spokesman for the ALFAA, argues that "24 hour, on-call availability of assistance" for a resident's safety is what sets assisted living apart from other care options. It is not necessarily that other forms of care do not provide this, he argues, but that assisted living provides it most efficiently.

These definitions, however, do not entirely reflect the philosophy of assisted living as seen by its stronger advocates. According to most proponents (and other observers), assisted living is intended to be a more homelike and non-institutional setting than nursing homes. It is said to promote

"the concept of environmental normalization to maximize the functional capacity of individuals while promoting the concept of community, dignity and respect for privacy and individuality. In doing so, assisted living replicates to the extent possible functional, emotional and social elements of 'home' in non-familial group living situations." (Manard et al., 1992, attributed to Wilson, 1988)

Indeed, assisted living also seems to have been adopted as a province of the architectural literature by those who want to design optimal living spaces for the dependent elderly. These design concepts typically include

"home-like buildings, single occupancy units with baths and cooking capacity, privacy, shared responsibility and risk sharing, and skilled nursing and support services..." (Mollica et al., 1992)

Housekeeping, shopping, the preparation of meals,

laundry, transportation, social, and recreational services also appear to be basic elements of the ideal assisted living situation (Mollica, 1992, p. iii).

In contrast to definitions inspired by these optimal concepts, state governments have tended to define assisted living with an eye to costs. Because states are typically most interested in defining assisted living if they are obligating themselves to pay for it, their definitions vary with regard features that are associated with costs. For example, whether or not cooking facilities are to be available and how cooking facilities are defined is often part of a state's definition.

The concern over costs in defining assisted living stems from the state's recognition that paying for these services represents a transfer of resources from taxpayers to recipients of the assisted living program. Because of this transfer, government definitions will reflect the interests of the taxpayers to limit these expenditures and as well as the interests of the recipients who are in need of these services. This tension between the level of services that can be produced by an ideal assisted living situation and the level of services the taxpayers will tolerate is one of the central issues in the establishment an assisted living program.

There is a second area of tension involving government. States are also interested protecting the safety of assisted living residents, but they increasingly recognize that there is often a tradeoff between safety and the other qualities (dignity, privacy, independence, etc.) that assisted living is designed to promote. Therefore, states may also define assisted living relative to where they stand on the continuum between the establishment and regulation of safety features in assisted living on the one hand, and tolerance of risk on the other, if that risk also buys the resident more independence, dignity, or privacy. For example, Oregon's definition specifically requires that assisted living units have a lockable door, even though doing so may make it more difficult to gain access to a resident if the resident were in need of help.

In Minnesota, assisted living has an official definition because it is a service that is eligible for reimbursement under the Elderly Waiver for Medicaid. The definition is as follows: "Assisted living services are defined as up to 24 hour supervision and oversight, supportive services, individualized home care aide tasks, and individualized home management tasks provided to residents of a residential center living in their units/apartments with full kitchens and bathrooms.

A full kitchen includes a conventional stove with an oven, refrigerator, food preparations counter space and a kitchen utensil storage compartments.

Individualized means that services are chosen and designed specifically for each resident's need, rather than provided or offered to all residents regardless of their illnesses, disabilities or physical conditions."

The definition goes on to state that supportive services means socialization, setting up appointments, and providing transportation. Home care aide tasks means preparing diets, help with medications, household chores, and personal care services.

Defining assisted living - residents. The second part of the definition establishes the need characteristics of persons who would typically receive assisted living. Here, again, there is a range of opinion. Kane and Wilson (1992) appear to focus on those with ADL impairments sufficient to require nursing home care. However, they also include

"others who have no ADL impairments or have less severe ADL impairments...[T]00, assisted living is not designed to serve the entire range of people who are nursing home certifiable. Persons who are comatose or in vegetative states can not benefit from the environmental improvements possible in assisted living, and persons with extremely unstable and serious medical conditions that require constant professional monitoring need a more hospital-like environment." (Kane and Wilson, 1992, p. 6)

This suggests that within the disability range of nursing home patients, there some lower portion of that disability range (i.e., the more able patients) for whom assisted living is appropriate.

Manard (1992) suggests that assisted living is appropriate for those individuals who have service needs that are somewhere in between those of board and care homes and nursing homes. Rappaport (n.d.) of

the ALFAA defines the market for assisted living as those who could not remain in their homes, but were not yet medically dependent. Using Minnesota's nursing home case-mix classification, he suggests that these persons could be represented by A through D patient types. Ladd (1993) suggests that many people in nursing homes are there simply because they need help with medications. A large portion of the appropriate assisted living clientele, he suggests, would come from such patients. Finally, according to the results of a survey by Kane and Wilson (1992), assisted living administrators define and attempt to market their services toward a less dependent clientele than they actually are able to recruit.

States have regulated the types of patients that can be housed in assisted living facilities. Many states exclude those who are incontinent or those with colostomies (Holbrook, 1992). The reasoning behind this exclusion is not clear. One possibility is that, because these facilities are largely unregulated especially in comparison to nursing homes—the states are concerned whether the staff of assisted living facilities has sufficient technical training to perform the routine medical or nursing procedures required by such patients. Instead of adopting the nursing home regulatory mode of defining the training of the institution's staff, states have instead regulated the types of medical problems that assisted living residents can have. This may be the reasoning for Oregon's decision to exclude those who need tube feeding. Another possibility is that residents in assisted living environments are more difficult to monitor. Therefore, problems with incontinence may go unnoticed longer in an assisted living situation than in a nursing home.

Assisted living—a substitute or complement to nursing home care? Arguably, the most important and clearly the most expensive area of inquiry in long-term care research over the past 20 to 30 years or so has been to what extent the funding of home and community care services would reduce long-term care expenditures through reducing nursing home use. Like assisted living, many advocate/researchers in the long-term care arena touted home or community care as a better and more cost effective way of caring for nursing home patients. As a result, a series of 28 (!)

different demonstrations and other studies were funded (mostly by the federal government) to show whether paying for various home and community care programs reduced total long-term care expenditures.

None of these studies, however, were able to show any such reductions. (The number and enormous expense of the studies that were funded, all producing the same disappointing conclusion, is testimony to the tenacity with which government and researcher/ advocates clung to the idea that home and community care was cost saving.) In summarizing what was learned from these studies, Weissert (1985) concluded that home and community care were not primarily substitutes for nursing home care, but instead "complements." By complement he meant that the funding of home and community care provided additional services for people who were not at risk of being institutionalized. Those who were eligible for the new services simply increased their use of the services in their present non-institutional environment. For programs designed to decrease costs by substituting lower cost home or community care for institutional care, this additional use made these programs cost-increasing.

As with home and community care, the question of substitutability is central to the question of whether funding assisted living services under Medicaid will reduce total Medicaid costs. To reduce total costs, it is necessary for the assisted living program to replace existing nursing home patients with assisted living patients. At the same time, it must minimize the number of new patients under Medicaid who otherwise would have received care at home or at another site not necessarily under the Medicaid program. To our knowledge, we know of no study that has attempted to determine the level of substitutability of assisted living for nursing home care or home care. To determine the degree of substitutability, we are left with making inferences from other studies.

We know that most assisted living residents are expected to come from the lower end of the ADL distribution. Assisted living is deemed inappropriate for persons at the upper end of the ADL scale because most of them would not be able to benefit from the

increased independence and responsibility that assisted living allows. (As mentioned above, there are some other patient types for which assisted living is also not deemed appropriate.) As a result, there are some, perhaps, even a majority of nursing home patients for which assisted living is not even a potential substitute.

Nevertheless, because the entire distribution of ADL deficiencies is represented by nursing home patients, some people who would otherwise be nursing home patients would be "eligible" for care in an assisted living environment. If assisted living is seen by some as more attractive than nursing home care, we would expect a portion of those nursing home patients to transfer to a nursing home, or enter an assisted living situation initially.

We also know that many elderly at the lower end of the ADL distribution are not in nursing homes, but rather at home, living with relatives, or otherwise in the community. In the Iowa 65+ Rural Health Study, ADL information was collected on all residents over age 65 in two rural Iowa counties in 1982 (Nyman et al., 1989). For each level of ADL need, whether the residents were in an nursing home (ICF or SNF level) or not was recorded. The proportions of all county residents located in a nursing home at each ADL level are listed in Table 1.

Table 1 shows that a large portion of elderly with low ADL requirements are currently not in nursing homes. If a similar distribution of percentages were to hold for Minnesota (and there is no reason why it should not), it would imply that assisted living is about as likely to take residents away from other care sites as it is from nursing homes. Therefore, whether assisted living represents primarily a substitute to nursing home care or a complement to nursing home care will hinge on whether the decline in the nursing home patients who now choose assisted living is greater than the increase in the home or community care patients who now choose assisted living. Clearly, the determinants of these changes are the relative merits of assisted living compared with those of nursing home care or care at home in the eyes of the patient and their family, and the relative prices of the two.

Finally, with regard to substitutability, the general lack of desirability of nursing home care is both the reason for our interest in finding better alternatives for nursing home care (such as assisted living may be) and the reason why Medicaid's funding of nursing home care has been relatively free of a demand effect. That is, because nursing home care is regarded as an alternative of last resort, having the state pay for it as part of the Medicaid program has probably not resulted in many people opting to become poor (through divestiture) in order to receive this form of care. (Clearly, the requirement of being poor and the constraints on divestiture have something to do with this, too.) Instead, if a person did divest, it is likely that their expected need for nursing home care superseded every other option, rather than their wanting to opt to live in a nursing home rather than at home.

With assisted living, we can no longer make this assumption. The potential desirability of assisted living over care in the home makes a demand effect more likely. When assisted living services are paid for under Medicaid, it is likely that some persons—persons who would otherwise be living at home or with relatives—will attempt to shed their assets in order to qualify for Medicaid's coverage of assisted living. This potential demand effect makes it even more difficult to estimate the net substitutability effect for assisted living than for nursing homes. It also makes it critical to impose stricter controls over divestiture, as the State of Minnesota has recently done.

This discussion suggests that the "woodwork effect"—the idea that there are more dependent elderly than researchers had expected and that these people "came out of the woodwork" to use government programs intended primarily to reduce the number of nursing home patients—for assisted living may have two dimensions. First, Medicaid eligible elderly, who are living at home because they disliked the nursing home option, may opt for assisted living because it represents a relatively more attractive living arrangement. Second, dependent elderly who are not poor and who otherwise would have remained at home may opt to both divest to Medicaid eligibility and

move to an assisted living facility, either because assisted living represented a better alternative to living at home or because it represented a cheaper alternative by virtue of the savings achieved through Medicaid eligibility. Presumably, the divestiture would not have happened with nursing homes because, although it is cheaper to be in a nursing home with Medicaid paying for it than to be at home, very few people would ever opt to be admitted to a nursing home if they could help it.

## 2. To what extent can we target assisted living eligibility to reduce nursing home use?

In order for assisted living to reduce Medicaid expenditures, it is necessary that the reduction in Medicaid nursing home patients be greater than the number of new assisted living Medicaid patients who would otherwise have been living at home or in the community. (How much greater depends on the average Medicaid unit costs of nursing home care relative to average Medicaid unit costs for assisted living, for those transferring to assisted living from a nursing home. It also depends on the average Medicaid unit costs of home care and other home assistance programs relative to the average Medicaid unit costs of assisted living, for those transferring to assisted living from home or community care. These issues will be discussed below.) In order to assure that the reduction in nursing home patients would dominate, it is necessary to direct or "target" eligibility for a Medicaid assisted living program at persons who would otherwise have been Medicaid nursing home residents.

Targeting could be precise if it were required that only Medicaid nursing home patients could qualify for a Medicaid assisted living program. If this were the requirement, rules would need to be developed on how long a person must remain in a nursing home to qualify as a "Medicaid nursing home patient." This stint in a nursing home could be interpreted as an added cost to the patient, one that might help screen out some of the persons who regard assisted living as simply preferable to home care. However, for those who would otherwise have been appropriately admitted to a nursing home, the stint in a nursing home would represent an unnecess-

Table 1
Percent of Iowa Residents in Nursing Homes at Each ADL Level

ADL scores	All residents	Residents in nursing home	Percentage of residents in nursing home
0	4,358	54	1%
1	256	52	20%
2	122	25	20%
3	92	44	48%
4	82	39	48%
5	102	80	
6	78	41	53%
7	15	11	73%
8	21	17	81%
9	41	37	90%
10	19	18	95%
11	28	28	100%
12	54	46	85%

sary cost. In other words, if these people would truly benefit from being in an assisted living situation rather than nursing home, there is no reason to keep them in a nursing home for a period before they are able to go to assisted living. Distinguishing between these two types of patients may prove difficult.

Targeting in the demonstrations. Targeting, however, is rarely so precise. It is normally the case that targeting simply identifies people who are "at risk" of going into a nursing home. For these people, it is not clear that they would definitely have entered a nursing home, but given their characteristics—age, marital status, housing status, ADL dependencies, an so on—it is likely that they would.

Many of the 28 demonstrations alluded to earlier used targeting. These demonstrations typically defined a group of (targeted) elderly who were eligible for home and community care and compared their health care use to a similar group who were not eligible for these services. Because the control group was theoretically unaffected by the home or community care program, one measure of the accuracy of the targeting efforts was the percentage of persons in the control group who ended up in nursing homes during the course of the study.

In their review of 22 of these studies, Weissert, Cready and Pawelak (1988) observe that the percentage of the control group who were institutionalized ranged from 58.6% to 5.6%, with 70 percent of the studies showing a targeting rate of less than 25%. Weissert and his colleagues, however, go on to note that many of the persons who were institutionalized in the control group had relatively short stays. In order to counteract the increased costs of the additional home care users, however, these authors argue that it would be necessary to offset long nursing home stays. This, of course, did not happen and none of the demonstrations reported reduced costs.

Even though the demonstrations showed a predominant complementary effect, some substitution of home and community care for nursing home care did occur. The studies, however, showed a large range of substitutability. In the study with the greatest

amount of substitutability, On Lok, there were 23.8 percent fewer nursing home patients in the treatment group than in the control group. However, four of the 22 studies showed increases! Of the 14 studies that used statistical analysis to determine whether their numbers were significant, only four showed significance and all of them reported declines in nursing home use. All four of these studies also tended to be relatively successful in targeting, but there were a number of similarly successful studies that did not show significant substitution. From this evidence, we can conclude that targeting is probably a necessary, but not a sufficient condition for significant substitution to occur.

Weissert et al. (1988) also go on to suggest that the studies which have been more successful at targeting used either people who already reside in nursing homes (the "Financial" part of the Channeling demonstration) or people who had already applied for nursing home care and had successfully gone through the preadmission screening (the South Carolina demonstration). In other words, the closer one is to actually being a nursing home patient, the more effective the targeting. It is important to note, however, that this conclusion is derived from a review of a series of temporary experiments where the targeting rules were imposed on persons who had, in many cases, already made their decisions. The implementation of a policy rule for eligibility in a government program (as opposed to a targeting rule for inclusion in a one-time-only demonstration) may show entirely different behaviors. That is, if one establishes "application to a nursing home" as a condition for admission into an assisted living program, people would learn this rule and apply for nursing home admission just to become eligible for assisted living. Clearly, this would reduce the level of substitutability from such a program. In general, it is safe to say that any targeting rule will be learned and used in unintended ways to "game" the system.

Targeting in the Oregon adult day care program. The program which appears to have one of the most successful records in targeting and substitution is Oregon's Adult Day Care program (Kane, Kane, Illston, Nyman, Finch, 1991). Oregon's adult foster homes are private residences that are licensed by the state and can take up to 5 disabled adults. The Medicaid waiver for this program required that the adult foster care resident be eligible for nursing home care on the basis of functional disabilities. Moreover, the state embarked on an ambitious program to divert persons already in nursing homes and to promote adult foster home care as an alternative for those in need of nursing home level care.

Circumstantial evidence suggests that there is a great degree of substitutability between nursing home care and adult foster home care in Oregon. For example, in 1980, before the program was in place, there were 21 private and 25 Medicaid nursing home patients per thousand elderly. In 1987, after 5 years of the program, there were only 16 private and 21 Medicaid patients per thousand. Over this period, total nursing home patient days fell from 5,054,541 to 4,872,248 and occupancy rates in nursing homes fell from 92 to 87 percent. This decline in nursing home use coincided with the growth in adult foster care. In 1980, there were no adult foster homes or adult foster care patients, but by 1988, there were 2135 foster homes and over 6000 patients. The juxtaposition of shrinking nursing home demand and increasing use of adult foster home care suggests that many residents of adult foster care homes would have been nursing home residents were it not for the adult foster care program in Oregon (Kane, Illston, Kane, Nyman, 1990).

Another way to show the degree of substitutability between these two services is to show that utilization of nursing home care varies inversely with utilization of adult foster home care, holding other things constant. Regression analysis using the county as the unit of observation showed that for every 100 additional adult foster care patients in a county, 85 nursing home patients in the county are eliminated (Kane, Illston, Kane, Nyman, 1990). This is evidence of a high degree of substitutability. This program seems to be the best evidence that if properly directed, targeting and substitution could be successful.

Targeting of Medicaid patients. Although not conventionally part of the targeting concept, an additional consideration in the targeting of a Medicaid assisted living program is targeting at persons "at risk" of becoming or being Medicaid eligible. As mentioned above, an assisted living program may be so attractive that persons may divest in order to be able to receive these services under a Medicaid program instead of staying at home. This demand effect could be countered by targeting assisted living at "authentic" Medicaid patients. One way is to encourage the construction of some assisted living structures in areas where Medicaid eligibles already reside. While this may discourage divestors from using that assisted living facility, it may also discourage private patients from using it, too. The assisted living facility may need private patients in order to be economically viable.

Another way to target Medicaid patients is to make assisted living less desirable by making the living area more spartan. For example, the kitchen area could be limited or not included at all, or the entire unit's square footage could be constrained. The theory would be to provide a package of services that authentic poor people would prefer, but one which a middle class person who was considering divestiture would not. Again, the problem with this approach is that it would also make assisted living less desirable for the private payers.

It should be noted that this discussion is purely speculative. We have no evidence that divestiture is more of a problem with assisted living than it is for nursing home or home care. Nevertheless, given the difference between assisted living and nursing home care, and depending on the characteristics of the actual assisted living program and the characteristics of the anti-divestiture policies of the state, it could be a significant problem.

3. What are the costs of assisted living compared with nursing home care, and what is the trade-off between regulatory requirements and costs of assisted living?

## Assisted living costs v. nursing home costs.

The second requirement for assisted living to be expenditure reducing is that the unit cost of assisted living be less than the unit cost of nursing home care. Evidence suggests that this is generally the case.

Kane and Wilson (1993) survey 63 assisted living settings in 21 states. They asked the respondents for the lowest and highest monthly rate for both shelter and care services. The authors report a median low rate of \$995 and a median high rate of \$1,639, with the highest priced assisted living setting charging \$3,800. The highest priced programs, however, constructed their prices by taking their most expensive unit and then adding to it the cost of the maximum level of services obtained from outside agencies. Given that the concept of assisted living is to have most services available in house, this probably resulted in inflated upper estimates. These authors conclude that the majority of rates would be less than what a private nursing home patient would pay.

Others studies concur. Manard et al. (1992) include the monthly maintenance fees for a group of 9 assisted living facilities in the Washington, DC metro area in 1991. They range from \$627 to \$3,690, with an average of \$1,571 for the least expensive rates. They also quote monthly fees for a group of 5 California assisted living facilities in 1990. They ranged from \$765 to \$2,000, with a mean of \$1,318. These calculations are based on the cost of the lowest priced private accommodations. Semi-private accommodations would be less. In a separate study, Mollica et al. (1992) estimate that prices range from \$900 to \$3,000 a month.

In Minnesota, Rappoport (1993) of the ALFAA and an owner of assisted living facilities writes that his facility in Buffalo, Minnesota provides 24-hour personal care, homemaker services, transportation services, an activities program, and all meals and lodging for \$1,200 a month to 80 residents most of whom would otherwise qualify as A to D nursing

home patients and cost between \$1,800 and \$2,400 a month to care for. (The statewide average nursing home payment in 1993 for A through D actually ranges from \$1853 to \$2360, respectively.)

Mollica et al. (1992) estimate that assisted living rates are between 20 and 50 percent less than those of nursing homes. In general, a number of authors and advocates suggest that assisted living care would be priced at about 35 percent less than nursing home care for the same individuals. A Coopers and Lybrand study (1992) suggests that assisted living is also more profitable. They estimate that nursing home expenditures run about 80 percent of revenues, whereas assisted living home expenditures are between 55 and 60 percent of revenues.

States, however, have the ability to dictate what they are willing to pay under Medicaid. Unlike an individual consumer, states also represent a large enough portion of the market so that assisted living entrepreneurs would probably respond by building units that would be profitable at that price. For example, Oregon intended to set reimbursement rates at about 80 percent of prevailing nursing home rates, but ended up with reimbursements at 62.4 percent instead (essentially because nursing home rates in Oregon grew faster than expected, see Kane and Wilson, 1993, p. 60). New York, which classifies its nursing home patients under it RUGs case-mix reimbursement system, caps its payment to assisted living at 50 percent of the corresponding RUGs payment. Florida has a 50 percent target (Mollica et al, 1992). This is one way that states can guarantee that assisted living will cost less than nursing home care.

### Regulation and costs.

The nursing home industry has, perhaps, the most to lose from the growth of assisted living services. If the general conclusion that assisted living is less costly than nursing home services were untrue, the nursing home industry would probably challenge this perception. It appears, however, that the nursing home industry's main response to this claim has been to argue that it is easy for assisted living facilities to have lower costs because they are essentially unregulated.

If assisted living facilities were as regulated as nursing homes, the cost levels would be more equitable.

To economists, that regulatory intervention increases costs is a tenet that requires little empirical support. Not only does regulation (especially regulation directed at maintaining quality) often mandate that nursing homes provide services they otherwise may not have provided—an obvious source of increased costs—but it also dictates the best way to provide these services. Government regulation of how services are provided—e.g., establishing acceptable staffing ratios—prohibits nursing home administrators from responding to opportunities (provided by changes in the relative prices of alternative inputs) to substitute cheaper ways of providing services for the more expensive mandated ways.

Little empirical work has been done showing the connection between regulation and costs in nursing homes, and no studies have been done for assisted living. Generally, however, Gabel and Jensen (1989) have, for example, showed that the more benefits that a state mandates be included in health insurance policies, the higher the insurance premiums. With regard to nursing homes specifically, Morissey et al (1991), in an unpublished manuscript, suggests that states with certificate-of-need regulation have higher nursing home care costs. Although Buchanan et al. (1991) collected data on Medicaid reimbursement rate levels for nursing homes in the fifty states and on a number of regulatory characteristics, they did not investigate whether a statistical relationship existed between rate levels (which largely reflect cost levels in most states) and the amount of regulatory intervention.

In Minnesota, regulatory restrictions are also embodied in the reimbursement system for nursing homes. Because of the fear that nursing homes would reduce quality of care in order to reduce expenditures, nursing homes are paid rates for their patients that are determined largely by last year's expenditures. Were the nursing homes to reduce costs for nursing-related care in the present year, the reimbursement rate would be set next year to match that decrease. Although directed at assuring quality of care, the state has adopted a system that only partially rewards

nursing homes for minimizing the costs of providing a certain level of care.

Contrast this to a relatively unregulated assisted living situation where the price is set according to costs, the competitiveness of the market, and the level of (largely private) demand for assisted living services. The assisted living facilities provide services for that price and keep the difference between that price and costs as profits. If the facilities are not able to attract patients, there is no certificate-of-need or construction moratoria to prohibit rivals from entering the market. So the firms either figure out how to increase their business by providing better or more attractive services, or they exit the market and other firms enter. Note that it is often not necessary for firms to fail and be replaced by other firms (with all its attendant dislocation and trauma to the residents) in order to insure that services of a competitive quality level are provided. Rather it is the threat of failure and replacement that is sufficient to motivate the provision of better services.

Most importantly, however, under the present Minnesota reimbursement system, if a nursing home resident instead becomes an assisted living resident, state expenditures may not decline commensurately. During the year in which the patient is lost from the nursing home, the state will pay for fewer days at the nursing home's rate for that type of patient. In response, the nursing home will attempt to cut its expenditures. If we categorize nursing home costs into three groups—nursing care costs, other nonnursing care costs, and other operating costs—it is likely that the easiest place for the nursing home to cut expenditures to reflect the loss of one patient is in the nursing care cost area. Other operating costs may remain almost as high and other non-nursing care costs may not drop commensurately. In other words, expenditures will probably not be cut commensurate with the loss of revenue.

In the next year, however, because the reimbursement rate is set to reflect average case-mix costs from last year, the rate will have increased for each case-mix patient day to reflect the spreading of the other operating costs and the non-nursing care costs over fewer patients. This increase in state expenditures (due to increased reimbursement rates in the next and future years) will partially offset the reduction of state expenditures (due to the decreased patient day payments for all the days the person would have been in the nursing home). In other words, the most important cost issue in Minnesota may not be to what extent assisted living costs are less than nursing home care costs, but instead to what extent state nursing home expenditures will actually decline to reflect a loss of patients to assisted living facilities.

While regulations no doubt explain a large portion of the cost differences, other explanations exist. Advocates of assisted living such as Ladd (1993) argue that most important explanation of the difference in costs is that nursing home must be staffed to provide care for the sickest patients. This increases costs over what is necessary to care for patients at the lower end of the case-mix spectrum. Because assisted living does not staff for these heavy-care types of patients, they can reduce costs. Other explanations are of course possible.

4. What is the logic behind the "savings" that would occur to Medicaid in this state when we distinguish the room and board services from the health care services, and let Medicaid pay for only the health care portion of assisted living costs?

The distinction between health care services and room and board services stems from the constraint placed on Medicaid that it cannot fund room and board services except in hospitals and licensed nursing homes. Therefore, in order to take a Medicaid nursing home resident and instead serve her in an assisted living facility under Medicaid, it is necessary to distinguish the costs of care services from those of room and board services, and specify that Medicaid will cover only the former services.

Medicaid's normal coverage of care services in the state plan includes home health aide services which can cover housekeeping, preparing meals, shopping. It also includes personal care services—such as help with ADLs and medications as well as changing linens and light housekeeping—as long as they are

approved by a physician and supervised by a registered nurse (Mollica et al. 1992). Because of the limitations and constraints placed on these services, they are often not directly translatable to the assisted living environment. Therefore, states have developed strategies to modify Medicaid coverage in order to be more consistent with the care services in assisted living facilities and at the same time increase the amount of financial resources available to a Medicaid eligible person to use in paying pay for the room and board portion of the assisted living bill. The "savings" to Medicaid will depend on the strategy that each state adopts.

With regard to adapting Medicaid services to assisted living, Medicaid's coverage of care services can be modified through the Section 2176 waivers of OBRA 1981. This law permits states to provide home and community care to persons who would otherwise have qualified for admission to a nursing home. The advantage is that it allows states to depart from the state plan standards. For example, under a waiver, personal care services need not be tied to a physician or a registered nurse, making them easier to deliver in an assisted living environment. More directly, the 2176 waiver could specify that assisted living care services be included under Medicaid services. In Minnesota, payment for assisted living services is directly included as part of the Elderly Waiver.

With regard to increasing the financial capacity of a Medicaid eligible to pay for assisted living room and board, the waivers also allow states to alter the Medicaid income eligibility requirements for those who are living in the community. According to Mollica et al. (1992), such persons can receive up to 3 times the federal Supplemental Security Income (SSI) monthly rate (which was \$434 a month in 1993, for a total of \$1,302) and still qualify for Medicaid payment of health services. States determine the level of income (up to this limit) for Medicaid waiver eligibility and what amount of that income can be retained by the individual to pay for living expenses, and the remainder is use to cover the costs of the Medicaid waiver services. In addition, states can supplement income with state grants to the individuals.

In Minnesota, the state guarantees \$550 (1993) to pay for assisted living room and board in group residential housing (\$495 if in the community), of which up to \$434 is from SSI and the rest is a state supplement through the Minnesota Supplemental Aid (MSA) program. (Of that SSI income, \$20 is disregarded by MSA so that the MSA payment is actually \$81 rather than \$61.) If a person receives an MSA payment, they are automatically eligible for Medical Assistance (MA, Minnesota's name for Medicaid). In addition, an A-type patient will receive up to \$564 a month to pay for the assisted living care services, for a total guarantee of \$1,114 in 1993.

The amount an A-type patient actually receives depends on their care plan requirements from the needs assessment and the price of that care quoted by the assisted living facility. It also depends on where the facility is located. The upper limit of this payment is either the average for facilities in one of the three state geographic regions or the overall statewide average, whichever is higher. Since the Metro region has higher assisted living prices, facilities in the Metro area are bound by the Metro average and facilities in the other two regions are bound by the statewide average.

There are differing payment limits for different casemix types. The following table, Table 2, shows the 1993 state (monthly) averages and Metro area upper bounds for the lowest 4 case mix levels.

(The other case-mix types also list maximums but were not included here.) The nursing home rates (also shown) increase as one moves to a higher case mix type, as does the difference between the two. This generally means that savings will be greater on more dependent case-mix assisted-living residents (who would have been nursing home patients) than on the less dependent case-mix residents. While this ostensively represents an incentive for the state to place the higher case-mix types in assisted living rather than nursing homes, it is not clear what mechanism the state would use to act on this incentive.

The savings to Medicaid for a person with zero income and an A-type case mix designation would be

the difference between the payment to the nursing home (\$1,853, the statewide average 1993 rate to nursing homes in Minnesota for an A-type patient) net of the SSI and MSA payments (\$30 and \$26, respectively), or \$1,797, and the Medicaid payment to an assisted living facility (\$564), which equals \$1,233. (As a percentage, the Medicaid payment to an assisted living facility is about 31 percent of the Medicaid payment to a nursing home.) However, because the assisted living resident is eligible for additional transportation, home care, and other services paid for by MA, the difference is likely to be smaller, depending on which additional services the assisted living resident receives. This caveat would also apply to the savings calculations below.

The savings to all government subsidizers, however, is the difference between the nursing home payment (\$1,853) and the payment to the assisted living facility (\$1,059), or \$794, again not counting any additional services paid for by MA. (As a percentage, the payment to assisted living is here about 57 percent of the payment to nursing homes.) Note that because of the Medicaid constraint on paying for room and board, it is necessary that the room and board expenditures as a percentage of all expenditures equal the SSI plus MSA payments as a percentage of total payment to the assisted living facility for the entire \$1,059 to be paid to assisted living. Considering all sources of government finance, the savings to all government subsidies is roughly 2/3 of the Medicaid savings.

The savings to the state is the difference between the state's payment for nursing home care (Minnesota's 1993 portion of Medicaid or 45 percent of \$1,473, or \$809, plus the MSA payment of \$26 for a total of \$835) and the state's payment for assisted living (45 percent of \$564, or \$254, plus \$64 in MSA payments or \$318), for a difference of \$516. (As a percentage, the state's payment to assisted living is 38 percent of the payment to a nursing home.) Again, in comparison to the savings to Medicaid, the savings to the state is less than half what they are to Medicaid.

If the same A-type person above has some income,

Table 2
Average Monthly payments to Facilities by Case-Mix Type

Type of facility	A	В	С	D
Assisted living				·
Statewide average	\$564	\$637	\$720	\$796
(Metro average	\$648	\$731	\$826	\$912)
Nursing facility				
Statewide average	\$1,853	\$2,013	\$2,195	\$2,360
Difference				
Statewide average	\$1,289	\$1,376	\$1,475	\$1,564

say \$300 a month, this would offset the federal SSI payment first, and then the Medicaid payment. With regard to Medicaid savings, this would reduce Medicaid payments to the nursing home by \$270, but would mean no reduction of Medicaid payments for the assisted living resident at all. In general, the presence of personal income would tend to reduce Medicaid savings.

With regard to total government savings, the presence of personal income would reduce both nursing home and assisted living subsidies equally, so that the difference would remain the same.

With regard to state government savings, the presence of personal income would again reduce the state portion of the Medicaid payment by 45 percent of \$270 or \$121.50, but not reduce the state's portion of the assisted living bill. In general, again, the presence of personal income would tend to reduce the state's savings from replacing a nursing home patient with an assisted living one.

In summary, although we do not have estimates of the state expenditures from the additional Medicaid services that an assisted living resident might require, the savings to the state of replacing an nursing home patient with an assisted living resident appear to be large enough to potentially support a program that would promote the establishment of assisted living units in Minnesota. Whether this would reduce expenditures, however, depends on how well it could be targeted toward Medicaid nursing home patients.

5. What is the market for assisted living? Would rural areas be excluded? Would private payers receive different care than Medicaid payers?

## The market for assisted living.

As alluded to above, the demand side of the market for assisted living consists of those (mostly elderly) persons with personal care needs at the low end of the ADL scale, who want to avoid nursing homes but regard assisted living as either a more desirable living environment than living at home or a more appropriate one, given their physical needs. What does the supply side look like?

The philosophy of assisted living dictates that assisted

living facilities have a "homelike," non-institutional atmosphere. Some observers contend that this implies that assisted living facilities should be small—perhaps between 15 and 30 units—relative to nursing homes. Moreover, the architectural lobby would have them built as new facilities, in order to have a free hand at designing in features that promote a homelike feel.

On the other hand, assisted living facilities must be large enough to keep the staff productively engaged. For example, to have a care attendant on duty throughout the night would be more efficient in a larger unit, so long as it was not so large that the attendant is overextended. According to Kane and Wilson (1993), however, this problem is largely a product of unnecessary divisions of labor. They point out that were the night attendant's job description to include doing the laundry, the efficiency of a small facility would be increased. On the other hand, small facilities might still experience efficiency losses because of their forgoing the productivity gains from specialization and because their wage payments would probably need to be commensurate with the most skilled task in the person's job description.

It is not clear whether it is more efficient to build new facilities or convert existing ones. On the one hand, an existing building may be so low priced as to justify the cost of conversion. On the other, the developers who build may be able to get the same square footage as an existing building and for the same expenditure as the building with conversion, but at the same time design the facility more directly for the purpose of assisted living. In other words, to a certain extent, the conversion of an existing building is likely to constrain the degree to which the developer can architecturally achieve a home-like atmosphere.

The actual size of assisted living units appears to be more consistent with efficiency considerations than philosophy considerations. Mollica et al (1992) write that facilities in the private sector range from 40 to 120 units, with individual units having between 300 and 600 square feet. Kane and Wilson (1993) report that in their survey of 63 assisted living facilities nationally, they found a range of between 10 and 380 units, with the median tenant capacity of 56.

Assisted care facilities consist of both those that were built for assisted living purposes and those that were converted from something else. Kane and Wilson (1993) note that the newly built facilities are typically used in "primary markets" (which they describe as cities with populations over 100,000 or areas with a large percentage of affluent elderly) while the converted facilities tend to dominate the "secondary markets" (i.e., cities from 30,000 to 100,000 in populations).

Can assisted living facilities be viable in rural areas? Clearly, rural areas are likely to be smaller markets. On the supply side, given the range of facility sizes and the flexibility to use either new construction or converted existing construction, it seems likely that assisted living services can be produced efficiently in the smaller facilities that would be appropriate for these communities. Kane and Wilson (1993) confirm that some of the entrepreneurs that they contacted in their survey concentrated their development efforts on rural markets.

On the demand side, small facilities may better be able to establish themselves as being home-like and non-institutional settings, where the elderly can age in place. Because of the market niche mentality and the public policy encouragement of demand for assisted living, it is likely that the assisted living facilities will take some business away from nursing homes. In other words, the number of nursing home beds per 1,000 elderly (often an unreliable measure of demand pressure on the market) need not be low, or the nursing home occupancy rates need not be high to assure sufficient demand for assisted living.

Assisted living facilities are also likely to find new consumers in those who are willing to leave their homes to gain the extra security and services available at an assisted living facility. It is also likely that with the aging of the population and the disproportionate number of elderly in rural areas, demand for all long-term care services will continue to increase.

In Minnesota, nursing home occupancy rates are generally higher in rural areas than in urban areas. Given the increase in demand caused by the aging of the population, the relative shortage of beds in rural areas, and the moratorium on new nursing home bed

construction, there is likely to be a need for more capacity to care for the elderly. This means that rural areas would likely experience an increase in the demand for assisted living services even if substitution by nursing home patients did not occur.

Would private payers receive different care than Medicaid payers? Whether Medicaid payers would receive the same care as private payers in the same facility depends on whether the payment rates would differ at that facility. There are two ways that the rates could be the same. First, the facility could set an assisted living rate for private patients and Medicaid patients could be charged the same rate. Second, the state could set the Medicaid rate and prohibit the assisted living facility to charge more than that for their private patients. This second option is, of course, consistent with the provisions of the Rate Equalization Act for nursing homes. It is, however, unlikely that the state will want to intervene to such an extent in the assisted living industry. One of the reasons why the state is interested in assisted living is that it would not require a degree of intervention similar to that which has been imposed on the nursing home industry. Furthermore, the assisted living industry would oppose it and so would most of the researcher/advocates associated with assisted living.

While it is probably necessary that rates be different in order for the care and other services to be different, it is not sufficient. That is, even if assisted living firms charged higher rates for private patients than for Medicaid patients, it is not necessarily the case that the care or other services would be different. It is in the interest of profit-maximizing firms to charge different prices if they can separate demands according to price elasticities. Presumably, private payers have more inelastic demands and would pay higher prices than Medicaid payers, who have limited resources and even more limited choices. (It is important to note that this does not necessarily imply cross subsidization of Medicaid by private patients. There could be differences in prices, yet in both cases marginal revenues could cover average costs of care.) Indeed, assisted living facilities should welcome a scheme where they charge less to Medicaid patients than to private patients because this enables them to

price discriminate and therefore make greater profits than they otherwise would have if they were forced to charge only one price to all. Charging lower prices to Medicaid would also be in the interest of the state, not because of cross subsidization, but because it allows the state to serve more people on a given budget than it would have if the price the firm charged everyone were either the private price or a price that averaged the private and Medicaid prices.

If two prices were charged, the services could also differ. The justification for differing services is that Medicaid patients are being paid for by taxpayers and the taxpayers should be able to limit the services to an economical set. Perhaps the most likely way to do this is to constrain the size of assisted living units to a square footage that is less than the private square footage, that is, limit the housing services. On the other hand, the justification for providing the same services is that the state should not make Medicaid residents second class citizens by providing less services than private patients. Still, the state can only go so far in this regard. There may be some facilities that are totally private that provide the sort of highquality/high-amenity services that only the most wealthy of private residents can buy. For the state to pay these facilities their going rates would clearly seem unjust to most taxpayers.

In summary, the question of whether Medicaid payers would receive different services than private payers is clearly a political question. It seems unlikely that Minnesota would implement a Rate Equalization Act for assisted living that would force equal services for everyone. It also seems unlikely that the state would cover the cost of care at any facility, even the most opulent of ones. Instead, it is likely that the state will continue to pay a relatively limited amount under Medical Assistance, SSI, and MSA, for the Medicaid residents, and not regulate the private prices. If so, the facilities will be free to charge more to private patients and also provide different care, as long as they are able to find sufficient customers in doing so.

## 6. What are the nature of the gains and losses to the state and its citizens?

The state will gain from assisted living primarily by

promoting the development of an industry that provides a type of service that more closely matches the preferences of a portion of the dependent elderly in this state, both private and public payers. It is important to note that this conclusion does not derive from any studies that show that assisted living residents show a slower decline in their physical or cognitive abilities than residents of nursing homes or dependent elderly living at home. It simply derives from the fact that assisted living provides another constellation of services that people can choose from and that some people might prefer. The mere act of choosing assisted living services over both nursing home services and home care reveals a gain to society over the situation where dependent elderly are forced to choose only between only the latter two.

There is also the possibility that the state will gain if it is able to reduce its expenditures by providing access to assisted living. For this to happen, however, it is necessary that a number of conditions be met. First, it is necessary that assisted living be successfully targeted at persons who would otherwise be Medicaid nursing home patients. Second, it is necessary that the state's paying for these services does not entice those who would otherwise have been cared for at home as private patients to divest in order to receive assisted living services paid for by Medicaid. Third, it is necessary that the additional Medicaid services received by Medicaid assisted living residents be sufficiently small so that they do not eliminate the savings to the state. And finally, it is necessary that nursing homes be able to reflect the loss of nursing home patients to assisted living by lowering their costs and reimbursements accordingly.

If a successful assisted living program is developed in Minnesota, whether the State will experience reduced long-term care expenditures depends on other things. "Success" simply means that expenditures will be lower than what they otherwise would have been. Clearly, it is possible that assisted living could be successful in reducing long-term care expenditures, but at the same time the population would age so that nursing home occupancy rates would remain essentially unchanged and State expenditures could continue to grow.

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