Adult Foster Care for the Elderly in Oregon: A Mainstream Alternative to Nursing Homes?

Rosalie A. Kane, DSW, Robert L. Kane, MD, Laurel Hixon Illston, MSPH, John A. Nyman, PhD, Michael D. Finch, PhD

ABSTRACT

Background. In Oregon, adult foster care (AFC) homes, which are private residences where a live-in manager cares for one to five disabled residents, have been covered by Medicaid since 1981 and seem to offer a mainstream alternative to nursing homes. They house almost 6000 older people, two thirds of which pay privately.

Methods. In a cross-sectional study, we interviewed 400 AFC and 400 nursing home residents. Data analyses included descriptive cross-tabulations; hierarchical loglinear models for judging the effects of care setting and payment status on resident characteristics; and logit analyses for predicting care setting and payment status within care settings.

Results. On average, nursing home residents were more physically and cognitively impaired than AFC residents, but there was considerable overlap in patterns of frailty in the two settings. Medicaid AFC residents were less disabled than privately paying AFC residents. AFC residents reported more social activity, even when we controlled for disability status. AFC residents and their families were more likely to value privacy and homelike settings when choosing a care setting, whereas nursing home residents were more likely to value rehabilitation and organized activity programs.

Conclusions. Both AFC and nursing homes are viable components of a long-term care repertoire. The greater disability levels of private-pay AFC residents refutes the criticisms that disabled Medicaid residents were being inappropriately channeled to AFC. (*Am J Public Health.* 1990;81:1113–1120)

Introduction

The repertoire of suggested care to supplant or supplement nursing homes has been growing, although demonstration research thus far has not shown the cost-effectiveness of such care in major randomized trials.[1–3] Lackluster results of demonstration projects are attributed, in part, to poor targeting of the new community care programs to people unlikely to enter nursing homes or to stay there for long. It is also inherently difficult to deliver home care as efficiently as nursing home care to people with heavy care needs. Economies of scale are required, and this, in turn, requires residential proximity of those needing care, which is certainly a characteristic of nursing homes.

This line of reasoning has led to enhanced interest in developing residential settings for functionally impaired persons that permit economies of scale in their care but allow the older disabled persons to preserve personal autonomy and privacy and have more control over their routines. In such living settings, the resident is not viewed first and foremost as a patient.

Study Setting

Adult foster homes, as they have developed in Oregon, provide one such residential setting. An adult foster home in Oregon is a private residence in a residentially zoned area that is licensed to care for one to five disabled adults. Each foster home must have a live-in resident manager (who may also own the home). Meals are served family style, and regulations are kept to a minimum to enhance a homelike atmosphere and autonomy for the residents. The resident manager provides personal care and housekeeping services. If necessary, other services, such as skilled nursing, can be brought into the foster home from home health agencies.

Although the idea of adult foster care is inherently attractive as a concept, several demonstrations projects in other states have failed to develop a strong market for the service.[4–8] However, Oregon's experience with adult foster care has been different in two ways. First, although Medicaid clients were the first to widely use adult foster care, by 1988 private-paying customers constituted more than two thirds of the nearly 6000 residents in foster care. Second, and related, in other states where foster care exists, the programs tend to be proportionately much smaller and largely serve low-income clients with mental illness or developmental disabilities.[9] Only in Oregon does adult foster care seem a mainstream possibility for the elderly.

The growth of adult foster homes in Oregon was stimulated in 1982 when the state made adult foster care a benefit under its Medicaid waiver program. To receive subsidies under this program, the adult foster care resident needed to be eligible for nursing home care on the basis of functional disabilities. The state developed a vigorous program to divert Med-

Rosalie A. Kane is with the School of Public Health and the School of Social Work of the University of Minnesota, all other authors are with the School of Public Health of the University of Minnesota.

Requests for reprints should be sent to Rosalie A. Kane, DSW, Division of Health Services Research & Policy, School of Public Health, University of Minnesota, 420 Delaware Street, SE, Box 729, Minneapolis, MN 55455.

This paper was submitted to the journal December 10, 1990, and accepted with revisions May 1, 1991.

icaid clients already in nursing homes to foster homes when the routes to home had been cut off and urged clients who could no longer remain at home to consider adult foster care as an alternative to nursing home care. By 1988, adult foster care was widely accepted by the public as a desirable means of caring for older persons in need of a supportive environment.

Several facts about adult foster care in Oregon were clear. First, the growing utilization suggested that many elderly and families found adult foster care a desirable option. Second, the success of adult foster care within both the private and Medicaid markets (along with vigorous home care programs) was sufficient to reduce the demand for nursing home beds. Between 1981 and 1989, the supply of nursing home beds per 1000 persons aged 75 years and older fell from 50 to 40, and the occupancy rate decreased from 92% to 87%.[10] Oregon is the only state where nursing home use dropped in absolute as well as proportional terms. Third, adult foster care is a less expensive program than nursing home care; both the Medicaid rates and the average private pay rates in foster care were about 2/3 of those in nursing homes. And fourth, adult foster homes became the focal point for criticism from the nursing home industry, which claimed that the care was inadequate, that the degree of social stimulation was insufficient, and that the Medicaid program, in particular, was denying recipients access to the appropriate level of care.

In this context, the state of Oregon commissioned the University of Minnesota to evaluate the adult foster care program. The study had several components, including a mailed census of the foster care industry and a retrospective study of change over time using program data for the Medicaid population. Both of these will be reported in future papers. This paper reports the results of a cross-sectional comparison of 400 foster care residents and 400 nursing home residents. Our analysis looked at differences between care settings and differences between Medicaid and private pay clients within care settings. The ramifications of these questions for public policy extend beyond Oregon at a time when serious consideration is being given to tightening the regulation of group homes and some authorities argue that elderly people should be channeled to particular care settings on the basis of measurable functional characteristics.

Method

Sample

Between December 1988 and February 1989, we conducted in-person, structured interviews with 402 intermediate care facility (ICF) residents and 405 foster home residents in four geographic areas, the latter chosen to represent different facets of long-term care delivery in Oregon (i.e., rural vs urban, Medicaid administration by area agencies on aging vs by regional state offices of the Senior Services Division) while reflecting the average, typical state experience on descriptors such as proportion of elderly, and adult foster home and ICF bed-to-population ratios. Original data collection was necessary because, although considerable data are available about Medicaid residents living in adult foster homes and in nursing homes through their periodic assessments by case managers, little existing data are available on the private pay group in either setting, particularly in foster homes. Moreover, even the Medicaid data set has no information on social activities or choice of care setting.

We generated the foster care sample by randomly selecting foster homes in each geographic area and enrolling all residents of the selected foster homes until we reached the desired proportional number of respondents for each of the four regions. Enough nursing homes were selected randomly in each geographic area to allow us to interview 10 residents in each facility and achieve a number of subjects equal to the foster home sample. From a list of all ICF residents in the randomly selected homes, we randomly selected 5 Medicaid and 5 private pay ICF residents, thus reflecting the proportion of Medicaid and private pay residents in the population. (The nursing home sample was limited to ICF residents because the skilled nursing care level in Oregon is a very small program and widely agreed to include only very disabled and medically unstable persons who are not appropriately compared to adult foster home residents).

To reach the desired sample size of at least 400 residents in each care setting, 108 foster homes were included in the sample; only 4 foster homes approached refused to participate. The final nursing home sample included 39 facilities; only 2 nursing homes approached refused to participate. Participation of the sampled residents was also very high. Actual refusals to participate represented only 4%—6 ICF residents and 5 family members on behalf of a cognitively impaired ICF resident declined to participate. No refusals occurred among foster care residents.

Data Collection

Interviewers were recruited from the local areas and trained by University of Minnesota staff. Most had previous experience in human services or health care. Background information such as date of admission, payment status, medical diagnosis, and family member most knowledgeable about the resident (should a family proxy be needed) was first gathered from the care setting staff on each sample member. For this purpose, records were consulted when necessary. If the resident in either care setting seemed to be an unreliable informant, the interviewers were instructed to skip to a later section of the schedule and attempt to administer the mental status questionnaire. When few of the 10 MSQ questions were answered correctly, or when the resident was clearly too confused to answer, the interviewers moved to proxy respondents. Questions about choice of care setting and satisfaction with care setting were administered by telephone to a family member. The foster care home's resident manager or a nursing home staff member who knew the resident best served as the proxy respondent for questions about current physical functioning, activities, and recent use of hospitals, emergency rooms, and physicians.

Instruments

Identical questions were asked of adult foster home and ICF residents (merely interchanging the terms "adult foster home" and "nursing home" when appropriate.) The functional abilities of the residents were measured through questions carefully designed to be compatible with those found in the SSD 360 (the comprehensive assessment format used by case managers to provide a database on all Medicaid waiver clients in Oregon.) Activities of daily living and instrumental activities of daily living (ADL/IADL) items included toileting, dressing, transferring, bathing, eating, ambulation, and internal medicine use. Cognitive status was measured by the short, portable mental status questionnaire. The health section included self-reported health, vision, hearing, self-diagnosis, and health care utilization. For this study we added three questions to tap mood (depression, anxiety, and positive affect) and questions on activities, recent relationships, satis-

faction items, and items on factors related to choice of care setting adapted from an earlier study of nursing home outcomes.[11] The questionnaire and the Oregon SSD 360 are available from the authors. The instrument was characterized by its use of direct questions to respondents rather than by interviewer ratings of the attributes of the respondents.

Statistical Analysis

All data analyzed were categorical. Crosstabs were run on all data with hierarchical loglinear three-way chi-squares used to judge whether the main effects of client setting or payment status or their interactions were significant. Logit analysis was performed to determine which factors predict care setting and payment status within care setting.

Findings

Case-Mix Differences

As shown in Table 1, the demographic characteristics of the samples were similar across care settings, with payment status in foster care reflecting actual proportions in the population. We have separated the private and Medicaid supported clients in all analyses because of policy interest. There were, however, some substantial differences between the two groups. Foster care residents were less likely to come from acute care hospitals. Only 12% and 13% of Medicaid and private pay residents were admitted from a hospital, compared with 44% and 33% of corresponding nursing home patients. Fourteen percent of Medicaid and 17% of private adult foster care residents came from nursing homes, whereas only 9% of Medicaid residents and 7% of private nursing home residents came from adult foster homes.

Table 2 contrasts the pattern of diagnoses. The residents in nursing homes had more major health problems than those in adult foster care; yet this information must be interpreted with some degree of caution because some adult foster care providers had imprecise knowledge of their clients' diagnoses, and the records in adult foster care homes were less complete than in nursing homes. There were also differences by payment status. These did not follow as clear a pattern. For example, whereas clients with dementia were more frequently private pay in adult foster care, they were about equally distributed in nursing homes at a rate still higher. By contrast, patients with seizures were more

TABLE 1—Demographic Background of Sample

Characteristic	No. (%) of Adult Foster Home Residents (n = 405)	No. (%) of Nursing Home Residents (n = 402)
Gender		
Percent Female	314 (78)	293 (74)
Age, y		
Under 50	16 (4)	10 (2)
50–64	21 (5)	12 (3)
65–74	51 (13)	46 (11)
75–84	117 (29)	116 (29)
85–94	156 (38)	164 (41)
95+	45 (11)	54 (13)
Marital Status		
Married	39 (10)	78 (20)
Widowed	260 (67)	249 (64)
Divorced	53 (14)	24 (6)
Single	38 (10)	41 (11)
Education		
Grade school or less	169 (47)	165 (45)
Some or all high school	120 (33)	106 (29)
Some college	50 (14)	57 (16)
College or more	23 (6)	37 (10)
Payment Status		
Private	255 (63)	214 (53)[a]
Medicaid	150 (37)	188 (47)

[a]Although the original intent was to have equal distribution between Medicaid and private pay individuals in nursing homes, two homes drawn in the sample accept only private-pay residents.

TABLE 2—Major Health Problems

Medical Problem	Adult Foster Home		Nursing Home	
	Medicaid, % (n = 150)	Private, % (n = 255)	Medicaid, % (n = 188)	Private, % (n = 214)
Dementia	23	36	42	44
Heart disease	20	22	32	28
Arthritis	13	11	14	10
Stroke	16	23	21	21
Blood pressure	11	5	10	9
Skeletal/muscular	10	10	15	9
Mental illness	14	11	6	7
Vision	8	7	5	4
Hip fracture	3	5	7	17
Respiratory	9	4	10	5
Parkinson's	4	5	5	10
Diabetes	11	8	10	7
Alcoholism/drug abuse	7	1	3	3
Incontinence	4	3	2	3
Mental retardation/developmental disability	5	1	3	—
Old age	3	5	1	—
Hearing	3	5	2	2
Other neurological	3	1	5	5
Cancer	4	2	1	4
Seizures	3	2	9	2
Other bowel and bladder problem	1	1	8	11
Multiple sclerosis	1	1	2	3
Other diagnoses[a]	4	3	12	14
Other nondiagnostic problem[b]	10	7	3	5
Unknown to respondent	4	3	—	—

[a]This category includes any specific diagnosis that was mentioned less than 1% of the time.
[b]This category includes any "nondiagnostic" problem mentioned less than 1% of the time—e.g., weight loss.

TABLE 3—Functional Abilities by Care Setting and Payment Status

	Ability to Function, %											
	Without help				Some Help				Complete Help			
	Foster Home		Nursing Home		Foster Home		Nursing Home		Foster Home		Nursing Home	
ADL Function	Medicaid	Private	Medicaid	Private	Medicaid	Private	Medicaid	Private	Medicaid	Private	Medicaid	Private
Moving	56	48	27	22	34	29	22	25	9	23	52	53
Transferring	86	63	27	24	7	18	20	19	7	19	54	57
Bathing	33	17	6	7	34	32	19	17	33	51	75	76
Dressing	65	48	19	19	22	25	25	20	13	27	56	61
Eating	88	80	60	53	8	13	24	28	4	7	16	20
Toileting	81	65	26	23	12	16	19	17	7	19	54	60

ADL = activities of daily living.

TABLE 4—Cognitive Status by Care Setting and Payment Status

	Adult Foster Home, No. (%)				Nursing Home (ICF), No. (%)			
	Medicaid		Private		Medicaid		Private	
Five or more errors on the SPMSQ	38	(27)	44	(3)	42	(36)	52	(43)
Unable to administer the SPMSQ	11	(7)	58	(23)	67	(36)	87	(41)
Total	49	(34)	122	(56)	109	(72)	139	(84)

SPMSQ = Short Portable Mental Status Questionnaire.

likely to be Medicaid clients in nursing homes and developmentally disabled clients were more likely to be supported by Medicaid in both settings.

The extent of dependency in ADLs is shown in Table 3. More adult foster care clients were able to perform each of the six ADLs studied without assistance. Private paying residents in adult foster care were more disabled than those supported by Medicaid, whereas the proportions were more similar within the nursing home sample. This pattern of difference by payment status is also seen in the levels of cognitive performance on the 10-item Short Portable Mental Status Questionnaire (SPMSQ[12]; see Table 4). Among adult foster care residents, 33% of the private-pay clients had five or more errors, and another 23% could not respond to the test at all. Among the Medicaid foster home group, 27% had five or more errors, and only 7% could not respond. In the nursing home sample, 43% of the private-pay clients made five or more errors, and 41% could not respond; for Medicaid residents the comparable figures were 36% and 36%. Thus a total of 56% of private-pay adult foster care residents and 34% of Medicaid residents did poorly on the SPMSQ compared with 84% of private pay nursing home residents and 72% of Medicaid residents.

TABLE 5—Proportion Considering Selected Factors Important in Selection of Care Setting

	Adult Foster Home, %		Nursing Home, %	
Factor[a]	Medicaid (n = 150)	Private (n = 255)	Medicaid (n = 188)	Private (n = 214)
Homelike atmosphere	94	96	63	62
Safe, supervised place to live	93	96	94	92
Personal assistance	82	84	87	88
Privacy	80	82	54	54
Medical care	80	60	82	80
Flexible routines and rules	81	78	57	51
Cost	70	77	68	66
Location/neighborhood	68	67	69	72
Organized activities	33	26	52	38
Physical rehabilitation program	26	21	51	39
Compatibility or familiarity with facility, staff, or residents	9	4	1	5
Quality care and staff	4	5	8	10
Clean and pleasant surroundings	2	3	8	7
Other	6	10	5	5
None of the above	—	—	2	1

[a]Respondents could select more than one factor as important.

Other reflections of the differences across these settings can be seen in the amount and location of physician care (not shown in a table). Although the proportion of clients reporting a physician visit in the previous 6 months was similar by payment status, nursing home patients were more likely to see a physician. Among adult foster care residents, 80% of Medicaid and 77% of private residents saw a doctor in the previous 6 months compared with 90% of Medicaid and 91% of private-pay nursing home patients. Caution should be used in interpreting these figures because physician contact is mandated on a periodic basis for Medicaid nursing home clients. The location of these visits was quite different. Whereas about 90% of the adult foster care residents saw a physician in his or her office,

TABLE 6—Activities in the Care Setting in the Last Few Months by Functional Status, %

Activity	Never				Sometimes				Often			
	Hi[a]		Lo[b]		Hi		Lo		Hi		Lo	
	AFC	NH	AFC	NH	AFC	NH	AFC	NH	AFC	NH	AFC	NH
Watch television	8	17	35	42	27	39	35	31	65	44	30	28
Listen to radio, to music	43	35	45	28	32	34	30	39	25	32	25	33
Talk to other residents	6	7	39	38	35	47	30	38	59	47	32	24
Read books or newspapers	29	42	69	78	26	24	15	11	45	34	17	11
Engage in hobbies	66	82	94	93	17	12	6	5	17	6	—	2
Chat with staff	3	8	15	25	29	47	35	43	68	45	50	32
Play cards or games	80	57	94	90	14	28	4	8	6	16	2	2
Do activities organized by home	61	28	85	37	26	51	11	44	13	21	4	19
Help with cooking/ housekeeping	68	94	100	98	16	2	—	1	17	3	—	1

AFC = adult foster care; NH = nursing home.
[a]Residents who did not need complete help on more than bathing (n = 290 in foster homes and n = 126 in nursing homes).
[b]Residents who need complete help with four or more functional activities (n = 54 in foster homes and n = 211 in nursing homes).

only about 30% of the nursing home patients did so.

Choice of Care Setting

Mostly, the preferences of those living in adult foster care were similar to those of nursing home residents. As shown in Table 5, however, there were some important differences. For example, adult foster home residents were more concerned about a homelike atmosphere and privacy, whereas the nursing home residents emphasized organized activities and physical rehabilitation. Not surprisingly, both groups valued safety and personal assistance. In choosing one setting over another, 60% of the foster care residents and 36% of the nursing home residents (or their family proxies) believed that they had at least some control over the choice of care setting. A nursing home had been considered by 20% of foster care residents and a foster home had been considered by 15% of nursing home residents.

Living Conditions

The differences in the two settings can also be seen in the way in which residents spent their time. Table 6 describes the residents' activities according to their level of functioning in their respective care settings. Better functioning adult foster care residents were more likely to watch television, talk with other residents, and help with cooking and housekeeping, whereas better functioning nursing home residents were more likely to participate in organized activities and games and listen to the radio. As shown in Table 7, adult foster care residents were more likely to leave the care setting for activities other than medical appointments, especially shopping and entertainment, a finding that held true when we controlled for functional status and for cognitive status. The reversal of the usual pattern for low functioning nursing home patients reflects the fact that nursing home staff is more likely to organize group activities or to bring activities to the residents. The patterns of responses in Table 8 suggest that adult foster care residents were less likely to get visitors than nursing home residents but more likely to have telephone contact. Nearly 25% of the nursing home residents compared with only about 10% of adult foster care residents had a visitor every day. Only about 5% to 10% of both groups had no visitors. Telephone access was more difficult in nursing homes. About 33% of adult foster care residents com-

TABLE 7—Frequency with Which Residents Engaged in Activities Outside the Home, Adjusted for Functional Status in Foster Home and Nursing Home, %

	Hi[a] Status		Low[b] Status	
	AFC	NH	AFC	NH
Frequency				
Not at all	18	48	72	83
Less than once a month	30	26	20	13
Less than once a week	13	11	—	2
About weekly	26	11	7	1
Almost every day	13	5	—	—
Activity				
Take a walk in the neighborhood	36	34	—	11
Use a bus or public transportation	12	17	—	3
Go for a ride in a car	95	92	87	91
Visit relatives or friends	78	80	80	71
Attend church or other religious activities	29	18	—	24
Attend a senior center or club	17	9	7	—
Go shopping	52	34	20	14
Go to a restaurant, movie, or other entertainment	69	59	47	38
Attend activities outside the home arranged by the foster home	31	32	13	23

AFC = adult foster care; NH = nursing home.
[a]Residents who did not need complete help on more than bathing (n = 290 in foster homes and 126 in nursing homes).
[b]Residents who need complete help with four or more functional activities (n = 54 in foster homes and 211 in nursing homes).

TABLE 8—Frequency of Visitors and Phone Contacts in the Last 6 Months by Cognitive and Functional Status in Foster Homes and Nursing Homes, %

	Cognitive Status				Functional Status			
	Hi[a]		Lo[b]		Hi[c]		Lo[d]	
	AFC	NH	AFC	NH	AFC	NH	AFC	NH
Have visitors								
Not at all	6	9	5	9	6	8	6	10
Less than once a month	26	13	24	25	28	16	17	23
Less than once a week	18	17	20	17	18	20	15	16
About weekly	41	32	39	31	39	34	49	29
Almost every day	9	29	12	18	9	22	13	22
Telephone contact								
Not at all	20	50	54	85	26	49	67	83
Less than once a month	22	15	22	7	25	13	9	8
Less than once a week	10	11	9	2	10	12	6	1
About weekly	30	13	10	5	25	15	9	4
Almost every day	17	12	4	2	14	11	9	3

AFC = adult foster care; NH = nursing home.
[a]Residents who answered four or fewer questions on the Short Portable Mental Status Questionnaire (SPMSQ) incorrectly (n = 235 in foster homes and 155 in nursing homes).
[b]Residents who answered five or more questions on the SPMSQ incorrectly or were unable to answer any SPMSQ questions (n = 169 in foster homes and 249 in nursing homes).
[c]Residents who did not need complete help on more than bathing (n = 290 in foster homes and n = 126 in nursing homes).
[d]Residents who needed complete help with four or more functional activities (n = 54 in foster homes and n = 211 in nursing homes).

TABLE 9—Satisfaction among the Cognitively Intact[a] in Foster Homes and Nursing Homes, %

	Very Satisfied		Satisfied		Unsatisfied		Very Unsatisfied	
	AFC	NH	AFC	NH	AFC	NH	AFC	NH
The food	47	23	47	54	4	18	1	5
Your room	46	31	50	61	3	7	1	1
Your roommate	30	23	62	64	8	9	—	4
Your daily care	45	27	52	64	3	9	—	1
Your daily activities	26	21	65	69	8	9	—	1
The amount of time you see family/friends	33	23	49	57	14	15	4	5
Your medical care	39	27	57	63	2	8	3	1
Your physical safety	45	32	53	64	1	3	1	1
The safety of your personal possessions	44	21	53	58	31	16	—	6

AFC = adult foster care; NH = nursing home.
[a]Residents who answered four or fewer questions on the SPMSQ incorrectly (n = 229 in foster homes and 143 in nursing homes).

pared with about 70% of nursing home residents had no telephone contact. Both cognitive and functional status was related to telephone access in both settings, but were less discriminating for visitors.

Satisfaction was generally high in both groups. Table 9 presents data on the reported satisfaction ratings for a number of items among the cognitively intact respondents. In general, the adult foster care respondents expressed stronger levels of satisfaction and less dissatisfaction. The exception to this pattern was in the area of safety of personal possessions where the adult foster care respondents showed greater degrees of dissatisfaction despite a larger proportion also being very satisfied.

Foster care residents and nursing home residents were similar in their use of hospitals in the past 6 months (18% for foster care compared with 15% for nursing home care) though the reported stays for foster care residents were, on average, 1.5 days longer (7.2 compared with 5.7). Foster care residents used emergency rooms more than did nursing home residents (20% compared with 8%).

Predicting Care Setting and Payment Status

We performed discriminant analysis on selected variables to identify which distinguished between adult foster care residents and nursing home residents and to predict payment status within each of the care settings. We have characterized the underlying care needs of our population with selected ADL and IADL variables: mobility, transferring, bathing, dressing, feeding, toileting, a summary score, and taking medicines. It was also hypothesized that a number of diagnoses would play a role in distinguishing between types of residents (residents with heart disease, skeletal-muscular problems, stroke, hip fracture, cancer, diabetes, incontinence, vision problems, hearing problems, and mental illness). To capture cognitive functioning, we included a variable for whether a proxy was used for the interview. We have also included five variables that describe where the client was living or from where he or she was admitted prior to coming to the setting: in a relative's home, in an adult foster home, in a residential care facility, in a nursing home, or from the hospital. Finally, we included two other demographic variables in the analysis: marital status and gender.

Table 10 shows that, of the functioning status variables, transferring, toileting, and taking medicines were significant in explaining the likelihood of a client's entering an adult foster home, whereas none predicted nursing home residency. Women were almost 19% more likely to be in adult foster homes. Residents who had previously lived in their family's home or other foster homes were 15% to 35% more likely to be in adult foster care. Only hip fractures and being on publicly subsidized care explained the likelihood of entering a nursing home.

Two variables, transferring and bathing, were important in estimating that an adult foster care resident is receiving Medicaid (see Table 11). In fact, residents needing help with transferring were more than 38% more likely to be in foster homes than in nursing homes. Marital status alone helped estimate clients with private sources of payment.

Table 12 shows that in a nursing home Medicaid payment status can be predicted by the presence of skeletal-muscular disease and the ability to take medicines. Privately paying residents, on the other hand, are more likely to be married,

to have had cancer or a hip fracture as a diagnosis, and be incontinent.

By using hierarchical loglinear models to explain differences between care setting or payment status, we determined that none of our main effects or first level interactions was found to be significant.

Discussion

These data corroborate impressions that, although adult foster care serves many elderly people with disabilities, the two forms of care serve rather different groups of the frail elderly. The patterns of frailty overlap to a considerable degree, but adult foster care treats a population that is, on the average, less physically and cognitively dependent than that found in nursing homes. Part of this effect may be due to the displacement that has already occurred, but at least part of it corresponds to the care needs of two distinct groups, at least at the ends of the distributions. Private-pay residents in foster care, however, show more functional impairment and cognitive impairment than do the Medicaid residents, making implausible the contention that state policy was driving Medicaid residents to accept a lower level of care than they might choose. Because the study is cross-sectional, we cannot say whether this discrepancy is due to more impairment among private-paying clients at admission or to a lesser likelihood that the residents are discharged to a nursing home, or to both.

It seems unlikely that adult foster care will replace nursing home care completely, and there will continue to be a need for both services. But adult foster care will probably continue to serve some (and perhaps a growing number) of persons who could also be legitimately served in nursing homes. Categorizing client needs in long-term care remains an imprecise activity, permitting a great deal of discretion in care planning. The policy issue becomes one of whether long-term care will be envisaged as a continuum with a niche for each client or whether it will be viewed as a repertoire of services that allows considerable choice based on lifestyle preferences and prices. A related policy issue cast in relief by this study is whether socially oriented care settings such as adult foster care in Oregon should be more heavily regulated to protect the residents at the risk perhaps of transforming the settings from homes to mini-nursing homes. This situation is exacerbated by the phenomenon of aging in place. Although the admission cohorts to the two forms of care may look more dissimilar, with time they grow increasingly to resemble each other and lead one to conclude that the care is interchangeable. It would, thus, appear both impractical and undesirable to formulate policies based on a rigid delineation of the "appropriateness" of the particular resident for the particular setting. It appears from our data that residents and their families at least in part shop for the setting that is "appropriate."

Moreover, adult foster care has proven attractive to the private market. It is important to appreciate that the growth of this sector in Oregon has not been the result of pressure from the Medicaid agency. Clients and their families able to choose the location of their care have opted for the greater privacy and ambiance and lower price of the adult foster home.

The apparent success of adult foster care has spawned concerns about the need for stricter regulation of this industry on a level more akin to that applied to nursing homes. This pressure is understandable, but it threatens the essence of the program; that is, an approach that relies on an extended family type of arrangement for most care and community agencies for the more technically sophisticated services.

From this cross-sectional study, it was impossible to examine change over time for residents in either care setting, although it appeared that, even when we controlled for disability, foster care residents enjoyed somewhat more social and community activity. In a forthcoming paper, we will compare change in functional outcomes for Medicaid foster care residents and nursing home residents, using the secondary data base available in the Medicaid program. The results of the present analyses offer support to those who are enthusiastic about the adult foster home as a viable option for some subset of those ordinarily served in nursing homes, while recognizing that on average the nursing home residents are more disabled. Indeed, the presence of the foster care program (and other home care programs not discussed in this paper) makes it likely that the nursing home population will be

TABLE 10—Variables That Explain the Likelihood of a Person's Entering an Adult Foster Home[a]

	b	Significance	Percentage[b]
Being female	.79778	<.01	17.1
Having previously lived in relative's home	1.11529	.03	27.1
Having previously lived in adult foster home	1.56264	<.01	37.2
Being Medicaid recipient	−.89297	<.01	−19.9
Being able to transfer	1.18578	<.01	27.3
Being able to toilet	1.32605	<.01	30.5
Being able to take medicines	.674659	.03	16.2
Having hip fracture	−1.22595	<.01	−23.1

[a]The logit analysis was weighted to reflect the actual distribution of adult foster home care in the population, and appropriate standard errors were compiled following Manski and McFadden (1981).[13]
[b]This represents the percent change in the probability of adult foster home placement as opposed to nursing home placement for people having the specified characteristics.

TABLE 11—Variables That Explain the Likelihood of a Person's Being a Medicaid Client in an Adult Foster Home

	b	Significance	Percentage[a]
Having previously lived in nursing home	1.0741	.02	26.1
Being able to transfer	1.6591	<.01	33.6
Being able to bathe	.9386	.01	22.7
Having questionnaire completed by proxy	1.0877	.03	22.3
Being married	−1.1066	.03	−22.0

[a]This represents the percent change in the probability of an adult foster home resident's being supported by Medicaid rather than by private means when these residents have the specified characteristics.

TABLE 12—Variables That Explain the Likelihood of a Person's Being a Medicaid Client in a Nursing Home

	b	Significance	Percentage[a]
Having a skeletal muscular problem as diagnosis	.9363	.02	22.9
Having a hip fracture as diagnosis	−1.2999	<.01	−28.2
Having cancer as diagnosis	−2.1125	.02	−36.9
Having incontinence as diagnosis	−.7965	.02	−19.0
Being able to take medicines	1.0284	.05	24.9
Being married	−.6693	.04	−15.9

[a]This represents the percent change in the probability of a nursing home resident's being supported by Medicaid rather than by private means when the residents have the specified characteristics.

more disabled than nursing home populations in other states. □

Acknowledgments

This study was supported by a grant from the Oregon Senior Services Division, and additional assistance was provided by the Administration on Aging and the Southmark Foundation.

An earlier version of this paper was presented at the 42nd Annual Meeting of the Gerontological Society of America, Minneapolis, Minn, November 1989.

References

1. Kane RA, Kane RL. *Long-Term Care Principles, Programs and Policies.* New York, NY: Springer Publishing Company; 1987.
2. Thornton C, Dunstan SM, Kemper P. The evaluation of the national long-term care demonstration: the effect of channelling on health and long-term care costs. *Health Serv Res.* 1988;23:129–142.
3. Weissert WG, Cready CM, Pawelak JE. The past and future of home- and community-based long-term care. *Milbank Q.* 1988;66:309–388.
4. Braun K, Rose C. The Hawaii geriatric foster care experiment: impact evaluation and cost analysis. *Gerontologist.* 1986;26:516–523.
5. Mor V, Sherwood S, Gutkin C. A national study of residential care for the aged. *Gerontologist.* 1986;26:405–417.
6. Oktay JS, Volland PJ. Foster home care for the frail elderly as an alternative to nursing home care: an experimental evaluation. *Am J Public Health.* 1987;77:1505–1510.
7. Sherman SR, Newman ES. *Foster Families for Adults: A Community Alternative in Long-Term Care.* New York, NY: Columbia University Press; 1988.
8. Sherwood S, Morris JN. *Pennsylvania Domiciliary Care Pilot Program.* Hebrew Rehabilitation Center for Aging, 1983.
9. Kane RA, Illston LH, Kane RL, Nyman JN. *Meshing Services with Housing: Lessons from Adult Foster Care and Assisted Living in Oregon.* John A. Hartford Foundation, 1990.
10. Saslow MG, Dietsche S. *Oregon's Public Long Term Care System.* Oregon Department of Human Resources, Senior Services Division; 1988.
11. Kane RL, Bell R, Hosek S, Riegler S, Kane RA. *Outcome-Based Reimbursement for Nursing Home Care.* The RAND Corporation; 1984.
12. Pfeiffer E: A Short Portable Mental Status Questionnaire for the Assessment of Organic Brain Deficit in Elderly Patients. *J Am Geriatr Soc.* 1975;23:433–411.
13. Manski C, and McFadden D. (eds). *Structural Analysis of Discrete Data with Econometric Application.* MIT Press; 1981.