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NURSING HOME COSTS SUBCOMMITTEE
OF THE
JOINT COMMITTEES ON HUMAN RESOURCES

Report to Members of the
Second Session of the Sixty-seventh General Assembly

State of Iowa
1978

1977 Report

Nursing Home Costs Subcommittee
of the
Joint Committees on Human Resources

The Nursing Home Costs Subcommittee was authorized two meetings during the 1977 interim, which were held on October 20 and November 10. The meetings came relatively late in the interim because the main input to the Subcommittee was a rather extensive staff study of the costs of intermediate care facilities (i.e., health care facilities, or "nursing homes", licensed in the intermediate care category under chapter 135C of the Code) in Iowa. The staff report based on that study is included as a part of this report.

Legislators serving on the Nursing Home Costs Subcommittee were Senator Alvin Miller and Representative William Hargrave, Co-Chairs, Senators James Calhoon and Ray Taylor and Representatives Keith Baker, Betty Jean Clark, Albert Garrison and Semor Tofte. The staff study was carried out by Human Resources Committee staff researcher Christine Pattee, and the conclusions expressed in the report of the study are those of Ms. Pattee. As will be noted from the minutes of the Subcommittee's meetings, there was some disagreement by various persons attending the meetings with some of those conclusions.

IOWA INTERMEDIATE CARE FACILITIES
COST ANALYSIS

Final Report
November 20, 1977

Nursing Home Subcommittee

Senator Alvin Miller, Chair
Senator Ray Taylor
Senator James Calhoon

Representative William Hargrave, Chair
Representative Semor Tofte
Representative Albert Garrison
Representative Keith Baker
Representative Betty Jean Clark

Christine Pattee, Committee Staff

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SOME PERTINENT FACTS ABOUT ICF'S IN IOWA

Most long term institutional care in Iowa is provided by intermediate care facilities (28,110 beds, 407 facilities). Additionally, there are 314 residential facilities with about 18,850 beds and six skilled nursing facilities with about 750 beds.

There are only two sources of payment for long term institutional care - the government and the patient's personal resources. No insurance programs cover long term care. This payment pattern means that government has more direct control over the nursing home industry than over any other type of health care.

Costs in Iowa for ICF care for the year 7/76 - 6/77 were:

Medicaid patients (51% of total patients)	
Paid by state of Iowa (48%)	$33,220,892
Federal match (52%)	35,989,299
Client participation (approx.)	24,000,000
	$93,210,191
Private pay patients (49% of total patients) approximately	$103,000,000
Total approximately	$196,000,000

NOTE: There are no data available on the amount paid by private patients for nursing home care so this figure was calculated by adding 10% to the Medicaid figure because private patients usually pay more than Medicaid audited cost levels

These costs do not include the ICF-MR (mentally retarded) program with expenditures last year of about $20 million in state and federal money.

A 1976 survey by the Health Department found the following age proportions in Iowa ICF's:

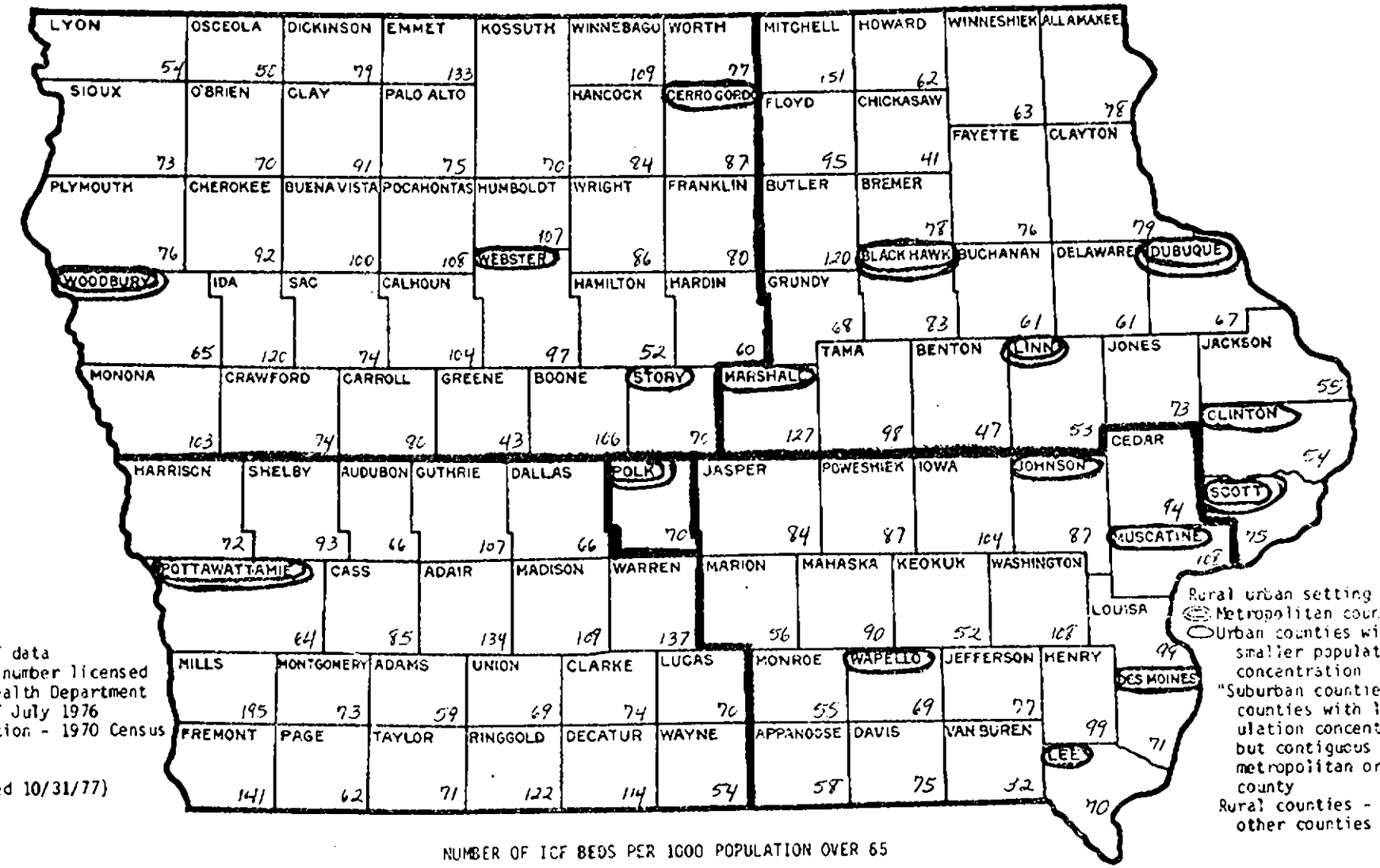
under 65	10%
66-75	17%
76-85	39%
86+	35%

LOCATION OF ICF BEDS IN IOWA IN RELATION TO POPULATION OVER 65

ICF Beds/1000 People over 65 as of July 1976

Average for entire state - 80 ICF beds/1000 population over 65

Geographic Location		Rural-Urban Setting	
Northwest	83	Rural	81
Northeast	77	Suburban	86
Southwest	93	Urban	84
Southeast	79	Metropolitan	68
Polk County	70		



Source of data
Beds - number licensed by Health Department as of July 1976
Population - 1970 Census

(Corrected 10/31/77)

Rural urban setting
Metropolitan counties
Urban counties with smaller population concentration
"Suburban counties" - counties with low population concentration, but contiguous to a metropolitan or urban county
Rural counties - all other counties

NUMBER OF ICF BEDS PER 1000 POPULATION OVER 65

AN OVERVIEW OF COSTS IN IOWA INTERMEDIATE CARE FACILITIES

The average cost for a day of care in an Iowa ICF on June 30, 1977 was $17.87. Costs ranged from $10.13 to $45.30 per diem (Table C-1). Forty percent of this amount ($7.21 per day) was spent for health care, including nurses, aides, and medical supplies. The next highest amount, 32% or $5.65 per day, was spent for room and board services, including food, dietary workers, utilities and repairs. About equal amounts were spent on administration (14%, $2.57 per day) including administrator and clerical salaries, management fees and "fringes" and on property (14%, $2.44 per day) including depreciation, taxes interest, rent, amortization and property insurance. Table C-3 gives a more detailed breakdown of specific cost items.

When total costs are considered in relation to the $19.00 maximum reimbursement level in effect at the time of the study, some interesting patterns emerge. Homes were categorized as "high cost"--$19.00 or above, "medium cost"--$16.86-$19.00, and "low cost"--below $16.85. Below $16.85, homes receive all of their audited costs plus the full $1.25 fee for service (for profit making facilities) and 5% inflation factor. Between $16.86 and $19.00 ICF's receive decreasing amounts of these incentive payments. The purpose of the cost categorization was to see whether there were differences in the services provided by homes receiving different amounts of reimbursement. The major difference was in the area of property costs. ICF's in the medium range spent proportionately more on property (15.4%) and proportionately less on health care (39%). This "squeeze effect,"although clearly evident, was not as great as expected. Generally, nursing homes increase all areas of costs about equally as their total per diem increases.

The high cost homes had a lower occupancy rate, although further comparisons by type of ownership control later in this study will show a significant

relationship between occupancy rate and number of Medicaid patients. Over all, there were about equal numbers of Medicaid patients in ICF's at all cost levels.

As expected, the higher cost homes provided considerably more nurse and aide hours per patient per day--2.48 hours compared with an all ICF average of 2.14 hours. High cost homes were also more likely to have patients requiring more care, as indicated by the higher number of patients confused or disoriented or needing assistance walking in those homes.

An unexpected finding was that the higher cost facilities averaged a slightly higher number of deficiencies than the low cost facilities. Although this figure was statistically significant, its practical significance is unclear since a comparison of uncategorized costs with deficiencies showed no statistical relationship, either positive or negative (Table C-2). At the least, however, these findings do mean that amount of money spent by a nursing home does not relate to its level of compliance with licensing regulations.

The issue of how to measure "quality of care" in nursing homes has not been satisfactorily answered by anyone. For this study, a count of deficiencies found in each home by Health Department licensing inspectors was used as an indirect indicator of quality of care because nothing else was available. It was not really satisfactory however, because deficiency citations are gathered for licensing not evaulation purposes, they are not weighted according to seriousness, and they don't indicate patient satisfaction at all. Generally speaking, however, it is probably valid to state that very high or low numbers of deficiency citations do correlate generally with quality of patient care.

TABLE C-1

SELECTED CHARACTERISTICS OF IOWA ICF's
AT VARIOUS LEVELS OF PER DIEM COSTS

	Level of Cost							
	Low $10.13 - 16.85		Medium $16.86 - 19.00		High $19.01 - 45.30		All ICF's	
	$	% of Total	$	% of Total	$	% of Total	$	% of Total
Cost Category								
Administration	$ 2.22	14.4	$ 2.49	14.0%	$ 3.29	14.5%	$ 2.57	14.4%
Room and board	4.93	32.0	5.63	31.7	7.04	31.0	5.65	31.6
Health	6.23	40.4	6.93	39.0	9.51	41.9	7.21	40.3
Property	2.05	13.3	2.73	15.4	2.84	12.5	2.44	13.7
Total	$15.43	100%	$17.78	100%	$22.68	100%	$17.87	100%
Occupancy rate	96.5%		93.5%		92.0%		94.5%	
Staffing hours/pt/day	1.98		2.12		2.48		2.14	
Patient Characteristics								
Proportion on Medicaid	52%		51%		52%		52%	
Need assistance walking	47%		45%		54%		48%	
Confused or disoriented	42%		45%		47%		44%	
Licensing deficiencies	16		20		22		18	
Number of ICF's	162		107		82		351	

TABLE C-2

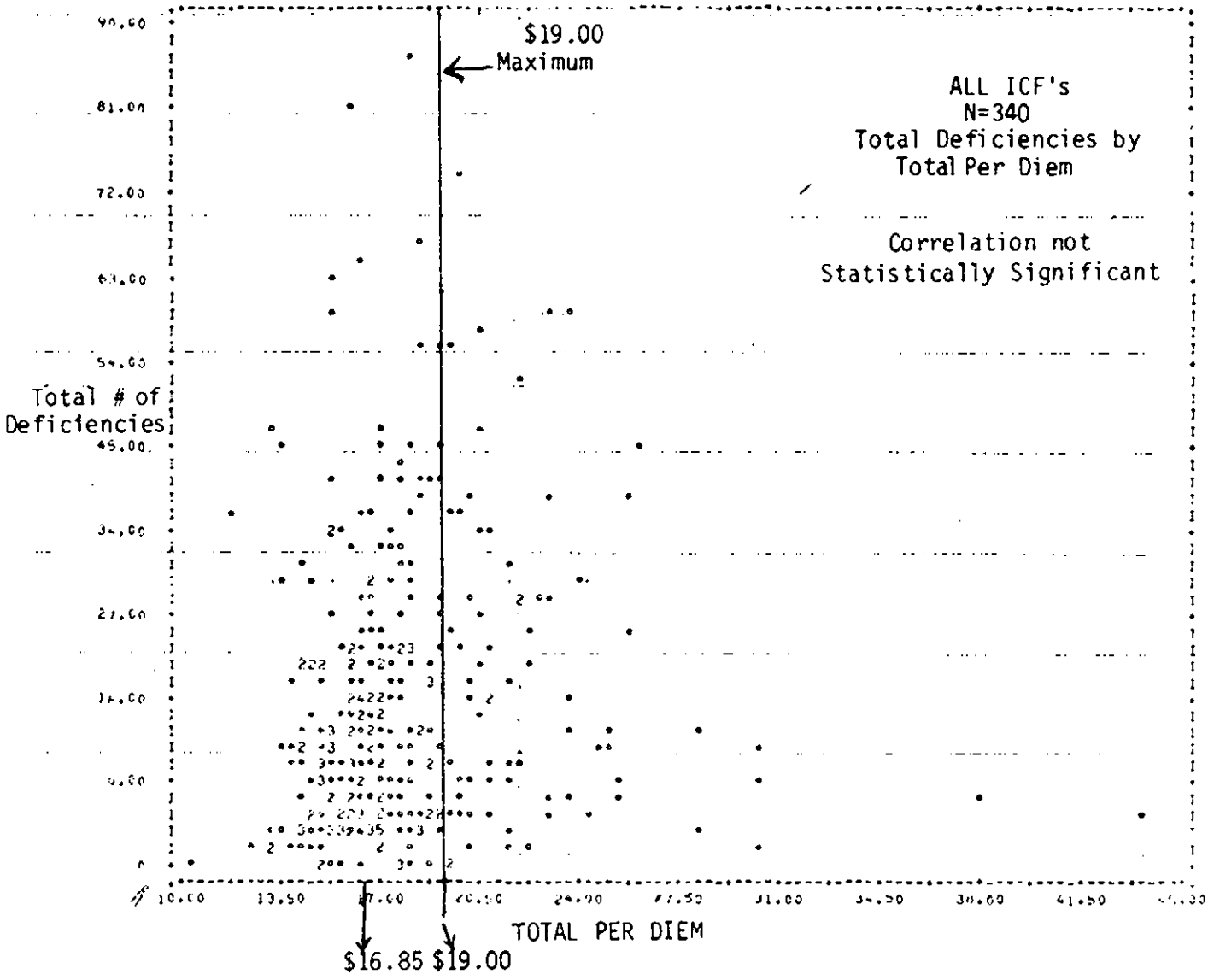

$19.00
Maximum
ALL ICF's
N=340
Total Deficiencies by
Total Per Diem
Correlation not
Statistically Significant
Total # of
Deficiencies
TOTAL PER DIEM
$16.85
$19.00

TABLE C-3

INDIVIDUAL COST ITEMS (PER DIEM)
BY CATEGORY OF COST

Cost Item	Low $10.13-16.85 Amount	Low % of Total	Medium $16.86-19.00 Amount	Medium % of Total	High $19.01-43.50 Amount	High % of Total	Average Amount	Average %
Administrator salary	$ .62	4.0%	$ .62	3.5%	$ .65	2.9%	$ .63	3.5%
Other admin. wages	.37	2.4	.49	2.8	.76	3.4	.50	2.8
Fringes	.87	5.6	.98	5.5	1.24	5.5	1.00	5.6
Other admin. costs	.36	2.3	.40	2.2	.64	2.8	.44	2.5
Subtotal Administration	$ 2.22	14.4%	$ 2.49	14.0%	$ 3.29	14.5%	$ 2.57	14.4%
Room & Board wages	$ 2.37	15.4%	$ 2.75	15.5%	$ 3.66	16.1%	$ 2.79	15.6%
Rm & Bd supplies	.31	2.0	.39	2.2	.47	2.1	.38	2.1
Food	1.38	8.9	1.51	8.5	1.70	7.5	1.49	8.3
Utilities	.55	3.6	.66	3.7	.83	3.7	.65	3.6
Other Room & Board	.09	.6	.09	.5	.12	.5	.10	.6
Repairs	.23	1.5	.23	1.3	.26	1.1	.24	1.3
Subtotal Room & Board	$ 4.93	32.0%	$ 5.63	31.7%	$ 7.04	31.0%	$ 5.65	31.6%
RN/LPN wages	$ 1.74	11.3%	$ 1.97	11.1%	$ 3.17	14.0%	$ 2.14	12.0%
Aide wages	3.87	25.1	4.23	23.8	5.42	23.9	4.34	24.3
Medical supplies	.26	1.7	.33	1.9	.46	2.0	.33	1.8
Activity director	.25	1.6	.28	1.6	.28	1.2	.27	1.5
Other health costs	.11	.7	.12	.7	.18	.8	.13	.7
Subtotal Health Costs	$ 6.23	40.4%	$ 6.93	39.0%	$ 9.51	41.9%	$ 7.21	40.3%
Depreciation	$ .71	4.6%	$ .89	5.0%	$ 1.05	4.6%	$ .84	4.7%
Amoritization	.01	.1	.01	.1	.04	.2	.02	.1
Real estate tax	.21	1.4	.24	1.3	.17	.7	.21	1.2
Rent	.20	1.3	.13	.7	.11	.5	.16	.9
Interest	.81	5.2	1.33	7.5	1.33	5.9	1.09	6.1
Property Insurance	.08	.5	.10	.6	.09	.4	.09	.5
Miscellaneous property	.03	.2	.03	.2	.05	.2	.03	.2
Subtotal Property	$ 2.05	13.3%	$ 2.73	15.4%	$ 2.84	12.5%	$ 2.44	13.7%
Total	$15.43	100 %	$17.78	100 %	$22.68	100 %	$17.87	100 %
All wages	$10.09	65.4%	$11.32	63.7%	$15.18	66.9%	$11.67	65.3%

PATTERNS OF PATIENT CARE

EFFECTS OF RURAL URBAN SETTING AND TYPE OF ORGANIZATIONAL CONTROL ON IOWA ICF's

Profit/non-profit organizational control and rural-urban setting have a major effect on costs in Iowa ICF's. (Table D-1) Costs in not-for-profit homes are consistently above costs in for-profit facilities. The difference is slight in rural areas, only $.60 per patient per day; but in the seven metropolitan counties, not-for-profit facilities average $5.10 per patient per day above the for-profit facilities. With the 5% inflation factor and $1.10 fee for service added in, this put most non-profit facilities above the $19.00 maximum reimbursement level in effect at the time of the study. For-profit facilities, with the inclusion of the inflation factor and $1.25 fee for service, exceeded the $19.00 reimbursement maximum in the ten smaller urban counties by $.56 and in the seven larger metropolitan counties by $1.61. These higher cost levels in urban/metropolitan counties are probably due to generally higher wages and property costs.

Not-for-profit homes do spend more on patient care than for-profit homes spend, although at present there is no way to measure whether there is any difference in the quality of care provided by either type of facility. Indirect quality of care indicators, such as the number of licensing deficiencies, show no difference between them.

TABLE D-1

PER DIEM TOTAL COSTS IN NOT-FOR-PROFIT AND FOR-PROFIT ICF's BY RURAL-URBAN SETTING

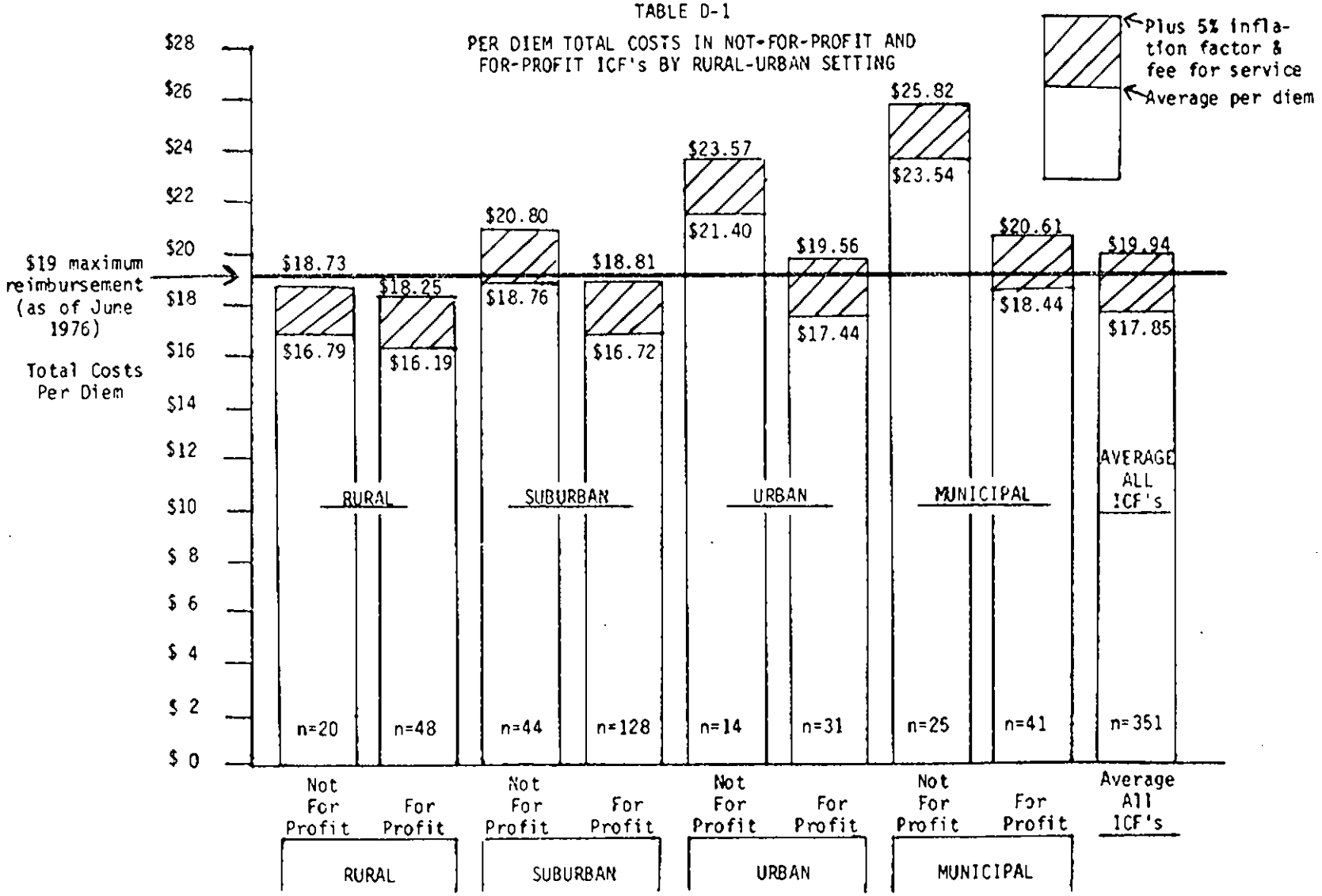


TABLE D-2

COST, BUILDING, STAFFING AND PATIENT CHARACTERISTICS
OF ICF's BY TYPE OF OWNERSHIP CONTROL

	Ownership control							
	Govt.	Church	Other Non Profit	Indi-vidual	Partner-ship	Corpor-ation	S Corp	All ICF's
# Homes in Study	7	49	47	17	7	159	65	351
Costs per diem								
Administration	$ 3.75	$ 2.66	$ 2.77	$ 2.45	$ 2.55	$ 2.53	$ 2.30	$ 2.56
Room and board	7.97	6.56	6.23	5.53	5.28	5.35	5.03	5.63
Health care	8.15	9.07	8.24	6.28	6.38	6.83	6.21	7.21
Property	1.04	2.31	1.77	2.47	2.03	2.58	2.91	2.45
Total	$20.92	$20.60	$19.00	$16.73	$16.23	$17.27	$16.46	$17.85
Building								
Ave. year constructed	1942	1953	1958	1965	1967	1968	1969	1963
Average # beds	88	76	66	52	52	75	68	72
Occupancy rate	92%	94%	95%	95%	96%	95%	94%	94.5%
Staffing								
RN/LPN hours/pt/day	.49	.55	.46	.51	.45	.48	.39	.47
Aides hours/pt/day	1.49	1.94	1.79	1.70	1.52	1.58	1.60	1.67
Total	1.98	2.49	2.26	2.21	1.97	2.06	1.99	2.14
Patient characteristics								
% on Medicaid	59%	40%	46%	54%	60%	53%	56%	52%
Need assistance walking	41%	53%	52%	53%	51%	45%	47%	48%
Confused or disoriented	33%	49%	38%	47%	39%	45%	43%	44%
Licensing Deficiencies	27	18	13	20	10	18	22	18

PATTERNS OF NURSING HOME CARE IN ICF's UNDER DIFFERENT TYPES OF OWNERSHIP CONTROL (Table D-2)

There are significant differences between for-profit and not-for-profit ICF's in Iowa. These differences are primarily in costs and type of patients served. A little less than one-third of the 406 ICF's in Iowa are owned or operated by not-for-profit organizations. About seven are government, mostly county, operated, and the rest are divided about equally between church and other organizations such as fraternal groups and memorial homes. Costs in these homes average $19.90 per patient per day with the largest amounts spent

on health care and room and board and the lowest amount spent on property costs. There is a wide variation in costs for these homes, with church and government facilities averaging $20.60 and $29.92 respectively and other non-profit homes averaging $19.00.

For-profit facilities average $16.99 per patient per day, with a relatively higher proportion of this amount spent on property costs. There is only a dollar difference between per diem costs of various for-profit homes, with corporation owned facilities being highest at $17.27 and partnership operated facilities lowest at $16.23. Homes operated under sub-chapter "S" corporation laws have noticably higher property costs and lower health care and room and board costs than other for-profit homes.

The average year of construction for not-for-profit homes was 1955, although churches in particular have continued building new facilities right up to the present. For-profit nursing homes became common only after government funds became available in 1960 for medical assistance to the indigent elderly. The average year of construction of for-profit homes was 1967.

All intermediate care facilities in Iowa have a high rate of occupancy, averaging 94.5%. The average size of all facilities is 72 beds, with no significant variation by ownership.

The difference in amount spent on health care by different types of homes is related to the amount of nursing care they provide for each patient. The greatest amount of time, 2½ hours per patient per day, is provided by church homes, and by other non-profit homes - 2¼ hours. All other ICF's provide close to 2 hours per patient per day. This is above the minimum of 1.7 hours required by the Health Department.

In comparing the different kinds of patients residing in each home, the greatest differences were found in the proportion of patients in each home who were receiving Medicaid. Not-for-profit facilities generally had fewer

Medicaid patients, averaging 45%, while for-profit facilities averaged 54% Medicaid patients. Church homes had the lowest proportion, 40%. Of the for-profit homes, the highest proportion of Medicaid patients was found in "S" Corporation homes (56%) and partnership homes (60%).

The not-for-profit homes generally have more patients who need assistance walking (52%) than do the for-profit homes (46%). Differences in the proportion of patients who are confused or disoriented are found in the church homes, which have a higher proportion than average (49%), and the other not-for-profit (38%), government (33%), and partnership homes (39%) which are lower than the average.

There are statistically significant differences in the average number of licensing deficiencies for each type of home, but these differences must be considered with some caution because there was almost as much variation among homes within a single group under one type of control as there was between groups. The small number of government homes had the highest number of deficiencies, 27. Next were the "S" Corporation homes (22) and the individually owned homes (20). Church and corporation homes had the same average number of deficiencies (18) and other non-profit (13) and partnership homes (10) had the fewest deficiencies.

TABLE D-3

COST, BUILDING, STAFFING AND PATIENT CHARACTERISTICS
OF ICF's BY RURAL-URBAN SETTING

	Setting				
	Rural	Suburban	Urban	Metro-politan	All ICF's
# homes in study	68	172	45	66	351
Costs Per Diem					
Administration	$ 2.28	$ 2.48	$ 2.66	$ 2.97	$ 2.56
Room and board	5.26	5.44	6.07	6.22	5.63
Health care	6.44	7.03	7.35	8.37	7.21
Property	2.38	2.29	2.60	2.81	2.45
Total	$16.37	$17.24	$18.67	$20.37	$17.85
Building					
Ave. year constructed	1967	1965	1961	1959	1963
Average # beds	66	62	91	89	72
Occupancy rate	94%	95%	92%	95%	94.5%
Staffing					
RN/LPN hours/pt/day	.47	.46	.43	.53	.47
Aide hours/pt/day	1.57	1.67	1.65	1.77	1.67
Total	2.04	2.13	2.08	2.30	2.14
Patient Characteristics	53%	50%	52%	54%	52%
Need assistance woaking	49%	48%	47%	46%	48%
Confused or disoriented	36%	44%	45%	51%	44%
Licensing Deficiencies	17	16	21	23	18

PATTERNS OF NURSING HOME CARE IN ICF's
IN RURAL-URBAN SETTINGS (Table D-3)

There is a definite increase in the average per diem cost for ICF's when moving from a rural setting to the large metropolitan counties. Rural counties average $16.37 per day and suburban counties, so called because they are rural in geography and population but located next to urban/metropolitan counties, average $17.24 per diem. The ten smaller urban counties average $18.67 per day and costs in the seven metropolitan counties jump to $20.37 per day.

The average year of construction for each location indicates that nursing homes were first built in the urban/metropolitan areas, probably for two types of clients--the well-to-do who could afford special facilities and nursing care and the very poor who had to rely on charitable organizations, mainly the churches.

There is also an increase in the size of facility with rural and suburban homes averaging 66 and 62 beds respectively, and urban/metropolitan homes averaging 90 beds. There are only slight differences in the number of nursing and aide hours provided per patient per day. The slightly higher number of hours (2.28) reported for the metropolitan counties may be due to a few heavily staffed metropolitan non-profit ICF's pulling the average up or it may be due to a higher number of scheduled hours with the actual care time provided being less because of a greater absenteeism problem in the cities.

There are no important differences in the type of patients served in different geographic settings. There is very little variation in proportion of Medicaid patients, although suburban homes are slightly lower than average with 50% and metropolitan homes are slightly above average with 54%. The proportion of confused or disoriented patients increases from 36% in rural counties to 51% in metropolitan counties. There are no significant differences in the proportion of patients needing assistance with walking.

Finally, the average number of licensing deficiencies also increases slightly from 17 in the rural counties to 23 in the metropolitan counties.

TABLE E-1

ICF CONSTRUCTION PATTERNS: TOTAL NUMBER OF ICF's BUILT EACH YEAR SINCE 1960

Year of Construction	# of ICF's Built	Comments on laws which affected construction
1900-1959	Total of 45 ICF's built - average less than 1/year	
1960	7	1960 Funds became available for medical care for the indigent elderly under the Old Age Assistance Act (Kerr Mills Bill)
1961	13	
1962	12	
1963	25	
1964	24	
1965	23	1965 Title 19 of the Social Security Act passed Medicaid funds available for long term care for the elderly
1966	23	
1967	19	
1968	12	
1969	17	
1970	10	
1971	15	
1972	16	1972 New rules written by Health Dept. to replace weak standards in effect since 1957
1973	21	
1974	21	1974 Life Safety Code implemented in Iowa. ICF's that couldn't meet construction standards were closed
1975	24	
1976	20	

Note: These figures underestimate the actual number of ICF's built in Iowa, as the total does not include ICF's excluded from the original study (55 out of 406).

PATTERNS OF CONSTRUCTION OF IOWA ICF's

The number of ICF's built in Iowa has increased dramatically since 1960 (Table E-1). This follows a nationwide trend precipitated by the availability of funds to provide medical care for the elderly, in 1960 under the Old Age Assistance Act and in 1965 under Medicaid. Under the Old Age Assistance Act the indigent elderly received payments which could be applied to medical services. Under Medicaid, payments were made specifically for certain types of

medical care. However, the burden of long term institutional care fell to state governments under Medicaid because Medicare covers only acute illnesses, not the chronic care that the elderly so often require. Also, becuase both programs were developed on the medical model, institutional rather than home based care was emphasized.

Churches and corporations have been the major organizations constructing ICF's in metropolitan counties. Other not-for-profit organizations and "S" corporations have tended to build in the rural and suburban counties as have the few individual and partnership owned homes. (Table E-2)

In the years prior to 1960, before government funds became available to assist the elderly in paying for long term institutional care, the vast majority of nursing homes were built by not-for-profit organizations, especially by churches (Table E-3). Between 1960 and 1965, all types of homes experienced a building boom. Although not-for-profit organizations, except for the government, have continued to build ICF's up to the present, after 1960 corporations built well over half the ICF's in Iowa, with "S" corporations becoming particularly active in building or acquiring ICF's after 1970.

Very few ICF's were built in rural areas before 1960 (Table E-4). Until that time nursing homes tended to be concentrated in the metropolitan counties. Between 1960 and 1970, the rural counties showed a rapid increase in ICF's. Construction of metropolican area ICF's continued, but in smaller numbers relative to the statewide building boom occurring at that time. Between 1970 and 1976, metropolitan area ICF's regained their share of the total building mix. The building pattern of ICF's in the cities is of interest for two reasons. The proportion of beds per 1000 elderly in the seven metropolitan counties is very low (68 beds/1000 population over 65 compared to a statewide average of 80 beds) so there is a need for more facilities. But those who build ICF's, particularly corporations, will not do so unless they expect to

TABLE E-2

ICF CONSTRUCTION PATTERNS: NUMBER OF HOMES CONSTRUCTED BY VARIOUS TYPES OF OWNERSHIP IN RURAL-URBAN SETTINGS

	Type of Ownership Control								
Setting	Govt.	Church	Other non profit	Indi-vidual	Partner	Corpor-ation	S Corpor-ation	Total #	Total %
Rural	2	5	13	5	5	21	17	68	19%
Suburban	1	19	24	11	2	80	35	172	49%
Urban	2	7	5	0	0	23	8	45	13%
Metropolitan	2	18	5	1	0	35	5	66	19%
Total	7	49	47	17	7	159	65	351	
% of total	2%	14%	13%	5%	2%	45%	18%		100%

NOTE: Includes only 351 of the 406 ICF's in Iowa at the time of the study. However, the proportions are probably applicable to the total number of beds.

TABLE E-3

ICF CONSTRUCTION PATTERNS: NUMBER OF HOMES BY YEAR OF CONSTRUCTION AND TYPE OF OWNERSHIP CONTROL

Year of Construction	Govt.	Church	Other non profit	Indi-vidual	Partner-ship	Corpor-ation	S Corp	Total
1900-1960	4	20	13	4	0	10	1	52
1961-1965	1	15	14	5	3	45	14	97
1966-1970	2	8	13	3	2	43	12	83
1971-1973	0	2	5	1	0	21	23	52
1974-1976	0	2	1	3	1	27	13	47
Total	7	47	46	16	3	146	63	331

Notes: 1) data on year of construction was not available for 20 facilities
2) only 2 homes built in 1976 or after were included in the study

TABLE E-4

ICF CONSTRUCTION PATTERNS: NUMBER OF HOMES CONSTRUCTED BY YEAR OF CONSTRUCTION AND RURAL-URBAN SETTING

	Setting				
Year of Construction	Rural	Suburban	Urban	Metro	Total
1900-1960	3	25	8	16	52
1961-1965	23	49	9	16	97
1966-1970	22	43	8	10	83
1971-1973	5	25	11	11	52
1974-1976	10	23	4	10	47
Total	63	165	40	63	331

make a profit. Despite the reimbursement maximum and higher costs in the metropolitan counties, facilities continue to be built. Therefore, there must be some sort of financial incentive to do so.

The differing patterns of where various organizations built ICF's through the years can be seen in Table E-5. In the suburban counties, churches were more likely to build homes prior to 1960. Other not-for-profit homes built most of their facilities between 1961 and 1970. Corporations built or acquired only 5 facilities prior to 1960. Corporations built a significant number of suburban area ICF's in all years after 1961. "S" corporations built or acquired many more homes in suburban than in metropolitan counties. After 1974, only for-profit facilities were built in suburban counties.

In the seven metropolitan counties, the churches and the corporations are almost the only ICF builders and owners. Both have continued to construct facilities up to the present.

TABLE E-5

ICF CONSTRUCTION PATTERNS: COMPARISON FOR SUBURBAN AND METROPOLITAN SETTINGS OF NUMBER OF HOMES BUILT IN SUCCESSIVE YEARS BY VARIOUS ORGANIZATIONS

SUBURBAN

	Type of Ownership Control							
Year of Construction	Govt.	Church	Other non profit	Indi-vidual	Partner	Corp	S Corp	Total
1900-1960	1	10	5	4		5		25
1961-1965		6	8	2	1	26	6	49
1966-1970		3	6	2		25	7	43
1971-1973			4			8	13	25
1974-1976				2	1	11	9	23
Total	1	19	23	10	2	75	35	165

METROPOLITAN

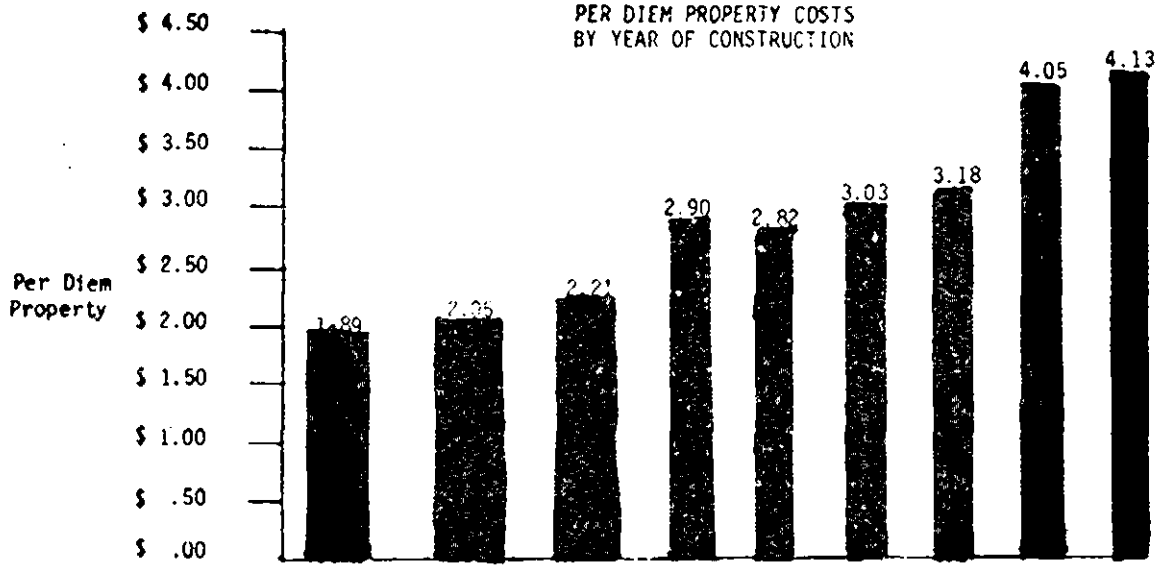
	Type of Ownership Control							
Year of Construction	Govt.	Church	Other non profit	Indi-vidual	Partner	Corp	S Corp	Total
1900-1960	2	6	4			3	1	16
1961-1965		6				9	1	16
1966-1970		2	1			7		10
1971-1973		1				8	2	11
1974-1976		2		1		7		10
Total	2	17	5	1	0	34	4	63

PROPERTY COSTS

Property costs for an ICF are very high for the first couple of years after construction, and they decrease significantly as the age of the facility increases (Table E-6). Total costs per diem are also higher for more recently constructed facilities. However, the rate of increase for more recent construction is not as great for total costs as it is for property costs (Table E-7). This means that property costs are a much higher proportion of the total cost for newer facilities. For facilities built in 1975 and 1976, property costs are over 21% of the total per diem. However, this also means that within a few years after initial construction, property costs have decreased enough that expenditures for patient care can be increased without increasing the total per diem. Also it should be noted that depreciation, which accounts for about one-third of property costs, is an expense which must be accounted for, but it does produce cash flow to the owners.

TABLE E-6

PER DIEM PROPERTY COSTS
BY YEAR OF CONSTRUCTION



* Note: Only two homes built in 1976 were included in the study

TABLE E-7

TOTAL AND PROPERTY PER DIEM COSTS
BY YEAR OF CONSTRUCTION

Year of Construction	Total # ICF's	Total Per Diem	Property Per Diem	Property as % of Total
1900-1960	52	$20.27	$1.89	9.3%
1961-1965	97	17.01	2.06	12.1
1966-1970	83	17.36	2.21	12.7
1971	15	18.17	2.90	16.0
1972	16	16.34	2.82	17.3
1973	21	17.64	3.03	17.2
1974	21	16.92	3.18	18.8
1975	24	19.24	4.05	21.0
1976	2	18.92	4.13	21.8

EFFECT ON PROPERTY COSTS OF CHANGE IN OWNERSHIP

Iowa has very few ICF's which have changed ownership in the past few years. Of the 351 homes in the study, 26 (7%) changed ownership between 1977 and 1962. (Information was not available for ownership changes prior to 1972.)

Property costs related to changes in ownership may be compared in two ways. First, property costs were compared for two groups of homes built in the same year: those which changed ownership within the past four years and those remaining under the same ownership for five or more years. For homes built between 1958 and 1971, property costs were consistently higher, by $1-$2 per diem, for those homes which had changed ownership (Table E-8). (Only one home built after 1972 changed ownership two or more years after construction.)

Second, property costs may be compared between homes built between 1972 and 1976 and homes changing ownership in that year. This comparison shows that property costs are the same or higher for homes built between 1972 and 1976 when compared with previously constructed homes changing ownership in that year. (Table E-9)

TABLE E-8

PROPERTY COSTS (PER DIEM) BY LENGTH OF TIME UNDER CURRENT OWNERSHIP

Year built	Property Costs: Changed ownership within 1-4 years n	$	Same ownership 5+ years n	$
1958	(1)	2.38	(3)	$1.55
1960	(1)	3.42	(6)	2.12
1961	(2)	3.56	(11)	1.53
1962	(2)	2.80	(10)	2.15
1963	(2)	4.00	(23)	1.86
1964	(2)	3.76	(22)	1.94
1965	(3)	2.72	(20)	1.97
1966	(5)	3.18	(18)	2.20
1967	(3)	3.74	(16)	1.93
1968	--	--	(12)	1.79
1969	(2)	2.94	(17)	2.05
1970	--	--	(10)	2.38
1971	(1)	4.58	(14)	2.78
Total	(25)	$3.19 average	(182)	$2.03 average

n= number of homes

$ = average per diem property cost

TABLE E-9

PROPERTY COSTS (PER DIEM): COMPARISON OF HOMES CHANGING OWNERSHIP WITH THOSE JUST BUILT FOR THE SAME YEAR

Year built or changed ownership	Built prior to 1971 changed ownership this year n	$	Built after 1971 n	$
1972			(16)	$2.82
1973	(3)	3.07	(21)	$3.03
1974	(7)	2.88	(21)	3.18
1975	(6)	3.82	(24)	6.33
1976	(10)	3.23	(3)	4.14
Total	(26)	$3.25 average	(85)	$4.00 average

n = number of homes

$ = average per diem property cost

NOTE: no homes built in 1977 and only two built in 1976 were included in this study

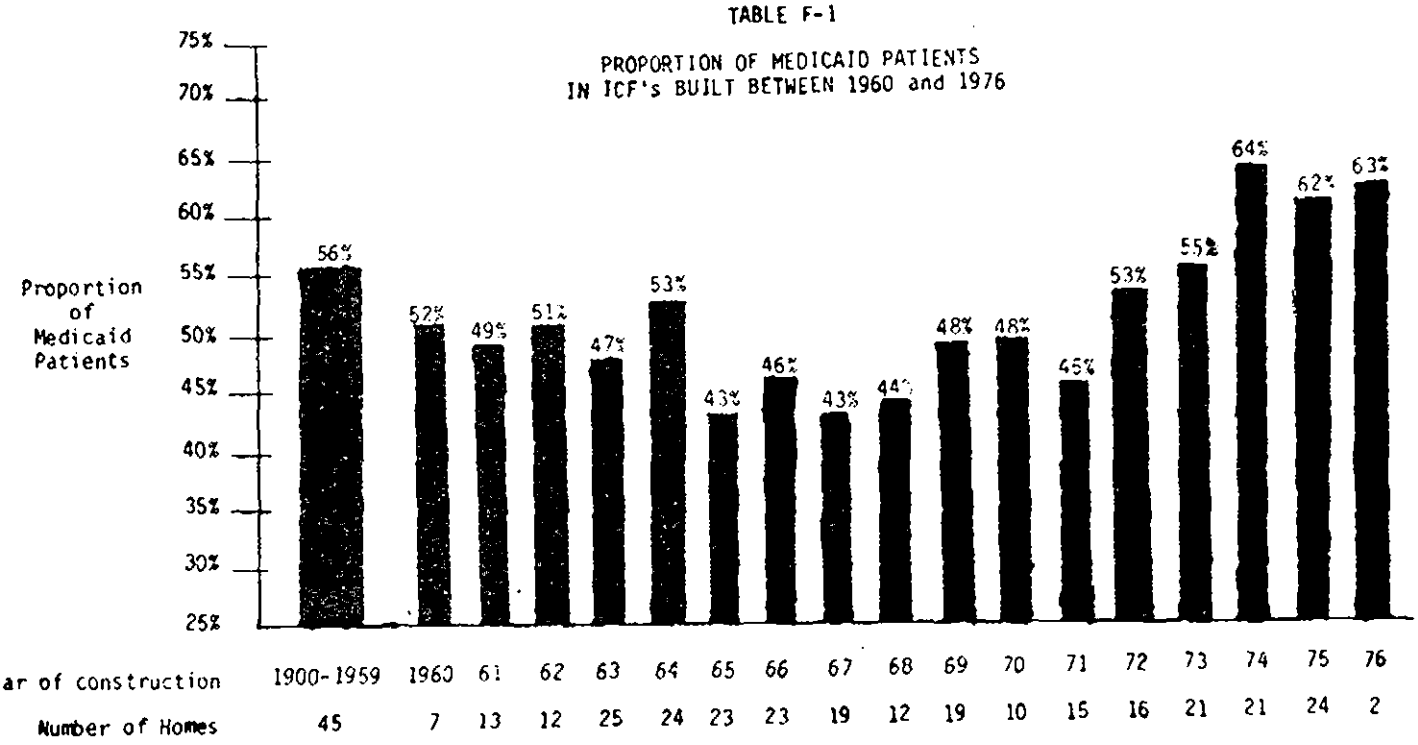
MEDICAID RECIPIENTS IN NURSING HOMES

At the time costs were reported for this study, 9/76-3/77, 51.5% of all the patients in Iowa nursing homes were Medicaid recipients. As costs go up, and individuals exhaust their resources for private payments to nursing homes, this proportion of Medicaid patients will undoubtedly increase even more.

Newly constructed ICF's have well above the average number of Medicaid patients (Table F-1). Homes constructed between 1974 and 1976 averaged 63% Medicaid clients. This probably indicates that as new facilities are opened, the operators seek out patients to fill vacant beds. Medicaid clients are available as social service workers are often trying to place such clients. However, the home receives more money per day for a private pay patient, so there is an obvious incentive to have the latter clients in a home. It is

TABLE F-1

PROPORTION OF MEDICAID PATIENTS
IN ICF's BUILT BETWEEN 1960 and 1976



likely that the more established homes built in the 1960's have been able to establish a more desirable patient mix including fewer Medicaid clients. It should be noted here that the most lucrative patient mix would include Medicaid patients who are able to walk, dress and feed themselves, thus costing less per day for nursing care; and private pay patients who require heavy duty nursing, as these patients often pay fees graduated according to the services they receive.

One of the most surprising findings of this study was the higher proportion of Medicaid clients in facilities with Medicaid costs of over $19.00 per diem. In ICF's under virtually every type of ownership control, the highest proportion of Medicaid clients was found in those facilities with costs over $19.00 per day. The proportions were highest in government facilities (69%), "S" corporation facilities (68%), and individually owned facilities (66%). Corporations maintained about the same Medicaid patient mix (52-55%) whatever their cost category, and church and other not for profit facilities varied only a few percentage points by cost category. This finding is surprising because one would expect fewer Medicaid patients, for whom reimbursement is limited, in higher cost facilities. This finding may mean anything from selection by ICF operators of only limited care--low cost Medicaid patients to fraud or abuse in the reimbursement system. However, it is not possible to investigate further without more information on the individual care needs of various patients in these facilities.

TABLE F-2

PROPORTION OF ICF PATIENTS ON MEDICAID
IN VARIOUS TYPES OF HOMES BY COST CATEGORIES

Type of Control	Cost Category: Low $10.13-16.85 n	%	Medium $16.86-19.00 n	%	High $19.01-43.50 n	%	Total n	%
Government	(2)	35	(0)	--	(5)	69	(7)	59
Church	(11)	42	(11)	36	(27)	42	(49)	41
Other Nonprofit	(17)	44	(16)	50	(14)	49	(47)	48
Individual	(10)	51	(4)	51	(3)	66	(17)	54
Partnership	(5)	62	(2)	57	(0)	--	(7)	60
Corporation	(79)	54	(53)	52	(27)	55	(159)	53
S Corporation	(38)	53	(21)	57	(6)	68	(65)	56
Total	(162)	52%	(107)	51%	(82)	52%	(351)	52%

n = number of homes

% = average proportion of patients on Medicaid

EFFECT OF OCCUPANCY RATE ON ICF COSTS

ICF's with low occupancy rates have much higher costs than those with high occupancy rates (Table G-1). Homes at 95% or more occupancy average $16.30 per diem; homes at 87-94% occupancy jump to $19.25; and homes below 86% occupancy average $20.02. There are two reasons for the higher per diem costs in low occupancy homes. Primarily, this is due to the added burden of spreading fixed costs over a smaller number of paying patients. This effect is shown by the high proportion of total costs spent on property (17%) by homes with very low occupancy rates. Many of the very high cost homes are church and other not-for-profit facilities which have lower occupancy rates than the average. It is not clear whether they have a low occupancy because their costs are high and thus discouraging to potential patients, or because they do not actively seek to fill empty beds outside of their special interest groups. In any case, the presence of vacant beds is an added cost which must be paid by patients or the state Medicaid program.

Except for government owned ICF's, all types of facilities have a higher proportion of Medicaid patients when their occupancy rates are lower (Table G-2). The difference is very little for church facilities, but the proportionate increase in low occupancy homes is very high for other non-profit facilities (65%), individually owned homes (76%), and "S" corporation homes (64%). This means either that homes with low occupancy rates try to fill beds with Medicaid patients, or else they have fewer occupants because the private pay patients choose to move out, leaving behind Medicaid patients who have fewer options on choice of homes.

TABLE G-1

SELECTED CHARACTERISTICS OF ICF's BY VARIOUS OCCUPANCY LEVELS

	Occupancy Rate: High 95 - 100%		Medium 87 - 94%		Low below 86%		All ICF's	
	$	% of Total	$	% of Total	$	% of Total		
Per Diem								
Administration	$ 2.41	14.2%	$ 2.84	14.8%	$ 2.82	14.1%	$ 2.56	14.4%
Room and board	5.39	31.6	6.18	32.1	5.96	29.8	5.63	31.5
Health Care	6.89	40.5	7.84	40.7	7.82	39.1	7.23	40.4
Property	2.30	13.6	2.40	12.5	3.42	17.1	2.45	13.8
Total	$16.30	100%	$19.25	100%	$20.02	100%	$17.84	100%
Number of beds	68		75		84		72	
Proportion on Medicaid	51%		52%		57%*		52%	
Licensing deficiencies	17		21		22		18	
Number of homes	232		80		39		351	

Note: * There is a wide variation in this category as many of the low occupancy homes are not for profit facilities with high per diems and a low proportion of Medicaid patients.

TABLE G-2

PROPORTION OF MEDICAID PATIENTS IN ICF's BY OCCUPANCY LEVEL AND TYPE OF OWNERSHIP CONTROL

	Occupancy Rate: 95-100%	87-94%	below 86%	All ICF's
Government	74%	62%	32%	59%
Church	41	40	42	40
Other Non Profit	46	45	65	46
Individual	52	43	76	54
Partnership	55	74	--	60
Corporation	52	57	56	53
S Corporation	55	55	64	56
Total	50	52	57	52

METHODOLOGY OF THE STUDY

Included in the study are 351 of Iowa's 406 ICF's (as of July 1976). Excluded are 22 homes not participating in the Medicaid program, 13 homes open less than one year, 9 homes without current cost reports, 6 homes closed after July 1976, 3 homes with cost records not available due to fraud investigations, and 2 homes specializing in chronic care for children.

Cost data is taken from reports submitted by each facility to the Department of Social Services for Medicaid reimbursement. These reports are audited by Conrad & Associates. Cost information is for a six month period ending between 8/76 and 3/77. All costs referred to in this study are on a per diem basis, that is cost per patient, per day. Other audited items of data from Conrad & Associates include length of time under current ownership (up to 5 years), occupancy rates, type of ownership control and number of Medicaid recipients.

Deficiency counts are taken from the most recent Health Department licensure inspection reports, done in either 1976 or 1977. There are limitations on using deficiency counts as an indicator of "quality of care." Nursing home regulations must examine quantitative, measurable characteristics, which may or may not relate directly to quality of patient care. Also, there are differences in the seriousness of various deficiencies, but it was not possible to weight each regulation to take these differences into account.

Other items of data come from special Health Department surveys, but they are self reported by the facility and not audited by the Department. These are:

Patient mix - four separate proportions including mentally retarded, not ambulatory, needing assistance with activities of daily living, and confused or disoriented

Nursing hours - reported as shifts per week per patient by RN's, LPN's and aides

Age of facility and years since a major addition or renovation

The cost figures in this study do not include the $1.25 per diem fee for service ($1.10 for non-profit facilities) or the 5% inflation factor added on to each facility's actual costs. However, the Department of Social Services will reimburse only up to a certain maximum limit. At the time covered by the study, this maximum limit was $19.00. As of July 1, 1977, the limit was raised to $19.50.

HOUSE FILE _____

By COMMITTEE ON BUDGET

Passed House, Date_____ Passed Senate, Date_____

Vote: Ayes_____ Nays_____ Vote: Ayes_____ Nays_____

Approved_____

A BILL FOR

An Act making an appropriation for the purpose of funding the use and development of an interactive computer system encompassing state budgeting and monitoring procedures.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

S.F. _____ H.F. _____

Section 1. There is appropriated from the general fund of the state to the legislative fiscal bureau for the fiscal year beginning July 1, 1976 and ending June 30, 1977 the sum of four hundred eighteen thousand (418,000) dollars, or so much thereof as is necessary, for the purpose of developing and using an interactive budgeting system which will provide for and encompass state budgeting and monitoring procedures relating to the appropriation and expenditure of funds. Funds appropriated by this Act may be expended for the lease or purchase of necessary equipment or computer time, the execution of necessary contracts providing for computer programming or software development, the employment of necessary personnel, and for necessary costs required to implement and use the interactive computer system.

Sec. 2. This Act, being deemed of immediate importance, shall take effect and be in force from and after its publication in _____, a newspaper published in _____, Iowa, and in _____, a newspaper published in _____, Iowa.

EXPLANATION

This bill appropriates funds for the development and use of a computer system which will provide timely and necessary budget information and the ability to monitor budgets.

LSB A6
sg/cj/23