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ABSTRACT

This study compared the functional disability levels of participants in adult day centers with patients in intermediate care facilities (ICFs). A three-page questionnaire measuring demographics, social resources, physical health, mental health, and activities of daily living as assessed by the Activities of Daily Living scale and the Instrumental Activities of Daily Living scale was administered by trained staff at all 15 of Hawaii's adult day centers and at 22 of Hawaii's 26 ICFs. The final sample (N=824) consisted of 462 ICF patients, 67 Adult Day Health (ADH) participants, and 295 Adult Day Care (ADC) participants. The results revealed significant differences among the three subgroups in functional status while similarities existed in medical diagnoses and demographic characteristics. The demographic makeup of the ADC and ICF groups was similar for mean age, percent female, and incidence of medical diagnoses. The two groups differed in that the ADC group was healthier, more independent, and more involved in social activities that was the ICF group. The degree of family support of ADC participants was significantly higher than for ICF patients. The ADH participants, compared to ICP and ADC participants, were younger, equally likely to be male or female, and had the shortest length of stay in the program. The findings suggest that the availability of family and informal support is an important factor in the use of adult day centers. Appendixes include the functional disability questionnaire and four data tables. (NB)
"A COMPARATIVE ANALYSIS OF THE FUNCTIONAL DISABILITY LEVELS OF ADULT DAY CARE, ADULT DAY HEALTH AND ICF-LEVEL NURSING HOME ELDERLY IN HAWAII" *

By

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"A COMPARATIVE ANALYSIS OF THE FUNCTIONAL DISABILITY LEVELS OF ADULT DAY CARE, ADULT DAY HEALTH AND ICF-LEVEL NURSING HOME ELDERLY IN HAWAII"

INTRODUCTION

This chapter compares the functional disability levels of participants in Adult Day Centers with patients in ICF-level nursing homes. An accurate assessment of the personal and physical functioning of the elderly is a prerequisite for the determination of the types of health and social services that are required to meet their needs. Functional assessments measure the level of an individual's capabilities in a variety of areas including physical health, quality of self-maintenance, quality of role activity, intellectual status, social activity, and emotional status. Although functional ability is difficult to assess given its multidimensional nature, increasingly, it is being utilized as a measure of the health status of the elderly. Functional assessment is a preferable approach to a diagnosis-centered one given its orientation towards assessing one's capacity for independent living. For example, persons with multiple diagnoses may compensate and function independently with little or no need for support services. Thus, in addition to yielding information to health care planners regarding the type and number of needed services, a functional assessment provides insight into a person's ability to function independently despite multiple physical and mental diseases and social deprivation.

This chapter is divided into three sections. The first section discusses the methodology utilized by this study: questionnaire design, administration of the questionnaire,
participation/response rate and data reduction. The second section discusses the comparative findings: demographics, functional disability (ADL and IADL) scores, medical problems, family support, and group participation. The discussion section concludes this chapter.

METHODOLOGY

Questionnaire Design

A thorough review of existing instruments which measure functional assessment was undertaken. In particular, this included a review of the DSSH 1147 Form which is used to determine the appropriateness of SNF or ICF nursing home placement and Medicaid payment. Serious consideration was given to utilizing this form as it offered such advantages as widespread use and familiarity of administration by hospitals and nursing homes. A number of professionals experienced at assessing the functional capabilities of the elderly were consulted regarding the utility of the 1147 form. Upon completion of this review and consultation process, a decision was made to reject the use of this form as a data collection instrument. This decision was based on the fact that the form provided an insufficient rating of the range and type of functional incapacity. Although the utilization of the form offered several advantages, it was determined that the
reliability of the data that could be derived from the DSSH 1147 form was inadequate for assessing the target population of this study.

Thus, a new, more reliable three-page instrument was assembled utilizing items which had been tested at other facilities. In designing the instrument, the goal was to balance ease of administration with specificity of data collected. All of the items were close-ended, except for the medical diagnoses section. Items incorporated had to apply to both Adult Day Centers and Intermediate Care Facilities.

An attempt was made to model this questionnaire after multi-dimensional functional assessment questionnaires such as the Duke University's OARS Instrument (Kane and Kane, 1981, p. 224). The components included on the survey were as follows:

- Demographics - Including sex, age, ethnicity.
- Social Resources - Quantity and quality of relationships with family and friends, availability of help or care in time of need.
- Physical Health - Medical Diagnoses.
- Mental Health - Mental status, participation in group activities.
- Activities of Daily Living - Capacity to perform instrumental and physical tasks (such as bodily care) that allow patients to live independently.

Functional independence or dependence was measured using two types of instruments, the Activities of Daily Living and Instrumental Activities of Daily Living scales. The standard Activities of Daily Living (ADL) scale was incorporated on the survey. This scale, which was developed in 1963, focuses on...
primary "requirements for living" functions such as eating, dressing and bathing. It utilizes a six-point scale which measures the degree to which the individual can perform one or a group of basic "requirements of living" skills to function independently. The value "1" on the scale indicates that the person is able to independently perform a task without any human or mechanical help and the value "6" indicates that the person is totally dependent. The middle scores represent performance with some type of help.

An Instrumental Activities of Daily Living (IADL) scale was also included on the questionnaire. The IADL scale (1969) is similarly constructed, but examines more complex skills required for independent community-based living, such as shopping and meal preparation. The identical 6-point scale was also utilized for this section. Both the ADL and the IADL scales are short and relatively simple to understand and apply. They do not have to be administered by a physician or specially-trained health professional.

Although inter-rater reliability measures were not acquired for this study's ADL and IADL scales, a number of considerations have increased our confidence in the data obtained. For one thing, the scale items from "1" to "6" used are commonly utilized in the nursing profession, (Gordon, M. 1982). In addition, other comparable scales which measure both ADL and IADL have a known reliability coefficient of at least 0.80, (Kane and Kane,
Furthermore, the standardization of the training of the persons collecting the data and the assurance of item clarity with the use of questionnaire completion instructions, helped to safeguard the reliability of the instrument.

To assure increased instrument reliability, an initial draft of the questionnaire was distributed to all Hawaii Adult Day Centers for review and comments in early October, 1986. It was then pre-tested at several Adult Day Centers and ICFs on Oahu. Pre-test site staff were asked to read the accompanying instructions and to select 4-6 persons for assessment by utilizing this Project’s form. Feedback was obtained regarding the comprehensiveness of the survey, the ease and time required for completion, and problems encountered in the process. As a whole, there were very few problems encountered in the pre-test.

The primary difficulty identified was the medication section concerning the types of prescriptions and doses the client required. This section was a problem at both day centers and nursing home facilities because the staff were unfamiliar with the type of drugs that were being taken, though they knew the name of the medications. In addition, day center staff did not have the clinical background and were not well-informed about the types of drugs taken at home by their participants. Consequently, the medication section was omitted in the final version of the questionnaire.

Changes were also made in the mental status and communication
items. These modifications were made in the response categories in order to make them more discreet and easier to differentiate. It was estimated that for each client assessed, the questionnaire required an average of 15 minutes to complete. (See Appendices II-A and II-B for a copy of the questionnaire and its instructions for administration.)

Administration Of Questionnaire

Sampling: All Adult Day Center participants in the state were included in the sample selection. Consequently, 100 percent or 422 of the participants were expected to be assessed. All ICF-level nursing homes were also included. Given the size of the ICF nursing home population, however, a 30 percent systematic random sample of the residents at each ICF facility was targeted. Thirty percent was selected as the target goal in order to result in a relatively equivalent sized sample compared to the total sample of Adult Day Center participants (approx. 400).

Training: Training was provided to appropriate staff members at each facility/program to administer the survey. Training sessions usually required one hour to complete. These sessions were initiated on Oahu in late October, 1986. Training was scheduled over a 6-week period on Oahu, and was completed in one week on the islands of Maui, Kauai, and the Big Island. Site visits were made to all neighbor island Adult Day Centers and ICF-level nursing homes with the exception of the Kona and Kohala
Hospitals on the Big Island, and the Molokai and Lanai Hospitals. These facilities were considered too remote to warrant additional time and expense. For these facilities, instructions for conducting the survey were completed by phone and mail.

For the most part, the contact person at each ICF facility was the Director of Nursing and/or a social worker. At the Adult Day Centers, it was the director.

A packet containing questionnaires and instructions, as well as self-addressed stamped envelopes was left with the contact person at each facility. They were all encouraged to call a study team member regarding problems or questions. All programs and facilities were given three weeks to complete the questionnaires. For facilities that needed more time, a suggestion was made to return a subset of the total upon its completion. A genuine interest in the study was expressed by a majority of the staff at these facilities. Most program directors were very cooperative.

**Participation and Response Rate**

All of the 15 Adult Day Centers agreed to participate in the study. Of Hawaii's 26 ICFs, 22 consented to participate in this study, yielding an 85% participation rate. The participation rate was very high and was enhanced by the cooperation of the Hawaii Long Term Care Association and the Hawaii Adult Day Care Association. Both organizations endorsed the study and
encouraged their respective members to participate. Those facilities which refused to participate cited reasons such as a lack of staff time to complete the task. The four Oahu-based ICFs which declined to participate were Beverly Manor, Hale Nani, Crawford, and Leeward Nursing Homes. Collectively, these four ICFs accounted for 350 patients that resulted in a loss of 116 cases from the ICF study sample.

As a whole, the facility/program response rate in this study was exceptionally good. A majority of the facilities met the suggested three-week deadline for returning the surveys. A total of 824 questionnaires was received by the study team, resulting in an overall response rate of 93 percent. (See Tables II-1 and II-2.)

Data Reduction

All of the returned surveys were reviewed for completeness of information. When missing data were discovered, phone calls were made to the facilities to obtain the needed information. In this way, almost all of the missing data were collected.

The Diagnoses recorded on the survey were assigned computer readable codes from the International Classification of Diseases, 9th Revision. A physician was utilized to review the diagnosis coding procedure and to assist with ill-defined descriptions.

A computer file containing all of the data from each questionnaire was created, cleaned and combined with other
facility-related information describing the location, size and type of program the individual attended.

Data analyses were conducted utilizing SYSTAT, a statistical computing software package. The chi-square statistic was utilized to measure the statistical significance of the results. In this report, only the relationships which proved to be statistically significant at the .001 level are reported.

See Appendix II-C for a discussion of the limitations of this study.

FINDINGS

For the purpose of data analysis, the study sample (N=824) has been divided into three subgroups: ICF patients (N=462), Adult Day Health participants (N=67), and Adult Day Care participants (N=295). The Adult Day Health participant group has been analyzed as a separate group because its characteristics differed significantly from the Adult Day Care group.

Demographics

The demographic makeup of the three groups differs in several ways (See Table II-3). The average age of both the ICF and Adult Day Care groups is 80. However, 20% of the ICF group is older than 90 years old in comparison to 6% of the Adult Day Care and Adult Day Health groups. The average participant in ADH tends to
be younger than either group, with a mean age of 70 years old. The Japanese constitute the predominant ethnic elderly group for all three programs. The Japanese proportion in ICF-level nursing homes is equivalent to their representation in the total elderly population 65 years and older. There is, however, a larger proportion of Japanese enrolled in Adult Day Care and Day Health programs than in ICF. The female to male ratio of 2:1 describes the ICF and Adult Day Care groups, however, there is approximately an equal number of females and males in ADH programs. ICF patients have resided in the facility for an average of 30 months; this is about 13 months longer than ADH participants and 7 months longer than Adult Day Care participants.

Activities Of Daily Living (ADL) Scores

For each of the seven Activities of Daily Living items such as eating and mobility, individual scores have been averaged together to form a mean score for each activity and group. These mean scores are reported in Appendix II-D. In order to facilitate comparison, however, the means for each of the seven ADLs have been averaged together to create a composite ADL score for each of the three programs. The IADLs have been treated in an identical fashion. These composite scores are found in Table II-3.

In Table II-3, the greatest contrast in ADL
FUNCTIONAL DISABILITY COMPARISON

functional dependence is between the ICF and Adult Day Care groups, which yielded mean composite scores of 4.4 and 2.1, respectively on a 6 point scale. The Adult Day Health composite score of 3.5 falls between the ICF and Adult Day Care scores. The Adult Day Care group is the most independent in carrying out daily self-care activities. Figure II-1 represents another way of looking at these data. This bar graph depicts the distribution of scores for the composite ADLs. The scores have been collapsed into two groups: those persons who demonstrated a low degree of functional dependence (scores 1,2), and those persons who demonstrated a moderate to high degree of dependence (scores 3-6). The graph indicates the significant degree of correspondence between the ICF and ADH groups, whereby at least three-quarters of both groups are functionally dependent. In contrast, approximately two out of three Adult Day Care participants are functionally independent. Despite their relative independence, Figure II-1 suggests that at least one-third of those in ADC are functionally similar to those in Adult Day Health and ICF.

The Instrumental Activities of Daily Living (IADL)

The Instrumental Activities of Daily Living (IADL) scores have been displayed in an identical format. Table II-3 depicts the composite IADL scores for the three subgroups, while Appendix II-D displays each of the five individual IADL scores. It is
evident from the IADL scores that there is a higher degree of
dependence in these types of tasks across all three groups in
contrast to the ADLs. There was also more missing information
for this series of items in comparison to the ADL items. (See
Appendix II-C). Figure II-2 graphically depicts the high level
of functional dependence demonstrated by all three groups. The
bar graph suggests that the elderly in all three programs are
nearly equivalent in their inability to reside independently in
the community without assistance.

Medical Problems

There are insignificant differences among the three groups in
terms of mental status, hearing and vision problems, and types of
disruptive behavior (See Appendix II-D). The ICF and ADH groups
have a similar number of medical problems, an average of 4.0 and
4.6 respectively. In contrast, the Adult Day Care average of 2.6
diagnoses per person is much lower. Table II-4 notes the top
five diagnoses of each group. While there is an overlap between
the three groups in terms of the types of medical problems
afflicting their respective populations, the percentage of the
group affected varies considerably. For example, strokes occur
as a "top 5" diagnosis in all three groups but, in ADH there are
twice as many persons who have had a stroke (CVA) than in an ICF,
and three times as many than in an Adult Day Care. A table in
Appendix II-E contains a detailed listing of all of the medical
problems by subgroup for further reference.
Family Support

The average number of children living on the same island as the elderly individual does not vary greatly from group to group. (See Table II-3). Those in Adult Day Care and Day Health programs, however, tend to have more children. More important perhaps, is the fact that the extent of family support and involvement does vary significantly. In Adult Day Care and Day Health programs, the staff report that families are actively or somewhat actively involved in supporting the client in the program for 89% and 73% of the elderly enrolled in the respective programs. The corresponding figure for ICF is only 52%. There is no involvement for 13% of the ICF patients in contrast to only 1% of the ADH and 5% of the Adult Day Care participants. Only 4% of the Adult Day Care and Day Health participants receive no form of informal help from neighbors, friends or family. However, one out of five ICF patients does not receive any informal help. (See Appendices II-F and II-G for further reference.)

Group Participation

The staff were asked to rate the extent that the individual participates in ongoing activities at the facility as well as in special programs. The scale used ranged from a "1" for those that "participates most of the time" to a "6" for those that "do not attend" or "cannot participate." The categories attempted to differentiate between those who were physically unable to attend
activities and those who were unwilling to be socially engaged. Those that participate actively receive a lower score than those who do not participate. The average scores for group participation are depicted in Table II-3. It is evident that the Adult Day Care (1.9) and Day Health groups (2.2) are more actively engaged in social activities than the ICF group (3.4).

Comparison with National Adult Day Care Studies

It is useful at this point to compare data gleaned from this study with similar studies of Adult Day Care participants conducted at the national level. Two such national studies conducted recently were completed by Northwestern University and by the National Institute on Adult Daycare (NIAD). (Conrad, et al., 1986; von Behren, 1986). Although the response categories of all question items were not identical to those in the Hawaii survey, some useful comparisons can be made about the demographic makeup and the functional dependence of Hawaii's ADC/ACH participants and the average national characteristics. Table II-5 contains a comparison of some of these relevant data. A key on the bottom of the table indicates differences in question wording on the respective surveys.

The Hawaii data have been separated into two groups, the Adult Day Care and the Adult Day Health programs. Unfortunately, the national data are not differentiated in a similar manner. According to the data presented in Table II-5, Hawaii's Adult Day
FUNCTIONAL DISABILITY COMPARISON

Care participants are slightly older than the national norm, yet the percent female is similar. The living arrangement of the elderly in Hawaii represents a distinctive pattern when compared to national data. Hawaii's elderly are much less likely than their mainland counterparts to live alone, and much more likely to live with their children. Comparison between other categories of data are hindered by a lack of standard wording, yet a gross comparison shows similarities in terms of incontinence, confusion, and behavior problems.

DISCUSSION

The demographic makeup of the Adult Day Care and ICF groups is similar for certain characteristics: mean age, percent female, incidence of medical diagnoses. However, they differ from one another in terms of the average number of diagnoses and on the performance of their ADL tasks, as well as in group participation. In all of these areas, the Adult Day Care group is healthier, more independent in all of the Activities of Daily Living items, and more involved in social and group activities than the ICF patients. In addition, the degree of family support of Adult Day Care participants is significantly higher than for ICF patients.

The ADH group is also characterized by some differences and similarities when compared with the two other subgroups. The
average ADH participant is younger than its counterparts in Adult Day Care and ICF, is equally likely to be male or female, and has the shortest length of stay in the program. To a large extent, this is due to their relative frailty which often results in eventual hospitalization or nursing home placement. Time spent in the ADH program thus represents a significant delay or postponement to institutional care. The mean ADL, IADL, mental status, and group participation scores for the ADH group fall between the average scores measured for the Adult Day Care and the ICF groups. In most respects, its ADL and IADL are scores more characteristic of ICF patients. This group has the highest average number of medical diagnoses per person and the incidence of disease is distinct from the pattern evidenced by the two other subgroups. This group is more likely to be physically rather than mentally disabled, given that it has the highest incidence of strokes and hemiplegia and the lowest incidence of dementia. Like the Adult Day Care group, however, the families and friends of the ADH participants provide a great deal of emotional support and informal help.

Many of these findings may be a function of the program type, including staffing and philosophy of care. In addition, some of the anomalies in the data that are difficult to interpret may be due to the limited sample size of the Adult Day Health programs. For example, Hawaii’s community-based long-term care program with Medicaid waivers known as Nursing Home without Walls (NHWW) has
been a major financial supporter of the ADH programs. NHWW is noteworthy for its service to the chronically disabled of all age groups and may be significantly affecting the characteristics of ADH participants. The ICF setting is staffed by nurses whose job is to assist the elderly in the activities of daily living and thereby promote a dependency pattern. The overall ICF-level goal is patient maintenance with little emphasis on rehabilitation to attain the person's highest level of independence in caring for him or herself in the least restrictive environment. In contrast, the goal of both types of Adult Day Centers is to encourage self-care and independence in an effort to prevent or delay deterioration of these skills. Social interaction is an integral component of the daily schedule of activities. A large proportion of the staff at day centers is composed of activity and recreation coordinators. Thus, it is not surprising that the ADL scores are higher in day center settings than in ICF sites. Whether the higher level of independence is a direct result of the program that one is enrolled in is difficult to state with the data obtained by this study alone. However, the data are suggestive of this. These findings also suggest that the availability of family and informal support is presently an important factor in the use of Adult Day Centers. The availability of these services may be considered an important component in supporting and encouraging families in their continued care of their elderly family member in the community.
This investigation has determined that there are differences between the three subgroups in functional status while similarities exist in medical diagnoses and demographic characteristics. Some of the questions that still require answers are:

- Are those in Adult Day Health and ICF-level nursing homes identical at admission into their respective programs?
- Are the different philosophies of care of Adult Day Health and ICF creating a difference in functional status and group participation scores over time?
- Are the different philosophies of care of Adult Day Care, Adult Day Health and ICF resulting in the different levels of family support and commitment or are the families that use these services in fact different from the onset?

These questions are not posed merely to satisfy an academic curiosity or a pure research interest; numerous policy implications are contingent upon answers to the above questions. In consequence, it is recommended that:

- a standard assessment tool for Adult Day Centers, Adult Residential Care Homes and ICF-level nursing homes be developed and employed at admission and at regular intervals thereafter (e.g. every 6 months) to monitor the status of the clients served, and
- this standard instrument be used to determine clients' eligibility and the most appropriate placement for the impaired elderly.
TABLE II - 1

PARTICIPATION AND RESPONSE RATES OF FACILITIES AND PROGRAMS

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>Total Number of Facilities in State</th>
<th>Percent of Facilities Participating</th>
<th>Total Number of Clients in State</th>
<th>Sample Size and Percent of State Total (c)</th>
<th>Number of Respondent and Percent of Total (d)</th>
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</thead>
<tbody>
<tr>
<td>ICF-Level Nursing Home</td>
<td>26</td>
<td>85% (22)</td>
<td>1,569</td>
<td>467 (30%)</td>
<td>462 (99%)</td>
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<tr>
<td>Adult Day Health (ADH)</td>
<td>3</td>
<td>100% (3)</td>
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<td>67 (100%)</td>
<td>67 (100%)</td>
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<td>Adult Day Care (ADC)</td>
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<td>100% (12)</td>
<td>355</td>
<td>355 (100%)</td>
<td>295 (83%)</td>
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<td>TOTALS</td>
<td>41</td>
<td>90% (37)</td>
<td>1,991</td>
<td>889 (45%)</td>
<td>824 (93%)</td>
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### TABLE II - 2
PARTICIPATING FACILITIES AND PROGRAMS

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<th>Program Name</th>
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<th>Total Number of Respondents</th>
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<td>Nursing Home</td>
<td>Convalescent Center</td>
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<td></td>
<td>Hale Malamalama</td>
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<td><strong>67</strong></td>
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</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td><strong>355</strong></td>
<td><strong>295</strong></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td><strong>1,991</strong></td>
<td><strong>824</strong></td>
</tr>
</tbody>
</table>
# TABLE II - 3
PROFILE OF HAWAII'S ICF-LEVEL NURSING HOME PATIENTS, ADULT DAY HEALTH (ADH) AND ADULT DAY CARE (ADC) PROGRAM PARTICIPANTS

## Descriptive Profile

<table>
<thead>
<tr>
<th>Descriptive Profile</th>
<th>Levels of Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICF</td>
</tr>
<tr>
<td><strong>Demographic Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>1. Average Age</td>
<td>80</td>
</tr>
<tr>
<td>2. Age Range</td>
<td>24-103</td>
</tr>
<tr>
<td>3. Percent Female</td>
<td>67</td>
</tr>
<tr>
<td>4. Ethnicity (%)</td>
<td></td>
</tr>
<tr>
<td>Japanese</td>
<td>41</td>
</tr>
<tr>
<td>Chinese</td>
<td>7</td>
</tr>
<tr>
<td>Filipino</td>
<td>10</td>
</tr>
<tr>
<td>Hawaiian</td>
<td>8</td>
</tr>
<tr>
<td>Korean</td>
<td>1</td>
</tr>
<tr>
<td>Portuguese</td>
<td>8</td>
</tr>
<tr>
<td>Caucasian</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>5. Average Length of Stay in Program (months)</td>
<td>30</td>
</tr>
<tr>
<td>6. Average Number of Children on Island</td>
<td>1.7</td>
</tr>
<tr>
<td>7. Percent with Active or Somewhat Active Family Support</td>
<td>52</td>
</tr>
<tr>
<td><strong>Medical Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>8. Average Number of Diagnoses</td>
<td>4.0</td>
</tr>
<tr>
<td>9. Average Mental Status Score</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Functional Disability Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>10. Average ADL Score</td>
<td>4.4</td>
</tr>
<tr>
<td>11. Average IADL Score</td>
<td>5.7</td>
</tr>
<tr>
<td>12. Average Group Participation Score</td>
<td>3.4</td>
</tr>
</tbody>
</table>

**TOTAL NUMBER OF RESPONDENTS** | 462 | 67 | 295 |

Notes on interpreting the scales:
1. Mental Status Scale ranges from 1 to 5 with 1 = oriented, intact memory
2. ADL and IADL Scores range from 1 to 5 with 1 = most independent
3. Group participation scale ranges from 1 to 6 with 1 = participates often in group activities
**FUNCTIONAL DISABILITY COMPARISON**

**TABLE II - 4**

**INCIDENCE OF TOP FIVE MEDICAL DIAGNOSES FOR ICF-LEVEL NURSING HOMES, ADULT DAY HEALTH AND ADULT DAY CARE SUBGROUPS**

<table>
<thead>
<tr>
<th>Intermediate Care Facility</th>
<th>Percent</th>
<th>Adult Day Health (ADH)</th>
<th>Percent</th>
<th>Adult Day Center (ADC)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dementia</td>
<td>32</td>
<td>1 CVA (Stroke)</td>
<td>63</td>
<td>1 Hypertension</td>
<td>32</td>
</tr>
<tr>
<td>2 CVA (Stroke)</td>
<td>28</td>
<td>2 Hemiplegia</td>
<td>46</td>
<td>2 Ischemic Heart Disease</td>
<td></td>
</tr>
<tr>
<td>3 Hypertension</td>
<td>28</td>
<td>3 Hypertension</td>
<td>43</td>
<td>3 Dementia</td>
<td>23</td>
</tr>
<tr>
<td>4 Ischemic Heart Disease</td>
<td>28</td>
<td>4 Diabetes</td>
<td>21</td>
<td>4 CVA (Stroke)</td>
<td>22</td>
</tr>
<tr>
<td>5 Genitourinary</td>
<td>20</td>
<td>5 Ischemic Heart Disease</td>
<td>21</td>
<td>5 Diabetes</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Digestive</td>
<td>21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II - 23
FUNCTIONAL DISABILITY COMPARISON

TABLE II-5

COMPARISON OF HAWAII'S ADULT DAY CENTER PARTICIPANTS
WITH THE RESULTS FROM TWO NATIONAL STUDIES

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>HAWAII 1986</th>
<th>NIAD** 1986</th>
<th>NORTHWESTERN*** 1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>70</td>
<td>79</td>
<td>73</td>
</tr>
<tr>
<td>Percent Female</td>
<td>55%</td>
<td>70%</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td>ADH</td>
<td>ADC</td>
<td></td>
</tr>
<tr>
<td>Living Arrangements:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>0</td>
<td>9%</td>
<td>19%</td>
</tr>
<tr>
<td>With Spouse</td>
<td>27%</td>
<td>12%</td>
<td>64%</td>
</tr>
<tr>
<td>With Children</td>
<td>60%</td>
<td>57%</td>
<td>29%</td>
</tr>
<tr>
<td>With Other</td>
<td>7%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Instit. Setting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congregate</td>
<td>6%</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>Urinary Incontinence(1)</td>
<td>15%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Bowel Incontinence (2)</td>
<td>13%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Confusion (3)</td>
<td>54%</td>
<td>44%</td>
<td>*</td>
</tr>
<tr>
<td>Alzheimers</td>
<td>9%</td>
<td>14%</td>
<td>*</td>
</tr>
<tr>
<td>Behavior Problems (4)</td>
<td>3%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Wandering</td>
<td>10%</td>
<td>27%</td>
<td>*</td>
</tr>
<tr>
<td>Severe Depression</td>
<td>6%</td>
<td>2%</td>
<td>*</td>
</tr>
</tbody>
</table>

NOTES:
(1)(2) Incontinence defined as follows:
Hawaii: Totally dependent, can’t assist with human or mechanical help.
NIAD Study: Needing change during day.
Northwestern Study: Incontinent of urine, feces.
(3) Confusion defined as follows:
Hawaii: Moderate-severe impairment of judgment, memory; disoriented.
Northwestern Study: Confusion or disorientation.
(4) Behavior Problems defined as follows:
Hawaii: Physically abusive; unresponsive to staff intervention.
NIAD Study: Behaviorally Disruptive.
Northwestern Study: Aggression, abusive language, exposing self.

* No comparable data available.
*** NORTHWESTERN = National Survey of Adult Day Care Programs conducted by mail in 1986 by Conrad et.al. of 1215 ADC programs nationally. See Conrad (1986).
PERCENT DISTRIBUTION OF HAWAII'S ADC, ADH & ICF

CLIENTS ON THE ADL FUNCTIONAL DEPENDENCE SCALE

LEVEL OF FUNCTIONAL DEPENDENCE

LOW (1-2)       MODERATE TO HIGH (3-6)

65% ADC
26% ADH
17% ICF

83% ICF
74% ADH
35% ADC
FIGURE 11-2

PERCENT DISTRIBUTION OF
HAWAII'S ADC, ADH & ICF CLIENTS
RATED HIGH (5-6) ON THE IADL FUNCTIONAL DEPENDENCE SCALE

PERCENT
100

90

80

70

60

50

40

30

20

10

HIGH LEVEL OF FUNCTIONAL DEPENDENCE

ADC

ADH

ICF

63%

83%

91%
REFERENCES


FUNCTIONAL DISABILITY COMPARISON

APPENDIX II-A

ID NO._____ 

D.S.S.H. STATE-WIDE ADULT DAY CENTER STUDY
ICF AND ADULT DAY CENTER QUESTIONNAIRE

1. DATE OF ASSESSMENT: _____/____/____  2. FACILITY-BASED CLIENT NUMBER ________

3. FACILITY NAME: _____________________________________________________________

4. CLIENT'S ETHNICITY: _________________________________________________________

5. BIRTHDAY: _____/____/19

6. SEX: M F

7. ADMISSION DATE: _____/____/____

8. MAJOR MEDICAL DIAGNOSES: (Print Diagnosis and Circle Primary Dx)

Coding Use Only

0

0

0

0

0

0

9. TOTAL NO. OF DIAGNOSES: 

10. HEALTH INSURANCE COVERAGE:
(Circle all that apply)
1. Medicare
2. Medicaid
3. HMSA/65-C
4. HMSA/Medicare Plus
5. Kaiser
6. Other

11. FAMILY SUPPORT OF CLIENT IN PROGRAM (ICF or ADC/ADH):
(Circle all that apply)
1. Active Involvement
2. Some Involvement
3. Slight Involvement
4. No Involvement
5. No Family
6. Unable to Access

12. AVAILABILITY OF INFORMAL HELP
(Circle all that apply)
1. Helps w/ADL's (feed, dress, bathe, groom, move)
2. Social/recreational
3. Advice/Informational
4. Financial
5. Emotional
6. None available

13. NUMBER OF LIVING CHILDREN: 

14. NUMBER OF CHILDREN ON ISLAND: 

15. PRESENT or PRE-ICF LIVING ARRANGEMENT (Circle all that apply):
1. Alone
2. With Spouse
3. Child(ren)/step-child(ren)
4. Other Relatives(grandchildren, cousins, brothers, sisters, etc.)
5. Friend/non-relatives (non-program)
6. Group Quarters-Care/Boarding Homes
7. Other: 

II - 28
## FUNCTIONAL DISABILITY COMPARISON

### PART II - ADL-FUNCTIONAL ASSESSMENT OF CLIENT

**CODE:**
- **MH** = Mechanical Help (cane, bedpan, wheelchair, prosthesis, etc.)
- **HH** = Human Help
  - **Minimal HH** = 1 person assist
  - **Moderate HH** = 2 person assist

#### 16. EATING
- 1. Independent
- 2. MH Only
- 3. Minimal HH Only
- 4. Moderate HH Only
- 5. MH and HH
- 6. Dependent
- 7. Unable to Assess

#### 17. DRESSING
- 1. Independent
- 2. MH Only
- 3. Minimal HH Only
- 4. Moderate HH Only
- 5. MH and HH
- 6. Dependent
- 7. Unable to Assess

#### 18. MOBILITY
- 1. Independent
- 2. MH Only (w/walker, cane, etc.)
- 3. Minimal HH Only
- 4. Moderate HH Only
- 5. MH and HH
- 6. Dependent
- 7. Unable to Assess

#### 19. CONTINENCE: BOWEL
- 1. Independent
- 2. MH Only (self-ostomy, self-enema, etc.)
- 3. Minimal HH Only
- 4. Moderate HH Only
- 5. MH and HH
- 6. Dependent
- 7. Unable to Assess

#### 20. COMMUNICATION: EXPRESSIVE
- 1. Expresses feelings, desires, ideas
- 2. Uses short phrases, single words, concrete ideas only
- 3. Able to communicate ADL needs only
- 4. Speaks with confusion & disorientation, word finding problems
- 5. Facial expression & gestures only
- 6. Unable to communicate
- 7. Unable to Assess

#### 21. CONTINENCE: BLADDER
- 1. Independent
- 2. MH Only (self-cath, bedpan, etc.)
- 3. Minimal HH Only
- 4. Moderate HH Only
- 5. MH and HH
- 6. Dependent
- 7. Unable to Assess

#### 22. COMMUNICATION: RECEPTIVE
- 1. Functional comprehension/understanding
- 2. Understands short phrases
- 3. Understands single words
- 4. Impression of comprehension with incorrect response
- 5. Attention without comprehension
- 6. No attention
- 7. Unable to Assess

#### 23. MENTAL STATUS
- 1. NO PROBLEM; normal; intact memory; oriented.
- 2. MILD IMPAIRMENT; mild memory loss; adequate orientation; can carry out most activities independently.
- 3. MODERATE IMPAIRMENT; memory loss; poor judgment; needs frequent orientation & reminders; needs protected environment.
- 4. SEVERE IMPAIRMENT; severe memory loss.
- 5. TOTALLY UNRESPONSIVE.
### FUNCTIONAL DISABILITY COMPARISON

#### 26. HEARING (with Aid if used):

1. Normal; No problem
2. Hears when diction clear; volume raised
3. Hears with difficulty; many misunderstandings; can't hear in noisy setting
4. Hears gross sounds with no meaning
5. Deaf
6. Deaf
7. Deaf
8. Deaf
9. Unable to Assess

#### 27. VISION (with Aid if used):

1. Normal; no problem
2. Minimal; Large Print; glasses
3. Rt. or Left Field Vision Blind
4. Limited Vision (Peripheral; tunnel)
5. Aware of Light/shadows
6. Blind; no vision
7. Blind
8. Blind
9. Unable to Assess

#### 28. BEHAVIOR: WANDERING

1. No Problem; not present
2. Present but requires little or no intervention
3. Present, requires and responds to staff intervention
4. Present, unresponsive to maximum staff intervention
5. Deaf
6. Deaf
7. Deaf
8. Deaf
9. Unable to Assess

#### 29. BEHAVIOR: DELUSIONAL

1. No Problem; not present
2. Present but requires little or no intervention
3. Present, requires and responds to staff intervention
4. Present, unresponsive to maximum staff intervention
5. Deaf
6. Deaf
7. Deaf
8. Deaf
9. Unable to Assess

#### 30. BEHAVIOR: DEPRESSION

1. No Problem; not present
2. Present but requires little or no intervention
3. Present, requires and responds to staff intervention
4. Present, unresponsive to maximum staff intervention
5. Deaf
6. Deaf
7. Deaf
8. Deaf
9. Unable to Assess

#### 31. BEHAVIOR: PHYSICALLY ABUSIVE

1. No Problem; not present
2. Present but requires little or no intervention
3. Present, requires and responds to staff intervention
4. Present, unresponsive to maximum staff intervention
5. Deaf
6. Deaf
7. Deaf
8. Deaf
9. Unable to Assess

#### PART III -- IADL-FUNCTIONAL ASSESSMENT

#### 32. SHOPPING

1. Independent
2. MH Only
3. Minimal MH Only
4. Moderate MH Only
5. MH and HH
6. Dependent
7. Dependent
8. Dependent
9. Unable to Assess

#### 33. MEAL PREPARATION

1. Independent
2. MH Only
3. Minimal MH Only
4. Moderate MH Only
5. MH and HH
6. Dependent
7. Dependent
8. Dependent
9. Unable to Assess

#### 34. LIGHT HOUSEKEEPING

1. Independent
2. MH Only
3. Minimal MH Only
4. Moderate MH Only
5. MH and HH
6. Dependent
7. Dependent
8. Dependent
9. Unable to Assess

#### 35. TAKE MEDICATIONS/BANDAGING

1. Independent
2. MH Only
3. Minimal MH Only
4. Moderate MH Only
5. MH and HH
6. Dependent
7. Dependent
8. Dependent
9. Unable to Assess

#### 36. TELEPHONE USE

1. Independent
2. MH Only
3. Minimal MH Only
4. Moderate MH Only
5. MH and HH
6. Dependent
7. Dependent
8. Dependent
9. Unable to Assess

#### 37. GROUP PARTICIPATION

1. Participate most of time
2. Participate 50% of time
3. Participate 25% of time
4. Minimal or passive participation
5. Does not attend social activities
6. Cannot participate
7. Cannot participate
8. Cannot participate
9. Unable to Assess
APPENDIX II-B

D.S.S.H. STATE-WIDE ADULT CENTER STUDY
QUESTIONNAIRE COMPLETION INSTRUCTIONS

I. GENERAL INSTRUCTIONS:

- Please PRINT and use a RED PEN.
- Please try to be as complete as possible; Do not use "Unable to Assess" unless it is absolutely necessary. Use your best judgment.
- ADC/ADH = Adult Day Care and Adult Day Health Programs.
- If you have any questions about the questionnaire, please call the ADC Study Research Staff at Kuakini, Phone: 547-9815 for Dr. Sue Sherman or Harumi Sasaki.
- If in doubt regarding the most appropriate selection, you may wish to confer with someone with greater familiarity before you make your selection.

II. QUESTION INSTRUCTIONS:

1. DATE OF ASSESSMENT: month/day/year

2. FACILITY-BASED CLIENT NUMBER: Number assigned to the patient or program participant that is meaningful to the Facility. It may be the Medical Records number, or any other assigned number to assure anonymity of information. The number should be unique and non-transferrable. If none is used in your facility, then just use the last 4 digits of the person's social security number or their initials.

3. FACILITY NAME: Name of Adult Day Care (ADC), Adult Day Health (ADH) or Intermediate Care Facility (ICF). If your organization has two types of programs, use the name of program that the client is in.

4. ETHNICITY: Use information recorded in Client Records. Preference should be to use one ethnic category unless absolutely necessary to refer to Mixed or Other.

5 and 7. BIRTHDATE and ADMISSION DATE: month/day/year

6. SEX: M = Male  F = Female

8. MAJOR MEDICAL DIAGNOSES: Print up to 5 major medical diagnoses. Circle the Primary Diagnosis according to the primary physician. Do not fill in space referred to as "For Coding Purposes."

9. TOTAL NUMBER OF DIAGNOSES: Indicate the total number of medical diagnoses known. Please include in your total count the 5 listed as well as any additional diagnoses known. Estimations acceptable.

10. HEALTH INSURANCE COVERAGE: Circle all of the applicable health insurance coverage that the patient or client is presently subscribing to.
11. FAMILY SUPPORT OF CLIENT IN PROGRAM (ICF or ADC/ADH):

- **ACTIVE INVOLVEMENT** - Family supports program with donations of time or money, assistance with transportation, and close contact with the staff; Regular and frequent visits to the facility for ICF patient families. Often assistance to the program is voluntarily offered.

- **SOME INVOLVEMENT** - Family supports program when asked for donations and other forms of non-monetary contributions of time. Visits to the facility for ICF patient families regularly.

- **SLIGHT INVOLVEMENT** - Family may attend major annual events planned by the facility/program but rarely if ever donates time or money; Visitations irregular at best.

- **NO INVOLVEMENT** - Family members do not attend any events nor participates in the facility/program's activities in anyway. Does not visit.

- **NO FAMILY** - No known family exists. Family refers to spouse, children, grandchildren and siblings (brothers/sisters).

12. AVAILABILITY OF INFORMAL HELP: Circle all types of informal help that the client is known to be receiving from either family or friends. This informal help may be either provided in the institutional setting or in the community for the ADC/ADH clients. "Help with ADL" refers to help with activities of daily living such as feeding, dressing, bathing, grooming, or moving.


14. NUMBER OF CHILDREN ON ISLAND: Indicate number of client's children on the same island.

15. PRESENT or PRE-ICF LIVING ARRANGEMENT: Circle all that apply. For example: #2 (Spouse) and #3 (Children/step-children).

**PART II & PART III -- FUNCTIONAL ASSESSMENT OF CLIENT**

The following scale is used for items 16 to 22 and from 32 to 36. The scale is intended to measure the way the client USUALLY performs each activity as opposed to the client's potential capacity.

- **INDEPENDENT** - Client usually performs the activity independently without any assistive device or human help.

- **MH ONLY (Mechanical Help Only)** - Client usually uses some type of device, equipment or apparatus to perform the activity independently. (S)he does not require the assistance of another person(s) when using the device (eg. wheelchair, walker, bedside commode, special plates, etc.)

- **MINIMAL HH ONLY (Minimal Human Help Only)** - Client usually receives the assistance of one person to perform the activity.
FUNCTIONAL DISABILITY COMPARISON

MODERATE HH ONLY (Moderate Human Help Only) = Client usually receives the assistance of two (2) persons to perform the activity.

HH and HH (Mechanical Help and Human Help) = Client usually uses some type of device, equipment or apparatus AND receives the assistance from another person(s) to perform the activity.

DEPENDENT = Client usually is not able to perform the activity at all. That is, the client is not able to adjust body to receive caregiver's assistance.

UNABLE TO ASSESS = Not able to determine due to the lack of sufficient information. Please minimize the use of the selection as much as possible.

DEFINITIONS OF ADL ACTIVITIES

16. EATING = Ability of client to feed self with utensils.

17. BATHING = Ability of client to bathe self including getting to shower, bathtub, or obtaining bathing water and/or equipment.

18. DRESSING = Ability of client to put on, fasten and take off all clothing worn daily.

19. TRANSFERRING = Ability of client to move horizontally and/or vertically between the bed, chair, wheelchair and toilet.

20. MOBILITY = Ability to move about own environment or from one place to another within the facility or within one's own home environment.

21. CONTINENCE: BLADDER = Ability to control the elimination of urine. This does not measure the person's ability to get to the bathroom.

22. CONTINENCE: BOWEL = Ability to control the elimination of feces or stool from the bowel. This does not measure the person's ability to get to the bathroom.

23. MENTAL STATUS = Orientation of client to person, place, and time; indication of intellectual alertness, and memory. * "Severe" should read "severe memory loss; disorientation; requires totally structured environment."

24. COMMUNICATION: EXPRESSIVE = Ability of the client to ORALLY communicate feelings, desires, needs and ideas.

25. COMMUNICATION: RECEPTIVE = Ability of the client to UNDERSTAND oral communication.

26. HEARING = Ability of the client to hear with or without hearing aids

27. VISION = Ability of the client to see with or without glasses or contact lens.
FUNCTIONAL DISABILITY COMPARISON

*** BEHAVIOR ITEMS: #28 - 31: In rating these 4 types of behavior, try to select the person's average type of behavior over a week or month if this person's behavior tends to vary from day to day. ***

28. BEHAVIOR: WANDERING = Tendency for the client to leave facility or ADC/ADH premises without permission with or without knowledge of destination.

29. BEHAVIOR: DELUSIONAL = Tendency for the client to express fantasies, unrealistic concerns, needs, etc.

30. BEHAVIOR: DEPRESSION = Tendency for the client to express sadness, bereavement, suicidal thoughts, loneliness, lack of desire to continue living.

31. BEHAVIOR: PHYSICALLY ABUSIVE = Tendency for the client to physically hit staff, caregivers, other clients and/or throw objects in anger.

DEFINITIONS OF IADL ACTIVITIES

32. SHOPPING = Ability to go to the market, store, shopping center or other location outside present place of residence to select and purchase food, household or personal items.

33. MEAL PREPARATION = Ability to plan, prepare, cook and serve meals.

34. LIGHT HOUSEKEEPING = Ability to do light chores like sweeping floor, washing dishes, ironing, washing clothes. It does not include major home repair work.

35. TAKE MEDICATIONS/BANDAGING = Ability to take own medicine in the right doses and at the right time. The ability to apply simple bandages to cover very minor wounds or skin conditions.

36. TELEPHONE USE = Ability to pick up receiver, dial correctly, speak to be heard and hang up the receiver properly.

37. GROUP PARTICIPATION = Frequency of the client's participation in program activities. Passive participation describes a person who is unable to socially interact, but smiles or shows by facial expressions that s/he is participating.
Limitations are inherent in all research. In this study, there are several possible limitations that affect the methodology utilized. All attempts were made to recognize these possible limitations and to control any bias that may have occurred as a result.

The major drawback to the implementation of the survey centered on the utilization of facility staff to administer the questionnaire at their respective facilities. Potential bias could have arisen since each rater could have interpreted the questions in different ways thus impairing the reliability of the instrument. In addition, the facility staff may have been biased in their administration of the questionnaire to their own residents or participants. They may have been motivated to make them appear either better or worse than they are in reality. This might have impinged on the validity of the instrument. A preferred approach would have been to rely on one to two researchers to personally assess all of the respondents with the assistance of staff at each of the facilities. This was not feasible given time and financial considerations. In order to compensate for this problem, the study team visited each site (with the exception of the four remote sites previously mentioned), to train the one to two staff persons at each facility to administer the survey in a uniform fashion. An effort was made to use the staff member(s) who were the most familiar with patient care. Detailed instructions for interpreting the question items were also left with each
FUNCTIONAL DISABILITY COMPARISON

cordinator. Everyone was encouraged to contact a study team member regarding the intent of any of the survey questions. Close contact was maintained between survey coordinators at the sites and study team members.

An additional problem centered on differences in the completeness of medical histories maintained at the two types of facilities. Some of the Adult Day Centers did not maintain as comprehensive information regarding the medical background of the participants as did ICFs. As a consequence, the medical diagnoses collected were not uniformly complete. In contrast to this problem, ICF staff encountered more difficulty than Adult Day Center staff in answering some of the items which requested information about the family’s support of the individual. In these instances, ICF staff were strongly encouraged to contact their facility’s social workers who were more familiar with the family background of the clients to obtain requested information.

Finally, some problems were encountered by staff in responding to the Instrumental Activities of Daily Living items (questions # 32-36) including the individual’s ability to shop, prepare meals, and answer the phone. Staff, particularly in ICFs, had difficulty with these questions as the patients usually did not have the opportunity to perform such tasks. Staff were encouraged to answer to the best of their knowledge, based on the patient/participants’ ability to perform more basic tasks. Nevertheless, there were more missing information in this section in comparison to the ADL section of the questionnaire.

II - 36

37
APPENDIX II-D

MEAN SCORES FOR ADLs, IADLs, IMPAIRMENTS & BEHAVIOR OF STUDY SUBGROUPS

<table>
<thead>
<tr>
<th>LEVEL OF CARE</th>
<th>ICF Level</th>
<th>Adult Day</th>
<th>Adult Day</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nursing Home (N=462)</td>
<td>Health (N=67)</td>
<td>Care (N=295)</td>
<td>(N=824)</td>
</tr>
<tr>
<td><strong>Activity of Daily Living (ADL)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating</td>
<td>3.1</td>
<td>2.0</td>
<td>1.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Bathing</td>
<td>5.0</td>
<td>3.9</td>
<td>3.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Dressing</td>
<td>4.6</td>
<td>3.5</td>
<td>2.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Transferring</td>
<td>4.3</td>
<td>3.9</td>
<td>2.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Mobility</td>
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<td>4.3</td>
<td>2.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Continence-Bladder</td>
<td>4.6</td>
<td>3.3</td>
<td>1.6</td>
<td>3.4</td>
</tr>
<tr>
<td>Continence-Bowel</td>
<td>4.6</td>
<td>3.3</td>
<td>1.6</td>
<td>3.4</td>
</tr>
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<td><strong>Instrumental Activity of Daily Living (IADL)</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Shopping</td>
<td>5.8</td>
<td>5.0</td>
<td>4.9</td>
<td>5.4</td>
</tr>
<tr>
<td>Meal preparation</td>
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<td>5.7</td>
<td>5.2</td>
<td>5.6</td>
</tr>
<tr>
<td>Housekeeping</td>
<td>6.0</td>
<td>5.7</td>
<td>4.9</td>
<td>5.5</td>
</tr>
<tr>
<td>Medication admin.</td>
<td>5.6</td>
<td>5.5</td>
<td>4.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Phone use</td>
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<td>4.9</td>
<td>4.1</td>
<td>4.7</td>
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<tr>
<td><strong>Mental and Physical Impairments</strong></td>
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<td></td>
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</tr>
<tr>
<td>Mental status</td>
<td>2.3</td>
<td>2.6</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Communication-expressive</td>
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<td>2.6</td>
</tr>
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<td>2.7</td>
<td>2.1</td>
<td>1.9</td>
<td>2.3</td>
</tr>
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<td>Hearing</td>
<td>1.5</td>
<td>1.7</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Vision</td>
<td>1.9</td>
<td>1.8</td>
<td>2.1</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wandering</td>
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<td>1.1</td>
<td>1.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Delusional</td>
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<td>1.5</td>
</tr>
<tr>
<td>Depression</td>
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<td>1.8</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Physically abusive</td>
<td>1.3</td>
<td>1.1</td>
<td>1.1</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Notes on interpreting the scales:
(1) ADL and IADL Scores range from 1 to 6 with 1 = most independent.
(2) Mental Status Scale ranges from 1 to 5 with 1 = oriented, intact memory
(3) Communication Scales range from 1 to 6 with 1= fully communicative.
(4) Hearing and Vision Scales range from 1 to 4 with 1= normal, no problem.
(5) Behavior Scales range from 1 to 4 with 1= no problem.
APPENDIX II-E

INCIDENCE OF MEDICAL DIAGNOSES AMONG ICF-NURSING HOME PATIENTS AND ADULT DAY HEALTH AND DAY CARE PARTICIPANTS

<table>
<thead>
<tr>
<th>PRIMARY DIAGNOSIS</th>
<th>ICF Level Nursing Home (N=462)</th>
<th>Adult Day Health (N=67)</th>
<th>Adult Day Care (N=295)</th>
<th>Total (N=824)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dementia</td>
<td>32%</td>
<td>9%</td>
<td>23%</td>
<td>27%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>28</td>
<td>43</td>
<td>32</td>
<td>31</td>
</tr>
<tr>
<td>Ischemic Heart Disease</td>
<td>28</td>
<td>21</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>CVA (Stroke)</td>
<td>28</td>
<td>63</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>Genitourinary</td>
<td>20</td>
<td>10</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Other Circulatory</td>
<td>18</td>
<td>13</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Diabetes</td>
<td>17</td>
<td>21</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>Digestive</td>
<td>17</td>
<td>21</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>14</td>
<td>9</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Hip Fracture</td>
<td>14</td>
<td>12</td>
<td>4</td>
<td>10</td>
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<tr>
<td>Hemiplegia</td>
<td>13</td>
<td>46</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Vision</td>
<td>11</td>
<td>18</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Mental Disorder</td>
<td>10</td>
<td>6</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Alzheimers</td>
<td>10</td>
<td>9</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Nervous System</td>
<td>10</td>
<td>9</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Respiratory</td>
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<td>10</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Other Fracture</td>
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<td>10</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Blood Disorder</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Coronary Heart Failure</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Endocrine</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>6</td>
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<tr>
<td>Osteoarthritis</td>
<td>8</td>
<td>3</td>
<td>10</td>
<td>12</td>
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<tr>
<td>Parkinsons</td>
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<td>6</td>
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<tr>
<td>Cancer</td>
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<td>4</td>
<td>5</td>
</tr>
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<td>Hearing</td>
<td>3</td>
<td>0</td>
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Note:
Totals exceed 100% because up to 5 diagnoses were coded per person.
## APPENDIX II-F

**DEGREE OF FAMILY SUPPORT OF CLIENT IN ICF-LEVEL NURSING HOMES AND ADULT DAY HEALTH AND DAY CARE PROGRAMS**

<table>
<thead>
<tr>
<th>FAMILY SUPPORT</th>
<th>ICF Level Nursing Home</th>
<th>Adult Day Health</th>
<th>Adult Day Care</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active involvement</td>
<td>29%</td>
<td>52%</td>
<td>44%</td>
<td>38%</td>
</tr>
<tr>
<td>Some</td>
<td>23</td>
<td>37</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>Slight</td>
<td>23</td>
<td>4</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>None</td>
<td>13</td>
<td>1</td>
<td>5</td>
<td>9</td>
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<tr>
<td>No Family</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Unable to assess</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</table>

**Total (N)**

<table>
<thead>
<tr>
<th></th>
<th>462</th>
<th>67</th>
<th>295</th>
<th>824</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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</table>
APPENDIX II-G

AVAILABILITY OF INFORMAL HELP FOR ICF-LEVEL NURSING HOME PATIENTS AND ADULT DAY HEALTH AND DAY CARE PARTICIPANTS

<table>
<thead>
<tr>
<th>AVAILABILITY OF INFORMAL HELP</th>
<th>ICF Level</th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nursing Home</td>
<td>Adult Day Health</td>
<td>Adult Day Care</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Help w/ADLs</td>
<td>29%</td>
<td>94</td>
<td>83</td>
<td>53</td>
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<tr>
<td>Social/Rec.</td>
<td>57</td>
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<td>93</td>
<td>72</td>
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</tr>
<tr>
<td>Advice/info</td>
<td>28</td>
<td>47</td>
<td>82</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>19</td>
<td>70</td>
<td>71</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Emotional</td>
<td>62</td>
<td>87</td>
<td>71</td>
<td>67</td>
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<tr>
<td>None available</td>
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<td>4</td>
<td>3</td>
<td>14</td>
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<tr>
<td>Total (N)</td>
<td>462</td>
<td>67</td>
<td>295</td>
<td>824</td>
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Note:
Totals of percentages exceed 100% due to multiple response.