

*Final Report*

November 1975

**THE IOWA AFTERCARE STUDY:  
A FOLLOW-UP OF CLIENTS DISCHARGED  
FROM IOWA'S MENTAL HEALTH INSTITUTES**

*Prepared for:*

THE ADVISORY BOARD FOR THE FOLLOW-UP OF  
FORMER MENTAL HEALTH PATIENTS

**EXECUCOM SYSTEMS CORPORATION  
AUSTIN, TEXAS 78731**

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THE ADVISORY BOARD FOR THE FOLLOW-UP OF  
FORMER MENTAL HEALTH PATIENTS

*Conducted for:*

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## TRANSMITTAL

The Advisory Board for the Follow-up of Former Mental Health Patients submits to the legislative Social Services and Mental Health Study Committee and through it to the Iowa General Assembly this report of the Iowa aftercare study, conducted by Execucom Systems Corporation for the Study Committee under the Advisory Board's guidance and oversight. The report has been formally accepted by the Advisory Board.

In the course of this project, the Advisory Board feels it has been especially fortunate in having the services of Dr. James V. Lowry of San Diego, California, as consultant. At the Advisory Board's request Dr. Lowry has prepared a brief comment on the study and the report, which appears directly following this transmittal statement.

While the Advisory Board has no disagreement with the broad intent of the recommendations advanced by Dr. Lowry in his comment, its members do have some reservations about implementation of all of the recommendations in exactly the way they are expressed in the comment. In particular, it does not appear that his first recommendation is consistent with the new procedure for involuntary hospitalization of the mentally ill which will take effect in Iowa on January 1, 1976. There may also be some question about the right of an individual to seek voluntary admission to a public hospital without recourse to a local mental health center, if that is the individual's choice.

The Advisory Board considers it a part of the Board's responsibility to propose to the Study Committee recommendations based upon this report. The Advisory Board intends to formulate such proposed recommendations as rapidly as is feasible.

## CONSULTANT'S COMMENT

The aftercare study for the legislative study committee, done by Execucom Systems Corporation, has produced factual information that can be the basis for improving services to persons who have been patients in the state psychiatric institutes. The results of the study indicate that the best way to assure that aftercare services occur would be as follows:

1. Have all admissions to the institutes be by referral from a local mental health program after the need for hospitalization was determined. This probably would increase the chances that the patient would receive aftercare services and might avoid unnecessary hospitalization.
2. Require a written aftercare plan for each patient that designates what services are needed and where and when they will be obtained. Designate which institute staff members have the responsibility for implementing the specific arrangements with local agencies.
3. Have a local mental health program staff person maintain contact with the patient while the patient is in the institute and be responsible for coordinating the services following return to the community.

The above recommendations are based on the assumptions that adequate aftercare services will reduce the rate of rehospitalization and will aid in the continuing improvement of the functioning of former patients now in the community. Whether these assumptions are valid should be determined by a comparative study of similar patients, some of whom receive appropriate aftercare services and some who do not. Included in the study should be a determination as to which aftercare services produce the best results.

While the responsibility for coordination of aftercare services should be the responsibility of a single local agency, the services of all agencies should be utilized. This includes those that can be provided by voluntary agencies such as mental health associations.

The well designed and executed study by Mr. John M. Driggers of Execucom Systems Corporation would not have been possible without the guidance of the Advisory Board and the leadership of Senator Charles P. Miller and Representative Joan Lipsky. In addition to answering the primary questions of the study, considerable useful additional information was obtained.

It was a pleasure to have served as a consultant to the Committee.

James V. Lowry, M.D.  
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San Diego, California

December 7, 1975

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## I BACKGROUND AND SUMMARY

In an effort to assess the status of aftercare for Iowa citizens, the Mental Health and Juvenile Institutions Study Committee, formed by the 64th Iowa General Assembly, authorized a study to determine what happens to discharged or released patients from the four Mental Health Institutes (MHIs) in Iowa. During the 1975 interim the Legislative Council assigned jurisdiction over conclusion of the Aftercare Study to the newly established Social Services and Mental Health Study Committee. The Study itself grew out of a concern on the part of the Legislators to insure quality mental health care for the citizens of Iowa. The primary area of concern centered on whether patients discharged from the State's MHIs received aftercare services after their return home. To help in accomplishing this effort, the Study Committee, with the advice of James V. Lowry, M.D., consultant, formed an advisory board consisting of representatives of groups and agencies who could provide valuable input to the study.

The Advisory Board's responsibility was to guide, monitor, and evaluate the study's progress. Further, it was their responsibility to recommend a project director to conduct the study. Thus with the help of the Legislative Service Bureau staff, the Board proposed and the Study Committee employed John M. Driggers, M.A., of Execucom Systems Corporation as project director. The study itself then began on June 1, 1975.

## The Mental Health System of Iowa

Iowa has four State Mental Health Institutes located in the State's four geographic quadrants. Administered by the Iowa Department of Social Services, these Institutes are located at Cherokee, Clarinda, Independence and Mt. Pleasant, and each serves approximately one-fourth of the State's population. The first of these, Mt. Pleasant, was dedicated in 1861, while the fourth and last hospital was built in 1904. Another hospital, the State Psychopathic Hospital, was dedicated in 1920 as a teaching and research center, affiliated with the State University of Iowa College of Medicine in Iowa City.

While these hospitals provide primarily inpatient services, other agencies offer services to individuals who do not require hospitalization, as well as those who need care after hospitalization. Foremost among these agencies are the 33 Community Mental Health Centers (CMHCs) which offer services to 90% of the State's population. These CMHCs are for the most part locally financed and all are locally controlled and relate to the Mental Health Authority for the purpose of establishing standards, consultation, continuing education and recruitment of staff.

Furthermore, there exists a wide variety of other services and agencies, both public and private, for care of the mentally ill. For example, there are more than 70 psychiatrists in private practice, 15 general hospitals with separate psychiatric units, 82 county homes and more than 18 community-based centers for the treatment of alcoholics.

### The Study Questions

The questions which framed the study were these: (1) were clients referred to aftercare services prior to discharge, (2) what kind of aftercare, if any, did these clients receive, (3) where did they receive it and (4) how were they doing at follow-up.

The following section offers a summary of the study's findings with regard to the study questions. A brief discussion of the findings follows, with a more thorough discussion appearing in Chapters III and IV.

### Summary of Findings

Total Sample = 331 ex-patients discharged from a MHI during State Fiscal Year 1974

- I. Referral and Aftercare
  - A. 71.3% of the discharged clients were referred (Table 3)\*.
  - B. 59.5% of the discharged clients actually obtained aftercare (Table 6).
- II. The Augmentation of Referral and the Subsequent Effect on Obtaining Aftercare
  - A. 41.9% of the referred clients received minimal referral services and of these, 44.4% obtained aftercare (Table 12.2).
  - B. 23.0% received pre-hospital augmented referral and of these, 74.2% obtained aftercare (Table 12.3).
  - C. 19.1% received pre- or post-discharge augmented referral and of these, 82.2% obtained aftercare (Table 12.4).

\* The tables mentioned in this summary appear in Appendices B and C.

- D. 11.0% received pre-hospital and pre- or post-discharge augmented referral and of these, 84.6% obtained aftercare (Table 12.5).
  - 1. 5.9% received pre-hospital and post-discharge augmented referral and of these, 71.4% obtained aftercare (Table 13).
  - 2. 5.1% received pre-hospital and pre-discharge augmented referral and of these, 100.0% obtained aftercare (Table 13).

### III. Referral and Aftercare Specificity

- A. 50.0% of the referred clients obtained aftercare from the agency to which they were referred (Table 11).
- B. 29.0% of the discharged clients were referred to Community Mental Health Centers; 20.8% of the clients obtained services there (Table 10).

### IV. Client Living Situation at Follow-up

- A. 59.8% of the clients returned from the Institute to live with family or friends; 10.6% lived alone; 8.5% lived in a nursing home or county care facility; and 5.4% were hospitalized at one of the Institutes (Table 14).
- B. 41.2% of the clients returned to an Institute at least once during the 12 to 24 months since leaving in State Fiscal Year 1974 (Table 15).
- C. 39.3% of the clients were employed; 39.0% were unemployed; and 21.8% were not employed (Table 18).

### Discussion and Interpretation of Findings

The Mental Health Institutes referred almost three-fourths (71.3%) of their patients to an agency or person for aftercare. When these ex-patients were followed up and asked whether they had received after-care, 59.5% answered affirmatively. Thus, on the average, most clients did indeed obtain some kind of aftercare.

Further analysis of the existing referral procedures produced some important facts. First of all, when minimal referral procedures were

used, 44.4% of the clients who were referred in this manner obtained aftercare. The term "minimal referral" simply means that the hospital staff conveyed to the client information regarding the existence of a specific agency where he/she could go for aftercare. However, when this measure was augmented by additional procedures, the incidence of aftercare increased dramatically. For example, when a client had contact with community mental health services prior to hospitalization, the incidence of aftercare rose from 44.4% to 74.7%, a statistically significant increase. Therefore, screening a client through a Community Mental Health Center, for instance, before he/she entered the hospital, increased their chances for obtaining aftercare.

Another example was when clients were contacted by a potential aftercare agency either before or after discharge. This method resulted in an aftercare rate of 83.3%; that is, of the clients who were contacted pre- or post-discharge, four out of five obtained aftercare services. Again, the increase is significant over that of minimal referral.

One might conjecture then, that if pre-hospital contact and pre- or post-discharge contact proved to be effective singly, then combining them might increase the incidence of aftercare still more. Further analyses showed that this might indeed be the case, at least for one combination. That combination was pre-hospital and pre-discharge augmented referral which produced an aftercare rate of 100%. That is, all clients who had contact with community mental health services prior to hospitalization and received a visit from an aftercare agency

before discharge obtained aftercare. Conversely, clients who had pre-hospital contact in combination with post-discharge augmented referral demonstrated a 71.4% aftercare rate. It cannot be concluded, however, that the pre-hospital and pre-discharge augmented referral paradigm is best since very few clients (only 12) were included in this group. Further experimental study would be necessary before concluding which method was the best one.

From the results of this study then, it appears that the responsibility for treatment of clients is rather ill-defined; that is to say, the shifting of treatment responsibility from MHI to aftercare agency generally lapses. During this lapse, the client assumes full responsibility for his recovery and treatment. Although a client retains his civil rights and thus his freedom of choice to continue treatment, efforts to shift treatment responsibility without a lapse tends to be associated with an increase in the frequency of aftercare contacts.

For example, pre-hospital screening of potential MHI patients at the community level not only introduces the individual into an element of the mental health system closest to home but improves his/her chances for obtaining aftercare upon return home from the MHI as well. Perhaps the client feels more at ease in returning to an agency in his/her own community with whom they have had previous contact. At any rate, many clients apparently see the screening agencies as potential sources of help after discharge, thus effectively bridging what otherwise might be a gap in treatment responsibility.



In another example, the pre-discharge contact with a patient appears to effectively shift treatment responsibility to the aftercare agency, also. No longer is it strictly up to the client to seek treatment, but an effective continuity between hospital treatment and aftercare has been established. Acquainting the client with the services available to him and, more important perhaps, getting to know someone from a particular agency has the potential of making it easier for the client to seek aftercare.

The critical factor then appears to be the maintenance of treatment continuity. By introducing a client into the system locally prior to hospitalization, or contacting a client prior to discharge, significant increases in the incidence of aftercare can be realized. In both of these cases, the effective transfer of treatment responsibility appears to be important if the citizens of Iowa are to obtain aftercare services necessary to rehabilitation and recovery.

The results of this study present a picture of the current aftercare efforts as they are directed toward MHI ex-patients. In this regard it is important to note that since the nature of this study was exploratory rather than experimental, conclusions cannot be reached which bear upon causality. That is, augmenting referral with one of the procedures mentioned above cannot be said to cause an increase in aftercare; instead, it can only be said that there is an association between augmentation and higher rates of aftercare. Only experimental studies can derive cause and effect relationship. Nevertheless, this exploratory study has presented the current picture of the aftercare system for Iowa's citizens and shown possible alternative methods for improving that system.

## II DATA COLLECTION

This section provides a description of the procedures used in collecting the data, e.g., selection and training of interviewers, methods of locating respondents, the questionnaire itself and field controls.

### Sample Selection

A listing of all "eligible" clients was obtained from the Mental Health Division of the Department of Social Services. A client was considered eligible if he was discharged from one of the four State Mental Health Institutes (MHIs) during State Fiscal Year 1974 (July 1, 1973 through June 30, 1974).

Of 4130 eligible clients, a stratified random sample of 413 clients was selected. To insure the correct proportional distribution of clients between the four Mental Health Institutes, the number of clients selected from each Institute was proportional to the total discharges in FY'74. Thus, since Independence MHI discharged almost 39% of all MHI patients in FY'74, the sample of Independence clients was also 39% of the total sample.

Once the necessary proportions between MHIs was determined, the selection of a random sample proceeded by way of stratification. The variables used for stratification were (1) diagnosis, (2) sex, (3) geographic location, i.e., urban or rural, and (4) age. Thus, the sample

reflects greater representativeness by conserving the correct proportions of each of these characteristics as they appear in the total population of MHI clients.

It was determined prior to follow-up that the final sample should consist of no less than 8% of the total population. That is to say, the number of interviewed clients should not be less than 331. Of course, it was impossible to predict what proportion of the original 413 clients would be unlocatable as a result of being deceased, residing out of state, or refusing to be interviewed. So, in the event that the sample dropped below 331, unlocatable clients would then be replaced with a matched client drawn from the same MHI and sharing the same diagnosis, sex, geographic, and age characteristics. These replacement clients were also drawn randomly.

#### Response Rate

Out of the Original Sample of 413 clients, 273 interviews were completed. Only nine persons, or 2.2% of the Original Sample, had died (Table 1). The most predominant reason for not interviewing a client was loss of address tracking. That is, with the information obtained from the client's hospital records and other contacts, the interviewer was unable to locate the client even after six or more attempts. Another major reason was that a sample client had asked, under the Federal Drug Law, that his records remain confidential. For this reason 26 original clients were not followed up. When all these groups are combined, it can be seen that 140 clients were not interviewed, thus yielding a response rate of 66.1% for the Original Sample.

Table 1

Final Summary of  
Unlocatable Client Totals

Reason	Original Sample		First Stage Replacements		Second Stage Replacements		Total Sample	
	N	% of 413*	N	% of 47+	N	% of 48#	N	% of 508**
Confidential Drug	26	6.3	3	6.4	0	0.0	29	5.7
Deceased	9	2.2	0	0.0	5	1.4	14	2.8
Out of State	31	7.5	3	6.4	3	6.2	37	7.3
Loss of Address Tracking	28	6.8	8	17.0	4	8.3	40	7.9
Mentally Incompetent	8	1.9	0	0.0	2	4.2	10	2.0
Appointment Refused	25	6.1	6	12.8	1	2.1	32	6.3
Partial Interview	1	0.2	0	0.0	0	0.0	1	0.2
Duplicate	1	0.2	1	2.1	1	2.1	3	0.6
TOTAL	129		21		16		166	

NOTE: First Stage Replacements were necessary primarily as a result of clients in the Original Sample being classified as confidential drug clients or deceased prior to Follow-up.

Second Stage Replacements were obtained after an Original or First Stage Replacement client could not be interviewed for one of the reasons listed above.

\*Total Original Sample  
+Total First Stage Replacement Sample  
#Total Second Stage Replacement Sample  
\*\*Total Follow-up Sample

To satisfy the sample requirement of 331, it thus became necessary to draw matched replacement clients. A total of 95 replacements were drawn, 37 of which were not interviewed for the reasons specified in Table 1. Thus 58 replacement clients were interviewed in order to bring the total of 331 interviews. (Table 2 shows the characteristics of the final sample grouped by MHI.)

### Study Design

Execucom's role was to carry out the study as directed by the Advisory Board for the Follow-up Study of Former Mental Health Patients. The study design described in detail in the Execucom proposal of March 24, 1975, was modified on April 22, 1975, due to concern regarding the confidentiality of patient data. According to the original plan, Execucom interviewers were to conduct an investigation of each selected patient's medical record for information regarding his/her discharge, aftercare plan, referral and destination. However, growing concern over this method led to the procedure whereby hospital personnel extracted the desired information, and then forwarded it to Execucom.

Interviewer recruitment. It was felt that the purpose of the study could best be served by securing interviewers who were Iowa residents. Since interviewer employment spanned only three months, difficulties were expected in obtaining a competent interviewer staff. However, with the help of Dean Hackett, Associate Professor of Social Work at the University of Iowa, it was found that several School of Social Work graduate students were available for summer employment.

Table 2

## Characteristics of Final Sample of 331 Clients

Characteristic	Hospital				Total
	Cherokee	Clarinda	Independence	Mt.Pleasant	
Diagnosis					
Psychosis	46(46.5)	21(41.2)	38(29.9)	23(42.6)	128(38.7)
Neurosis	10(10.1)	4 (7.8)	12 (9.4)	4 (7.4)	30 (9.1)
Substance Abuse	18(18.2)	7(13.7)	37(29.1)	13(24.1)	75(22.7)
Other	25(25.3)	19(37.3)	40(31.5)	14(25.9)	98(29.6)
Sex					
Male	29(29.3)	21(41.2)	78(61.4)	16(29.6)	144(43.5)
Female	70(70.7)	30(58.8)	49(38.6)	38(70.4)	187(56.5)
Geographic					
Urban	57(57.6)	26(51.0)	85(66.9)	29(53.7)	197(59.5)
Rural	42(42.4)	25(49.0)	42(33.1)	25(46.3)	134(40.5)
Age					
0-19	20(20.2)	11(21.6)	22(17.3)	9(16.7)	62(18.7)
20-60	65(65.7)	30(58.8)	90(70.9)	37(68.5)	222(67.1)
61 or over	14(14.1)	10(19.6)	15(11.8)	8(14.8)	47(14.2)
Hospital Totals	99(100.0)	51(100.0)	127(100.0)	54(100.0)	331(100.0)

NOTE: Percent shown in parentheses.

Since interviewing of this type demands accuracy, hard work and persistence, each prospective interviewer must possess several qualities. Perhaps the most important of these are self confidence, poise and optimism in the face of undue adversity. Of course, the interviewer has to be friendly and able to work with people without forming judgments that will effect the interview. Finally, the interviewer should be dissatisfied with anything less than his/her best effort. With these characteristics in mind, five interviewers were selected, two males and three females.

Interviewer training. Execucom staff conducted a three-day workshop on all aspects of the study, including interviewing techniques, ways of locating respondents and various administrative matters. Issues included the need for confidentiality and the special characteristics of the study population. These sessions also included detailed instruction on the follow-up questionnaire.

Questionnaire development. The questionnaire used in the Iowa Aftercare Study was designed for use in a personal interview. The *Client Follow-up and Aftercare Form\** contains questions developed to obtain information on treatment services received by the client since his /her release from the hospital in State FY'74. Additional questions obtained information regarding the client's living situation, marital status and employment record. Information was also obtained on what it was the client thought most and least helpful during and after hospitalization.

\* A sample questionnaire can be found in Appendix A.

### Contacting and Locating Clients

Various methods were used to locate clients, since there were many who had moved frequently. If telephone numbers were available in the hospital records, the interviewer would attempt to contact the client by phone. Then, if the client was contacted, the interviewer introduced himself/herself to the client, stated the purpose of the contact, and asked for the client's cooperation in obtaining the follow-up information. If the client declined to cooperate, appreciation for their time was expressed and the conversation terminated. With the cooperation of the client, however, an appointment was set up to conduct the interview by personal visit.

When telephone numbers were unavailable, interviewers went directly to the clients designated residence. Again, cooperation of the client was elicited before interviewing was begun. To introduce and legitimize the interviewers to the respondent, each interviewer was provided a letter of introduction from the Department of Social Services.

When addresses were not current, the transient nature of the population compounded the locating task. In addition to the hospital records, a wide variety of agencies were contacted as a resource for locating clients. Although many other sources were used, the interviewers found the following agencies particularly helpful.

- County social services
- Hospitals
- Law enforcement agencies



- Post offices (particularly in small towns)
- Halfway houses

### Interviews

Personal visits. Ninety-six percent of the interviews were conducted by personal visit. It was possible to complete 65% of the total face-to-face interviews in one or two visits. The remaining 31% required three to five visits.

Telephone interviewing. The remaining four percent of the interviews were completed by telephone. In most of these 13 interviews, the client would not consent to a personal visit, preferring instead a telephone interview.

### Field Control

Execucom maintained quality control of the field work by close monitoring, by weekly interviewer progress reports, and by site visits. In addition, Execucom maintained field control by requesting interviewers to call the Project Director each Monday to report the following information:

- Number of completed interviews
- Number of cases in the field
- Number of non-interview reports (NIR)
- Reasons for non-interview reports
- Any difficulties or questions occurring during the previous week

A case was classified as NIR if (1) the respondent had died, (2) the respondent had moved and there was no way of obtaining a current address or phone number, (3) the respondent flatly refused to be interviewed, (4) the respondent could not be located after using other resources, (5) the respondent had moved out of state, (6) the respondent evaded the interviewer or (7) the respondent was too ill, either physically or mentally, to be interviewed.

Once a week interviewers returned all completed interview forms to the project director who checked the forms for completeness and accuracy of recording. To verify that the information contained on the forms was from the client whose name appeared on the form, a randomly selected number of each interviewer's client forms were selected. The project director, in turn, called these clients to verify that they had been interviewed and that the information contained on the form was accurate. This procedure yielded 100% verification.

### III ANALYSIS OF CLIENT REFERRALS AND AFTERCARE

This chapter traces the efforts of the hospitals to provide clients with needed care after they are discharged. To do this, of course, hospitals refer clients to specific agencies or care-givers in or near his/her community. The efforts of the agencies and care-givers then were analyzed with regard to their attempts to engage these referred clients in treatment. Also, this chapter analyzes variables which contribute to the incidence of aftercare, especially with regard to community mental health centers.

#### Do the hospitals have an aftercare plan for their patients?

Almost 90% of the patients' records contained an aftercare plan. For most (62.8%), the plan consisted primarily of returning home and living with their husband, wife, or family. But whereas this was thought to be the appropriate primary placement, almost one-half of these showed aftercare plans indicating other placements as well (e.g., outpatient psychiatric services or outpatient medical treatment). For still others though, the hospital staff suggested halfway houses, foster homes, nursing homes or county care facilities as primary placements.

#### Do hospitals refer their patients to community services and care-givers?

Translating aftercare plans into appropriate referrals is an important step in maintaining the continuity of care for the patient.

Once out of the hospital, the patient is on his own, many times needing and desiring help in his rehabilitation efforts. Thus, an appropriate referral is critical to the patient's eventual success or failure in the community.

To help bridge the gap between hospital and community life, the hospitals referred 71.3% (236) of their patients to various agencies and persons. Of these 236 clients, 68 received two referrals, and 15 still a third referral. Thus the hospitals made a total of 319 referrals; however, almost 30% of the discharged patients received no referral at all.

Of course, an important question involves why no referral was necessary for these 95 clients. Although this study was not designed to investigate the circumstances of referral versus no referral, a comparison between referred and unreferred clients was made with respect to the stratification variables. It was found that for diagnosis, sex, geographic area and age, no differences in referral versus no referral exist. That is, males were referred as often as females, rural residents as often as urbanites and psychotics as often as alcoholics and neurotics. Obviously, the reason for referral goes well beyond these variables, but for these, at least, no differences emerge.

A profile of the referrals, which is shown in Table 3\*, clearly indicates that the most frequent referral agency was the community mental health center--32.6% of the referrals were made to the centers. This referral agency far outshadows the others in terms of number of referrals, although private physicians, Department of Social Services district and county

\* Appendix B comprises the tables mentioned in this chapter.

offices, and Mental Health Institute Outpatient Units together comprise an important community resource as well.

Do clients remember being referred?

Of course a referral is useless if the client does not remember the referral once he leaves the hospital. In the possible confusion, excitement, and tension that accompanies leaving the hospital, care must be taken to insure that referral information is clearly transmitted to the patient. Regardless of whether the referral is an appropriate one, if the client cannot remember where to go for help, he/she may not get aftercare services, especially the one deemed necessary by the hospital staff.

To ascertain whether clients remembered being referred, each was asked if they recalled being referred upon discharge. As a result, 61% said "yes". That is to say, 202 clients recalled being referred by the hospital staff to some agency or person. As to the specificity of that referral, however, only 119 (36%) clients recalled the exact referral. In other words, almost two-thirds of all clients remembered a referral, but only one-third of the clients could remember to whom they were referred. Thus, owing to the passage of an average of 18 months since discharge and the accompanying impairment in recall, a surprisingly high number of clients remembered referral, but the accuracy of that recall has certainly diminished.

Of course, the question can be raised as to why certain clients remembered the exact referral while others could not. How can this

recall be improved? More important though, does increased recall specificity result in the greater likelihood of aftercare? (The first of these questions will be addressed in the next section.)

Are clients contacted by potential aftercare sources?

Another important support in the bridge between hospital and community life can be provided by the community agencies and care-givers either prior to discharge or upon the client's arrival in his/her community. Of course, for an agency to make contact in the community, it must know of the individual's return. Thus, to help accomplish this task each hospital forwards information to the agency or person to whom the discharged patient was referred. The amount of information may vary by hospital, but all agencies and care-givers are notified of the approaching discharge and need for aftercare of referred individuals.

Assuming then that most, if not all agencies and care-givers were notified, the number of clients who stated they were contacted is quite small. Only one-third (71) of the referred clients replied that they were contacted; 32 were contacted prior to discharge and 39 received a personal visit, phone call or letter upon their arrival home (Table 4). However, some agencies may operate under the policy of client-initiated service only; certainly, private physicians would advocate this role.

Nevertheless, contacting a client could increase his ability to recall the agency or person to whom he was referred when discharged and

increase the chance for aftercare. Even though the number of clients is small, an analysis of the data could reveal that contact does indeed effect an improved recall. Table 5 shows the results of this analysis.

Whereas, only 43.6% of the non-contacted clients remembered their exact referral, 71.2% of those reporting a predischarge contact specifically recalled their referral. This represents a significant difference in the ability of those who received predischarge contacts to remember their exact referral ( $\chi^2 = 29.77$ ,  $df = 2$ ,  $P < .001$ ). Furthermore, these clients remembered even better than those who were contacted upon their arrival in the community ( $\chi^2 = 5.90$ ,  $df = 1$ ,  $P < .05$ ), who exhibited no better recall than those who were not contacted at all. The explanation for these differences is not intuitively obvious, and no provision was made in the study design to investigate why certain referred clients were contacted while others were not, and why some were contacted prior to discharge and others were not. At any rate, a clear association exists between clients with predischarge appointments and their ability to recall their exact referral. Later in this report, an assessment of the relationship between contact and a client's getting aftercare will be presented.

#### Do clients receive aftercare services?

The acid-test of the referral mechanism, of course, is whether the referred client ultimately receives aftercare services. Almost 60% of the clients reported at least one episode of aftercare. There were, however, quite a variety of aftercare agencies and care-givers contacted

(Table 6). While most of these are community-based services, some, like the hospitals, are residential in nature, e.g., nursing homes, county homes, halfway houses. Indeed, some discharged patients require residential treatment as a result of their age, financial status or disability--only 8% were referred for residential treatment, however. Aftercare in the strictest sense, though, connotes psychosocial services which require the client to maintain himself/herself residentially.

The specialized aftercare services such as alcoholism services were used rather extensively by the alcoholic clients. Of the 45 referred alcoholics, 26 of them received aftercare; these 26, however, reported 45 aftercare contacts, almost two per person. The primary aftercare source for these clients was Alcoholics Anonymous.

Aftercare at community mental health centers. Of particular interest to the framers of this study was the contribution of aftercare services by the 29 community mental health centers (CMHCs) and four Mental Health Institute outpatient clinics\* in the State. Since all of the larger cities and most counties have centers operating in or near them, most discharged patients would have relatively easy access to a CMHC. With this in mind, it is not surprising that CMHCs, indeed, provided more aftercare than any other single agency. Over one-fourth (28.3%; Table 6) of all aftercare contacts were provided by the CMHCs.

To verify an aftercare contact with a CMHC, each client was asked to designate which center had served him/her. Then these designated

\* (For the purposes of this study, MHI outpatient clinics were included with the CMHCs, because these clients, except for Mt. Pleasant, offer the only psychiatric outpatient services available in their respective counties.)



centers were contacted and asked to verify the provision of aftercare. As a result, of the 78 clients who indicated receipt of CMHC after-care, 69 contacts were verified (five contacts were not verified and four verification requests were not returned). Thus, of the verification forms received, 93% of the CMHC aftercare contacts were verified.

Once the provision of aftercare was established, the centers were asked to state the nature of the service and the number of visits the client happened to make. Table 7 indicates the types of services rendered to the clients by the CMHCs. Almost one-half of the clients (44.9%) received a combination of psychotherapy and chemotherapy, which consisted primarily of medication maintenance. With regard to the number of visits, Table 8 shows that over half of the clients went less than ten times, yet most (59.4%) were said to be still in treatment (Table 9).

Percent of clients served by community mental health centers. The 69 clients served by CMHCs named 19 centers and three MHI outpatient clinics from which aftercare was obtained. These centers and clinics are shown in Table 10 along with the number of clients served by each. Also shown is the percent of sample clients from each MHI area to be served by the CMHCs in that area.

Thus, the 69 clients who actually received aftercare from a CMHC represent 20.8% of the total sample. In other words one out of five discharged patients was served in the community by CMHCs. To provide some perspective, figures from the National Institute of Mental Health indicate that CMHCs in the United States served 41.98% of all state

hospital discharges in 1973. Within the Department of Health, Education and Welfare Region VII comprising Iowa, Missouri, Kansas and Nebraska, 35.18% of all discharged patients were served by CMHCs.

The National Institute of Mental Health figures, however, came from "comprehensive" CMHCs. These centers are Federally-funded, and thus are required by law to offer a minimum of five "essential" services (inpatient, outpatient, emergency care, partial hospitalization and consultation and education). Thus, not only do these CMHCs offer a relatively wide range of services, but they obtain sufficient funds to staff and operate these services. In contrast, most of Iowa's CMHCs are not "comprehensive"; only four are Federally-funded centers. Nevertheless, all of Iowa's centers offer outpatient service and most of these further specify that this service is available to discharged patients in the form of aftercare. Hence, the difference between the Iowa aftercare rate and the average U.S. rate *may be important and could be attributable to several factors.* Among these, the most obvious might be the greater amount of money and resultant diversity of staff and services available at comprehensive centers. Furthermore, funds could be available for follow-up of discharged patients by the staff of the comprehensive centers, funds which other centers might not have. Another explanation might involve the treatment philosophy of the mental health system with regard to the continuity of care for patients. That is, do the MHIs and CMHCs view themselves as existing on a continuum along which an individual moves toward rehabilitation? If, on the other hand, these treatment facilities do not share this perspective, then the rate

of aftercare would be expectedly small through the lack of a coordinated effort.

However, the policies and principles under which the hospitals and centers operate espouse the continuity-of-care philosophy. Given that this is the case, another explanation presents itself, one which this study was designed to deal with. That is, perhaps the existing mechanisms and procedures for implementing aftercare are inadequate, or simply that current procedures are adequate but are not being used fully. Thus, a subsequent section will analyze the current referral mechanisms to ascertain their appropriateness and effectiveness.

Referral and aftercare service match. Not only do referred clients require further care, but they need specific types of care. The patient's doctor along with other hospital staff members translate these needs into specific referrals--agencies and care-givers that can provide the necessary care. Thus it is important to the client's continued rehabilitation that he/she obtain the desired aftercare.

Even though a referral is made, there is no incumbent guarantee, however, that the client will receive the particular treatment and aftercare specified in his/her referral. In consequence, without appropriate and consistent checks, some clients may not obtain the appropriate aftercare. To examine this, each client's referral and aftercare contacts were matched, and Table 11 shows the result.

The overall congruence between referral and aftercare was 42.6%. That is, of 319 referrals, 136 of them resulted in an aftercare episode commensurate with the referral. Hence, most clients did not

arrive at the particular agency or person thought appropriate by the hospital staff. However, no judgment can be made here about the "goodness of fit" between referral and aftercare as it relates to greater effectiveness, e.g., reducing recidivism, decreasing relapses, since the study was not designed to compare clients on this basis nor the effectiveness of aftercare in general.

Of course, a word of caution must be raised in interpreting the results thus far. Unless otherwise instructed by law to do so, each client is free to choose his/her care after hospitalization. Since an exceedingly small number of clients are constrained to seek aftercare, free choice certainly plays a major role in a client's obtaining aftercare. Given this circumstance, are there ways in which the likelihood of aftercare can be increased?

Do established procedures increase the likelihood of aftercare?

Minimal referral. An important question involves whether those clients who get referred also tend to receive aftercare services more than those who are not referred. In other words, does the referral system work? To answer this question a chi-square analysis was conducted which showed that those clients who received minimal referrals were just as likely to obtain aftercare services as those who were not referred at all ( $\chi^2 = 0.507$ ,  $df = 1$ ,  $P = N.S.$ ; Table 12.1 and 12.2). Whereas, 44.4% of the referred clients received aftercare, 38.6% of the non-referrals were served. Thus, it appears that with or without a referral almost equal proportions of clients ultimately receive aftercare of

some sort, and simply informing a client of the availability of aftercare services does not increase his/her chances for aftercare.

Pre-hospital augmented referral. Even though minimal referral was not shown to be associated with increasing aftercare, augmenting minimal referral with other procedures increased the incidence of aftercare dramatically. One procedure was supplying the client with community mental health services prior to hospitalization; 129 clients reported that they, indeed, had received such services. Table 12.3 shows that the relationship between referral and aftercare was enhanced when augmented by pre-hospital contact. Indeed, of the 66 clients who reported pre-hospital contact with community mental health services, and who were subsequently referred, 74.2% obtained aftercare. Thus, whereas minimal referral produced an aftercare rate of almost two in four, the referral of clients with pre-hospital contact resulted in three out of four clients getting aftercare.

This result certainly has implications for introducing the potential patient into a mental health system at the community level. Thus the individual not only comes to know and recognize the agency as a potential help-source, but an initial screening can take place which may allow for greater specificity and appropriateness of placement.

Pre- or post-discharge augmented referral. Does contacting a client improve his chances of receiving aftercare? That is, once a referral is made, does it help to contact the client either with pre-discharge contact or by contacting the client once he returns to the community?

To answer these questions, it was necessary to look at those clients who received only pre- or post-discharge contact, thus leaving out those who had pre-hospital care. The result is shown in Table 12.4 where it can be seen that 82.2% of the 45 clients who received pre- or post-discharge augmented referral obtained aftercare. As a result there appears to be a slight increase in aftercare rates in this case over that of pre-hospital augmented referral (74.2%). However, this increase is not significant and therefore cannot be said to be a real difference; the relatively high rate of aftercare is simply maintained.

Pre-hospital and pre- or post-discharge augmented referral. The question then arose that if the two augmenting methods were so effective in increasing the rate of aftercare, then combining them might enhance the rate even further. The initial finding, however, suggested that perhaps this was not the case. Since the figures in Table 12.5 indicate that the rate of aftercare was 84.6%, no increase resulted when the two augmentation procedures were combined.

Then another question was asked: When should a client be contacted, prior to leaving the hospital (pre-discharge) or after arriving home (post-discharge)? The analysis contained in Table 13 shows the result; all 12 (100%) of the clients with pre-discharge contact reported aftercare. Conversely, 71.4% of those contacted after their arrival home obtained aftercare. An interpretation of this result might be that augmenting a referral with pre-hospital and pre-discharge contact would certainly be the best procedure in terms of the

incidence of aftercare. However, this cannot be concluded since so few clients are included in this group. Further experimental study would be necessary to draw such a conclusion.

Nevertheless, those referred clients who received pre-hospital care from community mental health services or pre- or post-discharge contact with aftercare agencies demonstrated much higher aftercare rates. Combining these procedures apparently helps to maintain these high rates, though it cannot be stated conclusively that these procedures enhance each other.

#### IV SELECTED CLIENT CHARACTERISTICS AT FOLLOW-UP

Along with information regarding the client's aftercare episodes, each client was asked to respond to questions concerning his/her present living situation, current employment, and how they felt about the services they received during and since hospitalization. Thus, this chapter will describe selected characteristics of clients approximately 18 months after discharge. Where possible, the characteristics will be shown by hospital.

##### Client Social and Living Situation

The majority of the clients (59.8%) have returned home to live with family or friends (Table 15)\*. Others (10.6%) are living alone and maintaining themselves independently in the community. Still others (12.4%) require the assistance of nursing homes, county care facilities or halfway houses. However, only 18 clients (5.4%) were hospitalized at the time of follow-up.

But this relatively small number of currently hospitalized clients can be misleading when one considers that 41.2% or 133 clients returned to the hospital at least once since discharge in State FY'74 (Table 16). Although the range of recidivism rates between hospitals appears large, namely a low of 31.5% at Mt. Pleasant to a high of 46.8% at Cherokee, the differences are not significant ( $\chi^2 = 2.612$ ,  $df = 3$ ,  $P = N.S.$ ), and

\* Appendix C comprises the tables mentioned in this chapter.



thus cannot be said to be real differences. That is, patients discharged from one hospital were as likely to be readmitted as another hospital's patients.

Since few clients currently inhabit a residential treatment facility and still fewer are MHI inpatients, most clients would be expected to be occupying their regular place of residence. Indeed, almost two-thirds (65.6%) of the clients indicated that their current place of residence was their regular one. On the other hand, 34.4% considered their habitation at the time of follow-up only temporary, thus reflecting the unsettled condition of one-third of the respondents.

This unsettled condition is reflected again when almost one-half (46.8%) of the clients reported less than one year's residency in their current dwelling (Table 17). Another 9.4% reported less than 18 months of residence. Therefore, since an average of 18 months have elapsed since discharge for these clients, over one-half or 186 clients have moved at least once since discharge.

Of course, moving to a new residence becomes necessary as a result of various circumstances. One of these is perhaps the dissolution of a marriage. As it happens, one-third of the currently or once married clients are now separated or divorced from their spouse (Table 18). Most of these divorced or separated clients stated that, indeed, they had moved within the past 18 months. Beyond the mere association between marital dissolution and mobility, however, the fact remains that many clients are experiencing a stressful problem.

For the other once-married clients though, more than half (57.4%) of them are still married. Thus, even with the vicissitudes of personal and psychological problems and hospitalization in their past, most clients have been able to maintain their marriages. A positive indication perhaps of rehabilitation and its effects.

### Employment

Unemployment is quite high among these clients with 39.0% (129) without work (Table 19). By definition, unemployed clients are those who are in the work force, but are not working. Conversely, the "not employed" clients (21.8%) are those who are too young or too old, disabled or retired, housewives or students. The remaining 130 clients are employed, but only 89 of these are employed full-time (more than 35 hours per week).

### Client Self-Perceptions and Attitudes

When asked how they felt about the problems that precipitated their hospitalization, almost three-fourths (72.8%) replied that these problems had improved. Another 24.8% thought their problems stayed about the same, while 2.4% thought they had worsened. Apparently then, most clients view their situation as improved and the rehabilitation efforts at least somewhat successful.

A related question asked if the client thought he/she needed any help at the time of follow-up. A variety of answers were obtained, all of which could be categorized as shown in Table 20. About one-half of

the clients desired assistance of some nature, the predominant needs being physical (18.7%) and psychological (15.7%). Other needs centered around locating a job and financial help.

To get some idea of what the client thought was a help or a hindrance in his/her rehabilitation, each was asked to name who or what was most and least helpful during and after hospitalization. In response, 62.9% attributed most help directly to their treatment (Table 21). In this case, most clients named the hospital staff, with structured activities, like occupational and recreational therapy, and psychotherapy next in importance. Interestingly, 9.7% of the clients named other patients as most helpful. Another 16.9%, however, stated that nothing was helpful.

The transition from the hospital to the community makes available a wider variety of potential help-sources, but at the same time increases the number of potential hazards. While a few clients (44) thought that nothing was helpful, the vast majority (81.3%) mentioned someone or some activity or occurrence as most helpful (Table 22). Moreover, clients mentioned their families and friends as most helpful almost one-third of the time. Further, the constructive use of time by way of hobbies, home activities, and work was mentioned by 15.1% of the clients. Beyond the client's immediate social environment, various community agencies and care-givers were regarded as helpful by one-fourth of the clients.

The client's perception of helpfulness is important, of course, but just as important perhaps are their perceptions of what was least helpful during and after hospitalization. The responses were understandably

varied, with almost two-thirds indicating that someone or some experience was least helpful (Table 23). The predominant response was that hospitalization itself was least helpful; 14.8% responded in this manner. Of course, this result would not be unexpected, since some of the respondents may have been remanded to a MHI against their will. For others though, the hospitalization experience may have been a traumatic one. Next, the clients named themselves, their families and the MHI staff with equal frequency as least helpful. Other persons and incidents were named much less often.

Thus, inasmuch as there were a variety of responses, clients responded favorably to the treatment efforts made by the MHIs. Seldom did they see the hospital staff or their treatment efforts as a hindrance, instead crediting the hospitals with helping them toward rehabilitation.

This concludes the report on the Iowa Aftercare Study. The reader may refer to the summary chapter for an overview of the study's findings and an interpretation of the results.

APPENDIX A

THE IOWA AFTERCARE STUDY EXECUCOM SYSTEMS CORPORATION AUSTIN, TEXAS <b>CLIENT FOLLOWUP AND AFTERCARE FORM</b>		INTERVIEWER'S NAME
		LENGTH OF INTERVIEW
INSTITUTE NAME		
NAME (LAST) (FIRST) (MI)		
ADDRESS:	NUMBER & STREET	PHONE
	CITY COUNTY	

CLIENT CODE	DATE FORM FILLED OUT	BIRTH DATE
	MONTH DAY YEAR	MONTH DAY YEAR

CONTACT NO.	DATE	TIME	PERSON/AGENCY CONTACTED	RESULT/NEW ADDRESS, PHONE, ETC.
1				
2				
3				
4				
5				
6				
7				

**RESULT CODES:**

IC - INTERVIEW COMPLETE	NCP - NO ANSWER ON PHONE	CD - CLIENT DECEASED
PI - PARTIAL INTERVIEW	NOH - NO ONE HOME	COS - CLIENT OUT-OF-STATE
AR - APPOINTMENT REFUSED	NIA - NO INFORMATION AVAILABLE	LAT - LOSS-OF-ADDRESS-TRACKING
AC - APPOINTMENT CONFIRMED	M - MOVED	OTHER: SPECIFY ABOVE

COMMENTS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

ESC-1  
5-75

THE INFORMATION ENTERED ON THESE FORMS WILL BE HANDLED IN THE STRICTEST CONFIDENCE AND NO INDIVIDUAL PATIENT RECORDS CONTAINING INFORMATION CONCERNING THE IDENTITY OF THE CLIENT WILL BE RELEASED TO UNAUTHORIZED PERSONNEL.

CFAF-1



CLIENT CODE

[ ]

DATE

[ ] [ ] [ ]

17. WHAT WAS THE MAJOR PROBLEM THAT MADE IT NECESSARY TO GO TO THE HOSPITAL? CODE  
 \_\_\_\_\_ [ ]
18. DID YOU FEEL BETTER WHEN YOU LEFT THE HOSPITAL? 63  
 1  YES  
 2  NO 65
19. WERE YOU REFERRED TO AN AGENCY OR PERSON WHEN YOU WERE DISCHARGED?  
 1  YES  
 2  NO (GO TO Q. 23) 66
20. WHAT ARE THE NAMES OF THE AGENCIES/PERSONS?  
 (1) \_\_\_\_\_ [ ]  
67  
 (2) \_\_\_\_\_ [ ]  
69  
 (3) \_\_\_\_\_ [ ]  
71
21. DID ANY OF THESE AGENCIES/PERSONS CONTACT YOU?  
 1  YES  
 2  NO (GO TO Q. 23) 73
22. HOW DID THEY CONTACT YOU?  
 1  PERSONAL VISIT  
 2  PHONE CALL  
 3  A LETTER 74  
 4  OTHER \_\_\_\_\_  
 (SPECIFY)

CARD 2 (REPEAT 1-8)

23. HAVE YOU RECEIVED ANY HELP FROM AN AGENCY OR PERSON SINCE YOU LEFT THE HOSPITAL?  
 1  YES  
 2  NO (GO TO Q. 25) 9
24. WHAT ARE THE NAMES OF THE AGENCIES OR PERSONS FROM WHOM YOU RECEIVED THIS HELP?

NAME OF AGENCY OR PERSON (PROBE: ANY OTHER?)	CODE	HOW MANY DIFFERENT TIMES ALTOGETHER HAVE YOU VISITED (AGENCY/PERSON)	ARE YOU STILL GOING TO (AGENCY/PERSON)		WHEN WAS THE LAST TIME YOU WENT?
			YES	NO	
(1) _____	10-11	NO. OF TIMES 12-13	1	2 14	MO. / YR. 15-16 17-18
(2) _____	19-20	NO. OF TIMES 21-22	1	2 23	MO. / YR. 24-25 26-27
(3) _____	28-29	NO. OF TIMES 30-31	1	2 32	MO. / YR. 33-34 35-36
(4) _____	37-38	NO. OF TIMES 39-40	1	2 41	MO. / YR. 42-43 44-45

25. HOW DO YOU FEEL NOW ABOUT THE PROBLEMS THAT BROUGHT YOU TO THE HOSPITAL?  
 1  IMPROVED  
 2  STAYED ABOUT THE SAME 46  
 3  WORSENERD
26. WHILE IN THE HOSPITAL, WHO OR WHAT DO YOU FEEL WAS MOST HELPFUL? CODE  
 \_\_\_\_\_ [ ]  
47
27. SINCE LEAVING THE HOSPITAL, WHO OR WHAT DO YOU FEEL HAS BEEN MOST HELPFUL? CODE  
 \_\_\_\_\_ [ ]  
49
28. EITHER DURING YOUR HOSPITAL STAY OR SINCE THEN, WHO OR WHAT DO YOU FEEL WAS LEAST HELPFUL? CODE  
 \_\_\_\_\_ [ ]  
51
29. WHAT HELP, IF ANY, DO YOU FEEL YOU NEED NOW?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ CODE  
[ ]  
53



APPENDIX B

Table 3

## Profile of Client Referrals

Referral Category	Referral Contacts		Clients Not Referred	
	N	% of 319	N	% of 331
			95	28.7
Community Mental Health Center	104	32.6		
Private Physician	39	12.2		
Department of Social Service Agency	34	10.7		
State Mental Hospital Outpatient Unit	31	9.7		
Alcoholics Anonymous	21	6.6		
Alcoholism Treatment Center	14	4.4		
Nursing Home	12	3.8		
Other Alcoholism Programs	11	3.4		
Halfway House	10	3.1		
Vocational Rehabilitation Department	10	3.1		
County Home	8	2.5		
General Hospital	8	2.5		
Criminal-Justice Personnel	6	1.9		
Foster Home	5	1.6		
Drug Counselor	3	0.9		
Veteran's Administration Hospital	1	0.3		
State Mental Hospital	1	0.3		
Public Health Nurse	1	0.3		
Minister	0	0.0		
TOTAL	319			

Table 4  
 Profile of Contacts With  
 Referred Clients

Type of Contact	Number of Clients	% of 236
Not Contacted	165	69.9
Pre-Discharge Contact	32	13.6
Post-Discharge Contact		
Personal Visit	21	8.9
Phone Call	8	3.4
Letter	10	4.2
TOTAL	236	

Table 5  
 The Relationship Between Type of Contact and  
 the Referred Clients' Ability to Recall Referral

Type of Contact	Specific Referral Recalled		
	No	Yes	Total
No Contact	93(56.4)	72(43.6)	165(100.0)
Pre-Discharge Contact	6(18.8)	26(71.2)	32(100.0)
Post-Discharge Contact	18(46.2)	21(53.8)	39(100.0)
TOTAL	117(49.6)	119(50.4)	236(100.0)

Table 6

## Profile of Client Aftercare Contacts

Aftercare Source	Aftercare Contacts		Received No Aftercare	
	N	% of 290	N	% of 331
			134	40.5
Community Mental Health Center	82	28.3		
Department of Social Service Agency	33	11.4		
Alcoholics Anonymous	21	7.2		
Vocational Rehabilitation Department	21	7.2		
State Mental Hospital Outpatient Unit	17	5.9		
Alcoholism Treatment Center	14	4.8		
Criminal-Justice Personnel	13	4.5		
General Hospital	13	4.5		
County Home	13	4.5		
Halfway House	12	4.1		
Private Physician	11	3.8		
Other Alcoholism Programs	10	3.4		
Nursing Home	9	3.1		
Veteran's Administration Hospital	7	2.4		
Drug Counselor	4	1.4		
Minister	3	1.0		
State Mental Hospital	3	1.0		
Foster Home	3	1.0		
Public Health Nurse	1	0.3		
TOTAL	290			

Table 7

Types of Services Received at  
Community Mental Health Centers

Status	Number of Clients	% of 69
Medication and Psychotherapy	31	44.9
Psychotherapy	21	30.4
Medication	11	15.9
Family Therapy	3	4.3
Psychological Evaluation and Medication	1	1.4
Psychological Evaluation, Psychotherapy, and Medication	2	2.9
TOTAL	69	

Table 8

Number of Visits Clients Made to  
Community Mental Health Centers

Number of Visits	Number of Clients	% of 69
1-5	19	27.5
6-10	19	27.5
11-20	12	17.4
21-30	6	8.7
31-40	3	4.3
41-50	4	5.8
50+	6	8.7
TOTAL	69	

Table 9

Status of Clients at  
Community Mental Health Centers

Status	Number of Clients	% of 69
Still in Treatment	41	59.4
Referred to State Hospital	5	7.2
Referred to Physician	1	1.4
No Referral	8	11.6
Other	14	20.3
TOTAL	69	

Table 10

Distribution of Aftercare Services By  
Community Mental Health Centers

Centers	Number of Clients Served	Summary
<u>Cherokee MHI Area</u>		
Central Iowa MHC	1	·Total Cherokee Sample: 99
MHC of Mid-Iowa	2	
Siouxland MHC	7	·Total Clients Served in Cherokee Area: 22
Northwest Iowa MHC	7	·Percent of Clients Served: 22.2%
MHC of North Iowa	3	
MHI Outpatient Clinic	2	
<u>Clarinda MHI Area</u>		
Polk County MHC	1	·Total Clarinda Sample: 54
Southwest Iowa MHC	1	·Total Clients Served in Clarinda Area: 9
West Central MHC	4	
Pottawattamie MHC	2	·Percent of Clients Served: 16.7%
MHI Outpatient Clinic	1	
<u>Independence MHI Area</u>		
Northeast Iowa MHC	3	·Total Independence Sample: 127
Dubuque County MHC	4	·Total Clients Served in Independence Area: 26
Linn County MHC	2	
Black Hawk County MHC	10	·Percent of Clients Served: 20.5%
MHI Outpatient Clinic	7	
<u>Mt. Pleasant MHI Area</u>		
Southeastern Iowa MHC	1	·Total Mt. Pleasant Sample: 51
Lee County MHC	2	
South Central MHC	2	·Total Clients Served in Mt. Pleasant Area: 12
Southern Iowa MHC	1	·Percent of Clients Served: 23.5%
Mid-Eastern Iowa MHC	4	
CMHC of Scott County	2	
MHI Outpatient Clinic	0	

STATE TOTAL

Total Sample: 331

Clients Served: 69

Percent Served: 20.8%

Table 11

Profile of Client Referral and  
Aftercare Service Match

Referral Category	Number of Referrals	Number of Aftercare Episodes With Matched Referral	% Referral/Aftercare Match
Community Mental Health Center	104	58	55.8
Private Physician	39	6	18.2
Department of Social Service Agency	34	12	35.3
State Mental Hospital Outpatient Unit	31	13	42.0
Alcoholics Anonymous	21	6	28.6
Alcoholism Treatment Center	14	6	42.9
Nursing Home	12	4	33.3
Other Alcoholism Programs	11	5	45.5
Halfway House	10	6	60.0
Vocational Rehabilitation Department	10	8	80.0
County Home	8	4	50.0
General Hospital	8	3	37.5
Criminal-Justice Personnel	6	1	16.7
Foster Home	5	1	20.0
Drug Counselor	3	2	67.7
Veteran's Administration Hospital	1	1	100.0
State Mental Hospital	1	0	0.0
Public Health Nurse	1	0	0.0
<b>TOTAL</b>	<b>319</b>	<b>136*</b>	<b>42.6</b>

\* NOTE: There were 118 clients who were referred to the agency from which they obtained aftercare. Thus, 50% of the referred clients obtained aftercare from the agency specified in their referral.



Table 12

Relationship Between Referral,  
Augmented Referral and Aftercare

Category	Aftercare		Total
	No	Yes	
12.1 No Referral	58 (61.1%)	37 (38.9%)	95 (100%)
12.2 Minimal Referral	55 (55.6%)	44 (44.4%)	99 (100%)
12.3 Pre-Hospital Augmented Referral Only	17 (25.8%)	49 (74.2%)	66 (100%)
12.4 Pre- or Post-Discharge Augmented Referral Only	8 (17.8%)	37 (82.2%)	45 (100%)
12.5 Pre-Hospital and Pre- or Post-Discharge Augmented Referral	4 (15.4%)	22 (84.6%)	26 (100%)
Total			331

Table 13

Relationship Between  
Pre-Hospital Augmented Referral and  
Pre-Discharge Versus Post-Discharge Contact

Contact	Aftercare		Total
	No	Yes	
Pre-Discharge	0 (0.0%)	12 (100.0%)	12 (100%)
Post-Discharge	4 (28.6%)	10 (71.4%)	14 (100%)
Total			26

APPENDIX C

Table 14

Profile of Client Living Situations  
at the Time of Follow-up

Living Situation	Hospital				Total
	Cherokee	Clarinda	Independence	Mt.Pleasant	
Alone	7 (7.1)	2 (3.9)	19(15.0)	7(13.0)	35(10.6)
Family	64(64.7)	27(53.0)	68(53.5)	23(42.6)	182(55.0)
Friends	5 (5.1)	2 (3.9)	6 (4.7)	3 (5.6)	16 (4.8)
Boarding House/ Hotel	2 (2.0)	3 (5.9)	1 (0.8)	3 (5.6)	9 (2.7)
Nursing Home/ County Home	4 (4.0)	6(11.8)	8 (6.3)	10(18.5)	28 (8.5)
Psychiatric Hospital	6 (6.1)	3 (5.9)	6 (4.7)	3 (5.6)	18 (5.4)
Halfway House/ Foster Home	5 (5.1)	3 (5.9)	5 (3.9)	0 (0.0)	13 (3.9)
Other	6 (6.1)	5 (9.8)	14(11.0)	30 (9.1)	30 (9.1)
Hospital Totals	99(100.0)	51(100.0)	127(100.0)	54(100.0)	331(100.0)

Table 15

## Profile of Client Recidivism Rates

Response	Hospital				Total
	Cherokee	Clarinda	Independence	Mt.Pleasant	
Non-Recidivist	50(53.2)	31(62.0)	72(57.6)	37(68.5)	190(58.8)
Recidivist	44(46.8)	19(38.0)	53(42.4)	17(31.5)	133(41.2)
Hospital Totals	99(100.0)	50(100.0)	125(100.0)	54(100.0)	323(100.0)

Table 16

## Number of Years in Current Residence

Years	Hospital				Total
	Cherokee	Clarinda	Independence	Mt.Pleasant	
Less than one	49(49.5)	21(41.2)	61(48.0)	24(44.4)	155(46.8)
One to two	13(13.2)	8(15.7)	22(17.3)	16(29.6)	59(17.8)
Two to four	8 (8.1)	5 (9.8)	11 (8.7)	3 (5.6)	27 (8.2)
Over four	29(29.3)	17(33.3)	33(26.0)	11(20.4)	90(27.2)
Hospital Totals	99(100.0)	51(100.0)	127(100.0)	54(100.0)	331(100.0)

Table 17

## Marital Status of Clients by Hospital

Status	Hospital				Total
	Cherokee	Clarinda	Independence	Mt.Pleasant	
Never Married	40(40.4)	20(39.2)	53(41.7)	21(38.9)	134(40.5)
Married	41(41.4)	16(31.4)	41(32.3)	15(27.8)	133(34.1)
Widowed	3 (3.0)	4 (7.8)	6 (4.7)	4 (7.4)	17 (5.1)
Divorced/Separated	15(15.2)	11(21.6)	27(21.3)	14(25.9)	67(20.3)
Hospital Totals	99(100.0)	51(100.0)	127(100.0)	54(100.0)	331(100.0)

Table 18

## Employment Status of Clients by Hospital

Status	Hospital				Total
	Cherokee	Clarinda	Independence	Mt.Pleasant	
Employed	37(37.4)	14(27.5)	60(47.2)	19(35.2)	130(39.3)
Not Employed*	25(25.3)	11(21.6)	24(18.9)	12(22.2)	72(21.8)
Unemployed	37(37.4)	26(51.0)	43(33.9)	23(42.6)	129(39.0)
Hospital Totals	99(100.0)	51(100.0)	127(100.0)	54(100.0)	331(100.0)

\* NOTE: Includes housewives and students and clients who were too young, too old, disabled or retired.

Table 19

Client Perception of Kinds of Help  
Needed at the Time of Follow-up

Kind of Help	Hospital				Total
	Cherokee	Clarinda	Independence	Mt. Pleasant	
Don't Know	0 (0.0)	2 (3.9)	1 (0.8)	0 (0.0)	3 (0.9)
No Help Needed	44(44.4)	20(39.2)	72(56.7)	25(46.3)	161(48.6)
Psychological	16(16.2)	6(11.8)	22(17.3)	8(14.8)	52(15.7)
Physical Health	23(23.2)	12(23.5)	18(14.2)	9(16.7)	62(18.7)
Work	8 (8.1)	6(11.8)	12 (9.2)	6(11.1)	32 (9.7)
Financial	8 (8.1)	5 (9.8)	2 (1.6)	6(11.1)	21 (6.3)
Hospital Totals	99(100.0)	51(100.0)	127(100.0)	54(100.0)	331(100.0)

Table 20

Client Perception of Who or What Was  
Most Helpful During Hospitalization

Response	Number of Clients	% of 331
Don't Know	3	0.9
Nothing	56	16.9
Nothing in Particular	21	6.3
Self	9	2.7
Family or Friends	2	0.6
Other Patients	32	9.7
Hospital Staff	119	36.0
Psychotherapy	34	10.3
Activities (e.g., occupa- tional therapy)	37	11.2
Medication	18	5.4
TOTAL	331	



Table 21

Client Perception of Who or What Was  
Most Helpful Since Discharge

Response	Number of Clients	% of 331
Don't Know	5	1.5
Nothing	44	13.3
Nothing in Particular	13	3.9
Self	25	7.6
Family	72	21.8
Friends	29	8.8
Activities (e.g., projects, hobbies, work)	50	15.1
Medication	10	3.0
Treatment (by community- based agency)	43	13.0
Professional Person (care- giver in the community)	40	12.1
TOTAL	331	

Table 22

Client Perception of Who or What Was  
Least Helpful Either During or Since Hospitalization

Response	Number of Clients	% of 331
Don't Know	8	2.4
Nothing	99	29.9
Nothing in Particular	39	11.8
Self	30	9.1
Family	31	9.4
Friends	7	2.1
Tragedy or Acute Illness	3	0.9
Unemployment	3	0.9
Hospitalization	49	14.8
Hospital Staff	30	9.1
Other Patients	10	3.0
Medication	9	2.7
Professional Person	13	3.9
TOTAL	331	

#### APPENDIX D

(NOTE: The table and step chart which constitute this appendix have been added to this report by the Advisory Board set up to guide, monitor and evaluate this follow-up study of former mental health patients, in the belief that the two documents will be of assistance in interpreting the findings and locating pertinent information in the report. The documents were each prepared by Advisory Board Member Verne Kelley, and are not the responsibility of Project Director John Driggers nor of Execucom Systems Corporation, who were employed to conduct the study for the General Assembly.)

Partial Summary of Findings Regarding Aftercare Services

Follow-up Study of Former Mental Health Patients

Conducted for the Iowa Legislature by Execucom Systems Corporation

<u>Procedure</u>	<u>Received Aftercare</u>	<u>Implications</u>
1. No Referral (95 cases)	38.9%	1. The most effective procedure used alone is predischarge contact (85.0%).
2. Minimal Referral (99 cases)	44.4%	
3. Combined Effect Associated with all Procedures (331 cases)	59.5%	2. Reinforcing predischarge contact with prehospital care may improve the aftercare service rate (100.0%) but there is no statistical assurance that it does. (Page 29).
4. Prehospital Care Only (66 cases)	74.2%	
5. Predischarge or Post-discharge Contact Only (45 cases)	82.2%	3. Less effective are postdischarge contact (80.0%), prehospital care (74.2%), or the two procedures combined (71.4%), but they provide definite advantages over minimal re-referral (44.4%) and no referral (38.9%).
a. Postdischarge Contact (25 cases)	80.0%	
b. Predischarge Contact (20 cases)	85.0%	
6. Prehospital Care and Pre-discharge or Postdischarge Contact (26 cases)	84.6%	
a. Prehospital and Post-discharge Contact (14 cases)	71.4%	
b. Prehospital and Pre-discharge Contact (12 cases)	100.0%	

DATA COLLECTED

	Page 8	Table 2	Table 3	Table 4	Table 2	Sub- traction	Table 6	Table 3	Table 6	Table 3	Table 6	Table 10	Table 11	Table 3	Table 6	Table 10	Table 11	Table 19	Table 9	Table 10	Table 9	
Persons Released from State Hospitals-fy 1974	4130																					
Persons in 84 Sample		331			331																	
Persons Not Referred			95																			
Persons Referred				236																		
Persons Reporting Aftercare Episodes						197																
Persons Reporting No Aftercare Episodes							134															
Aftercare Referrals Recommended to Clients								319														
Aftercare Episodes Reported by Clients									290													
Aftercare Referrals to Comm. M.H. Centers										104												
CMHC Aftercare Episodes Reported by Clients											82											
Aftercare Episodes Confirmed by CMHC												59										
Aftercare Service Match - CMHC													58									
Aftercare Referrals to State Hospital - OP														31								
SH-OP Aftercare Episodes Reported by Clients															17							
Aftercare Episodes Confirmed by SH-OP																10						
Aftercare Service Match - SH-OP																	13					
Still Needing Psychological Help at Follow-up																		52				
Still Served by CMHC & SH-OP at Follow-up																				41		
Aftercare Episodes Confirmed by CMHC and SH-OP																					69	
Persons Referred Back to SH-IP by CMHC & SH-OP																						5
PERCENT	100	100	28.7	71.3	100	59.5	40.5	100	90.9	100	78.8	100	98.3	100	58.4	100	100	100	52	41	69	5