The International Journal of the Addictions, 17(4), 703-747, 1982

The Therapeutic Community: Success and Improvement Rates 5 Years after Treatment

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Abstract

Dropouts (N = 162) and graduates (N = 75) from the 1970-1971 residential population in Phoenix House were interviewed 5 years after treatment. Composite indices of criminality, drug use, and employment described client status on a four-point outcome scale. Success reflected absence of crime and drug use through all years of follow-up; improvement represented a positive change over pretreatment status. Graduate success and improvement rates were 75% and 93%, respectively. Among dropouts, the rates were 31% and 56%, respectively, but increased by time in program from < 1 month to > 20 months (Success = 0-57%; Improvement = 5-89%). Results at

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2-year follow-up were replicated in a 1974 cohort, providing convincing evidence for the effectiveness of treatment in the therapeutic community.

Success, in a traditional therapeutic community (TC) like Phoenix House, is a shorthand term describing an individual's change to a life-style that is drug-free, economically productive, and without antisocial behavior. This view of success, however, has not been reflected in drug treatment evaluations involving therapeutic communities.

The effectiveness of the TC has been assessed primarily through follow-up studies involving multiprogram or -modality comparisons. Fewer studies have been conducted on individual therapeutic communities. Recent reviews of this literature are contained in Bale (1979), Brook and Whitehead (1980), De Leon and Rosenthal (1979), and Sells (1979).

Evaluations usually examine multiple outcome variables (e.g., Bale et al., 1980; Burt et al., 1979; Nash, 1973; Sheffet et al., 1980; Simpson et al., 1978). In these, TCs reveal impressive reductions in criminality and drug use, and increased social productivity, which compare favorably with other modalities; and most studies show that the positive changes are directly related to time spent in treatment (e.g., Barr and Antes, 1981; De Leon and Andrews, 1978; De Leon et al., 1972; De Leon et al., 1979; Holland, 1978; Nash, 1973; Simpson et al., 1978).

Multiple measures of outcome, however, tend to obscure the association between treatment and the person. Averaged across clients, they depict changes in variables but mask the changes in individuals. Thus, some investigations have utilized composite measures of individual outcome or success on which therapeutic community results are comparatively favorable (e.g., Burt et al., 1979; Simpson et al., 1978). However, the accuracy and interpretation of results based upon these measures are clouded by several interrelated issues. These render unclear conclusions, particularly concerning the effectiveness of the TC.

First, modalities and programs differ in how they define success. This has resulted in composite measures that have not reflected the traditional TC's criteria for individual success. For example, methadone maintenance does not require abstinence but includes retention as a treatment goal. The latter often confounds success rates during and following program participation.

Similarly, temporal criteria have varied as to the stability of client status. Success status had been assessed on a yearly basis, percentage of time followed up, or for a brief 2-month period prior to a follow-up interview; and follow-up results have not distinguished between intermittent and continual successes.

In traditional TCs a prosocial life-style including abstinence is a requirement for remaining in residency and for completing the program. However, retention rates and success rates remain distinct. Treatment efficacy is validated if successful status is continually maintained after participation in the program.

Second, even within modalities with similar clinical criteria, program variability has restricted the relevance of conclusions for individual treatment settings (see, e.g., Nash, 1973; Sheffet et al., 1980; Winick, 1980). Documenting treatment effectiveness, therefore, requires a complementary strategy of single- and multiprogram evaluation. Although the generality of findings from single programs is limited by sample size and their unique boundaries, findings that repeat on different samples from the same treatment settings provide stable conclusions and permit interpretation of program differences.

Third, the concept of individual improvement has not been adequately clarified in drug treatment evaluation. For populations in mental health and social rehabilitation programs, improvement is the rule rather than the cure. This is especially germaine to traditional therapeutic communities, whose criteria for success are conservative and whose long-term residency requirement decreases retention and completion rates. Many TC dropouts who are not judged clinical successes may reveal measurable improvement.

Only a few studies have examined composite measures of success or improvement in relation to length of stay in treatment (e.g., Barr and Antes, 1981; Brook and Whitehead, 1980; Burt et al., 1979; Chambers and Inciardi, 1975; Simpson et al., 1980). Results have varied, however, reflecting some of the above difficulties.

These issues shaped the scope and design of a 3-year research effort recently completed at Phoenix House, one of the largest traditional therapeutic communities. Client status at follow-up was assessed through agency records and self-report on multiple outcome variables, and with 60 scales measuring psychological adjustment. Results showed positive change in both domains (De Leon 1982; De Leon and Andrews, 1978; De Leon and Jainchill, 1981; De Leon et al., 1979).

This paper presents the self-reported social adjustment findings obtained with several composite indices of individual change. These were constructed from the multiple outcome variables and defined by traditional therapeutic community clinical criteria. Success and improvement rates are described in relation to time in program, and to strengthen conclusions concerning treatment effectiveness through replication, results were compared for two separate cohorts, followed 2 and 5 years posttreatment.

METHOD

Sample

Two cohorts (N = 731) were sampled for follow-up from the 1970-1971 and 1974-1975 residential populations of Phoenix House. Table 1 shows the 1970-1971 cohort (N = 307) consisted of dropouts (N = 202; males only) and

graduates (N = 105; males = 60 and females = 45), who were mainly 19-26 years of age, primary opioid abusers, and equally distributed by race. The dropouts were a 22% sample of the population of single-admission males randomly drawn from six time-in-program (TIP) bands (< 1 month and 4-6, 8-10, 12-14, 15-19, 20-26 months). The TIP-cell totals were approximately equal (N = 32-37), but represented varying percentages of the TIP proportions of single-admission males in the population. The graduates were a 27% sample of all those who completed the program in 1970-1971.

Table 2 shows the 1974 cohort (N = 424) consisted of male and female dropouts (N =371) and graduates (N = 53), who were mainly male, Black, and 19-26 years of age. Almost 54% were primary opioid abusers, 14% were primary alcohol abusers, and 15% were primary marijuana abusers. About 12% were primarily involved with amphetamines or barbiturates (primary "other"), and 5% claimed no primary drug of abuse. The dropouts were a 38% sample of the entire residential population randomly drawn from six continuous time-in-program groups (< 1, 1-4, 5-8, 9-12, 13-16, and 17+ months). With the exception of the largest group (17+), each TIP cell was of similar size but represented a varying percentage of the TIP proportions of the residential population. Graduates (N = 53) were a 43% sample of those who completed the program in 1974-1975.

Both cohorts purposefully overrepresented the long-term dropouts to compensate for the decreasing proportion of clients who remain beyond 12 months. This bias tends to overestimate the absolute percentage of successes, but not the relationship between time in program and success or improvement.

Budget and time limits did not permit symmetrical sampling of dropouts and graduates by sex from either cohort, and there were other restrictions on the sample. Search and location time led to selection of clients with metropolitan addresses at admission, and proportions in the 1970 cohort were adjusted toward equal representation by race.

Nevertheless, with the exception of the slightly different time-in-program cells, the higher percentage of opioid abusers, and the absence of 1970-1971 female dropouts, the two cohorts were similar and representative of the Phoenix population from which they were drawn.

Client Location

An official system for tracking and locating was adapted from those utilized by other investigators; e.g., Chambers and Inciardi (1975), Nurco et al. (1975), and NORC for the Drug Abuse Reporting Program (DARP) sample (Sells et al., 1976). A detailed account of the system is provided in a previous report (De Leon, 1979). Only the main steps of the client-tracking procedure are

described here. (1) A mailing, consisting of addresses updated by five cooperating agencies, requested client phone contact. (2) Field tracking was initiated at the end of two mail cycles if the client did not respond. The field tracker (usually one of the interviewers) entered the old neighborhoods and made face-to-face inquiries as to the whereabouts of the client. (3) On contact, the purpose of the research was explained to the client, and an interview appointment was arranged.

Over 89% of the sample was located. Rates were significantly higher for the 1970-1971 dropouts and 1974 graduates (Tables 3 and 4). The 1970-1971 location rate for female graduates was spuriously low. Sampling this group was originally unplanned. Thus, their search time was undertaken late in the data-gathering phase of the project and terminated after only 3 months, compared with the 12-month search time for other clients. Within this short period, however, their location rates were exceptionally high.

That the 1970-1971 dropouts were easier to locate reflects a difference in cohort composition. The 1974 dropouts included more transient clients, for whom community ties or addresses were less stable.

In both cohorts, Hispanic dropouts were somewhat more difficult to locate and provided fewer completed follow-up interviews. Some possible reasons are: (1) Hispanic neighborhoods were altered because of demolition, resulting in loss of original housing; (2) an undetermined number of Hispanics returned to Puerto Rico; and (3) there was perceptible mistrust among neighbors and relatives concerning the interviewer's business with the clients.

Dispositions

A total of 525 clients (71.8% of the original sample) provided a completed interview, which included administration of the psychological battery. Twelve clients provided some of their data by mail and phone.

Tables 3 and 4 summarize the dispositions for the two cohorts. When corrected for percentages of those who were deceased or who refused to participate, the completed interview rate for the 1970-1971 clients was 84% (85.3% of all dropouts and 81.5% of all graduates). For the 1974 clients, the completed interview rate was 75% (72.3% of all dropouts and 96.0% of all graduates). Except for race, differences between the interviewed and uninterviewed clients did not exceed 12%; nor did the interviewed or uninterviewed clients differ from the populations sampled. Overall then, the interviewed clients do not appear to be a unique group reflecting sampling or location bias. Conclusions based upon their findings, however, must be tentatively generalized to the populations from which they were drawn and to the uninterviewed clients, since those interviewed may still differ on variables not yet surveyed.

Table 1

The 1970-1971 Sample and Population

	Interviewed						Uninterviewed						Sample totals		Population totals	
	Dropouts		Graduates		Totals		Dropouts		Graduates		Totals					
	N	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]
Totals	162	68.4	75	31.6	237	100.0	40	57.1	30	42.9	70	100.0	307	100.0	1,151	100.0
Sex																
Males	162	100.0	46	61.3	208	87.8	40	100.0	14	46.7	54	77.1	262	85.3	794	69.0
Females	0	0.0	29	38.7	29	12.2	0	0.0	16	53.3	16	22.9	45	14.7	357	31.0
Race																
Black	63	38.9	25	33.3	88	37.1	8	20.0	9	30.0	17	24.3	105	34.2	495	43.0
White	43	26.5	19	25.3	62	26.2	22	55.0	13	43.3	35	50.0	97	31.6	253	22.0
Hispanic	56	34.6	31	41.3	87	36.7	10	25.0	8	26.7	18	25.7	105	34.2	403	35.0
Age[b]																
< 19	41	25.5	15	20.0	56	23.7	8	20.0	4	13.3	12	17.1	68	22.2	322	28.0
19-26	97	60.2	35	46.7	132	55.9	28	70.0	14	46.7	42	60.0	174	56.9	576	50.0
27+	23	14.3	25	33.3	48	20.3	4	10.0	12	40.0	16	22.9	64	20.9	253	22.0

Primary drug used[b]																
Heroin/opioids	128	53.6	25	52.0	153	53.3	68	51.9	2	40.0	70	51.5	223	52.7	526	42.5
Nonopioids	111	46.4	23	47.9	134	46.7	63	48.1	3	60.0	66	48.5	200	47.3	713	57.5
Time-in-program (months)																
< 1	41	17.1	–	–	41	13.9	21	16.0	–	–	21	15.4	62	14.6	349	31.2
1-4	29	12.1	–	–	29	10.1	21	16.0	–	–	21	15.4	50	11.8	320	28.6
5-8	38	15.8	–	–	38	13.2	21	16.0	–	–	21	15.4	59	13.9	133	11.9
9-12	34	14.2	–	–	34	11.8	25	19.1	–	–	25	18.4	59	13.9	70	6.3
13-16	26	10.8	–	–	26	9.0	13	9.9	–	–	13	9.6	39	9.2	51	4.6
17+	72	30.0	–	–	72	25.3	30	23.0	–	–	30	22.1	102	24.1	194	17.4
Graduate	–	–	48	100.0	48	16.7	–	–	5	100.0	5	3.7	53	12.5	–	–

[a] Percent of each parameter; e.g., percent of dropouts.
[b] The *N* varies because of missing data.
[c] Percents do not add to 100.0 because 10 residents were classified as "other."

Table 2

The 1974 Sample and Population

	Interviewed						Uninterviewed						Sample totals		Population totals	
	Dropouts		Graduates		Totals		Dropouts		Graduates		Totals					
	N	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*	%[a]	*N*[b]	%[a]
Totals	240	83.3	48	16.7	288	100.0	131	96.3	5	3.7	136	100.0	424	100.0	1,239	100.0
Sex																
Males	178	74.2	36	75.0	214	74.3	112	85.5	5	100.0	117	86.0	331	78.1	985	79.5
Females	62	25.8	12	25.0	74	25.7	19	14.5	0	0.0	19	14.0	93	21.9	254	20.5
Race[b]																
Black	170	70.8	27	57.5	197	68.6	70	53.4	3	60.0	73	53.7	270	63.8	730	58.9
Hispanic	37	15.4	5	10.6	42	14.6	31	23.7	0	0.0	31	22.8	73	17.3	201	16.2
White	33	13.8	15	31.9	48	16.7	30	22.9	2	40.0	32	23.5	80	18.9	298	24.1[c]
Age																
< 19	43	17.9	14	29.2	57	19.8	27	20.6	0	0.0	27	19.9	84	19.8	286	23.1
19-26	128	53.3	24	50.0	152	52.8	53	40.5	5	100.0	58	42.6	210	49.5	564	45.5
27+	69	28.8	10	20.8	79	27.4	51	38.9	0	0.0	51	37.5	130	30.7	389	31.4

Primary drug used[b]																
Heroin/opioids	145	90.1	57	78.1	202	86.3	38	95.0	30	100.0	68	97.1	270	88.8	967	84.0
Nonopioids	16	9.9	16	21.9	32	13.7	2	5.0	–	–	2	2.9	34	11.2	184	16.0
Time-in-program (months)																
< 1	23	14.2	–	–	23	9.7	9	22.5	–	–	9	12.8	32	10.4[c]	194	37.2
4-6	27	16.7	–	–	27	11.4	10	25.0	–	–	10	14.3	37	12.1	83	15.9
8-10	29	17.9	–	–	29	12.2	5	12.5	–	–	5	7.1	34	11.1	76	14.6
12-14	31	19.1	–	–	31	13.1	2	5.0	–	–	2	2.9	33	10.7	47	9.0
15-19	24	14.8	–	–	24	10.1	8	20.0	–	–	8	11.4	32	10.4	60	11.5
20-26	28	17.3	–	–	28	11.8	6	15.0	–	–	6	8.6	34	11.1	61	11.7
Graduate	–	–	75	100.0	75	31.7	–	–	30	100.0	30	42.9	105	34.2	–	–

[a] Percent of each parameter; e.g., percent of dropouts. In this and all other tables, percents may not add to 100.0 due to rounding.

[b] The *N* varies slightly because of missing data.

[c] Six discrete TIP bands were identified in the entire population, which excluded clients outside of those bands. Thus, the total band *N* was 521, which was 57.8% of the total population. The population TIP percents, therefore, were based on *N* = 521. Also, the population total excluded the separate list of 1970-1971 graduates from which the graduate follow-up cohort was sampled.

Table 3

The 1970-1971 Cohort Dispositions[a]

	Dropouts[b]		Graduates[c]		Totals	
	N	%	*N*	%	*N*	%
Completed interviews	162	80.2	75	71.4	237	77.2
Dead	5	2.5	3	2.9	8	2.6
Refused	7	3.5	10	9.5	17	5.5
Out of state	11	5.4	3	2.9	14	4.6
Jail	1	0.5	0	0.0	1	0.3
Fugitive	3	1.5	0	0.0	3	1.0
Other	0	0.0	3	2.9	3	1.0
Unlocated	13	6.4	11	10.5	24	7.8
Total	202	100.0	105	100.0	307	100.0
Completed interviews, corrected for dead and refused	162	85.3	75	81.5	237	84.0
Total uninterviewed, excluding dead and refused	28	14.7	17	18.5	45	16.0

[a] Among those not interviewed ($N = 70$) some differences in disposition were found, particularly by sex and race: There were no deceased females; more females refused interview. Significantly fewer Blacks than Whites had no disposition; however, significantly more Whites and Hispanics refused interview. No graduate was a fugitive or found in jail. Only 10% of the dropouts were fugitives or in jail.

[b] Percent of 1970-1971 dropouts cohort.

[c] Percent of 1970-1971 graduate cohort.

The Interview

There were three interviewers: one Black male who was a Phoenix House graduate, one White male graduate from another TC, and a White female who was an experienced interviewer drawn from outside the field of substance abuse.

Training of the interviewers in the use of the survey and administration of the psychological tests was conducted across three sessions through didactic instruction and mock interview. This was followed by a pilot phase in which field interviews were completed and individually reviewed by office staff until five consecutively had been judged satisfactory. Thereafter, errors or "bad data" arising from interview ineptitude or from client distortion were minimized through routine supervisory examination of each completed interview. The competence of the interviewers is reflected in the fact that no completed interview was discarded. Ten percent had questionable data which were corrected by phone reinterview or deleted.

Table 4

The 1974 Cohort Dispositions[a]

	Dropouts[b]		Graduates[c]		Totals	
	N	%	*N*	%	*N*	%
Completed interviews	240	64.7	48	90.5	288	67.9
Dead	15	4.0	0	0.0	15	3.5
Refused	24	6.5	3	5.7	27	6.4
Out of state	14	3.8	1	1.9	15	3.5
Jail	8	2.2	0	0.0	8	1.9
Fugitive	12	3.2	0	0.0	12	2.8
Other	4	1.1	0	0.0	4	1.0
Unlocated	54	14.5	1	1.9	55	13.0
Total	371	100.0	53	100.0	424	100.0
Completed interviews, corrected for dead and refused	240	72.3	48	96.0	288	75.4
Total uninterviewed, excluding dead and refused	92	27.7	2	4.0	94	24.6

[a]Among those not interviewed (*N* = 136), significantly more females than males refused interview, and more males were fugitive or in jail. Whites doubled non-Whites in the percentages classified as dead; significantly more Whites than Blacks or Hispanics were located or provided a disposition, while significantly more Hispanics were fugitives or in jail.
[b]Percent of the 1974 dropouts cohort.
[c]Percent of the 1974 graduate cohort.

All but 20 interviews were obtained within 600 miles of New York City; three were conducted in Europe and the remainder in various regions of the United States. The interview itself was conducted in a setting chosen by the client, usually the home or a Phoenix House facility. About 10% of the interviews were completed in jail or drug treatment settings. Initially, the client's identification was ascertained with signature check, social security number, and date of birth. The client then read the purpose of the study, consent forms, and releases, and signed the latter, after which the interview proceeded. This was a 4-hour session, although 30% required at least two sessions. At the end of the final session the client was paid $15. Interviewers were paid $30 for each verified interview.

The interview protocol consisted of a questionnaire that surveyed the social adjustment of the client before and after Phoenix House, and four standard paper-and-pencil tests (60 scales) that assessed psychological status. The survey consisted of 225 items, most of which were structured questions, binary or scaled ratings, that focused upon four main periods: (1) background: family,

social, personal, drug, employment, and criminal history in the years prior to Phoenix (lifetime); (2) pre-Phoenix: month-by-month tracing of life activities in the last year before entry into Phoenix; (3) the Phoenix experience: the client's expectation and perception of treatment itself, benefits, problems, significant influences, staff and peer relations, and reasons for termination; and (4) post-Phoenix: month-by-month tracing of life activities—e.g., drug use, drug and other treatments, criminality, employment, residential changes, and social and personal relations across all the years of follow-up.*

Program Criteria and Indices of Individual Change

Rehabilitation in Phoenix House involves an integration of social and psychological goals (see De Leon, 1981).† Although the latter are critical, success is defined by the social adjustment criteria that are required for program completion. These include:

1. Minimum residency of 18-24 months.
2. Abstinence from any substance use. Infrequent social drinking is permitted off-premises in the late reentry phase (beyond 18 months in residence), but only for clients whose primary substance is not alcohol. (Present policy [1981] has banned any drinking in the reentry stage of the program.)
3. Absence of antisocial behavior, which includes any illegal activity or violence to person or property.
4. At least 6 months with a full-time job, school attendance, or combinations of both.
5. A bank account of at least $1,000 and evidence of independent living after the residential phase, either alone or with another graduate, a spouse, or sometimes with a girl/boyfriend. Return to the parental home is discouraged except for clients under 18.

*Items for the survey were drawn from several sources used in other research, at Phoenix and elsewhere. These included the Phoenix Resident History Questionnaire and the New York City Addiction Services (ASA) Questionnaire used in an earlier study of different modalities including Phoenix House (see Burt et al., 1979). Additional items were selected from CODAP (the intake survey employed by all federally funded treatment programs) and the survey used by the Drug Abuse Reporting Program (DARP).

†The psychological goals include clinically determined changes in attitudes (e.g., cooperation, positive regard for self and others) and values (e.g., honesty, self-reliance, and social responsibility), and improvement in interpersonal relationships, insight, and emotional control. Some of these changes are assessed in psychological results reported elsewhere (De Leon, 1982; De Leon and Jainchill, 1981).

After residency a client is viewed clinically as successful if s/he continually maintains prosocial behavior and abstinence from opioid use and/or a nonopioid primary drug. There are, however, some ambiguities concerning nonopioid use following treatment. For example, reduction (vs abstinence) in the use of a nonopioid primary drug is explicitly viewed as a continuing sign of maladjustment, but alcohol or marijuana use among former opioid and nonopioid abusers who do not claim these as primary drugs, remains an unresolved clinical and philosophical question.

Similarly, reentry into drug treatment must also be cautiously interpreted, particularly for TC clients who return to TCs or outpatient settings. Frequently, these modalities are selected for psychological or circumstantial assistance, not necessarily because the client has relapsed or regressed to serious drug use. Entry into detoxification or chemical treatment modalities offers more evidence for drug reinvolvement. However, some clients enter these modalities under other pressures, not infrequently the fear of relapse to illicit drug use. Thus, reentry into treatment is often viewed by clients and clinicians as a positive sign.

Indices of Change

These considerations entered into the construction of the composite indices. The latter were developed from 16 variables describing criminality, drug use, and employment, retrospectively traced month by month through all years of the study.

The Criminal Index (CrimDX). If there was at least one episode of criminal activity or at least a week spent in jail during any month of observation, the CrimDX was scored for the entire year and for all cumulative years.

The Drug Index (DrugDX). A DrugDX was scored if there was (1) any use of any opioid (heroin, methadone, Dilaudid, or other opioid), irrespective of the client's primary drug pretreatment; (2) any use of the primary drug, opioid or nonopioid. For clients who claimed no primary drug pretreatment, a DrugDX was also scored if there was any use of glue, hallucinogens, or hypnotics; or weekly use of marijuana or alcohol; or use of other nonopioids singly or in combination, at least three times in 1 month. Again, a DrugDX in any month resulted in a DrugDX for the entire year and for all cumulative years.

The Employment Index (EmpDX). This is a three-point scale based upon actual employable months. The value is determined by the ratio of months of full employment (or weighted combinations of full- and part-time employment) to total employable months; i.e., all months excluding those in jail or, rarely, those involving non-drug-related disability. Thus:

EmpDX 2 = full employment, at least 50% of the employable time.
EmpDX 1 = full employment, 25-50% of the employable time.
EmpDX 0 = full employment, less than 25% of the employable time.

The Success Index. Weighted combinations of the CrimDX and DrugDX placed the client on a four-point scale of favorable status. Criminality was judged more negative than drug use in the rating. Employment, the EmpDX, was excluded from the four-point success index for empirical reasons. A 12-point index that included the EmpDX correlated above +0.90 with the four-point scale, indicating that the addition of the EmpDX did not significantly change the client's relative status. The four-point success index was defined as follows:

Success #4, Most Favorable Status: No occurrence of a CrimDx and no occurrence of a DrugDX through all months of observation.
Success #3, Favorable Status: No occurrence of a CrimDX through all months of observation, but at least one occurrence of a Drug DX.
Success #2, Unfavorable Status: No occurrence of a DrugDX through all months of observation, but at least one occurrence of a CrimDx.
Success #1, Most Unfavorable Status: At least one occurrence of both a CrimDx and a DrugDX, either separately or together, in any month of observation.

There are temporal requirements that entered in the Success Index. The lowest Success Index in any year was the index for all cumulative years, and a Best Success Index (#4) had to be maintained for all cumulative years. The latter requirement reflects the clinical view that intermittent success indicates cycles of maladjustment, implies unstable treatment effects, and considerably amplifies the problem of interpreting the specific influence of residential treatment on long-term outcome.

Reliability and Validity

Verification and corroboration of data included the following procedures: (1) reinterview of the client by phone, using 5% of the original questions, 2-10 days after initial interview; (2) a family corroboration interview (this was a 30-minute phone call by a special interviewer who obtained information about the client's life as seen by a parent, spouse, or relationship partner since the treatment years); (3) urine sampling (follow-up clients were requested to voluntarily provide samples of their urine at the end of the interview); (4) agency corroboration (client criminal activity and entry into drug treatment were independently assessed through New York State criminal justice and drug treatment agency records).

Complete reliability and validity studies are detailed in a later report. This section summarizes the results of these studies for the successful clients in each cohort. The reliability of the criminal and drug use variables that entered into the composite indices was examined through internal consistency. The concordance rates between self-reported drug use and self-reported drug treatment were 96% (1970) and 91% (1974); and between criminal engagement and other self-reported criminal variables, 92% (1970) and 98% (1974). The validity of self-reported drug use and criminality variables was checked through comparisons with urinalysis and agency records of drug treatment, arrests, conviction, and incarcerations. Noncorroboration (client underreporting) ranged from 10% to 30%, depending upon the comparison. Thus, among the successes, the internal consistency and validity of self-report was impressive for the separate outcome variables.

The impact of these reliability and validity checks on the success results can be assessed from the following: If all cases with discrepancies arising from internal inconsistency and noncorroboration are accepted as negative, success rates reduce by 12% (1970) and 11% (1974); if they are discarded as questionable data, success rates reduce by 7% (1970) and 8% (1974).

Neither of these adjustments altered the main findings of the study. Thus, with the exception of five cases that were reclassified, all discrepancies were retained as possible error in the results. This decision was based upon several considerations.

First, discrepancies between self- and agency reports are difficult to interpret. For example, ex-addicts with arrest histories may be rearrested and released, or may go to a trial that results in a dismissal. Even recorded convictions may be on minor or questionable charges, which do not reveal antisocial behavior of meaningful consequence (e.g., speeding or trespassing). Thus, clients may not report an arrest, and its appearance on their agency record may be misleading.

Similarly, urine testing and agency- or self-reported drug treatment are not easily interpreted. Positive and negative error rates in laboratory tests render questionable conclusions based upon a single urine sample, and (as described earlier) clients may view their time in drug treatment as a positive period of adjustment.

Second, discrepancies were accepted to conform with the follow-up literature in which success rates are described based upon self-reported data unadjusted for reliability and validity. Though constructed differently, the present indices include the same outcome variables utilized in other studies with composite measures. In these studies, corroboration rates for the separate outcome variables are similar to those obtained in the present sample (see, e.g., Burt et al., 1979; Simpson and Sells, 1981), although they do not adjust success rates as described above for the Best Success group.

Overall, then, the present results are reliable and valid. The absolute percentages of success rates may alter depending upon adjustment for internal consistency and corroboration. Within the limits of self-reported data, results must be viewed as estimates of the error-free, or "true," success rates. A more important caveat, however, is that the method of corroboration must be acknowledged in comparisons between the present success rates and those reported in other studies.

Other Methodological Considerations

1. Time-at-risk (TAR) was defined as time-out-of-program (TOP) minus months in jail. For example, some clients could be followed 5 years since leaving treatment, but their actual time on the street could be shorter if they spent any months in jail. Actually, during the 5-year follow-up period, mean time-in-jail for the entire sample was 2.6 months. Nevertheless, TAR entered into the construction of each index. Jail time was automatically scored as a CrimDX and was subtracted from employable months so that the EmpDX ratio was unaffected. Also, a DrugDX was scored if the client failed the drug use criteria while in jail. Time spent in drug treatment settings was considered a risk period for crime and illicit drug use, although some investigators have argued otherwise (e.g., Simpson and Sells, 1981).

The EmpDX was slightly affected by constraints of residential treatment. Clients in drug treatment, TCs or otherwise, were presumed to be available for work. However, traditional TCs like Phoenix House prohibit outside employment in the initial 6 months of residence. This value was not subtracted from employable months for the few clients located in TCs after Phoenix House.

2. Data obtained at admission for activities in the year prior to treatment were found to be highly correlated with the follow-up interview data. Thus, the pretreatment data taken at follow-up were used, since they provided more complete information uniformly obtained across the full sample. Still, the client's retrospective accounts of life changes are subject to some errors of distortion. However, these tended to be minimized through the 4-hour interview, during which the same events were retraced through requestioning of different areas of social adjustment.

3. Admissions include clients who complete an intake evaluation form and remain at least 24 hours in residence. A first admission to Phoenix who left treatment for at least 30 days and returned is a multiple admission, and the total cumulative time spent in treatment through multiple admissions defined the client's total time-in-program (the 1974 cohort, since 1970 sampled single admissions only).

4. Prior to 1976 graduate status was conferred informally, often at some point after the client separated from the program in good standing. (Since 1976

graduation has been an annual ceremonial event in Phoenix House, for all residents who meet the program's criteria for completion.) In the present study, however, follow-up status was assessed from the official separation date for all clients. Dropouts, or splittees, are clients who leave treatment against clinical advice or without positive sanction by the clinical staff. Relatively few dropouts are expelled, particularly among the longer stayers. Most leave voluntarily, but irrespective of reasons for leaving, dropouts are not presumed to be clinically successful.

5. The primary statistical analyses evaluated change over time (pre- to post-treatment), with the sign test for correlated samples. The sign test excludes ties and only tests positive changes. However, to keep all data, the present analyses retained tied indices. For example, a pretreatment 0 CrimDX (no crime), or 0 DrugDX (no drug use), or Best EmpDX (> 50%) that didn't change posttreatment was counted as a positive change. Conversely, a pretreatment CrimDX 1 or DrugDX 1 that didn't change posttreatment was counted as a negative change, as was no change in any EmpDX (< 50%). For the Success Index, a pretreatment rank of 4 that remained 4 posttreatment was scored as a positive change. In contrast, success indices of 1, 2, or 3 that worsened or remained the same posttreatment were scored as a negative change. Thus, retaining ties suppressed statistical significance, since few cases had a Success Index of 4 prior to treatment.

Tests compared the single pretreatment year with cumulative posttreatment years. This strains statistical assumptions and biases against significance. While not shown, comparisons between pretreatment and separate posttreatment years were more consistently significant. Cumulative years were tested, however, since these reflect the TC's temporal criteria for maintaining favorable status.

Differences between groups were examined with several association statistics provided by the SPSS Crosstabs program (Nie et al., 1975). In the tables and figures, the *N* varies because of missing indices or insufficient TOP.

RESULTS

The results for the indices and success rates are detailed for the 1970 cohort, followed by comparisons with the 1974 cohort. Data for dropouts, graduates, and by time-in-program are presented separately; those for age, sex, race, and primary drug are briefly summarized. In the tables and figures, results are shown for 3 cumulative years, the minimum TOP for all dropouts, and for all years ($\bar{X}$ = 4.7 yr). Graduate results are shown across 5 cumulative years, their minimum TOP, and for all years ($\bar{X}$ = 6.4 yr).

Table 5

The Indices: Crime, Drug, and Employment at Follow-Up (%)

	Totals, dropouts, and graduates													
	N	Pre	Post 1	*p*	Post 2, cum.[a]	*p*	Post 3, cum.	*p*	Post 4, cum.[b]	*p*	Post 5, cum.[b]	*p*	Post, all years	*p*
CrimDX														
Totals	226	96.5	29.2	••••	35.0	••••	37.2	••••	–	–	–	–	42.0	•••
Dropouts	154	97.4	40.9	•••	48.7	–	51.6	–	–	–	–	–	57.1	–
Graduates	72	94.4	4.2	••••	5.6	••••	6.9	••••	11.1	••••	11.1	••••	12.5	••••
Dropout/graduate differences, *p*[c]		–	••••		••••		••••		–		–		••••	
DrugDX														
Totals	229	94.3	32.3	••••	36.2	••••	38.0	••••	–	–	–	–	41.9	•••
Dropouts	156	96.8	43.6	••	49.4	–	51.9	–	–	–	–	–	58.2	–
Graduates	73	89.0	8.2	••••	8.2	••••	8.2	••••	11.0	••••	12.3	••••	12.3	••••
Dropout/graduate differences, *p*[c]		–	••••		••••		••••		–		–		••••	
EmplDX > 50%														
Totals	230	32.6	75.7	••••	74.8	••••	76.3	••••	–	–	–	–	76.1	••••
Dropouts	156	36.5	66.0	••••	64.1	••••	66.2	••••	–	–	–	–	68.4	••••

Graduates	74	24.3	95.9	****	97.3	****	97.3	****	97.3	****	95.9	****	91.9	****
Dropout/graduate differences, p[c]		*	****		***		****		–		–		****	
EmpDX 25-50%														
Totals	230	9.1	4.8		8.7		8.8		–		–		10.2	
Dropouts	156	9.0	6.4		12.8		13.0		–		–		12.5	
Graduates	74	9.5	1.4		0.0		0.0		0.0		1.4		5.4	
EmpDX < 25%														
Totals	230	58.3	19.6		16.5		14.9		–		–		13.7	
Dropouts	156	54.5	27.6		23.1		20.8		–		–		19.1	
Graduates	74	66.2	2.7		2.7		2.7		2.7		2.7		2.7	

[a] Posttreatment years are cumulative; e.g., Post 2, cum. = years 1 + 2 posttreatment. The sign test for correlated samples was applied to number of positive changes from pre- to posttreatment years. The lack of significance of the CrimDX and DrugDX among dropouts in part reflects the test bias involving cumulative years. Significance is consistently achieved when the pretreatment year is tested against individual posttreatment years. Unlike the CrimDX and DrugDX, EmpDX > 50% increases through cumulative years, as actual months employed accumulate relative to the total employable time. Thus, statistical significance is more easily obtained with this measure.

[b] Because a large number of dropouts had insufficient time out-of-program to be followed 4 and 5 cumulative years, percentages for dropouts and totals are excluded after Post 3, cum. years.

[c] Chi-square probabilities. Tests were applied only to > 50% results on the EmpDX.

*$p < .10$; **$p < .05$; ***$p < .01$; ****$p < .001$.

The CrimDX, DrugDX, and EmpDX

Table 5 shows that in the year prior to entry into Phoenix, over 94% of the graduates had a CrimDX, and 89% had a DrugDX, while only 24% were employed more than 50% of the time (EmpDX > 50%). Across all years of follow-up, the proportions with a CrimDX and DrugDX decreased to less than 13%, and 92% had an EmpDX > 50%. These posttreatment changes were statistically significant for each index.

Among dropouts, similar but smaller changes were obtained on the three indices. In the year before treatment, approximately 97% of the dropouts had a CrimDX and a DrugDX, and about 37% worked more than 50% of the time. Across all years of follow-up, the proportions with a CrimDX and DrugDX decreased by nearly half, while 68% had an EmpDX > 50%. Only the posttreatment increase on the EmpDX achieved statistical significance.

Comparisons between graduates and dropouts revealed no significant pretreatment differences in the CrimDX and DrugDX, but significantly fewer graduates were employed more than 50% of the time. Across all years of follow-up, however, graduates were statistically better than dropouts in each index (Table 5). The stability of the three indices through the follow-up years is evident. For both dropouts and graduates, changes were maximal in the first posttreatment year, and they were maintained throughout the entire period of follow-up. The differences between year 1 and all years did not exceed 7% on any index.

Generally, the positive changes in follow-up were similar by age, sex, race, and primary drug. On the three indices, there were only scattered differences that reached significance. Among graduates, prior to treatment CrimDX and DrugDX increased with age, and few clients > 27 obtained an EmpDX > 50%; also, more males obtained a CrimDX, while more females had a DrugDX. In follow-up, CrimDX decreased with age, more females yielded a CrimDX, and more males had an EmpDX > 50%; and more clients > 27 obtained a DrugDX. Among the all-male dropouts, more Whites obtained a DrugDX pre- and posttreatment; in follow-up the EmpDX > 50% related positively to age. Opioid abusers, who constituted almost 87% of the cohort, yielded a greater percentage of CrimDX pretreatment and had larger reductions in CrimDX and DrugDX posttreatment.

Figure 1 shows that time-in-program (TIP) related to the posttreatment changes. Prior to treatment there were no TIP differences on any index. During follow-up all TIP groups, except for the < 1-month clients, showed decreases in the CrimDX and DrugDX. However, these reductions increased directly with length of stay in treatment, reaching statistical significance among the longest-staying dropouts. The percentages of EmpDX > 50% also increased but more uniformly across time-in-program groups.

Success and Improvement Rates

Table 6 shows that 83% of the graduates had the lowest Success Index (=1) prior to treatment. In post year 1, 90% of the graduates were Best Successes, which declined to 87% across 3 cumulative years. Almost 75% of the graduates remained successful through all years of follow-up.

Among dropouts, similar but smaller changes were obtained. Prior to treatment, almost 95% of the dropouts had the lowest Success Index. In post year 1, over 45% of the dropouts were Best Successes, which declined to 34% across 3 cumulative years; and 31% of the dropouts remained successful through all years of follow-up.

The actual proportion of individuals who changed is more clearly shown when absolute status is ignored. Table 7 summarizes the proportion of positive changes from the pretreatment index (improvement). For graduates, 93% maintained positive change through all years of follow-up. Among dropouts, at 1-year follow-up, over 69% had positively changed. Through 3 cumulative years, 61% maintained this positive change, as did 56% through all years of follow-up. Actual change, then, was considerable, generally reflecting shifts from the lowest pretreatment category.

Sex and race did not statistically relate to success or improvement rates. However, success rates were significantly lower among dropouts < 27 and non-significantly lower among all nonopioid abusers.

Figure 2 shows that among dropouts, there is an orderly relationship between success status and time-in-program. Across all follow-up years, Best Success rates are zero among the < 1-month dropouts, 12% in the 4-6-month TIP group, 32% in the 8-10-month group, 38% in the 12-14-month group, 29% in the 15-19-month group, and 57% in the 20-26-month TIP group. Success Indices 2 and 3 remain uniform, but Index 1 declines sharply by time-in-program. Thus, the increase in Best Success (#4) by TIP relates to the decrease in the least favorable category (#1).

Figure 3 shows that improvement rates are systematically related to time-in-program. Percentages of improvement ranged from 5% in the < 1-month dropouts to over 89% in the longest-staying dropouts, and was 93% among the graduates.

Figure 4 depicts the stability of success rates through the follow-up years. The graduate rate more than doubled that of dropouts in all years of follow-up. Among both, however, success rates in year 1 declined by less than 15% through all years of follow-up; that is, about 85% of those who were successful in year 1 remained successful throughout follow-up.

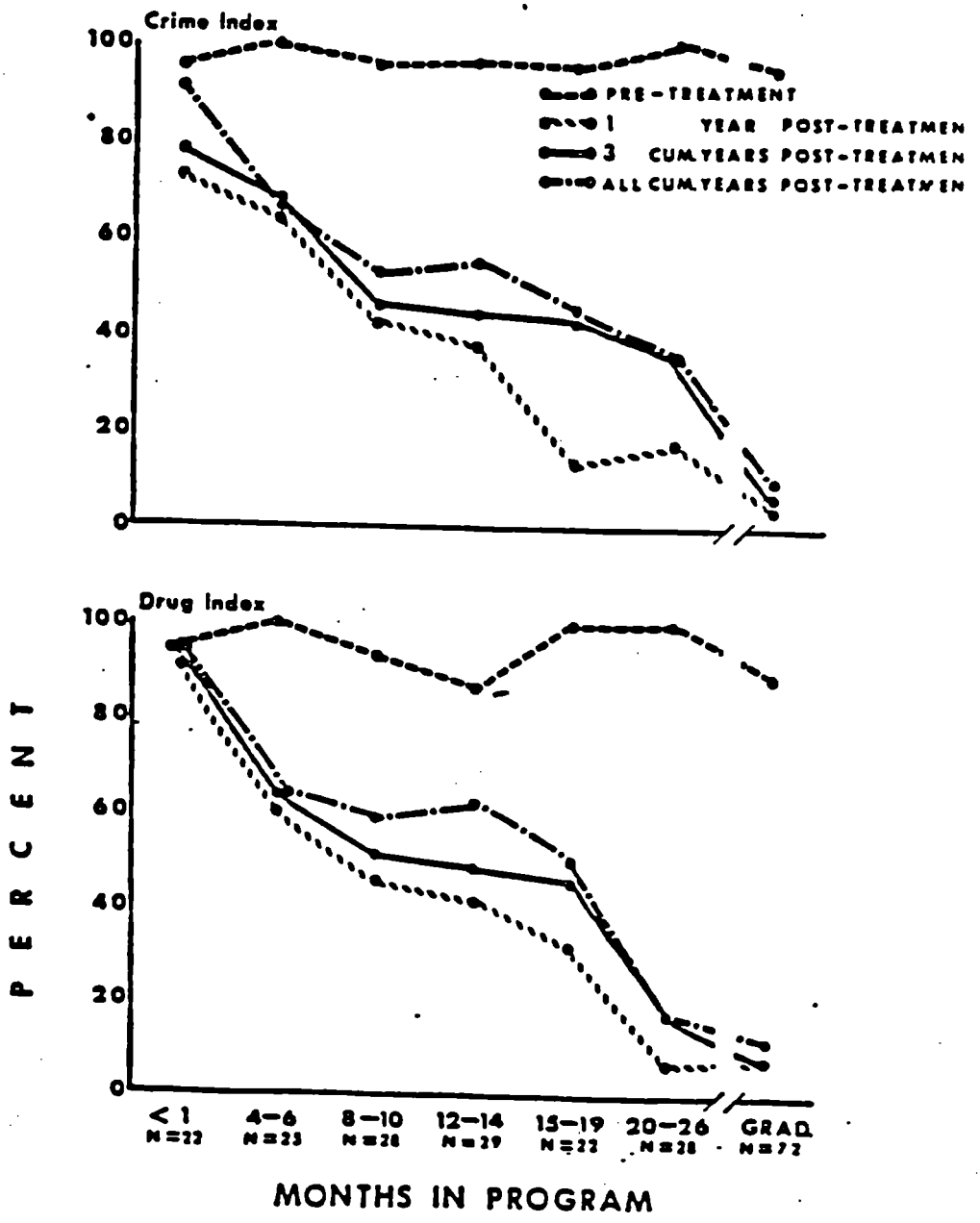

Fig. 1. The three indices of outcome - criminality, opioid or primary drug use, and employment - in relation to time-in-program (TIP) for the year prior to treatment and all years posttreatment.

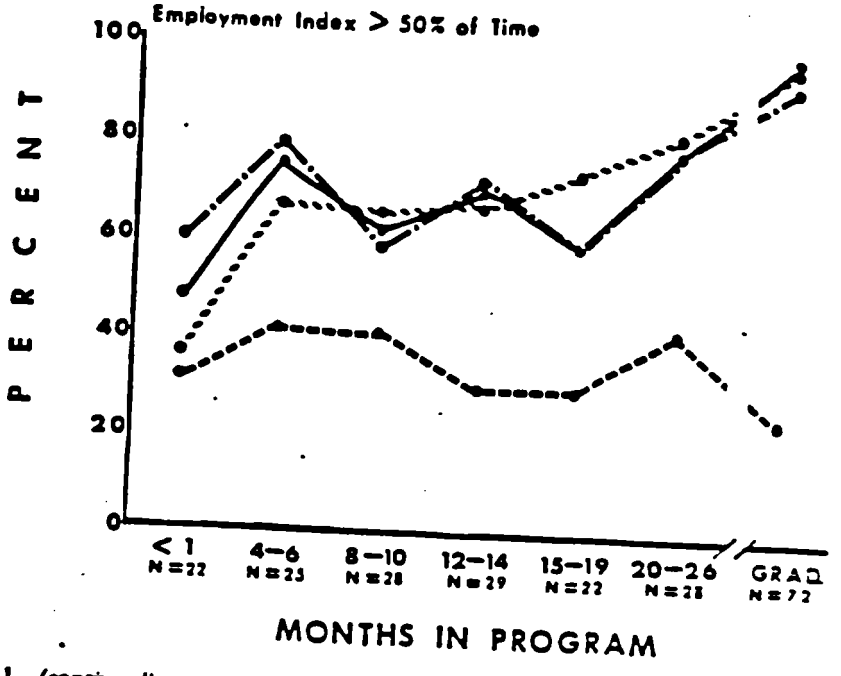

Fig. 1. *(continued)*

This finding is particularly impressive in view of the criterion requiring continued successful status. By definition, then, success rates had to be maximal in year 1 and could only remain constant or decrease through cumulative years.

However, the same criterion obscured the fact that a number of clients were intermittent or eventual successes. For example, when a yearly status is examined, 58% of all dropouts were successful in the last year before interview vs 45% in post year 1 and 31% through all years.

Most of the increase in the last year occurred in the < 12-month dropouts. This is expected since their initial base of nonsuccesses was considerably greater than that of the > 12-month dropouts. However, despite this rise in shorter-term successes, the time-in-program function remained stable in the last year of follow-up. Success in post year 1, therefore, was an excellent predictor of long-term success. Most of the year-1 successes maintained their status throughout follow-up. However, when the criterion of continued status is ignored, a substantial number of others were successful in the last follow-up year.

Comparisons with the 1974 Cohort

This analysis compared the success and improvement rates between the 1970 and 1974 dropouts, graduates, and time-in-program groups. The two cohorts differed by sex and primary drug. The 1974 dropouts consisted of

Table 6

Success Index at Follow-Up: 1970-1971 Cohort (%)

Success Index	Pre	Post 1	Post 2, cum.	Post 3, cum.	Post 4, cum.	Post 5, cum.	Post, all years cum.[a]
Totals (N = 221)							
4	0.9	59.7	53.8	51.4	–	–	44.8
3	2.7	10.9	10.9	10.9	–	–	10.8
2	5.4	7.7	9.5	10.4	–	–	12.7
1	91.0	21.7	25.8	27.3	–	–	31.7
Positive change[b]		****	****	****	–	–	****
Dropouts (N = 150)							
4	1.3	45.3	37.3	34.2	–	–	30.7
3	1.3	13.3	13.3	13.4	–	–	12.0
2	2.7	10.7	12.7	13.4	–	–	13.3
1	94.7	30.7	36.7	38.9	–	–	44.0
Positive change[b]		****	****	***	–	–	***
Graduates (N = 71)							
4	0.0	90.1	88.7	87.3	83.1	81.7	74.6
3	5.6	5.6	5.6	5.6	5.6	7.0	8.5
2	11.3	1.4	2.8	4.2	5.6	5.6	11.3
1	83.1	2.8	2.8	2.8	5.6	5.6	5.6
Positive change[b]		****	****	****	****	****	****
Dropout/graduate differences[c]	**	****	****	****	–	–	****

[a] Dropouts, $\bar{X}$ = 4.67 years; graduates, $\bar{X}$ = 6.4 years.

[b] The sign test for correlated samples was applied to number of positive changes from pre- to post-cumulative years. N = 221 because of missing index or insufficient TOP.

[c] Chi-square probabilities.

*$p < .10$; **$p < .05$; ***$p < .01$; ****$p < .001$.

both males and females, while the 1970 dropouts were all male. The graduates in the two cohorts, however, contained both sexes. Results are presented for the full cohorts at 2-year follow-up. Demographic, opioid, and nonopioid comparisons are summarized.

Table 8 shows that success and improvement rates were higher for the 1970 cohort. Only the differences between the dropouts failed to reach significance. Figure 5 shows that rates increased similarly by time-in-program for both cohorts, although the values were nonsignificantly higher among the longest-staying 1970 dropouts.

Demography did not account for the cohort differences. Success and improvement for the 1974 cohort did not significantly associate with age or race, although female rates exceeded those of the males among the dropouts. With demography controlled, however, the 1970 rates remained higher.

The cohort differences related to the primary drug distribution. When only opioid abusers are compared, the overall improvement rates are indistinguishable, and the success differences reverse somewhat, favoring the 1974 dropouts (Table 8). The latter, however, were inflated by the higher rates among the 1974 females. Adjusting for these sex differences yields the striking replication shown in Fig. 6. Results are plotted by time-in-program for two subcohorts of male opioid abusers. Both curves illustrate the lawful relationship between length of stay and positive change at follow-up.

Table 8 shows that the 1974 nonopioid abusers yielded the lowest rates in either cohort. Almost 45% of the 1974 clients who could be followed for 2 years were nonopioid abusers. Among these, success and improvement rates were 18% and 39%, respectively (dropouts); and 33% and 83%, respectively (graduates). Though not shown, a time-in-program difference was also apparent among the nonopioid abusers. Rates for > 12-month dropouts doubled those for < 12-month dropouts (Success = 29.5% vs 14.5%; Improvement = 58.6% vs 30.4%).

The results within the 1974 nonopioid group varied by primary drug. For example, alcohol and marijuana abusers were a 63% majority, but less than 10% of each achieved success. The remainder of the nonopioid abusers were mainly barbiturate or amphetamine abusers, and a few claimed no primary drug. Their success rate was 37%, approaching that of the opioid abusers (54.4%).

These primary drug differences related to reductions in the DrugDX since crime decreased uniformly by drug of abuse, although fewer marijuana abusers dropped their CrimDX. Abstinence from the primary drug was achieved by 64% of the opioid abusers, 12% of the alcohol and marijuana abusers, and 43% of the other nonopioid groups. Thus, the low success rates among the 1974 nonopioid abusers reflect their higher proportion of primary alcohol and marijuana abusers, few of whom achieved abstinence.

Table 7

Best Success and Improvement Rates through All Years of Follow-Up for the 1970-1971 Cohort, by Time-In-Program, Demography, and Primary Drug of Abuse

	Success							Improvement [a]			
	Dropouts		Graduates			Totals		Dropouts	Graduates		Totals
	Total *N*	%	Total *N*	%	Diff.[b]	*N*	%	%	%	Diff.[b]	%
Totals	150	30.7	71	74.6	•••	221	44.8	56.0	93.0	•••	67.9
Time-in-program											
< 12 months	72	16.7	–	–	–	–	–	38.9	–	–	–
> 12 months	78	42.3	–	–	–	–	–	71.8	–	–	–
p[c]		•••		–		–	–	•••	–	–	–
Race											
Black	56	32.1	24	75.0	•••	80	45.0	58.9	95.8	•••	70.0
Hispanic	40	32.5	18	66.7	•••	58	43.1	60.0	88.9	•••	69.0
White	54	27.8	29	79.3	•••	83	45.8	50.0	93.1	•••	65.1
p[c]		–		–			–	–	–		–

Age											
< 19	37	32.4	13	69.2	•••	50	42.0	56.8	84.6	b	67.3
19-26	92	25.0	34	79.4	•••	126	39.7	53.3	97.1	•••	65.1
27+	21	52.4	24	70.8	–	45	62.2	66.7	91.7	••	80.0
p^c		••		–			••	–	–•		•
Drug											
Opioid	136	32.4	56	78.6	•••	192	45.8	55.9	94.6	•••	67.5
Nonopioid	14	14.3	15	60.0	•••	29	37.9	57.1	85.7	•	69.0
p^c		–		–			–	–	–		–
Sex											
Males[d]	–	–	44	86.4	–	–	–	–	97.7	–	–
Females	–	–	27	74.1	–	–	–	–	85.2	–	–
p^c		–		–			–	–	–		–

[a] Less than 2% of the sample worsened, while 31% did not change and 67.9% improved. Percent improved in the table includes those clients who maintained a Success Index #4 pre- and posttreatment, here classified as "did not change."

[b] Chi-square values.

[c] p values derived from F or chi square, testing largest difference.

[d] There were no female dropouts in the sample.

•$p < .10$; ••$p < .05$; •••$p < .01$.

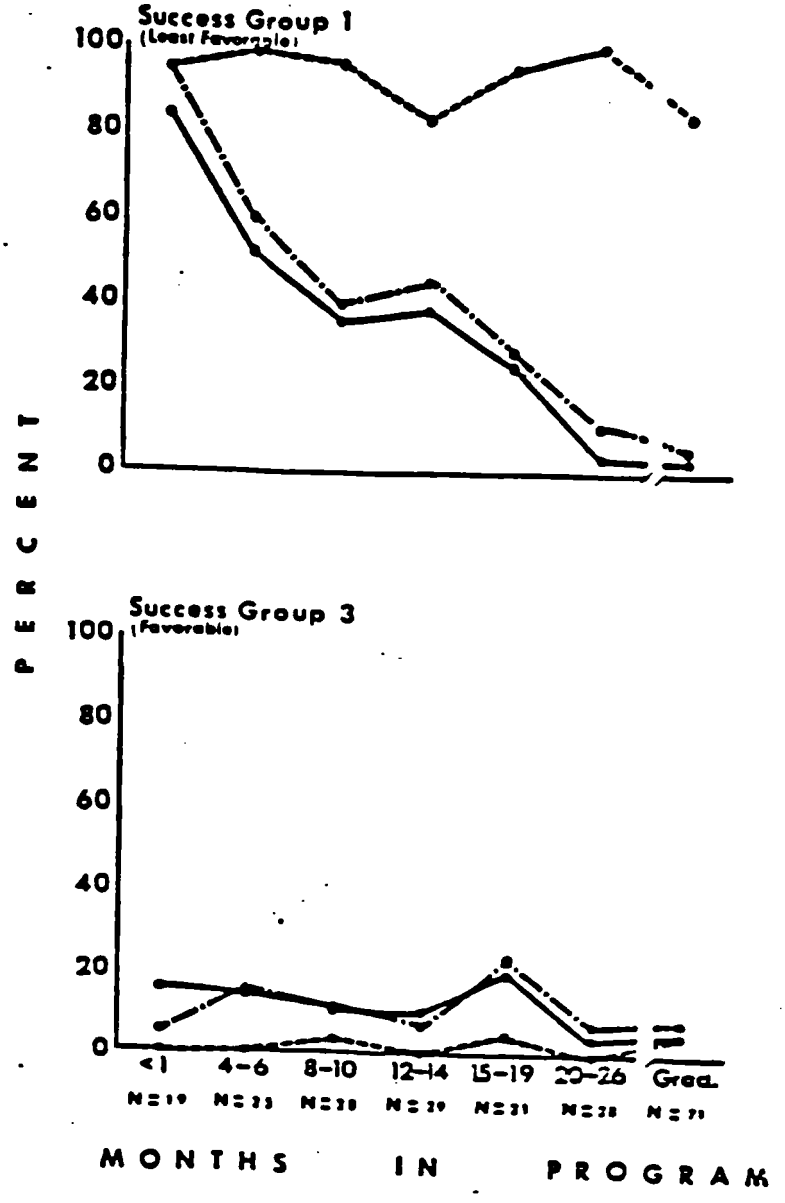
Success Group 1
(Least Favorable)
100
80
60
40
20
0
Success Group 3
(Favorable)
100
80
60
40
20
0
PERCENT
<1
4-6
8-10
12-14
15-19
20-26
Grad.
MONTHS IN PROGRAM

Fig. 2.

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THERAPEUTIC COMMUNITY SUCCESS RATES

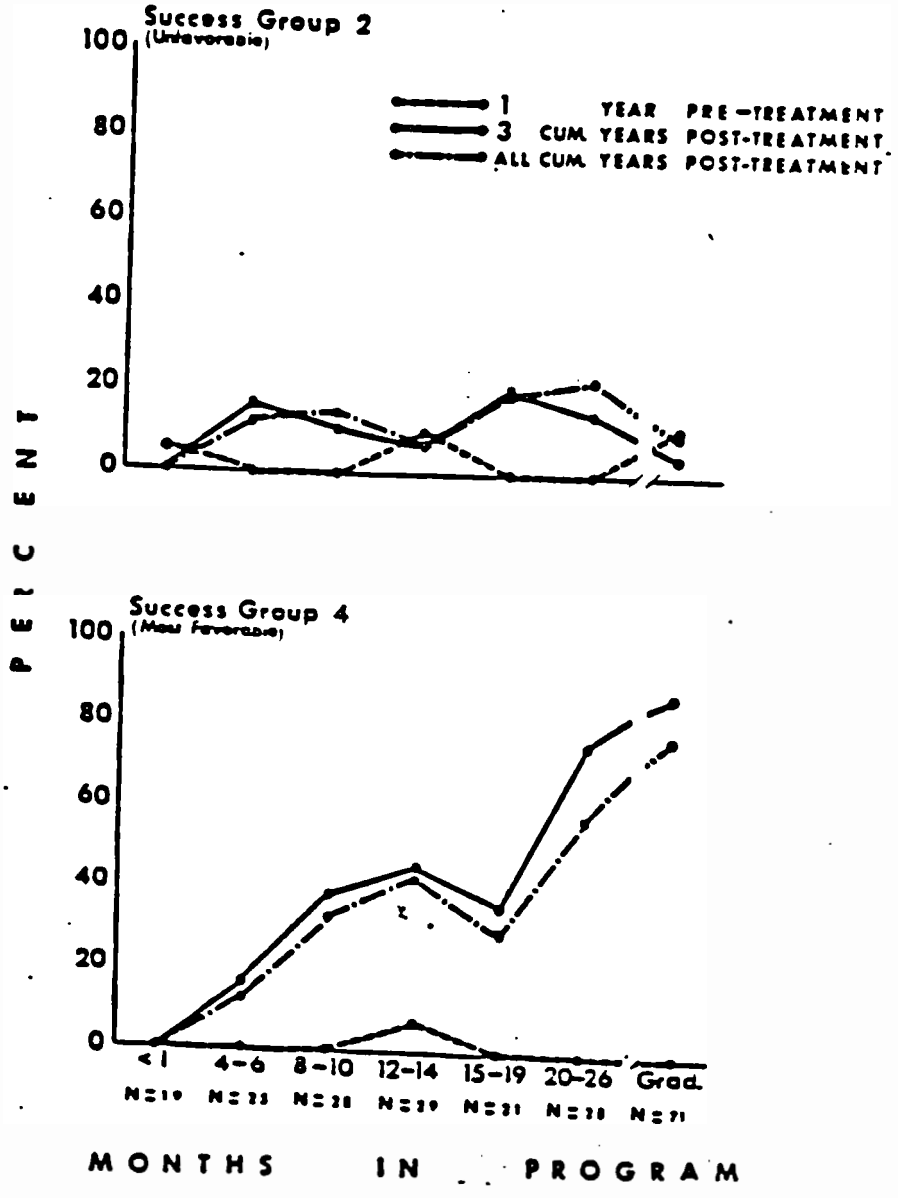


Fig. 2. The Success Index for the 1970-1971 cohort in relation to time-in-program (TIP) for the year prior to treatment and all years posttreatment. Almost 100% of each TIP group was in the lowest index before Phoenix. In follow-up, Groups 2 and 3 showed few TIP differences. However, TIP systematically related to reductions in Group 1 (less favorable) and to increases in Group 4 (most favorable). The small reversal in the 15-19-month TIP reflects its larger proportion of young clients.

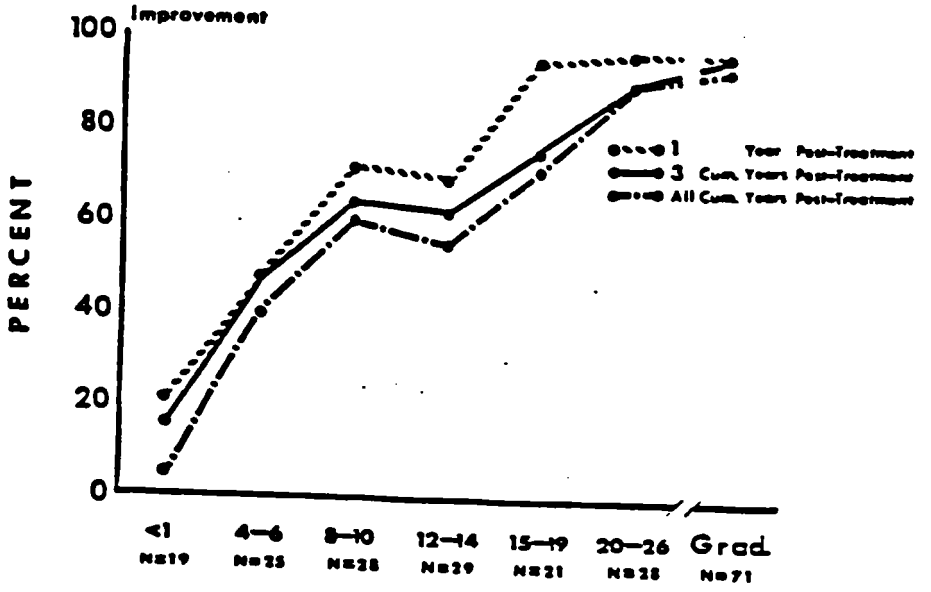


Fig. 3. Improvement over pretreatment status in relation to time-in-program through all years of follow-up for the 1970-1971 cohort.

This factor also accounted for the significant difference in rates between the nonopioid abusers in the two cohorts. Only 14% of the 1970 cohort were nonopioid abusers. However, their high success rate reflects the fact that all but five were primary prescription users or claimed no primary drug.

The conservative DrugDX requirement of continued abstinence from the primary drug suppressed the success rates among the 1974 alcohol and marijuana abusers; and, to some extent it masked drug use among the successes in the other primary drug groups. For example, opioid use and/or one drink among primary alcohol abusers, or one "joint" among primary marijuana abusers resulted in a less than Best Success status throughout all years of follow-up. Therefore, abstinence was rare, although other analyses revealed significant decreases in the frequency of their primary drug, and there was little use of opioids or other illicit substances.

Conversely, more of the other nonopioid abusers attained abstinence from their primary drug, but (with the exception of the "no primary" group) their use of alcohol or marijuana did not violate the DrugDX. Similarly, most opioid abusers achieved abstinence, but their use of nonopioids did not yield a DrugDX. For example, approximately one-third of the successful opioid abusers in both

Table 8

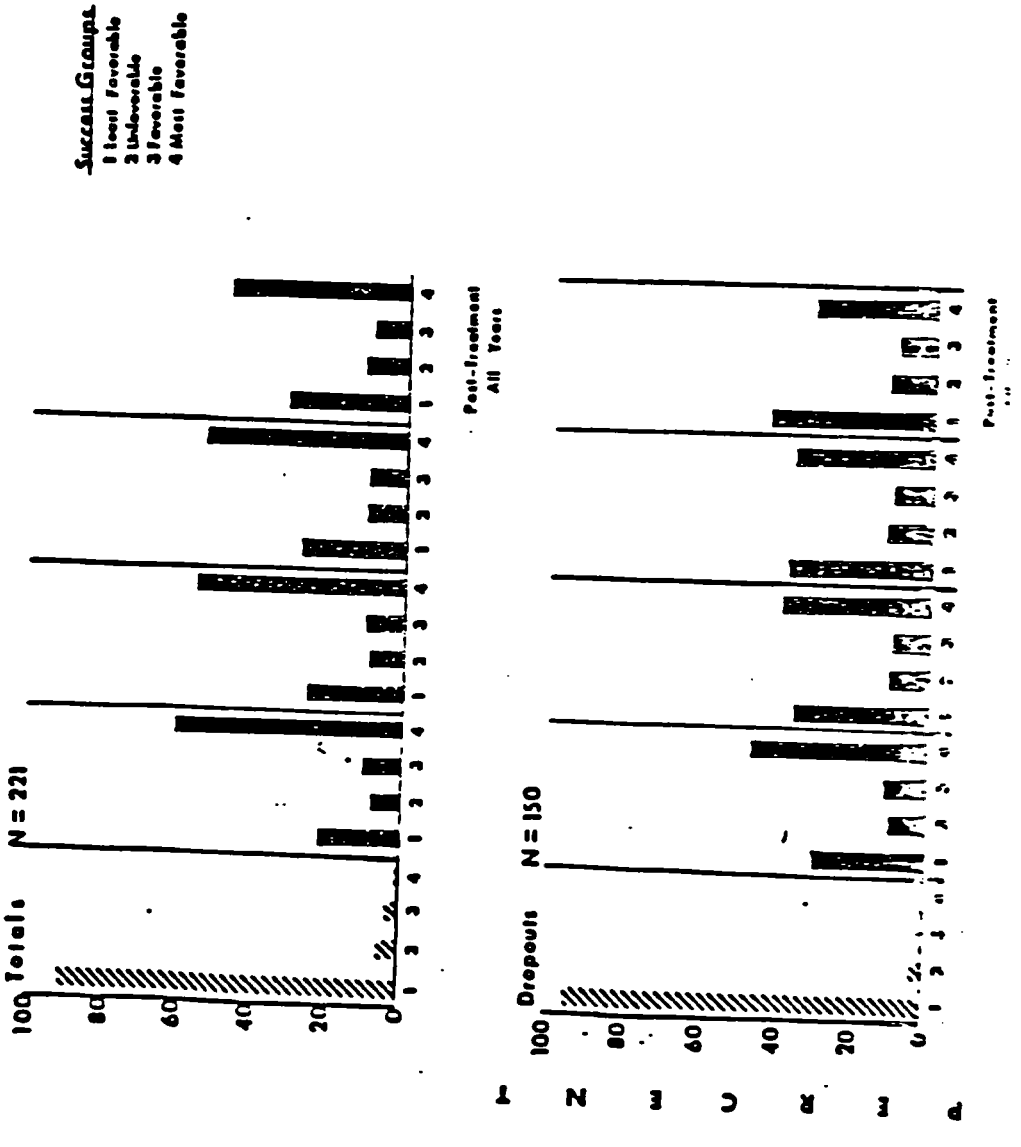
Success Comparisons 1970-1971 and 1974 Cohorts (%)

	Dropouts			Graduates			Totals		
	N	Post 1	Post 2, cum.	*N*	Post 1	Post 2, cum.	*N*	Post 1	Post 2, cum.
Total sample									
Best Success (#4)									
1970	150	42.7	34.7	71	90.1	88.7	221	59.7	53.9
1974	215	39.1	34.9	31	74.2	67.7	246	43.5	39.0
p^a		–	–		••	••		•••	•••
Improvement									
1970	150	68.7	63.3	71	95.8	95.8	221	77.4	73.8
1974	215	60.5	56.3	31	93.6	93.6	246	64.6	60.9
p^a		•	–		–	–		–	–
Opioid abusers									
Best Success (#4)									
1970	136	47.8	38.2	56	96.4	94.6	192	62.1	56.3
1974	117	54.7	48.7	19	94.7	89.5	136	60.3	54.4
p^a		–	•		–	–		–	–
Improvement									
1970	136	68.4	63.2	56	98.2	98.2	192	76.8	73.2
1974	117	75.2	70.9	19	100.0	100.0	136	78.7	75.0
p		–	–		–	–		–	–
Nonopioid abusers									
Best Success (#4)									
1970	14	28.6	28.6	15	66.7	66.7	29	48.3	48.3
1974	98	20.4	18.4	12	41.7	33.3	110	22.7	20.0
p^a		–	–		–	•		•••	•••
Improvement									
1970	14	71.4	71.4	15	86.7	86.7	29	79.3	79.3
1974	98	42.9	38.8	12	83.3	83.3	110	47.3	43.7
p		••	••		–	–		•••	•••

[a] Chi-square values.

•$p < .10$; ••$p < .05$; •••$p < .01$; ••••$p < .001$.

cohorts used alcohol and/or marijuana more than three times weekly during at least 1 month of follow-up, although virtually no use of other substances was indicated. Thus, while the DrugDX criteria accord with the TC's strict clinical view of success, they do not fully reflect the actual pattern of drug use in follow-up among different drug abusers.


Success Groups
1 Least Favorable
2 Unfavorable
3 Favorable
4 Most Favorable
Totals N = 221
Dropouts N = 150
100
80
60
40
20
0
1 2 3 4
Post-Treatment
All Tests
PERCENT

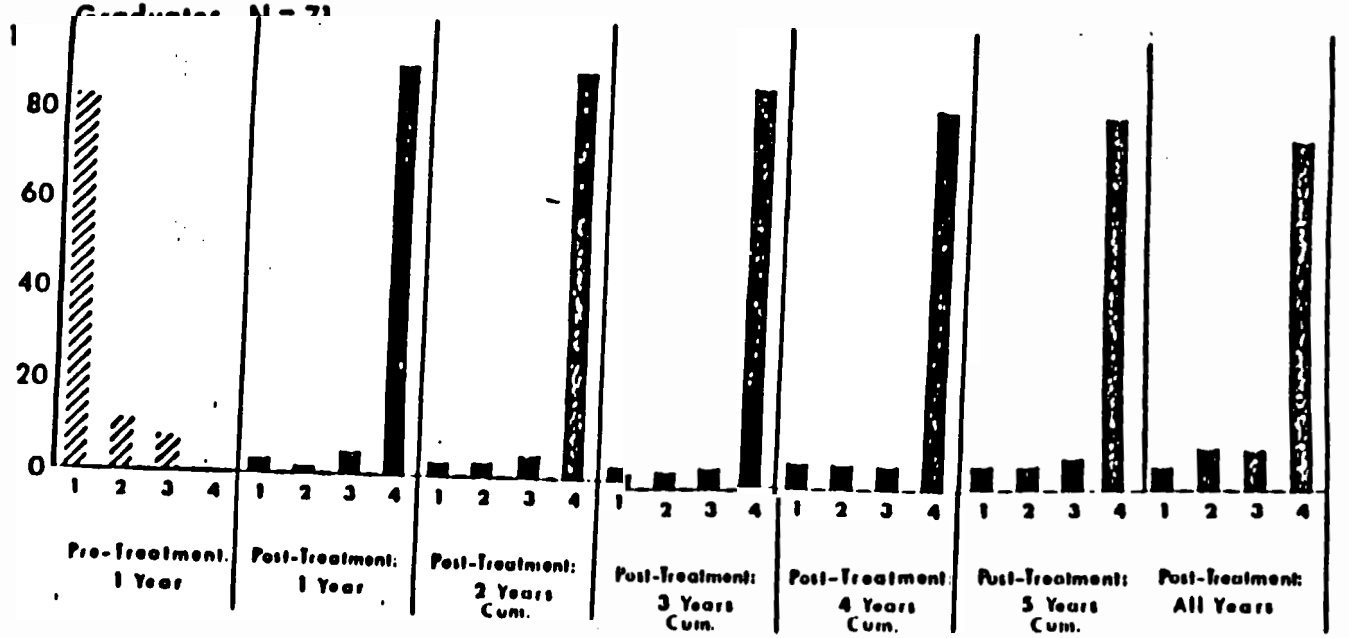


Fig. 4. The success distribution through all years of follow-up. The full dropout sample could be followed 3 cumulative and all years ($\bar{X}$ = 4.7 years; range 3-6). The full graduate sample could be followed 5 cumulative years and all years ($\bar{X}$ = 6.4 years; range 5-7 years). For dropouts and graduates, Best Success rates (#4) declined by less than 15% through all years.

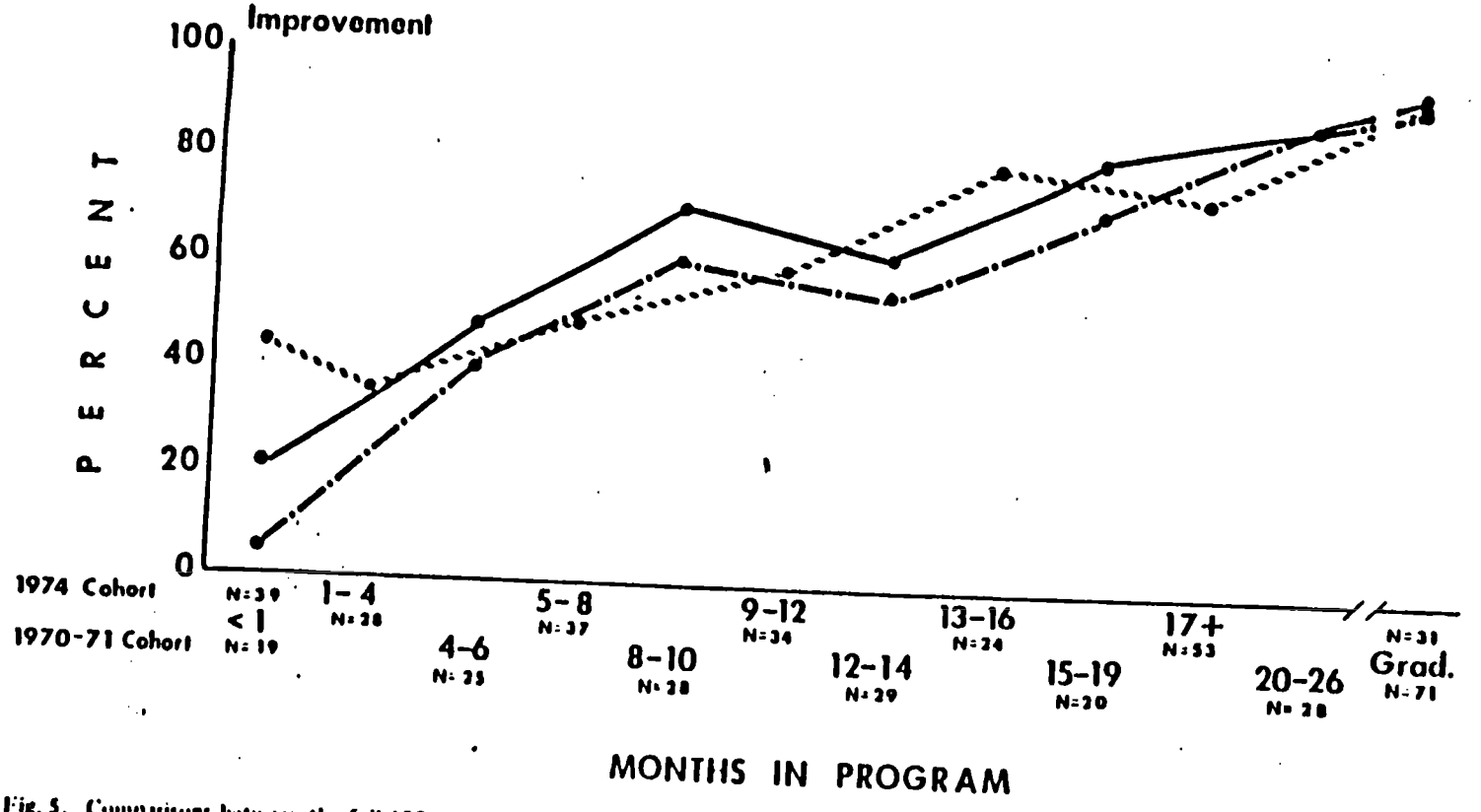
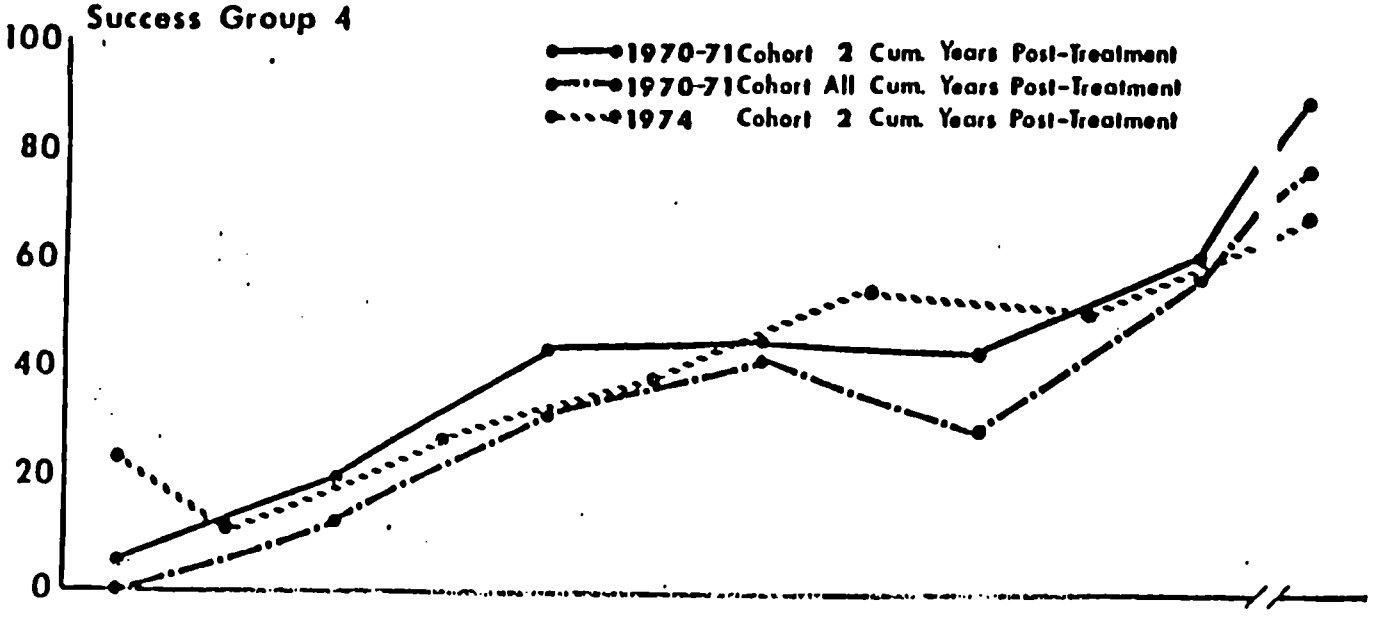


Fig. 5. Comparisons between the full 1970-1971 and 1974 cohorts through 2 years of follow-up. Success (#4) and improvement rates are shown by the time-in-program classifications for each cohort.


Success Group 4
1970-71 Cohort 2 Cum. Years Post-Treatment
1970-71 Cohort All Cum. Years Post-Treatment
1974 Cohort 2 Cum. Years Post-Treatment
100
80
60
40
20
0

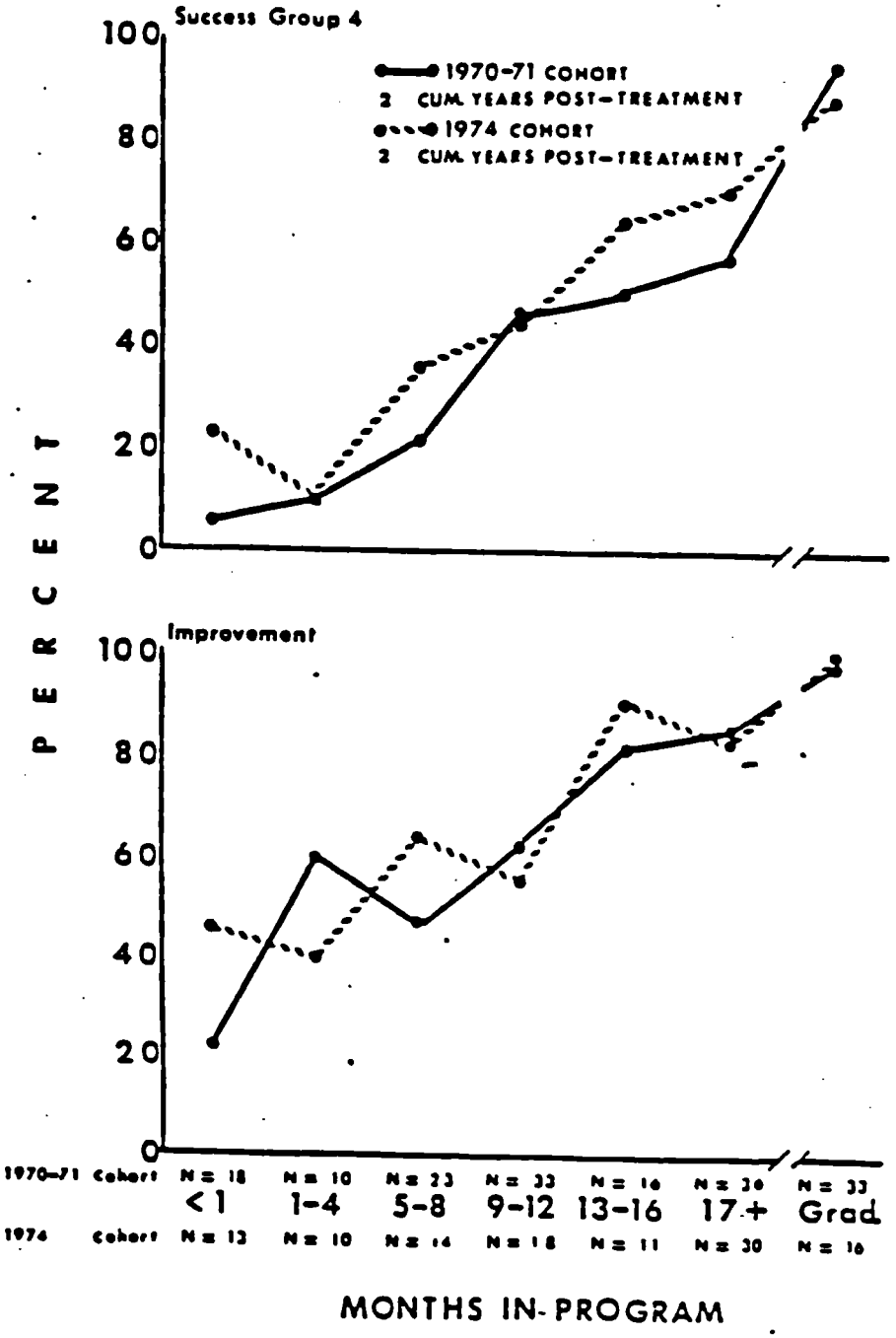


Fig. 6. Comparisons between the 1970-1971 and 1974 cohorts through 2 years of follow-up for male opioid abusers. Success (#4) and improvement rates by time-in-program are shown by the 1974 TIP classifications. There are no significant cohort differences at any point on the curve, revealing a striking replication of the time-in-program function.

In summary, the cohort comparisons indicate that success related to primary drug: Opioid abusers reveal the highest rates, followed by nonopioid abusers whose primary substances were not alcohol or marijuana. Few successes occurred among primary marijuana or alcohol abusers, but their frequency of primary drug use decreased, as did criminal involvement, particularly among the alcohol abusers.

More of the "other" nonopioid and the opioid abusers in both cohorts were successful, indicating absence of crime and abstinence from their primary drug, but their successes revealed moderate use of alcohol and marijuana. This finding is difficult to interpret within the context of the social use of these drugs. Nevertheless, the positive status of the successful clients, opioid and nonopioid, was confirmed by the absence of criminality and improved employment.

For both opioid and nonopioid abusers, however, success and improvement were higher for graduates and increased with length of stay. This, and the close correspondence between two opioid cohorts—separated by 3-6 years—provides an impressive replication of the basic results of the study.

DISCUSSION

Are the Phoenix success results consistent with those of other studies, and can they be generalized to other TCs? Precise comparisons with the few investigations utilizing a composite index of outcome are impeded because of differences in method of constructing the indices and in reporting results. For example, some studies accept reductions in the extent of drug use and crime in their composite outcomes. These also report cumulative success results that combine intermittent and continually favorable outcomes (e.g., Barr and Antes, 1981; Burt et al., 1979; Simpson and Sells, 1981). In the present research, measures of extent did not enter the composite indices of crime or drug use, and the requirement of continued favorable status excluded intermittent successes.

The generality of the present findings may also be limited by program variability. This is illustrated in comparisons with therapeutic community results obtained in the DARP studies. The latter employed a favorable outcome measure which resembled the Best Success Index used in the present work (see Simpson and Sells, 1981). Results were compared for male opioid addicts in the first posttreatment year. In the DARP 1972-1973 cohort, 28% of the TC clients received a highly favorable outcome, compared with 54% of the 1971 Phoenix opioid addicts (dropouts = 44.4%; graduates = 96.0%).

This success difference did not relate to sample composition since the Phoenix 1970-1971 dropouts and the DARP TCs were similar in age, primary drug, race, and retention. Nor does it reflect variability within DARP's TC modality since its outcome results did not vary significantly across the seven

programs surveyed (Joe et al., 1980).* Nevertheless, the higher Phoenix success rates do suggest that program effectiveness may vary within the TC modality, a conclusion reported in other multiprogram studies (e.g., Sheffet et al., 1980; Winick, 1980). Differences in clients served, philosophy, resources, and clinical and management experience, as well as success criteria, highlight the need for single-program studies.

The DARP and Phoenix studies, however, were consistent in showing a significant positive relationship between TIP and follow-up status. This correspondence validates a main conclusion from both research efforts that stresses the importance of treatment tenure for successful outcome.†

The issue of generality emphasizes some important caveats in this and other research on success or global outcome. First, the limits of self-reported data must be considered in the interpretation of success rates based upon composite indices, regardless of how these are constructed. The reliability and validity of self-report on the separate outcome variables is high, but (as discussed in the Method section), inclusion of agency information in the indices could lower overall success rates.

*For this comparison, the Phoenix success rates are adjusted because the criteria were revised to match exactly those employed by DARP: no criminality, assessed through self-reported arrests and incarcerations; no opioid and no nonopioid use; less than daily marijuana use. Comparisons were limited to male opioid addicts defined by DARP as active; i.e., who were daily users of opioids in the 2 months prior to treatment. The success differences between DARP and Phoenix are not related to sample differences in retention. DARP drew a 14% sample of all 1972-1973 admissions; the Phoenix dropout cohort was a 22% sample of all 1970-1971 male single admissions. Both samples purposefully overrepresented > 12-month clients compared with TIP distributions in their parent population. The DARP sample adjusted for this bias with a weighting procedure which, however, yielded no significant difference between the adjusted and unadjusted results on its multiple outcome variables. Thus, it is unlikely that the success differences between the two studies reflect errors of weighting, although that possibility cannot be ruled out. Finally, DARP findings on success rates and program comparisons were obtained in two separate studies of essentially the same sample of TC clients. The study of program differences did not involve composite indices but only the multiple outcome variables that entered into these indices. Results indicated no significant program differences in effectiveness within the TC modality, a finding presumed valid for the composite indices (Joe et al., 1980).

†Success rates were reported in studies of the methadone treatment network in Washington and for several modalities in New York, including four TCs (Burt et al., 1979). Comparisons are not proper since one of these was Phoenix House. However, this study illustrates some of the above methodological problems. For example, the TCs report 58% success rates (full extent of recovery in their system) but no time-in-program effects, which is contrary to the Phoenix House and DARP results. The composite measures were similar to those of the present research. However, status was compared for a period 2 months prior to treatment and 2 months before interview. This represents a short time-sampling of behavior compared with the 1-year observations in the DARP studies and the all-year data in the present work. As discussed elsewhere, the 2-month measure tends to inflate success rates and obscure important differences by time-in-program (De Leon and Andrews, 1978).

Second, the present success and improvement results describe a narrow ban of clients who met particular behavioral and temporal criteria. These ignore th clients who were intermittently successful or improved. For example, about 60 of the sample improved under the present criteria. However, each change status required elimination of drug use or criminal activity, and like succes each had to be continually maintained throughout follow-up. Measures t extent that assess the degree of behavioral change would more fully describ improvement, and delineation of patterns of outcomes that reflect combina tions of behavioral and temporal measures would illuminate the client changing status.

Third, these results do not provide a complete picture of adjustment amon the successful clients, but describe change in drug use and criminality. Othe findings for the 1974 cohort have revealed a high correlation between succes and psychological profiles at follow-up. The latter, however, did not appea particularly healthy at follow-up (De Leon and Jainchill, 1981).

Thus, sophisticated indices are needed to capture the extent and diversity of individual change. In addition to psychological dimensions, a portrait of the "health," or adaptation, of the successful individual must include social drug use and quality-of-life variables.

Issues of Interpretation. Notwithstanding the above qualifications, the present findings firmly establish a relationship between residency in the TC and client status at follow-up. Conclusions concerning treatment effectiveness, however, must be interpreted in light of methodological, statistical, and other considerations. Some of these are reviewed below, and a perspective for understanding treatment influence is outlined.

The most serious threat to the validity of inferences about treatment is the lack of control groups. The follow-up sample may be self-selected to seek, remain in, and benefit from the therapeutic community; or, perhaps, to improve without any treatment. Thus far, however, solutions to these selection problems have eluded research strategies. Assembling untreated matched controls or comparative treatment groups through random assignment has not been feasible. There are ethical problems in withholding treatment, and random assignment to modalities, even those selected by clients, requires huge samples to absorb attrition rates arising from client-treatment mismatch.

Statistical and behavioral hypotheses could be advanced to explain the observed changes over time. For example, statistical regression to the norm or less deviancy would predict changes from extreme levels or points of reference. Highly deviant-behavior is not likely to repeat on second observation but tends to approach more normative or less extreme levels. This hypothesis assumes that peak deviancy for clients occurs in the year prior to Phoenix. At follow-up, a decline (i.e., regression) to less deviancy would be expected, unrelated to residential treatment.

Two considerations argue against statistical regression. That peak deviancy would have declined without treatment is a questionable a posteriori assumption. There is no direct way of assessing status beyond the year of the peak had these clients not made contact with Phoenix House. Moreover, with rare exceptions, criminality and drug use during treatment remained at zero for all clients. Statistical regression would not expect this precipitous and uniform drop from peak to near zero deviancy, irrespective of individual differences in pretreatment deviancy or in their length of stay.

A behavioral cycle hypothesis views addiction (and associated criminal activity) as recurrent episodes of illness. These pass through peaks and troughs independent of treatment influences, and perhaps modify over years as self-limiting phenomena. In the present results, for example, the uniform drop from the pretreatment peak would mark the end of a negative phase of the cycle, and success during treatment and through follow-up would be a continuation of the positive phase. At some undetermined point in follow-up a gradual worsening should commence, signaling the start of a new negative phase of the cycle.

Contrary to this hypothesis, there is no evidence for a new negative cycle in the long-term 1970 cohort. Among successes, the rates after year 1 declined by less than 15%. More problematic is that a behavioral cycle hypothesis is difficult to test empirically. Such a test must specify in advance a finite period for observing the completion of a full cycle. In the present design, client status was observed from 1 year pre- through 5 years posttreatment; moreover, agency records revealed that arrest rates throughout follow-up remained lower than 5 pretreatment years, not only the peak year prior to treatment (De Leon et al., 1979). Either these results reflect the self-limiting characteristics presumed for this illness, or the period of observation was still too short to permit onset of a new cycle. This interpretative dilemma does not readily allow for direct investigation.

In long-term follow-up, a variety of influences may affect client status; e.g., other treatments or a changing social climate. Treatments after Phoenix House did not significantly affect the Best Success rates in either cohort. For example, self-reported reentry into drug treatment occurred in 5% of 1970 graduates (5 cumulative years) and 39% of the dropouts (3 cumulative years). For the 1974 cohort, the values were 0% and 25% for the graduates and dropouts, respectively (2 cumulative years). Some successes did report later drug treatment, but no drug use. When these discrepancies are deleted, success rates reduce by 4% in each cohort.

Social climate factors such as the availability of illicit drugs, law enforcement pressures, and the general economy are often presumed to affect client adjustment after treatment. Relating broad social conditions to individual status is a formidable problem for analyses. Indications are, however, that these factors did not substantially affect the present findings.

For example, the declining trend in the availability of street heroin from late 1973 may account for its decreased use in the follow-up period. Opioid abusers did yield the highest success rates, but their results do not support an availability hypothesis. Among the 1970 clients, the largest reduction in heroin use occurs in the first posttreatment year (1971-1972), which precedes the declining trend. Furthermore, the 1974 heroin abusers also showed their largest reduction in their first posttreatment year (1975-1976). The similar first-year reductions, irrespective of year of separation, point more to treatment impact than to unavailability of heroin. Additionally, as reflected in their large DrugDX reductions, opioid abusers revealed little involvement with methadone or other drugs that have been increasingly present since 1973. With the exception of modest increases in marijuana and alcohol use, the pattern in follow-up was an overall decline in the use of all drugs (see De Leon, 1981).

Law enforcement policy did not appear significant in the present results. Evaluation of the tough New York Drug Law of September 1973, aimed at illicit drug sales and drug possession, concluded that it has not been consistently enforced (Joint Committee on New York Drug Law Evaluation, 1977). Paradoxically, then, the enforcement climate since the 1973 law may have been more lenient than in the period 1969-1972. Nevertheless, both cohorts revealed their largest reductions in the CrimDX, the comprehensive index of criminal activity. (Further evidence for lenient enforcement was seen in the multiple outcome variables of the criminal profile. The 1974 cohort revealed more criminal engagements than the 1970 cohort, but a somewhat lower number of arrests at follow-up.)

Economic influences were not prominent in maintaining the success status of clients. Full-time employment (EmpDX > 50%) did increase at follow-up for most clients, suggesting general influences from economic or employment-related factors. These influences appear minimal, however, since successes revealed significantly greater gains. Moreover, their salaries and job levels remained low relative to a similar demographic population in New York (Bondarin, 1976). Thus limitations relating to the client, to the treatment, or to other factors not associated with economic vicissitudes affected the earning potential of the successful individuals in follow-up.

That clients maintain their successful status in the years after Phoenix, however, may still involve factors that are unique to individuals. Thus far, regression analyses indicate little contribution to 1974 success rates from selected background variables. Success was negatively related to lifetime criminality, and positively correlated with pretreatment educational level. Though significant, these associations were small compared with the effects of time-in-program. Further analyses, however, must examine a wider range of variables in both cohorts to more fully assess the contribution of background factors.

The extent to which maturation influenced the long-term success results appears minimal. As described in the literature, the "maturing out" of addiction or deviancy is more apparent after age 35. In the present sample, over 70% were less than 30 years old at interview.

Though age overall did not consistently relate to retention or success, there were some age interactions. The 1970 graduates were significantly older than the remainder of the sample. For the 1970 dropouts and the 1974 female dropouts, successes occurred significantly more often in the older clients. In both cohorts, the youngest clients (< 19) were overrepresented among the > 12-month dropouts, but this did not yield more successes in that age group. In fact, few of the youngest 1970 successes had less than 20 months in the program. For example, a reversal in the 1970 TIP trend occurred in the 15-19-month group because of their high proportion of young clients (see Fig. 2). For the latter, then, long-term residency may be a necessary requirement for stable outcome. Thus, retention remained the most significant correlate of success for any age. However, the optimal period of stay may vary with age-related factors.

UNDERSTANDING TREATMENT INFLUENCE: A PERSPECTIVE

The above issues underscore the multivariate complexity of individual change implicit in the TC's perspective of the role of treatment. This perspective views the client who comes for treatment as a changing person for whom experience in a program represents a significant, albeit limited, episode in the continuing process of change and adaptation. Positive and negative pressures, extrinsic and intrinsic to the client, lead to treatment contact. Thereafter, the change process involves a balance between client factors and treatment and nontreatment influences that shifts during and following the residential experience.

For example, drug use and antisocial behavior are virtually absent throughout residency. Early in the program, this may relate more to the client's motivation, or external pressures, than to treatment. Continued positive behavior during residency, however, reflects the increasing contribution of the program's influence. After residency, nontreatment influences again assume relatively more importance; maintaining a positive life-style depends upon these influences and the stability of what is learned during treatment.

Testing the validity of this perspective was not an aim of the present study. However, the main findings are consistent with its hypothesis that outcome reflects the interplay of client and program factors.

First, the majority of both cohorts were voluntary admissions (1970-1971, 54.9%; 1974, 64.2%). Nevertheless, during residency, successful status was maintained by practically all individuals regardless of their reason for entry into

treatment or their length of stay. Clients in Phoenix House are a doorway away from the street, with no physical restraints upon their activities. They are free to leave, commit crimes, or take drugs. That they maintain positive behavior in residency is a consequence of choice, not risk, and implies influences arising from their participation in the TC's daily regime.

Second, even without control groups, a treatment effect is evident in that success rates were temporally related to residency in the program. Rates decreased from near 100% residential level in the first year after separation, the period most contiguous with treatment. Thereafter, however, they declined modestly, remaining well above pretreatment levels at magnitudes that are directly related to time spent in treatment. This close correspondence between client change and the length, presence, or absence of residency implicates a treatment impact.

Third, the importance of individual differences was also evident in the relationship between success and retention. Over 45% of the >12-month dropouts had unfavorable outcomes, while a quarter of the <12-month dropouts did attain success. These results imply that most residents require at least a year to change. Others need more, and a few benefit from less exposure to treatment. Individuals may contribute to their own length of stay, but time-correlated program influences are essential to render change.

Successful outcome, therefore, emerges from an interaction of client and treatment factors. The specific impact of the treatment experience is most apparent during and immediately following residency; thereafter, though less recognizable, its effects may integrate with (or perhaps alter) the contribution of other experiences in maintaining successful status. Some assessment of these is reported in a later study in which analyses are expanded to include patterns of outcome (e.g., failures, intermittent successes, and improvements). Results describe client perceptions of the relative importance of treatment and nontreatment influences upon their life-style since leaving Phoenix House.

Overall, the present study provides impressive evidence for the effectiveness of the therapeutic community approach in modifying drug abuse. Direct investigation of the change process during residency can strengthen conclusions concerning the specific relationship between treatment and outcome. With respect to the latter, beginning efforts in other TCs report a positive association between TIP, client insight, and participation in group encounters (e.g., Browne, 1980); and other Phoenix results for the 1974 cohort show a direct relationship between psychological change during treatment and success and psychological change at follow-up (De Leon, 1984; De Leon and Jainchill, 1981).

Finally, the present composite indices reflect one TC's austere treatment goal of social adjustment depicted in absolute, albeit conservative, criteria of success. Nevertheless, Phoenix House is a stable example of the traditional TC approach. While undoubtedly unique, its success and improvement results provide firm hypotheses for research in other settings.

ACKNOWLEDGMENTS

The present study is part of a larger follow-up project supported by a grant from the Research Division of the National Institute on Drug Abuse. A full report of the project activities, *The Therapeutic Community: Study of Effectiveness* (Grant No. DA-01228), is available from NIDA.

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OUTCOME EVALUATION OF A PRISON THERAPEUTIC COMMUNITY FOR SUBSTANCE ABUSE TREATMENT

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Some persons in the fields of substance abuse and corrections still believe that prison-based rehabilitation is ineffective and that treatment efforts should be reserved for the nonprison community. While correctional institutions are generally hostile environments that impede attempts at both treatment and research, both can be accomplished successfully, even though it is highly difficult to maintain the integrity of treatment programs and research studies within correctional facilities. This study reports treatment findings for the Stay'n Out therapeutic community (TC), which has operated in the New York State correctional system for over 12 years. This is the first large-scale study (N = 1,500) that provides convincing evidence that prison-based TC treatment can produce significant reductions in recidivism rates for males and females.

A summary of the extensive research on the relationship between drug abuse and crime (Ball, Shaffer, & Nurco, 1983; Gropper, 1985, based upon the work of Johnson et al., 1985; Inciardi, 1979) provides convincing evidence that a relatively few severe substance

AUTHORS' NOTE: *This report was supported by a research grant (GR 2 R 18 DA 03310-3) awarded by the National Institute on Drug Abuse to Narcotic and Drug Research, Inc. Points of view or opinions in this article do not necessarily represent the official position of the U.S. government or Narcotic and Drug Research, Inc. Requests for reprints and correspondence may be sent to Harry K. Wexler, NDRI, 11 Beach Street, New York, NY 10013.*

CRIMINAL JUSTICE AND BEHAVIOR, Vol. 17 No. 1, March 1990 71-92

abusers are responsible for an extraordinary amount of crime. The need for effective prison-based drug treatment is obvious; the problem is to provide treatment that works. Although a number of therapeutic communities (TCs) have been established in state and federal prisons (National Institute on Drug Abuse, 1981), there has been almost no outcome research conducted. (A notable exception is the outcome research on the Cornerstone prison TC in Oregon; Field, 1989.) This article summarizes a large-scale evaluation of the Stay'n Out TC, which has operated programs for male and female inmates in the New York State correctional system for over 12 years.

The need for prison-based drug treatment programs can be seen in the high incidence of severe drug problems among state prison inmates (Bureau of Justice Statistics Bulletin, 1983). According to the Bureau of Justice Statistics survey, more than three-fourths of the 12,000 state prison inmates had used illicit drugs, 56% reported using drugs within the month just prior to committing the crime for which they were incarcerated, and 33% admitted using drugs at the time of the crime. Comparisons with drug abuse among the general population showed that inmates were twice as likely to have ever used illicit drugs and three times as likely to have used such drugs during the last month.

One of the most widely accepted types of treatment for substance abusers has been the TC. Outside of prison, TCs have been shown to be effective with clients who have extensive criminal histories (Bale, 1969; De Leon, 1984; De Leon, Andrews, Wexler, Jaffe, & Rosenthal, 1979; De Leon, Holland, & Rosenthal, 1972; De Leon, Wexler, & Jainchill, 1982; Holland, 1978; Nash, 1973; Sells et al., 1976; System Sciences, 1973; Wilson & Mandelbrot, 1977). The positive results of a five-year follow-up evaluation of Phoenix House (De Leon, 1984; De Leon et al., 1979) is of special importance because the Stay'n Out correctional TC program is in part based upon the Phoenix House model.

The rationale for the establishment of the Stay'n Out TC was derived from outcome research on nonprison-based TCs. An important finding was that successful outcomes (reduced crime and substance abuse, and increased employment) were related to the amount of time spent in treatment (De Leon et al., 1979, 1982; Simpson, 1978, 1980). In fact, residents who were sent to the program by the courts

had a better success rate than volunteers. However, nonprison TCs produce excessively high drop-out rates that limit their effectiveness to the relatively few clients who remain in the program for at least three months (De Leon, 1979). One of the justifications for the establishment of the Stay'n Out program was to test the efficacy of the time-in-program variable within an environment in which residents are likely to stay longer than three months. It was expected that inmates would find the program unit, which is isolated from the general prison population of inmates, considerably more desirable than regular prison units.

Preliminary research on Stay'n Out has shown that this program was successful in implementing and maintaining positive TC treatment environments, was capable of retaining inmates for optimal treatment durations (9 to 12 months), and facilitated positive personality changes as assessed by standard psychological measures (Wexler & Chin, 1981). A preliminary report on recidivism data also indicated that the program produced positive outcomes (Wexler, Lipton, & Foster, 1985). The major objectives of the present study were to evaluate rigorously the effectiveness of prison-based TC treatment and to assess the time-in-program variable.

RESEARCH DESIGN

This study employs a quasi-experimental design that compares participants of the Stay'n Out program with those of two types of comparison groups: inmates who volunteered for the TC program but never participated (i.e., the no-treatment control group), and inmates who participated in other types of prison-based drug abuse treatment programs (counseling and milieu therapy) located in different prisons. Evaluation studies of treatment programs are sometimes criticized on the basis that the effects of the treatment are biased because subjects are self-selected in the experimental group. In this study, it is assumed that the quasi-experimental design controls for self-selection bias because the subjects in the no-treatment control group initially volunteered to join the experimental treatment group.

The sampling pool for the treatment groups included all clients who had terminated from the programs between 1977 and 1984, and the no-treatment group consisted of subjects who were placed on waiting lists to enter the prison TC. Names of subjects were given to the Division of Parole, and a computer tape was returned with information on males and females who were under its jurisdiction. The data set included the following types of variables: (1) background characteristics of the groups (e.g., demographics, prior criminal records), (2) several time variables, of which time in program was of greatest interest, and (3) outcome variables (arrests, time until arrest, and parole discharge/revocation). Parole outcome status was obtained as of February 8, 1985. Arrest data were obtained for all active and discharged parole clients. Hypotheses relating each of the parole outcome variables to program treatment and time in program are tested statistically for the male and female group separately.

MALE STUDY GROUPS

Parole outcomes are compared among four groups of males. The TC group is compared to two other treatment groups (milieu therapy and counseling) and a no-treatment control group. The following section describes each of the treatment modalities and their basic differences. Sample sizes are reported for each group.

Male TC Treatment (n = 435)

The Stay'n Out program is a modified classical hierarchical TC that began in July 1977. Program capacity at the time this research was conducted was 120 inmates. Residents lived in two housing units segregated from the rest of the prison population. They had contact with prisoners in the general population only when off the TC unit (e.g., at the cafeteria, infirmary, or library). The staff is primarily composed of ex-addicts with TC experience who serve as role models.

The TC program is highly structured. Clients are responsible for maintaining the program unit. They are given jobs ranging from menial chores, such as cleaning the latrine, to enforcing house rules for proper

conduct. A major reward for good conduct is promotion to a higher job level with increasing responsibilities and status. Misconduct is viewed as an opportunity for a "learning experience" to develop – often to learn for the first time – appropriate ways to relate to others. Group activities include encounters (therapy), seminars (education), and special groups to deal with various unit management problems. Individual counseling and referrals to nonprison TCs are also provided (see Wexler & Williams, 1986, for a detailed description of the program).

Male Milieu Treatment (n = 573)

This program is a non-TC milieu drug treatment program that was established in November 1978. It had a capacity of 124 and was located in a separate unit from the general prison population. The program provided residents with individual, group, and vocational counseling referral services.

The main differences between milieu therapy and the TC approach are that in the milieu modality, (1) time is less structured and activities are less regimented, (2) jobs and social roles are not hierarchically ordered, (3) good conduct is not rewarded by giving residents greater responsibilities, and (4) interaction with nonprison TCs is not as extensive. In milieu therapy, clients are treated by program staff (professional drug abuse treatment counselors), whereas TC counselors are typically ex-offenders/ex-addicts who serve as role models. Furthermore, TC clients tend to play a more active role in their own treatment and in maintaining order within the program. These differences affect all aspects of life and treatment in these programs.

Male Counseling Treatment (n = 261)

The counseling drug treatment program that was established in April 1980 had a capacity of 50 clients. The clients received counseling (either individual or group) once a week and were given referral services at termination. The treatment was short-term, usually not lasting more than a few months.

Male No-Treatment (n = 159)

This group is composed of inmates who volunteered for the TC but never entered the program. They were placed on a waiting list but were not admitted to the program because they did not meet the time eligibility criterion – an inmate can be no more than 12 months and no less than seven months away from parole eligibility. This group is used as a control to test explicitly whether the TC program is better than no treatment (implicitly holding constant the differences in initial motivation to join the program).

FEMALE STUDY GROUPS

Parole outcomes are compared among three groups of females. The TC group is compared to a counseling group and no-treatment control group; milieu therapy was not available for the women in this study.

Female TC Treatment (n = 247)

The female Stay'n Out program is a modified classical hierarchical TC that began in January 1978. Its operation and the therapeutic process is highly similar to the male TC described earlier. Program capacity at the time of this research was 32 inmates who were in a segregated housing unit.

Female Counseling Treatment (n = 113)

A drug counseling program was established in April 1980 for 50 females. It ceased operating in November 1982. The program provided individual or group counseling once a week on a short-term basis.

Female No-Treatment (n = 38)

This group is composed of inmates who volunteered for the female TC program but never entered the program because they changed their minds prior to admission. (There was no time eligibility criteria for the female TC program.) This group is used as a control to test

explicitly whether the TC program is better for females than no treatment (controlling for initial motivation).

BACKGROUND CHARACTERISTICS

This section describes the background characteristics of the comparison samples. Table 1 shows the sample sizes and selected background information for each group. The ages of all group members were quite similar, the average being roughly 29 to 30. The male milieu therapy program had a slightly higher (statistically significant) mean age of 31.3.

Race was also generally similar for most groups (about 50% black, 25% white, 25% Hispanic) with the exception of the Female No-Treatment group, which had a significantly larger proportion of black inmates. Approximately one-fifth of the males had no more than an eighth-grade education. The Female Counseling and Female No-Treatment groups were somewhat more educated; over 90% had more than an eighth-grade level. This was significantly greater than the Female TC group, in which less than 80% of the sample went beyond the eighth grade. Marital status for the groups was similar. For the most part, the majority of the subjects were single, divorced, or separated. While the Male Counseling group had more married men, overall there were no statistically significant differences among the groups.

Composite scores for the severity of prior criminal history and the offense for which the inmate was currently incarcerated were obtained from parole records. The crime history score is a weighted average of prior arrests, jail and prison terms, felony convictions, probation sentences, and parole revocations. Scores between 0 and 1 are considered less serious, scores between 2 and 5 moderately serious, and scores between 6 and 11 very serious. The offense score is a sum of the felony class, the involvement of weapons, and occurence of forcible contact in the current offense.

As indicated in Table 1, the male groups generally showed higher crime history scores than the female groups. The average male scores were in the moderately serious range. Statistical analysis revealed that the male milieu treatment group score was significantly higher. The female groups had scores which were in the less serious range, and

TABLE 1: Background Information

Comparison Groups	N[a]	Age[b]	Race			Education	
			Black	White	Hispanic	≤ 8	≥ 9
Male Groups							
TC Treatment	435	29.8	52.2	21.0	26.8	20.3	79.7
Milieu Therapy	576	31.3[c]	52.4	24.2	23.5	21.9	78.1
Counseling	261	29.6	51.6	22.5	26.0	20.7	79.3
No Treatment	159	28.9	49.7	23.9	26.4	22.9	77.1
Statistic[d]		F = 7.63	chi square = 2.61			chi square = 0.62	
Probability		< .001	n.s.			n.s.	
Female Groups							
TC Treatment	247	30.1	53.4	17.4	29.1	21.2	78.8
Counseling	113	29.6	53.1	27.4	19.5	9.0	91.0
No Treatment	38	28.8	78.9	7.9	13.3	7.9	92.1
Statistic[d]		F = 0.72	chi square = 16.16			chi square = 10.19	
Probability		n.s.	< .005			< .01	

Comparison Groups	Marital Status[e]			Crime Scores	
	Single	Div/Sep	Married	History	Offense
Male Groups					
TC Treatment	39.5	16.3	44.2	2.47	4.06
Milieu Therapy	39.1	13.6	47.4	3.43[f]	4.26
Counseling	31.5	11.2	57.3	2.75	4.31
No Treatment	41.2	14.7	44.1	2.94	4.08
Statistic[d]	chi square = 2.61			F = 10.15	F = 1.52
Probability	n.s.			< .001	n.s.
Female Groups					
TC Treatment	33.0	20.0	47.0	1.42	4.2
Counseling	34.6	25.0	40.0	1.72	4.0
No Treatment	38.9	16.7	44.4	1.10	3.8
Statistic[d]	chi square = 1.12			F = 1.54	F = 0.88
Probability	n.s.			n.s.	n.s.

a. N represents the total sample size for each of the study groups. Sample size may vary for individual variables.
b. Age was calculated at the time subjects were released from prison.
c. Milieu males are significantly older than males in each of the other groups.
d. Comparisons of pairs of group means were done using the Student-Newman-Keuls range test (p = .05).
e. Marital status excludes approximately 800 cases.
f. The male milieu group has a higher criminal history score than all the other male groups.
n.s. = not significant

TABLE 2: Time Variables (in mean number of months)

Comparison Groups	*In Program*	*In Prison*	*Prison Postprogram*	*On Parole Supervision*
Male Groups				
TC Treatment	7.2[a]	30.5	6.8[d]	34.7
Milieu Treatment	8.2[b]	37.8[c]	5.9	40.6[e]
Counseling Treatment	5.3	31.5	4.8	41.3
No Treatment	n.a.	34.5	n.a.	41.2
F Statistic	21.6	10.6	5.0	3.2
Significance	< .001	< .001	< .01	< .05
Female Groups				
TC Treatment	6.5	24.0	6.5	33.4
Counseling Treatment	5.3	31.7[f]	6.2	34.5
No Treatment	n.a.	19.1	n.a.	30.5
F Statistic	4.8	11.3	0.2	0.2
Significance	< .05	< .001		

a. The TC group spent significantly more time in program than the counseling group.
b. The Milieu group spent significantly more time in program than the counseling or TC groups.
c. The Milieu group spent significantly more time in prison than the counseling or TC groups.
d. The TC group spent significantly more months in prison after treatment than the counseling group.
e. The Milieu group had significantly more months on parole supervision than the TC group.
f. The Female counseling group spent significantly more months in prison than the female TC and no-treatment groups.

there were no significant differences among the groups. The offense scores were similar for all male and female groups, with no significant differences.

There are several important time variables in this research. Of primary concern is the effect of the time in program on outcome. Table 2 shows the background time variables for all of the male and female groups. The variables include months in program, months in prison (current sentence), months in prison postprogram (i.e., the time be-

tween program termination and release from prison), and months on parole supervision (i.e., time from prison release to expiration of parole). To the extent that there are statistically significant differences in these variables between the groups, variations in time could confound the relationship between program treatment and outcome.

The average time in program ranged from five to eight months across the program groups. Among males, the TC and milieu treatment clients' average time in program was significantly greater than that of the counseling treatment group. Time in program for the male milieu treatment clients was also significantly greater than that of the male TC residents (7.2 months). Among the female program groups, the female TC clients had significantly more time in program than the female counseling treatment clients.

Total time in prison for the current sentence was generally longer for males than females. The male groups' average time in prison varied between 31 and 38 months. The male milieu treatment group's average prison time was significantly greater than that of other male groups. The female groups ranged from 19 to 32 months in prison, with the female counseling group spending significantly more time in prison than the TC and no-treatment groups.

Some of the treatment residents returned to the general prison population after they terminated from the program. The time clients spent in prison after treatment may affect parole outcomes if the TC treatment effect is undermined while they are under more punitive prison conditions. The average time in prison after program termination was approximately six months for most of the male and female program groups. Among the male groups, the TC clients spent significantly more time in prison after release from the program than did the counseling program clients. The differences between the female treatment groups were not significant.

Months on parole supervision is a measure of "time at risk"; it is the observation period in which outcomes were recorded. The male groups generally had longer durations on parole supervision than the female groups. Table 2 shows that the male groups ranged between 35 and 41 months on parole supervision. The male milieu treatment group had a significantly longer duration of parole supervision than the TC

treatment group. Months on parole supervision for the female groups ranged between 39 and 35 months, with no significant differences between the groups.

PAROLE OUTCOME FINDINGS

The effects of the TC treatment and other treatment modalities on three parole outcome variables were analyzed. These variables were the percentage of the group arrested, the mean time until first arrest (for those arrested in each group), and the percentage of the group positively discharged from parole. The percentage arrested is the proportion of the group that was arrested at least once while on parole. The time until arrest is calculated as the number of months between the time offenders are released from prison and the time they are arrested for the first time. This variable is used to measure how effective the programs are at delaying criminality among offenders who recidivate. Positive parole discharge is the completion of parole without rule violations, arrests, or revocation. This variable measures the long-term effects of treatment because the average time on parole supervision (i.e., "time at risk") was three years.

The evaluation of parole outcomes consists of three analyses. First, differences between the treatment and no-treatment groups are compared with respect to the three parole outcome measures. This analysis does not control for differences in time in treatment or other background variables. The second analysis assesses the effects of different lengths of time in the TC on the three outcome variables. Finally, a multivariate analysis of the effect of time in TC treatment on time until arrest, controlling for background variables and "time at risk," is reported.

COMPARISONS OF OVERALL TREATMENT EFFECTS

This section presents findings of tests of the hypothesis that treatment in the TC is more effective than other prison treatment modalities and no-treatment. The analyses relating the study groups to each of

TABLE 3: Parole Outcomes

Comparison Groups	Arrested		Mean Months Until Arrested[a]	Positive Parole Discharge[b]	
	n	*percentage*		*n*	*percentage*
Male Groups					
TC Treatment	117	26.9	13.1	157	58.1
Milieu	198	34.6	11.4	164	52.6
Counseling	104	39.8	12.0	69	52.7
No Treatment	65	40.9	15.0	66	60.6
Statistic	chi square = 17.8		F = 2.32	F = 3.40	
Significance	p < .001		p = .07	n.s	
Female Groups[c]					
TC Treatment	44	17.8	12.4	98	77.2
Counseling	33	29.2	14.6	58	68.2
No Treatment	9	23.7	8.6	9	52.9
Statistic	chi square = 5.37		F = 1.03	chi square = 5.35	
Significance	p = .07		n.s.	p = .07	

a. Represents time until arrested for prisoners who were arrested after this release from prison.
b. For parole discharge data, 401 cases are missing for males and 169 cases are missing for females because these subjects had not been discharged by the time the data set was prepared for analysis.

the parole outcomes are discussed by first describing the overall differences between the groups and then statistically comparing the effects of the groups on each of the dependent variables.

Overall Differences

Table 3 shows the three parole outcomes for each of the comparison groups. The pattern of arrests for the males is as hypothesized, namely, the percentage arrested is lowest for the TC (26.9%) and increases as the intensity of treatment decreased (to a high of 40.9% for the no-treatment group). The time-until-arrest variable ranges from a mean of 11.4 months for the male milieu group to 15 months for the no-treatment group. Approximately 60% of the TC group received positive parole discharges, but this rate was not significantly different from the rates for the other male groups.

TABLE 4: Paired Comparisons of Parole Outcomes

Comparison Groups	Arrested			Positive Parole Discharge		
	Number	*Percentage*	*Chi Square*	*Number*	*Percentage*	*Chi Square*
Male Groups						
TC Group	117	26.9		157	58.1	
Milieu	198	34.5	6.71**	164	52.6	1.82
TC Group	117	26.9		157	58.1	
Counseling	104	39.8	12.6***	69	52.7	1.08
TC Group	117	26.9		157	58.1	
All Comparison Groups[a]	367	37.0	13.7***	229	54.2	1.16
Female Groups						
TC Group	44	17.8		98	77.2	
Counseling	33	29.2	6.0*	58	68.2	2.1
TC Group	44	17.8		98	77.2	
All Comparison Groups[b]	42	27.8	5.4*	67	65.7	3.7

a. Includes milieu, counseling, and no treatment.
b. Includes counseling and no treatment.
*p < .05; **p < .01; ***p < .001.

Overall, there were no significant differences among the female groups. Table 3 shows that the female TC group had the lowest percentage arrested (17.8%) and the highest percentage positively discharged from parole (77.2%), and the group differences approached significance ($p < .10$). Although the mean time until arrest for the no-treatment group (8.6 months) was several months less than for the TC group (12.4 months) and the counseling group (14.6), these differences were not statistically significant.

Percentage Arrested

Table 4 shows the results of statistical tests comparing the percentage arrested (and the percentage positively discharged from parole) between the TC group and the other groups. Among the male study groups, the TC was substantially more effective in reducing the percentage arrested than the comparison treatment groups and the no-treatment group.

The female TC was also significantly more effective in reducing the percent arrested in comparison to the counseling group ($p < .05$). However, there was no statistical difference between the percentage arrested in the female TC group (17.8%) and the no-treatment group (23.7%). The small sample size for the no-treatment group ($n = 38$) may have attenuated the chi square statistic, even though the direction of the relationship is as hypothesized.

Percentage Positively Discharged from Parole

The percentage positively discharged for the male TC was somewhat higher than for the alternative treatments. Although the male no-treatment group had the highest percentage positively discharged, it was not statistically significant compared to the TC group.

The data in Table 4 show that the percentage positively discharged from parole among the female groups was in the direction hypothesized, that is, the TC program had the highest percentage (77.2%), followed by the counseling group (68.2%) and the no-treatment group (52.9%). Although the female TC group had a significantly higher percentage positively discharged from parole than the no-treatment group ($p < .05$), the difference between the TC and counseling groups was not statistically significant.

Time Until Arrest

Time until arrest is used as an indicator of the extent to which treatment delays criminal behavior. The relationship between the study groups and time until arrest, as reported in Table 3, does not support the hypothesis that TC treatment delays arrest while on parole. Among the male groups, there is a tendency for the TC treatment to delay arrest more than the other treatment modalities, but no more than the no-treatment condition. No such tendency was found for the female group. The failure to find a relationship between the study groups and time until arrest may be attributed to the fact that the parolees who were arrested represent a biased sample, that is, they have failed.

TIME-IN-PROGRAM EFFECTS

Program participants were divided into five subgroups according to the amount of time they were in treatment (less than 3 months, 3 to 5.9 months, 6 to 8.9 months, 9 to 11.9 months, and over 12 months). Extensive analyses were done of the time-in-program effects on percentage arrested, time until arrest, and percentage positively discharged from parole. All statistical tables and figures may be obtained by contacting the senior author. For the purposes of description and the sake of parsimony, we will outline the significant effects and provide a few sample figures that graphically depict the consistent time-in-program effect.

The general data pattern was that as time in the Stay'n Out program increased up to a year, positive parole outcomes increased, followed by less positive outcomes for those who stayed longer than a year. The basic quadratic pattern demonstrated by males and females is shown in Figure 1 (for males).

Time Until Arrest

Figure 1 graphically shows the effect of the time-in-program variable on time until arrest for each of the male treatment groups. The trend for the TC group appears to be an increase in the average time until arrest as the time in program increases. For clients in the program under three months, the average time until arrest was approximately nine months; for those in the program between 9 and 11.9 months, the average time until arrest increased to a peak of 18 months; and for those in the program over 12 months, time until arrest decreased to an average of 14 months. The downward trend until arrest after 12 months suggests that for the TC male group there is a quadratic relationship between time-in-program and time until arrest. That is, as time-in-program increases, time until arrest rises and then falls.

Regression analyses relating time until arrest to the quadratic form of time-in-program were conducted for the male TC group. The quadratic term for time-in-program, which reflects the 9 to 11.9 month peak in time until arrest, provides a significant contribution to time until arrest ($R^2 = .058$, $p = .031$). The relationship between time in program and time until arrest was less defined for the females.

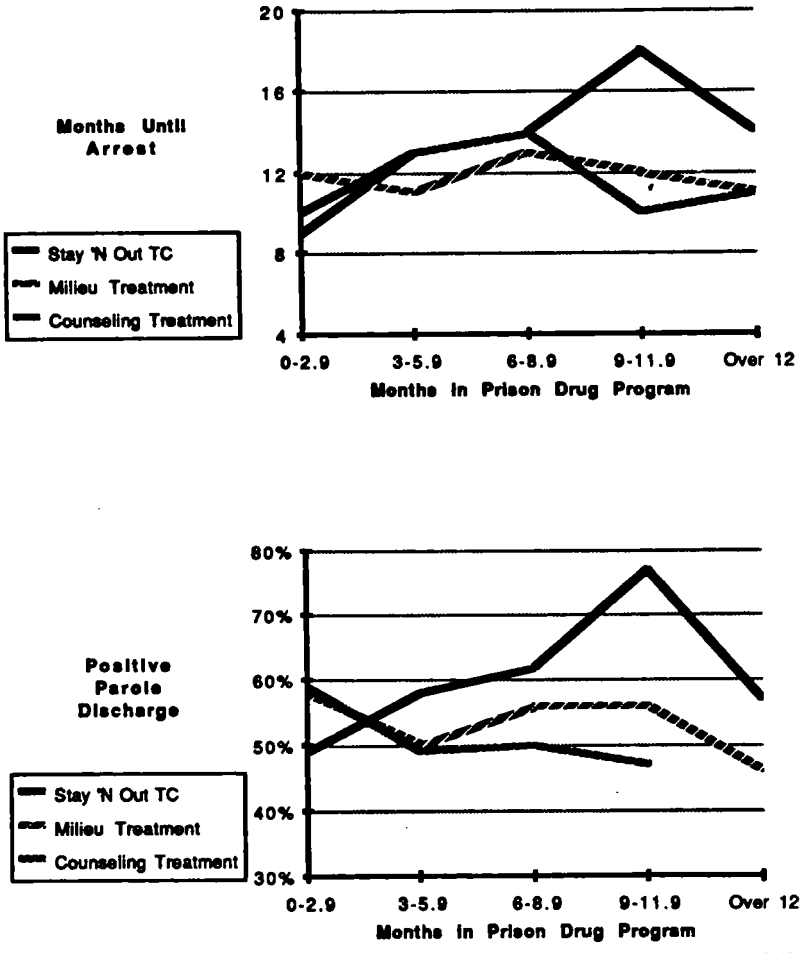

Figure 1: Time until arrest and positive parole discharge by program by time in treatment: males.

Percentage Positively Discharged from Parole

Analyses of time-in-program effects on the percentage positively discharged from parole revealed impressive findings. The pattern of results resembles the time-until-arrest data reported earlier. There appears to be a strong positive relationship between months in pro-

gram and the percentage positively discharged from parole for the male TC group in treatment for up to 12 months. The percentage of male TC positive parole discharges increased from 49% for the under-three-month group to a peak of 77% for the 9-to-11.9-month group and then decreased to 57% for the over-12-month group. The relationship between the percentage positively discharged from parole and time in program fluctuates for the other treatment groups.

The female data resemble the male results. Female time-in-program data show an increase in positive parole outcomes from 79% for under three months to a peak of 92% for 9 to 11.9 months. This is followed by a decrease to 77% for clients who remained in the program over 12 months.

MULTIVARIATE ANALYSIS

Multivariate analyses (multiple regression) were conducted to statistically evaluate the time-in-program results and to assess whether the basic time-in-program findings were independent of or related to other factors such as age or criminal history.

The dependent variable in the multivariate analysis was time until arrest for TC males after they had been released from prison (female clients were excluded because the number of cases was not adequate for statistical analysis). Multivariate analyses (logistic regression) of the percentage arrested and the percentage positively discharged from parole were conducted. These findings are not reported here because tests of the model (relating these outcomes to time-in-program and client background characteristics) did not prove statistically significant.

Two sets of independent variables were entered in a stepwise multiple regression analysis of time until arrest for TC males. Background factors included age, total criminal history score, and the length of time in prison after treatment. These variables were included in the model because differences in their means were statistically significant. The second set of variables measured time in TC treatment. Because time until arrest appears to increase for those in the TC for up to one year and then declines for those who stayed in the program for over 12 months, the TC time-in-program variable was

TABLE 5: Time Until Arrest (Multiple Regression Analysis)

Variable / *Statistic*		*B Coefficient*	*Beta*	*F*
Age		.483	.323	41.354**
Duration of Parole Supervision		.078	.220	22.832**
Criminal History Score		-.618	-.162	9.994**
Postprogram Prison Time		-.164	-.128	7.262**
TC Treatment		-5.983	-.268	6.814**
Milieu Therapy Treatment		-3.285	-.157	3.303
Counseling Treatment		-3.194	-.120	2.278
Time in TC		.859	.383	5.344*
Time in Milieu		-.151	-.085	1.798
Time in Counseling		-.128	-.036	.321
Time in TC, squared		-.033	-.279	4.878*
Constant		-1.295		
Multiple R	.434			
R Square	.188			
Adjusted R Square	.166			
Standard Error	9.390			
F	8.600**			

*p < .05; **p < .01.

entered in its quadratic form, that is, both as linear and squared functions.

Table 5 shows the results of the multiple regression analyses. Age and criminal history scores are significantly related to time until arrest. The negative association between time until arrest and prior record may result because more serious offenders are arrested sooner than others. The positive relationship between time until arrest and age indicates that older offenders who are arrested take slightly longer to recidivate.

The most important findings are that the time-in-program variable for TCs is significant and positively related to time until arrest, as hypothesized, and that time-in-program squared is negatively related to time until arrest. That is, the time until arrest is greater for residents who complete the program in less than 12 months than for those who are released after 12 months. The regression analysis shows that when potentially confounding variables associated with time until arrest are

controlled, the basic results in the univariate analysis are supported. Although the explanatory power of the equation is moderate ($R^2 = .21$), the hypothesis that increases in time-in-program (up to 12 months) would increase time until arrest is supported.

Analyses of reincarceration data for the same groups (up to nine years after release) provided results that were highly similar to the parole outcome data. Detailed analyses of the reincarceration findings are included in a National Institute on Drug Abuse Report (Wexler, Falkin, & Lipton, 1988).

DISCUSSION

This is the first large-scale, long-term study that provides convincing evidence that prison-based TC treatment can produce significant reductions in recidivism rates. The three propositions examined received empirical support. These were: (1) the Stay'n Out program was effective in reducing recidivism rates (that is, treatment in Stay'n Out was more effective than no treatment in prison), (2) the TC approach was more effective than other prison treatment modalities (e.g., milieu therapy, counseling) in reducing recidivism, and (3) the longer Stay'n Out clients remained in the prison TC program, the more successful they were after release.

The major findings are that the TC was effective in reducing recidivism, and this positive effect increased as time in program increased but tapered off after 12 months. These findings suggest a dosage model wherein greater exposure to treatment produces a positive effect up to the point of satiation. Positive completion of parole, no arrest, and time until arrest increased with time spent in Stay'n Out but not in the other treatment modalities. These decreases in recidivism after treatment in Stay'n Out are consistent with earlier studies of the program that showed reductions in parole revocations (Wexler & Chin, 1981; Wexler et al., 1985). The time-in-program findings replicate and support similar findings in outcome studies of community-based TCs (De Leon et al., 1979; Simpson, 1978, 1980).

Perhaps the most provocative finding was the unexpected decline in positive outcomes for the over-12-month TC clients. Discussions

with program staff provided a potential explanation for the unexpected time-in-program result. Stay'n Out is based upon the classic hierarchical TC model (e.g., Phoenix House), which engages clients in a highly structured treatment environment that emphasizes personal development, internalization of prosocial values, and a strong sense of responsibility. Upon admission, clients are given low-level jobs and are granted little status. During the early phases of treatment, they are provided opportunities to earn higher level positions and increased status through sincere involvement in the program and hard work. When clients have spent 12 months in nonprison TCs, they usually begin the reentry phase, in which they go into the community and try out their TC "tools" under the guidance of program staff.

Within prison, however, the New York State Parole Board controls release into the community. Thus, when clients who are ready for reentry are denied parole, they are forced to remain in a situation that is disappointing and frustrating. After being in the program for 12 months, there are no further status levels in the Stay'n Out program to which they can aspire. Stay'n Out staff report that if the appropriate time for reentry (after approximately 9 to 12 months) is missed, clients become disillusioned and gradually reduce their involvement in the TC. Program staff believe that these disillusioned clients are less likely to benefit from further prison TC treatment and less likely to enter community treatment programs after release.

The very important and clear time-in-program effect found in this research, along with the 9-to-12-month optimal treatment durations, is not in agreement with some other prison rehabilitation studies (see Izzo and Ross, this issue). However, these studies did not include substance abusers and used other types of treatment approaches. The time-in-program effect is well-established in the substance abuse literature (De Leon et al., 1979, 1982; Simpson, 1978, 1980).

Reviews of the prison rehabilitation literature (Gendreau & Ross, 1979, 1987; Wexler, Lipton, & Johnson, 1988) have identified several elements that successful treatment programs have in common. They (1) are based on social learning theory, (2) employ authority structures with clear rules and sanctions, as well as anticriminal modeling and reinforcement of prosocial behavior, (3) train clients in pragmatic personal and social problem solving, (4) have program staff utilize

community resources, (5) encourage empathic relationships between staff and clients that are characterized by open communication and trust, and (6) employ ex-offender and ex-addict counselors to serve as credible role models of successful rehabilitation. Stay'n Out provides an example of a successful program that employs these treatment principles (see Wexler & Williams, 1986).

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Highlights of Studies Cited in the Institute of Medicine Summary

1. Harwood, H.J., Hubbard, R.L., Collins, J.J. and Rachal, J.V. The costs of crime and the benefits of drug abuse treatment: a cost-benefit analysis using TOPS data. pp. 209-235 in C.G. Leukefeld and F.M. Tims, eds., Compulsory Treatment of Drug Abuse: Research and Clinical Practice. NIDA Research Monograph 86. Rockville, MD: National Institute on Drug Abuse, 1988.

   This study examined the reduced crime-related impacts on society that result from drug treatment using the Treatment Outcome Prospective Study (TOPS) data base, a longitudinal study of more than 11,000 clients who entered residential TC's drug free outpatient treatment programs, outpatient detoxification, and methadone programs during 1979-1981. They found that TC treatment, as with methadone treatment, virtually pays for itself during the time it is delivered, owing to the reduced criminal activity of clients in treatment relative to either their pre- or post treatment periods (analogous to the incapacitation effect of incarceration). Further benefits accrue after leaving treatment. Using the costs of crime as the primary measure, the final benefit/cost ratio for TC's was 3.8 to 1; the ratio was 2.1 to 1 when a more conservative employment-oriented measure was applied.

2. Griffin, K.S. The Therapeutic Community: A Cost-Benefit Analysis. Philadelphia, PA: Gaudenzia, 1983.

   A cost/benefit study of the Gaudenzia House therapeutic community compared the expense of operations over a five-year period with the benefits from reduced criminal activity and increased social productivity. The analysis distinguished the benefits that derive from treatment "successes" and "failures", finding positive ratios of benefits to costs for both groups: 9 to 1 for "successes" and 3.4 to 1 for "failures". Benefits accrue even for "failures" since during treatment clients are unable to commit as many street crimes as they would have if not in residence.

3. Rufener, B.L., Rachal, J.V., and Cruze, A.M. Vol.2: Costs to Society of Drug Abuse. Technical paper, Rockville, MD: National Institute on Drug Abuse, 1977b.

   This study analyzed the Drug Abuse Reporting Program (DARP) data base, a nationwide study of therapeutic communities in the early 1970's. It found that TC's

generally produce greater differentials than methadone or outpatient nonmethadone treatment in terms of legitimate income and employment status after treatment versus before. Methadone was decidedly more cost-effective -- measured as the cost per added day of desirable outcome -- because it was cheaper.

4. Rufener, B.L., Rachal, J.V., and Cruze, A.M. Management effectiveness measures for NIDA drug abuse treatment programs. Vol.1: Cost-Benefit Analysis. DHEW Pub. No. (ADM) 77-423. Rockville, MD: National Institute on Drug Abuse, 1977a.

   This assessment only focused on benefits after treatment (ignoring benefits during treatment) and attempted to identify benefits that accrue to the client, the government, and society as a whole. It estimated the combined ratio of post-treatment benefits to TC costs at 1.9 to 1.

5. Maidlow, S.T., and Berman, H. The economics of heroin treatment. American Journal of Public Health, 62(10), 1397-1406, 1972.

   The authors' simulation showed that a TC produces $213,000 of economic benefits to society per client at a cost of $14,700 -- a benefit/cost ratio of 14.5 to 1. They concluded that TC's are highly cost-beneficial compared to prison, which are much more expensive and have high recidivism rates.

(The benefit/cost ratios of studies 4 and 5 may be positively biased. The assumptions upon which they were based appear overly optimistic in light of what is now known about treatment retention and effectiveness.)

Phoenix House Foundation, Inc./164 West 74 Street, New York, New York 10023/(212) 595-5810

Phoenix House

OFFICE OF THE PRESIDENT

September 9, 1993

Mr. Jose Cerda
Domestic Policy Staff
The White House
Washington, D.C. 20500

Dear Jose:

It was good of you to share a draft of your interim policy paper with me and give me an opportunity to comment on the Administration's initial thoughts about fighting against drugs.

I was delighted to see you point out in the preface that:

- the heaviest users of drugs are responsible for our greatest drug problems;
- hard-core users now make up a greater portion of the drug-abusing population;
- the impact of drug use by these hard-core users creates huge social costs; and,
- hard-core drug use, particularly among the disadvantaged, has stubbornly resisted anti-drug efforts.

Still, the overall impact of the preface may prove misleading. Readers who go no further than Director Brown's signature will see, in the eleven points listed as "what we will do different," only one reference to treatment -- and that as part of the health care reform plan -- plus a statement about the "certainty of punishment" far less thoughtful (and compassionate) than the position outlined later in the paper.

SIGNIFICANT CONCERNS

There are, however, other parts of the paper I feel it is more important to reconsider. The first comes at the start of Part I -- the section on "Reducing Demand" -- following your laudable stand on requiring treatment even of those drug abusers who resist it. Atop the Administration's demand reduction agenda, as Step One, you have put the enactment of legislation creating a basic package of health care benefits that would include drug abuse treatment. Step Two on this list is targeting hard-core drug use. And, while there is merit to both these initiatives, the paper implies a relationship between the two that does not exist. Step One will do little to further Step Two, and it is Step Two that addresses what you identify as our greatest drug problem.

Ensuring Appropriate Treatment for Hard-Core Abusers

Although the Administration's proposed health care program may evolve in ways that adequately respond to the substance abuse treatment needs of most Americans, it is not a realistic way of meeting the formidable and comprehensive needs of heavy, high-risk (or hard-core) abusers, who are most responsible for crime, violence, and other manifestations of social disorder. Treatment of choice for these abusers -- and there are now close to two million of them -- is the long-term, residential, therapeutic community regimen. This treatment modality is only incidentally medical, involves a broad array of educational, vocational and social services, and is more reasonably perceived as social programming than as health care. More significantly, it does not seem likely that the health care program now taking shape will encompass long-term residential treatment for substance abuse.

Sustaining the ADM Block Grant Program

Should the health care program not pay for long-term residential treatment, some other mechanism would be needed to provide federal funding for the treatment of heavy, high-risk drug abusers. Most such support is presently provided by the ADM Block Grant program. And I think the paper would be strengthened significantly were it to give assurance of continued Administration support for appropriate treatment and rehabilitative services -- outside the new health care program -- for adult and adolescent drug abusers considered high risk, hard-core, or disordered.

Setting Treatment Goals

The treatment needs of high-risk abusers should also be recognized in the paper's formulation of treatment goals (under Step One on Page 10). These abusers could well constitute as many as half the four million persons that HHS estimates as meeting the clinical criteria for drug dependency and abuse. It may, therefore, be misleading to cite ONDCP estimates of the treatment system's dynamic capacity (the 1.4 million who can be treated each year). There are few more than 600,000 treatment slots of any kind in the country. And the average annual utilization rate of about 2.3 persons per slot -- which gives us the dynamic capacity estimate of 1.4 million -- is not a factor we should consider when the nation's major need is for treatment that ideally lasts about 18 months.

The priority the Administration gives to closing the gap between treatment demand and treatment capacity should reflect the targeting of hard-core drug use and focus on the treatment needs of hard-core abusers. Among the 600,000 treatment slots in this country (many in programs providing services that can, only charitably, be considered treatment), there are no more than 11,000 therapeutic community beds, and it would not be excessive to set, as a treatment goal, the addition of 100,000 such beds for disordered drug abusers (in both prison and the community).

Need for these beds already exists, and many of the proposals in this paper will serve to increase this need. With more police on the street, drug use becomes more costly or dangerous, and demand for treatment rises. The first products of an aggressive prevention program are candidates for treatment. And we can't expand the criminal justice system's treatment alternative programs without adding treatment capacity.

Acknowledging Existing Research

The final major issue that I feel warrants reconsideration is the assumption throughout the paper that additional research is needed to answer fundamental questions about the cost, quality, and effectiveness of drug abuse treatment. An extraordinary amount of research has been done over the past quarter century, documenting the effectiveness and cost-effectiveness of the older treatment modalities, particularly therapeutic communities and methadone maintenance.

COMMENTS

Preface

Lines 92-94: I suspect that increasing availability of the most needed forms of drug abuse treatment is not the purpose, nor is it likely to be within the capacity, of the national health plan.

Lines 101-105: It would more accurately reflect the paper's overall position were you to highlight here the certainty of an appropriate response to drug law offenses, which need not be punishment and might well involve mandatory treatment.

Reducing Demand

Targeting hard-core drug use would seem a better First Step in reducing demand than enacting health care legislation.

Lines 205-211: Use of the 1.4 million dynamic capacity seems misleading (for the reasons cited above) and, considering the nature of the problem today, increasing treatment capacity for heavy, high-risk abusers would seem an unavoidable priority for the Administration.

Line 210: Here the paper might refer to those who need treatment as well as want it.

Lines 212-220: The problems of this proposition are described above.

Lines 221-232: The savings made possible by drug abuse treatment go well beyond those cited here. I would suggest a broader look at the costs of drug abuse and the benefits of treatment. The section on cost-benefit ratios in the attached Institute of Medicine report would be a good place to start.

Lines 305-313: Here is the thinking that I believe should be reflected in the preface, which now speaks about the certainty of "punishment."

Lines 314-318: A more detailed and generous report on evidence of effectiveness (see research comments that follow) seems called for here.

Under Step Two in the Demand Reduction section, the discussion of solutions to heavy drug use seems overly focused on drug abusers within the criminal justice system. It might strengthen this section to look more closely at drug abusers within the community

and the role to be played by other institutions -- schools, shelters, clinics, and social service agencies -- in identifying and helping to move disordered drug abusers into treatment.

When the needs of children are addressed in this section, the focus is exclusively on prevention with no acknowledgment of the substantial number of drug-disordered youngsters in need of treatment.

Focusing Policy on What Works

I find it troubling that the paper speaks of a need "to move beyond philosophical discussions and identify and fund only those anti-drug programs that work," when the reality is that we already know a great deal about programs that work.

Coming to you by Federal Express are sections of the chapter on treatment effectiveness from the 1990 Institute of Medicine report Treating Drug Problems that examine methadone maintenance and therapeutic communities. In addition I am enclosing:

- The 1992 Phoenix House Outcome Study, "The Therapeutic Community: Services and Improvement Rates 5 Years After Treatment" that demonstrates the importance of time spent in treatment and shows how treatment gains are sustained long after treatment ends;

- The outcome evaluation of the Stay 'N Out Program, "Outcome Evaluation of A Prison Therapeutic Community for Substance Abuse Treatment", that shows how therapeutic community treatment in prison can reduce recidivism;

- And a paper prepared at Phoenix House that summarized the cost-benefit studies cited in the Institute of Medicine report.

Lines 679-681: Rather than states and localities, it is communities and community agencies of all types -- including nonprofit providers of community-based treatment -- who might more accurately be said to be at the forefront of the fight against drugs.

Much of the language in the section on "Pursuing a Research-Based Drug Policy" (particularly lines 716-724) reinforces the notion that little is known about treatment effectiveness and the cost-efficient operation of treatment programs.

Lines 713-715: I should note that it is probably a cocaine antagonist (rather than "cocaine antibodies") that researchers are seeking to develop. However, I would be wary of vesting too heavily in the possibility of chemical solutions to behavioral problems.

In suggesting greater involvement of historically black colleges and universities with the Counter-Drug Technology Assessment Center (CTAC), priority might also be given to training for drug abuse counselors and other addiction workers.

I hope I haven't submitted your draft to more scrutiny than you intended. But I would feel remiss were I not to take full advantage of the opportunity you gave me. Please let me know if there are any points you want clarified or any other way in which I might help.

Sincerely,

Mitch

Mitchell S. Rosenthal, M.D.

MSR:dg

Drug Treatment Funding

- The President's 1994 budget request for drug treatment services was over $2.5 billion, an increase of $170.4 million (7%) over the 1993 level. Both the House and the Senate had conflicting views in the amount of adequate resources for drug treatment in FY 1994.

- The House recommended enormous cuts in the Block grant ($-33.6 million) and the Capacity Expansion program. The Block grant cut alone meant that 15,000 fewer persons would receive drug treatment. When this recommendation is taken into account with the CEP House mark ($-66.8 million), the net effect is that nearly 50,000 fewer persons would be treated.

- After learning the impact of the House marks, the Director of ONDCP began to work with the Senate to ensure funding restoration for this high priority treatment programs. Letters were sent to Senator Harkin and Congressman Natcher. Mr. Panetta agreed to these letters. Dr. Brown personally met with Mr. Natcher on the issue. (Attached)

- As a result, the conference committee increased the Block grant by $47 million over the President's 1994 Budget request, allowing for drug treatment services for an additional 21,000 persons. While the CEP was not fully restored, enough funding was sustained in order to continue existing grants.

- It is important to note, however, since the CEP was cut by $76.8 million, the net effect is that 25,000 fewer persons will receive treatment than what was requested in the President's Budget.

- Part of the problem is that there is a lack of commitment by the OMB to increase resources for drug treatment. On several occasions, OMB staff indicated that drug treatment is not considered a Presidential priority. However, the 1994 Budget request to Congress clearly defines drug treatment as a Presidential initiative. OMB has yet to get the message.

- The Interim Strategy, released two weeks ago, emphasizes the need for drug treatment and highlights the Administration's commitment to expanding drug treatment services, particularly for the hard-core user.

- Dr. Brown is currently working on his FY 1995 Budget request for drug initiatives. It will include enhanced resources for drug treatment, particularly for the hard-core user and other hard to reach populations.

11/2/93

FORMULA GRANT FUNDING

QUESTION

What were the FY 1994 President's request for the HHS, Justice and Education Formula grants? What were the enacted levels? What is the impact of these enacted levels?

ANSWER

- The FY 1994 President's request was $1.131 billion for the Substance Abuse Prevention and Treatment Block grant which is administered by HHS, $423 million for the Byrne Formula grant which is administered by Justice and $498.6 million for the Drug-Free School and Community Block grant which is administered by the Department of Education.

- Congress appropriated $1.177 billion for the Substance Abuse Prevention and Treatment Block grant of which $10 million is to be transferred from the ONDCP Special Forfeiture Fund. This is an increase of $46.6 million over the FY 1994 President's Budget request.

- Congress only appropriated $358 million for the Byrne Formula grant, a decrease of $65 million (15%) from the FY 1994 President's Budget request.

- Congress only appropriated $369.5 million for the Drug-Free Schools and Community program, a decrease of $129.1 million (26%) from the FY 1994 President's Budget request.

- The number of persons being treated for drug abuse under the Congressional action will decrease by over 24,000 persons than what was requested by the President. Although funding for the Block grant increased, funding for the Capacity Expansion program was dramatically reduced, negatively impacting the number of persons that could be treated.

- As a result of the decrease in the Drug-Free Schools and Communities formula grant, it is estimated that 16 million fewer children will receive prevention and drug education in the schools.

QUESTION

What were the House, Senate and Conference Marks for the HHS Block grant? CEP?

ANSWER

($ in millions)

The marks for the Block grant were as follows:
(The Delta for the Senate and Conference mark are compared to the House marks.)

PB request	House	Delta	Senate	Delta	Conference	Delta
1,130.5	1,096.9	-33.6	1,190.5	+93.6	1,167.1	+70.2

There is also a +10.0 million transfer from SFF.

Note: Funding scored for drugs is about 71% of the total. Therefore, the conference mark for drugs is about $828.6 million, an increase of $49.8 million.

Capacity Expansion Program

PB request	House	Delta	Senate	Delta	Conference	Delta
88.9	22.1	-66.8	10.0	-11.1	10.0	-12.1

DRUG TREATMENT FUNDING

QUESTION

Funding for drug treatment has been dramatically cut during the FY 1994 Congressional Conference process. What have you done to ensure that adequate resources were available for this population? What do you plan to do to address this problem in the future?

ANSWER

- The President's 1994 budget request for drug treatment services was over $2.5 billion, an increase of $170.4 million (7%) over the 1993 level. Both the House and the Senate had conflicting views in the amount of adequate resources for drug treatment in FY 1994.

- Throughout the appropriations process, I kept track of the Congressional recommendations for the drug treatment programs, specifically those falling under the auspices of HHS. I learned that the House was recommending enormous cuts in the Block grant and the Capacity Expansion program. In turn, I met with, and sent letters to Congressman Natcher expressing my grave concerns with the House recommended funding levels. I also explained that the Block grant mark alone would mean that 15,000 fewer persons would receive drug treatment. When taken into account with the CEP House mark (-$66.8 million), the net effect is that nearly 50,000 fewer persons would be treated. I could not support such cuts.

- After learning the impact of the House marks, I immediately began to work with the Senate to have some of the funding restored for drug treatment. I spoke with, and sent letters to Senator Harkin expressing my concerns of this outrageous action.

- As a result of my actions, the conference committee increased the Block grant by $47 million over the President's Budget request, allowing for an additional 21,000 persons to receive drug treatment services. While the CEP was not fully restored, the conference committee, at my request, sustained adequate funding for the continuation of existing grants.

- While the net effect of the conference mark is that 25,000 fewer persons will receive drug treatment services than requested in the President's budget, I was instrumental in getting some of the funding restored, as well as ensuring that existing services would be sustained for capacity expansion program grantees.

- This Administration is committed to treatment expansion, particularly for those that are most vulnerable and at-risk, specifically the hard-core, criminal justice and pregnant addicts. My FY 1995 budget recommendations to the President will support enhanced and targeting funding for these populations.

FORMULA GRANT FUNDING

QUESTION

What were the FY 1994 President's request for the HHS, Justice and Education Formula grants? What were the enacted levels? What is the impact of these enacted levels?

ANSWER

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- The number of persons being treated for drug abuse under the Congressional action will decrease by over 24,000 persons than what was requested by the President. Although funding for the Block grant increased, funding for the Capacity Expansion program was dramatically reduced, negatively impacting the number of persons that could be treated.

- As a result of the decrease in the Drug-Free Schools and Communities formula grant, it is estimated that 16 million fewer children will receive prevention and drug education in the schools.

OFFICE OF NATIONAL DRUG CONTROL POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
Washington, D.C. 20500

July 16, 1993

MEMORANDUM TO DR. BROWN

FROM: BRUCE CARNES

SUBJ: CUTS IN FY94 HHS PROGRAMS

Here is the status of deliberations at HHS on treatment funding for FY94.

As you know, the House cut the SAMHSA block grant by $33M. The Capacity Expansion Program was cut $67M. NASADAD has applied a lot of pressure to get the block grant restored.

The Public Health Service budget staff was asked by Peter Edelman to develop a proposal to restore funding to the block grant. The proposal would restore a total of $12.8M to the block grant by taking further reductions in the Capacity Expansion Program (-$6.8M), the High Risk Youth Program (-$5M), and the National Capital Demonstration Program in D.C. (-$1.0M). These cuts would take the three programs back to their FY93 levels.

The proposal has not yet formally been submitted through PHS to Peter, though his office has a draft.

I indicated that ONDCP would like to be involved in these deliberations and that, when they had a proposal, ONDCP would like to be consulted officially.

The staff indicated that the proposal seemed to be one that everyone could live with. I commented that the proposal would help soothe NASADAD, but that the cuts would be borne in programs serving the most disadvantaged and hard-core users, and that that was a concern they should factor in. Moreover, inasmuch as you treat 3 persons through the CEP program for every one you treat through the block grant, there would be a further reduction in individuals receiving treatment.

* * * * *

On a different subject, NIDA released the results from the

special tabulation by Lloyd Johnston of High School Senior Survey data without informing the Department, PHS, or us. We're sending you a write-up of the main findings separately.

cc: McMahon
Schecter

Several states are reporting success in getting more pregnant women into treatment; a few have shown that program participants are delivering drug-free babies.

CHILDREN, FAMILIES

State Programs for Substance-Using Pregnant Women Showing Promising Results, Says New NGA Report

Nearly every state is devoting considerable energy to finding appropriate ways to help pregnant women who are misusing alcohol and other drugs and several state programs are showing promising results, according to a new NGA study.

The NGA report, *Creating Systems of Care for Pregnant Substance-Users and Their Children*, highlights 10 states with innovative programs in this area.

The 10 programs—in California, Florida, Illinois, Maryland, Massachusetts, Michigan, New York, Oregon, South Carolina, and Washington—use comprehensive approaches to help meet the multiple health, substance abuse treatment, and social needs of pregnant and parenting women who are inappropriately and/or illegally using alcohol and other drugs. The approaches differ from state to state, but all programs have:

- significantly expanded the number and availability of treatment services;
- minimized punitive, criminal justice responses to the perinatal substance use problem; and
- emphasized prevention and treatment interventions.

Although many of these programs have been in place only a short time, several states are already reporting success in getting more pregnant women into treatment; a few have shown that women participating in their programs are delivering drug-free babies.

The report says that while more research is needed to fully comprehend the nature, extent, and impact of perinatal substance use, a great deal already is understood. As many as 11 percent of the babies born each year have been exposed to illicit drugs in utero; many others are exposed to alcohol and tobacco.

The report also notes that substance use during pregnancy—besides increasing the risk of medical and developmental complications—also has substantial implications for the states' social services, child welfare, and criminal justice systems.

It cites many state and federal initiatives that have made substance-using pregnant women and their children a priority, focused more resources on meeting their needs, and improved their health. However, it also notes that significant problems persist in the accessibility, capacity, and coordination of programs for pregnant substance users and their children.

Solving these problems, says the report, will require the creativity and expertise of policymakers and practitioners at all levels of government and in different agencies, including Medicaid, maternal and child health, alcohol and drug abuse, and child welfare agencies.

To address the problems effectively, says the report, the agencies will need to continue to expand, enhance, and coordinate the resources and expertise of the health care, substance abuse treatment, child welfare, and social service systems. ■

Copies of the report are available for $15.00, plus $4.50 for shipping and handling, from NGA Publications, P.O. Box 421, Annapolis Junction, MD 20701, 301/498-3738.

Comprehensive Approaches in 10 States

California. The state's "Options for Recovery" projects provide a range of substance abuse treatment, health and support services, foster care training, and respite care services.

Florida. The state's services include women's intervention specialist services, residential and day treatment services, child care, vocational and educational counselors, and a continuum of care for exposed infants.

Illinois. The state has expanded Medicaid-covered services, modified its infant mortality initiative, and created more than 40 comprehensive treatment programs for women.

Maryland. The state expanded its enhanced prenatal program for Medicaid-eligible women and obtained special federal demonstration grant monies to implement and test innovative models for treating this group.

Massachusetts. The state developed a continuum of care that includes enhanced detoxification programs, specialized residential and day treatment programs, and intensive outpatient services.

Michigan. The state's efforts include expansion of Medicaid-covered services, a pilot health care and drug treatment program, and infant support services.

New York. Special projects implemented by the state emphasize local coordination among service agencies and include strong outreach components.

Oregon. By integrating multiple funding sources, Oregon has added residential treatment beds, output patient services, and after-care projects to its services.

South Carolina. The state has expanded the scope of Medicaid-covered services, established an Office of Women's Services, and implemented several demonstration projects.

Washington. The state established a template for the provision of accessible and coordinated maternity, support, and substance use treatment services.

Drug Treatment: Closing in on the Target

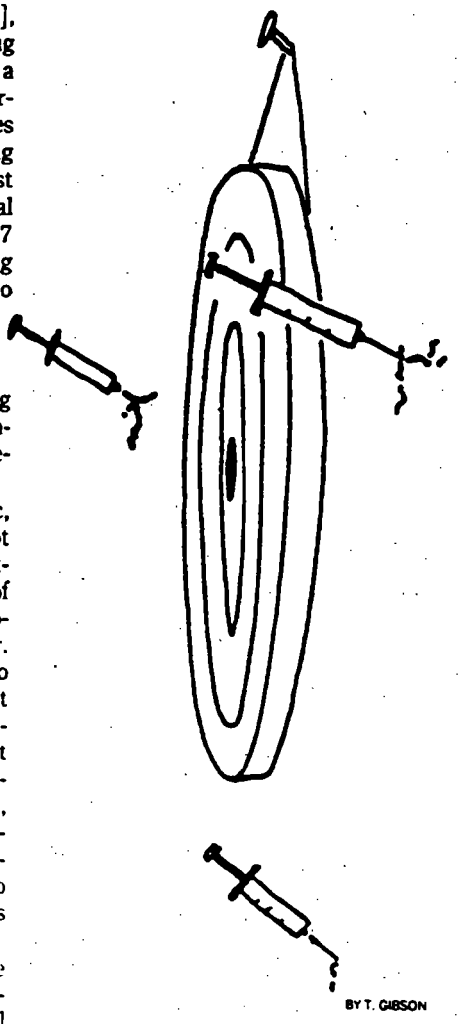
I applaud The Post's editorial "Does Treatment Work" [May 4], which embraces drug courts, drug treatment for prison inmates and a general expansion of treatment services. This administration believes that treating chronic, hard-core drug users is both compassionate and cost effective. According to the National Institute on Drug Abuse, we save $7 for each dollar we spend on drug treatment—$4 in reduced costs to the public and $3 in increased productivity. Also, as the editorial points out, longitudinal studies have shown that when drug abusers enter treatment, their commission of crime is significantly reduced.

Successful treatment of chronic, hard-core drug users will require not only long-term commitment and attention but also the best application of treatment modalities, psychopharmocologicals and technology transfer. For example, one new approach to monitoring the success of treatment programs and coordinating the delivery of services is by linking treatment facilities through an information network. As this program comes on line, it will allow us to improve the exchange of research results and treatment-provider information and to evaluate the effectiveness of various approaches to drug treatment.

In addition, we need an aggressive drug treatment research and technology program. The Office of National Drug Control Policy is funding such a research agenda. State-of-the-art Positron Emission Tomography, which provides vivid brain scans, is helping researchers develop new treatment modalities. Such technology plays an important part in research efforts to develop new anti-addiction medications for both heroin and cocaine.

This administration is committed to expanding effective treatment services and has recommended an increase of $335 million, plus funds in the Crime Bill, which will enable us to treat 140,000 more chronic, hard-core drug users. As a veteran of more than 35 years in law enforcement, I say without hesitation that treatment is an integral part of our National Drug Control Policy.

LEE P. BROWN
Director
Office of National Drug Control Policy
Washington



BY T. GIBSON

The Post's editorial "Does Drug Treatment Work?" is right on target.

The key point is that there are great positive ramifications for society for any addict to be in treatment for any length of time. The same day the editorial appeared, Robert Samuelson played down the crime problem ["The Triumph of the Psycho-Fact," op-ed, May 4]. He is truly out of touch. I have been forced to move from three lower-middle-class neighborhoods (in New York, Boston and Atlanta) because I could not get police even to file a report on break-ins and vandalism to my car and apartment. And, if the murder rate has leveled off it has done so at a tragically high level and the killings are concentraded in sections of all of our major cities.

I pray that The Post will consider endorsing Baltimore Mayor Kurt Schmoke's plan for "medicalization." It is the "silver bullet" solution to our crime problem. It is impossible for us to go on ignoring the fact that our "war on drugs" has had the same results as did the prohibition of alcohol. But we cannot solve this problem the same way. It is ridiculous to consider outright legalization of deadly drugs (cocaine, heroin) as we did alcohol. Mayor Schmoke's plan is the answer.

This country does need saving, and "medicalization" will do it.

JAMES T. SHIRLEY III
Blacksburg, Va.

■

While I share The Post's view that no one form of treatment can be applicable to every addict, I believe that view misses two fundamentals that must be part of every addict's therapy.

Everything The Post has written cries out for accountability of the way we spend drug treatment monies. I have seen altogether too many go through therapy and graduate drug-free, only to return to addiction for the same reasons they became addicts in the first place. I do not believe that our drug treatment funds are being well used if we are satisfied with temporary remissions and addicts who have traded one addiction, heroin, for another, methadone. We must have accountability if we are going to have real long-term treatment successes.

We need to face the fact that for so many inner-city drug addicts, success is not possible unless we reverse the environment of hopelessness and despair. We need to make sure that therapies provide remedial education, job training and job placement, as well as psychological counseling. Residential treatment has been successful. We could have more successful residential treatment programs if we provided the funds that deal with the entire problem of addiction. Treatment for substance abuse cannot be a half-way measure.

If we can reduce the number of addicts, we can reduce crime and health care costs and improve productivity. The fiscal advantages to our governments' budgets and the economic advantages to our society are manifest to me. Doing the right thing for addicts is not the moral thing to do, it is the economic thing to do.

CHARLES B. RANGEL
U.S. Representative (D-N.Y.)
Washington

THE WASHINGTON POST

Tom Callahan

'Some Character Had to Be Built'

How's the cow?

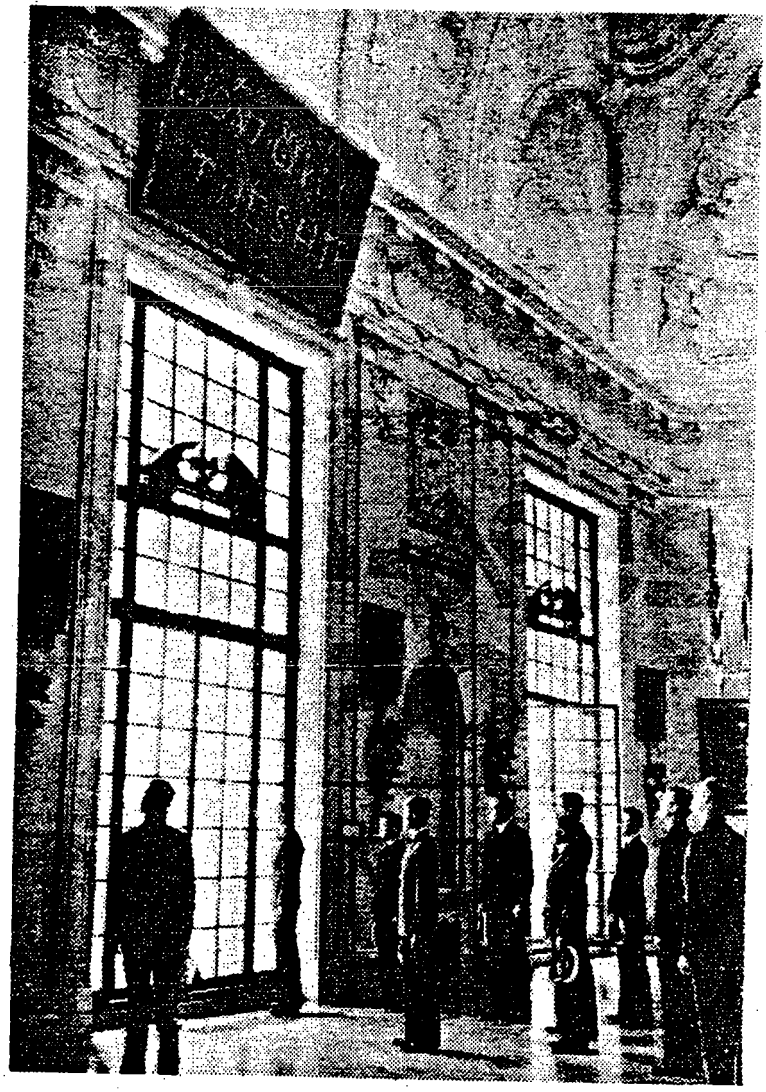
She walks. She talks. She's full of chalk. The lacteal fluid extracted from the female of the bovine species is highly prolific in the nth degree.

ANNAPOLIS—That curious incantation endures in the "reefpoints," but the plebes aren't required to memorize it anymore. Midshipman First Class Sean Fahey expects they will be again someday, when the Navy and its academy aren't so besieged that even the smallest barnacle—a hint of hazing—is worrisome.

Lately, so much about the Navy has been worrisome. The Class of '94, the one with the hole in it, won't be heading into harm's way without experience. On a shimmering Sunday morning in Annapolis, Fahey was as reflective as the Severn River, reviewing the unfashionable course he chose four years ago.

"At first you make excuses," he says. "You guess. Everyone's that way at the start. At the end, you accept more than authority. You accept responsibility. You stop guessing."

That's his memory of the Plebe Summer of 1990. That, and a ship's visit to a cruiser with its company of 500. "In calculus and chemistry class," Fahey says, "it's easy to forget the Navy is ships and sailors. Then here's this dot on the ocean, and you're approaching it and approaching it, and it grows bigger and bigger. To be around something of such power. You look at the pride of the crew. You see the standard. You think, 'Four years from now, I'll be an officer. Will I be up to this?' Maybe that's the moment you say to yourself, 'It's



rial used to study for exams, including lish or political science

sion between honor and loyalty: That wasn't vicious. It was just wrong. Have you seen that movie, 'Scent of a Woman'? It seemed to conclude that loyalty was more important than truth. Those are the kind of messages that come at us from all sides. What's the right thing to do? It took a little while to work that out. Now I think our class has a clearer understanding of what honor is than any class of the last 40 years."

Among the "good people who screwed up" was a basketball captain. He had helped reverse a 5-15 team but was left at home for the tournament. The team that almost never goes to the show went to the show without him. "Some character had to be built," Fahey says. "Some prices had to be paid."

In that continuing process, a number of graduations are being delayed. But the largest part of the hole in the Class of '94 is reparable. On his last student cruise, between the Second and First Class years, Fahey felt a bracing hope as he made a complete turn of the world, part of the time with a carrier battle group in the Persian Gulf.

The gunnery officer had just broken his leg. "Fahey," the captain said, "I need a gunnery officer. You're it." He was in the Navy now. Twenty miles off the coast of Iraq, the Annapolis clouds started to break up. He came back to the academy as the midshipman captain, the head of the class.

"Standing here looking at the yard," Fahey says, "it's amazingly beautiful to me. You're under the gun so much, you never stop and realize."

He stands just 5-9 but looks taller in

Center on Addiction
and Substance Abuse
at Columbia University

Jose -
Is Lee Brown working closely with CASA & California ?
CLRasco

July 12, 1993

152 West 57th Street
New York, NY 10019

phone 212 841 5200
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Carol Rasco
Assistant to the President
Domestic Policy Council
1600 Pennsylvania Avenue, NW
Washington, DC 20506

Dear Carol:

This week, the Center on Addiction and Substance Abuse at Columbia University (CASA) is releasing the results of a major study which indicates that substance abuse and addiction is responsible for at least 20 percent of the inpatient hospital costs of the Medicaid program. In fiscal year 1994, that will be $4.2 billion out of $21.6 billion.

The enclosed CASA report, funded by a grant from the Henry J. Kaiser Family Foundation is the first phase of our effort to identify the costs that abuse of all substances---illegal and legal drugs, tobacco and alcohol---impose on our health care system. This study, the first of its kind, reveals that one in five Medicaid hospital beds is filled because of substance abuse. A patient's average length of hospital stay more than doubles, from 4.6 days to 9.8 days, if alcohol and/or drug abuse are identified as secondary diagnoses. A patient diagnosed for burns remains in the hospital an average of 5.6 days; the number rises to 12.6 days if the burn patient has substance abuse recorded as a secondary diagnosis. Newborn babies, exposed to substance abuse in the womb, stay in the hospital almost three times longer, 9 days compared with 3.5 days.

I believe the costs set out in this report are low because of physician reluctance to place substance abuse conditions on medical records, the difficulty in identifying substance abuse as a complicating factor (particularly with respect to tobacco and addictive prescription drugs) and inadequate record keeping. Moreover, while the study assesses the added cost substance abuse by the mother imposes on the delivery of a newborn, it does not take account of the number of teenagers who become pregnant while they or their partners were high on drugs or alcohol or who contract sexually-transmitted diseases by having sex without a condom. Yet we know from several studies that individuals in such circumstances are far more likely to have sex and to have it without a condom. And the report does not take into account the

individuals that are on Medicaid as a result of poverty or disability stemming from substance abuse and addiction.

We believe the study points up the need to review Medicaid's coverage of substance abuse prevention and treatment. Presently, the program neither contains a specific substance abuse treatment benefit nor requires states to offer such services. Expanding substance abuse treatment programs covered under Medicaid——particularly for high-risk populations (e.g., pregnant women, intravenous drug users)——should be an integral part of cost containment and health reform efforts. Demonstration projects by states in conjunction with the Department of Health and Human Services could help to determine how Medicaid's limited resources can be put to effective use in this area.

The scourge of substance abuse is color blind, gender neutral and oblivious to class status; it affects every sector of society. Thus, the costs of substance abuse to the Medicaid program are sure to be reflected in the finances of all health care payers. Over the next year, CASA will examine the relationship between substance abuse, morbidity and costs for the rest of the Medicaid program, Medicare, the Blues, commercial insurers, corporations and individuals.

CASA is a unique think/action tank devoted to bringing together under one roof <u>all</u> the professional disciplines needed to study and combat <u>all</u> forms of substance abuse——illegal drugs, alcohol and tobacco——as they affect <u>all</u> aspects of society, as our first annual report (enclosed) indicates. We are ready to help you in any way we can.

Sincerely,

Joseph A. Califano, Jr.

encl.

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CENTER ON ADDICTION AND SUBSTANCE ABUSE AT COLUMBIA UNIVERSITY

annual report 1992

Joe Kay

Isn't skepticism justified regarding drug treatment?

Certainly not regarding its cost-effectiveness and generally not regarding its impact on criminal behavior, drug use, and associated health care costs.

Because treatment programs vary so widely, however, most research that has been done applies to specific programs or modalities and does not lend itself to conclusions about "treatment-in-general."

One recent notable exception to this is the major study of drug treatment in California, "Evaluating Recovery Services: The California Drug and Alcohol Treatment Assessment" (CALDATA). The CALDATA study, modeled on a long-term national evaluation of drug treatment now being conducted by the Department of Health and Human Services, yields direct findings regarding treatment effectiveness.

- Economic findings include:
  - -- $7 in benefits accrue to taxpayers for each dollar spent on treatment;
    - -- Treatment participants cost taxpayers about $22,800 the year before treatment and about $14,800 the year after.
    - -- Reductions in taxpayer costs are measured for criminal justice (22 percent), victim losses (40 percent), theft losses (69 percent), and health care (23 percent).
  - -- The cost of each day of treatment is paid for, on the day it is provided, by benefits that exceed that cost.
- Social policy findings include:
  - -- Criminal activity declined by 66 percent;
  - -- Drug and alcohol use declined by 40 percent;
  - -- Hospitalizations declined by 33 percent.
- Other significant findings include:
  - -- Treatment is effective for all primary drugs of abuse;
    - -- Treatment for crack, powdered cocaine, and methamphetamine is as effective as treatment for alcohol and more effective than treatment for heroin;

-- No significant differences are found in effectiveness by gender, age, or race/ethnicity.

-- Treatment has a significantly larger effect on crime and its attendant costs than on health, except for sharp declines in directly related health care costs, like overdose hospitalizations, where health costs were much reduced.

Much other research exists as well and it is consistently quite clear on a number of points that are key to public policy.

- Substance abuse is treatable.
- Treatment effectiveness is directly related to length of stay in treatment.
- Treatment programs, flexible in policy and procedure, that adopt a combination of treatment components suited to the individual's problems and needs produce better results than rigid programs.
- To be successful, treatment programs must provide a significant level of structure. Thorough and continuous assessment, treatment planning, supervision, and accountability must be integral parts of treatment.
- Residential treatment programs with carefully planned and executed transitional services, supervision, and support have significantly better outcomes than programs without such services.
- Treatment for the drug-dependent can be enhanced when there is direct criminal justice involvement.
- The threat of criminal justice sanction motivates offenders to enter treatment and, perhaps more important, motivates them to stay in treatment for a period of time sufficient for behavior change.
- Programs in correctional institution settings are more successful when they are provided in a segregated treatment unit.

In summary, drug dependent people who participate in drug treatment, when compared to those who do not, decrease their drug use, decrease their criminal activity, increase their employment, improve their social and intrapersonal functioning, and improve their physical health. Drug use and criminal activity decrease for virtually all who enter treatment, with increasingly better results with treatment retention.

- Savings are significant.

  -- The National Institute on Drug Abuse estimates that every $1 spent on drug treatment saves $7; $4 in reduced public cost, $3 in increased productivity.

  -- The State of Minnesota found that nearly 80 percent of the costs for treating substance abusers are offset in the first year alone by reductions in medical and substance abuse hospitalization, detoxification, and arrests (i.e, $50 million costs and $39 million savings in 1991 and 1992).

  -- Los Angeles County reports the cost to treat a pregnant substance abuser and one child at $19,450, the cost of treating one drug exposed infant at $48,780.

  -- The McDonnel-Douglas Corporation evaluated its EAP program and found a return of $3 for every $1 invested, through reductions in employee absenteeism, employee medical claims, and dependent medical claims. General Motors, Illinois Bell, Campbell Soup, and Virginia Power also report savings.

- Public safety implications are significant.

  -- Drug-dependent offenders are responsible for a disproportionate amount of crime.

    -- During periods of heavy or addicted use, the frequency and severity of criminal activity rises dramatically.

    -- A survey of chronic drug users not in treatment in 1992 found that over half were involved in illegal activity, with 10 percent deriving income solely from illegal sources.

  -- Entry into drug treatment has been shown to have an immediate impact on the levels of drug use and associated crime, and retention in drug treatment to have a significant impact.

    -- Major longitudinal studies have repeatedly shown that drug use and criminal activity decline upon entry into treatment and remain below pre-treatment levels for up to six years.

    -- Numerous studies of opiate addicts found an average reduction in daily narcotics use of 85 percent during treatment and a 40 percent decrease in

property crime.

-- A related study of Eastern seaboard cities found that the number of annual "crime days" per treatment participant dropped from 307 the year before treatment to about 21 after six months in treatment, a 93 percent reduction.

-- One recent study of methadone treatment participants found a reduction in criminal activity of 75 percent for all entrants, and of 85 percent for those who remained in treatment a year.

Despite the good and improving record of drug treatment, skepticism is warranted regarding the capacity of drug treatment alone to have a long-term impact on addicts and drug-dependent offenders.

Most addicts and heavy users present a myriad of problems in addition to their drug dependency -- limited job skills and experience, limited parenting and interpersonal skills, significant physical health problems, mental disorders, and critical thinking errors are just a few. Drug treatment, by itself, cannot address all of these problems.

As the National Drug Control Strategy targets the most difficult population -- the hardcore user -- it is essential that drug treatment be complemented by other necessary rehabilitative services. Drug treatment is an essential part but must be joined by other services, all of which must be coordinated through intensive case management or offender management.

ODR:3/3/95

Date: 02/13/95 Time: 08:44

For release at 10 a.m. EST

WASHINGTON (AP) The cost to the federal treasury of substance abuse and addiction, including smoking, will be $77.6 billion in federal entitlement payments this year, a study released today estimates.

It recommends that Medicare follow the lead of many private health plans and charge higher fees to beneficiaries who smoke.

The costs estimated in the study represent 20 percent of the $430 billion the federal government is spending on Medicaid, Medicare, Social Security disability insurance, veterans health and other programs, said Columbia University's Center on Addiction and Substance Abuse.

``If we want to move people from welfare to work,'' said Joseph A. Califano, president of the center, ``we must first address a crippling stumbling block for many thousands their substance abuse and addiction by providing adequate funding.''

Califano, who headed the Department of Health, Education and Welfare in the Carter administration, recommended cutting off welfare payments to drug addicts and alcoholics who refuse treatment, and placing in orphanages the children of drug- or alcohol-addicted welfare mothers who won't undergo treatment.

``To help reduce costs over the long term, Medicare should charge higher premiums for beneficiaries who smoke cigarettes, as many private health plans are beginning to do,'' Califano said. ``The impact of substance abuse and addiction on federal entitlements is equivalent to more than 40 percent of the federal deficit for 1995.''

The cost of all entitlements, including Social Security and other retirement programs, is $834.7 billion, the center said. Its $430 billion figure includes only those programs on which substance abuse has an impact.

The addiction cost estimate comprises $66.4 billion in health care and disability costs resulting from substance abuse, and $11.2 billion in welfare payments to people who are regular alcohol or drug users.

If House Speaker Newt Gingrich and President Clinton are ``looking for a way to deal with the spiraling costs of entitlements without cutting benefits, raising taxes or dumping the problem on the states, then they must face up to the epidemic of tobacco, alcohol and drug abuse and addiction,'' Califano said.

The study found that 20 percent of women 18-44 receiving aid for dependent children and 28 percent of SSI recipients were users of alcohol or illegal drugs, as well as 20 percent of people 18-64 on food stamps.

``Of all the substances, tobacco takes the greatest financial toll on health and disability entitlement spending,'' said the study. ``In 1995, the Social Security disability system will pay $4.6 billion ... to individuals disabled as a result of smoking-related diseases.''

It said that 92 percent of the money spent by health care entitlement programs as a result of substance abuse goes to treat the consequences of tobacco, alcohol and drug abuse, while only 8 percent goes to treat the dependence itself.

APNP-02-13-95 0847EST

FAX

Health Division

Office of Management and Budget
Executive Office of the President
Washington, DC 20503

TO: Jose Cerda

FROM: Barry Clendenin

Fax Destination x 6 7 0 2 8

Organization: Dem. Policy

Phone Number:

Number of Attached Pages: 1

Notes:

Please call me after you read this - Thank you. (x 54926)

HD Fax Number: *202/395-3910*
Voice Confirmation: *202/395-4922*

Residential Substance Abuse Treatment Under Medicaid

Medicaid does not reimburse States for the costs of residential substance abuse treatment for individuals between the ages of 22 and 65 in facilities with fewer than 16 beds. This exclusion dates to 1950 and is intended to prevent States from shifting the costs of State mental institutions to the Federal government. Some have suggested lifting this restriction to provide residential substance abuse treatment services for all Medicaid recipients.

Potential Cost of Removing the IMD Exclusion. According to a 1992 HHS study, removing the IMD exclusion could increase Federal Medicaid expenditures by $1.73 billion annually, induce $360 million in annual new spending in IMD services, and reduce State and local IMD expenditures by $870 million annually.

Coverage guaranteed in the Health Security Act. The Health Security Act will provide substance abuse treatment for all Americans and improves coverage for many Medicaid recipients. The Act guarantees all Americans up to two months per year of residential substance abuse treatment. The comprehensive benefit package also includes up to four months of intensive nonresidential substance abuse treatment. As a result, traditionally State-supported residential and non-residential treatment facilities, including IMDs, will receive significant new revenues as residents obtain insurance coverage.

Some Medicaid coverage will continue with reform. Substance abuse coverage offered by State Medicaid programs for those under age 22 and over age 65 may be broader or narrower than the coverage in the Health Security Act's comprehensive benefit package. Substance abuse treatment services exceeding those included in the comprehensive benefit package may be supplemented by States for recipients of AFDC and SSI cash benefits -- both now and under the Health Security Act -- subject to the residential treatment exclusion and any limitations imposed by States. In addition, the Federal Government will supplement the comprehensive benefit package for all Medicaid-eligible children.

HHS study of residential treatment for pregnant women. HHS is currently funding demonstration projects to study expanded access to care for Medicaid-eligible pregnant substance abusers in New York, Massachusetts, South Carolina, Washington, and Maryland. The main components of the demonstration projects include residential substance abuse treatment, child care during chemical substance abuse treatment, and intensive case management for up to 2,000 women and their children. The demonstrations began in July, 1993, and run through 1995.

Given the broad new support for substance abuse treatment under the President's Health Security Act and the limited funding available for additional Federal health initiatives, the Administration does not at this time support a change in Medicaid IMD reimbursement policy.

FAX

Health Division

Office of Management and Budget
Executive Office of the President
Washington, DC 20503

TO: Jose Cerda

FROM: Andy Allison

Fax Destination

Organization: Dem. Policy

Phone Number: x 67028

Number of Attached Pages:

Notes:

Please note correction in 1st paragraph to refer to "more than 16 beds," rather than "fewer than 16 beds." I apologize for the oversight and any confusion it might have caused.

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