

## Comparison of Female Opiate Addicts Admitted to Lexington Hospital in 1961 and 1967

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**T**HE Clinical Research Center in Lexington, Ky., formerly the Public Health Service Hospital, was established in May 1935 for the treatment of narcotic ad-

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dicts. By December 1965, about 45,000 addicts had been admitted for a total of about 75,000 admissions. Female narcotic addicts were first accepted for treatment at the Lexington hospital in July 1941. With the exception of 109 women treated at Fort Worth (1947-52), all female addicts, with 14,866 admissions, received their treatment at the Lexington facility. These admissions represented 18 percent of total admissions during the period when women were being treated at the Lexington hospital.

These women voluntarily sought treatment in overcoming drug addiction. Some came from great distances. As their case histories show, some came to avoid arrest and others to avoid the torments of addiction. They possessed a knowledge of the Lexington hospital and the money to get there.

Most patients stayed at the hospital from 5 to 14 days to become detoxified and then apparently returned to their previous life situation, in which a relapse usually

occurred. Approximately 40 percent of the women returned to Lexington to go through the detoxification treatment again. They became "winders," the term used at Lexington to describe patients who spend their lives in and out of the hospital.

Limited information is available on patients who do not return to the hospital. O'Donnell studied patients coming from Kentucky only, but his conclusions were limited (1). Few followup studies (2-5) on Lexington patients have been undertaken, although some studies have been done on patients from other institutions (6-8). All these investigators found high relapse rates among the addicts. The relationship of race and sex to relapse was neither clear nor consistent.

Various empirical studies have comprehensively documented the similarities and differences between white and Negro opiate addicts. Bates (9) and Chambers and associates (10) have provided

descriptions of white and Negro addicts. Southern white addicts have been the subject of an extensive study by O'Donnell (11, 12) and O'Donnell and associates (13). Glaser (14) and Chambers and co-workers (15) have described female addicts, while Ball and associates (16) and Ellingwood and associates (17) have compared male with female addicts. Ball and co-workers have also reported changes in the incidence and prevalence of opiate addiction among females (18), but specific changes over time within the female addict population have not been assessed, although changes have occurred within other addict populations.

In this study we sought evidence of changes within the female addict population between 1961 and 1967. Race, having already been demonstrated as a significant control variable, was incorporated with time, thereby producing a frame of reference to measure changes within the race cohorts of female addicts.

### Research Design

From January through June 1961, 284 women were admitted to the clinical research center at Lexington for treatment of narcotic addiction. The racial distribution of these addicts was 52.8 percent or 150 whites and 47.2 percent or 134 Negroes. During the same period of 1967 there were 173 women admitted for treatment, with the racial distribution of the addict patients almost identical to that of 1961: 51.4 percent or 89 were whites and 48.6 percent or 84 were Negroes.

The study was designed to ascertain any significant time-race differences through three separate statistical comparisons: (a) white women admitted in 1961 and their 1967 counterparts; (b) Negro

women admitted in 1961 and their 1967 counterparts; and (c) all women admitted in 1961 compared with all women admitted in 1967.

The variables selected for these comparative analyses were grouped into three categories: (a) pretreatment background characteristics, (b) geographic distribution, and (c) characteristics at admission to treatment. Although comparable 1961 data were not available, selected variables specifically relevant to drug use for the 1967 patients were compared with the race control. These variables included whether the opiate abused was heroin or another drug, whether marijuana was ever used, what method was used to administer the drug, and whether the pusher was the primary source of the drug. This analysis was done to provide data for the contemporary female addicts and to replicate the findings of other studies.

### Addicts' Social Characteristics

Three pretreatment background characteristics were available for this comparative analysis (table 1): (a) level of formal education, (b) marital status (civil) immediately before entering treatment, and (c) primary means of support.

*Level of formal education.* The distribution of attained formal education did not change significantly between 1961 and 1967 regardless of the addict's race. Several findings, however, required some elaboration.

1. Female addicts frequently have pursued formal education beyond high school. In 1961, of those admitted to the Lexington hospital, 15.3 percent of all white and 1.5 percent of all Negro addicts, a total of 8.8 percent of all the women, had pursued higher educations. By 1967, a total of 13.3 percent of the female addicts, 20.2

percent of the whites and 6.0 percent of the Negroes, had gone beyond high school.

2. The number of women who dropped out before completing high school significantly decreased between 1961 and 1967. While 64.8 percent of all female addicts were school dropouts in 1961, only 55.5 percent were in 1967 ( $X^2=3.916$ ;  $P=0.05$ ). This reduction can be attributed primarily to the fact that Negro women remained in school longer.

*Marital status.* Several significant changes occurred relevant to the marital status of these female addicts. Probably most important was the significant increase in the number of female addicts who had attempted a civil marriage but had failed. In 1961, 33.4 percent reported a broken marriage, a proportion not in excess of that found in their base populations for that time period. In 1967, however, 46.2 percent reported broken marriages. At least in these addict populations, the significant increase in terminations of marriage can be attributed to a disproportionate increase among white addicts.

These findings can be compared to the study by O'Donnell (1) on Kentucky women, who also had a high rate of unstable marriages. There was a marked tendency to select an addicted or otherwise deviant husband (narcotics user, alcoholic, criminal, mentally ill) and a moderate tendency to make deviants of nondeviant spouses. Forty-nine percent of the married women had at least one deviant spouse. These women were usually younger (mean age 22.7 years). Fifty percent had started using drugs for pleasure or to substitute for alcohol, and 75 percent had had contact with addicts. Ninety-two percent of these women had

contact with the drug subculture, and 64 percent had a history of arrests.

In contrast, the women who did not have an addict husband tended to be older (mean age 37 years) and had not begun drug use for pleasure. These women had had no extensive contact with addicts, and only 41 percent were involved in the drug subculture. Sixty-five percent of these women obtained their drugs from one physician. Only 12 percent had a history of arrests.

While the data obtained in the current study did not include information concerning the number

of children of these women, data from other studies permitted an estimate. A study of married-couple addicts by Cuskey and associates (19) indicates that in 1966 30 women patients had 59 children, and that in 1967 26 women patients had 53 children, an average of two children for each woman. This finding corresponds closely to those of O'Donnell and co-workers (13): an average of 2.2 children for the women patients he studied in 1963. It also compared with the 1960 Kentucky census data, which show an average of three children for women within the 35-39 age group and

3.5 children for women older than 59 years. Thus it might be inferred that the women in this group also would have an average of two children each.

*Means of support.* Of all the pretreatment background characteristics, the most significant changes occurred in how the female addicts supported themselves. Generally, both the number of those legally employed and those who were dependents decreased, and the number of those resorting to illegal activities as a primary means of support increased—from a little more than 10 percent to more than 30 percent among the

**Table 1. Pretreatment background characteristics of female addicts admitted to Clinical Research Center, Lexington, Ky., 1961 and 1967**

Pretreatment characteristics	White		Negro		Total	
	Number	Percent	Number	Percent	Number	Percent
<b>1961</b>						
Education:						
Below high school.....	83	55.3	101	75.4	184	64.8
High school.....	44	29.3	31	23.1	75	26.4
Above high school.....	23	15.3	2	1.5	25	8.8
Marital status:						
Single.....	24	16.0	48	35.8	72	25.4
Intact marriage.....	77	51.3	40	29.9	117	41.2
Broken marriage.....	49	32.7	46	34.3	95	33.4
Primary means of support:						
Work.....	79	52.6	33	24.6	112	39.4
Dependent.....	55	36.7	53	39.6	108	38.0
Illegal.....	16	10.7	48	35.8	64	22.5
<b>1967</b>						
Education:						
Below high school.....	42	47.2	54	64.2	96	55.5
High school.....	29	32.6	25	29.8	54	31.2
Above high school.....	18	20.2	5	6.0	23	13.3
Marital status:						
Single.....	9	10.1	21	25.0	30	17.3
Intact marriage.....	35	39.3	28	33.3	63	36.4
Broken marriage.....	45	50.6	35	41.7	80	46.2
Primary means of support:						
Work.....	16	18.0	10	11.9	26	15.0
Dependent.....	45	50.6	18	21.4	63	36.4
Illegal.....	28	31.5	56	66.7	84	48.6

**Significant differences between 1961 and 1967 (2 degrees of freedom)**

Formal education.....	$X^2=4.448$ ; $P=\text{not significant}$ .
White addicts.....	$X^2=1.634$ ; $P=\text{not significant}$ .
Negro addicts.....	$X^2=4.945$ ; $P=\text{not significant}$ .
Marital status.....	$X^2=8.324$ ; $P=<0.02$ .
White addicts.....	$X^2=7.679$ ; $P=<0.05$ .
Negro addicts.....	$X^2=2.874$ ; $P=\text{not significant}$ .
Primary means of support.....	$X^2=43.744$ ; $P=<0.001$ .
White addicts.....	$X^2=32.631$ ; $P=<0.001$ .
Negro addicts.....	$X^2=19.786$ ; $P=<0.001$ .

white addicts and from a little more than 36 percent to almost 67 percent among the Negro addicts. Regardless of race, the number of female addicts who resorted to illegal activities as their primary means of securing money for drugs significantly increased.

**Residence.** The female addicts admitted during 1961 had primarily resided in three geographic regions, as defined for the U.S. census: the South, North Central, and Middle Atlantic regions. Significant differences in race existed in the number of patients contributed from these three regions (table 2).

The South contributed 42.7 percent of the 150 white female addicts but only 11.9 percent of the 134 Negro addicts. The Middle Atlantic region contributed 59.7 percent of the Negro addicts but only 20.7 percent of the white addicts. The North Central region contributed 28.0 percent of the white and 25.4 percent of the Negro addicts. The remaining 3.0 percent of Negro addicts resided in the Pacific region. The remaining 8.7 percent of white addicts were contributed as follows: 2.7 percent from the Mountain region and 6.0 percent from the Pacific region. Thus in 1961 the South contributed the largest number of white addicts, while most Negro addicts came from the Middle Atlantic region.

In 1967 the number of patients contributed from the South, North Central, and Middle Atlantic regions did not change significantly from the number reported in 1961. Three changes did occur, however, with respect to the proportion of white and Negro addicts contributed by each of these regions. The North Central region replaced the Middle Atlantic region as the largest contributor of Negro ad-

dicts, the New England and Mountain regions increased their contribution of both white and Negro addicts, and the Pacific region decreased its contribution of both white and Negro addicts.

In 1967 a total of 90.3 percent had been admitted from the South, North Central, and Middle Atlantic regions (table 2). The South contributed 52.8 percent of all the white addicts but only 15.5 percent of the Negro addicts. The North Central region contributed 52.4 percent of the Negro addicts, replacing the Middle Atlantic region as the greatest contributor, and only 24.7 percent of the white addicts. The Middle Atlantic region contributed 26.2 percent of the Negro addicts and 9.0 percent of the white addicts. The remaining white addicts were distributed as follows: 5.6 percent from the Mountain region, 3.4 percent from the Pacific region, and 4.5 percent from the New England region. The remaining Negro addicts were distributed as follows: 2.4 percent from the Mountain region, 1.1 percent from the Pacific region, and 2.4 percent from the New England region. Thus, in 1967 the South still contributed the

largest number of white addicts, while most of the Negro addicts were now being contributed by the North Central region.

## Characteristics of Admissions

Three characteristics were available for comparative analysis when the addicts were admitted for treatment (table 3): (a) whether the addict was entering the hospital voluntarily or as a Federal prisoner, (b) whether entry was the first admission or a readmission, and (c) age of the addict.

**Status at admission.** Most addict patients in both time periods were admitted voluntarily; the proportion of female addicts voluntarily seeking hospital treatment for opiate addiction increased significantly, however, between 1961 and 1967. Although the numerical increases that occurred within each race cohort were not statistically significant, their cumulative increase was, which indicated greater knowledge and acceptance of this treatment program and the existence of the skills and resources to get there. The greatest increase occurred among Negro addicts: from 79.1 percent in 1961 to 89.3 percent in 1967.

**Table 2. Geographic distribution of female addicts admitted to Clinical Research Center, Lexington, Ky., 1961 and 1967**

Region	White		Negro	
	Number	Percent	Number	Percent
1961 total.....	150	100.0	134	100.0
New England.....				
Middle Atlantic.....	31	20.7	80	59.7
North Central.....	42	28.0	34	25.4
South.....	64	42.7	16	11.9
Mountain.....	4	2.7		
Pacific.....	9	6.0	4	3.0
1967 total.....	89	100.0	84	100.0
New England.....	4	4.5	2	2.4
Middle Atlantic.....	8	9.0	22	26.2
North Central.....	22	24.7	44	52.4
South.....	47	52.8	13	15.5
Mountain.....	5	5.6	2	2.4
Pacific.....	3	3.4	1	1.1

**Table 3. Characteristics at admission for treatment of female addicts, Clinical Research Center, Lexington, Ky., 1961 and 1967**

Characteristics of admission	1961		1967		X <sup>2</sup>	Probability
	Number	Percent	Number	Percent		
Voluntary.....	244	85.9	161	93.1	5.448	0.02
White.....	138	92.0	86	96.6	1.324	N.S.
Negro.....	106	79.1	75	89.3	3.798	N.S.
First treatment.....	163	57.3	104	60.1	.329	N.S.
White.....	83	55.3	55	61.8	.001	N.S.
Negro.....	80	59.7	49	58.3	.040	N.S.
Above age 25.....	233	82.0	119	68.8	10.675	.01
White.....	126	84.0	65	73.1	3.801	N.S.
Negro.....	107	79.8	54	70.2	6.478	.02

NOTE: N.S., not significant.

No significant changes occurred in the proportionate representation of first and readmissions in either of the race cohorts or in the population as a whole. In general, there was a slight increase in the proportion of white and Negro addicts admitted to Lexington for treatment for the first time between 1961 and 1967. In 1961, 57.3 percent of the women were admitted to Lexington for first treatment, while in 1967 these patients were 60.1 percent of the clinic's female population. While this slight increase is not statistically significant, the racial analysis shows that the proportion of white first-admission patients increased 6.5 percent and the Negro first-admission patients decreased 1.4 percent.

Four of every 10 women had readmissions, indicating that a large number of female addicts of both races were experienced in the Lexington treatment process. Of the women admitted in 1967, 15.7 percent of the white and 11.9 of the Negro were being treated for at least the fourth time. These proportions were not significantly different from 1961, when 18.7 percent of the whites and 11.9 percent of the Negroes were admitted for at least the fourth time.

*Age at admission.* Female ad-

dicts of both races were younger at admission in 1967 than their counterparts in 1961 (table 4). Eighty-two percent of the addicts were over age 25 at admission in 1961, while in 1967 the representation of this group had significantly decreased to 68.8 percent. Similar decreases in the proportion over age 25 were noted in each of the two racial groups, although only the decrease for Negro addicts was statistically significant.

Comparison of median ages indicated no change for Negro addicts; the median was in the 25-29 category. A decrease occurred for the white addicts, however; the median fell from 35-39 in 1961 to 30-34 in 1967. White female addicts had been and continued to be older than the Negro addicts.

*Characteristics of drug abuse.* Information on characteristics of drug use by female addicts was available only for 1967 (table 5); similar data were not recorded for

**Table 4. Age distributions of female addicts, Clinical Research Center, Lexington, Ky., 1961 and 1967**

Age group (years)	White <sup>1</sup>		Negro <sup>2</sup>	
	Number	Percent	Number	Percent
1961 total.....	150	100.0	134	100.0
15-19.....	3	2.0	2	1.5
20-24.....	21	14.0	25	18.7
25-29.....	24	16.0	46	34.3
30-34.....	16	10.7	36	26.9
35-39.....	20	13.3	16	11.9
40-44.....	14	9.3	5	3.7
45 and over.....	52	34.7	4	3.0
1967 total.....	89	100.0	84	100.0
15-19.....	5	5.6	-----	-----
20-24.....	19	21.3	25	29.8
25-29.....	12	13.5	24	28.6
30-34.....	19	21.3	12	14.3
35-39.....	7	7.9	14	16.7
40-44.....	11	12.4	7	8.3
45 and over.....	16	18.0	2	2.4

<sup>1</sup> Median age: 1961, 35-39; 1967, 30-34.

<sup>2</sup> Median age: 1961 and 1967, 25-29.

1961. Comparison by race was made to provide this information on the contemporary addicts. Four variables pertaining to these addicts and drug abuse were available for analysis: whether the narcotic abused was heroin or another drug, whether marijuana was ever used, what method was used to administer the drug, and whether the pusher was a primary source of drugs.

Attributes associated with the abused drugs, how they were used, and from whom they were obtained were all identifiable by the addict's race. These were also predictable from the earlier studies of female addicts. This study therefore replicated the earlier studies.

Negro female addicts generally had smoked marijuana and had been addicted to heroin, which they purchased from pushers and administered intravenously. White addicts had been identified significantly less often by any of these attributes and abused a variety of other drugs, including dilaudid, percodan, morphine, paregoric, laudanum, codeine, demerol, and dolophine.

### Life Style

The demographic study of the female patients of Lexington would seem to indicate the existence of three major life styles characterizing the white heroin addict, the white medical addict, and the Negro heroin addict. A forthcoming sociological study of the 1967 data is expected to give additional information on the following general types.

*White heroin addict.* A relatively young woman who seems to be characterized by the early use of marijuana and the present use of heroin, administered intravenously and obtained from pushers. She probably would have an ad-

**Table 5. Drug abuse characteristics of female addicts admitted to Clinical Research Center, Lexington, Ky., 1967**

Addiction habits	White		Negro		X <sup>2</sup>	Probability
	Number	Percent	Number	Percent		
Opiate used:						
Heroin-----	30	33.7	79	94.0	67.5019	0.001
Other-----	59	66.3	5	6.0		
Marijuana ever used-----	40	44.9	74	88.1	35.8054	.001
Administration:						
Intravenous-----	51	57.3	78	92.8	38.8034	.001
Other-----	38	42.7	6	7.2		
Source of drugs:						
Pusher-----	44	49.4	80	95.2	44.6505	.001
Other-----	45	50.6	4	4.8		

dicted spouse, one or more broken marriages, and support herself by illegal means.

*White medical addict.* Seems to use drugs other than heroin, which she usually obtains from one physician. She seems not to have used marijuana and not to have used intravenous drug administration. She seems to be older, not to have an addicted spouse, and to work or be dependent on others for her support.

*Negro heroin addicts.* Seem to compose a more homogeneous group of younger persons, most of whom would have used marijuana, obtained heroin from pushers, and used it by intravenous injection. The majority of these young women earn their livelihood by illegal means, usually prostitution, and have been arrested. They have a high rate of broken marriages.

The lives of these women, and especially of those married to deviant spouses, reflect a life style deeply enmeshed with the drug culture. That this is related to a life history of problems is evidenced by the psychiatric diagnoses made at Lexington in which personality disorders and psychoneurotic disorders were found to be most frequent for the women examined. A high incidence of

school dropouts, broken marriages, and illegal activity also was evidenced.

The emerging pattern of the life situation of the women included in these studies shows an involved history of social, economic, and psychological problems, with recurrent relapses requiring hospitalization. This study corresponds closely to Clifford's study (20) of the relapse patterns of mentally depressed patients in France, where the social contagion of other adults and children was noted.

These findings imply the need for a preventive mental health program directed to the addict population. Particular attention would seem to be required in child psychiatry and in meeting the socialization needs of children living in pathogenic or pathologic situations. This would be most urgent for the female children, especially Negro, whose life alternatives are generally limited to their immediate family and its social network.

These findings also imply the need to study the social support systems available to addicts returning to their former environment after hospital treatment and to develop possible alternatives.

## Treatment Effectiveness, Cost

The fact that four of every 10 women patients constitute readmission cases indicates the great difficulty in finding and applying a truly effective treatment modality. Certain mounting social and economic investments in each patient as he or she returns for additional periods of treatment also are implied.

*Economic costs.* As yet there is insufficient research to permit an overall view of the economic costs of drug addiction and abuse. There is some indication, however, of the direct service costs for several treatment modalities employed in 1967 (21). The cost per patient per day fluctuated greatly with the type of treatment (table 6). The chemical substitute modality, usually on an outpatient basis, had the lowest cost range. Medical-psychiatric service costs in Philadelphia had the highest cost range. They also had the added advantage of permitting the patient to retain an active economic and social role, avoiding to a great extent the problems related to recidivism. The effectiveness and costs of the different modalities of treatment have not yet been evaluated.

Data are not available to the public on costs at the Federal addiction treatment centers in Lexington and Fort Worth. Thus it is impossible to estimate the expense of the usual 5- to 14-day treatment for the patients in this study. Moreover, as the research in treatment modalities and administrative arrangements at Lexington continues, there is little likelihood of a standard comparable cost figure becoming available.

A study of the treatment modalities, with their effectiveness and cost, is very important to communities that are planning to organize their resources for dealing

with the epidemic proportions of drug abuse.

To the direct and indirect treatment costs should be added other economic costs relating to drug addiction and abuse. These figures should include the costs of law enforcement, courts and prisons, property damage and theft—more than \$900 million in Philadelphia in 1969—insurance, accidents, and the lost production, income, and consumer market potential of the incapacitated addicts and their victims.

*Social costs.* While the social costs of drug addiction and abuse have been felt by the public in a general way, as evidenced by the news media, no valid estimate has yet been made of them. Available data indicate clearly defined social costs. These include a damaged self-image; deterioration of personal health, productivity, and creativity; personal degradation

from criminality and prostitution; high death rates; family disorganization with the resulting damage to the marriage partner, the children, and the extended family members; and aggression against individuals and their property, producing a climate of general insecurity (22).

These social costs produce the contagion phenomenon and the potential of a hard core pathogenic segment in the population. Preliminary studies have shown that for each pathologic adult at least one other adult and two children are affected (23).

The social, psychological, and cultural environment of the children living in the drug subculture would seem likely to produce another generation of ever younger drug abusers or deviants. These children are culturally trapped and instructed in the drug culture and in the illegal means used to

**Table 6. Modality of treatment and cost per day per drug addict, June 1, 1967–July 1, 1969**

Modality	Cost per day
Medical psychiatric, Federal:	
Lexington Clinical Research Center .....	(1)
Fort Worth Clinical Research Center .....	(1)
Medical psychiatric, Philadelphia:	
University of Pennsylvania Hospital Psychiatric Center .....	\$84. 00
Temple University Hospital .....	80. 00
General Hospital Psychiatric Service .....	61. 00
Psychiatric Center .....	34. 00
Medical psychiatric, Pennsylvania State:	
Haverford State Mental Hospital .....	32. 40
Byberry State Mental Hospital .....	14. 80
Norristown State Hospital .....	11. 90
Communal: Guadenzia House .....	12. 50
Punitive:	
Pennsylvania State Correctional Institution .....	9. 60
Philadelphia prisons .....	7. 13
Legal authority with specialized treatment:	
Goodwill (National Addiction Rehabilitation Act of 1963) .....	5. 55
Institute for Alcoholism and Drug Addiction .....	5. 20
State Board of Vocational Rehabilitation .....	1. 84
Religious: Teen Challenge .....	3. 42
Chemical substitution:	
New York Methadone .....	5. 48
Narcotics Addiction Rehabilitation Program of the West Philadelphia Community Mental Health Consortium .....	3. 28
Young Great Society .....	1. 43

<sup>1</sup> Not available.

support it. This would seem to be especially true for the young Negro addicts.

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**CUSKEY, WALTER R.** (University of Pennsylvania School of Medicine), **MOFFETT, ARTHUR D.**, and **CLIFFORD, HAPPA B.**: *Comparison of female opiate addicts admitted to Lexington hospital in 1961 and 1967. HSMHA Health Reports, Vol. 86, April 1971, pp. 332-340.*

To isolate any changes that may have occurred in the women patients admitted to the Clinical Research Center at Lexington, Ky., in 1961 and 1967, the histories of 284 white and Negro women admitted to this hospital from January through June 1961 were compared statistically by sex with the histories of 173 women admitted during the same

period in 1967. The statistical comparisons were accomplished by combining race and time as an independent variable.

The study showed that the race distribution did not change significantly between 1961 and 1967. Several significant changes were noted, however. The woman admitted in 1967 was more likely



than her 1961 counterpart to have attempted a civil marriage that failed. In 1961, 33.4 percent reported a broken marriage, a proportion not in excess of that found in their base populations for that period. In 1967, however, 46.2 percent reported broken marriages. At least in these addict populations the significant increase in terminations can be attributed to a disproportionate increase among white addicts.

The most significant change occurred in how the women supported themselves. Generally, the number with both legal and dependent means of support decreased and the number reporting illegal activities as a primary means of support increased from a little more than 10 percent to more than 30 percent among white addicts and from a little more than 36 percent to almost 67 percent among Negro addicts. Supporting oneself through illegal means became a dominant pattern among the Negro addicts.

An increasingly greater number of female addicts sought voluntary treatment between 1961 and 1967. The greatest increase occurred among Negro addicts: from 79.1 percent in 1961 to 89.3 percent in 1967. A slight increase occurred in the proportion of first admissions for both groups.

In 1961, 57.3 percent of the women were admitted to Lexington for the first time, while in 1967 60.1 percent of the total number of women patients were admitted for the first time. Four of every 10 women had readmissions, which indicates that a

large number of women of both races were experienced in the Lexington treatment process.

The women of both races were younger at admission in 1967 than their counterparts in 1961; 82 percent of the addicts were over age 25 at admission in 1961, while in 1967 the representation of this group had significantly decreased to 68.8 percent. Comparison of median ages indicated no changes for Negro addicts; the median was in the 25-29 category. A decrease occurred for the white addicts, however; the median dropped from 35-39 in 1961 to 30-34 in 1967. White female addicts have been and continue to be older than Negro addicts.

The fact that four of every 10 women were readmitted indicates the difficulty in finding and applying a truly effective treatment modality. The treatment effectiveness and cost data presented in this study show that the effectiveness and cost of the modalities of drug treatment vary greatly. The total economic costs of drug addiction and abuse are much greater than those of the treatment, but they have not yet been determined accurately.

The social costs of drug addiction and abuse to the user and to those associated with her also are very great and are as yet unmeasured. Research in social and child psychiatry and adequate social support systems are needed, particularly for Negro women and children.