

Follow-up after Release of Insanity Acquittees, Mentally Disordered Offenders, and Convicted Felons

Stuart B. Silver, MD; Marcia I. Cohen, MCP; and Michael K. Spodak, MD

The authors compared 127 insanity acquittees in the state of Maryland with a matched prisoner control group of 127 convicted felons and a comparison group of 135 mentally disordered prisoners transferred for hospital treatment. Subjects were followed from five to 17 years after discharge from hospital or release from prison. Subsequent arrests, hospitalizations, employment, and functioning of these large cohorts were studied and compared. The study focused on outcome data at five years after release. The authors found that, at five years postrelease, 54.3 percent of the insanity acquittees, 65.4 percent of the prisoner control group, and 73.3 percent of the mentally disordered prison transfers were rearrested. At 17 years postrelease, rearrest rates increased to 65.8 percent of the insanity acquittees, 75.4 percent of the prisoner controls, and 78.4 percent of the prison transfers. Significantly more mentally disordered prison transfers than NGRIs were rehospitalized during the follow-up period. Overall, the prison transfers had significantly poorer outcomes on nearly all variables studied compared with the other two groups. The authors conclude that although there were a substantial number of rearrests among insanity acquittees, that group had a statistically significantly lower rate of criminal activity compared with the other two groups of offenders.

Mentally disordered offenders, including both the criminally insane and the mentally ill in prison, pose serious con-

cerns for society in terms of treatment, management, and aftercare in the community. While recidivism rates of prisoners and the criminally insane have been studied by Pasewark *et al.*,¹ Steadman *et al.*,² Steadman and Braff,³ Morrow and Peterson,⁴ and others, these studies have generally examined rearrests and/or rehospitalizations during a brief period of time after release, often one to three years. A review of the literature has not revealed a study of the longer-term outcome of insanity acquittees or the mentally disordered in prison.

Dr. Silver was superintendent of Clifton T. Perkins Hospital Center and is director of the Mental Hygiene Administration of Maryland. Ms. Cohen is director of the Office of Program Evaluation and Information Systems at Perkins Hospital; Dr. Spodak is the director of Community Forensic Services at Perkins Hospital. Address reprint requests to Dr. Spodak, Clifton T. Perkins Hospital Center, Jessup, MD 20794. This study was supported in part under grant number 84-IJ-CX-0017 from the National Institute of Justice. The authors would like to thank Dr. Katherine Williams, Catherine Dougherty, and the Maryland Department of Public Safety and Correctional Services' Office of Research and Statistics for their assistance in data collection and analysis.

Monahan and Steadman⁵ report that there has been no examination of rehospitalization rates of mentally disordered prisoners, which we undertake in this research. Other outcome indicators, such as employment, daily functioning, or subsequent hospitalization for mental illness, have been examined less often in these populations, though somewhat more frequently with schizophrenic patients.⁶⁻⁸ The lack of reported experience about the fate of discharged insanity acquittees over a substantial period of time led to an earlier study by Spodak *et al.*⁹ that reviewed the arrests, convictions, and incarcerations of a cohort of insanity acquittees in Maryland over a 15-year period.

The objective of the present study was to expand on our earlier research by examining the arrests, hospitalizations, employment, daily functioning, and long-term outcome of a large cohort of insanity acquittees over a 17-year period compared with a matched control group of convicted felons, and a comparison group of mentally disordered prisoners (referred to as prison transfers) transferred for inpatient psychiatric treatment. The research team developed an outcome predictor inventory and a base expectancy model for predicting outcome.

Three articles have been produced based on this research. This article presents descriptive findings on the three cohorts. A second article entitled "Predicting Outcome of Insanity Acquittes,"¹⁰ presents an analysis of the outcome variables and outcome prediction model, based on discriminant analysis.

A third article on psychiatric symptoms and clinical predictors is in preparation. A further direction our research may take will be to examine the characteristics of successful subjects across all three groups.

All of the insanity acquittees and mentally disordered prisoners transferred for inpatient care had been treated at Clifton T. Perkins Hospital Center (CTPHC), a 250-bed maximum security hospital that provides pretrial psychiatric examinations for men and women accused of felonies in all judicial circuits, as well as a comprehensive treatment program for men and women adjudicated not guilty by reason of insanity (NGRI) of violent offenses. The average length of inpatient treatment for insanity acquittees in this study was just under two years; and for mentally disordered prison transfers, the average length of treatment was 4.2 months.

At the time of their release, insanity acquittees were placed on a "five year conditional release" as required by the Annotated Code of Maryland.¹¹ Conditional release provides the Mental Hygiene Administration with a legal mandate to monitor an insanity acquittee's compliance with certain treatment-oriented conditions imposed by court order when the patient is discharged. Specific requirements of each conditional release are developed over a period of several months by the treatment team in conjunction with the patient, his family, and any involved community support systems. A typical conditional release protocol incorporated in a judicial order includes such items as

Follow-up of Insanity Acquittes

place of residence, location of outpatient treatment, prohibitions against substance abuse, and limitations on travel outside the state. At the end of five years, a formal evaluation is held to determine whether the conditional release period should be terminated or extended.

The aftercare program consisted of monitoring insanity acquittes in the community as provided for in the Annotated Code. During the years that the follow-up data were reported, responsibility for monitoring fell to social workers who first followed patients while on inpatient hospital status and then upon discharge into the community. Most of the outpatient follow-up was provided by the social workers and cases of non-compliance with terms of conditional release were handled on a case-by-case basis. In situations in which the insanity acquittee could not be cajoled into following the terms of the conditional release, revocation was sought. Most revocations were for failure to follow through on treatment or not taking medication.

Maryland's conditional release statute now also includes a clearly defined procedure to rehospitalize a patient for evaluation should he or she fail to comply with the conditions of release. Following such evaluation, the conditional release may be reinstated, modified, or revoked at a judicial hearing.

Methods

The focus of this study was a population of 135 male insanity acquittes in the state of Maryland who had been

released from CTPHC from January 1, 1967, to December 31, 1978. All of the patients had been charged with felony offenses, and all had been released from the hospital on the five year conditional release program and had been in the community at least seven years. Three subjects died during the release period, and five records were not located. Therefore, the study group of insanity acquittes numbered 127. The follow-up period surveyed ranged from seven to 17 years, with an average of 10.5 years. None were on conditional release at the time of the study.

This study was designed with a control group and a comparison group. The control group consisted of a random sample of parolees who had been released from Maryland Department of Public Safety and Correctional Services (DPSCS) prisons between 1969 to 1978. The parolees were matched as closely as possible with the insanity acquittes on the basis of four variables: age, race, length of incarceration, and type of offense. Case records on each parolee were obtained from the Division of Parole and Probation. The length of follow-up for the control group ranged from seven to 16 years, with an average of 10.8 years.

The comparison group was composed of a sample of mentally disordered prisoners who were treated at CTPHC between 1969 and 1981 and returned to prison after treatment. To ensure that follow-up information would be available on this group, only those prison transfers who were subsequently released on parole were studied. It was not

possible to match this group to the insanity acquittee population because most prison transfers served their entire sentences and terminated on mandatory release status rather than parole. The length of follow-up for the prison transfers ranged from four to 16 years, with an average of 7.9 years.

The data items included on the data collection instrument were based on previous work in recidivism and psychiatric patient outcome. Ten categories of information were obtained:

1. Patient movement
2. Sociodemographic information
3. Prior hospitalization or psychiatric treatment
4. Childhood and family background
5. History of juvenile delinquency (arrests, dispositions)
6. Psychiatric signs and symptoms exhibited at admission and during prior mental hospitalizations
7. Clinical stay information (i.e., treatment, medication)
8. Prior arrest and incarceration history
9. Postinstitutionalization outcome (employment, functioning, treatment, medication compliance, rehospitalization)
10. Postinstitutionalization arrest and incarceration

Several scales were developed or adopted to facilitate comparisons between pre and post time periods: (1) a severity of instant offense scale was developed which categorized the severity of the charges for which a subject had

been arrested prior to institutionalization, at the time of institutionalization (instant offense), and postrelease. The scale used six seriousness categories and was based on the Maryland Sentencing Guidelines¹² adopted by the Department of Correctional Services; (2) to obtain consistent information on the functioning of subjects in the community prior and post, a role functioning scale was developed. Based on earlier work by McGlashan,¹³ the scale assessed a subject's functioning in four areas: as a wage earner, mate, parent, and global being; (3) in order to measure the overall severity of psychiatric disturbance, Endicott *et al.*'s¹⁴ Global Assessment Scale was used; (4) in addition, the research team developed a matrix of signs and symptoms based in part on the Derogatis Symptom Checklist-90¹⁵ clinical scales and other work. The matrix coded symptoms as neurotic or psychotic and inwardly or outwardly expressed.

FBI arrest records were obtained for all subjects in all three groups. To augment this "rap sheet" information, arrest histories from the Maryland State Police were obtained from the DPSCS Office of Research and Statistics, and arrest information supplied in hospital or parole case records was also added to the rap sheet data.

Data on prior and subsequent mental hospitalization episodes was obtained from the four Maryland state mental hospitals and St. Elizabeths Hospital in Washington, DC.

Difference of proportions tests and *t*-tests were used to analyze pre/post-changes in outcome indicators and be-

Follow-up of Insanity Acquittees

tween group differences. All z scores with significance levels .05 or less are reported as significant. All significant differences discussed are statistically significant at least at the .05 confidence level. Descriptive analysis of cohort outcome focused on the outcome indicators of employment, functioning, rehospitalization, and rearrests. Within each of these four outcome areas, the scales and indicators reviewed earlier in this section are discussed.

Findings

Baseline Comparisons Between Groups Comparisons between the NGRI subjects and the matched prisoner control subjects show that comparable groups were produced with the matching procedures used. The average age in both groups was 31 years, and both groups were composed of 58.3 percent minority members. Table 1 shows that their instant offenses were matched identically, with 29.9 percent of both groups charged with murder, 31.5 percent assault, and 7.9 percent rape. The two groups also compared closely on several variables on which they were not matched: 43.3 percent of both groups were not married, approximately three-fifths were working at the time of their arrest, and over three-quarters had previous arrest records. However, there was a major difference between the two groups in educational level: the NGRI group was better educated (36% of the NGRI group had at least a high school diploma or some college), compared with 22 percent of the prisoner control group.

Major differences were found between the NGRIs and the comparison group of mentally disordered prison transfers. The prison transfers were younger than the NGRIs (mean age of 28.7) and composed of a higher proportion of minority members (79.2%). Significantly more had never been married (68.1%), and fewer were working at the time of arrest (43.5%). Significantly more prison transfers had prior arrest records compared with the other two groups: 90.4 percent of the prison transfers had been arrested before, compared with 76 percent of the NGRIs, and 83.3 percent of the matched control subjects.

Table 1 also shows that the types of crimes for which the prison transfers were seen at CTPHC differed significantly from those for which the NGRI and prisoner control subjects had been arrested. Just over one-quarter of the prison transfers were charged with robbery, 21.5 percent for assault, and 28 percent for property crimes. Just 12.6 percent had been charged with murder or manslaughter.

The NGRI group and mentally disordered prison transfers had nearly identical histories of prior mental hospitalizations: 59.1 percent of the NGRIs and 60.1 percent of the prison transfers had been hospitalized previously for mental illness. Both groups had an average of 1.9 prior hospitalizations. In comparison, 18.1 percent of the prisoner control subjects had been previously hospitalized, with an average of .4 prior hospitalizations.

The classification matrix of signs and symptoms exhibited by patients at ad-

Table 1
Baseline Characteristics of Three Groups

	NGRI Patients (%) (N = 127)	Prisoner Controls (%) (N = 127)	Mentally Disordered Prison Transfers (%) (N = 135)
Marital status			
Married	24.4	31.1	10.4*
Separated	17.3	18.9	11.9
Divorced	15.0	6.6	9.6
Never married	43.3	43.4	68.1*
Living situation at time of arrest			
With parents	29.4	27.7	56.9*
With spouse and/or children	31.7	27.7	11.4*
Alone	18.2	19.3	9.8
With relatives	11.9	9.6	13.0
With girlfriend	3.2	14.5*	7.3
Institution	5.6	1.2	1.6
Instant offense charge†			
Murder	29.9	29.9	12.6*
Assault	31.5	31.5	21.5
Robbery	9.5	8.7	25.9*
Rape	7.9	7.9	5.2
Property	17.2	17.3	28.0
Other	4.0	3.1	11.1

* = $p < .01$.

† = One of the control group matching variables.

mission revealed two major differences between the NGRI and mentally disordered prison transfer cohorts: (1) more NGRI patients (7.1%) than prison transfers (.8%) showed no signs of mental illness at admission; and (2) more prison transfer patients exhibited psychotic symptoms at admission (86.1%) than NGRI patients (65%).

Table 2 shows that over 70 percent of both the NGRIs and the mentally disordered prison transfers were diagnosed as schizophrenic and about 10 percent of both groups were diagnosed as having personality disorders. From four to eight percent were mentally retarded.

Outcome after Release

Data on each subject was aggregated at three points in time after release from

hospital or prison for most outcome indicators. These three time periods were: (1) two-and-a-half years after release, (2) five years after release, and (3) during the entire follow-up period (up to 17 years). Three follow-up periods were necessary because while the average length of follow-up for an insanity acquittee was five years, the average length of parole among the prisoner control parolees was just over two years. Therefore, to ensure uniform comparisons, outcome variables such as working after release or level of functioning after release were measured at two-and-a-half years after release for all groups. Arrest data at five years after release are reported to afford a common follow-up period for all subjects, though arrest data and mental hospitalization data was also recorded for the entire follow-up period.

Follow-up of Insanity Acquittees

The following analysis presents data on each of the outcome indicators. The narrative discusses trends found in significant chi square relationships. A summary comparison of baseline and outcome data is presented in Table 3.

Employment NGRI patients and prisoner control subjects had significantly better employment records at two-and-a-half years after release than the mentally disordered prison transfers. More NGRIs (38.5%) and prisoner controls (48.3%) had been employed contin-

ually full-time compared with prison transfers (11.4%). Over half of the prison transfers (54.5%) had been unemployed continually, compared with unemployment rates of 17.2 percent in the NGRI group and 15.5 percent in the control group.

Functioning Examination of the manner in which the NGRIs and prison transfers were functioning after release (based on the authors' role functioning scale measuring functioning as a spouse, worker, parent, and daily life), found

Table 2
Discharge Diagnoses

Primary Diagnosis at Discharge	NGRI Patients (%) (N = 127)	Mentally Disordered Prison Transfers (%) (N = 135)
Schizophrenia	70.9	78.0
Personality disorder	7.8	10.6
Mental retardation	7.8	4.1
Organic brain syndrome	5.5	4.9
Bipolar disorders	3.2	—
Substance abuse	.8	6.5
All others	3.0	—

Table 3
Summary of Baseline and Outcome Indicators

	NGRI Patients (%) (N = 127)	Prisoner Controls (%) (N = 127)	Mentally Disordered Prison Transfers (%) (N = 135)
Employed			
Prior	41.8	41.0	25.6
Five years post	45.1	62.1*	19.4
Functioning rating (% good/very good)			
Prior	18.8	Not available	17.7
Five years post	49.6†	Not available	18.4
Hospitalized			
Prior	59.1	18.1	60.1
Entire follow-up	45.7†	8.7	59.3
Arrested			
Prior	76.0	83.3	90.4
Five years post	54.3†	65.4†	73.3†
Entire follow-up	65.8	75.4	78.4

* = $p < .05$. (Statistical differences noted with an * were calculated between pre and post percentages within each group).

† $p < .01$.

that significantly more NGRI patients were rated as functioning "good" or "very good" compared with prison transfers. At two-and-a-half years after release, 49.6 percent of the NGRI group, compared with 18.4 percent of the prison transfer group, were rated as functioning "good" or "very good." This data was not available for the majority of the control group subjects.

At the time of admission, patients in both the NGRI group and prison transfer group showed nearly identical average Global Assessment Scale (GAS) scores ($\bar{x} = 29.1$ for NGRIs and 27.4 for prison transfers). Patients in this range are considered to be dysfunctional in most areas, to need protection from the possibility of hurting themselves or others, are frequently experiencing delusions or hallucinations, or are suicidal or violent. By the time of discharge, GAS scores in both groups had risen to an average of 54.9 in the NGRI group and 49.4 in the prison transfer group. The average change in GAS scores in the NGRI group was significantly higher than that of the prison transfers. Patients in the 51 to 60 range are considered to be exhibiting moderate symptoms while patients in the 41 to 50 range are considered to be exhibiting serious impairment. Further, significantly more NGRIs than prison transfers scored in the 61 to 70 range on the GAS (indicating presence of mild symptoms but generally functioning well) at the time of discharge.

Hospitalizations Significantly more prison transfers (59.3%) than NGRI patients (45.7%) were readmitted to men-

tal hospitals during the entire follow-up period after release. In comparison, only 8.7 percent of the control group subjects were admitted to a mental hospital after release. More prison transfers were hospitalized two or more times after release (44.5%) compared with the NGRIs (25.9%). The mean number of rehospitalizations for NGRIs was 1.4, compared with a mean of 2.0 for prison transfers.

Arrests Five Years after Release All three groups had high rearrest rates, but the mentally disordered prison transfers had a higher rate of rearrest within five years, compared with the other two groups. Seventy-three percent of the prison transfers were rearrested, compared with 54.3 percent of the NGRI patients and 65.4 percent of the prison control subjects. Table 4 shows that the average number of rearrests for the NGRI group was 1.3, compared with 2.1 for control subjects and 2.6 rearrests for prison transfers.

The severity ratings of all prior charges showed significant differences between groups in that fewer NGRI patients had been arrested for charges in the most serious categories (38.2% in categories 1 or 2), compared with the mentally disordered prison transfers (55.6% in categories 1 or 2). Table 5 shows that more prisoner control subjects were rearrested for more serious charges (46.7% in categories 1 or 2), compared with NGRIs (33.3% in categories 1 or 2).

Several differences were found, however, in the proportion of each group rearrested for murder and robbery. More NGRIs were rearrested for murder compared with the other two groups; though,

Follow-up of Insanity Acquittes

in all three groups, the numbers were low. Seven men (5.5%) in the NGRI group were rearrested for murder. In two cases, the charges were dropped; and in three cases, the men received either life sentences or 30-year prison terms. In the prison transfer group, three men were

rearrested on murder charges (2.2%); and two were reincarcerated on thirty year prison terms, while the third was found NGRI. In the control group, three men (2.4%) were rearrested for murder; and all three were reincarcerated. Significantly more mentally disordered prison transfers and prisoner controls were rearrested for robbery (4.3 and 3.9%, respectively) compared with the NGRIs (0.3%).

Table 4
Average Number of Rearrests During Follow-Up

	NGRI Patients (N = 127)	Prisoner Controls (N = 127)	Mentally Disordered Prison Transfers (N = 135)
Prior	3.7	4.6	5.3
Post*	1.3	2.1	2.6
Post†	2.3	3.4	3.6

* Post, during 5 year follow-up.

† Post, during 15 year follow-up.

Length of Time until First Rearrest
Mentally disordered prison transfers as well as prisoner controls were rearrested sooner after their release from prison than the NGRI patients were after release from the hospital. Sixty-six percent of prison transfers were rearrested within

Table 5
Comparison of Severity Rating of Prior and Post Arrests

	NGRI Patients (%) (N = 127)	Prisoner Controls (%) (N = 127)	Mentally Disordered Prison Transfers (%) (N = 135)
Severity category of most serious prior arrest			
1 (Murder, rape)	13.5	9.6	6.5
2 (Arson, serious assault)	24.7	38.5	49.1
3 (Burglary, attempted robbery)	25.8	9.6	24.6
4 (Theft, simple assault)	25.8	32.7	14.8
5 (Pandering)	1.1	.9	.8
6 (Shoplifting)	9.0	8.7	4.1
	$\bar{x} = 3.0$	$\bar{x} = 3.0$	$\bar{x} = 3.0$
Severity category of most serious post arrest			
1 (Murder, rape)	14.8	6.5	8.6
2 (Arson, serious assault)	18.5	40.2	30.5
3 (Burg., attempted robbery)	19.8	9.9	24.8
4 (Theft, simple assault)	28.4	31.5	21.9
5 (Pandering)	3.7	5.4	3.8
6 (Shoplifting)	14.8	6.5	10.5
	$\bar{x} = 3.3$	$\bar{x} = 3.0$	$\bar{x} = 3.1$

one year after release, compared with 52.1 percent of controls and 32.9 percent of NGRIs. The mean length of time until the first rearrest for a prison transfer was 1.3 years, which is half the time until the first rearrest of an NGRI patient. Control group subjects averaged 2.2 years until their first rearrest.

Disposition of Criminal Charges

For those rearrest episodes for which dispositions were known, there were several significant differences. Table 6 shows that the most frequent dispositions for NGRI rearrests were probation (24.8%) and prison (23.4%). Eight NGRI patients were found NGRI again on new charges. For the prison transfers, 32.3 percent of the dispositions for all rearrests were for prison and 9.8 percent for probation. For the control parolees, 25.4 percent of the rearrest dispositions were prison and 11 percent were probation.

Arrests during the Entire Follow-up Period The follow-up period for the NGRI group ranged from seven to 17

years, with an average of 10.5 years; for the prisoner control group, from seven to 16 years, with an average of 10.8 years; and for the mentally disordered prison transfers, from four to 16 years, with an average of 7.9 years. In all three groups, arrest rates from five years to the end of the follow-up period gradually increased.

Figure 1 shows the cumulative percent rearrest rates for the NGRI group and mentally disordered prison transfers over time. The NGRI rearrest rate at the end of one year was 22.8 percent, growing to 33.8 percent at two years, 42.5 percent at three years, 54.3 percent at five years, and 65.8 percent at 10 years. After 10 years, only NGRI patients with previous arrests were arrested; therefore, the long-term rearrest rate at the end of 17 years stands at 65.8 percent. In the prison transfer group the rearrest rate at the end of one year was 53.3 percent, growing to 64.4 percent at two years, 68.1 percent at three years, 73.3 percent at five years, and at 16 years, 78.5 per-

Table 6
Disposition of All Criminal Charges for Those Who Were Rearrested

	NGRI Patients (%) (N = 69)	Prisoner Controls (%) (N = 99)	Mentally Disord. Prison Transfers (%) (N = 83)
Total number of Charges	252	423	359
Disposition of all Charges*			
Prison	23.4	32.3	25.4
Dismissed/nolle pros	25.5	27.2	28.7
Probation	24.8	9.8	11.0
Jail and/or fine	11.3	12.3	23.0
Suspended sentence	—	1.7	.5
Committed to hospital	3.5	2.6	1.4
NGR1	5.7	.8	1.4
Parole/prob revoked	—	6.8	3.3
Acquitted	5.7	5.1	5.7
Returned to prison	—	1.3	1.0

* Percentages are based on total number of charges.

Follow-up of Insanity Acquittes

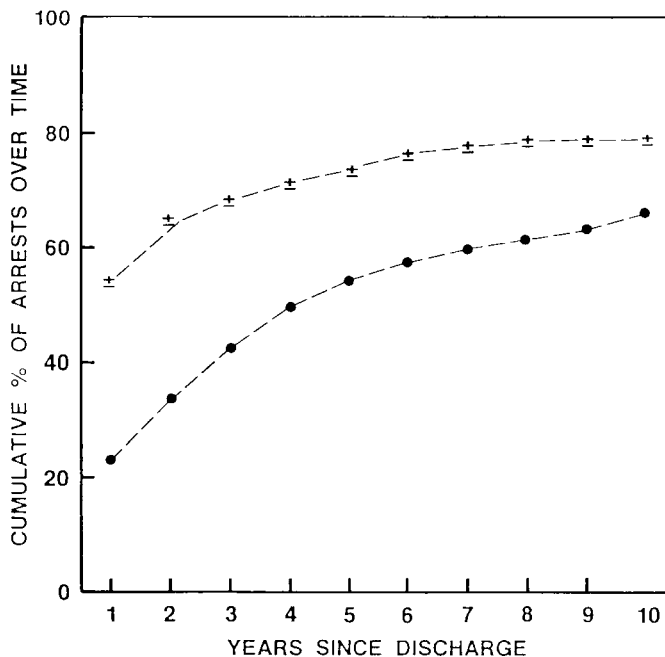


Figure 1. Cumulative percentage of rearrests during follow-up period for the NGRI and mentally disordered prison control groups. Only NGRIs with previous arrests were arrested after the tenth year; only mentally disordered prison transfers with previous arrests were arrested after the eighth year (+ = mentally disordered transfers; • = NGRIs).

cent had been rearrested. In the prisoner control group, 65.4 percent had been arrested after five years, growing to 75.4 percent rearrested after 16 years. Presentation of cumulative data by year was not available for the prisoner control group.

Discussion

Though this research found no difference in the frequency with which insanity acquittees and mentally disordered prison transfers had been previously hospitalized for mental illness (60% in both groups), our rate is higher than that found in similar research on insanity acquittees. Previous research that examined prior hospitalization of insanity acquittees had findings ranging from 34⁴ to 43 percent.¹⁶ Only Petrila's¹⁷ study of insanity acquittees in Missouri, where

79 percent had prior hospitalizations, exceeded our rate, though Lamb *et al.*¹⁸ found a 72 percent rate of prior psychiatric hospitalization. These differences may be related to regional and state variations under which persons were found NGRI, as well as to differing prior criminal backgrounds.

Table 7 presents a summary of four relevant research studies on NGRI populations and findings on rehospitalization and rearrest compared with the findings from our study. As the table shows, the rehospitalization rates found in this study were quite similar to those found by Lamb *et al.*¹⁸ in his recent follow-up of 79 NGRI subjects. Lamb *et al.* found that 47 percent were hospitalized during a five-year follow-up, and our research found 45.7 percent read-

Table 7
Summary of Recidivism and Rehospitalization Research Findings on NGRI Populations

Authors	Sample Size	Publishing Year	Definition of Recidivism	Length of Follow-up	Recidivism Rate (%)	Hospital Rate (%)
Morrow and Peterson	44	1966	b	3 years	37*	23
Pasewark <i>et al.</i>	107	1979	a	Variable†	20	22
Pasewark <i>et al.</i> ²⁰	50	1982	a	2 ½ yrs.	15	18
Lamb <i>et al.</i>	79	1988	a	5 years	32	47
Silver <i>et al.</i>	127	1989	a	5 years	54	46

a, arrest.

b, conviction for a felony offense and excluding two rehospitalization-only cases.

* Five-year failure rate, which includes rehospitalization-only cases, was 52 percent.

† All persons acquitted NGRI from April 1, 1965, to June 30, 1976, were followed for that time period.

mitted to mental hospitals during a five to 15 year follow-up. Over half (59.3%) of the mentally disordered prison transfers were readmitted to mental hospitals during the follow-up period. Only 8.7 percent of the prisoner control subjects were hospitalized during the follow-up period.

For all three groups followed in this research, Table 7 shows that our arrest rates were considerably higher than those reported in other research. At five years postrelease, 54.3 percent of the NGRI patients, 73.3 percent of the mentally disordered prison transfers, and 65.4 percent of the prisoner controls had been arrested. Pasewark *et al.*¹⁹ found a 20 percent rearrest rate among insanity acquittees, Lamb *et al.*¹⁸ found a 32 percent rearrest rate after five years, and Morrow and Peterson reported 37 percent rearrest (actually reconviction) rates after three years.⁴ In a study of prison releasees, Steadman *et al.*² found that offenders released from jail and prison had three to six times higher rates of arrest compared with ex-mental patients.

It is likely that higher postarrest rates

were found in this study because of a longer follow-up period (five years), compared with follow-up periods of one year to three years in most other studies. When our rearrest rates were reexamined at various points in time, we found that our one year rearrest rate for insanity acquittees was 22.8 percent, our two year rate was 33.8 percent, and at three years, 42.5 percent had been rearrested. These figures are much closer to findings of the earlier research just reviewed. It is also likely that using multiple sources of arrest history data gave a more comprehensive view of subsequent criminality.

The mentally disordered prison transfers were found to have more rearrests and poorer outcomes after release than the NGRIs and prisoner controls on nearly all variables. Compared with both the NGRIs and prisoner controls, mentally disordered prison transfers had higher unemployment rates, worse overall functioning, more rehospitalizations, and were rearrested sooner after release from prison than the other two groups. Some of these differences in outcome can probably be attributed to the younger age of the prison transfers and

Follow-up of Insanity Acquittees

to the fact that more prison transfers were repeat offenders to begin with. They were also functioning less adequately than the other two groups prior to hospitalization and continued to function worse than the other groups after release. It was not possible to know whether any of the mentally disordered prison transfers had ever entered NGRI pleas. It is possible that the rate of insanity pleas is too low. It could also be hypothesized that had the mentally disordered prison transfers been found NGRI and placed in the treatment process afforded insanity acquittees, they would have fared better upon release. Based on our findings, it would seem that it would be helpful to provide more extensive treatment and follow-up to mentally disordered prison transfers than they currently receive.

Despite similar rates of prior hospitalizations found between the NGRIs and mentally disordered prison transfers, the two groups differed on many characteristics. The NGRI group was older, composed of fewer minority members, better educated, and more stable than the mentally disordered prison transfers. Prison transfers were found to have poorer levels of functioning prior to the instant offense and higher prior arrest rates. As a group, prison transfers were composed of fewer murderers and more men who had been arrested for robbery and property offenses than the other two groups.

In contrast, the NGRIs showed reductions in the number of pre and posthospitalizations, arrests, and the number of offenses committed, and appeared to return to the same or slightly higher level

of functioning as prior to the instant offense. The matched control group of prisoners, while functioning well in that significantly more were employed after release than prior to incarceration, did show a slight increase in the average number of offenses committed after release, and no significant reduction in the proportion who were arrested over the entire follow-up period.

One of the most serious public concerns with regard to the insanity defense has been the risk posed by the return of insanity acquittees to the community. This study has examined that risk in depth, with controls, and for a longer period of time than previously reported. Although there were a substantial number of rearrests among insanity acquittees, that group had a significantly lower rate of criminal activity compared with the other groups of offenders. However, the high rearrest rates found in all three groups suggests that all bear close follow-up and monitoring upon release. Our future research will examine the characteristics of those subjects who were successful after release in all three groups of offenders.

References

1. Pasewark HA, Pantle ML, Steadman HJ: Characteristics and disposition of persons found not guilty by reason of insanity in New York. *Am J Psychiatry* 136:655-60, 1979
2. Steadman HJ, Vanderwyst D, Ribner S: Comparing arrest rates of mental patients and criminal offenders. *Am J of Psychiatry* 135:1218-20, 1978
3. Steadman HJ, Braff J: Defendants not guilty by reason of insanity, in *Mentally Disordered Offenders*. Edited by Monahan J, Steadman HJ. New York, Plenum Press, 1983
4. Morrow WR, Peterson DB: Follow-up on

- discharged offenders not guilty by reason of insanity and criminal sexual psychopaths. *J Crim Law, Criminology and Pol Sci* 57:31-4, 1966
5. Monahan J, Steadman H: Crime and mental disorder: an epidemiological approach, in *Crime and Justice: An Annual Review of Research* 4. Edited by Tonry M, Morris N. Chicago, Univ. of Chicago Press, 1983
 6. Hawk AB, Carpenter WT, Strauss JS: Diagnostic criteria and five-year outcome in schizophrenia. *Arch Gen Psychiatry* 32: 343-7, 1975
 7. Strauss JS, Carpenter WT: Prediction of outcome in schizophrenia. *Arch Gen Psychiatry* 34: 159-63, 1977
 8. Carpenter WT, Bartko JJ, Strauss JS, Hawk AB: Signs and symptoms as predictors of outcome: a report from the international pilot study of schizophrenia. *Am J Psychiatry* 139: 940-4, 1978
 9. Spodak MK, Silver SB, Wright CU: Criminality of discharged insanity acquittees: fifteen year experience in Maryland reviewed. *Bull Am Acad Psychiatry Law* 12:373-82, 1984
 10. Cohen MI, Spodak MK, Silver SB, Williams K: Predicting outcome of insanity acquittees released to the community. *Behav Sci Law* 6:515-30, 1988
 11. Annotated Code of Maryland, Article 59, Sections 23-28 (1957); Maryland Health—General Article Code Annotated Sections 12-101 -12-116 (1982); Sections 12-101-12-121 (1988 Cum. Supp.)
 12. Maryland Multijurisdictional Sentencing Guidelines Project: Maryland Sentencing Guidelines Manual, June 1981
 13. McGlashan, T: Chestnut Lodge follow-up study. *Arch Gen Psychiatry* 41: 573-85, 1984
 14. Endicott J, Spitzer R, Fleiss J, Cohen, J: The global assessment scale. *Arch Gen Psychiatry* 33:766-71, 1976
 15. Derogatis LR, Riobels K, Rock A: The SCL-90 and MMPI: a step in the validation of a new self-report scale. *Br J Psychiatry* 128:280-9, 1976
 16. Cooke G, Sikorski C: Factors affecting length of hospitalization in persons adjudicated not guilty by reason of insanity. *Bull Am Acad Psychiatry Law* 2: 251-261, 1974
 17. Petrila J: Intersections between the criminal justice and mental health systems. Presented at the International Symposium Law and Psychiatry. Charlottesville, VA: June 11-13, 1981
 18. Lamb HR, Weinberger LE, Gross BH: Court-mandated community outpatient treatment for persons found not guilty by reason of insanity: a five-year follow-up. *Am J Psychiatry* 145:450-6, 1988
 19. Pasewark RA, Pantle ML, Steadman HJ: The insanity plea in New York State 1965-1976. *New York State Bar J*, 51:186-9 217-25, 1979
 20. Pasewark RA, Pantle ML, Steadman HJ: Insanity acquittees and felons: a control study of their detention and rearrest. *Am J Psychiatry*, 139:892-7, 1982