MENTAL HEALTH AND CRIMINAL JUSTICE

A REVIEW OF THE RELATIONSHIP BETWEEN MENTAL DISORDERS AND OFFENDING BEHAVIOURS AND ON THE MANAGEMENT OF MENTALLY ABNORMAL OFFENDERS IN THE HEALTH AND CRIMINAL JUSTICE SERVICES

PREPARED FOR THE CRIMINOLOGY RESEARCH COUNCIL

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<u>Preface</u>

This report focuses on major mental disorders, such as schizophrenia, and on those disabled by neurological damage and deficits. Space and time do not allow the report to address the issue of severe personality disorders (and/or psychopathy) and offending which is an even more contentious, complex and some would argue urgent problem.

<u>Introduction</u>

There has been a longstanding and vigorous debate over the relationship of mental disorder to violent and other criminal behaviours dating back over a century (Lombroso 1911, Maudsley 1876, Monahan 1981). In the 1960's and 70's a broad consensus emerged among mental health professionals, criminologists and other researchers that any apparent correlations between mental disorder and offending were the result of the confounding influences of the social dislocations which so often accompany disorder and disability. (Monahan & Steadman 1983, Mullen 1984). This consensus was maintained in part by research evidence but also in part by ideological commitments. Central among such preconceptions were the desirability of deinstitutionalisation for the mentally ill, a civil liberties perspective for such disadvantaged groups, and a desire to reduce the public's fear of the mentally ill. In the 1980's this consensus began to break down and the 1990's was marked, particularly among researchers from psychiatry and psychology, by an increasing emphasis on the correlations between serious mental disorders and offending behaviours (Hodgins 1992, Torrey 1994, Monahan and Steadman 1994, Mullen The enthusiasm for the rediscovered 'dangerousness' of the mentally disordered was not shared by all researchers and all disciplines. Sharp divisions on the issue became increasingly apparent. Again the debate was only partly grounded in research data and in part reflected ideological commitments.

The mainstream of psychiatry in the 1980's returned from an emphasis on broadly social and psychological constructions of mental disorder back to it's traditional medical adherence to causal theories based in neurobiological pathologies and genetic variations. This reopened divisions both with the social sciences and with other

mental health disciplines, in particular nursing, which continued to give centrality to the social and/or psychological. These differences were in part played out over the last decade in the debates around whether robust correlations really do exist between mental disorder and offending and if they do what mediates that relationship.

Appeals directly to the research evidence, one might hope, would resolve such differences. Unfortunately what research questions are asked, what methodologies applied and how results are interpreted are all open to profound influence by the prior commitments of researchers. Hafner & Böker (1982) in their massive and painstaking study of offending and mental disorder in Western Germany clearly documented significant correlations between having schizophrenia and violent offences then, famously, concluded "if we define the dangerousness of the mentally abnormal as the relative probability of their committing a violent crime, then our findings show that this does not exceed the dangerousness of the legally responsible adult population as a whole". Further they had "no hesitation in concluding that a tendency to aggressive behaviour is rooted in the personality and in the mentally abnormal such as a tendency has usually become manifest long before the onset of the psychosis". It is tempting to speculate that their commitment to destignatising mental illness and promoting deinstitutionalisation influenced their conclusions. Given the importance of professional and ideological commitments in the interpretation of the data of relevance to this report my particular perspective should be made clear at the outset. I am a psychiatrist, albeit one who gives primacy to social and psychological factors, an epidemiologist with in this area a firm commitment to quantitative research, and a clinician prepared to forego the finer points of intellectual debate for pragmatic solutions to practical problems. Caveat Emptor.

There is now a sufficient body of research employing widely varying methodologies, and performed by those of differing prior commitment, to sustain some broad conclusions about the correlations between different forms of mental disorder and a range of offending behaviours. Less clear, but nevertheless increasingly accepted, is the extent to which such correlations reflect causal relationships and the extent to which the elements which mediate such causal connections are remediable. Questions and doubts remain. Future research and scholarship will certainly both refine and shift the knowledge base to better inform policy. There is however, at this time, good

enough research data to inform public policy on how to manage the mentally disordered so as to reduce the chances of offending, and on how to manage the mentally abnormal offender to minimise reoffending.

This paper will consider the following questions indicating both the current state of knowledge, the limitations on that knowledge, the research priorities and last, but not least, the policy implications: -

- 1. The relationship between offending behaviour and: -
 - (a) Major mental disorder (schizophrenia, major affective disorders, bipolar disorders and other psychotic conditions) and offending behaviours.
 - (b) Intellectual disability and offending behaviours.
 - (c) Brain damage and neurological disorders including epilepsy and offending behaviours.
- 2. Substance Abuse, Mental Disorders and Offending.
- 3. Methodological Limitations of Existing Studies.
- 4. Effect Size and Practical Significance.
- 5. From Associations, to risks and from risks to predictions.
- 6. The influences of changing patterns of mental health care service delivery and the burgeoning prison population.
- 7. Managing mental disorders in the criminal justice system.
- 8. Managing the risk of future offending among the mentally disordered in the mental health services.

1 (a) Major Mental Disorders and Offending Behaviours

Three broad strategies exist for investigating the possible association between mental disorder and offending by examining:

- i) The rates of offending in the mentally disordered.
- ii) The rates of mental disorder among known offenders.
- iii) The associations in community samples between offending and mental disorder.

Each strategy depends on adequate methodologies for defining and ascertaining both mental disorder and offending behaviour in the target populations. They also require samples of sufficient size to provide adequate power for analysis, and samples sufficiently representative to allow generalisation. There are obvious limitations to such studies of associations. The majority of studies examine the relationships between offending behaviours and mental disorder at a particular moment of time fixed either by the ascertainment of the disorder or the offending. Those studies which in principle could examine the changing interactions between the variables over time (e.g. birth cohort studies) are usually limited both by the information available and the number of informative cases. Follow up studies have, to date, been limited either in numbers or length of follow up. Further, studies in this area often focus exclusively on the characteristics of the mentally disordered individuals ignoring not only most of the background social and contextual issues but also the immediate situational factors which surround the act of violence or offending (contrast this with the research reviewed by Reiss & Roth (1993) which placed existing information on violent offending in the general community clearly in its social, interpersonal, and psychological contexts).

a) Rates of Offending in the Mentally Disordered

Studies have examined rates of violent and criminal behaviours in mentally disordered and impaired individuals prior to admission, on first contact with services, whilst hospitalized, and following discharge in the community (examples include Walker & Seifert 1994, Binder & McNeil 1988, Tardiff 1982, Fottrell 1980, Karson & Bigelow

1987, Powell et al 1994, Sheridan et al 1990).

The MacArthur collaboration represents, in many ways, the most sophisticated examination to date of the relationship between having a mental disorder and violent criminal behaviour (Steadman et al, 1998; Monahan et al, 2000, http://www.prainc.com/gains). A sample of over a thousand people admitted to public psychiatric inpatient facilities in Pittsburgh, Kansas City and Worcester Massachusetts were extensively evaluated and followed up every 10 weeks for the year following discharge (72% completed at least three follow up interviews). Information about their offending behaviour was derived from self report, from a collateral informant nominated by the subject and from clinical and official records. Overt acts of violence were ascertained to have occurred in 27.5% of subjects with 22.4% revealed by the subjects self report and official records adding most of the additional information. The nature of the identified acts of violence covered the spectrum from hitting to attacks with weapons (3 subjects committed homicide) but excluded what were termed "other aggressive acts" which were primarily throwing things, pushing, shoving and slapping. Addition of these lesser forms of violence raised the percentage of perpetrators to 56%. Those with a major mental disorder, which included depression and dysthymia as well as schizophrenia and other psychotic disorders, were less likely to be overtly violent than those with other mental disorders which consisted primarily of personality or adjustment disorders (almost invariably complicated by substance abuse). Those with coexisting substance abuse were significantly more prone to violence than those not similarly burdened.

In such studies one of the greatest problems is establishing a control group of non disordered individuals who share as many of the subjects other characteristics as possible from whom directly comparable information can be obtained. The MacArthur group made a valiant attempt but by the most generous of estimations only 43% of control subjects approached completed a relevant assessment. On the basis of comparisons with this control group it was concluded that patients with major mental disorders, including schizophrenia, but without substance abuse, were no more likely to be violent than "others in their neighbourhood without symptoms of substance abuse". Substance abuse was however significantly more common among patients (31% vs 17%) and amongst patients with substance abuse the prevalence of violence

was significantly higher than others in their neighborhood.

Another research strategy is to trace the criminal records of cohorts of individuals who have had contact with mental health services (Lindqvist & Allebeck, 1990; Wessley et al, 1994; Modestin & Amman, 1996). In a recent example Mullen & colleagues (2000) in an Australian study traced the criminal histories of just over 1,000 people with a diagnosis of schizophrenia who had been first admitted either in 1975 or 1985 [copy of paper is Appendix I]. The pattern of offending in these individuals were compared with those for age, gender and residential area matched controls. Over 20% of males with schizophrenia had been convicted of a criminal offence with over 10% having a conviction for violence compared to 8% of controls who had a recorded offence with 2% violent convictions. A co-existing diagnosis of substance abuse was significantly associated with the chance of acquiring a conviction (49% vs 8.6%) including convictions for violence (17% vs 2%).

In an as yet unpublished companion study 599 patients admitted in Victoria between 1985 and 1987 with a major affective disorder (depressive, manic or bipolar), had their history of offending compared with age, gender and area of residence matched controls (Mullen PE, Daly O, Burgess P, Wallace C). This demonstrated significant increases in offending among those with admissions for affective disorders when compared to age, gender and area of resident matched controls (see Table 1). When those who had a diagnosis of substance abuse as well as a diagnosis of an affective disorder were compared with those without comorbid substance abuses the relative levels of offending were markedly higher in those who also abused alcohol or drugs. (See Table 2). Care has to be exercised in interpreting this and other studies on offending in affective disorders as they focus exclusively on those admitted to hospital. The vast majority of those with depressive disorders are never admitted and those who are have increased numbers of individuals with social, interpersonal and substance abuse problems.

Table 1 - Affective Disorders Study Lifetime Offending

Offences	Total	Male	Female
Total	3.9 (2.6-6.0)	4.1 (2.4-6.9)	4.2 (2.0-8.9)
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Property	3.5 (2.0-6.0)	3.4 (1.7-7.0)	3.6 (1.5-8.5)
Violence	3.7 (3.4-22.3)	9.3 (3.3 –26.7)	N.S.

Results expressed as odds ratios with 95% confidence limits p<0.01 set as level of significance.

Table 2 - Affective Disorders Study Male Substance Abusers and Non Substance Abusers – Lifetime Data

Offence Category	Substance Abusers	Non Substance Abusers
Total	7.2 (2.8-18.5)	3.8 (2.2-6.5)
Property	11.8 (4.1-33.8)	N.S.
Violence	27.5 (7.3-103.6)	7.9 (2.7-23.1)

Results Express as Odds Ratios with 95% Confidence Intervals Level of Significance set at 0.01

(b) Rates of Mental Disorder Among Offenders

There have been numerous studies of the rates of mental disorder among offender populations usually focusing on prisoners. Some studies concentrate on particular offences with homicide being the favourite, both because of it's importance and the high clear up rates which provides a more 'representative sample' (Eronen et al, 1996). Table 3, for example, lists major studies of the association between having a schizophrenic disorder and homicide which demonstrate a consistent and highly

significant association between homicide and having, or having had, a schizophrenic illness.

Table 3

Homicides Comr	nitted By Persons	With Schizophren	ia (adapted from I	Erb et al 2001)
Authors	Country	Number of Homicides	Period	Proportion of homicides committed by persons with schizophrenia
Petursson, Gudjonsson (1981)	Iceland	47	1900-79	14.9%
Gottlieb et al (1987)	Copenhagen	251	1959-83	8.0%
Lindqvist (1989)	Northern Sweden	74	1970-1980	28.4%
Wilcox (1985)	Contra Costa county, California	71	1978-1980	9.9%
Eronen et al (1996)	Finland	1037	1984-91	6.1%
Wallace et al (1998)	Victoria, Australia	168	1993-95	7.2%
Expected	rates for schizophre	nia in those comm	unities vary between	n 0.4 and 0.8%.

A study of a representative sample of sentenced prisoners in England and Wales reported rates of schizophrenia for males of 1.5% and females 1.1% (expected 0.5%) (Gunn et al, 1991). Teplin (1990) in an American study of 728 remandees ascertained 6.4% to have severe mental disorders of whom nearly half had schizophrenia. This was over twice the rates ascertained in the general population with similar instruments. The pre-eminent study in this area remains that of Taylor & Gunn (1984)

who employed the Present State Examination to establish the levels of psychopathology in 1241 remand prisoners. They reported that 9% of those convicted of non fatal violence and 11% convicted of homicide had schizophrenia (expected rates 0.6%).

Most studies on offender populations employ methodologies which evaluate the psychiatric status of subjects during their incarceration or on the basis of pre-trial assessments. Wallace et al (1998) in contrast used a register which recorded all contact with public mental health services in the State of Victoria in Australia to establish the prior psychiatric histories of 4,156 individuals (3,838 males) convicted in the higher courts of that state between 1993 and 1995. Over 25% of these offenders had had prior contact with the mental health services. Interestingly the largest group of such contacts (11.8%) were those who had had only brief contact with services usually whilst in crisis and had either received no formal diagnosis or that of situational stress. The next biggest group were those who had received a primary diagnosis of substance abuse (7%). In males schizophrenia, affective psychosis, affective disorders and personality disorders were over represented among offenders in general and violent offences (including homicide) in particular. (See Table 4). The psychiatric register recorded in addition to the primary diagnosis associated disorders including substance abuse. A recorded comorbid substance diagnosis was strongly associated with offending. (See Table 5). Those males who had been diagnosed with schizophrenia and had also received a diagnosis of co-existing substance abuse were over 12 times more likely to be convicted than a member of the general population (O.R. 12.495% C.I. 9.1 -16.7) compared to less than 2 (95% C.I. 1.4-2.4) for those without a substance abuse diagnosis. This disparity between those with and without substance abuse was similarly marked for violence (O.R. 2.4 vs O.R. 18.8) and homicide offences (O.R. 7.1 vs O.R. 28.8). [This paper is Appendix II].

12

Table 4 - Associations between offence categories and diagnostic groupings for men (from Wallace et al 1998)

	Total individuals convicted (n=3838)		Vi	olent offen (n=1998)		Ho	micide offe (n=152)	ences	Offenc				xual offend (n=876)	ding	
	n	OR	95% CI	n	OR	95% CI	n	OR	95% CI	n	OR	95% CI	n	OR	95%CI
Schizophrenia	91	3.2***	2.56-3.88	66	4.4***	3.46-4.66	11	10.1***	5.45- 18.61	24	2.8***	1.86-4.18	18	2.7***	1.70-4.32
Affective psychosis	28	2.8***	1.94-4.04	16	3.1***	1.86-5.0	2	5.0*	1.25- 20.93	5	1.7 NS	0.70-4.01	7	3.1**	1.44-6.40
Affective disorders	64	3.4***	2.67-4.38	40	4.1***	2.0-5.63	4	5.4***	2.01- 14.64	16	2.9***	1.75-4.70	17	4.0***	2.46-6.43
Personality disorders	67	12.7***	9.96- 16.26	51	18.7	14.08- 24.71	6	28.7***	12.69- 65.07	16	10.2***	6.11-16.44	18	14.7***	9.21- 23.52
Substance misuse	246	7.1***	6.23-8.09	169	9.5***	8.14-11.18	8	5.7***	2.80- 11.59	95	9.4***	7.60-11.57	29	3.5***	2.42-5.08
Residual diagnosis groups (including organic psychosis)	186	3.1***	2.67-3.59	89	2.8***	2.29-3.50	10	4.3***	2.24-8.09	46	2.6***	1.90-3.43	88	6.8***	5.43-8.45

The odds ratios are expressed with the 95% confidence limits for the relationships between offences and groupings according to the primary diagnosis recorded in the case register.

^{*}P<0.05, **P<0.01, ***P<0.001.

Table 5 - Associations between offence categories and diagnostic groupings with comorbid substance misuse (from Wallace et al 1998)

	Total individuals convicted (n=3838)		Vi	iolent offen (n=1998)		Ho	micide offe (n=152)	ences	Offeno	es against (n=1137)		(n=876)			
	N	OR	95% CI	n	OR	95% CI	n	OR	95% CI	n	OR	95% CI	n	OR	95%CI
All Schizophrenia	91	3.2***	2.56-3.88	66	4.4***	3.46-4.66	11	10.1***	5.45- 18.61	24	2.8***	1.86-4.18	18	2.7***	1.70-4.32
Schizophrenia without substance misuse	48	1.9***	1.40-2.48	32	2.4***	1.69-3.40	7	7.1***	3.33-15.2	10	1.3 NS	0.7-2.43	12	2.0**	1.16-3.62
Schizophrenia with substance misuse	43	12.4***	9.12- 16-78	34	18.8***	13.35- 26.50	4	28.8***	10.67 - 77.92	14	13.4***	7.88-22.71	6	7.4***	3.29- 16.46
All affective disorders	64	3.4***	2.67-4.38	40	4.1***	3.0-5.63	4	5.4***	2.01- 14.64	16	2.9***	1.75-4.70	17	4.0***	2.4-6.43
Affective disorders without substance misuse	45	2.6***	1.93-3.47	26	2.9***	1.95-4.23	3	4.4*	1.40- 13.72	9	1.7 NS	0.90-3.34	15	3.8***	2.27-6.32
Affective disorders with substance misuse	19	13.5***	8.52- 21.29	14	19.0***	11.15- 32.29	1	17.45***	2.44- 124.90	7	16.8***	7.80-34.78	2	6.0**	1.50- 24.34

The comparative odds ratios are presented in the male population with schizophrenia and affective disorders for those with a comorbid diagnosis of substance misuse, those who have never attracted a substance misuse label and for the groups as a whole.

^{*}P<0.05, **P<0.01, ***P<0.001.

The recent studies of the psychiatric disorders among offender populations are summarised in Appendix III. The studies indicate the following:

- 1. Increased rates among prisoners of a wide range of mental disorders. Major mental disorders are typically found at 2-4 times the expected rates with substance abuse and personality disorders being even more dramatically over represented.
- 2. Levels of psychopathology among women prisoners are even greater than among male inmates.

(c) Community Studies

Studies which ascertain both offending and mental health status on random community samples are formidable undertakings. Swanson et al (1990,1994) analysed data on over 10,000 subjects from the Epidemiological Catchment Area Study which set out to establish the mental health status of the America population. Violent behaviour was ascertained by probes establishing self reports of assaultative behaviour. In the previous year violent acts were reported by 2.4% of the non disordered population. This rose to 12% in schizophrenia and in major depression to 11%. Substance abuse as a primary diagnosis was associated with a rate of acknowledged assault of 25%. Those with major mental disorders who were also substance abusers accounted for much of the violence in the mentally disordered.

Hodgins and her collaborators (1992, 1996 and Brennan et al 2000) have employed birth cohorts followed up over many years to investigate the relationship between having received psychiatric inpatient care and having acquired criminal convictions. These studies have established a strong association between serious mental illness and offending, including violent offending. In the most recent of such studies 358,180 individuals born in Denmark between 1944 and 1947 were followed up using national registers and recording hospitalisations for mental illness and the other of arrest for criminal offences (Brennan et al, 2000). The study supported "the hypothesis that

major mental disorders are associated with an increased likelihood of arrest for violence" (pg 497). Even when demographic factors and co-morbid substance abuse were controlled for individuals hospitalised for schizophrenia had significantly higher rates of arrest for violence. Interestingly this paper also identified males with organic psychosis as dramatically over represented among such offenders.

Arseneault & Colleagues (2000) in a New Zealand birth cohort study of 961 twentyone year olds studied associations between mental disorders and both self reports and
convictions for violence. In those with no psychiatric disorder 22(3.8%) had evidence
of such behaviours in the previous year. The results indicated higher levels among
those with any kind of psychiatric disorder (18% O.R. 5.5 95% CI 3.3-9.0), with rates
being highest for disorders in the schizophrenic spectrum (33.3% O.R. 5.4 95% CI
2.6-10.9). Rates were also evaluated in the substance abuse disorders particularly that
involving marijuana (34% O.R 6.9 95% CI 4.1-11.4). Rates were highest of all in
those who had a schizophrenic spectrum disorder as well as marijuana dependence
(O.R. 18.4 95% CI 7.5 – 45.3). This study concluded that engaging in greater
violence was associated with schizophrenia as well as with marijuana and alcohol
dependence both independently, and in association with schizophrenia. Arseneault
and colleagues (2000) note "persons with at least one of these 3 disorders constituted
only one fifth of the sample but they accounted for more than half the samples violent
convictions and violent acts". (pg 984).

1 (b) Offending Behaviour and Intellectual Disability

Numerous studies have indicated that offender groups contain more individuals with low IQ's (Hirschi & Hindelany 1977, Hayes & McIllwain 1988, Jones & Croombes 1990 for review see Glaser 1996). The NSW Law Reform Commission Report (1996) estimate that whereas the prevalence of intellectual disability in the general population of the State is 2-3%, but among prisoners the rates are "at least 12-13%" (pg 25). The rates among those arrested, those charged and those appearing before the courts are even higher (NSW Law Report Commission 1996, Gudjonsson et al 1993). Children in the lower IQ ranges are more prone to conduct disorder and delinquency than those with average, or above, scores on intelligence tests (Moffitt

1990, White et al 1989). Hodgins (1992) in her study of a Swedish birth cohort (15,117 persons) found among the 192 subjects who had been ascertained intellectually disabled (but with no known comorbid major mental disorder) that rates of criminal convictions were increased; for men the odds ratio was 3.1 (95% CI 2.1-4.5) and for females 3.7 (95% CI 2.0-6.9). Examining specifically violent offences Hodgins (1992) reported the increases in males with intellectual disability were 5.5 (95% CI 3.4-8.8) and for females 24.7 (95% CI 8.9-69.2).

1 (c) Offending Behaviour and Brain Damage

There is a long history of associating various forms of brain injury, brain dysfunction, and brain degeneration with impulsive and criminal behaviours (Lombroso 1911, Pick 1989). Clinical studies have reported increased levels of violent behaviours among the brain damaged particularly marked among those with injuries to the frontal lobes (Vogenthaler 1987, Grafman et al 1996, Nedopil 2000). The degenerative brain disorders of old age can also be associated with aggressive, and on occasion seriously violent, behaviours with such behaviour being one of the commonest precipitants of placement in long term care (Eastley & Wilcock 1997, Rabins et al 1982). Epilepsy has long been held to be associated with criminal behaviour. Epilepsy is found more frequently among prisoners (Gunn 1977). This may however not reflect the influence of the brain instability on behaviour but more the social and personal instability on the brain (e.g. trauma, early deprivation, in utero damage) (Toone 1990).

In the only community study of crime and mental disorders arising specifically from brain injury and dysfunction is that of Brennan and colleagues (2000) who noted markedly elevated rates of offending particularly involving various forms of violence. The extent to which this finding is contributed to by the role of substance abuse causing, or complicating, the organic brain syndromes is not clear.

2. Substance Abuse, Mental Disorders and Offending

The report has already repeatedly highlighted the frequency with which the coexistence of substance abuse with a mental disorder increases the level of the

association with offending behaviour (for reviews see Soyka 2000, Scott et al 1998). In those with mental disorders increased rates of substance misuse (including alcohol, cannabis, sedatives, stimulants and opiates) have been reported from around the world, including Australia (Mueser et al 1990; Fowler et al 1998, Smith & Hucker 1994). The evidence is mounting that the frequency with which those with mental disorder are resorting to the abuse of drugs and alcohol is increasing (Cantwell et al 1999, Boutros et al 1998). In one of our own studies the rate of recorded problems with substance abuse among first admissions increased from 10% in 1975 to 35% in 1995 (Wallace, Burgess, Mullen unpublished). Soyka (2000) concluded his review by noting "there is substantial evidence for substance misuse being a major risk factor for violence and aggression in patients with mental disorders particularly schizophrenia" (pg 348). A reservation should however be recorded about the too ready assumption that substance abuse causes offending behaviours in the mentally disordered. To a greater or lesser extent substance abuse may reflect, rather than cause, such factors as anomie, impulsivity and fecklessness which contribute to offending. Thus in part it may be that those who tend to offend are also those who tend to abuse drugs and alcohol when available, rather than it always being drug and alcohol abuse which ushers in offending behaviours. Only properly conducted studies which examine independently the fluctuations in substance abuse and offending can answer this question. This is a question of considerable moment given the increasing emphasis on preventing, or reducing, substance abuse being the royal road to the reduction of all types of offending in the general community as well as the mentally disordered.

3. The Methodological Limitations of Existing Studies

Studies examining the relationship between offending behaviours and mental disorders have focused almost exclusively on determining associations at particular moments in time in specified, and often highly selected, groups. The analysis employed only occasionally progresses beyond the bivariate to the multivariate in which potential confounding variables (e.g. social class, prior criminal history, employment status, relationships status) are entered into the analysis. A recent New Zealand study based on the Dunedin birth cohort (born 1972/73) is one of the few papers to offer an even basic multivariate analysis (Arseneault et al 2000). In a

hierarchical logistic regression they demonstrated greater effects for gender (O.R. 3.0 (95% CI 1.7-5.2) and for the social class of the family of origin during the subjects childhood and adolescents (O.R. 0.6 95% CI 0.5-0.8, where lowest social class was 1 and highest 6) than for any mental health variable. When social class was taken into consideration the only specific groups of mental disorders which remained significantly associated with their measures of violent behaviour were the schizophrenias, alcohol dependence and marijuana dependence.

Appropriately established control groups remain the exception rather than the rule. The assumptions underlying both the design of many studies and the interpretations tend by current standards in criminology to be on the simplistic side ignoring, to a greater or lesser extent, issues of social background, cultural context, immediate precipitants and the constructions placed on the target behaviours both by the actors and those defining the deviance.

A number of these limitations have already received comment but it may be useful at this point to briefly note some of the other methological problems which, to varying degrees, bedevil existing studies.

1. Sample Selection. In even the best studies the recruitment of the sample may create problems of generalisability. The commonalities between acute admissions to public psychiatric facilities in the US on which the MacArthur studies depend, and those entering mental health services in Australia appear to differ on such factors as diagnosis, length of stay, rates of substance abuse as well as ethnic and social backgrounds (Steadman et al 1998). Prisoners in the US represent a very different population to those in, for example, Victoria with an imprisonment rate 5 to 10 times lower than most US States. Selection may exclude those at high risk of offending (e.g. by sampling exclusively from general mental health services ignoring forensic and prison units – (no small matter in the US where in some States jails have become the largest psychiatric institutions)), or by specifically selecting those at greater risk (e.g. focusing on inpatient groups admitted almost exclusively on basis of risk to self or others and excluding the vast majority of patients in the community).

- 2. Ascertainment of criminality and violence. Widely differing methods of ascertaining criminality have been employed in the literature including self report, record reviews, conviction rates, charge rates and arrest rates. There is little consistency about what constitutes violence in those studies who attempt to tap into behaviours which have not led to official involvement. In data based on convictions the categorization of criminal behaviours is often variable if not frankly arbitrary one study including in violent crimes any offence which might in the author's view frighten or distress the victim. Only a small number of studies are capable of generating data based both on self report and official offending data (e.g. Steadman et al 1998, Arseneault et al 2000, Milton et al 2001).
- 3. The methods for the ascertainment of mental disorder differs widely among published studies with catch all categories, like major mental disorders being employed or even more concerning apparently specific diagnostic categories, like schizophrenia, into which are poured a wide range of psychotic disorders. The diagnostics often depend on less than ideal instruments or clinical evaluations. Large community studies are often complicated by the sizeable groups known to have received psychiatric treatment but for whom no diagnosis is recorded.

The methodological strengths of this literature are however considerable when taken as a whole. Whilst each individual study carries it's burden of methodological infelicities when placed together they sustain a powerful argument not only for a connection between certain mental disorders and criminal behaviours but for the probable level of those associations and, to some extent, the likely mediators of that relationship.

4. Effective Sizes and Practical Significance

Brennan and colleagues (1999) calculated the effect size for the reported associations between major mental disorders and both crime and violent behaviours. This meta analysis suggested an overall effect size of 0.8 for the relationships between both crime and violence and major mental disorder with the relationship to violence being

marginally greater. This they argue is a large effect size. In examining specifically schizophrenia they reported an overall effect size which was significantly higher for violence with associations to crime in general having only a low effect size.

Effect size is one measure of the potential practical significance of the associations reported in the literature. There are however problems in moving from reports of significant associations, relative risks, odd ratios, attributable risks and even effect sizes, to the clinical and public policy implications of such findings. The manner in which data is presented can have an important influence on how the results are understood, not only in the scientific community but in the wider community. Wallace & colleagues (1998) reported on the basis of a Victorian study that there was a significant association between being convicted of a homicide offence and having had treatment for a schizophrenic disorder. This association was described by an odds ratio of 10.1 (94% CI 5.5-18.6). Being ten times more likely to commit homicide can conjure up a fearful image of murderous potentialities. In this study the authors also provided a more meaningful estimate in terms of the probability, that being the chances that any particular person with schizophrenia will commit a homicide. The annual risk for males with schizophrenia was 1 in 3,000 and for females 1 in 30,000. Alternatively this indicates 99.98% of those with schizophrenia will not kill in the next year. Not only are probabilities expressed in this manner less conducive to exaggerated fears they make crystal clear the practical impossibility of generating predictive algorithms capable of identifying those with schizophrenia who will kill in the future.

How to present risk magnitudes in a transparent and readily understood form is a challenge which must be taken up by those who research and publish in this area where prejudices and fears are readily evoked and confirmed. Writing, for example, about significant but low levels of risk makes statistical sense but communicates poorly even to the well informed layperson who is likely to translate significant as substantial. Improved methods of communicating about risk are needed with one obvious approach being making clear what the chances are of such an event impacting on you, or your family, or the community in which you live, or your district etc (See Calman & Royston 1994). In the area of research into crime and mental disorder it is

often of rhetorical benefit to compare with the risks presented by young men. If the chances of being victimized are the issue those are far better grounds to react to young men by running in fear, or opposing their living in your neighborhood, than responding similarly to those with schizophrenia or intellectual disability.

On occasion those wishing to avoid stigmatizing the mentally ill attempt to express risks in terms of those with a particular illness who are not, for example, also burdened by unemployment, low socioeconomic status or substance abuse (Steadman et al 1998). The problem with such well intentioned restatements of risk is that they tend to ignore that having schizophrenia, for example, is itself associated with unemployment, decline in socioeconomic status and dramatically increased risks of substance abuse. An argument can be mounted that providing meaningful employment, improving the social status and combating substance abuse will lower offending in these vulnerable groups. In the absence of such programs and evidence that they do indeed decrease the frequency of criminal behaviours, the risks of those with mental disorders committing offences have to be based on the realities which attend, and flow, from those disorders.

5. From Associations to Risks, and from Risks to Predictions

Binder (1999) in her recent review concluded that not only are "some mentally ill persons dangerous" (p197) but that "mental health clinician's responsibility becomes that of evaluating which of the mentally ill are dangerous" (pg 197). Steadman (2000) also claimed that there will be in the near future "a tool to advise clinicians making release decisions as to risk levels of violence as one factor in release and supervision decisions" (pg 270).

The enthusiasm for risk assessments particularly those based on actuarially based instruments is not universal. Mossman (2000) analysed the mathematics of risk assessment procedures concluding that assessments of the risk of violence will not in the foreseeable future provide clinicians, or judicial decision-makers, with prediction instruments of much practical utility. Mossman (2000) demonstrates that even the most optimistic levels of sensitivity and specificity being claimed for the best

established of actuarial instruments, such as the HCR-20 and the VRAG, cannot generate clinically useful long-term predictions. All existing assessment instruments generate levels of false positives and false negatives which in practice vitiate their utility.

Clinical and judicial risk assessments are usually attempting to identify those at high risk for rare events (eg homicide or serious assaults) which inevitably increases enormously the false negative rates. Risk assessment, as it applies in the mental health field, requires predictions of particular future events in individuals not just the calculation of a statistical probability in a large group sharing one or more characteristics with that individual. Knowing that the population with a schizophrenic illness generate 10 times more homicidal violence than a control population without such an illness may raise an expectation of predictability and control. By the most generous of estimates, however, this requires at the level of the individual identifying the one member of the group in every 3,000 who will act homicidally – an impossible task.

It can be argued that despite the practical difficulties the actuarial assessments are an improvement on unaided clinical judgment. The problem is however the expectations generated and encouraged by advocates of these approaches. Such unrealistic hopes lead clinicians to offer spurious certainties based on a science which in application degenerates to a scientism (Mullen in press). Norko (2000) described the dilemma writing "such techniques are traps; they will always oversimplify the situation and lead to a false sense of security (and are) unlikely to ever assist clinicians in the real time decisions they are called upon to make on a daily basis" (pg 280).

The prospect is sometimes held out by risk assessment enthusiasts of instrumentalities which will separate the mentally disordered into the pacific and the potentially furious, offenders into recidivists and non recidivists, and employees into the future harassing troublemakers and the compliant servants of corporate need (Hare et al 1990, Monahan et al 2000, Quinsey et al 1998, Fletcher et al 2000). In practice attempts to realise such process of sorting sheep from goats based on mental health variables will remain a stigmatising and largely ineffective exercise.

The best established mental health variable in predicting future offending behaviour is the presence of substance abuse. Schizophrenia perhaps should be added to substance abuse but the current confusion created by some interpretations of the MacArthur studies and aspects of the risk assessment literature, have thrown doubt once more over how robust and how relevant is this association. The doubts, however dubious, in my opinion, necessitate further research to confirm, or to disconfirm. Attempts to link specific abnormalities of mental state or syndromes (see Link & Stueue, 1994; Taylor 1998) have come under increasing question (see Appelbaum et al, 2000, Milton et al 2001). Whether or not associations will ever be established with specific types of abnormal mental phenomena is not clear. What is clear is that in long term prediction of violence risk mental health variables, with the possible exception of substance abuse, pale into insignificance when they are placed alongside traditional criminological variables like gender, age, past history of offending, and social class.

The problems with the current preoccupations with risk assessment are that they:-

- 1. Privilege policies of control and containment as against support and management.
- 2. Divert resources towards those believed to embody future risk and away from the majority of the mentally disordered.
- 3. Encourage constructions of the mentally disordered which gives primacy to their supposed level of dangerousness.
- 4. Create a spurious technology of risk management which can easily come to dominate wide areas of clinical practice and in so doing reduces the patient to a one dimensional object of inspection and control.
- 5. Act to obfuscate the actual causes of crime not just among the mentally disordered but among the population at large.

6. Direct attention to the at risk individual and away from the broader issues of what increases or decreases offending behaviours in the mentally disordered populations as a whole.

Given the above remarks it might be questioned whether the predictive enterprise and the hopes for prevention which flow from it are entirely doomed to failure? The answer, I suspect, depends on what you are attempting to predict, in whom, and for what purpose. Short to medium term predictions, that is from days to weeks in the mentally ill are both practical and have clinical utility. Actively psychotic young men, socially alienated, angry, abusing alcohol and drugs, making threats and refusing professional support and treatment are obviously at far higher risk of immediate violence than well control socially integrated compliant patients with similar mental disorders. Short term predictions though they depend in part on static risk factors, such as age and prior history, are strongly influenced by dynamic factors, which include current mental state, social situation, current provocations, and the chances of intoxication. Thus with assessments for short term risk come the opportunities for effective risk management (See Mullen 2000). Conversely long term risk predictions. from months to years, depend largely on static predictors, such as prior history of offending, abuse during childhood, and age. Long term predictions are inevitably less accurate and all too easily lead in the individual case not to changes in clinical management but inexorably to restriction, compulsion and the initiation, or extension, of incarceration.

The risk assessment literature can, in my opinion, assist short term prediction and management. It can also inform public policy, not as to how to deal with individuals but on how to reduce the risks of violent and criminal behaviours in populations. In the seriously mentally disordered, as in the population as a whole, factors such as child abuse, school failure, unemployment and substance abuse have demonstrable associations with subsequent criminal offending. Each factor is open to primary and or secondary prevention strategies which can be targeted not at individuals but at populations. Specifically in the mental health field such factors as poor social supports, substance abuse and active symptoms are probably associated with increased criminality. Such dynamic factors are open both to modification by targeting individual patients for appropriate support and treatment (based on their

clinical state and current needs not their supposed level of risk) and to modification by improving mental health services to the whole population of the seriously mentally disordered. (See Appendix IV)

6. The Influence of Changing Patterns of Mental Health Care and Criminal Justice Policies

Deinstitutionalisation and the introduction of community care is widely believed to have resulted in the mentally disordered committing more offences. Claims have been advanced that offending among the mentally disordered has increased over the last decade or so. In support of such arguments are advanced the increasing number of the mentally disordered in prison. Also adduced as evidence of such a link is the contrast between studies investigating the relationship between mental disorder and offending prior to 1980, which were predominantly negative, and those undertaken since 1980, which are almost all supportive of a relationship (Torrey 1994). Pervasive and influential though this assumption of increasing criminality remains, it is a largely untested hypothesis.

Taylor & Gunn (1999) found no evidence that those with mental illness were more likely to commit acts of homicide in the era of community care than had been the case when services were still dominated by the large asylums. This study relied on judicial findings in homicide cases which itself is subject to changes in judicial practice, social attitudes and possibly mere fashion. Mullen & colleagues (2000) compared the patterns of offending in two groups of patients, one first admitted in 1975 prior to major deinstitutionalisation in Victoria, with a second first admitted in 1985 when community care was becoming the norm (See Appendix I). Each patient was matched to a control by age, sex, and place of residence to control for changing patterns of offending over time in the wider community. Though those with schizophrenia were convicted of offences more frequently than controls, and those first admitted in 1985 were convicted more frequently than those from 1975, this increase in offending was matched by a similar increase among community controls (See Table 6)

Table 6

OFFENCE CATEGORY	1975 CONTROLS	1975 COHORT	1975 RELATIVE RISK RR	1985 CONTROLS	1985 COHORT	1985 RELATIVE RISK RR
	-	LIFETIM	E CONVICTION	NS		•
	18 (6.5)	65 (21.6)	3.5	19 (8.6%)	87 (26.3%)	3.0
TOTAL CONVICTIONS	18 (0.5)	03 (21.0)	(2.0 - 5.5) p = 0.001	19 (8.0%)	87 (20.3%)	(1.9 - 4.9) p = 0.001
PROPERTY CONVICTIONS	10 (3.6)	44 (14.6)	4.1 (2.1 – 8.0) p = 0.001	11 (5.0)	56 (16.9)	3.4 (1.8 – 6.3) $p = 0.001$
VIOLENT CONVICTIONS	4 (1.4)	34 (11.3)	7.9 (2.8 – 21.9) p = 0.001	4 (1.8)	36 (10.9)	6.0 (2.2 – 16.6) p = 0.001
DRUG-RELATED CONVICTIONS	0 (0)	15 (5.0)	N/A	5 (2.3)	26 (7.9)	3.5 (1.4 - 8.9) p = 0.005
SEXUAL CONVICTIONS	2 (0.4)	5 (1.7)	2.3* (0.5 – 11.9) p = 0.298	2 (0.5)	6 (1.8)	$ \begin{array}{c} 2.0* \\ (0.4 - 9.8) \\ p = 0.486 \end{array} $
OTHER CONVICTIONS	9 (3.2)	52 (17.3)	5.4 (2.7 – 10.7) p = 0.001	10 (4.6)	64 (19.3)	4.3 (2.2 - 8.1) p = 0.001
	CONVICT	IONS IN 10	YEARS AFTER	R 1975 OR 19	85	
TOTAL CONVICTIONS	8 (2.9)	40 (13.3)	4.6 (2.2-9.7) p= 0.001	5 (2.3)	47 (14.2)	6.3 (2.5-15.5) p= 0.001
PROPERTY CONVICTIONS	3 (1.1)	23 (7.6)	7.1 (2.2-23.4) p=0.001	3 (1.4)	24 (7.3)	5.3 (1.6-17.4) p=0.002
VIOLENT CONVICTIONS	2 (0.7)	16 (1.7-32.0)	7.4 (1.7-32.0) p=0.001	2 (0.9)	16 (4.8)	5.3 (1.2-22.9) p=0.011
DRUG-RELATED CONVICTIONS	0 (0)	8 (2.7)	N/A	1 (0.5)	17 (5.1)	11.3 (1.5-84.3 p=0.002
SEXUAL CONVICTIONS	1 (0.4)	1 (0.3)	0.9 (0.1-14.8) * p=1.000	1 (0.5)	5 (1.5)	3.3 (0.4-28.3)* p=0.410
OTHER CONVICTIONS	5 (1.8)	33 (10.1)	6.1 (2.4-15.5) p=0.001	3 (4.4)	27 (8.2)	6.0 (1.8-19.5) p=0.001

Data are number (%) except where indicated. *Fisher's Exact Test

Thus relative to the prevailing rates of offending in their community no significant increase occurred in those with schizophrenia following deinstitutionalisation and the introduction of community care. A subsequent study of over 3,000 patients with schizophrenia drawn from first admissions in 1975, 1980, 1985, 1990 and 1995 has confirmed that there has been no increase in offending relative to controls over these years (Wallace, Mullen, Burgess, Palmer in preparation).

A false perception of an increase in offending may be created in part by recognizing that more patients with schizophrenia are appearing before the courts over the last 30 years without also making allowance for the increasing rates of conviction in the community as a whole. Also productive of misapprehensions about the role of deinstitutionalisation is a misunderstanding of the nature and timing of this process.

In many jurisdictions (notably the UK) the process of the deinstitutionalisation of the mentally ill was well underway in the 1950's. At this time the predominant influence was an increasing willingness to discharge first admissions after brief periods relative to previous practice (ie weeks rather than months or years). Later came the gradual transfer of long term, and usually chronically institutionalized patients, back into the community (in the UK this occurred in the 1960's in the US in the 1970's and in Victoria in the 1980's). The significance of this is that at the early stages of deinstitutionalisation it is young people with acute illnesses who are spending less time in hospital and increasing time in the community. It is just this group who are responsible for the majority of offending. In Victoria at the end of it's asylum era which was 1965 (20 years later than the UK and 10 years later than the US) patients admitted with schizophrenia spent an average of 237 days in hospital over the next year, but for first admissions a dramatic difference had already emerged as they spent an average only 65 days in hospital. In 1975 the overall length of stay for schizophrenia was 165 days and by 1985 down to 90 days but that for first admissions had dropped below 30 (Mullen et al 2000). This suggests that in practice for the last forty years those at highest risk of offending, who are concentrated among first admissions, have spent most of their time in the community not in institutional care. The introduction of organized and funded systems of community care should, if anything, have increased the possibility of treatment and support being available to the mentally ill at the highest risk of offending. Even if there had been a true increase in offending among the mentally ill in the last 20 years deinstitutionalisation and the closure of the mental hospitals would be poor candidates for the cause.

In summary public perceptions and media claims notwithstanding there is no evidence that deinstitutionalisation and community care have contributed to higher rates of offending among the mentally ill.

The assumption that increasing numbers of mentally disordered and intellectually disabled people are ending up in prison is also based more on anecdote and impression than systematic study. Here however the conviction that prisons are

becoming the repository of more and more mentally disordered people is driven not by the media, or political posturing, but by the experience of prison administrators and of those providing mental health care in prisons across the western world. In Victoria we have observed a dramatic increase in the numbers of prisoners referred on reception for further investigation of psychiatric problems and of the numbers of acutely psychotic prisoners requiring treatment. This experience is reflected in the other Australian states. In part this may be the product of greater awareness of the problems of the mentally abnormal offender and of greater, and improved, services uncovering, and even possibly fostering, demand. In part it almost certainly reflects an increasing willingness to imprison the mentally ill. Exactly how large this problem is awaits appropriately designed studies capable of capturing the changes in incarceration rates.

Prison musters are burgeoning across the western world, and Australia is no exception. As prison numbers rise so wider and different spectra of our community find themselves incarcerated. Arguably the mentally disordered are being preferentially selected into the new prison populations. This could reflect a greater willingness to imprison certain groups of offenders among whom the mentally disordered are over represented (e.g. public nuisance, social security fraud and repeat thefts). It could represent a break down in formal and informal diversionary programs aimed to move the mentally disordered away from the criminal justice system back into the mental health system. It could paradoxically reflect the use of certain noncustodial disposals, such as suspended sentences and supervision orders, which the mentally disordered are more likely to breach. It could reflect the increasing number of prison sentences handed down for drug related crimes to which the mentally disordered are more prone. It could reflect a shift in public and judicial attitudes to mental disorder as a mitigating factor when it comes to sentencing. It is probably some, or all, of the above. Until appropriate studies are performed the reasons for imprisoning more and more mentally ill people will remain in doubt (as noted above increased offending is unlikely to be the whole, if any part, of the story).

7. Management of Mentally Disordered and Intellectually Disabled Offenders in the Criminal Justice System

The current provisions in Australia of services to the mentally ill who come into contact, in one way or another, with the criminal justice system are outlined in Table 7. This illustrates the diversity and extent of existing services but also highlights the gaps. No State currently has a comprehensive service at every stage in the criminal justice process but some States fall further from this goal than others. (See Appendix V for a paper 'Forensic Mental Health Services in Australia' which describes the current services and outlines plans for improvements).

Table 7 - Summary of Current Australian Forensic Mental Health Services

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Population (in Millions)	0.3	6.4	0.2	3.5	1.5	0.5	4.8	1.9
Prison population	199	7,697	635	4,466	1,385	314	2,858	2,352
Specialist forensic service components available in prison-hospital units	Psych. Unit planned in new hospital	90 beds	X	X	X	25 beds	15-bed acute; 30 bed longer- term	Unit planned
Assessment and outpatient treatment	√	✓	✓	✓	✓	✓	√	√
At magistrates and high courts	✓	✓	✓	✓	✓reports only	✓reports only	✓	✓
Hospital (outside prison)	9 beds shared with general services	52 beds	12 beds	73 secure beds; medium- secure units planned	40-bed unit; 10- bed extension planned	Unit planned	120 beds	40 beds
Community Services	✓	X	✓	· ✓	1 ✓	✓	✓	✓ (Limited)
To police at stations and lock-ups	X	X	X	X	✓ (Advice only)	✓ (Advice only)	✓	✓
Budget					3,			
. Dedicated forensic mental health budget	X	X	✓	X	✓	X	✓	X
. Percentage of total state mental health budget dedicated to forensic mental health service		2.5% (Prison service	Not known	7.35%	4%	1.49%	2.5% (Due to increase to 5%)	4.37%

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Administration . Separate administration/directorate for forensic mental health	X	X	X	X	√	X	√	√
. Forensic patients access services at same standard as general mental health patients with respect to: Review of status	√	*	√	Under review	√	*	√	✓
Grievance/complaints	√	✓	✓		✓	✓	√	✓
Training . Formal, ongoing training opportunities provided for staff?	X	√	X	X	~	X	✓	✓
Specialist forensic mental health training available for:								
. Psychiatry	X	✓	X	✓	✓	✓	✓	
. Psychiatric nursing	X	✓	X	X	X	X	✓	
. Psychology	✓	X	X	X	✓	✓	✓	
. Social Work	✓	X	X	X	X	X	Proposed	
. Occupational therapy	X	X	X	X	X	X	Proposed	
Legislation . Sentencing options provide ability to divert following convictions from criminal justice system to general mental health service	√	✓	✓	√	✓	✓	√	

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
. Direct to specialized forensic mental health service	X	X	√	✓		X	√	
. Personality disorders included in legislative definition of mental illness?	√	X	√	No definition		X	✓ Limited inclusions only	
. Victims/families play a role in sentencing	X	✓	✓	X		✓	only ✓	
. Release	X	✓	X	X	Mental Impairment	✓	✓Mental Impairment	
Release of patients detained by virtue of mental impairment a:								
. Political decision	X	✓	✓	X		✓	X	
. Legal decision	✓	X	X	✓		X	✓	
Special needs groups								
. Special inpatient facilities								
. Women	X	X	X	X	10 beds	X	✓	
. Indigenous	X	X	X	X	planned X	X	X	X
. Due-disability (e.g. intellectually disabled)	X	X	X	X	X	X	✓	X
. Sex Offender Programs	X	✓	✓	✓	✓	✓	✓	Planned
Community Programs								
. Women	X	X	X	X	X	X	✓	X
. Indigenous	X	X	X	X	X	X	X	X
. Dual-disability (e.g. intellectually disabled)	X	X	X	X	X	X	✓	X

The target group for forensic mental health services and forensic intellectual disability services should comprise:-

- Those ordered by the courts to be detained having been found unfit to plead, or not guilty by virtue of mental impairment (insanity).
- Prisoners with serious mental illness requiring transfer to hospital to ensure appropriate treatment.
- Offenders, or alleged offenders, referred by courts for psychiatric or psychological assessment and/or treatment (either as outpatients or inpatients).
- Prisoners requiring specialist psychiatric assessment and/or treatment whilst in prison.
- Intellectually disabled offenders requiring specialized management whilst in prison.
- Selected high-risk offenders with a mental disorder or intellectual disability referred by releasing authorities.
- People with serious mental illness or intellectual disability in mainstream services who are a danger to their carers or the community.

The elements of forensic mental health and intellectual disability services to cater for such groups should comprise:

(i) At first contact.

Up to 30% of those who appear before the courts in Victoria have had prior contact with the mental health services (Wallace et al 1998 and unpublished date on magistrate's courts). This is likely also to be the case in the other States. Much of the prior contact has been precipitated by episodes of acute distress, intoxication or self damaging behaviour rather than serious and continuing mental disorder, nevertheless the mentally ill, the intellectually disabled and the brain damaged are over represented. Looked at from the other direction in, for example, those with established schizophrenic illnesses over 20% will receive a criminal conviction at

some time in their lives (Mullen et al 2000). This does not include those who are cautioned but not arrested, arrested but not charged and charged but not convicted.

Given the magnitude of the problem it is unfortunate that the provision to the police and the courts of mental health assessment and assistance remains at best patchy. Services for the intellectually disabled are often even more variable. Mechanisms exist in all states to obtain such assistance but in practice there is rarely easy access to either assessment or, even more importantly, diversionary schemes when indicated.

The necessary components of a service for police and courts consists of:-

- (a) Powers to enable the police to obtain rapid assessments of those taken into custody who they believe to be disordered or impaired. The accent is on rapid as the utilization of such schemes depends critically on whether the police believe accessing these services lightens, or increases, their workload. Specifically provision of appropriate assistance to intellectually disabled individuals needs to be readily available (Robertson et al 1996, Pearse 1995).
- (b) Diversionary schemes to shift, where appropriate disordered individuals from the criminal justice system to the mental health and intellectual disability services. Ideally this involves health professionals willing to go to police lock ups and courts to assess and admit when indicated and emergency clinics willing to accept as patients for assessment individuals who are brought to them by police (James 2000).
- (c) Court liaison services at magistrates courts to provide on site assessments and arrange diversions when necessary. (Joseph & Potter 1993, Exworthy & Parrott 1993, Brinded et al 1996). Such services have been developed based on either professionals who attend court when requested or who are placed permanently in the courts. Psychiatrists, psychologists and psychiatric nurses are employed to provide such services. In Australia the first contact is usually with a nurse whereas in the UK psychiatrists are often employed for this purpose. Having mental health professionals placed full time at larger court complexes is preferable as they gradually become part of the court process and greater and more appropriate use is made of their services. Australia has developed limited court liaison services for those with intellectual disabilities in some states but this needs further development and study.

- (d) Often the mentally disordered and the intellectually disabled finish up in prison because the courts saw no alternative placement. The use of bail hostels have much to offer in reducing the unnecessary imprisonment of disordered and vulnerable individuals (Geelan et al 2000).
- (e) The intellectually disabled, it could be argued, should either not be placed in prison or if imprisoned be provided specific placements and services, the rhetoric of normalization notwithstanding (Bodna 1987, Petersilla 1997, Glaser & Deane 1999). Currently diversionary programs for the intellectually disabled offender are poorly developed. The focus appears to be more on assisting them though the criminal justice process than reviewing them at the earliest stage from that process. (Kearns 2001).

(ii) In the Criminal Justice System

Prisons are home to large numbers of mentally disordered and intellectually disabled men and women. The provision of mental health services to these people is a challenge. (Metzner 1993, Steadman et al 1989, Gunn et al 1978, Gunn 2000, Glaser 1996). The transfer of acutely ill prisoners who require inpatient psychiatric care from prison to hospital is at best only part of the solution (Mullen 2000). The greater task is the provision of treatment within the prisons to those who on the outside would be candidates for outpatient and community care. Women prisoners present particular problems. Quite apart from the utility and social justice of imprisoning so many women who present a serious threat only to themselves there are issues either specific or of particular relevance to women prisoners. These include the impact of abuse (child sexual, physical and emotional abuse, domestic violence and sexual assault in adult life) and the impact of separation from children.

The use of the compulsory powers of mental health legislation to compel prisoners to accept treatment is outlawed in most Australian jurisdictions. There are very good reasons for this given the ease with which powers of compulsory treatment can, and have been, misused in prison environments. The lack of such powers means that within the essentially coercive environment of a prison mental health treatment has to

be by consent to an even greater extent than in the outside community. Whilst approving this reality it necessitates in the management of prisoners even more skill and time to ensure treatment compliance. The danger is ever present in prisons that health professionals will succumb to pressures to provide inappropriate medications, or appropriate medications in inappropriate dosages, to prisoners seeking oblivion, or on the behest of staff pursuing the goal of a passive prisoner. Over prescribing in prisons, particularly women's prisons, can be a problem, and certainly attracts considerable adverse public comment, however, under medicating is probably more common, particularly in the treatment of affective disorders.

The correctional culture and the physical realities of prisons are rarely conducive to therapy. Rigid routines, the pedantic enforcement of a plethora of minor rules, the denial of most of that which affirms our identity, add to the difficulties of managing vulnerable and disordered people. Separation and seclusion are all too often the response of correctional systems to troublesome prisoners, irrespective of whether those difficulties stem from bloody mindedness, distress, mental disorder or even suicidal and self damaging behaviours. Hierarchy and coercion which tends to rule in the official structure is often mirrored in the subculture of the prisoners. Mental disorders and intellectual limitations are frequently constructed by staff and prisoners alike as a sign of vulnerability and vulnerable is not a safe label to wear in prison. Those who do seek mental health treatment are at risk of being seen by staff as attempting to evade the rigours of prison, and by fellow prisoners as weak and unacceptably alien. Prisons and jails are intended to be punishing and they provide hard and unforgiving environments which often amplify distress and disorder. Equally however they provide remarkably predictable environments with clear rules and limited but well delineated roles. Some mentally disordered individuals thrive in this world stripped of the contradictions and complexities of the outside world. Sadly thriving in total institutions is rarely conducive to coping in the community.

Mental health facilities within prison often succumb to the dominant correctional culture which overwhelms the smaller and inherently less assertive, mental health cultures. Mental health units within prisons have to struggle to sustain a therapeutic environment, but in practice prison based psychiatric units remain a necessity. Correctional managers all too often regard good mental health services as those which

are responsive to their needs rather than those of the prisoner patient. professionals have to place the treatment needs of their patients first. Mental health professional should not become accomplices to inflicting harm by declaring The convenience and budgets of prison individuals fit for punishment. administrations should not take precedence over appropriate therapeutic responses (eg if newer antipsychotics are indicated on the basis of efficacy and less side effects they should be provided as they would be in the community). Placing potentially suicidal prisoners in isolation cells stripped of furniture, clear of hanging points and subject to the constant gaze of prison staff may be a cheap and, in the very short term, effective suicide prevention strategy, but should remain unacceptable to a mental health professional concerned with the state of mind and long term mental health of their patient (Bell 1999). Central to the therapeutic alliance is confidentiality. Maintaining patient confidentiality within a correctional environment is of particular importance. This does not mean no information sharing, but sharing only of necessary and agreed (with the patient) information with breaches of such patient sanctioned limits on disclosure only to protect the patients immediate safety (eg in poorly controlled epilepsy, diabetes, after having overdosed etc). Information is power and all too often correctional services demand for sensitive medical information is primarily about asserting power and control over health professionals, and through them over the prisoner.

The minimum requirements for the provision of mental health services to a prisoner population are:

• Reception Screening Programs

It is essential to have in place a reception screening program in which all new prisoners are adequately assessed for mental health status, substance abuse history, and suicidal proclivities (Birmingham et al 2000). To that should be added an adequate intellectual social functioning within the prison. Stein & Alaimo (1998) suggest the following minimal requirements for a reception mental health evaluation involves a structured interview by a mental health worker in which is obtained:-

The psychiatric history; medication history; the history of past self damaging behaviour and current self destructive plans and intentions; and substance abuse

history. Also of relevance is the victimisation history; any history suggestive of intellectual deficits with testing for intellectual disability if indicated; history of brain damage or disorder. Finally some evaluation of likely response to incarceration should be obtained.

The initial screening should ideally be augmented by a further evaluation when the prisoner has overcome the immediate shock of incarceration. Practical considerations usually dictate a two or three stage procedure.

- 1. An initial screening by health professionals usually a nurse preferably doubly qualified. This interview should augment clinical impression by using standardised and semi structured assessment instruments. (eg. General Health Questionnaire specific enquiries about suicide and standardised enquiries about physical sexual and emotional abuse in childhood and adult life).
- 2. If there are concerns about the prisoners mental health based on initial screening they should be referred for further assessment by a mental health professional usually an experienced psychiatric nurse (typically 30-60 percent of receptions).
- 3. If there is a perceived need to initiate treatment or follow up in the mental health services, the prisoner is referred for an assessment by a psychiatrist or clinical psychologist. (typically 10-30 percent of receptions) At this stage an initial care plan should be formulated.

• Assessment and Acute Intervention Service

All prisons should have an assessment and acute intervention service which enables prisoners with mental health concerns to be seen at any time during their sentence. Prisoners should be able to self refer, to be referred by custodial staff, to be referred by general health staff, or to be seen following representations by relatives, friends, or fellow prisoners. Again a two-stage assessment is often optimal with the initial screening by a nurse with subsequent referral if needed to a psychiatrist. Contact is followed up when indicated with the development, or modifications, of a care plan. (Weisman, 1998)

• Assessment and Acute Care Unit

Ideally prisoners should have access to a psychiatric unit within the prison service to which reasonably rapid transfer is available when medically indicated. Such a unit provides further assessment and short-term treatment. This ideally should be staffed 24 hours a day by health staff. In practice custodial staff almost always have a presence in such units. These units can assist in educating correctional staff in more sensitive and effective ways of managing distressed and disturbed prisoners. Ideally, it should have regular input from psychiatrists, clinical psychologists and social workers, in addition to nursing care programs. The exit from this unit can be to a hospital outside the prison, to the medium term unit in the prison, or back to the mainstream prison with an established care plan.

Medium Stay Units

A medium stay unit geared to care for prisoner patients for up to 3-6 months is desirable both to allow stabilisation of their disorder after initial treatment either in the prisons acute unit or the outside psychiatric facility and to allow initial rehabilitation. These units tend to accumulate vulnerable individuals with chronic psychotic disorders or with ongoing concerns about suicidal and self-damaging behaviours. It is essential to have a pathway to discharge such people into long-term facilities capable of catering to their needs.

• Long Term Care Units

Long-term units are staffed primarily by correctional officers for the extended care of prisoners with chronic mental disorders and most particularly intellectual disability. (See Appendix VI paper by Glaser and Deane (1997) which describes the functioning of a prison service for the intellectually disabled). Occupational therapy and educational services are essential. The mental health input on these units should be of a similar level to that in a good assertive community outreach program. The exit is either back to the mainstream prison unless there is a deterioration requiring return to a more intensively staffed mental health unit.

• Suicide Minimisation Program

Ideally, the suicide minimisation program is independent of the mental health program and involves correctional and health professionals in a monitoring and response system which identifies, via an entirely open referral system, prisoners at risk of suicide and manages that risk appropriately. It is important that this service is separated from the mental health services both to emphasise the central roles of prison environment and prison administration in suicide prevention and to prevent responsibility for suicide prevention being inappropriately left entirely with mental health services.

• Hospital support outside prison

Connections and procedures, which facilitate the transfer of prisoners needing inpatient psychiatric care to hospitals outside of the prison, are essential to support prison-based services. Prison mental health services are the equivalent of community based and outpatient services, not the equivalent of a specialised inpatient psychiatric units. Ideally secure and medium secure forensic mental health beds should be available as part of all comprehensive mental health services and such beds should have adequate space for mentally disordered prisoners requiring acute hospital care. In my view just as with inpatient medical treatment such units should be placed alongside other inpatient mental health facilities not continuous to correctional facilities.

The transition from prison to community is critical and mental health services in the prison need to establish the appropriate links to community services to provide as clear and speedy a transfer of care for the prisoner as is practical. It is here that so many care plans come adrift. In an ideal world prisoners with serious mental disorders, like schizophrenia, should serve the last part of their sentences in local general psychiatric units or forensic units preparing for their return to the community.

- 7. Managing the Risks of Future Offending among the Mentally Disordered in the Mental Health Services
- (a) In the community the organisation of community based services for mentally disordered offenders has often been discussed in terms of whether general mental health services should fulfil this function or whether a separate and parallel service is required to manage those who are both mentally disordered and have a history of offending which is both significant and may recur (Gunn 1977, Gallwey 1990, Whittle & Scally 1998, Heilbran & Griffin 1998). Snowden et al 1999 argued that it was a false dichotomy between parallel and integrated services. One thing is clear that parallel forensic services will only manage the minority of patients with offending histories, albeit usually those with histories of the most My own experience argues for the need for specialist serious criminality. services staffed by professionals with the experience, and the commitment, to work with mentally disordered offenders who present particularly complex and challenging problems. Those without such experience, and more importantly interest and commitment, can all too easily be either dazzled by the offending history so they fail to see the mentally disordered individual, or blind to the offending so they fail to factor in even the most basic elements of managing the potentially damaging behaviours. Worst of all mentally disordered offenders are at risk of being inappropriately rejected by general services and denied the care their health, and the communities safety, may require.

The strongest argument against a devoted community forensic mental health service, is cost. Arguments about deskilling generic mental health professionals carry little weight, after all nobody advances such arguments against services in old age psychiatry. Any such deficits in experience are easily accommodated by regular rotations between general and forensic services. Increasing the stigmatisation would be of greater moment as a counter argument if mentally disordered offenders were not in reality already often exposed to such rejections and stigmatisations in general services. The negative responses to this group are not simply prejudice and ignorance (which can be corrected) but inherent in the service provisions. General mental health services should be moving towards less compulsion, more open and responsive services, services which look and act like other health services (or preferably improve

on other health services). In such environments the occasional patient who has a history of significant offending and who is both obstructive and potentially intimidating (to staff and fellow patients) can create inordinate difficulties. This is in no small part because many mental health professionals do not regard such people as their business and because the skills and commitments required to manage the more difficult end of the spectrum of the mentally abnormal offender are different from those which sustain general mental health care delivery. In short there is a need for separate, though interacting, forensic mental health services (Müller-Isberner 1996). Such services, like the rest of the mental health service, should have its primacy commitment to long-term management IN THE COMMUNITY rather than to inpatient services. Unlike general mental health services secure ho spital facilities will remain a significant part of the clinical reality. Compulsion will inevitably pervade forensic mental health services to a greater extent than should be the case in general services (though the current high and increasing levels of compulsion in general mental health services in Australia should be a matter for serious concern). In forensic mental health services the dangers of degeneration into an isolated and oppressive service focussing almost exclusively on security and control are ever present (particularly in today's political environment). This risk can be reduced by ensuring forensic mental health services are high prestige services attracting among the best of health professionals.

International Opinion

To better inform the council on current views internationally I put a serious of questions to the following international experts

- Professor John Monahan, Researcher, Academic Psychologist, Virginia USA
- Professor Sheilagh Hodgins, Research Psychologist, Montréal, Canada
- Professor Philip Brinded, Academic Psychiatrist and Researcher,
 Christchurch, New Zealand
- Professor Hans Schanda, Academic Psychiatrist and Researcher, Vienna, Austria
- Dr Rüdiger Müller-Isberner, Psychiatrist and Researcher, Haina, Germany

- Dr Per Lindqvist, Psychiatrist and Researcher, Sweden
- Professor James Ogloff, Academic Psychologist and Researcher, Vancouver, Canada

Their views were broadly that mentally disordered offenders should be managed in mental services, though the North Americans felt those whose offending involved serious violence should be dealt with primarily in the criminal justice system. There were some differences of opinion on what constituted the most important mediators of offending in major mental disorders with John Monahan placing symptoms of the disorder bottom of the list with others like Jim Ogloff putting it as the most important mediator. Histories of child abuse were by and large given little weight. The reduction of offending in the mentally disordered could be summarised as calls for improved quality of clinical care for the mentally disordered in general with specialist forensic services focussing on more intensive management of high-risk patients (Appendix VII sets out summaries of the responses)

Summary

- There is an established association between certain mental disorders (notably schizophrenia and severe affective disorders) and increased rates of violent and criminal behaviours.
- The intellectually disabled are more likely to be convicted of criminal offences.
- The combination of substance abuse with mental disorder greatly increases the strength of the associations.
- The established associations can be used to support policies directed at
 populations of the disordered and the disabled to reduce offending and violence
 e.g. improved clinical services, greater social support, targeted drug and alcohol
 services and specialised community forensic services.
- Currently the associations to mental health and intellectual variables can contribute little to the recognition of individuals likely to commit seriously violent and criminal acts in the future.
- Short-term predictions (days to a week or so) in individuals of increased aggression can be reliably made based on clinical assessments informed by the established associations.
- The associations between disorder and offending should be driving policies directed at improving service delivery not the growing industry in individual risk assessments.
- Deinstitutionalisation and the introduction of community care have not contributed to greater rates of offending among the mentally disordered. No studies exist addressing this question in the intellectually disabled with reference to normalisation policies.
- The mentally disordered and intellectually disabled are almost certainly accumulating in the prisons (though good studies are lacking to confirm and quantify this).
- In those individuals where the offending is not seriously damaging to others a
 structured service is required to maximise the opportunities for diverting mentally
 disordered and intellectually disabled offenders away from the criminal justice
 system to the health services.

- Greater attention is needed to the mentally disordered and intellectually disabled
 prisoners with improved services in prison and an increased availability of beds
 outside of prison where care and treatment can be obtained in an appropriately
 secure environment.
- Well renowned community forensic services for the mentally disordered and intellectually disabled offenders offer one of the best chances of reducing future offending.

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Table 1. Studies of sentenced and remanded male prisoners' mental health

Author(s) and	N	Sample	Instruments	What was	Results		
year				measured			
Brinded, P.,	1127 males in total	-Census of male	-Demographics	-Current(one-	Disorder ¹	S	R
Simpson, A. et		remand prisoners in NZ	questionnaire	month)prevalence	(DSM-IV)	N (%)	N (%)
al. (2001)	452 remand(84%)	-18% random sample of	-Composite	rates of major mental	Schizophrenia	14 (2.2)	15(3.4)
	660 sentenced(83%)	sentenced prisoners	International Diagnostic	disorder	Bipolar	7 (1.1)	4(1.0)
(National study		from each prison in NZ,	Interview,	and personality	Maj. Dep'n	38(5.9)	47(10.7)
report details)		stratified by security	automated(CIDI-A)	disorder	OCD	21(4.8)	22(5.0)
		rating	-Personality Diagnostic		PTSD	55(8.5)	42(9.5)
			Questionnaire		Alcohol ax	8(1.2)	25(5.7)
			screener(PDQ-4+)		Alcohol dx	3(0.5)	19(4.3)
					Cannabis ax	27(4.2)	38(8.6)
					Other substance	12(1.9)	27(6.1)

¹ 'Schizophrenia' includes related disorders, ax= abuse, dx= dependence, OCD=obsessive-compulsive disorder, PTSD= posttraumatic stress disorder

Brinded, P., Stevens, I. et al. (1999); Brinded, P., Mulder, R. et al. (1999)	146 males in total 45 remand 101 sentenced	-Census of male remand prisoners in Christchurch(NZ) -25% random sample of sentenced male prisoners in Christchurch	-Demographics questionnaire - CIDI-A -the Temperament and character inventory(TCI) -the 'Four A's' (derived from the SCID-II) ² -ASPD module of the SCID-II	-Current(one-month) and lifetime prevalence rates of major mental disorder -ASPD	Disorder ³ (DSM-III-R) Schizophrenia Bipolar Maj. Dep'n Dysthymia OCD GAD Agoraphobia Alcohol dx Other substance ASPD	S N (%) 1(1) 2(2) 6(6) 6(6) 6(6) 1(1) 3(3) 12(12) 38(38) (71)	R N (%) 0(0) 2(4) 5(11) 0(0) 5(11) 1(2) 2(4) 12(27) 23(51) (71)
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Table 1. continued Studies of sentenced and remanded male prisoners' mental health

Author(s) and	N	Sample	Instruments	What was measured	Results		
year							
Smith, C.,	235 males in total	-Random sample from	-Unstructured	-Current prevalence	Disorder	S	R
O'Neill, H. et		prison receptions at	and semi-	of mental disorder	(DSM-III-R)	N (%)	N (%)
al. (1996)	109 remand	Mountjoy prison in	structured		Psychosis	5(4)	5(5)
	126 sentenced	Dublin, Ireland	clinical		Other(excl.substance)	7(5)	10(9)
			interview by		Illicit drug dx	25(20)	21(19)
			psychiatrists.		Alcohol dx	31(25)	32(29)
					No disorder	58(46)	41(38)
					*No sig. Difference b	twn sent	enced and
					remand subjects re: p	revalence	of psychiatric
					disorder		

² The TCI and the 'Four A's' are dimensional measures of personality. For the purposes of comparison with other studies, the dimensional results are not presented in this table.

3 Current prevalence rates only are presented in this table, GAD=generalized anxiety disorder, ASPD=antisocial personality disorder.

Powell, T.,	213 males in total	-Random sample from a	-Diagnostic	-Current(six-month)			
Holt, J. et al.		population of inmates	Interview	and lifetime prevalence	Disorder ⁵	Prison	Jail
(1997)	118 prisoners	in a rural Northeastern	Schedule(DIS)	rates of mental disorder	(DSM-III-R)	N (%)	N (%)
	95 jail detainees ⁴	state of the U.S.	(DSM-III-R)		Schizophrenia	4 (3.4)	2 (2.1)
		-Stratified by facility(3			Bipolar	8 (6.8)	3 (3.2)
		small state prisons, and			Maj. Dep'n	14 (11.9	8 (8.4)
		3 regional jails)			Dysthymia	8 (6.8)	2 (2.1)
					PTSD	32 (27.1)	13(13.7)
					GAD	6 (5.1)	2(2.1)
					Alcohol dx	90 (76.3)	78(82.1)
					Drug dx	75 (63.6)	54(56.8)
					ASPD	60 (50.8)	39(41.1)

Table 2. Studies of sentenced male prisoners' mental health

Author(s)	N	Sample	Instruments	What was	Results		
and year				measured			
Bland, R.,	180 males	-Random sample from the	-Diagnostic	-Current(six-	Disorder ⁶	L/time	6-mth
Newman, S.		prison roster of inmates in	Interview	month) and	(DSM-III)	(%)	(%)
et al. (1998)		prison in Edmonton,	Schedule(DIS)	lifetime	Any disorder	91.7	76.7
		Canada	(DSM-III)	prevalence rates	Schizophrenia	2.2	2.2
		-Men under age 45,		of mental	Bipolar	4.4	3.3
		serving sentences less		disorder	Maj. Dep'n	16.7	13.9
		than 2 years selected			OCD	9.4	8.3
		-Comparison with random			Alcohol ax/dx	78.9	50.6
		sample of community			Drug ax/dx	50.6	24.4
		residents of Edmonton,			* Prison l/time and	l current rates	s of all disorders sig. Higher
		male and under age 45			than community ra	ates.	
					1		

⁴ In the United states, jails hold people awaiting trial, and those serving short sentences for less serious crimes, therefore it is likely that the jail sample in this study contains a mix of sentenced and remand prisoners.

⁵ Rates presented are 6-month, except for drug and alcohol related which are lifetime prevalence rates

⁶ Community rates of disorder are not presented in this table.

Gibson, L., Holt, J. et al. (1999)	213 males	-Random sample from 3 state prisons and 3 regional jails from a rural New England State, U.SDetainees(remand prisoners) were not included.	-Diagnostic Interview Schedule(DIS) (DSM -III-R)	-Current(six-month) and lifetime prevalence rates of PTSDLevel of co-morbidity with other psychiatric disorders	Disorder (DSM-III-R) Schizophrenia Bipolar Maj. Dep'n Dysthymia OCD Alcohol ax/ dx Drug ax/dx ASPD * diff btwn PTS	L/time No PTSD N (%) 6(4.2) 6(4.2) 23(16.1) 18(12.6) 13(9.1) 116(81.7) 98(68.5) 67(47.5) ED and no PT	PTSD N (%) 8(11.6) 5(7.2) 30(43.5)* 20(29.0) * 13(18.8) 59(85.5) 48(69.6) 49(71.0)*	6-mtl No PTSD N (%) 4(2.8) 4(2.8) 16(11.2) 10(7.0) 5(3.5) NA NA NA	h PTSD N (%) 7(10.1) 3 (4.3) 18(26.1)* 10(14.5) 9(13.0)* NA NA
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Table 2. continued Studies of sentenced male prisoners' mental health

Author(s)	N	Sample	Instruments	What was measured	Results		
and year							
Herrman,	158 males	-Random sample of	-Structured Clinical	-Current(one-month)	Disorder Category ⁸	L/time	One-mth
Н.,		sentenced prisoners at 2	Interview for DSM-III-	and lifetime diagnoses	(DSM-III-R)	N (%)	N (%)
McGorry,		Melbourne metropolitan	R(SCID)	of 'severe mental	One Category		
P. et al.		prisons	-Questions on family	disorder' ⁷ , and	Mood disorders	19(12)	19(12)
(1991)			and personal history	indicators of organic	Psychotic disorders	0(0)	3(2)
			-The Mini Mental State	mental disorder	Substance disorders ⁹	74(47)	NA
			examination		Two Categories		
					Mood and substance	30(19)	NA
					Mood and psychotic	1(1)	0(0)
					Psychotic and substance	3(2)	NA
					All 3Categories	3(2)	NA
					No disorders	28(18)	136(86)
C I	1769	5	5. 01. 1.1	<u> </u>	Disorder ¹⁰		
Gunn, J.,	sentenced	-Prison population survey	-Prison file consulted	-Past and present		NI (0/)	
Maden, A. & Swinton,	males	based on 5% sample of	for demographic info	'medical and	` '	N (%) 34 (1.9)	
M. (1991)	maies	men serving sentences in	-Semi-structured	psychiatric problems',	•	21(1.2)	
WI. (1991)	404 young	England	clinical interview,	substance misuse(in the	Schizophrenia Affective	7(0.4)	
	offenders	-16 adult prisons and 9	designed for the project	past 6 months), and	Paranoid	6(0.3)	
	offenders	y.men's prisons selected.		self-harm		05(5.9)	
	1365 adult	-Subjects selected			Neurotic disorders	71(4)	
	prisoners	randomly within each facility			Adjustment disorder	, ,	
	prisoners	1			Personality disorders		,
		-Sample representative of total prison popn re:			-	407(23)	
		sentence length and			Alcohol	203(1	1.5)
		prison type			Drugs	203(1	
		prison type			C	1117(63)	,

7 'Severe mental disorder' includes schizophrenia and other psychotic disorders, major mood disorders, dysthymic disorder, and substance use/dependence
 8 Disorder categories are mutually exclusive
 9 Information on current substance disorders was not collected
 10 Prisoners could have up to 3 conditions diagnosed

Table 3. Studies of remanded male prisoners' mental health

Author(s) and	N	Sample	Instruments	What was	Results
year				measured	
Swartz, J. & Lurigio, A. (1999)	204 male pre- trial detainees	-Convenience sample of male arrestees receiving drug treatment at Cook County Jail, Chicago, U.SComparison with community data from the ECA study	-the Quick Diagnostic Interview Schedule(QDIS)(DSM-III- R)	-Current(past year) and lifetime prevalence rates of psychiatric disorders	Disorder ¹¹ L/time Past yr (DSM-III-R) N (%) N (%) Schizophrenia 7(3) 3(2) Manic episode 17(8) 16(8) Maj. Dep'n 25(12) 21(10) OCD 2(1) 1(1) PTSD 47(23) 26(13) GAD 23(11) 14(7) Alcohol ax/dx 90(44) 43(21) Cannabis ax/dx 106(52) 51(25) Any drug ax/dx 159(78) 118(58) ASPD 99(48) 51(25) Mental d/order and drug d'order 128(63) 47(23)
Birmingham, L, Mason, D. & Grubin, D. (1996) Birmingham, L., Gray, J. et al.(2000)	569 male remand prisoners 96% response rate	Study of consecutive receptions into Durham prison, U.K. Part I of a longitudinal study following a cohort of remand prisoners through the course of their remand	-Semistructured interview designed for the project -the schedule of affective disorders and schizophrenia -the CAGE questionnaire for problem drinking -the severity of dependence questionnaire for drug abuse and dependence -personality disorder assessed with reference to ICD-10 and DSM-IV criteria	Current prevalence of Mental disorder and personality disorder	Disorder (DSM-IV) N (%) Schizophrenia ¹² 20(4) Affective psychosis 4(1) Major mood disorders 13(2) Dysthymia 14(2) Anxiety disorders 34(6) Adjustment disorders 17(3) Personality disorder 38(7) Mental disorder including drug and alcohol 354(62%) Mental d/order excluding drug and alcohol 148(26%)

¹¹ Lifetime and one-year prevalence rates were significantly elevated in the jail sample compared to community rates.
12 Includes other psychotic disorders.

Table 3. continued. Studies of remanded male prisoners' mental health

Author(s) and year	N	Sample	Instruments	What was measured	Results	
Brooke, D., Taylor, C., et al. (1996)	750 male remand prisoners	-9.4% cross-sectional sample of the male unconvicted population -13 men's prisons, and 3 young offenders institutions sampled -Subjects randomly selected within each prison, creating a stratified random sample	-Semi structured interview designed for the project -Prison disciplinary and medical records consulted post-interview -the Schedule for affective disorders and schizophrenia(1/time version)	Prevalence of mental disorder	Disorder ¹³ (ICD-10) Psychosis Neurotic disorder Adjustment d/order Personality d/order Sexual deviations Substance d/order Dx uncertain No diagnosis	N (%) 36(4.8) 135(18.0) 57(7.6) 84(11.2) 15(2.0) 285(38.0) 9 (1.2) 281(37.5)

¹³ Lifetime and one-year prevalence rates were significantly elevated in the jail sample compared to community rates.

Table 1: Prevalence studies of remand and sentenced women /reception studies

Author	N	Sample	Instruments	What was measured	Results
Hurley & Dunne (1991)	92	Population study of Brisbane Women's prison. RR= 98%	-recent stressful life events questionnaire. General health questionnaire (GHQ-12) Structured Clinical Interview for DSM-III-R (SCID) Hamilton Depression Rating Scale (HAM-D)	-psychological distress -psychiatric disorder -relationships between psychological distress and subject characteristics -role of recent stressful events in distress - changes in psychological and psychiatric distress over time.	Current (past month)* Adjustment disorder with depressed mood (18.5%) Depression (1.1%) Schizophrenia (paranoid)(2.2%) ASPD (19.6%) BPD (17.4%) DPD (1.1%) Any disorder 533% Lifetime* Heroin (28.3%) Alcohol(14.4%) Any psychoactive substance (55.4%) T1 reported. T2 no sig. Diff.
Mohan, Scully, Collins & Smith (1997)	45	Randomly selected from all receptions over 3 months at an Irish Prison. RR= 100%	-The Schedule for Clinical Assessment in Neuropsychiatry (SCAN) DSM-IV criteria applied to assign diagnosis based on current state	-prevalence of psychiatric disorder factors associated with psychiatric disorder in these subjects past psychiatric history	Primary diagnosis s ubstance dependence(58%) Additional axis I (24%) History of contact with psychiatric services in the past (40%)
Turner & Tofler (1986)	708	Random sample (receptions) at Holloway Prison; North London RR= 100%	-Standard screening questionnaire upon admission.	-age -medical/psychiatric history or both -present use medical/illicit drugs in past 4 weeks -history of overdose/cutting/other self-harm -smoking behaviour	Drug dependent (14%) Alcohol (2.6%) Overdose and cutting themselves (28%) Previously cut selves (6%) Psychiatric history (18%) * core group of 37 women appeared in all three categories: self-harm history, psychiatric history and current drug usage.

Table 2: Prevalence Studies of sentenced female prisoners

Author	N	Sample	Instruments	What was measured	Results
Daniel, Robins, Reid, & Wilfley (1988)	100	Consecutive admissions at the Missouri correctional system. RR = 100%	Diagnostic Interview Schedule (DIS) for DSM-III	-lifetime and 6-month prevalence of psychiatric disorder -comparison with community data (St Louis site of ECA)	6 month Schizophrenia (7%) (7%) Depression (17%) (21%) Mania(2%) (2%) Panic disorder (2%) (2%) Phobia (20%) (24%) Alcohol (10%) (36%) Drug (26%) ASPD (29%) (29%) *Higher than general population except mania and the anxiety disorders
Jordan, Schlenger, Fairbank & Caddell (1996)	805	Census of women felons entering prison in North Carolina (94%) Remainder (6%) random sample of newly entering felons	Stage I: Composite International Diagnostic Interview (CIDI) Diagnostic Interview Schedule (DIS) (ASPD module) Impact of events scale (PTSD) Diagnostic Interview for Personality Disorder (BPD module) RR=95% Stage II: Follow up interview with 25% sample to validate 2 measures RR = 99%	6 month and lifetime prevalence of psychiatric disorder comparison with community prevalence rates (ECA data) risk factors outcomes role of trauma discussed	6 month Depression (10.8%) GAD (1.4%) Panic disorder (4.7%) Alcohol (17.1%) Drug (30.3%) ASPD (11.9%) BPD (28.0%) Any current disorder (46.3%) Lifetime Depression (13.0%) GAD (2.7%) Panic disorder (5.8%) Alcohol (38.6%) Drug (44.2%) ASPD (11.9%) Any lifetime disorder (64.0%) Higher than community rates (with exception of anxiety disorders)

Brinded, Mulder, Stevens, Fairley & Malcom, 1999a	50 F	Census of female prisoners at Christchurch women's prison (all sentenced). Census of remanded male inmates(n= 50) and random sample of sentenced male inmates(n=125).	-The structured clinical interview for DSM -III-R Personality Disorders (SCID II), ASPD sectionthe 'Four A's' -the Temperament and Character Inventory	The level of personality disorder in a prison population in Christchurch, New Zealand, using 3 different measures of personality disorder.	SCID-II ASPD- F = 39% Four A's 'Asthenic personality' (Avoidant-dependent) F = 21% 'Anankastic personality' (obsessive-compulsive) F = 5% 'Asocial personality' (social indifference, odd) F = 13% Temperament & character -Inmate population as a whole, when compared with community sample -high in novelty seeking and harm avoidance.
Brinded, Stevens, Mulder, Fairley, Malcom & Wells, 1999	37 F CR* 74%	As above	-Demographics data sheet -The Composite International Diagnostic Interview-Automated (CIDI-A)	-prevalence rates of psy chiatric disorder in the prison population.	
Keaveny & Zauszniewski (1999)	62	Convenience sample of 62 sentenced female prisoners in U.S.	-The Coping Resource Questionnaire (developed by authors) -The Social Readjustment Rating Scale (SRRS) -The State-Trait Anxiety Inventory(STAI) -Center for Epidemiological Studies Depression Scale (CES-D)	-Life events experienced -Psychological well-being (absence of depression and anxiety)	-Subjects experienced an average of 10 life events in the 12 months prior to incarceration. - Majority of events were major life events - Mean anxiety level significantly higher than in working women in community - Mean depression level significantly higher than the general community - Significant correlation between life events and depression

^{*} CR = completion rate

Table 3: Prevalence studies of female jail detainees¹⁴ / remand prisoners

Author	N	Sample	Instruments	What was measured	Results
Teplin, Abram & McClelland (1996)	1272	Randomly selected, stratified (by charge and race) sample of females awaiting trial in a Chicago jail. RR= 90%	National Institute of Mental Health Diagnostic Interview Schedule Version III-R (NIMH DIS-III-R)	-6 month and lifetime prevalence rates of psychiatric disorder -comparison with ECA community rates - association of psychiatric disorder with current arrest charge	6 month schizophrenia (1.8%) manic episode (2.2%) depression (13.7%) substance (60.1%) alcohol (23.9%) drug(52.4%) PTSD (22.3%) ASPD (13.7%) Any of above (70.3%) - lifetime and 6 month rates similar - non-hispanic whites: highest rates of most disorders
Singer, Bussey, Song & Lunghofer (1995)	201	Random sample of all new admissions at a Cleveland jail. Inmates who were actively violent, high risk for violence or floridly psychotic excluded from sampling pool.	-Multidimensional scale of perceived social support - Brief symptom inventory (BSI) - Short drug abuse screening test (S-DAST)	-needs of the population with the aim of developing appropriate services.	Depression (59.2%) Anxiety (40.8%) Phobic anxiety (49.3%) Somatisation (26. 9%) OCD (37.3%) Interpersonal sensitivity (48.8%) Hostility (36.3%) * % within the distress range on the BSI
Parsons, Walker & Grubin, 2001	382 RR= 89%	All new remands at H.M. Holloway, and H.M. New Hall, over a 14 week period, in England.	-Schedule for affective disorders and schizophrenia(SADS-L) -the CAGE questionnaire -the Severity of dependence questionnaire(SODQ)	-Lifetime and current prevalence rates of mental disorder -the efficacy of the prison health screen in detecting mental disorder	Diagnosis (current) N (%) Psychotic disorders 42 (10.9) Schizophrenia/other psychotic 38 (9.9) Affective psychosis 4 (1.0) Mood disorders 127 (33.2) Major mood disorders 53 (13.9) Dysthymic disorder 67 (17.6) Anxiety disorders 116 (30.4) Personality disorders 175 (45.8) Drug/alcohol dependence 206 (54.0) Any current mental disorder 227 (59.4)

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¹⁴ In the United States of America, jails receive remand prisoners and prisoners serving short sentences for misdemeanours

Table 4: Studies of women prisoners and substance use

Author	N	Sample	Instruments	What was measured	Results
Chandler & Kassebaum (1994)	39	All newly admitted female inmates (March-August 1991) in the reception and diagnostic units at correctional facilities in Hawaii. Compared with sample of 157 male prisoners.	The 7 -section Substance Abuse Inventory (SAI) Self-concept questions asked about women's perceptions of their drug use.	-patterns of drug and alcohol use -use of multiple vs single drugs -histories of physical and sexual abuse -previous experience with drug treatment programs	*see table 5 for abuse results. Proportion ever used following drugs <u>Drug Male Female</u> Alcohol 94% 90% Marijuana 81% 84% Cocaine 64% 82% Amphtemenines 31% 50% Sedatives 29% 61% Crack 24% 40% Heroin 23% 42% Use of one drug daily M=16% F= 33% Use of more than one drug daily M=16% F=36%.
Weitzel & Blount (1982)	176	Proportional random sample by race and offence from a women's prison in Florida.	Structured interview	-patterns of substance use	'light use' - n = 44 'heavy use'- n= 85 'wasted'- n= 47
El-Bassel, Ivanoff, Schilling, Gilbert, & Chen (1995)	159	Sample of sentenced, female drug users at Rikers Island. Recruited as participants in an intervention study via posted notices and staff referral. Women selected due for release within 4 weeks, serving sentences between 3 months-1 year	-The Alcohol Use Identification Test(AUDIT) -Questions about demographics, drug use, criminal history, familial drug and alcohol use, and childhood sexual abuseThe center for Epidemiological Studies Depression Scale (CES-D)Coping Skills Questionnaire(CASK) developed by authors.	The association between drug use and problem drinking, controlling for psychosocial variables, familial drug use, demographic variables, and criminal history.	Respondents sexually abused prior to age 17 were 2.83 times more likely to be classified as problem drinkers compared to respondents with no such history. -Association between problem drinking and crack use(approaching significance) when other variables controlled. -Mean depression levels higher for problem drinkers then non(although both groups higher than general population).

The Ethics of Risk Assessment - from Mullen, in press

Boundaries need to be drawn around when, where and for what purpose, mental health professionals can ethically, and with professional propriety, engage both in assessing the probability of an individual committing violent or criminal acts and in being involved in the management of any ascertained risks. (Mullen 2000, Mullen 1997). Mental health professionals should, in this authors opinion, only engage in risk assessment and risk management strategies when the following criteria are satisfied.

- 1. The predictions and management are motivated primarily by the intention to provide the patient with better treatment and care. Protection of the public should be the welcome by product of improved clinical care not the goal of such management. If crime prevention were to become the primary objective the care of the patient would become a means to an end, an end which is external, and potentially inimicable, to the patients interests.
- 2. A reasonable body of empirical evidence exists to guide clinical decision making.
- 3. Mental health variables are both a prominent feature of the individual's clinical picture and are also of potential relevance to the probability of future criminal behaviours.
- 4. The risks are expressed in terms of probabilities (not attributions of dangerousness) with clear admissions of the fallibility and potential variability in the prediction.
- 5. Any prediction and subsequent management is formulated to take account of the implications for the patient. Mental health professionals should not be contributing to the inflicting of punishment or to processes which aim to reduce

potential future offending primarily by some form of detention or incapacitation.

6. That a reasonable degree of proportionality is maintained between the level of harm apprehended and the response evoked. In practice we are very unlikely to be able to predict in the long term future acts of murderous or seriously damaging violence based on mental health variables. At best we may be able to place individuals in high risk categories for a wide range of violent and criminal behaviours which will predominantly be of the type which frighten and distress, not of the type which kill and maim. Pushing, punching, frightening and stealing are unacceptable behaviours and the increased possibility of their occurring in the future demands greater care and attention on the part of the clinician. It would be hard to justify on the basis of such possibilities incarceration or other major curtailments of the patient's civil rights. Even, in my opinion, the imposition of compulsory treatment in the community would be difficult to justify simply on this basis.

Questions Put To International Experts

Question 1

Should offenders with mental disorders be dealt with primarily in the mental health service or primarily in the criminal justice system? Feel free to distinguish between major mental disorder (schizophrenia, affective psychosis, etc) minor mental disorders (depression, anxiety etc) and personality disorders.

Question 2

Which, in your opinion, are the most important mediators of offending in major mental disorder.

- a) The symptoms in the disorder
- b) Substance abuse
- c) Social dislocation
- d) Histories of child abuse
- e) Any other factor

Question 3

3. How should we attempt to reduce offending in the mentally disordered?

ANSWERS:

Professor John Monahan

- I would distinguish by type of offence committed. Those who commit serious, violent, offences should generally be dealt with in the Criminal Justice System.

 Those who commit minor crimes should be diverted to the mental health system.

 People with major mental disorders in prisons should be treated in forensic hospitals run by the Department of Mental Health.
- 2. Most important: Substance abuse. Least important: symptoms of disorder.

Professor Sheilagh Hodgins

- 1. All persons suspected of committing crimes must be judged in criminal court. If it is decided that a person did behave illegally, appropriate sanctions or treatment should be decided in a separate court hearing using expert testimony. Personality disorders should be treated in the criminal justice system. However, high quality, empirically based rehabilitation programs should be available to all offenders. As well, provision for continuing care in the community both when on probation and when free must be made. Mentally ill persons should be treated in the health system, again with provisions made for treatment over the long term.
- 2. The most prevalent mediator is personality and a stable pattern of antisocial behaviour. (This category includes the patients who abuse drugs.) A second important mediator is alcohol abuse/dependence. A third mediator is untreated psychosis in an adult living with highly demanding parents and siblings.
- 3. Encourage people to consult when they are in distress and to encourage their friends and relatives to consult when they are in distress. This means that mental health services have to be available, easily accessible, and not stigmatizing. General psychiatry has to learn to identify patients at high risk for crime and or violence. General psychiatry has to provide community treatment programs that are appropriate for patients at high risk for crime and/or violence. Such programs include the possibility of court orders to participate in community treatment, clinician powers to hospitalize quickly for short periods of time, assertive case workers, living situations with different levels of supervision, medication, behavioural-cognitive programs adapted for the mentally ill to reduce substance abuse and antisocial attitudes and behaviours, and to increase prosocial skills.

Professor Philip Brinded

See letter attached

Professor Hans Schanda

- From my experiences in Austria patients with MMD found NGRI should be treated rather in special hospitals/departments run by the general mental health services. This for two reasons:
 - a) The prison system seems at least in my country to be only partly suited to provide sufficient psychiatric treatment in the stricter sense for such patients.
 - b) Our general psychiatric services show an unequivocal tendency to exclude the aspect of violent behavior of mental patients – which often is the precursor of severe violent acts – from their area of responsibility. The removal of mentally ill offenders NGRI from the general mental health services obviously reinforces this tendency.

Offenders with severe personality disorders who – depending on the legal situation in different countries – mostly get prison sentences should rather be treated in special prisons, well-equipped with therapeutic staff.

- 2. Substance abuse, social dislocation and histories of child abuse have to be seen as general criminogenic factors from which substance abuse seems to be the most important one in mental patients. The influence of psychiatric symptoms depends on the previous (criminal) history, the severity of the offences (the severer the offence the higher the influence of psychotic symptoms) and the quality of the general mental health services. This leads to the next question.
- 3. We should try to reduce offending in the mentally disordered primarily by improving the quality of general mental health services with special consideration of a group of relatively well-identifiable high-risk patients. This group requires increased support/staff/time/ energy/money and sometimes depending on the situation in the respective countries some cautious coercive measures. An increase of coercion in general (called for by some politicians and media) is in my eyes counterproductive or at best useless.

Dr Rüdiger Müller-Isberner

1. I think our German system of having Hospital Order Institutions as special track between General Psychiatry and the Prison System is quite adequate for Mentally Disordered Offenders. For details see my contribution of the special issue of the International Journal of Law and Psychiatry (attached).

Offenders with Major Mental Disorders should be treated in Psychiatric Settings. APD offenders clearly should be in prison where offender treatment can be provided. In those offenders with other PDs then APD and those with minor depression it depends on the case.

3. See: Bloom, J., Muesers, K., Müller-Isberner, R. (2000) Treatment Implications of the Antecedents of Criminality and Violence in Schizophrenia and Major Affective Disorders. In S. Hodgins, S. (2000) Effective Prevention of Crime and Violence among Persons with Major Mental Disorders. (pp. 145-169). Dortrecht: Kluver

Dr Per Lindqvist

1. It is a basic conviction/base line of mine that forensic psychiatry is dealing with mentally disordered people who happened to have committed an offence due to the mental abnormality. The discipline belongs to the mental health system where mental disorders are diagnosed, prognosticised, treated and looked after in a broader psychosocial context with other experts in, predominantly, the social domain.

The criminal justice system is dealing with offenders of crime with the aims of punishing in order to achieve a healthy expiation as well as treatment to modify behaviour (but not psychiatric treatment). Some of the offenders need psychiatric support, as well as other kinds of auxiliary assistance, but they should, ideally, be less mentally disordered.

People with major mental disorders belong to hospitals (main rule) while the others belong to penal system (main rule).

Sweden has since ages had an extremely low threshold for being transferred to hospitals. I think that is disadvantageous; it provokes the public sense of justice, it leads to, more often than not, to very long periods of indeterminate detention, the expiation process gets no nourishment and the psychiatrists found their laps full of mentally unstable, constitutionally deviated and notorious drug abusers for which they can do very little. The penal system responds much better to their needs. The legislation in Sweden is being reformed to meet international standards (but not US standards).

2. Unfortunately, I find it impossible to rank the four most important contributors of offending in major mental disorder. I believe that child abuse is quite common in other, healthier populations and its significance is doubtful (admittedly it is a factor of interest as well as being abandoned, neglected, starving, poor, discriminated, suppressed, bullied, black, bad genes, meager stimulation, unpredictable rearing etc.)

In clinical practice, the symptoms and the addiction are the main problems to solve and both factors are the products as well as the basis of the social deterioration. Hen and egg. What we do know about the process of criminalisation is that it is the number of problems that matter. But we do not know, as far as I know, if that goes for the mentally ill offenders as well.

3. Generally speaking: first class medical and psychological treatment, early identification of rehabilitation needs (accesses and limitations) and a proper attending of these needs, family networking and early social readjustment to society by short incarceration periods (to avoid institutionalisation and passivity and social phobia).

We also need many high quality research projects evaluating the effects of forensic psychiatry treatment.

Professor Jim Ogloff

1. At the outset, from a theoretical perspective, I think the best possible scenario is for people with mental illnesses to be identified and treated by mental health services. Realistically, though, given the limited resources and the presence of factors like personality disorders, sometimes people are better managed in the criminal justice system. With this background, I believe the answer to this question is complex and requires considering the patients/offenders on two dimensions. The first dimension is severity of the mental illness and the second is the severity of the offence and risk for re-offence. "Severe" mental illnesses would include people with major Axis I disorders that are not stabilized. Considering these dimensions, albeit more simplistically than is the actual case, the table below provides a general indication of the most appropriate agency to deal with the offenders. I personally believe personality disorders ought best be dealt with in the criminal justice system (normally).

	Severity of Mental Illness				
		Severe	Not Severe		
Severity of Offence/ Risk of	Severe	Secure Psychiatric	Criminal Justice		
Reoffence	Not Severe	Mainstream Mental Health	Community Corrections		

2. I believe that symptoms of the disorder and substance abuse are the most important mediators of offending in major mental disorders. It is hard to determine in general which is more important – that must be determined on a case-by-case basis. Personally, I think social dislocation and histories of child abuse play some role, but there generally is not a direct causal link as there is with symptoms of the disorder and substance abuse.

- 3. This is the most important question. Generally, I believe that the following steps are important in reducing the likelihood that mentally disordered offender will reoffend:
 - 1. Early identification and diversion from the criminal justice system to mental health services. Police, family, caregivers, and others can play an important role in helping to identify individuals with mental illness who require services to prevent them from offending.
 - 2. Treatment of the mental illness and related symptoms/problems (medication and programming) in either the mental health or criminal justice systems. The related problems include matters like substance abuse and the like.
 - 3. Community reintegration both mental health services and life skills needs must be addressed.
 - 4. Community supervision/follow-up.