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PEOPLE WITH AN ACQUIRED BRAIN INJURY AND THE CRIMINAL JUSTICE SYSTEM

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invincible logic?

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acquired brain injury (ABI)

any damage to the brain that occurs after birth

(foetal alcohol spectrum disorder)

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...causes?

- stroke
- brain infection
- neurological diseases
  (Parkinson's disease etc.)
- oxygen loss (drug overdose,
  asthma, near- drowning etc.)
- accident or trauma
- alcohol or other drug abuse

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TRAUMATIC BRAIN INJURY (TBI)

results from external force applied to the head

- **falls**
- **motor vehicle accidents**
- **assaults**

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20,000+ TBIs per year

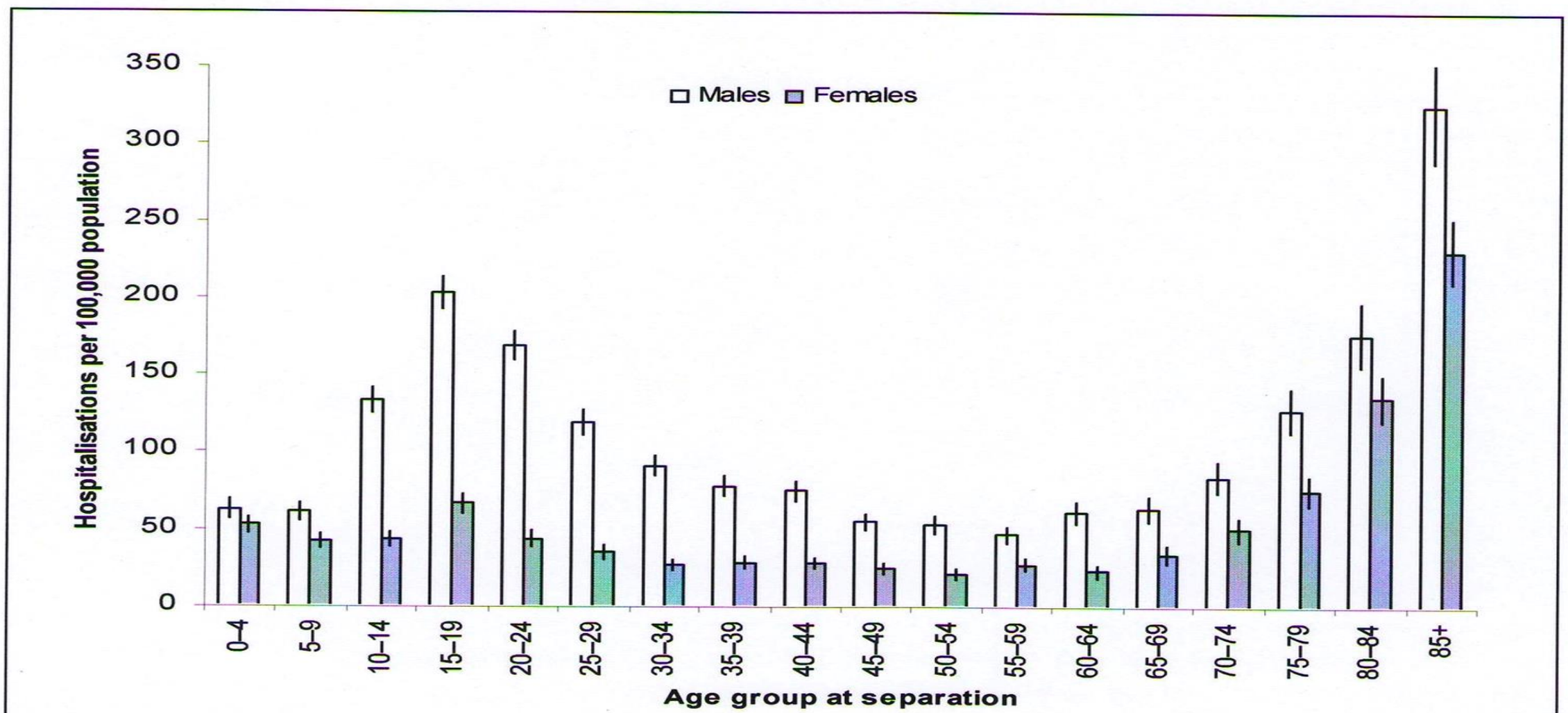

Figure 2.1 TBI as Principal Diagnosis cases by sex and age group, Australia 2004–05

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traumatic brain injury (TBI)

physical disability:
paralysis
balance
coordination
vision, hearing
speech

cognitive disability:
memory,
concentration
learning
planning
solving
problems

"challenging behaviour":
irritability
impulsivity
verbal, physical aggression
disinhibition

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the "invisible" disability

(over 700,000 Australians have an ABI)

+ "...may not have reported certain conditions because of the sensitive nature of the condition...lack of awareness of the presence of the condition..."

+ "...except for those living in remote and sparsely settled parts..."

+ homeless (10-30%)

+ "...gaols and correctional institutions"

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upstream

"demographic variables of people at risk for sustaining a TBI are similar to demographic factors of those who are at risk for behaviour leading to incarceration. Low socioeconomic status, low education, male sex [sic], and propensity to engage in risky behaviour also characterize people both at risk of TBI and at risk of behaviour leading to incarceration and could confound the association between TBI and incarceration."

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New South Wales' Lifetime Care and Support Scheme

450 participants/ postcode data (ex *Dropping Off the Edge*)

19% participants from postcodes @ top 4 deciles (mean taxable income = $55,361+)

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- 2010 “meta-analysis”; 20 studies of 4,865 offenders
- NZ, US, UK, Australia: death row; maximum security; prison hospital; murderers; sexual assault/ domestic violence etc.
- “TBI prevalence estimates” @ 10% -100% (“significant heterogeneity”)
- “estimated prevalence of TBI in the overall offender population was 60.25%”
- (= approx.17,900/ 29,700 adult prisoners)

upstream

(how much) higher than community prevalence?

- 2011 "meta-analysis“; 24 surveys containing 5049 "prisoner subjects"
- 41.2% reported history of TBI cf. community surveys; lifetime TBI prevalence rates @ 2% - 31.6%
- “TBI appears associated with incarceration, a finding consistent with reported associations between TBI and criminal-like behaviour”

downstream

- *2009 National Prisoner Health Census:* 9,000+ prisoners (87/ 93 public and private prisons)
- 43% of prison entrants had “received a blow to the head resulting in a loss of consciousness…or blacking out”
- *2009 New South Wales Inmate Health Survey*, 996 prisoners @ 30 correctional centres
- 52% male, 35% female w/ "head injury resulting in a loss of consciousness"
- (head injury ≠ brain injury)
- "mild" TBI = 70–90% hospitalised adult TBI

downstream

2009 NSW Inmate Health Survey (cont.)

- 40% male, 20% female > 1 HI w/LOC
- 11% male, 9% female > 5 HI w/ LOC
- "dose response" (effects cumulative)
- 1st TBI ↑ risk of 2nd, 3rd, 4th etc.
- 3/4 reported “at least one neuropsychiatric sequela immediately following their most severe head injury”
  - headaches
  - problems with coordination or balance
  - poor concentration
  - anxiety and/or depression etc.
- 1/3; sequelae remained unresolved

downstream

(underestimate of ABI?)

- + A&OD-related ABI?
- Corrections Victoria - 2007/2008; 117 prisoners receive “comprehensive neuropsychological assessment"
- 42% male, 33% female prisoners “had an ABI”
- “drug and alcohol use appeared to be the main cause of ABI among prisoners”
- 25% male, 15% female - "alcohol as being a potential source of acquired brain injury"
- 46% female, 26% male - "screen positive for...hypoxic brain injury due to overdose"

downstream

(underestimate of ABI?)

- recall bias?
- disclosure?
- victimisation – University of NSW's *People with Mental Health Disorders and Cognitive Disabilities study* (n=2,731); PWABI ↑ protective custody, ↑ self-harm
- "insight" into ABI? (2 /5 limited)
- overestimate? (self-report): Hunter Forensic Head Injury Project: 164 prison entrants reported 112 hospitalised TBIs, supporting medical records identified in 70%

downstream/upstream

- 2009 NSW Justice Health survey; 361 detainees @ 10 facilities
- 32% reported a “head injury that had resulted in a loss of consciousness”
- Dianna Kenny et al. - 800 young offenders on community orders cf. w/ NSW Department of Juvenile Justice's 2003 Young People in Custody Health Survey: fewer in the community sample reported multiple head injuries (10% 'v' 14%); “personality/ behavioural…problems” (3% 'v' 13%); “problems…unresolved” (2% 'v'13%)

downstream/upstream

"challenging behaviour"

NSW Brain Injury Rehabilitation Program (2010)

- 659 clients, 53% "met criteria":
  - inappropriate social behaviour (30%)
  - verbal aggression (26%)
  - physical aggression (11%)
  - physical acts against self (5%)
  - inappropriate sexual behaviour (4%)
- ("increased contact with police and the criminal justice system" = "notable consequences of challenging behaviour")

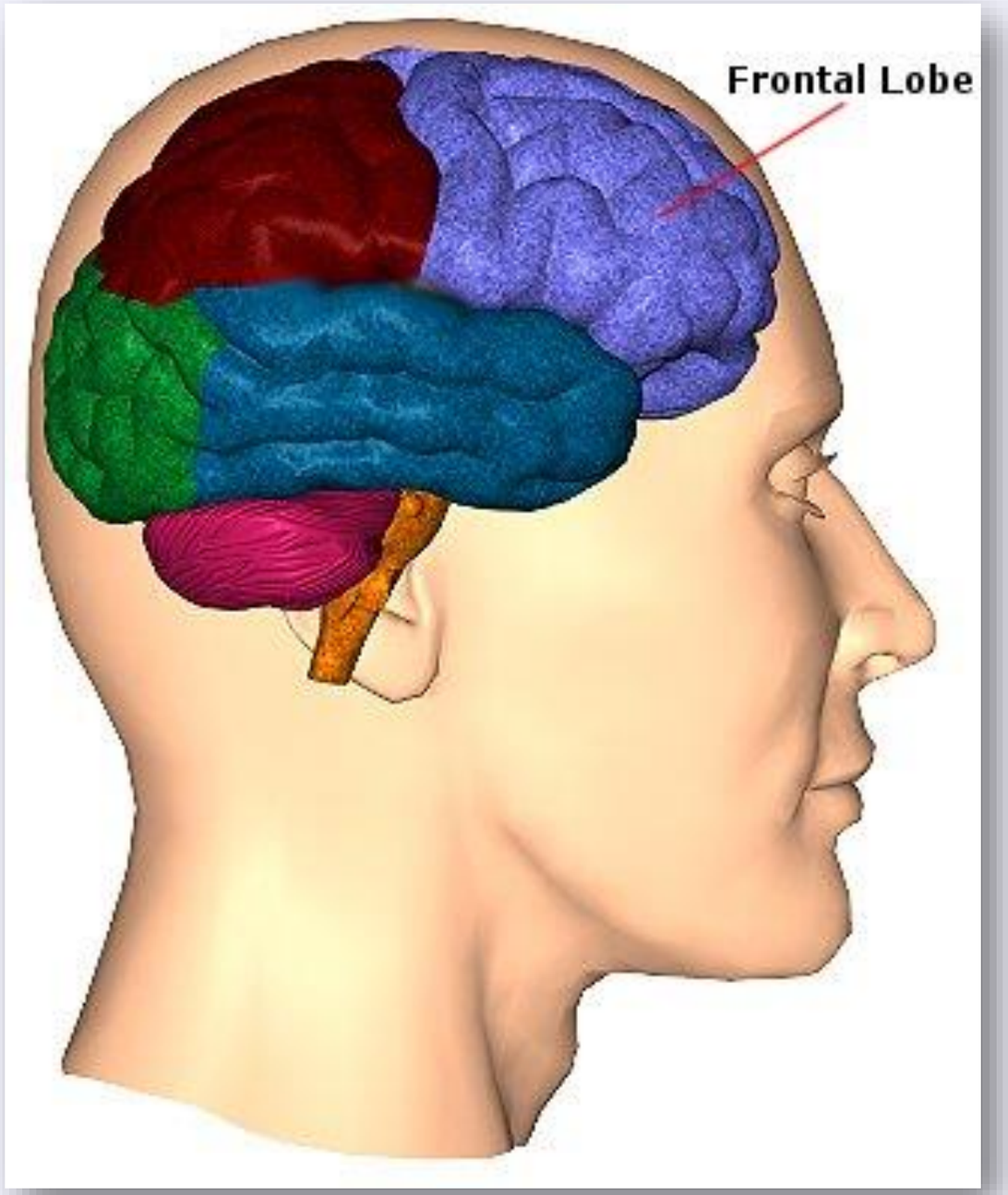
downstream

"offending behaviour"

UNSW People with Mental Health Disorders and Cognitive Disabilities study (n=2,731)

- 511 PWABI; av. 16 more contacts with police
- PWABI "a higher average number of convictions"
- ("nuisance" offending)
- 30%/ 14,216 = "public order"/ "road traffic and motor vehicle regulatory" offences

frontal lobes



downstream

“In particular, when frontal [lobe] control mechanisms are unavailable to regulate limbic [system] impulses, minor everyday provocation can cause aggressive or otherwise socially unacceptable responses. Irritability leading to aggression may be a direct consequence of these pathophysiologic changes, an exacerbation of pre-traumatic aggression, poor self-monitoring, an underlying mood disorder, overly restrictive treatments or any combination of these.”

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"severity of the head injury (related to the period of time unconscious) was also found to be significantly related to participation in serious violent offences"

"...the most parsimonious explanation for the relationship between head injury and violent offending is that head injuries increase disinhibition of aggressive impulses, especially in the presence of harmful/ hazardous alcohol use, which raises the risk of severe violence within an offence pattern"

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"I found significant cognitive impairments across a number of areas of brain function, particularly executive function. These young people often report violent family backgrounds...Many of these young people report being hit around the head ...These young people, usually boys, seem to attract attention when they enter school due to their problematic, disruptive behaviours...they often receive a diagnosis of ADHD or ODD and are moved to a 'behavioural school' or they drop out of school altogether. Interestingly, there was little evidence on psychometric testing to support a diagnosis of ADHD for some of the young people I saw..."

Childhood Trauma Questionnaire (Physical Abuse) – Juvenile Justice, NSW

	LOW		MODERATE		SEVERE	
	COM	CUS	COM	CUS	COM	CUS
M	17%	12	5	14	8	15
F	16%	17	11	28	14	11

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2010 UK study (n = 186 young offenders, 65% X1+ TBIs)

- history of TBI = av. two more criminal convictions than non-TBI
- ("dose response"?) “three or more self-reported TBIs were associated with more violence in offences”

2003 Spanish study; cf. 36 convicted violent offenders w/13 non-violent

- “only statistically significant differences” (adjusting for “school problems”, “learning disabilities”, “received psychological or psychiatric treatment”) = “history of severe head injury during childhood or adolescence”

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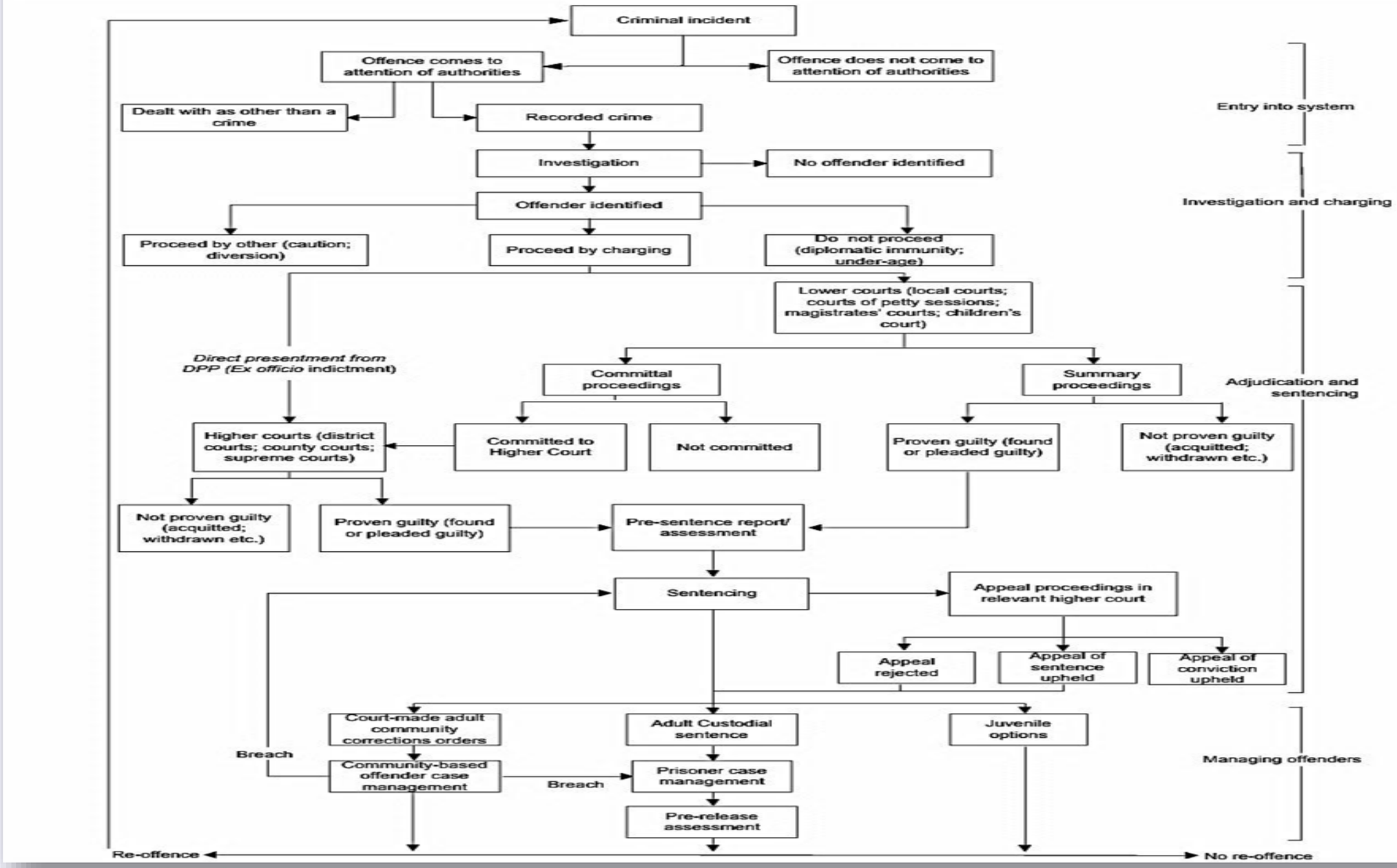
diversion?

Figure C.1 Flows through the criminal justice system[a, b, c]



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diversion?

"only a few Australian jurisdictions expressly recognise ABI as a form of cognitive or mental impairment for the purposes of criminal proceedings, and in the remaining jurisdictions significant uncertainty exists in relation to whether a person with an ABI can benefit from the existing allowances made in the criminal law for people with mental impairment, illness or disability."

diversion?

"ABI is often conflated with mental illness and, more often, with intellectual disability. The danger of this in the criminal law is that laws which were crafted on the basis of the features of mental illness and/or intellectual disability may exclude people with an ABI who may have an equal claim to special consideration."

upstream

fitness to be tried?

- difficulty processing information
- inability to understand abstract concepts
- impaired decision-making ability
- memory loss or impairment
- deficits in spoken or received language
- problems learning new information
- dependence

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fitness to be tried?

"C. is a 30 year old, single Pitjantjayara man... He has been assessed as globally cognitively impaired. The actual cause is not clear, but is possibly attributable to unmanaged epilepsy and chronic alcohol abuse... In December 2007, C. was found 'unfit to plead' where he was appearing on charges of assault and placed into detention on a Custodial Supervision Order for twelve months. C. is now into his fourth year of imprisonment under Part IIA of the Northern Territory Criminal Code... C. has no idea why he is in prison and at each annual review of his Order thinks he is to be released. C., like others on such orders is housed in the [maximum security] G Block of the Alice Springs Correctional Centre."

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"therapeutic jurisprudence"?

3 X mental health tribunals' eligibility criteria ≠ ABI

WA's ID Diversion Program incl."adults with other intellectual impairment" w/ ID @ <18 yrs

NSW (Mental Health [Forensic Provisions] Act): "suffering from a mental condition for which treatment is available in a mental health facility"

Victoria (Assessment and Referral Court List): 12-mnth adjournment, offenders participate in program of "appropriate health, welfare and disability services that are tailored to their particular needs"

downstream/upstream

“offender rehabilitation”?

“there are no programs that are designed to identify and provide in-prison rehabilitation to ABI prisoners. By default, prisoners with such severe ABI that they demonstrate symptoms of major mental illness may get mental health services, although such services are inappropriate for managing ABI”

**(1/87 adult prisons;
Joint Treatment Program,
Port Phillip Prison, Victoria)**

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“offender rehabilitation”?

NSW Ageing, Disability and Home Care:
Community Justice Program -
“of accommodation and support services for people with ID exiting the criminal justice system.”

“no clients have entered...based on having an ABI without a concurrent ID"
(= IQ<70 pts. "with 2 adaptive functioning deficits”)

ineligible = 40%/ 756 offenders “ABI/ TBI confirmed” by “Acquired Brain Injury Questionnaire” w/ “Full Scale IQ” > 80 pts.

ineligible? = 31% “ABI/ TBI confirmed” w/ “Borderline Range” IQ@70-80 pts.

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“therapeutic nihilism”

(“nothing works [with ABI]”)

““too hard’ a client group” ($?)

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2007 “review of systematic reviews”

“every meta-analysis of large samples of studies comparing offenders who receive rehabilitation treatment with those who do not has found lower mean recidivism for those in the treatment groups"

“the greatest obstacle to using rehabilitation treatment effectively to reduce criminal behaviour is not a nothing-works research literature with nothing to offer but, rather, a correctional system that does not use the research available and has no history of doing so”

downstream/upstream

Canada's ERABI (28,000 ABI studies) : + effects on behaviour post-ABI (ex RCTs) w/ anger management, CBT-based "coping skills group", "Natural Setting Behaviour Management"

2007 systematic review; 65 studies w/172 participants - "traditional contingency management procedures and positive behaviour support procedures can be said to be evidence-based treatment options" for behaviour disorders post-TBI

New York State Neurobehavioural Resource Project "cost [US]$144,000 [1996-1997] and resulted in savings of $1,486,000 (based on conservative calculations by external New York State Health Department auditors)"

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