

Australian Government

www.aic.gov.au

Australian Institute of Criminology

Risk factors for early initiation into crime: *exploring the DUCO juvenile offenders sample*

Toni Makkai
Jason Payne

'Understanding and responding to chronic youth offending'
Adelaide, Thursday 27 October 2005

Overview

- The study
- Juvenile offending profiles
- Risk factors for
 - chronic offenders
 - early initiation into crime
- Summary and policy implications

The study

- Funded by the Australian Government Attorney General's Department under the National Illicit Drug Strategy (NIDS)
- Conducted in co-operation with all jurisdictions
- Third component of the DUCO study:
 - Males 2001;
 - Females 2003;
 - Juveniles 2004.
- Aim: to investigate the links between drugs and crime
- Sample: 467 juvenile detainees from across all Australian States and Territories in 2004
- Data collection: interviewer administered self-report questionnaire

The DUCO Juvenile Survey – released today

- Long version
 - *Alcohol, drugs and crime: a study of juveniles in detention* AIC Research and Public Policy Series No 67 (Jeremy Prichard and Jason Payne)
- Short version
 - *Key findings from the Drug Use Careers of Juvenile Offenders study*, Trends & Issues in crime and Justice No 304 (Jeremy Prichard and Jason Payne)
- Availability
 - Order forms
 - Website: <http://www.aic.gov.au/publications/order.pdf>
 - Download free: <http://www.aic.gov.au/>

Sample characteristics

	n	%
Male	433	93
Age		
13 or younger	21	5
14 – 15	115	25
16 – 17	236	51
18 or older	95	20
Indigenous	246	53
Attending school before detention	106	23

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file]

Offending profiles

- Self-report lifetime prevalence:
 - Property offences – 97%
 - Violent offences – 85%
 - Both property and violent – 83%
 - At least one – 99%
- Self-report lifetime regular offending:
 - Property offences – 83%
 - Violent offences – 37%
 - Both property and violent – 34%
 - At least one – 87%

Defining chronic offenders

- Recent offending profiles were categorised on the basis of self-report frequency in the six months prior to detention
- The categorisation indicates that:
 - 31% were **low** volume property and **low** volume violent
 - 45 % were **high** volume property but **low** volume violent
 - 3% were **low** volume property but **high** volume violent
 - 21% were **high** volume property and **high** volume violent (chronic offenders)

Risk factors for chronic offenders

- Chronic offenders were more likely to have:
 - grown up with drug using parents and siblings
 - experienced physical abuse from a parent whilst growing up;
 - experienced problems at school such as been expelled and 'wagging school' and less likely to be attending school prior to detention
 - started their offending careers at a younger age
- But.... when modelled together, age of first offence is the only significant risk factor

Importance of early initiation into crime – other literature

- Incarcerated adult males – regular offenders of both property and violent offences commenced offending at a younger age (Makkai and Payne 2003)
- Adults with high volume arrest frequencies in the ACT were shown to have commenced offending at a younger age (Makkai, Ratcliffe, Veraar and Collins 2005)
- Juvenile offenders whose age of first appearance was below 14 years had more extensive offending histories (Stewart, Dennison and Waterson 2002)
- Onset timing was significantly related to the ‘rapid progression’ to serious offences amongst juveniles as well as arrest frequency as adults (Tolman, Gorman-Smith and Loeber 2000)

Policy and prevention

- Delaying onset into crime
 - *may* reduce the pool of offenders
 - help to prevent the number of offenders who progress to serious offending profiles
 - lengthens the window of opportunity for intervention
- Risk factors for early initiation into offending may also link to other poor long term outcomes (eg. unemployment, family stability, relationships)
 - early interventions may have a wider global impact

Survival analysis

- Statistical method used to examine *when* events occur
- Originally developed in the medical sciences to examine the “probability” of death after medical treatment
- Similar methods are used to examine criminological events (eg. first offence) in the social sciences
- Research question: *What factors increase the risk of initiation into offending at earlier ages?*

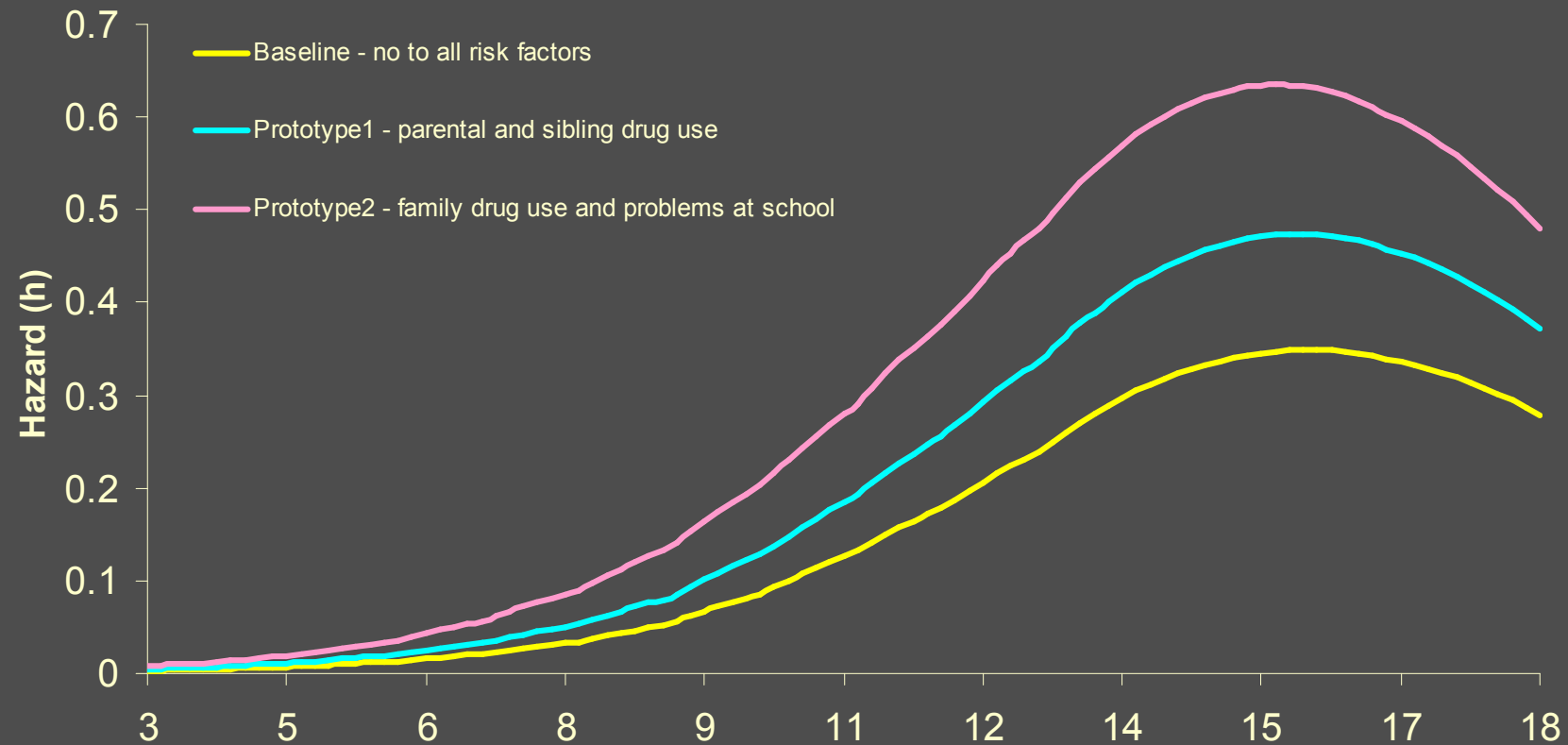
Risk factors for initiation into offending

- Family drug use
 - Parental drug use (1) vs. no parental drug use (0)
 - Sibling drug use (1) vs. no sibling drug use (0)
- Problems at school
 - Truancy often (1) vs. truancy not often (0)
 - Expelled ever (1) vs. not ever expelled (0)
- Problems growing up
 - Neglect by parents (1) vs. no neglect by parents (0)
 - Emotional abuse by parents (1) vs. no emotional abuse (0)
 - Physical abuse by parents (1) vs. no physical abuse (0)
 - Physical abuse (having a time varying effect)
- Substance use (using prior to first offence)
 - Using cannabis (1) vs. not using cannabis (0)
 - Using alcohol (1) vs. not using alcohol (0)
- Demographics
 - Female (1) vs. male (0)
 - Indigenous (1) vs. non-Indigenous (0)

Age of initiation into offending (Cox regression model)

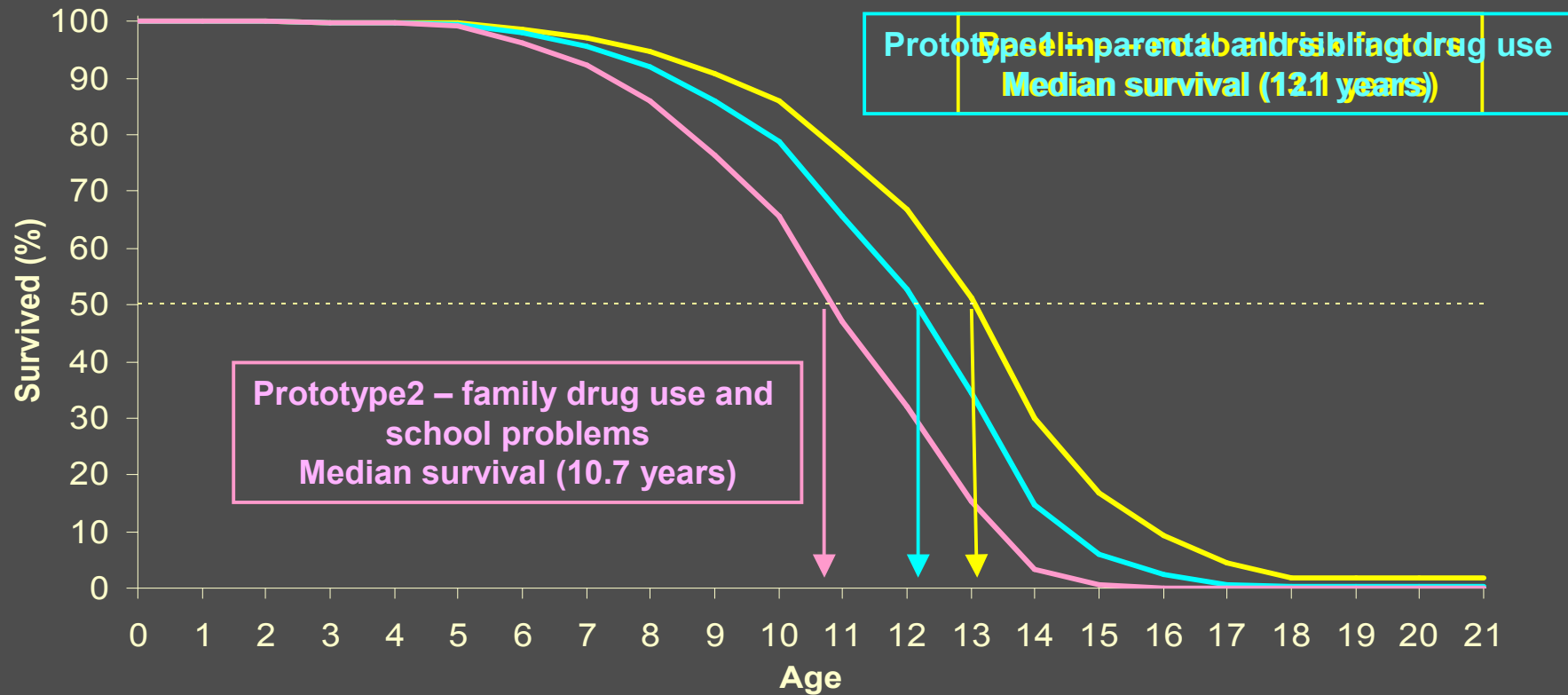
- The factors having equal risk at all ages were:
 - Parental drug use – juveniles whose parents use drugs were 41% more likely to commit an offence
 - Problems at school – truancy (39%) and expulsion (28%) were key factors in predicting offending
 - Indigenous status – Indigenous offenders were 56% more likely to commit an offence
- Some factors significant, but their importance varied with age:
 - Physical abuse by a parent – risk declines with age
 - Substance use – risk declines with age
 - Gender – Males more at risk than females, but the risk differential declines with age

Probability of committing an offence at that age (Prototypical hazard function)



Model components: 466 Juveniles, 452 events, 3% censored, model controls for gender **Age**
Log-likelihood= -2394.93, Chi= 84.41 (12 df), p= 0.000, Global Proportional Hazards Test Chi=8.42 (12 df), p=0.7518
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file]

Time to age of initiation of first offence (Prototypical survival function)



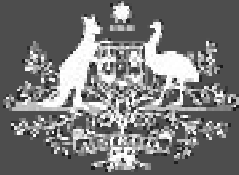
Model components: 466 Juveniles, 452 events, 3% censored, model controls for gender
 Log-likelihood= -2394.93, Chi= 84.41 (12 df), p= 0.000, Global Proportional Hazards Test Chi=8.42 (12 df), p=0.7518
 Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file]

Summary

- Survey data can be useful to examine the early development of criminal careers
- Although lifetime offending profiles are high, the juveniles could be categorised by the frequency of their most recent (past 6 month) offending
- Chronic offenders have a range of risk factors, but when modelled together, age of first offence is the only clear marker for chronic offending
- Early initiation into offending has been consistently linked to more serious/ chronic offending profiles – both in the Australian and International literature
- Targeting early intervention to prevent (or at least delay) initiation should assist in reducing the total pool of offenders and help reduce the likelihood of transition to chronic offending

Summary

- Using a Cox regression analysis to examine “time to initiation into first offence” a number of important risk factors were revealed:
 - Family drug use, primarily exposure to parental drug use whilst growing up
 - Physical abuse and neglect by a parent whilst growing up, where the impact of physical abuse diminishes as the juvenile gets older
 - Problems at school, indicated by truancy and expulsion
 - Controlling for all other factors, Indigenous juveniles are at greater risk of early initiation than non-Indigenous juveniles



Australian Government

www.aic.gov.au

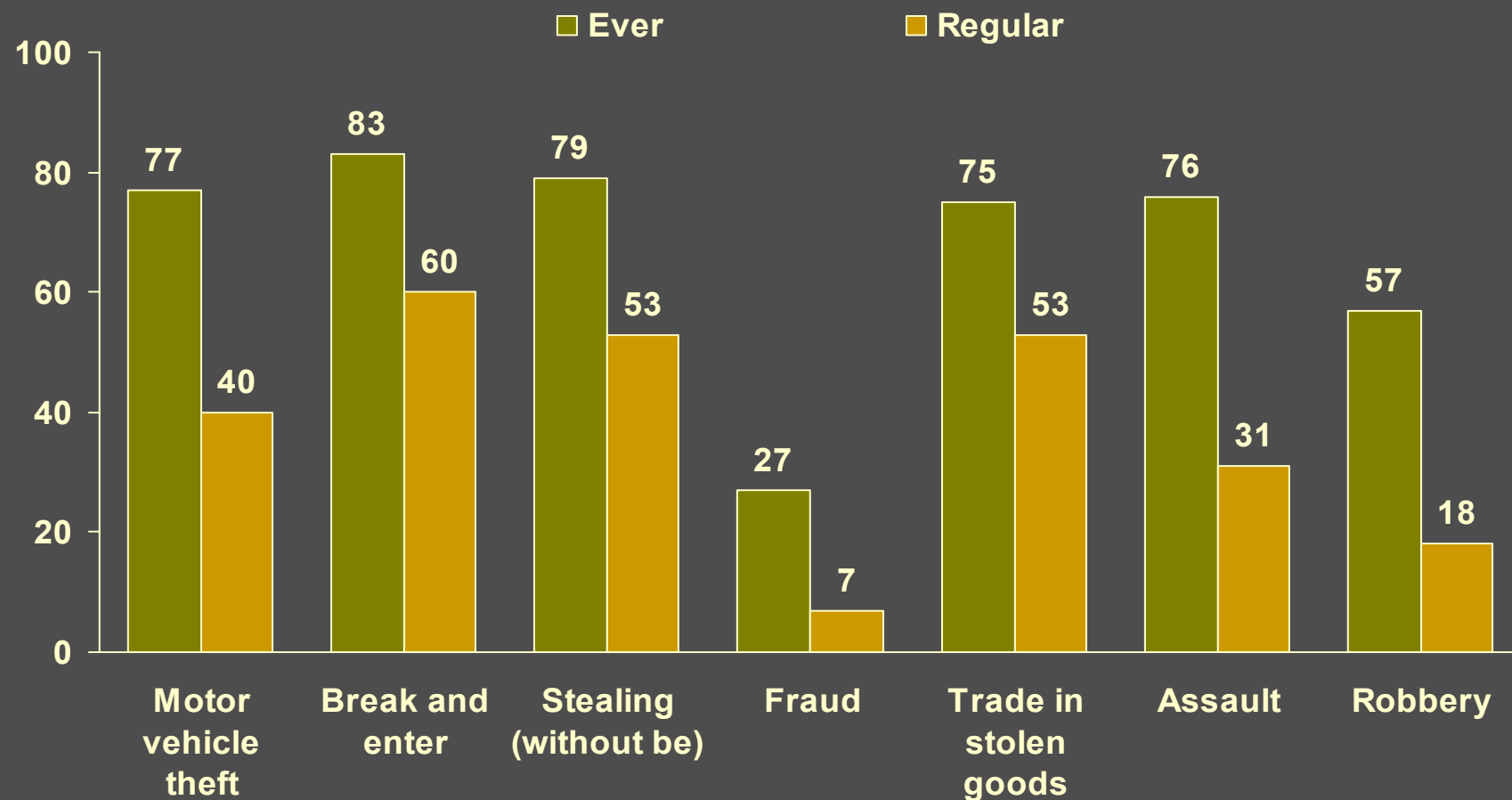
Australian Institute of Criminology

Risk factors for early initiation into crime: *exploring the DUCO juvenile offenders sample*

Toni Makkai
Jason Payne

'Understanding and responding to chronic youth offending'
Adelaide, Thursday 27 October 2005

Offending – self-report lifetime prevalence (%)



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file]

Cox regression – time to first offence

	b	Hazard Ratio	p
Indigenous	0.45	1.56	0.00
Parental drug use	0.44	1.56	0.00
Sibling drug use	0.22	1.24	0.05
Truancy (often)	0.35	1.41	0.00
Expelled ever	0.240	1.27	0.02
Neglect	0.27	1.31	0.05
Physical abuse	2.74	15.42	0.01
Physical abuse x ln(time)	-1.11	0.33	0.01
Emotional abuse	-0.05	0.96	0.76

Model components: 466 Juveniles, 452 events, 3% censored, model controls for gender
 Log-likelihood= -2394.93, Chi= 84.41 (12 df), p= 0.000, Global Proportional Hazards Test Chi=8.42 (12 df), p=0.7518

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file]

At least one of the physical abuse variables was a significant predictor of offending.
 (Hazard Ratio) and the age of sibling drug use was, less so, the importance of less an
 physical abuse as a predictor of time (in a logarithmic function).