

Recent research – young people in the NT justice, health and education systems

Northern Territory Prevention Alliance
14th November 2023

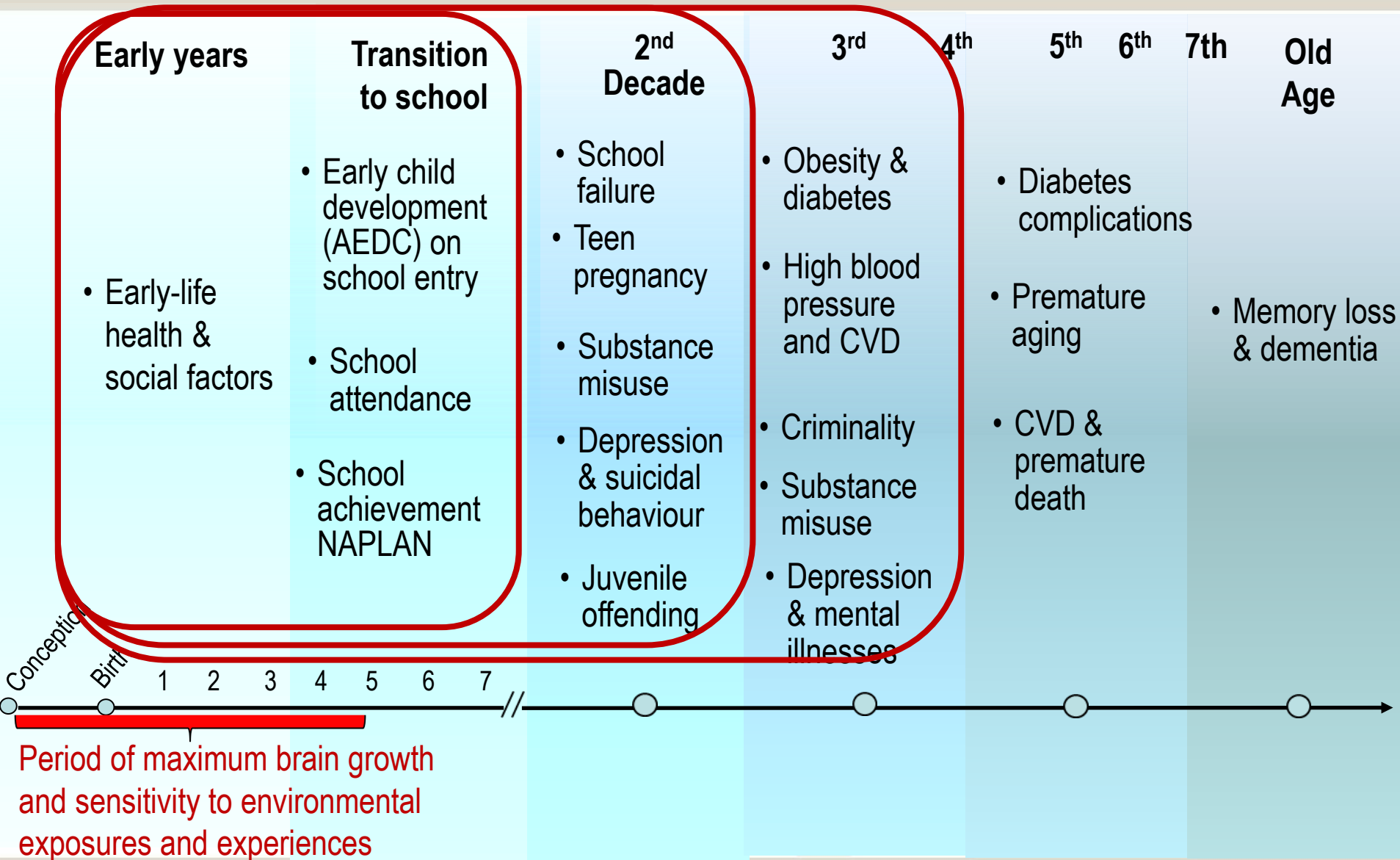
Professor Steven Guthridge
Menzies School of Health Research

1. Development of the CYDRP data repository & research program
2. Recent research in NT youth
 - I. The association of child abuse and neglect with offending in adolescence
 - II. The association of child abuse and neglect with self-harming behaviours
 - III. Pattern of involvement of NT youth across multiple systems
3. Implications

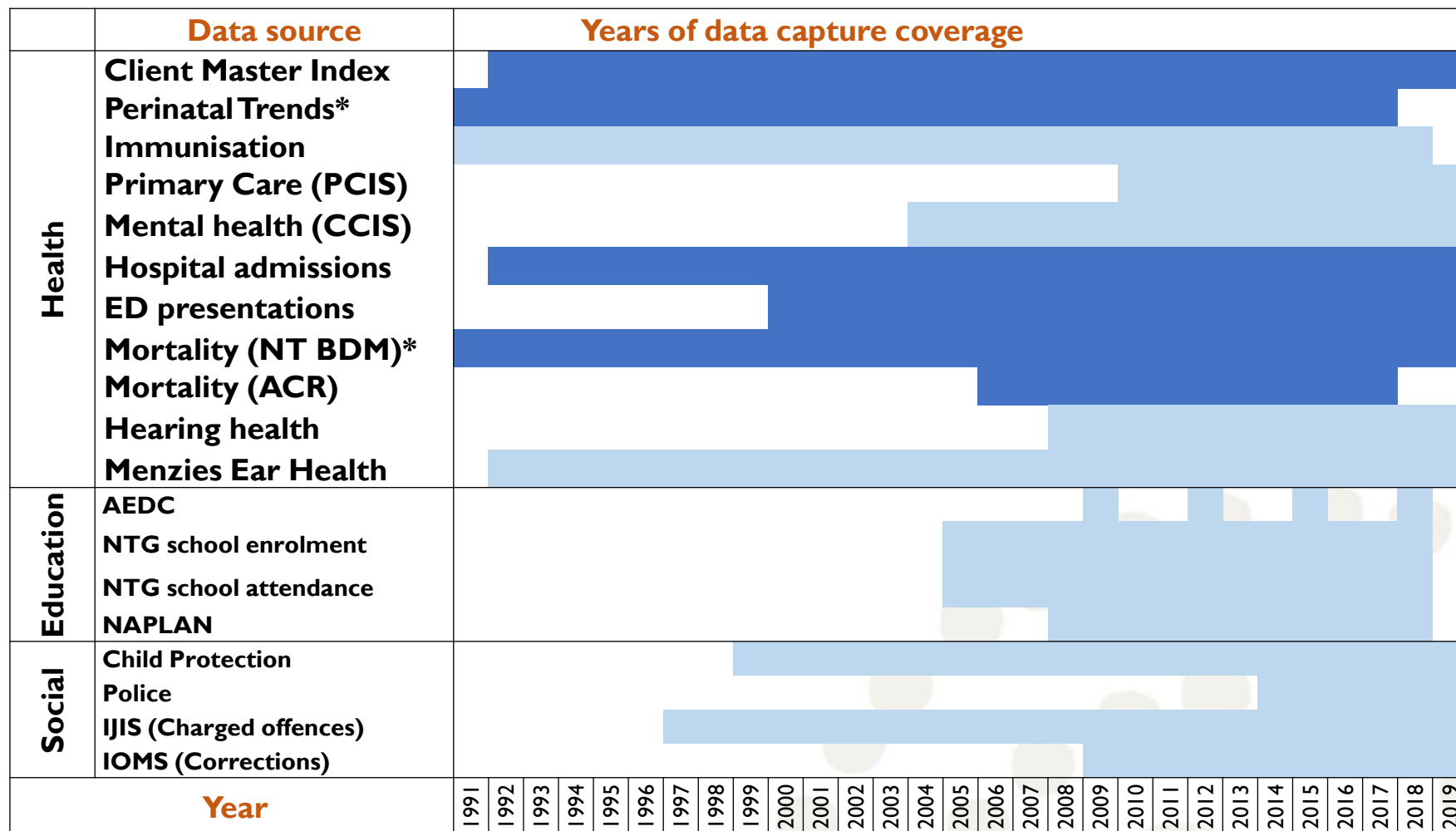
What is data linkage?

- Governments at all levels are seeking evidence to inform policy and services, including review of existing services
- Continuing development of data management and analysis methods that support the linkage of confidentialised administrative records of individuals across multiple datasets
- Results are based on **whole populations, not samples and surveys.**
- Increasing use of data-linkage of administrative data, by all states, for policy research, service planning and evaluation.
- Combining data usually held and analysed in separate departmental “silos” allows a more contextualised and locally relevant understanding for NT policy development and services.

Life outcomes associated with children's development



CYDRP linked data repository (Extract 3)



* available from 1986 onwards

■ Data also available for mothers of NT born children

As at November 2023,

There have been a total of **53 research projects** approved under the CYDRP program, of which there are:

- 28 active projects
- 16 projects have been completed
- 9 projects have been withdrawn

Extract 3, of the data repository,

- Contains 23 datasets, commencing in 1986
- 370,000 individuals, including mothers and children

- Associations of hearing impairment with child development, education, child protection and youth justice outcomes
- Predictors of premature birth/LBW in the Top End
- Self-regulation/executive functioning and early academic progress
- Factors related to school retention to Year 7 to Year 9 (and 10)
- Mobility of primary school students
- Prevalence of childhood exposure to family & domestic violence
- Positive pathways for development of Aboriginal youth
- Patterns of CP involvement associated with higher risk of offending
- Patterns of CP involvement associated with higher risk of self-harm
- Multi-system involved youth

RESEARCH ARTICLE

Open Access

Opportunities for prevention: a data-linkage study to inform a public health response to youth offending in the Northern Territory, Australia



Vincent Yaofeng He^{1*} , Bernard Leckning¹, Catia Malvaso², Tamika Williams¹, Leanne Liddle³ and Steven Guthridge¹

Rationale: In other settings, studies have demonstrated a strong link between child abuse and subsequent youth offending, However there have been few whole-population studies into the dimensions of statutory child protection responses that can inform early intervention and prevention.

Aim: to investigate level and timing of child protection system contact and youth offending

Maltreatment in childhood and youth offending – Background

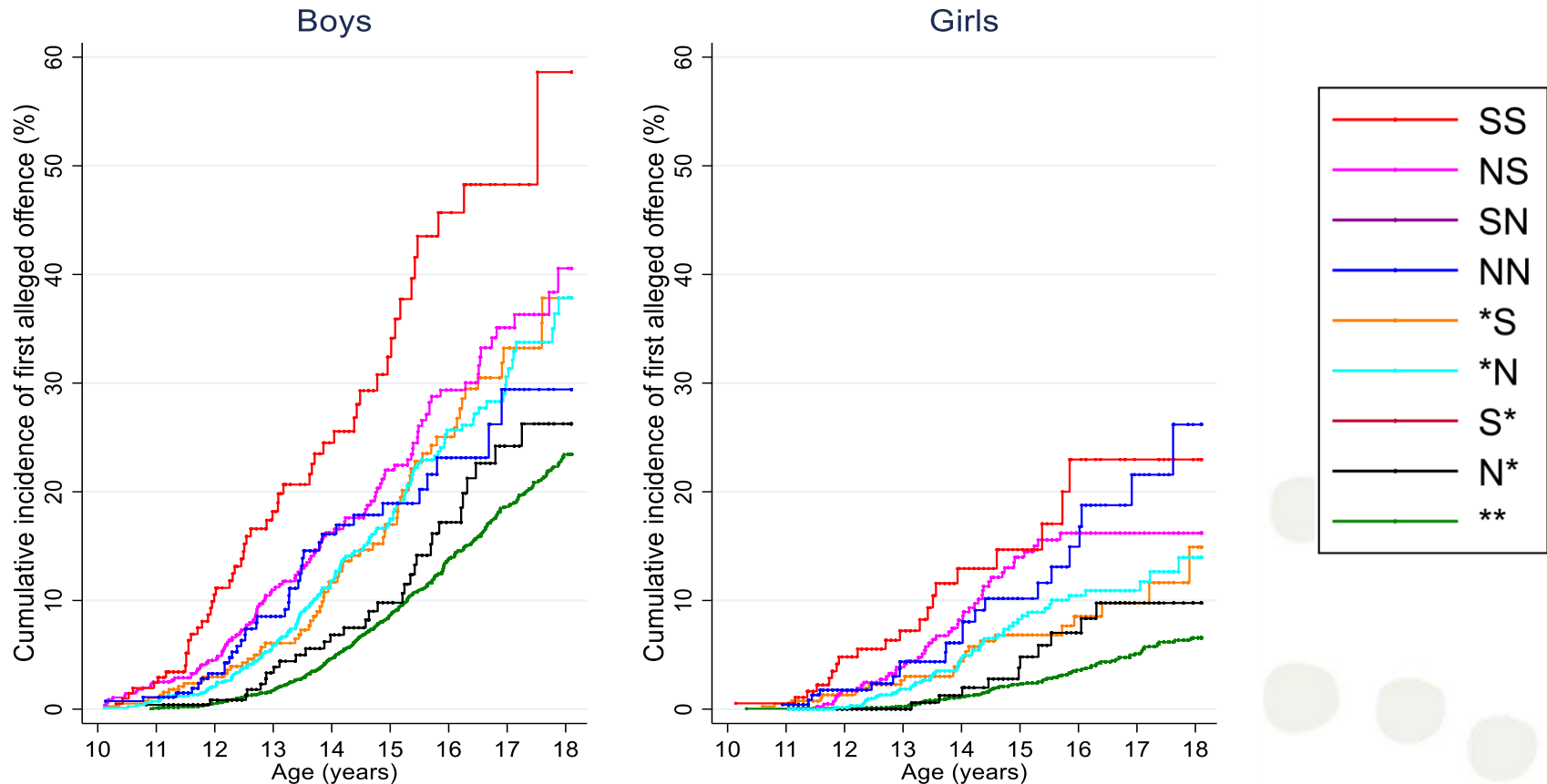
Study population: 10,438 Aboriginal children, born in the NT between 1999 and 2006

Outcome measure: first alleged offence, when aged 10 to 17 years

Key explanatory variables:

- Level of contact (none, notification only, substantiation) before age 10
- Timing of contact (early childhood from 0-4 years, middle childhood from 5-9 years)

Cumulative incidence of first alleged offence by level and timing of CPS contact



He VY et al (2021) Opportunities for prevention: A data-linkage study to inform a public health response to youth offending in the Northern Territory, Australia. BMC Public Health 2021;21:1600. doi.org/10.1186/s12889-021-11645-4



Contents lists available at [ScienceDirect](#)

Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg



Patterns of child protection service involvement by Aboriginal children associated with a higher risk of self-harm in adolescence: A retrospective population cohort study using linked administrative data

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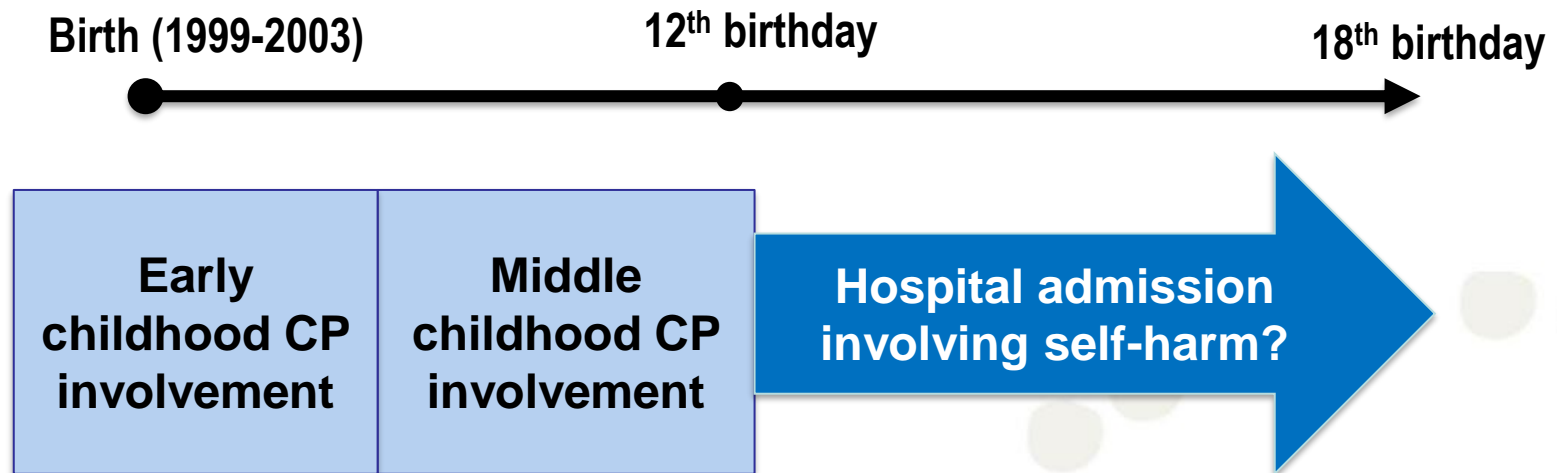


Rationale:

- The link between child maltreatment (CM) and self-harm is well-established
- But what has received less attention are involvements with child protection (CP) services
- High rates of both self-harm and CP involvement in the Northern Territory (NT) of Australia
- Very little evidence relevant to Aboriginal children and families to clarify opportunity for prevention

- Study population consists of all Aboriginal children identified in the NT Perinatal Registry (n=6,467)
 - Born in the NT between 1 January 1999 and 31 December 2003;
 - With at least one record in the CYDRP repository after 10 years of age;
 - Excluded children with missing perinatal information, born to mothers residing interstate.

Life course approach



Child abuse & neglect in childhood & self-harm in adolescence

		Middle childhood (5 to 11 years of age)		
		No involvement (*)	Notification only (N)	Substantiation (S)
Early childhood (0 to 4 years of age)	No involvement (*)	**	*N	*S
	Notification only (N)	N*	NN	NS
	Substantiation only (S)	S*	SN	SS

Leckning et al, (2021) Patterns of child protection service involvement by Aboriginal children associated with higher risk of self-harm in adolescence. *Child Abuse & Neglect*, 113:104931

Child abuse & neglect in childhood & self-harm in adolescence

		Middle childhood (5 to 11 years of age)		
		No involvement (*)	Notification only (N)	Substantiation (S)
Early childhood (0 to 4 years of age)	No involvement (*)	1	3.08** (1.43-6.63)	3.08* (1.24-7.79)
	Notification only (N)	1.21 (0.16-9.27)	3.43 (0.97-12.12)	6.72*** (2.16-20.90)
	Substantiation only (S)	1.41 (0.20-11.38)	2.09 (0.27-16.11)	9.11*** (3.39-24.46)

Leckning et al, (2021) Patterns of child protection service involvement by Aboriginal children associated with higher risk of self-harm in adolescence. *Child Abuse & Neglect*, 113:104931

Patterns of multisystem involvement in adolescence: Implications for child and family serving agencies in the Northern Territory of Australia

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Steven Guthridge^a

***Unpublished manuscript, currently under review**

Rationale: there are increasing reports that young people who crossover between CP and justice systems experience a range of health and educational issues, but with little research.

Aim: to examine multisystem involvement of young people to identify whether there are groups with shared patterns of contact.

- Study population consists children enrolled in NT Government schools at age 10 in 2011 and followed until turning 18 in 2019. Of total of 3285 children enrolled at 10, 316 Aboriginal and 360 non-Aboriginal children were excluded because of evidence of moving interstate
Total study sample **2584 NT children**.
- Linked records from 12 datasets were used in the study, including NTG school enrolment and attendance, NAPLAN, hospital inpatients, ED presentations, mental health outpatient records, child protection, police, youth justice, corrections, mortality and perinatal data register

Latent Class Analysis used to identify classes of children with varying levels of contact with services, but without using demographic characteristics.

“Best fit was a 3 class solution:

- Class 1 – low school engagement, multisystem involvement
- Class 2 – low school engagement, moderate acute care contact and dual system contact
- Class 3 – high school engagement, moderate acute care and CP involvement

Burden of service use by individuals in each latent class, as proportion of all service events, in health, child protection and youth justice

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Implications

- First, the high level of maltreatment (CPS contact) for NT Aboriginal children is associated with high risk of both offending and of self harm
- A small proportion (20%) of the study population of young people is creating disproportionate demand on services
- Third, the importance of interagency collaboration

