

# *Impact of Physical Activity and Sport Participation for Aboriginal and Torres Strait Islander Children's Health and Broader Social Outcomes*



Dr Rona Macniven, Research Fellow

Acknowledgement to Country: Bidjigal & Gadigal lands



# Background

Across life-course  
(ABS/AIHW)

- ❖ High child physical activity
- ❖ Low adult physical activity
- ❖ Adolescents?

- Identified priority by  
Aboriginal & Torres Strait  
Islander adolescents



- Email
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Physical activity and sport are important in Aboriginal and Torres Strait Islander cultures. Traditional activities like hunting and caring for Country are still practiced today. These activities require physical exertion and have cultural significance.

Organised sport is important in many regional and remote communities where higher numbers of Aboriginal and Torres Strait Islander peoples live. This can be seen through competitions like the NSW Koori Knockout and the NAIDOC Netball Carnival.

#### Authors



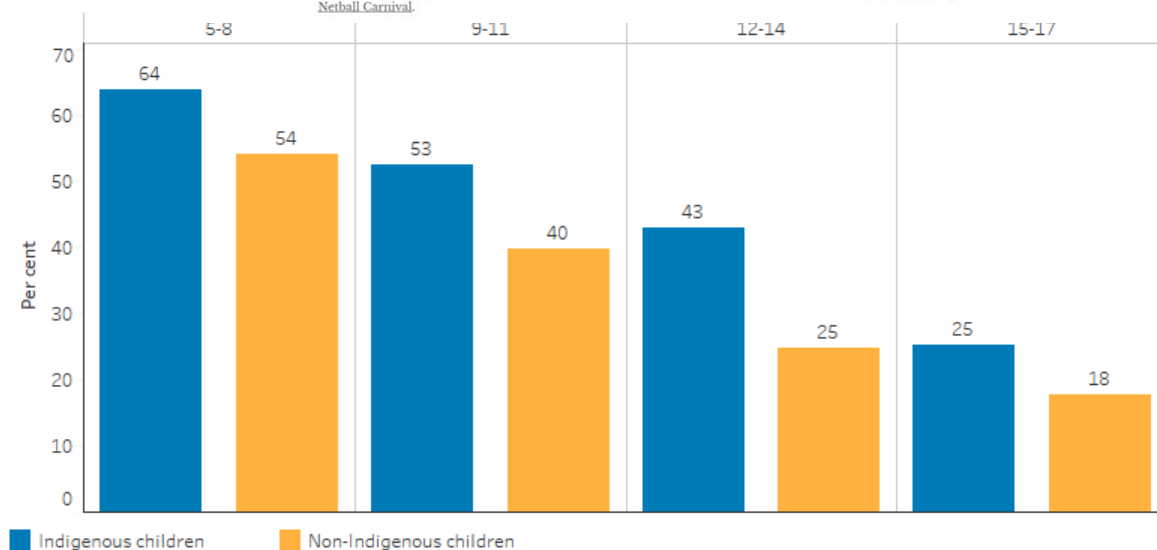
Ronia MacGivern  
Research Fellow, UNSW Sydney



Bridget Allen  
Research assistant, Neuroscience Research Australia



John Evans  
Professor, Indigenous Health Education, University of Technology Sydney



# Background

Aboriginal and Torres Strait Islander physical activity:

- Connection to culture
- Social & emotional wellbeing
- Higher male participation
  
- Screen time correlate
- Family & group participation



# NextGen study

## Aboriginal-led



March 2018 - March 2020

Western Australia,  
WA

Central Aus,  
Northern Territory  
(NT)

New South Wales  
(NSW)

## BMJ Open 'Next Generation Youth Well-being Study:' understanding the health and social well-being trajectories of Australian Aboriginal adolescents aged 10-24 years: study protocol

Lina Gubhaju,<sup>1</sup> Emily Banks,<sup>2</sup> James Ward,<sup>3,4</sup> Catherine D'Este,<sup>5</sup> Rebecca Ivers,<sup>6</sup> Robert Roseby,<sup>7</sup> Peter Azzopardi,<sup>3,8</sup> Anna Williamson,<sup>9</sup> Catherine Chamberlain,<sup>10</sup> Bette Liu,<sup>11</sup> Cheri Hotu,<sup>12</sup> Jacqueline Boyle,<sup>7</sup> Bridgette McNamara,<sup>1</sup> Sandra J Eades,<sup>1</sup> on behalf of the 'Next Generation' investigator team

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### ABSTRACT

**Introduction** Australian Aboriginal and/or Torres Strait Islander (hereafter referred to as 'Aboriginal') adolescents (10-24 years) experience multiple challenges to their health and well-being. However, limited evidence is available on factors influencing their health trajectories. Given the needs of this group, the young age profile of the Aboriginal population and the long-term implications of issues during adolescence, reliable longitudinal data are needed.

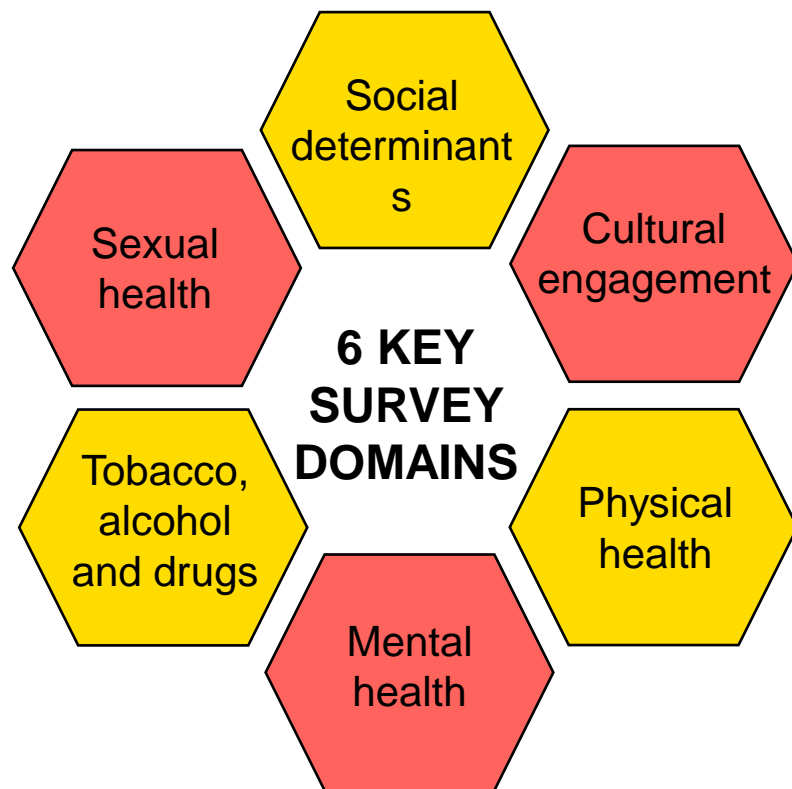
**Methods and analysis** The 'Next Generation: Youth Well-being Study' is a mixed-methods cohort study aiming to recruit 2250 Aboriginal adolescents aged 10-24 years from rural, remote and urban communities in Central Australia, Western Australia and New South Wales. The study assesses overall health and well-being and consists of two phases. During phase 1, we qualitatively explored the meaning of health and well-being for adolescents and accessibility of health services. During phase 2, participants are being recruited into a longitudinal cohort.

### Strengths and limitations of this study

- This is a large Aboriginal-led prospective cohort study of Aboriginal adolescents aged 10-24 years of age from rural, remote and urban areas, supported by foundational qualitative work.
- Collection of a wide range of health and social well-being information through a survey, age-specific clinical assessments and linkage to administrative data sources will allow a holistic examination of the health and well-being of Aboriginal adolescents.
- This ongoing cohort with follow-up will examine trajectories and data linkage to routinely collected health and social data.
- We have established strong community partnerships and relationships with Aboriginal adolescents.
- A limitation of this study is that the survey is being conducted only in English, which may exclude some participants in remote regions who speak primarily Aboriginal languages and English as a second or

# NextGen study

- Health survey + clinical assessment
- 1244 surveys complete
- Wave 2 follow-up planning underway





# Methods

Physical activity

WA Aboriginal Child Health Survey

Recreational screen time (weekday, weekend)

Sleep, smoking, alcohol

Peer influences

Self-rated health (SF1)

Strengths & Difficulties Questionnaire (SDQ)

“Activities for young people to do in community”

Team & individual sport; church & religious

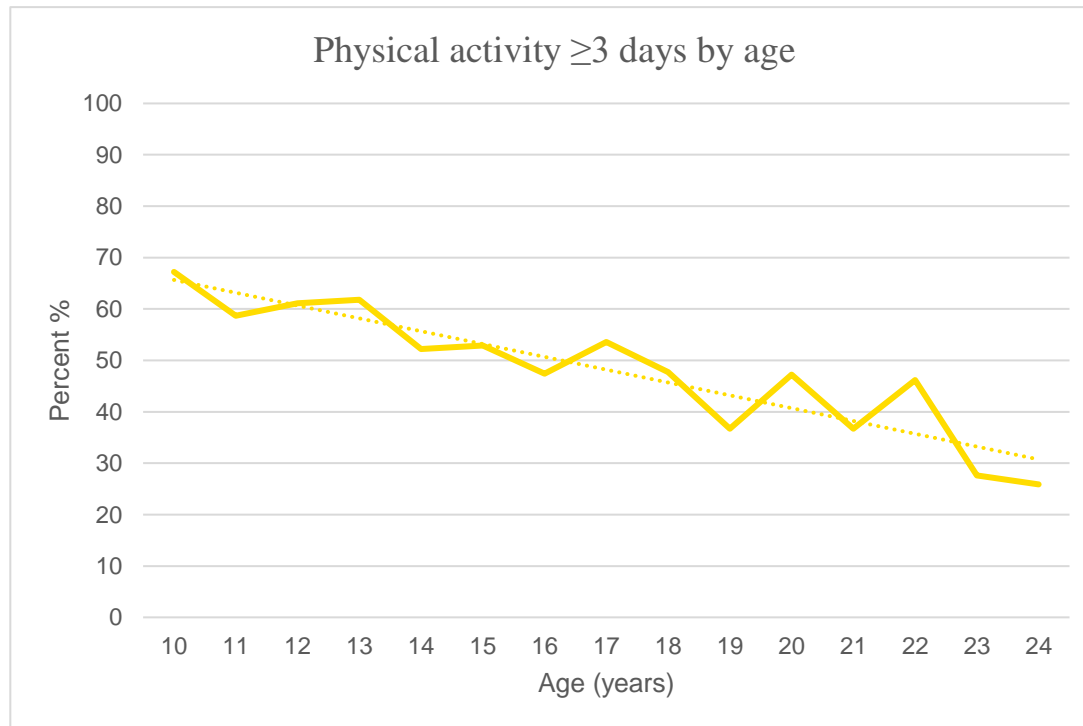
Aboriginal culture & language

LOGISTIC REGRESSION MODELS ( $\geq 3$  days/week)

“outside of school hours, in the past week, how many days did you exercise or play sport or games that made you sweat and breath hard”



# Higher physical activity in younger adolescents



# Results

**Higher physical activity** (after adjusting for all other variables)

- Males
- Weekday recreational screen time
- Non-smoking friends
- Less friends drinking alcohol

	AOR (95 % CI)
	Higher physical activity (≥3 days)
<b>Gender (ref male)</b>	
Female	<b>0.57 (0.40-0.80)</b>
<b>Age (years; ref 16-24)</b>	
10 – 15	1.40 (0.80-2.43)
<b>State site (ref New South Wales)</b>	
Central Australia	1.15 (0.61-2.19)
Western Australia	1.11 (0.78-1.58)
<b>Weekday recreational screen time (ref high ≥3hr/day)</b>	
Low 0-2hr/day	<b>1.79 (1.16-2.76)</b>
Don't remember	0.70 (0.26-1.88)
<b>Weekend recreational screen time (ref high ≥3hr/day)</b>	
Low 0-2hr/day	1.27 (0.83-1.94)
Don't remember	0.84 (0.35-2.00)
<b>Sleep quality (ref fairly/very bad)</b>	
Very good	1.18 (0.73-1.89)
Fairly good	1.71 (0.79-3.71)
<b>Ever tried smoking (ref yes, prefer not to answer)</b>	
No	1.50 (0.95-2.35)
<b>How many friends smoke (ref all of most)</b>	
None	<b>2.27 (1.03-5.00)</b>
A few	1.59 (0.81-3.14)
About half	2.08 (0.97-4.42)
<b>Ever tried a full serve of alcohol (ref yes)</b>	
No	0.78 (0.45-1.36)
<b>How many friends drink alcohol (ref all or most)</b>	
None	0.88 (0.43-1.80)
Don't know	0.54 (0.22-1.29)
A few	0.85 (0.48-1.50)
About half	<b>2.08 (1.05-4.14)</b>



# Results

**Higher physical activity** (after adjusting for all other variables)

- Better self-rated health (SF1)

- “Activities for young people to do in community” perceptions

- High resilience (strengths; SDQ)

- Team & individual sport; church & religious

	AOR (95 % CI)
Social and emotional well-being	
Self-rated health (ref fair/poor)	
Good	1.56 (1.04-2.33)
Very good	2.86 (1.88-4.34)
Excellent	3.35 (2.13-5.26)
Strengths and Difficulties score (10-15y; ref high risk (17-40))	
Low risk (0-13)	2.12 (1.40-3.22)
Borderline (14-16)	1.65 (0.99-2.76)
Resilience (CYRM score; ref low 0-19)	
High (20-24)	1.74 (1.24-2.44)
Cultural engagement, community connections and activities	
Speaks Aboriginal/Torres Strait Islander language (10-15 only; ref no)	
Yes	1.51 (1.07-2.12)
Activities for young people to do in community (ref none)	
A little	1.62 (0.83-3.16)
Some	2.10 (1.10-4.02)
A lot	2.80 (1.45-5.41)
Don't know	0.62 (0.29-1.34)
In the last 12 months, have you been regularly involved in any of the following activities? (10-15 only)	
Community group or club (ref no)	
Yes	1.84 (1.21-2.79)
Team sport (ref no)	
Yes	2.50 (1.78-3.50)
Individual sport (ref no)	
Yes	2.10 (1.27-3.46)
Church / Religious classes (ref no)	
Yes	1.77 (1.06-2.95)

# Conclusion

Physical activity, health & wellbeing cross-sectional associations with:

- **Lower** weekday screen time, peer smoking & alcohol levels
- **Better** self-rated health and higher wellbeing
- **Higher** engagement in community, sport and cultural activities



# Practical implications

- **Support** Aboriginal females & older adolescents to **engage** in physical activity
- Target **screen time and other health behaviours** in physical activity strategies
- Greater support for Aboriginal **community sport and cultural activities** to engage **groups of peers**

