

# Child injury in an urban Australian Indigenous community: The Safe Koori Kids Intervention

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Henry Moore Room

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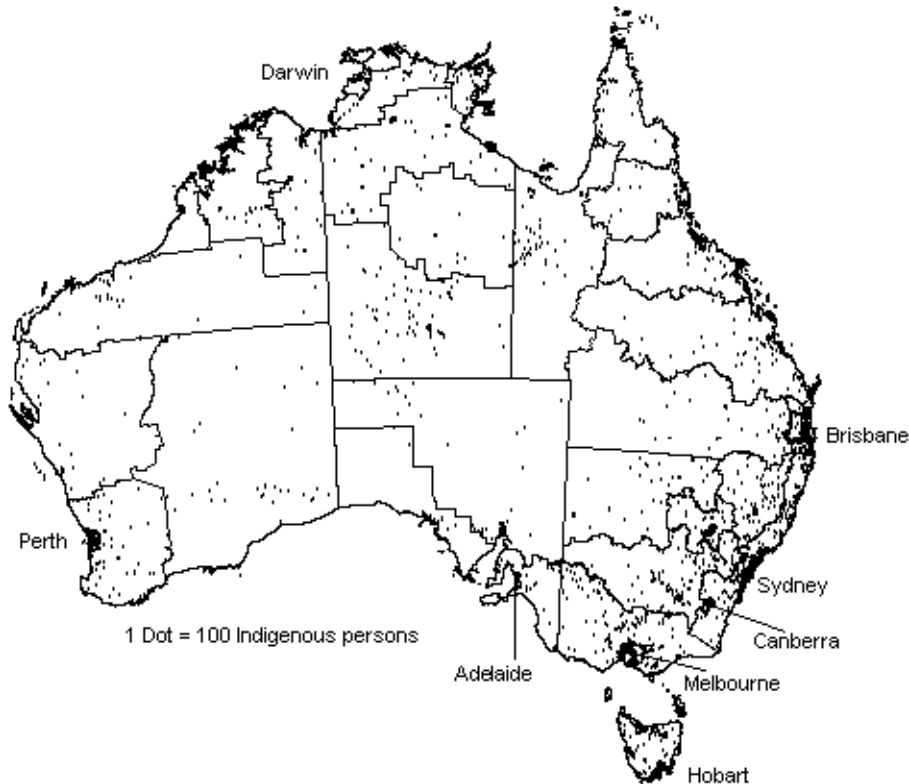
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# Safety 2010 Conference theme

- Safe and equitable communities and the disproportionate burden of injury on poorer communities within countries



# Indigenous Australia



- Two groups:
  - Aboriginal people
  - Torres Strait Islanders
- Culturally diverse
- 455,028 people in 2006
- Around 2.3% Australian population
  - Almost 1/3 live in major cities (32%)
  - 43% in inner and outer regional areas
  - 10% live in remote
  - 16% in very remote areas







# Social, health, economic disadvantage

- 17 year 'gap' in life expectancy
  - 56 Indigenous males (cf 77 all Aust males)
  - 65 Indigenous females (cf 82 all Aust females)
- Education Levels far below other Australians
  - 11 times those who never attended school
  - Half as many children are in school at 17y
- Lower rate of engagement in mainstream employment
  - 8.5% Indigenous unemployment (cf 3.3% in Aust. Popn.)
- High level of economic hardship – lower incomes
  - \$460 pw mean gross income (cf \$740 non-Indigenous households)
- Over represented in all stages of criminal justice system
- Policy focus of successive Australian and State governments - Current 'Close the Gap' Campaign

- Significant burden of injury amongst Indigenous people
  - Nearly 3 times rate fatal injuries
  - 2x rate of hospitalisation
  - Unacceptable rates of injury from violence and unintentional injury (transport)
  - Rates for males much higher than females
- Data limitations particularly for SE Australia
- Few studies
- Injury problems linked to socioeconomic disadvantage, family/community dysfunction marginalisation, geographical isolation

# Lack of targeted interventions

- Effective injury interventions have led to improvements in injury mortality and hospitalisation for **most** Australians
- Indigenous Australians have been left behind
- Few targeted safety interventions
- Safe Koori Kids developed in response to the lack of effective, sustainable and culturally appropriate safety programs.

# Vulnerable children & young people

- Children 0-14 vulnerable group for injury
- Interventions that target young people have a strong likelihood of success
- Under 15s a rapidly growing sector of Indigenous population (40% cf 21% for all Australians)
- 'Injury issues' confronting children in Indigenous communities are complex



# The Safe Koori Kids Study

## 2006-9

- Safe Koori Kids: Community based approaches to Indigenous injury prevention
- Research funded by AIATSIS & NHMRC
- Targeted safety of Indigenous children, youth & their families in SW Sydney
- Combined public health prevention research and community based participatory 'empowerment' approaches



# Study design

- Ongoing community consultation
- Over 3 years:
- Phase 1: Quantitative and qualitative data collection on injury incidence and impact
- Phase 2: Development of intervention
  - Evaluation framework— qualitative and quantitative
  - Pre-test / post-test instruments developed
  - Piloting 2006-7 in 7 schools
- Phase 3: Implementation
  - Term 2 2008 - 5 schools
- Program evaluation 2009

# Methods of evaluation

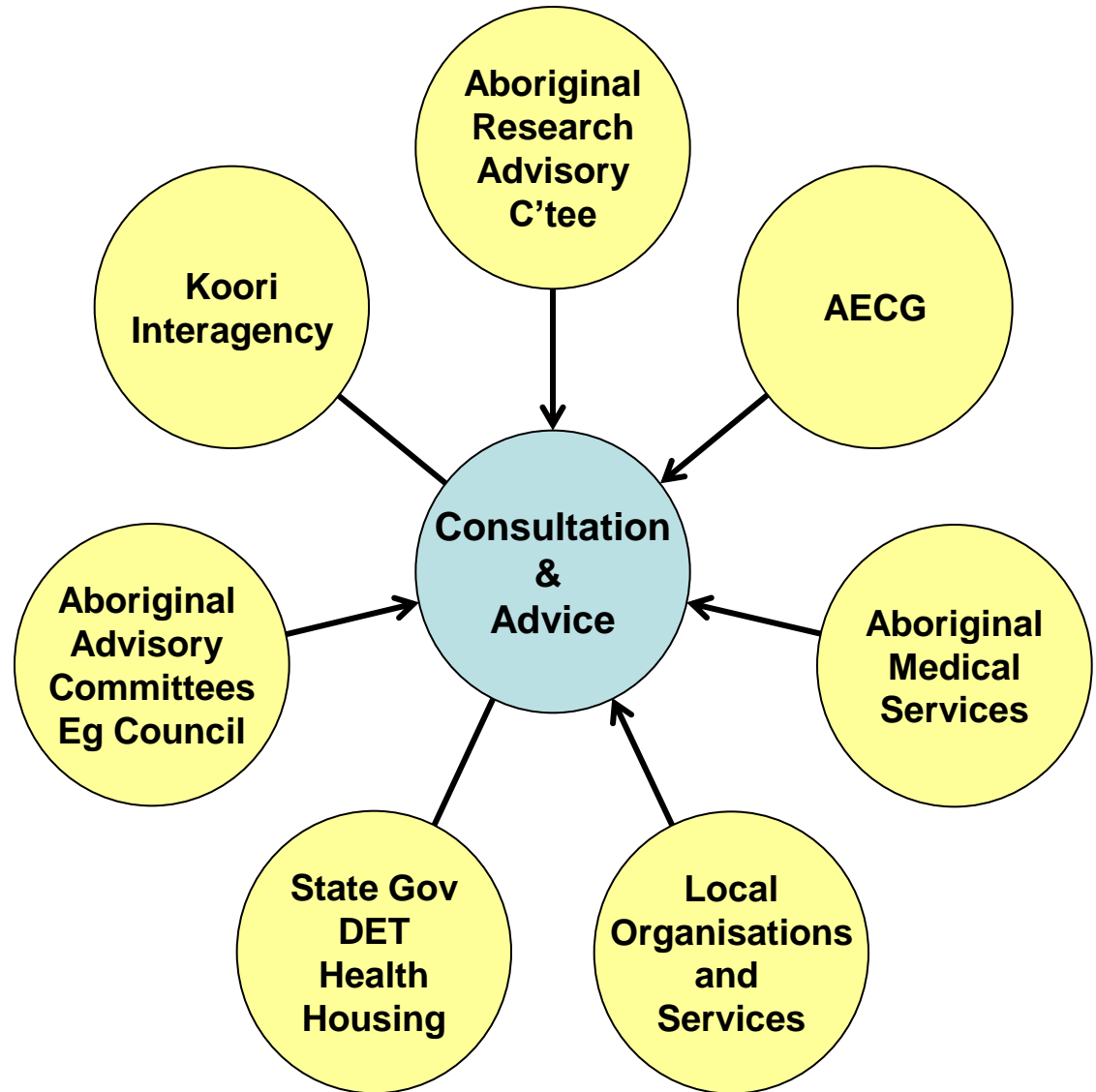
- School program evaluated using a mixed-methods approach.
- Pre-post test research design was applied to evaluate changes in key outcomes
  - Child self-efficacy, knowledge and attitudes towards safety
  - Teacher safety knowledge, attitudes towards Indigenous people, level of Indigenous parental involvement
- Qualitative evaluation used thematic analysis of teacher focus groups
  - Two 45-minute focus groups with 42 teachers from the 5 school

- Campbelltown City - sprawling outer south western metropolis of Sydney
- A large, diverse, young Aboriginal population. 3,600 Indigenous people (2.5%)
- Concentrated in public housing estates
- Primary school aged children (5-11 years) the largest age grouping in Campbelltown (12.7% total popn.) (ABS 2001)

# Community engagement

*Current research highlights the importance of working collaboratively with Indigenous communities to develop practical and relevant strategies to improve the educational status of Indigenous people*

Urquhart B (2009)





# Multiple risk factors

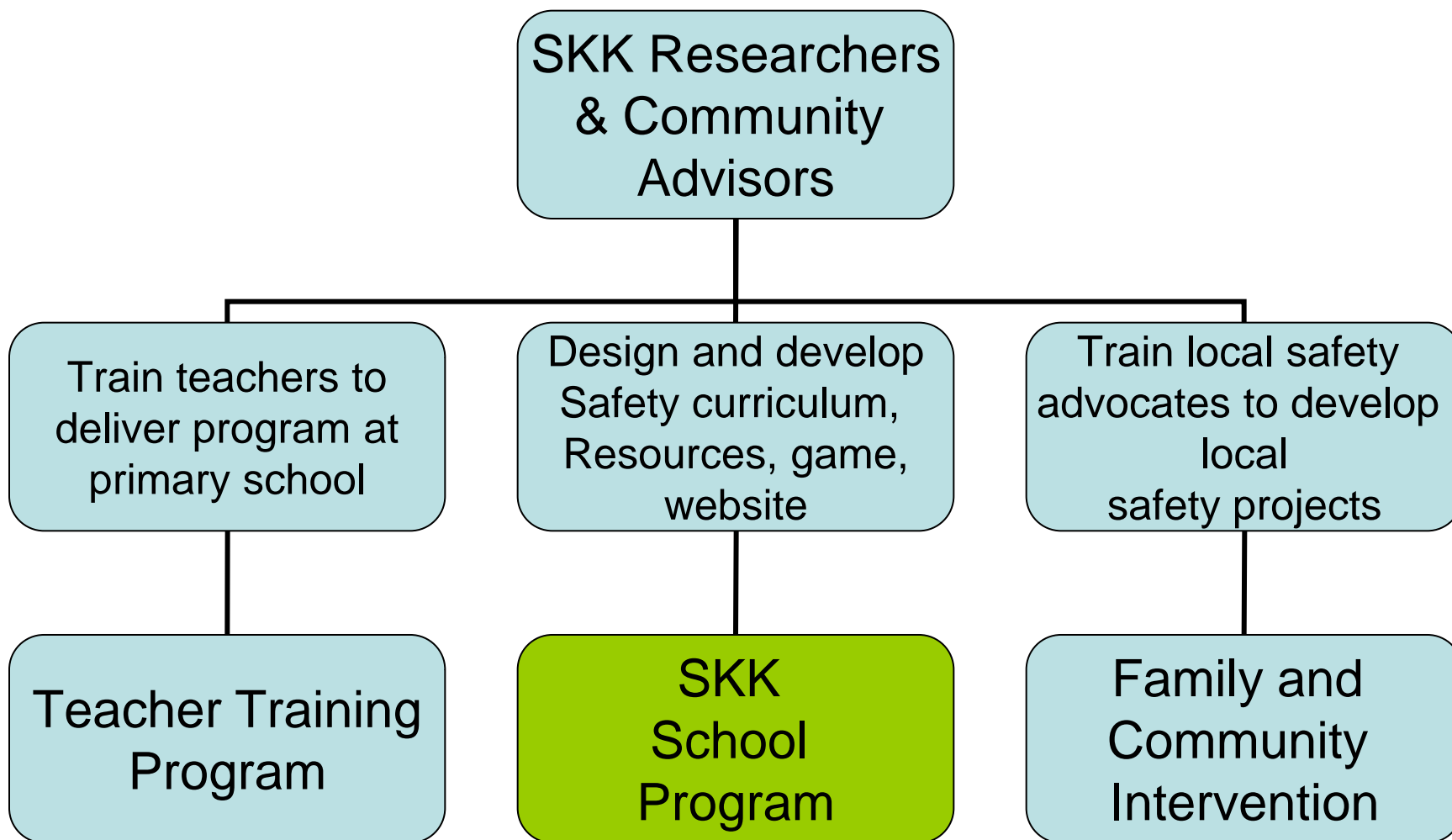
- Hazardous local environments
- Poor public transport, hazardous roads, polluted waterways
- Unsafe playing areas
- Drug dealers in local area
- Prevalence of racially related bullying in schools
- Koori kids used to a lot of freedom
- Risky home environments
- Impact of domestic violence
- Absence of responsible adults & lack of parental supervision
- High levels of risk taking by children and young people
- High levels drug and alcohol use
- Kids taking on adult responsibilities
- Boredom - Lack of things for kids to do

# Protective Factors

- Aboriginal peoples capacity to 'survive'
- Strong sense of connection to family and local Aboriginal community
- Aboriginal staff in schools
- Cultural room in school a 'safe place' for Koori kids
- Kids develop 'toughness'
- Older siblings
- Access to prevention programs



# The Safe Koori Kids Model



# SKK School Program

- Enhanced safety curriculum **5 safety modules, online game and activities** over a 10 week period.
- Developed & delivered to
  - 790 primary school aged children (**13% Indigenous**)
  - 24 middle/upper primary classes in 5 schools in SW Sydney







Quit

Play Full Game



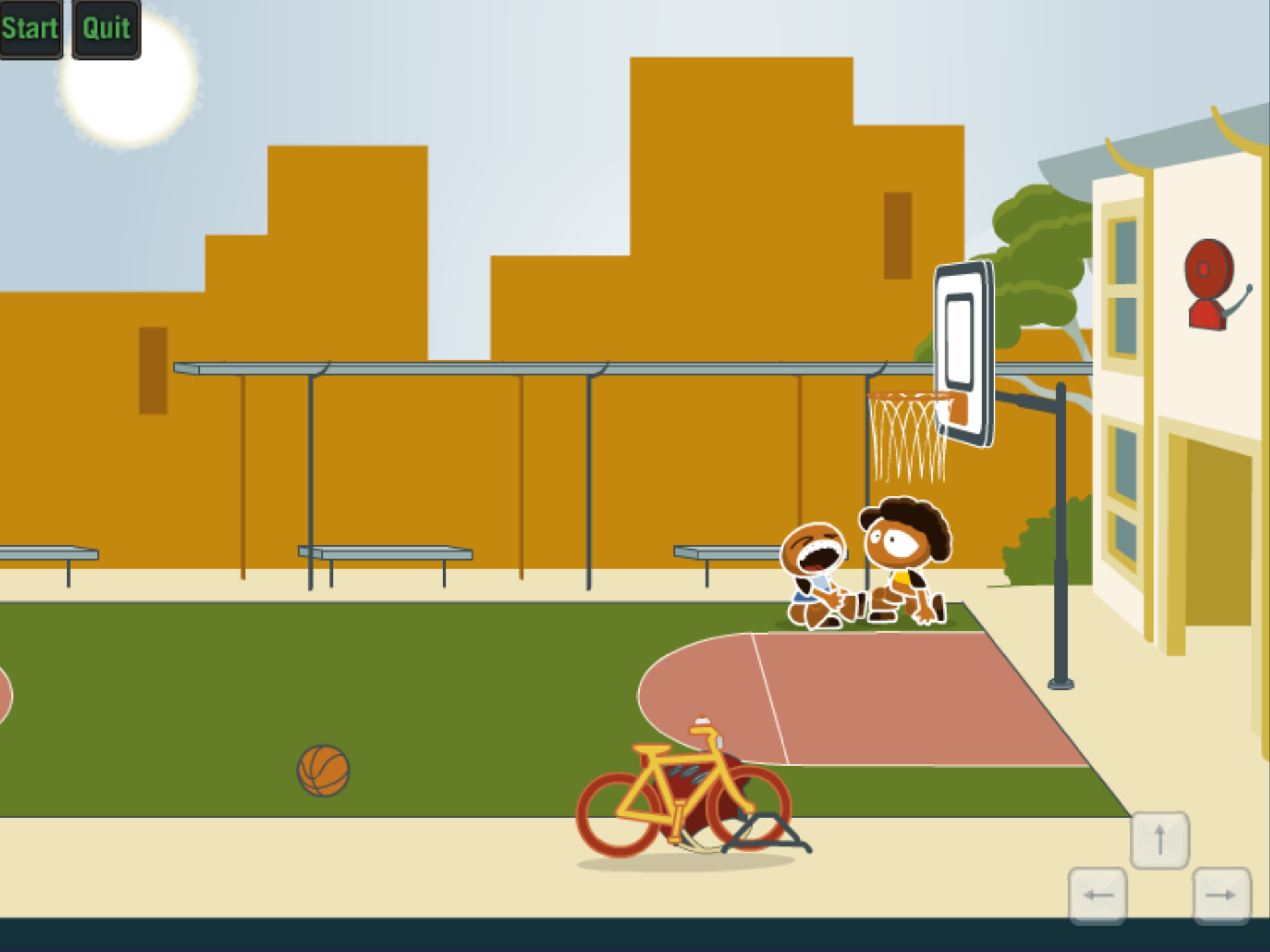
Pick a Scene



Start Quit

animal tokens collected:





EXIT PLAN

EXIT

I wonder if there are  
any hazards around  
here?

Police	000
Ambulance	000
Fire Brigade	000
Poisons information centre	131126
Kids Help line	1800 55 1

What is a  
safety audit?

A safety audit is when someone  
looks in a certain area to  
identify potential hazards?







Start

Quit

**Why did Aboriginal people put the  
burrawang in fresh running water for days?**

to make it taste sweet

to remove toxins to make it safe to eat

to stun the fish

to clean it

**You should check to see if your  
brakes are working**

once a year

once a week

once a month

every time you ride your bike





- **Teachers successfully prioritised safety education**
- Positive findings from the teachers' self-report questionnaires, showed
  - **6% improvement in safety knowledge and teaching practice**
  - **8% increase in Indigenous cultural knowledge**
  - No change in attitudes towards Indigenous children and families
  - **8% increase in participation of Indigenous families** at school events

# Findings from kids' questionnaires

- **Significant increase ( $p<0.05$ ) in self-efficacy** among children from pre- to post-intervention for both Indigenous (6%) and non-Indigenous children (2%).
- **Safety knowledge among Indigenous children increased** from pre- to post intervention by 17% ( $p<0.01$ ) and non-Indigenous children by 15%, ( $p<0.01$ ).
- **Increase in safety knowledge of Indigenous children's post-test was greater** than that of the non-Indigenous children.
- However, no significant improvements in attitudes towards safety (Indigenous children 2%,  $p=0.288$ , non-Indigenous children 1%,  $p=0.0721$ ).
- Overall, Indigenous children scored lower than non-Indigenous children post intervention on self-efficacy (75%:77%), knowledge (56%:63%) and attitudes towards safety (79%:84%).



## deeper understanding of safety

- *My class has learnt heaps about safety, not just knowledge and terms, but how to keep themselves safe*
- *...they thought accidents were unlucky things that happened to you and you couldn't stop them and now I think they can see their own responsibility for their own safety*
- *they learnt from the game, you know the picture they had in their classroom. They knew it wasn't a good idea like water and electricity and some kids didn't know why, so it was good to actually use that...*
- *I think it's just made them more aware too of the country that we live in and we do have some safety hazards here that are different to other places in the world and we should know about them and use them to our advantage as well, particularly with the environment*

# changes to safety behaviour

- *Before we started this program nobody in my class wore a helmet at all and they thought that you wore a helmet so a copper didn't catch you, but now they can see the reason for wearing a helmet and a lot of them have started wearing...*
- *...they took initiatives if they think it's a safety problem, if they see a pair of scissors now... "I've got to put them away". If they see something on the floor or something that could be a safety hazard, they rectify the issue*
- *[the students] were telling their parents about turning off power points and making sure the dryer wasn't near the water, and they were really were going around home saying to their parents what was safe and what wasn't safe and so I think that was a positive thing*

# pride in Indigenous cultural heritage

- **Indigenous children** participated in activities that reinforced their sense of mastery, with a view to building resilience through positive reinforcement of their cultural identity and promotion of connectedness between Indigenous families and schools
  - *They felt proud of the fact that they belonged to this group of people. There is usually so much negativity attached to it. It made them feel good*
  - *...it was also great for the indigenous population for their knowledge and their ability to survive and know all these things and the scientific things that they knew too...I've got a girl in my class who was then able to say yes my grandmother told me that and this one told me that and my mother makes us do this and they could see the connection*

# Conclusions

- Findings suggests that a school based, culturally affirming, safety intervention had a **positive impact** on improved self-efficacy and knowledge about safety
- School safety program recognized the urban **social and cultural context** in which Indigenous children live
- Use of **local resources** reinforced a sense of pride and positive identity in Indigenous children
- **Innovative use of indigenous knowledge** in the curriculum resonated with all children and the Indigenous parents/carers.

# Implications

- The study contributes to our **limited knowledge** about effective child injury prevention for **disadvantaged Indigenous minorities** in **high income countries**.
- Improving the safety of Indigenous children in urban areas is **complex - needs to incorporate a broad range of factors** increasing the vulnerability of urban Indigenous children.
- **Inter-sectoral collaboration and partnerships** important
- The **intervention** has positively contributed to the resilience of Indigenous children and families with respect to safety and their environment.
- **Sustainability** depends ongoing commitment by government, non-government and community sectors working together.
- The program could be trialled in a **broader range of settings**.

# References

- Australian Bureau of Statistics. 4713.0 - Population Characteristics, Aboriginal and Torres Strait Islander Australians. 2010. Available from:  
<http://www.abs.gov.au/ausstats/abs@.nsf/mf/4713.0>. Accessed 7 September 2010
- Australian Bureau of Statistics. Experimental estimates of Aboriginal and Torres Strait Islander Australians, June 2006. Canberra: Australian Bureau of Statistics.
- Clapham K, Senserrick T, Ivers R, Lyford M, Stevenson M. Understanding the extent and impact of Indigenous road trauma. *Injury: International Journal of the Care of the Injured* 2008; 39 (Supplement 5): 519-523.
- Clapham K, Stevenson MR, Sing KL. Injury profiles of Indigenous and non-Indigenous people in New South Wales. *Medical Journal of Australia* 2006;184 (5): 217-220.
- [http://www.mja.com.au/public/issues/184\\_05\\_060306/contents\\_060306.html](http://www.mja.com.au/public/issues/184_05_060306/contents_060306.html)
- Clapham K, O'Dea K, Chenhall RD. Interventions and Sustainable Programs. Carson B, Dunbar T, Chenhall RD, Bailie R. *Social Determinants of Indigenous Health*. Sydney: Allen and Unwin 2007. Pp 271-295.
- Clapham K, Khavarpour F, Bolt, R, Stevenson M. Researching the safety of Indigenous children and youth: an urban perspective. (Unpublished Manuscript)
- Clapham K, Khavarpour F, Bolt R, Stevenson M, Su S. Safe Koori Kids: An injury prevention intervention for Aboriginal Australian children. (Unpublished manuscript)
- Ivers R, Clapham K, Senserrick T, Lyford M, Stevenson M. Injury Prevention in Australian Indigenous Communities. *Injury: International Journal of the Care of the Injured* 2008; 39 (Supplement 5): 561-567.



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## **Safe Koori Kids Website**

<http://www.georgeinstitute.org/safekoorikids/>