

Sustainability starts with children: Child friendly precinct design for active travel and active play



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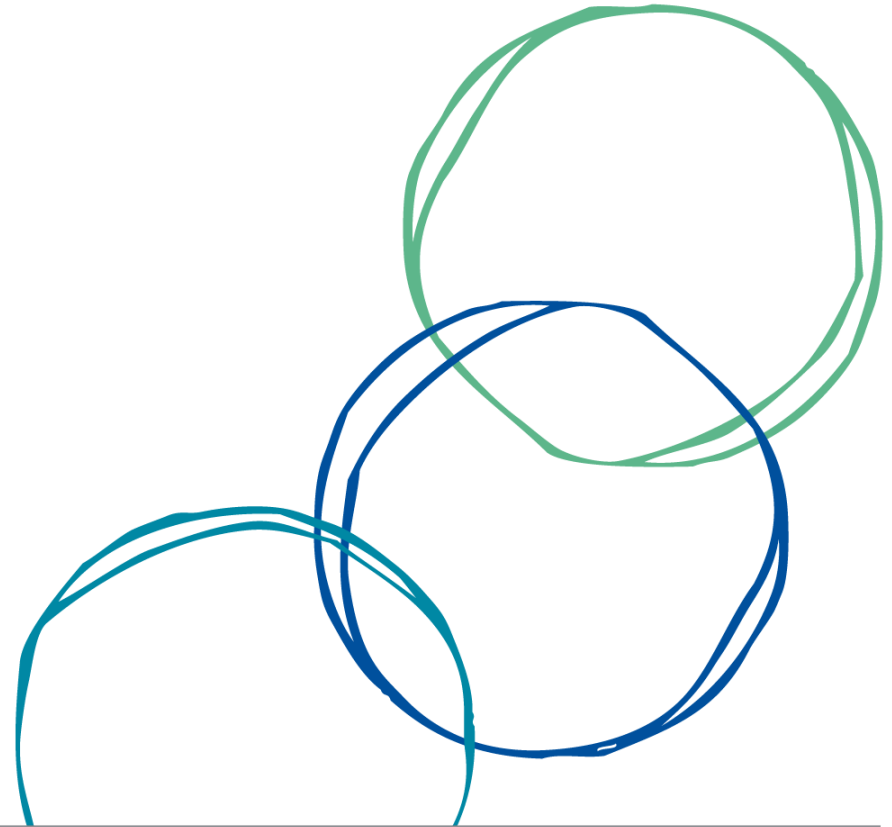
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Content of the presentation:

- Introduction
- Literature review
- Research objectives
- Methodology
- Research in progress

Overview

- The role of child friendly design attributes for:
 - Carbon reduction
 - Formation of environmentally sustainable lifestyles
- Children aged 10-12 and 15-17
- Policy review, surveys and travel diaries



Source: www.essentialkids.com.au

Literature Review: Children in (sub)urban life

Families with children in post-war planning policies:

- Suburban lifestyle, low density, segregated land use and cheap oil
- Heavily relied on cars for even basic services such as shops and schools
- Increased traffic safety concerns

YET

- Many planning policies to overcome these issues are '**child blind**' despite an **increased presence of children in higher density developments** and **increased child related private car usage**

Limited data is alarming

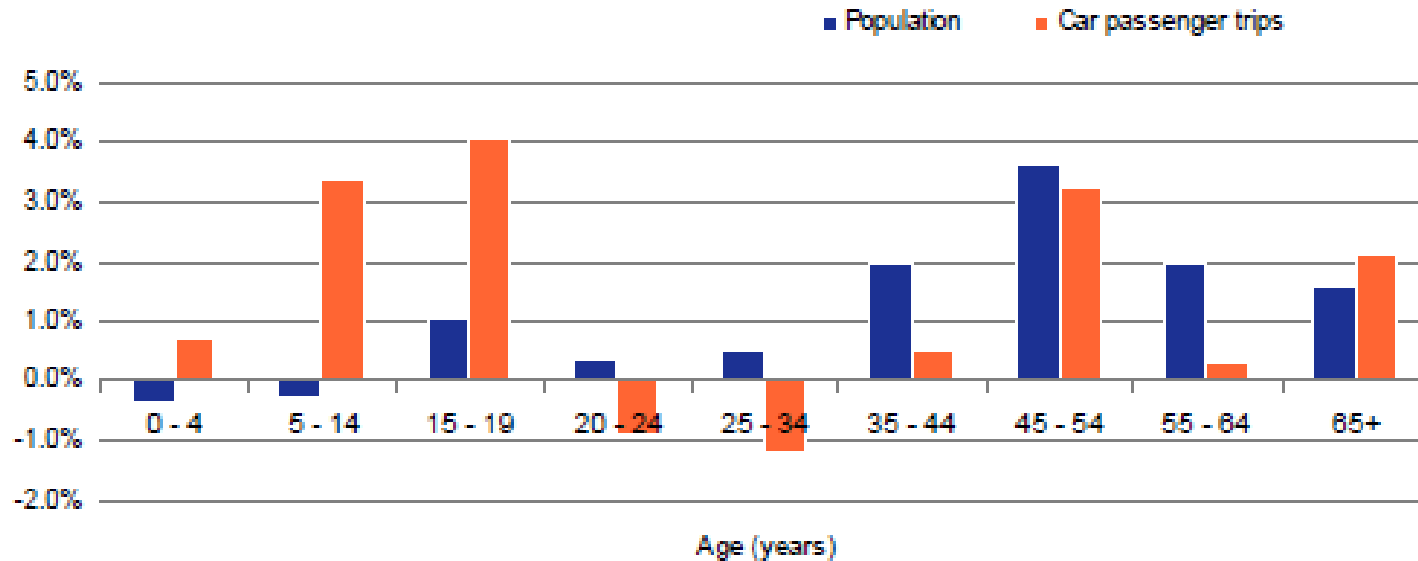


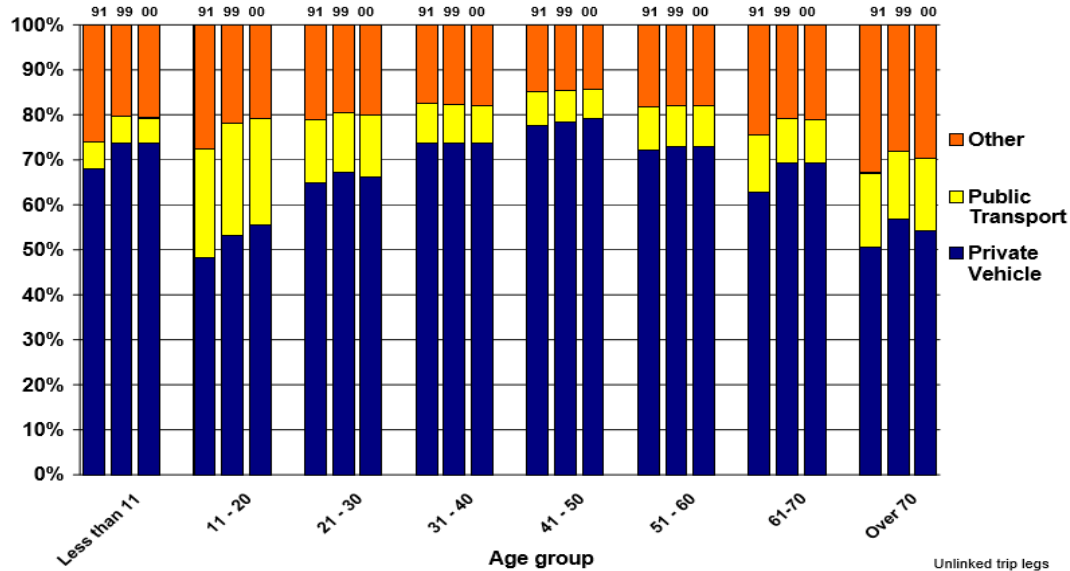
Figure 4 Annual growth 1991 - 2001 by Age groups (Sydney SD)

Source: NSW Government 2005, *Car Travels in Sydney: Changes in the Last Decade*, p 3

- Sydney (2001-2011) education child related car trips +17%
- Melbourne (1994-1999) 71% of children's trips in cars

Limited data is alarming

Figure 21: Mode used by age of traveller on an average weekday, 1991, 1999 and 2000



Source: Transport NSW 2002, Household Travel Survey, p 26

➤ Substantial potential for carbon reduction

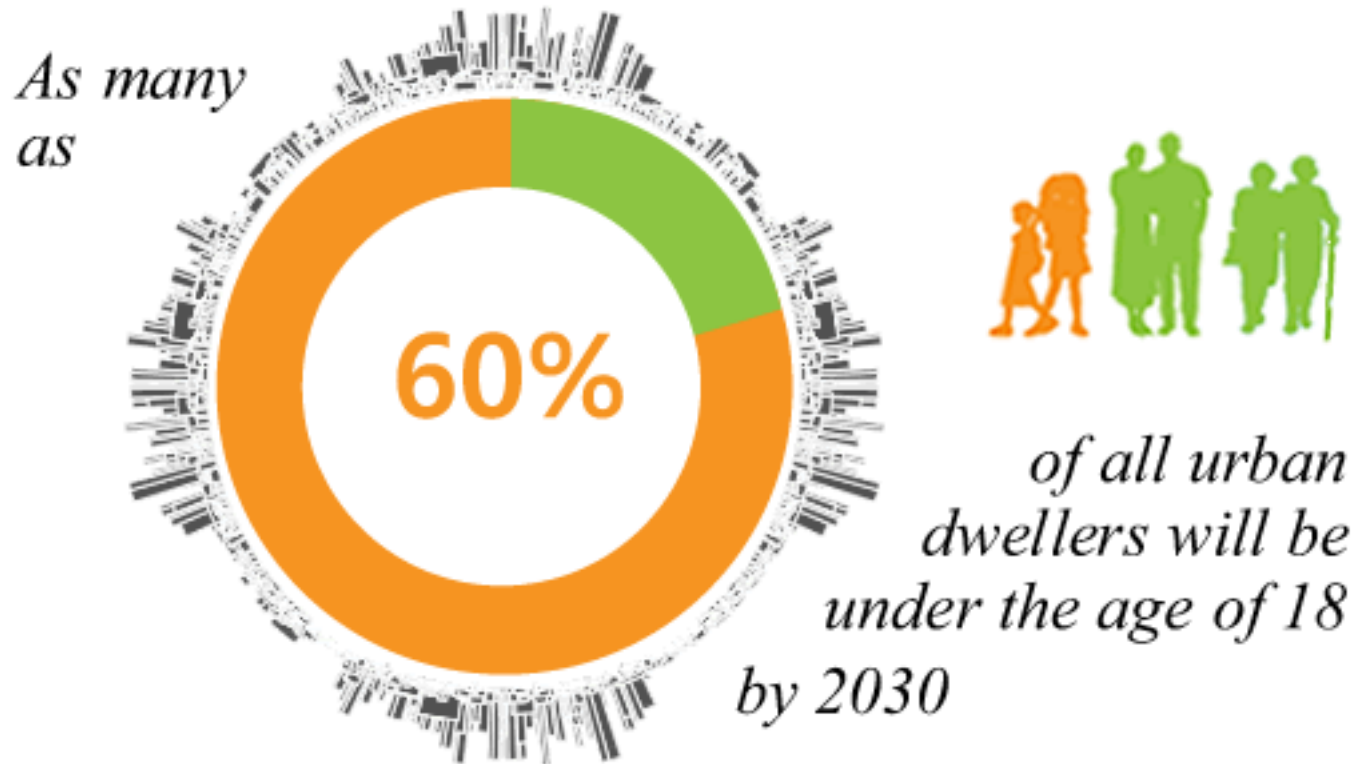
Carbon reduction associated with car usage

- Children's carbon footprints: increased car dependency among families with children
- Children's capacity to be agents for a sustained change => orchestrating a behavioural change



Source: www.stokesentinel.co.uk

Children in urban life



Source: United Nations Human Settlements Programme (UN-Habitat) 2015

Why sustainability through children

- ❑ Children, not just as future citizens but ‘CHANGE AGENTS’, ‘INDICATOR SPECIES’:

‘If we can build a successful city for children, we will have a successful city for all people’

Enrique Penalosa, former mayor of Bogota, Columbia

Defining the child friendly precinct in the context of active travel and active play

Current approaches are problematic



CHILD FRIENDLY = PLAYGROUNDS

- Segregated from the broader neighbourhoods and cities
- Tokenistic
- Prescriptive
- De-natured

UNICEF – CFC Initiative

A child friendly city is actively engaged in fulfilling the right of every young citizen to:

1. Influence decisions about their city or community
2. Express their opinion about the community they want
3. Participate in family, community and social life
4. Be an equal citizen of their city with access to every service, regardless of ethnic origin, religion, income, gender or disability.
5. Actively supports the vulnerable members of their community to engage with civil society and improve their circumstance
6. Drink safe water and have access to proper sanitation
7. Be protected from exploitation, violence and abuse
8. **Walk safely in the streets on their own**
9. **Meet friends and play**
10. **Have green spaces for plants and animals**
11. Live in an unpolluted environment
12. Participate in cultural and social events
13. Learn about their human rights in schools and community spaces

(UNICEF website 2013)



Source: www.childinthecity.eu

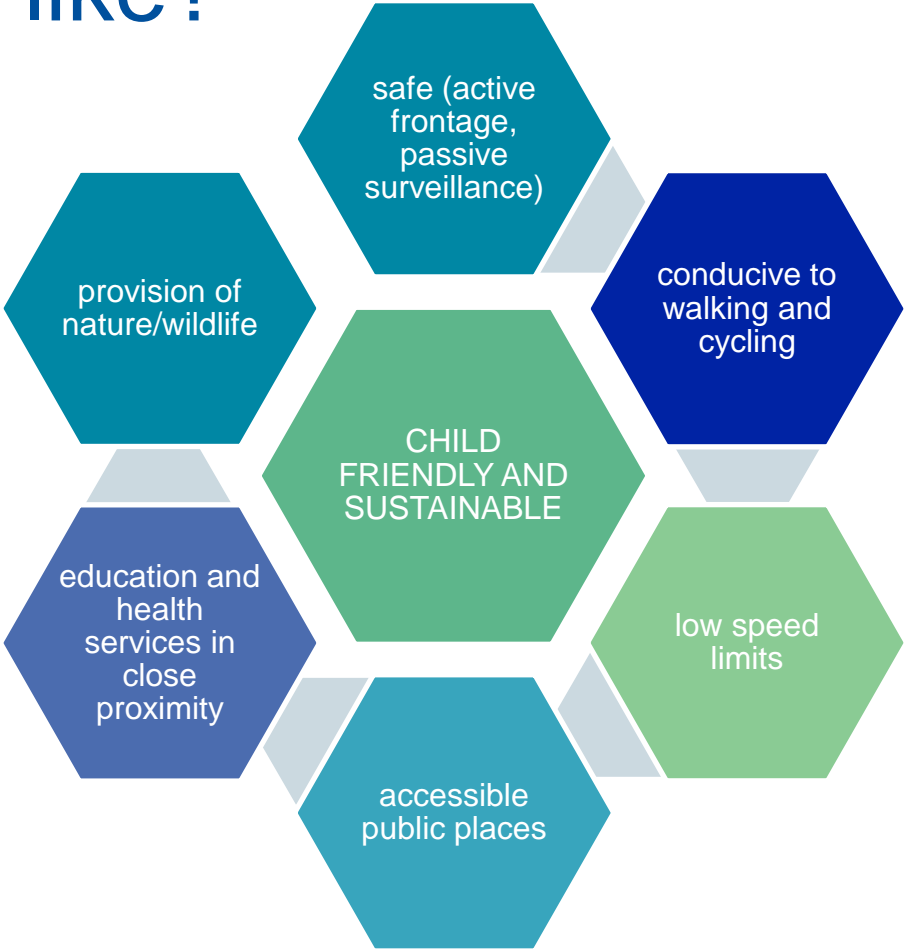
How does a child friendly environment feel?

- *Positive indicators: Social integration, cohesive community identity, tradition of self-help, **safety and free movement, peer gathering places, varied activity settings, safe green spaces**, provision for basic needs and security of tenure.*
- *Negative indicators: Social exclusion, stigma, violence and crime, **heavy traffic, lack of gathering places, lack of varied activity settings, boredom, trash and litter, lack of provision for basic needs, insecure tenure and political powerlessness** (Chawla 2002, p. 229)*



Source: www.livingstreets.org.uk

What does a sustainable child friendly place look like?



Methodology

How to determine child friendliness:
the three concepts of 'ecological psychology':

- **Affordances:** the perceived opportunities and restrictions concerning the person's action in a given environment but can be expanded to include also the emotional, social and socio-cultural opportunities and restrictions
- **Behaviour settings:** a basic environmental unit and can include public places (e.g. churches) or occasions (e.g. auctions) that evoke their own typical patterns of behaviour'
- **Accessibility:** The opportunity to be able to access these physical affordances and behaviour settings



Uptown Normal, Illinois, USA source: <http://landarchs.com>

Preliminary policy review

- UN policies
- CFC guidelines:
 - Consideration of sustainability?
- Sustainability policies:
 - Promotion of children's rights?



Source: www.newurbanism.org.au

UN policies – children and SDG

Stated link between children's quality of life and the sustainable developments (*UNICEF 1996, 1997 cited in Malone 2001*)

Issues:

- Non existence of unitary public child (O'Brien et al 2000)
- Too broad, limited room for local adaptability
- Difficult to apply, vague benefits for local governments (*Whitzman et al 2009*)



Source: www.childinthecity.eu

Preliminary policy review

CFC Guidelines:

- Emphasis on wellbeing, learning and safety
- Environmental awareness, habitual learning, carbon footprints is missing

Sustainability policies:

- Emphasis on technological advancement
- Literature in silos: stand alone active travel programs/sustainable development policies

UN perspective

Evolving towards more tangible agenda

- City level child friendliness index (U-KID) by UNICEF - SDG reporting
- *‘post 2015 SDGs to **purposefully** consider children’s rights and needs for economic development, social development and environmental sustainability’*
(UNICEF 2013, cited in Malone 2015)
- *‘sustainable thinking from a young age onwards is more likely to have a lasting effect than trying to modify already ingrained habits later in life’*
(Children on the front line, UNICEF, 2014, p.76)

Current stage

- Recruitment of schools
- Questionnaires and travel diaries



Source: Author

Anticipated impact

The outcomes of the project will directly inform policy development through:

- the establishment of new guidelines for child friendly low carbon cities and a framework to evaluate the expected performance of various child friendly urban design attributes
- providing evidence base required to improve precinct assessment tools and planning instruments

Thank you!

To find out more, contact:

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