

# **The Neighbourhood Environment & Early Child Development**

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The Kids Research Institute Australia acknowledges  
Aboriginal and Torres Strait Islander people as the  
Traditional Custodians of the land and waters of Australia.

We also acknowledge the Nyoongar Wadjuk, Yawuru,  
Kariyarra and Kurna Elders, their people and their land upon  
which the Institute is located and seek their wisdom in our  
work to improve the health and development of all children.



# PLAYCE LAB

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- WA Dept of Local Government, Sport and Cultural Industries
- WA Dept of Health
- WA Dept of Transport
- WA Local Government Association
- Health & Wellbeing QLD
- Heart Foundation of Australia
- Cancer Council WA
- Commissioner for Children and Young People WA
- Play Australia
- Play Matters Collective
- Nature Play WA
- Australian Childcare Alliance WA, SA, QLD
- Early Childhood Australia
- Goodstart Early Learning
- Sagewood Early Learning
- Sonas Early Learning & Care
- YMCA WA

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The Ian Potter  
Foundation



Life  
Course  
Centre



Heart  
Foundation

# Overview

- Why the built environment matters for child health & development
- What built environment features matter?
- What role does neighbourhood disadvantage play?
- What is working in well in disadvantaged communities?
- The power of children's voices
- Panel

# Young Australian children's health status

Australia  
scores a

**D-**

for children's overall  
physical activity levels  
since 2015

**95%**

preschool children  
are not active  
enough

# Young Australian children's development status

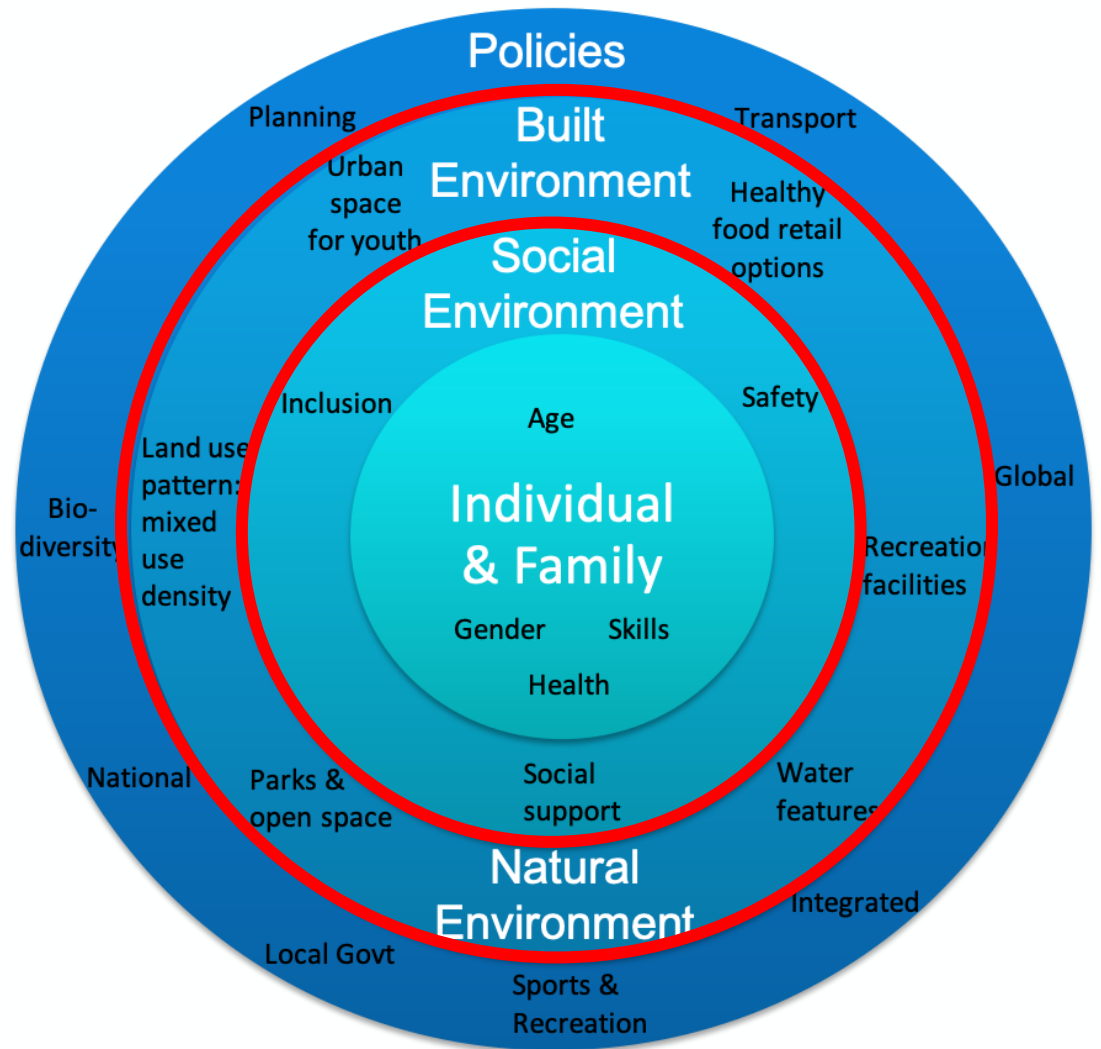
**23%**

Developmentally  
vulnerable as enter  
school

**Worse for:**

- First Nations
- Language diversity
- Regional/remote
- Lower SES

# Children's health & development is influenced by...



# Place Matters

## The Environment Shapes the Foundation for Healthy Development

Education	Health and Environment	Social and Economic
<b>Early childhood education</b> <ul style="list-style-type: none"> <li>• Early childhood education centers</li> <li>• High-quality early childhood education centers</li> <li>• Early childhood education enrollment</li> </ul>	<b>Healthy environments</b> <ul style="list-style-type: none"> <li>• Access to healthy food</li> <li>• Access to green space</li> <li>• Walkability</li> <li>• Housing vacancy rate</li> </ul>	<b>Economic opportunities</b> <ul style="list-style-type: none"> <li>• Employment rate</li> <li>• Commute duration</li> </ul>
<b>Elementary education</b> <ul style="list-style-type: none"> <li>• Third grade reading proficiency</li> <li>• Third grade math proficiency</li> </ul>	<b>Toxic exposures</b> <ul style="list-style-type: none"> <li>• Hazardous waste dump sites</li> <li>• Industrial pollutants in air, water or soil</li> <li>• Airborne microparticles</li> <li>• Ozone concentration</li> <li>• Extreme heat exposure</li> </ul>	<b>Economic and social resources</b> <ul style="list-style-type: none"> <li>• Poverty rate*</li> <li>• Public assistance rate*</li> <li>• Homeownership rate*</li> <li>• High-skill employment*</li> <li>• Median household income*</li> <li>• Single-headed households</li> </ul>
<b>Secondary and postsecondary education</b> <ul style="list-style-type: none"> <li>• High school graduation rate</li> <li>• Advanced Placement course enrollment</li> <li>• College enrollment in nearby institutions</li> </ul>	<b>Health resources</b> <ul style="list-style-type: none"> <li>• Health insurance coverage</li> </ul>	
<b>Educational and social resources</b> <ul style="list-style-type: none"> <li>• School poverty</li> <li>• Teacher experience</li> <li>• Adult educational attainment</li> </ul>		



# Australia ranked 30/43 OECD countries

- 10<sup>th</sup> (air & water pollution and lead poisoning)
- 20<sup>th</sup> (overcrowding, green space, road safety)
- 37<sup>th</sup> (ecological footprint, e-waste, Co<sub>2</sub> emissions)

Innocenti Report Card 17

## Places and Spaces

Environments  
and children's well-being



# The environment is the third teacher



# What is the built environment?

The ***built environment*** comprises places and spaces created or modified by people. It includes but is not limited to:

- Buildings
- Parks
- Transportation systems

*Lee V, Mikkelsen L, Srikantharajah J et al (2008). Strategies for Enhancing the Built Environment to Support Healthy Eating and Active Living. Healthy Eating Active Living Convergence Partnership, CA.*



# What is the built environment?



# Where you live matters

*“The proximity of your house to town centres and job markets, proximity to transport links, ... the social mix of the community and the provision of public amenities such as parks, health care and schools, can critically impact individual wellbeing” (KPMG. 2012)*



- Closing the Gap: Policy into practice on social determinants of health. Discussion Paper. 2011. Geneva: WHO.
- KPMG, Social Housing: A discussion paper on the options to improve the supply of quality housing. 2012. Melbourne: Victorian Department of Human Services



# Child-friendly built environments



## Built Environment

### Neighborhood

Green Space:  
access,  
quantity,  
quality

Street  
Layout,  
Connectivity  
& Paths

Traffic  
Exposure

Safety  
from  
Crime

Residential  
Density

Shops,  
Services &  
Community

### Home

Amount of  
Indoor vs.  
Outdoor Space

Presence &  
Size of  
Front/Backyard



## Facilitate or constrain opportunities for:

Active & Passive  
Play

Physical Activity

Social Interaction

Exploration &  
Stimulation



## Early Child Health and Development

Physical Health  
& Wellbeing

Social Competence

Emotional Maturity

Communication Skills  
& General Knowledge













Language &  
Cognitive Skills

# REVIEW OF THE EVIDENCE

Some Evidence = 

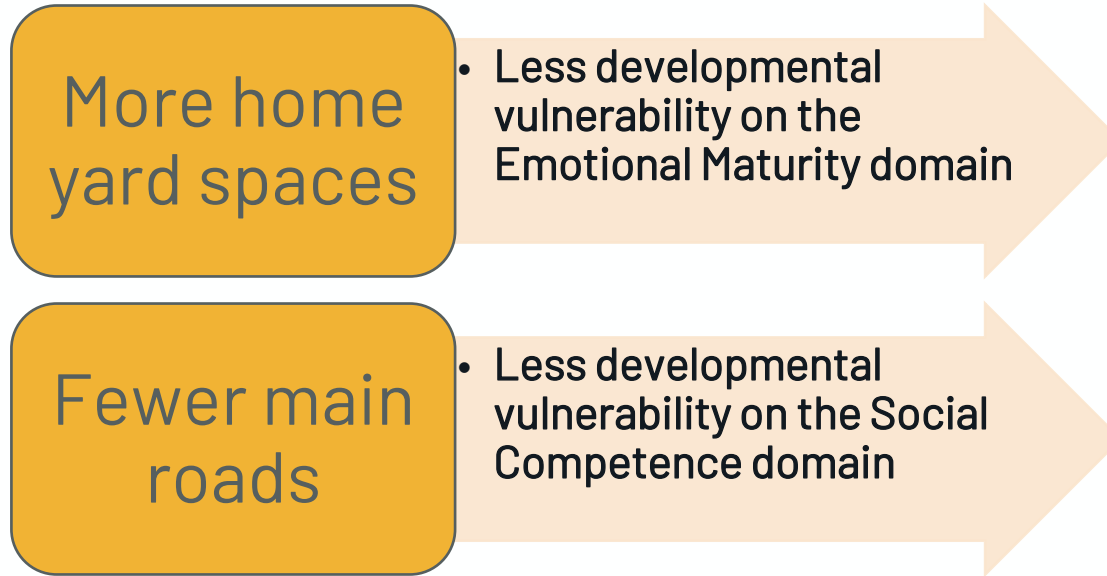
A Little Evidence = 

No Evidence = 

Features of the Neighborhood Physical Environment	Early Child Development-related behaviors (physical activity, play)	Early Child Development
Neighborhood Safety		
Destination and Services		
Housing Density		
Neighborhood Walkability & Aesthetics		
Green Spaces		
Outdoor Home Areas		



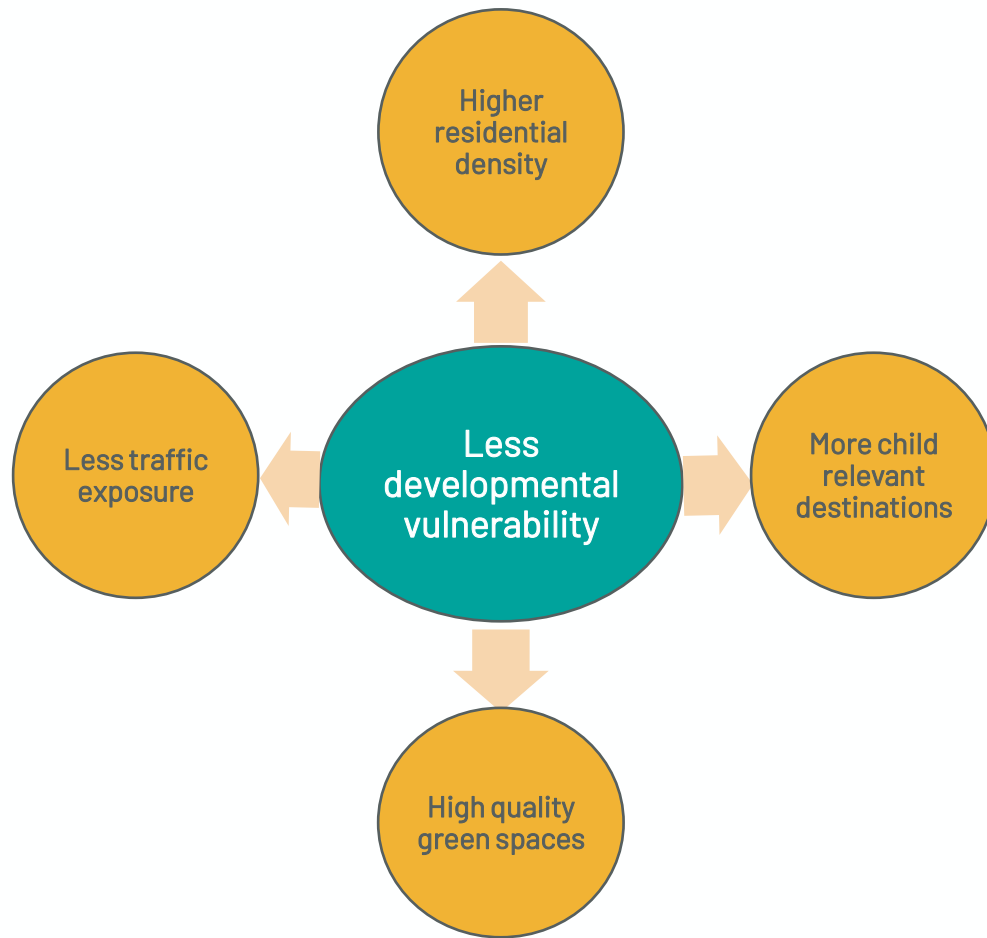
# Suburb-level associations

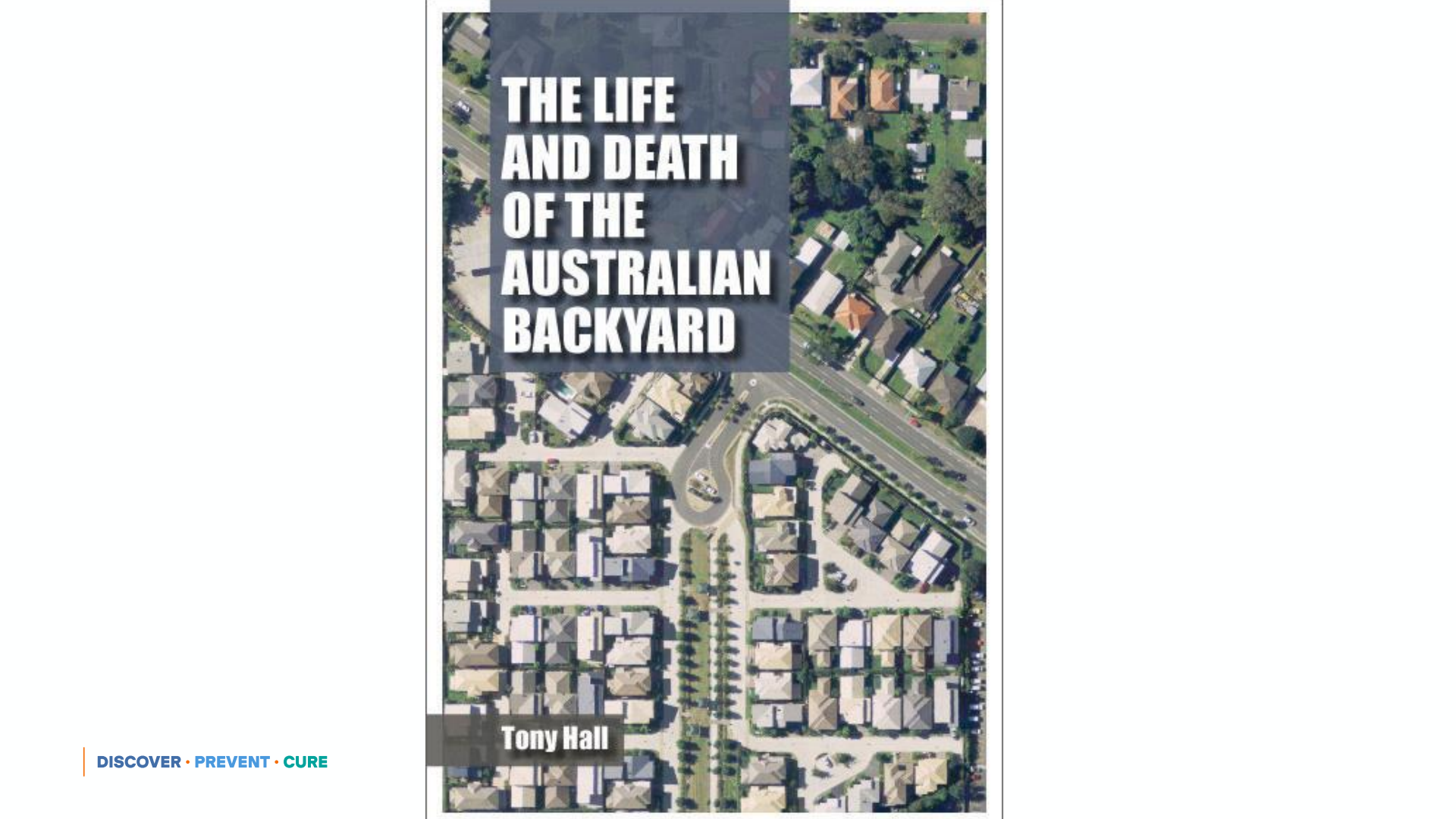


Christian, H, Ball, SJ, Zubrick, SR, Brinkman, S, Turrell, G, Boruff, B, Foster, S, 2017. Relationship between the neighbourhood built environment and early child development. *Health & Place*, 48, 90-101.

# Individual child residence findings

- A weak but significant association
- The effects of which last many generations!





# THE LIFE AND DEATH OF THE AUSTRALIAN BACKYARD

Tony Hall

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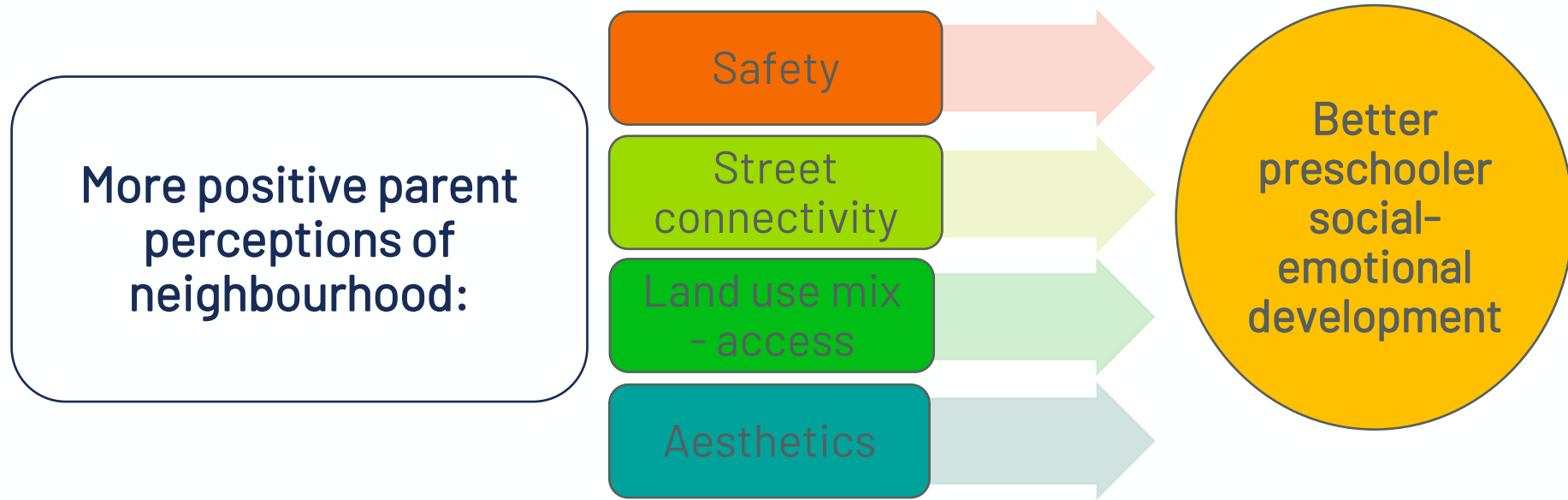


## Outdoor play at home is associated with...



- Increasing size of the yard
- More types of portable & fixed play equipment
- More natural features/vegetation

# Parent perceptions are important!



## Current research..



# Life Course Centre

ARC Centre of Excellence for Children  
and Families over the Life Course

*Addressing the developmental vulnerability of Australian children through  
improved access to supportive neighbourhood environments*

WORKING  
PAPER  
SERIES

No. 2024-16

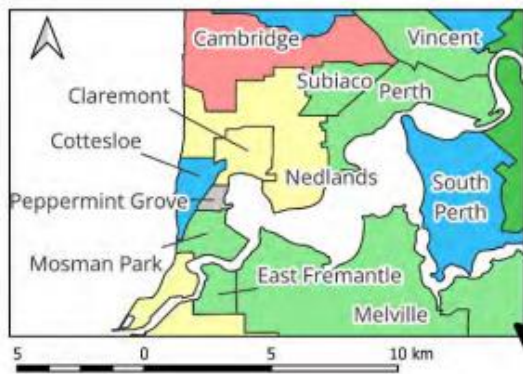
May 2024

**Mapping change over time in  
Australian children's  
developmental vulnerability  
using the Australian Early  
Development Census**



<https://lifecoursecentre.org.au/working-papers/>

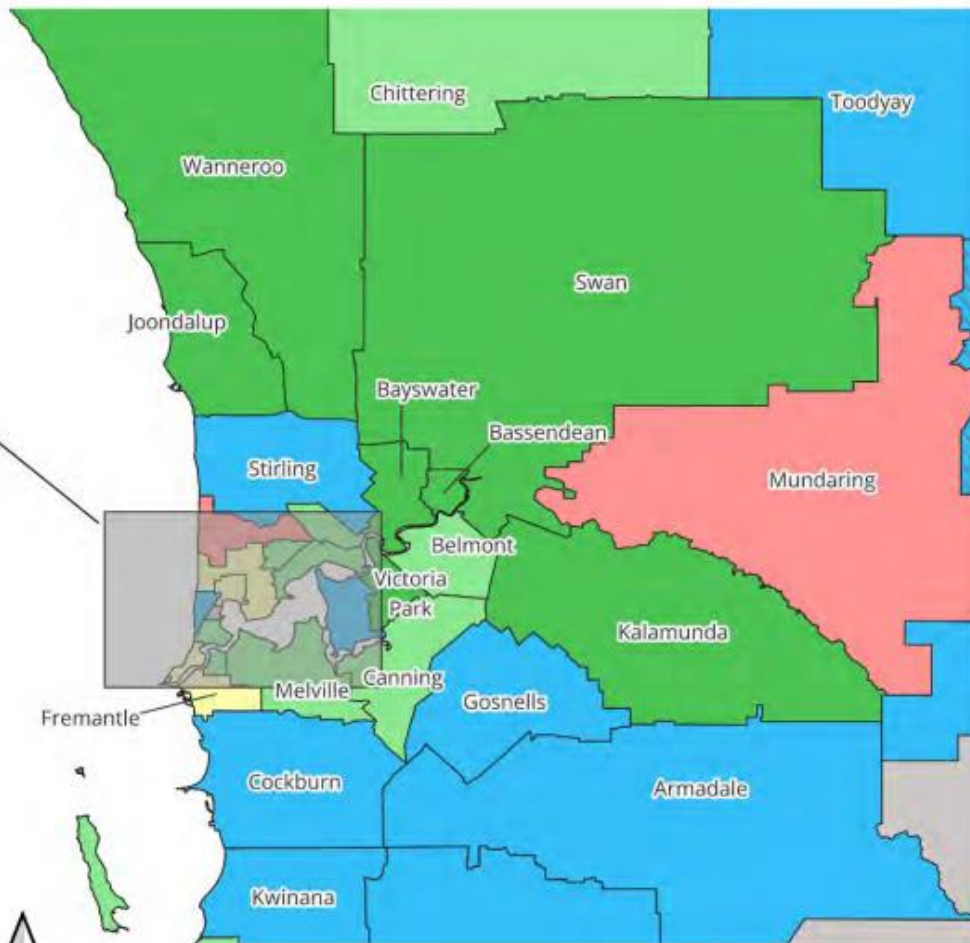
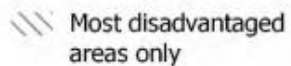




**Observed change in DV1  
between census years**



**Disadvantage indicator**





# What we know – Early childhood matters!

Children grow best in safe, supportive environments—especially in their early years (ages 0–5).



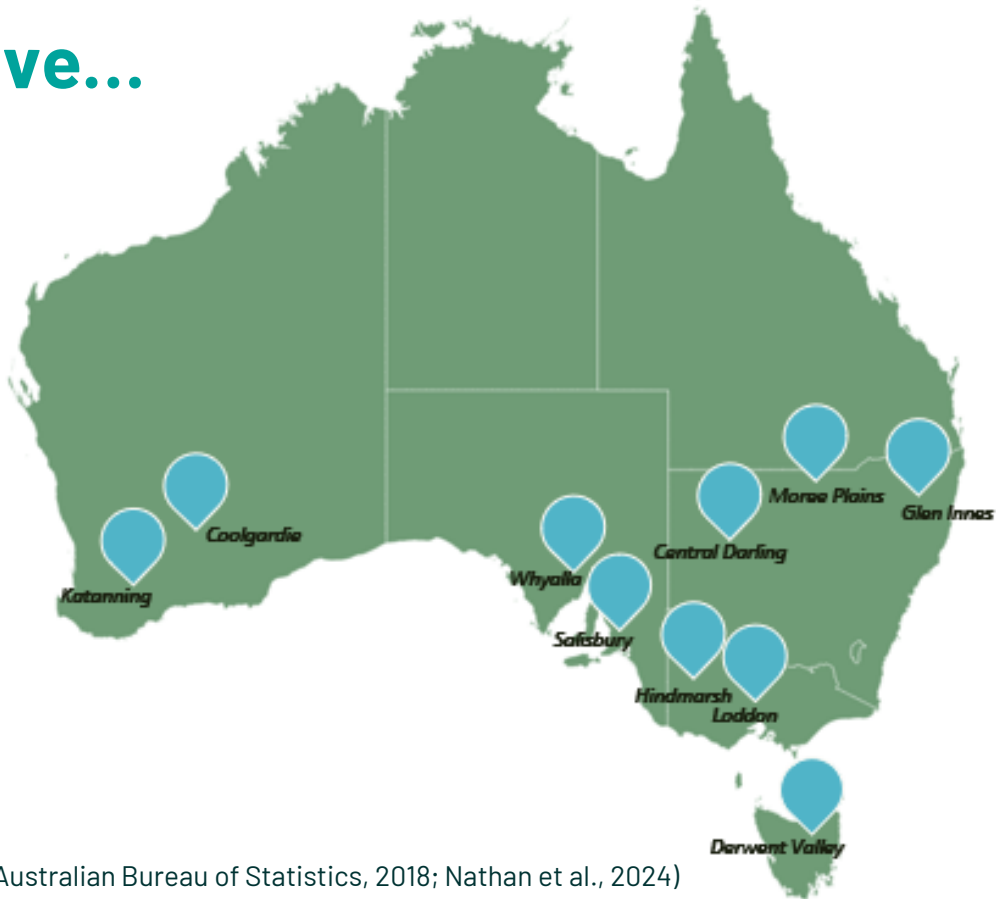
Kids who fall behind developmentally face long-term challenges in health, learning, and wellbeing.



Identifying community-level factors that support healthy child development, particularly in disadvantaged areas, is essential for promoting equitable development opportunities.

# 10 Communities rising above...

- The AEDC helps track children's developmental vulnerability across five key areas.
- Previous research - 2009-2021 AEDC data identified 10 disadvantaged communities demonstrating reductions in developmental vulnerability.



# Incorporating **Children's Voices** for more equitable & healthy environments

(2024-2025)



## **'Having A Say'**

Identifying neighborhood features  
impacting health from the perspective of  
children living in urban growth areas

*(mapping activity  
& focus groups)*



## **'Being Heard'**

Sharing findings and identifying  
resources & advocacy tools for involving  
children in urban planning

*(co-design workshops & dissemination)*

# Children's Voices Project Overview



**Recruitment**

**Assent  
document**

**Draw and  
tell**

**Maptionaire**

**Go-along  
interviews**

**Dissemination**





**Effecting change...**

# National, State and Local Plans

Western Australian Health Promotion Strategic Framework  
2022 – 2026

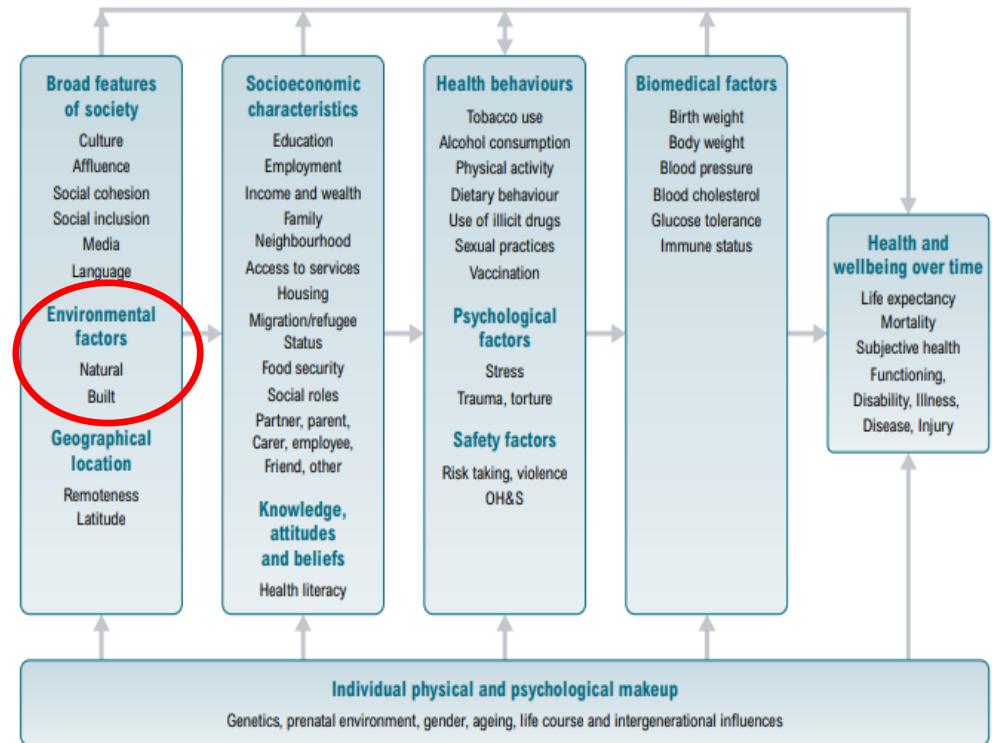
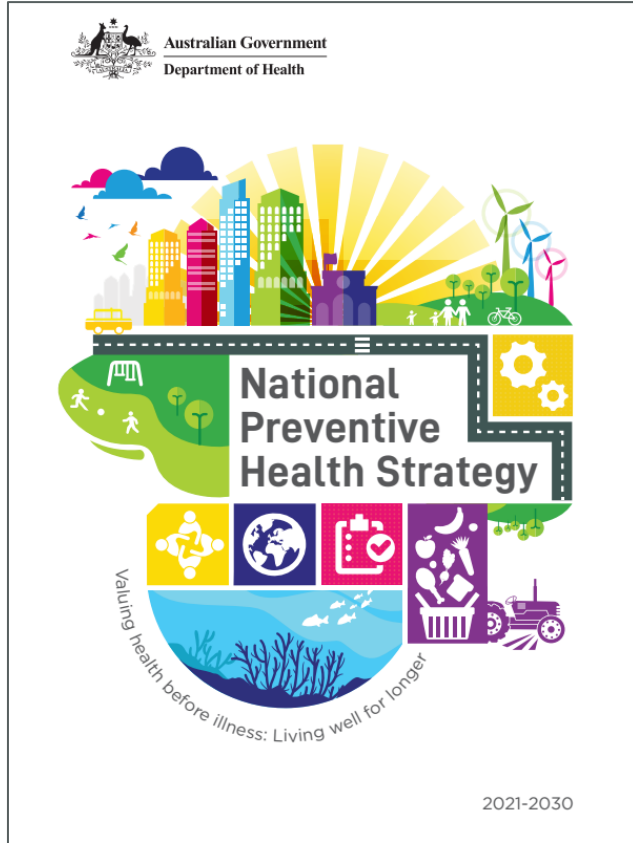


Figure 1: A conceptual framework for the determinants of health

# WA Active Travel to School Roadmap 2023-2030

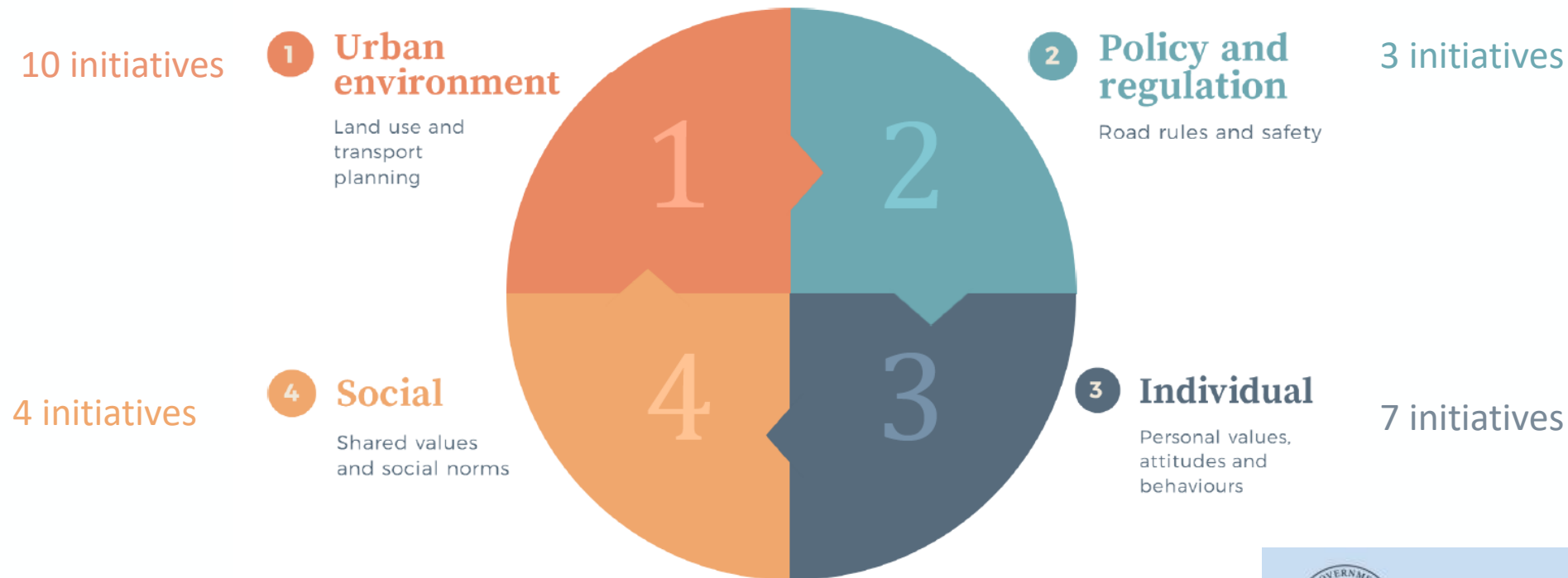


Figure 1: social-ecology of school travel<sup>1</sup>





# National, State and Local Plans



# Effecting change:

## KEY RECOMMENDATIONS



The  
**voices of children**  
need to be included in the  
**development of policies**  
related to the  
***built environment and health.***

# Designing Streets for Kids



Global Designing Cities Initiative

## Ten Actions to Improve Streets for Children

1. Think from 95cm
2. Disincentivise private vehicles
3. Increase public transport reliability
4. Build wide and accessible footpaths
5. Add spaces for play and learning
6. Provide safe cycling facilities
7. Improve pedestrian crossings
8. Lower speeds by design
9. Add trees and landscaping
10. Prioritise children in policies

# Panel Discussion

**Dr Kelsie Parabear-Sear, Nature Play WA**

**Ainslie Sartori, Cancer Council**

**Sarah Quinton, Valuing Children's Initiative**



Questions?





**PLAY**  
active

A program to boost energetic  
play in ECEC

