

Research Snapshot

Can the neighbourhood built environment make a difference to child development?



Background

Where we live impacts our health and wellbeing. The neighbourhoods in which children live are among the most important contexts for time spent outside of home and school. This makes neighbourhoods a key environment in which children grow and develop.

In Australia, more than 90% of us live in urban neighbourhoods. The built or physical environment (e.g. housing, street design, traffic exposure, parks and other infrastructure) is one important component of the neighbourhood setting. Yet we are only just beginning to understand its impact on children's development. We know there is good evidence to support the relationship between features of the built environment (e.g. housing density, street design, traffic exposure, and access to parks) and some child health behaviours.

For example, children's neighbourhood environment appears to influence their physical activity, including the way children play, walk or cycle, and move around independently. Children who live in more walkable neighbourhoods – well-connected streets with safe

crossing points, footpaths, interesting destinations, and low traffic volume and speed – are more likely to be physically active, and walk and cycle to destinations when compared to children who live in less walkable neighbourhoods.

However, little evidence exists for the relationship between features of the built environment and other child development outcomes such as academic performance; and social, emotional and behavioural skills. Better understanding of how neighbourhoods can play a role in shaping healthier child development will inform policy and practice to create built environments that cater for children and families.

Aim

This review of the evidence outlines the importance of understanding how neighbourhood built environments shape children's development; and have the potential to positively influence children's developmental pathways.

Key Findings

Although still emerging, available evidence suggests there are built environment features that might be important for child development. These include:

1. Access to a variety of high-quality, and attractive *destinations* (e.g. shops, child care centres, schools) accessible by walking, cycling and public transport.
2. *Green spaces* that provide opportunities for play, and interaction with *nature*.
3. Residing in areas with *low traffic volume exposure*.
4. *Living in low to mid-rise dwellings*, and ensuring dwellings are built to optimize *natural surveillance* (e.g. windows facing the street).

While this emerging evidence exists, research needs to focus on other built environment features (e.g., street design, park quality, which mix of destinations) to further understand how we can create healthier neighbourhoods that promote positive child health and development.

Implications

As children in Australia and around the world are increasingly growing up in urban neighbourhoods, it is important to study the impact of the built environment on child development. The question of how best to intervene and invest to promote optimal child development outcomes – the neighbourhood, family, child, or a combination – is yet to be answered, but is a critical question for research and policy. Neighbourhood built environments offer real potential for policy sensitive intervention, but we need to better understand more precisely how they impact child development.

For policy and practice

This research is well aligned with national and global agendas that recognise the need to create liveable and child-friendly urban areas to support our growing population. Liveable, child-friendly urban areas can promote healthier lifestyles, enhance quality of life, and reduce inequity.

There are existing opportunities in policy and government available to change our neighbourhoods for the better. The research evidence reviewed provides a platform for public policy advocacy, leading to built environments that enhance healthy child development, and community place-based initiatives that have the potential to benefit many children and families. For example, if research demonstrates that high-rise density living combined with a mix of local destinations positively influences children's social-emotional wellbeing, we can advocate for initiatives to improve both access to, and the quality of, housing and its surrounding neighbourhood.

For research

There is a need for research that links measures of the built environment (e.g. destinations, nature and green space, traffic exposure, and housing density) with child development outcomes to test the strength of these relationships and interconnections between them. This requires better use of and access to existing data sources together with research teams with diverse expertise in urban planning and policy, urban design, child development, and public health to explore the impact of the built environment on child development outcomes.

For further details

This study draws on a review of previous research relating to the neighbourhood built environment and children's development, and methods used in health and place-based research. This research relies on the collaboration of two research programs: the Australian Early Development Census (AEDC) program at the Murdoch Childrens Research Institute (MCRI) and the Place, Health and Liveability (PHL) program at the University of Melbourne's McCaughey VicHealth Community Wellbeing Unit. The AEDC is a measure of early childhood development at school entry, and the PHL program explores the importance of place on health.

Study detail

For full technical details of this research see: Villanueva, K., Badland, H., Kvalsvig, A., O'Connor, M., Christian H., Woolcock, G., Giles-Corti, B., Goldfeld, S. Can the neighbourhood built environment make a difference to children's development? Building the research agenda to create evidence for place-based children's policy. *Academic Pediatrics* (in press). A full list of references used in the development of this snapshot is available online with this [link](#).

About research snapshots

Research Snapshots provide a brief and accessible overview of research being undertaken in relation to the AEDC. This piece of research was funded by the Australian Government under the AEDC program. For further up-to-date information consult the AEDC website and its many resources: www.aedc.gov.au

About the organisation

The Centre for Community Child Health (CCCH) has been at the forefront of Australian research into early childhood and behaviour for over two decades. CCCH is a department of The Royal Children's Hospital and a research centre of Murdoch Childrens Research Institute. CCCH conducts research into many conditions and common problems faced by children that are either preventable or can be improved if recognised and managed early. By working collaboratively with leaders in policy, research, education and service delivery, CCCH aims to influence early childhood policy and improve the capacity of communities to meet the needs of children and their families.

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Since 2002, the Australian Government has worked in partnership with eminent child health research institutes, Centre for Community Child Health, Royal Children's Hospital, Melbourne, and the Telethon Kids Institute, Perth to deliver the Australian Early Development Index programme to communities nationwide. On 1 July 2014, the Australian Early Development Index (AEDI) programme became known as the Australian Early Development Census (AEDC), and was launched through a new website www.aedc.gov.au. The Australian Government continues to work with its partners, and with state and territory governments to implement the AEDC.