murdoch children's research institute

Centre for Community Child Health

Research Snapshot

Understanding child disadvantage

Exposure to disadvantage impacts on children's social-emotional adjustment, physical functioning, and learning competencies.[1,2] These early inequities lead to a range of serious problems in later life and carry significant costs for society, such as a greater burden for health and education services and lower productivity.[3] As inequities in children's health and development are unnecessary and preventable, their elimination is a global health priority.[1,4]

Inequities are driven by the circumstances in which children live, learn and grow (social determinants).[1] Children experience increasingly poorer outcomes as they are exposed to higher levels of disadvantage.[5-10] We therefore need to focus not just on those children living in the most disadvantaged circumstances, but across the full continuum of disadvantage.

For example, results from the 2015 Australian Early Development Census (AEDC) illustrate that as the level of community disadvantage increases, so too does the level of vulnerability in children's development at the start of schooling (see Figure 1).

Changing Children's Chances

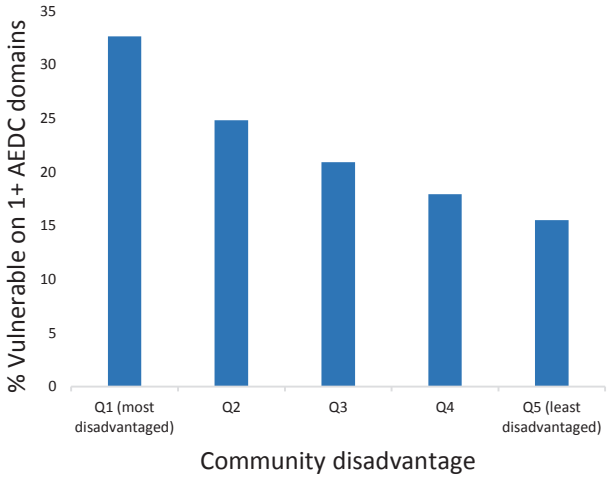

Figure 1. Relationship between quintiles of community disadvantage and children's vulnerability on AEDC domains.

To effectively address child inequities, we first need to understand the extent of the problem. To do this relies on capturing the complexity of children's experiences of disadvantage. The ecological perspective[11] of child development suggests that disadvantage can arise at the level of the:

- individual child (e.g. poor nutrition)
- family (e.g. low parent education)
- community (e.g. dangerous neighbourhood).

A social determinants perspective suggests that influences on health can be more fully understood when viewed through four 'lenses':[12]

- sociodemographic: subpopulation groups at risk of poorer outcomes (e.g. English as a second language),
- geographic environments: characteristics of the places in which children live (e.g. access to parks)
- health conditions: diagnosable conditions and medical problems (e.g. diabetes)
- risk factors: exposures that increase the likelihood of poor child outcomes (e.g. low birth weight).

In this study we brought together these perspectives to more accurately capture child disadvantage in Australia (see Figure 2). We tested this framework of disadvantage for children aged 4-5 years.

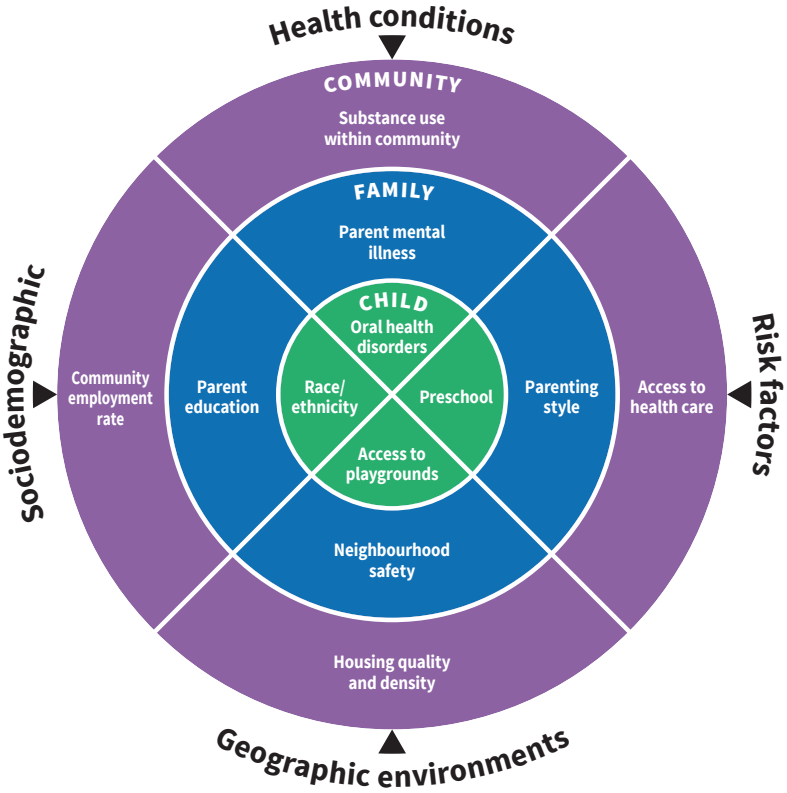

Figure 2. Framework of child disadvantage aligning a social determinants and ecological perspective. Examples of relevant indicators within each lens and level are shown.

Aim

This study aimed to test the proposed child disadvantage framework (Figure 2) with data from the Longitudinal Study of Australian Children (LSAC).

Key findings

Using data from when children were aged 4-5 years, we compared different ways of understanding child disadvantage. We found that the best way of structuring the disadvantage indicators was according to the four 'lenses' of sociodemographic, geographic environments, health conditions, and risk factors.

Next we examined the associations of each of these lenses measured at 4-5 years, with children's later academic performance, measured at 8-9 years. Each of the four lenses was related to children's academic outcomes, with higher levels of disadvantage in each domain predicting poorer academic performance. This suggests that the measure is operating in the way we would expect.

These findings suggest that the model proposed in Figure 2 provides a sound approach to understanding child disadvantage. It has the potential to more adequately capture the full 'real life' experiences of children and the varied influences on their development.

Implications

For policy and practice

The World Health Organization Commission on Social Determinants of Health has called for the elimination of health inequities within a generation.[1,4] This framework of child disadvantage can help to identify policies and interventions capable of reducing the impact of disadvantage on children's outcomes. The four lenses of sociodemographic, geographic environments, health conditions, and risk factors offer a useful framework for policymakers to view and address the determinants of child health inequities.[12]

For research

This framework provides a foundation for researchers to further investigate the relationship between disadvantage and child health and developmental outcomes. In particular, it will be useful to examine how different lenses may variably contribute to children's development across domains (e.g. social-emotional adjustment, physical functioning, and learning competencies).

As a starting point, we examined disadvantage at a single timepoint: when children were aged 4-5 years, which is around the age children begin school. In future work it will be possible to examine how disadvantage changes across childhood, and explore the nature of disadvantage experienced during other key developmental transitions, such as the onset of puberty and the transition to high school.

The disadvantage indicators used here are commonly collected variables within many population-based datasets, such as the UK Millennium cohort study.[13] This framework can help guide researchers to better utilise the data available to them when measuring disadvantage, and to test potential intervention targets within these lenses.

Study details

This research draws on data from Growing Up in Australia: the Longitudinal Study of Australian Children (LSAC), a nationally representative sample of two cohorts of Australian children – the birth cohort (B-cohort) of 5,107 infants and the kindergarten cohort (K-cohort) of 4,983 four-year-olds – which commenced in May 2004.[14] To date, six waves of data have been collected. The current paper draws on data from the B-cohort (51.2 per cent male), focusing on data collected at Wave 3 when children were aged 4-5 years (school entry), and 8-9 years using linkage to children's results from a direct assessment of academic skills: the National Assessment Program – Literacy and Numeracy (NAPLAN) conducted on all Australian students.[15]

For further information

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Details of the research paper

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About the Changing Children's Chances research project

The Changing Children's Chances research project will contribute to a greater understanding of the causes of inequities, including the potential for health and education systems to prevent inequities. To achieve this, powerful existing data and new analytic approaches will be used to examine the many contexts in which children and their families live and grow. We are working collaboratively with policymakers and practitioners to find the most promising short to medium-term leverage points for interventions to reduce child inequities in Australia.

Changing Children's Chances is a partnership initiative bringing together leading equity researchers and policy experts from the University of Melbourne, Flinders University, Murdoch Children's Research Institute, Sydney Children's Hospital Network, The University of New South Wales, University of Otago, Australian Department of Education and Training, Victorian Department of Education and Training, Brotherhood of St. Laurence and the Royal Melbourne Institute of Technology.

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For more information about the project visit: **www.rch.org.au/ccch/research-projects/Changing_Children_s_Chances/**

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