About this report

This report summarises a series of promising (draft) foundational community factors (FCFs) for early childhood development (ECD), which is based on findings from the Kids in Communities Study (KiCS), an Australian investigation of community-level factors influencing ECD. FCFs are the community-level factors that lay the foundations of a good community for young children.

In this report, we describe the overall background and methodology of KiCS, however more detail can be found in the KiCS protocol publication.[3] The **KiCS FCF Manual** is a complementary document to this report, which provides further information about how communities can measure the differentiating FCFs (a subset of the FCFs) recommended for measurement.

Supplementary material

This report explains *why* we chose the list of FCFs, while the KiCS FCF Manual contains the '*how-to*' of collecting the set of differentiating FCFs only. This data icon indicates when we highly recommend reading the **KiCS FCF Manual**.

Executive Summary

ECD research has mostly focused on individual, family, and school factors, but has largely ignored community-level influences. The research into neighbourhood or community effects on children shows that disadvantage is often geographically concentrated and inter-generational.[4] The community level can impact the healthy development of children, particularly on the resources that are available to families to promote good development.[5, 6] Research shows that in disadvantaged communities, lack of resources and opportunities can result in worse child development outcomes that can persist from one generation to the next. However, there are also many factors—such as engaged parents and families, active community organisations, and neighbourhoods that are safe to walk in and have good places to play—that can promote healthy child development even in lower income communities.

Global agencies (e.g. WHO, UNICEF) also recognise that early childhood is one of the most critical development periods, with positive early childhood development (ECD) powerfully contributing to the productivity of society at large.[7] Alongside global ECD agendas, current Australian and global 'child-friendly city' agendas and place-based initiatives seek to promote and protect child wellbeing through healthy communities. Some examples of Australian place-based efforts include Communities for Children,[8] Opportunity Child,[9] and Logan Together. [10] These place-based initiatives advocate the need for healthy communities for families and children and employ local decision making models in order to tailor interventions to the local population. However, for more effective place-based interventions, evidence and data are needed to make informed recommendations required to leverage policy change for healthier ECD.

The Kids in Communities Study (KiCS)

The Kids in Communities Study (KiCS) is an Australian Research Council funded study that used a range of methods to investigate the potential influence of community-level factors on early childhood developmental outcomes measured by the Australian Early Development Census (AEDC). Community-level factors in five domains were investigated—**physical environment, social environment, socio-economic factors, access to services, and governance** (see **Figure 1**).

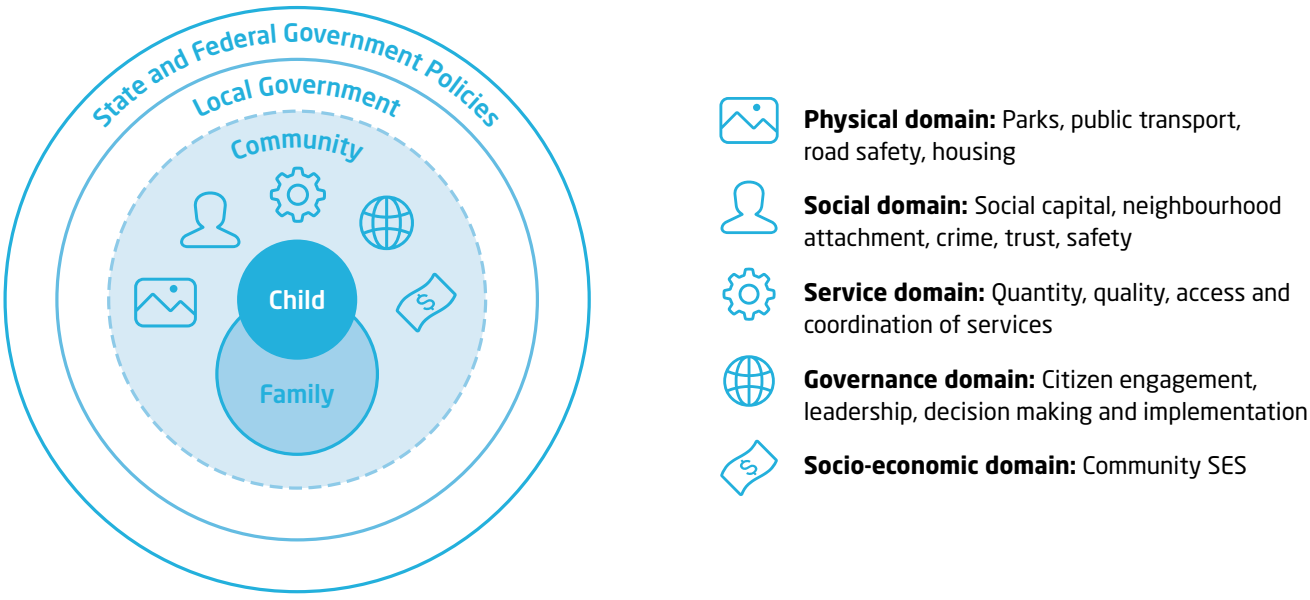

Figure 1: The Kids in Communities Study conceptual framework (reproduced from Goldfeld et al. 2015)(11)

KiCS aimed to better understand local community-level factors that are consistently related to better outcomes for children. Most importantly, the study aimed to determine which of these are the most measurable and modifiable community-level factors that influence children's developmental and health outcomes across communities. This provided the basis for a series of promising (draft) **foundational community factors** (and indicators) that will be further testable in communities around Australia.

Creating foundational community factors and not just indicators

Globally there is interest in measuring the progress of societies.[12] While there are many definitions of what an indicator is, the consensus is that an indicator provides a **summary indication of the condition or problem, and permits the observation of progress or change**.[9] Indicators are one way to do this, and can help provide a summary indication of the condition or problem and permit the observation of progress or change. Evidence-informed indicators can help strengthen community engagement and development, assist with prioritising effort, and help inform policy recommendations using the best local data.

*'An **indicator** is a statistic or parameter, that, tracked over time, provides information on trends in the condition of a phenomenon and has significance extending beyond that associated with the properties of the statistic itself'*[2]

While KiCS initially set out to create robust community indicators for ECD (specific, measurable and repeatable over time),[2] we faced challenges with the complexity of different community contexts, and limitations with quantitative measurement and modelling (e.g. small number of communities in KiCS). Indicators have traditionally been quantitative (rather than qualitative) and such challenges limited the number of quantitative indicators from the study. However, a key strength of KiCS was the rich qualitative data collected. The mixed methodologies used in KiCS helped to triangulate qualitative and quantitative findings and provided an in-depth understanding of the community and the factors associated with ECD outcomes in communities. As such, we recommended developing a set of evidence-informed 'foundational community factors'. These factors are derived from findings from KiCS (i.e. community-level factors related to ECD) and can lend themselves to quantitative and/or qualitative measurement. Some factors may be 'indicators', whilst others require further research to be developed into indicators.

Not all the KiCS foundational community factors fit the global definition of an indicator. With further research, some of these factors can be turned into an 'indicator'

'Foundational community factors' for ECD

Foundational community factors (FCFs) lay the foundations of a good community for young children. They are the 'key ingredients' to create a healthy community for ECD. Foundational community factors can be measured quantitatively (e.g. surveys, existing data) or qualitatively (e.g. focus groups, interviews).

***Foundational Community Factors** are factors that lay the foundations of a good community for young children. The acronym '**FCF**' is used throughout this report*

Why are foundational community factors important?

Foundational community factors will assist in better understanding what facilitates or hinders ECD at the community level. Local information on the FCFs can help contribute to decision making and interventions that move beyond the individual-level, which has shown limited *sustained* success, to the broader community-level (e.g. place-based initiatives). This has the potential to benefit *many* children and families in the long-term.

In particular:

- The FCFs are based on evidence from KiCS, which means that critical points of intervention for creating better environments for children's health and wellbeing are informed by research. This can empower communities to better understand and recognise their resources and opportunities to improve, helping to direct community effort into areas that make the most sense. It allows communities to move beyond anecdotal information to a discussion grounded in evidence about how the community is tracking to inform place-based initiatives.(13)
- The FCFs can help communities strengthen stakeholder engagement and development, and inform policy recommendations using the best local data. For example, they can be used to inform and involve local residents and organisations, identify key issues, discuss priorities, and plan future directions for their community.(13)

How did we develop the foundational community factors?

Developing FCFs involved exploring a mix of quantitative and qualitative measures of community-level factors in a small number of local communities in New South Wales, Victoria, Queensland, South Australia, and the Australian Capital Territory. Overall analysis of these measures involved a two-staged approach to develop a list of draft FCFs for ECD.

Selecting study communities

Twenty five local communities (suburbs) in areas of advantage and disadvantage were selected in a number of local government areas (communities) across five states and territories in Australia (VIC, NSW, QLD, SA, and the ACT). Selection was based on community socio-economic status (SES) using the ABS Socio-economic Index for Areas (SEIFA) and ECD using the AEDC, a population measure of child development. A local community (suburb) "diagonality type" was created i.e. those performing better or worse ("off-diagonal"), or as expected ("on-diagonal") on the AEDC relative to their SES (see **Figure 2**).

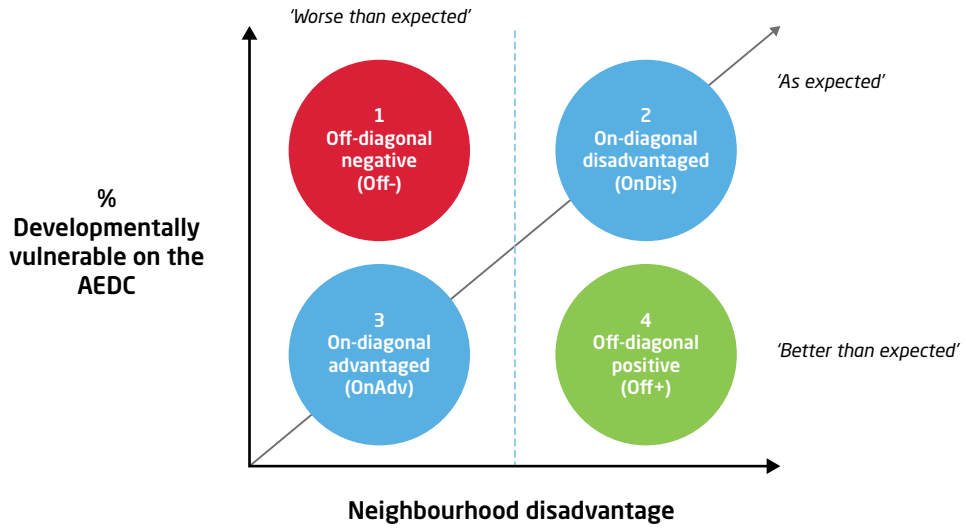

Figure 2: Classification of on- and off-diagonal local communities (adapted from Tanton et al. 2015).(14)

Blue: On-diagonal local communities; **Red or Green:** Off-diagonal local communities
Dotted line: matched dis/advantaged community pairs
AEDC: Australian Early Development Census
Developmentally vulnerable: % developmentally vulnerable on at least 1 (of 5) AEDC domains
Neighbourhood disadvantage: Australian Bureau of Statistics Socio-Economic Index for Areas – Index for Relative Socio-economic Disadvantage (IRSD)

Data collection

In 2015-2017, quantitative and qualitative data were collected from each local community. The number of focus groups and interviews in each area varied. The following data collections were proposed for each local community:

- Semi-structured interviews with 8-15 stakeholders within each local government area
- Focus groups with local parents of young children aged 0-8 years
- Focus groups and surveys with local service providers of early years services
- Community surveys distributed to 1000 general community residents in each local community
- Mapping of neighbourhood design and local amenities and services using Geographic Information Systems (GIS) software
- Park audits to capture features and amenities for each park within the local community
- Collection of approximately 120 policy documents to better understand local governance processes that may influence early childhood outcomes
- Existing socio-demographic data from the Australian Bureau of Statistics (ABS), and early childhood education and care data.

Analysing data

A two-staged approach to analysis was undertaken. Factors 'within' communities, and 'across' communities were explored:

Stage 1: Differentiating factors focused on qualitative and quantitative factors that differentiated local community diagonality status. That is, we analysed pairs of neighbouring on- and off-diagonal local communities matched on disadvantage (14 local communities matched on disadvantage i.e. seven community pairs). This provided a sense of why one local community had better ECD outcomes than its neighbouring local community despite both experiencing disadvantage. Factors considered as consistently differentiating were those that appeared in at least four of the seven matched disadvantaged community pairs.

Stage 2: Important factors explored qualitative data only (focus groups and interviews) and identified community-level factors emerging as important across all 25 local communities regardless of its diagonality status. That is, are there any community-level factors that are consistently noted as important for families and young children? For example, if public transport, walkability, traffic, park access and quality, service access and quality, did not differentiate community pairs (from Stage 1), it does not mean that these factors aren't important for the community. While there is likely to be differences between local communities, factors considered to be consistently important for ECD were those that appeared in at least 16 of the 25 local communities. A summary of data collection, data analysis and outputs is outlined in **Figure 3**.

Together these factors form the list of FCFs for ECD (see **Table 1**).

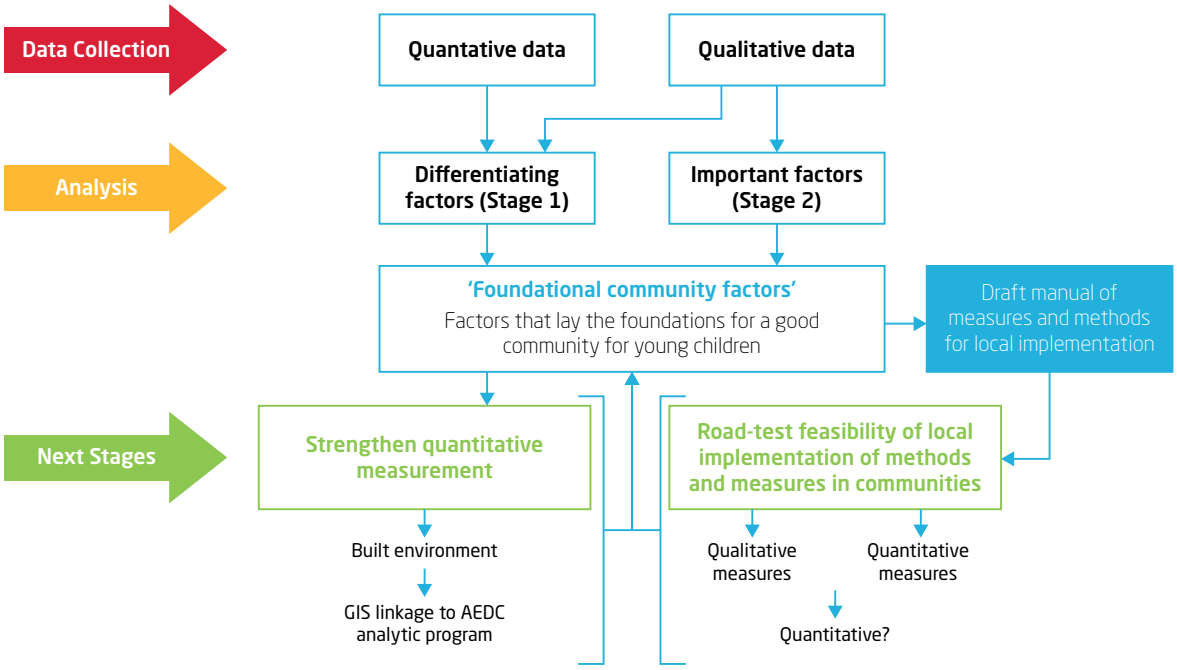

Figure 3. Developing the foundational community factors and next stages

Foundational community factors for ECD

The differentiating (Stage 1) and important FCFs (Stage 2) are presented in **Table 1**. There are a number of limitations (see **Limitations section 5.2**) that need to be considered when interpreting the FCFs (see **Part 2**).

Some of the quantitative differentiating factors (from Stage 1) lend themselves to being an indicator (e.g. Income, highest level of schooling, housing tenure (stability), public housing). Currently, we have not recommended quantitative measurement of the important factors (i.e. Stage 2) until further research is conducted. Eventually, all foundational community factors may be developed into an indicator, measured either objectively (e.g. by Geographic Information Systems) or subjectively (e.g. by surveys), however stronger quantitative indicators for ECD requires further research. Nevertheless, KiCS provides in-depth consultation with 25 local communities, which provides rich insight into how community factors act to influence ECD.

Table 1. The list of FCFs

Differentiating Foundational Community Factor – What KiCS found differentiates disadvantaged local communities doing well or poorly on ECD		
1	Income#	Median household income[1] and degree of economic diversity[2] is greater in disadvantaged areas doing well on ECD
2	Highest level of schooling#	There is a higher proportion of the population that have completed Year 12 or equivalent[1] in disadvantaged areas doing well on ECD
3	Gentrification	Relatively higher income (but still disadvantaged) families are moving into disadvantaged areas doing well on ECD, resulting in the displacement of more disadvantaged groups[2]
4	Housing affordability	Housing is perceived as more affordable in disadvantaged areas doing well on ECD[2]
5	Housing tenure (stability)#	There is a lower proportion of renters compared to private home owners in disadvantaged areas doing well[1]
6	Public housing#	There is a lower proportion of public renters[1] and less perceived presence of public housing[2] in disadvantaged areas doing well on ECD
7	Housing density*	There is a lower proportion of high rise (three or more storeys)[1] and perceived fewer high rise density dwellings (vs low rise housing developments)[2] in disadvantaged areas doing well on ECD
8	Stigma	Negative reputation of a local community[2] is less in disadvantaged areas doing well on ECD
9	Perceived primary school reputation	Perceptions of primary school quality were better in disadvantaged areas doing well on ECD[2]
10	Perceived Early Childhood Education and Care (ECEC) availability	There was more perceived Early Childhood Education and Care (ECEC) service availability in disadvantaged areas doing well on ECD[2]
11	Perceived crime	There was less perceived crime in disadvantaged areas doing well on ECD[2]
12	Historical events	The response of leaders to events that bring local community members together[2] is greater in disadvantaged areas doing well[2]
13	Local decision-making	As a result of local decision-making, 'novel approaches' or locally tailored initiatives or solutions (including any with a focus on social capital) have been developed in the community doing well[2]
Important Foundational Community Factor – What KiCS found is important for communities[2]		
14	Physical access to services	Reported instances of ability to get to services
15	Walkability	Perceived walkability to facilities and services was seen as important for physical access
16	Public transport availability	Perceived presence of/access to public transport was seen as important for easy access within the suburb
17	Traffic exposure	Being away from traffic within the suburb is an important factor for children being safe
18	Public open space – availability and quality	Having parks in the suburb was seen as important for young children and families. Having good quality parks was seen as important for use, play and social interaction
19	Facilities – availability and diversity	Having a range of family-friendly destinations and activities is important for young families and children
20	ECEC cost	Perceived affordability of ECEC is considered important and affects use
21	Leadership	The presence of local champions, leaders and boundary spanners driving local governance
Encouraging Important FCF – Analysis incomplete[2]		
22	Service Co-ordination	Co-ordination of services in a local community
23	Sense of community	Reported strong neighbourhood attachment or sense of belonging and pride in being connected to a local community
24	Natural environments	Natural spaces are seen as important for young families

[1]Quantitative; [2]Qualitative; *related to Public housing; #indicator; ECD: Early childhood development

One-size fits all? Not always...

While efforts were made to explore consistent factors that differ between on- and off-diagonal local communities, our findings highlight that neighbourhood effects on ECD cannot always be generalised to all communities or all groups. Qualitative methods can be used to better understand if and why a FCF is an important priority area for the community, and what can be done to improve it. Therefore, the quantitative data provides the 'what' and the scale of the problem; and the qualitative data provides the 'why' and what steps can be taken to try to improve outcomes. This emphasises the richness and value of having localised information to better understand the local context and how a range of factors might be operating. Such information will inform more specific place-based interventions at the local level, in particular, those most likely to be responsive and "work" in that community.

Quantitative data provides the 'what' and scale of the problem. Qualitative data provides the 'why' and what steps can be taken to try to improve outcomes.

Having both qualitative and quantitative methods can provide a more in-depth understanding of the FCFs associated with ECD outcomes in communities

What next?

The KiCS FCFs are the result of a "deep dive" into 25 local communities. The level of depth has resulted in exceptional qualitative data but with some limitation on quantitative data given the relatively small sample size. Similarly, the study has produced a limited set of indicators, and there are challenges we face in terms of robustness and replicability. This substantive work has led to two recommendations for further work (see **Figure 3**) to: 1) test the utility of the foundational community factors in communities; and: 2) strengthen the quantitative indicators through further analyses. This report presents a set of promising (draft) FCFs for ECD and highlights measurement of a subset of FCFs (i.e. the most promising FCFs identified from Stage 1 differentiating factors analysis) in the supplementary **KiCS FCF Manual** that can be tested by interested communities. The intention was to describe the measures and methods for the most promising subset of draft community measures that communities can measure and use based on the data so far, rather than select a large set that may not be feasible for users to measure.