



The Kids in Community Study:

measuring community
level factors influencing
children's development

Phase 1: Methodologies and Measurements Pilot Study

Report for VicHealth September 2010



Thanks!



Murdoch Childrens
Research Institute
Healthier Kids. Healthier Future.



The **Royal Children's**
Hospital Melbourne
Centre for Community Child Health

Authorship

This is a project of the Kids in Communities Study (KICS) collaboration. This Report was written by **Talya Mathews, Sharon Goldfeld, Sally Brinkman, Geoffrey Woolcock** and **Jenny Myers**. Editorial feedback was also provided by collaborators **Ilan Katz** and **Rob Tanton**.

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Guide to acronyms used in this report

<i>KICS</i>	Kids in Communities Study
<i>CCCH</i>	Centre for Community Child Health
<i>ARACY</i>	Australian Research Alliance for Children and Youth
<i>SSHRC</i>	Canadian Social Sciences and Humanities Research Council
<i>ARC</i>	Australian Research Council
<i>AEDI</i>	Australian Early Development Index
<i>SEIFA</i>	Socio Economic Index For Areas
<i>IRSD</i>	Index of Relative Socio-Economic Disadvantage
<i>IRSAD</i>	Index of Relative Socio-Economic Advantage/ Disadvantage
<i>PDS</i>	AEDI 2004-2007 Project dataset
<i>RPD</i>	AEDI 2004-2007 reduced Project dataset
<i>PMD</i>	Reduced matched dataset
<i>SES</i>	Socio Economic Status
<i>SSC</i>	State Suburb Code
<i>CD</i>	[Census] Collection District
<i>EYS</i>	Early Years Services
<i>ECD</i>	Early Childhood Development
<i>CALD</i>	Culturally and Linguistically Diverse
<i>BEYRG</i>	Brimbank Early Years Reference Group
<i>CfC</i>	Communities for Children
<i>CIV</i>	Community Indicators Victoria
<i>MCH</i>	Maternal and Child Health
<i>PT</i>	Public Transport
<i>AIHW</i>	Australian Institute of Health and Wellbeing
<i>DPCD</i>	Department of Planning and Community Development
<i>VCHW</i>	Victorian Child Health and Wellbeing
<i>VPHS</i>	Victorian Population Health Survey
<i>SEHQ</i>	School Entry Health Questionnaire
<i>SWCC</i>	Sunshine West Community Centre
<i>GIS</i>	Geographic Information Systems
<i>QIP/ AGPAL</i>	Quality In Practice/ Australian General Practice Accreditation Limited
<i>NCAC</i>	National Childcare Accreditation Council
<i>FaHCSIA</i>	Department of Families, Housing, Community Services and Indigenous Affairs
<i>LSEY</i>	Linking Schools and Early Years program ^a
<i>CIV</i>	Community Indicators Victoria
<i>AIHW</i>	Australian Institute of Health and Wellbeing
<i>DPCD</i>	Department of Planning and Community Development
<i>VCHW</i>	Victorian Child Health and Wellbeing
<i>VPHS</i>	Victorian Population Health Survey
<i>SEHQ</i>	School Entry Health Questionnaire
<i>DHS-CASIS</i>	Department of Human Services- Client and Service Information Systems

^a Program run by the Centre for Community Child Health aimed at promoting school transition partnerships between schools and Early Years Services. See http://www.wch.org.au/lsey/about.cfm?doc_id=13217 (accessed 24th August 2010)

Table of Contents

<i>Authorship</i>	2
<i>Acknowledgements</i>	2
<i>Citation Guide</i>	2
<i>Guide to acronyms used in this report</i>	3
EXECUTIVE SUMMARY	7
BACKGROUND	7
<i>KICS concept of community effects</i>	7
<i>The KICS framework</i>	7
AIMS	8
METHODS	8
1. <i>Cross-domain measures and methodologies</i>	8
2. <i>Domain specific methods</i>	9
RECOMMENDATIONS	10
<i>TABLE 1: Summary table of recommended methodologies</i>	10
NEXT STEPS: PHASE 2	11
INTRODUCTION	12
BACKGROUND	12
DEVELOPING THE KICS CONCEPTUAL FRAMEWORK	12
<i>Current phase overview</i>	13
PART 1: CROSS-DOMAIN MEASURES AND METHODOLOGIES	15
1. ESTABLISHING A METHODOLOGY FOR “OFF-DIAGONAL” COMMUNITIES	15
<i>Background</i>	15
<i>Aims</i>	15
<i>Methodology</i>	15
<i>Results</i>	16
<i>TABLE 2: Quickstats profile of Sunshine North and Sunshine West</i>	17
<i>TABLE 3: 2008 AEDI Project (pilot) results for Sunshine North and Sunshine West</i>	18
<i>Recommendations</i>	19
2. COMMUNITY SURVEY	20
<i>Background</i>	20
<i>Aims</i>	20
<i>Methodology</i>	20
<i>Results</i>	21
<i>TABLE 4: Survey demographics</i>	21
<i>Recommendations</i>	22
2. FOCUS GROUPS	23
<i>Background</i>	23
<i>Aims</i>	23
<i>Methodology</i>	23
<i>Results</i>	23
<i>Recommendations</i>	23
3. INTERVIEWS	24
<i>Background</i>	24
<i>Aims</i>	24
<i>Methodology</i>	24
<i>Results</i>	24
<i>Recommendations:</i>	25
PART 2: DOMAIN-SPECIFIC RESEARCH	26
1. SERVICE DOMAIN	26
<i>Background</i>	26
<i>Aims</i>	26
<i>Methodology</i>	26
<i>TABLE 5: Population of children in Sunshine area</i>	27
<i>TABLE 6: Service number and availability in Sunshine area</i>	27
<i>Results</i>	28

<i>Recommendations</i>	29
<i>TABLE 7: Service domain methodologies</i>	29
2. SOCIAL DOMAIN	32
<i>Background</i>	32
<i>Aims</i>	32
<i>Methodology</i>	32
<i>Results</i>	33
<i>TABLE 8: Data collected for the social domain</i>	33
<i>Recommendations</i>	35
3. PHYSICAL DOMAIN	36
<i>Background</i>	36
<i>Aims</i>	36
<i>Methodology</i>	36
<i>TABLE 9: Table of sub-domains and measures for the physical domain</i>	38
<i>Results</i>	41
<i>Recommendations</i>	42
4. GOVERNANCE DOMAIN	43
<i>Background</i>	43
<i>Aims</i>	43
<i>Methods</i>	44
<i>Results</i>	44
<i>TABLE 10: Survey Results for the Governance Domain</i>	44
<i>Recommendations</i>	46
5. SOCIO-ECONOMIC DOMAIN	47
<i>Background</i>	47
<i>Methods</i>	48
<i>Results</i>	49
<i>Recommendations</i>	50
PART 3: CONCLUSION	51
APPENDICES	52
APPENDIX A	52
<i>TABLE 11: The measures and methodologies of the five KICS domains</i>	52
APPENDIX B	59
<i>TABLE 12: Disadvantage decile (SEIFA) by Proportion of Vulnerable Children (AEDI), Victorian AEDI</i> <i>Sample</i>	59
APPENDIX C	60
<i>TABLE 13: Selected Characteristics of identified suburbs</i>	60
APPENDIX D	60
<i>TABLE 14: Selected Characteristics of other suburbs</i>	60
APPENDIX E	61
<i>Sunshine North sample Quickstats</i>	61
APPENDIX F	62
<i>Sunshine North CD Map</i>	62
APPENDIX G	63
<i>The KICS Community Survey</i>	63
APPENDIX H	67
<i>Focus group questions template (semi-structured)</i>	67
APPENDIX I	68
<i>Template of semi-structured interview questions for service providers</i>	68
APPENDIX J	69
<i>TABLE 15: Service accessibility, quality and coordination (Sunshine North)</i>	69
APPENDIX K	72
<i>Google Map of services and public transport in the Sunshine area</i>	72
APPENDIX L	73
<i>GIS Map - Accessibility to train stations</i>	73
APPENDIX M	74
<i>GIS Map - Partly owned households</i>	74
APPENDIX N	75
<i>GIS Map - Fully owned households</i>	75

APPENDIX O.....	76
<i>GIS Map - Privately rented households</i>	76
APPENDIX P	77
<i>GIS Map - Public Housing</i>	77
APPENDIX Q.....	78
<i>Sample page of neighbourhood observations for Sunshine North</i>	78
APPENDIX R.....	79
<i>Walkability audit for Sunshine North</i>	79
APPENDIX S	80
<i>Governance interview questions template (semi-structured)</i>	80
APPENDIX T	81
<i>Governance group observation guide</i>	81
APPENDIX U.....	82
<i>Kids in Communities Study collaborator details</i>	82
APPENDIX V	83
<i>Census Variables and SEIFA IRSD</i>	83

Executive summary

Background

The Kids in Communities Study (KICS) is being undertaken by a multi-disciplinary international collaboration. Its overall aim is to investigate the community or neighbourhood level factors that affect child development (based on the Australian Early Development Index, a population of measure of early childhood development) and are amenable to change. In this early phase of the study, funding from VicHealth has enabled the collaboration to investigate how best to measure these factors. The project has tested a combination of innovative quantitative and qualitative approaches to better measure communities' assets and challenges in the context of the social, economic, cultural, physical and service environments that might influence children's development, including the local governance and policy mechanisms. It is anticipated that these measures will provide useful guidance for community effects researchers as well as being of some benefit for communities looking to explore and understand their own key influences on child development.

KICS concept of community effects

The KICS study is underpinned by the KICS conceptual framework, which categorises community-level effects within five key community domains or environments. These are the service domain, social domain, the physical domain, the governance domain and the socio-economic domain (see below).

The KICS framework



Aims

The aims of Phase 1 of the KICS study have been to:

1. Identify and choose suitable communities for piloting the study;
2. Identify practical and robust methodologies for measuring the environmental domains contributing to community-level effects on children's development;
3. Pilot these measures in a number of suitable research communities;
4. Make recommendations as to which of these measures might be useful, practical and effective for measuring community effects.

Methods

1. Cross-domain measures and methodologies

Identifying 'off-diagonal' communities

A number of AEDI communities from the 2004-2007 pilot had results that were better or worse than expected for the community's SES (socio-economic status). These communities were labelled 'off-diagonal'. A ranking method was devised for determining off-diagonal communities, using:

- 2006 Australian Bureau of Statistics (ABS) SEIFA (Socio-Economic Index for Areas) deciles from the Index of Relative Socio-economic Disadvantage (IRSD), as a proxy for community SES;
- AEDI quintiles of the percentage of children vulnerable on one or more of the AEDI domains within the community;
- Cross-tabulation of the SEIFA deciles with the AEDI quintiles.

Sunshine North (Melbourne Metropolitan) was chosen as the off-diagonal research community, and neighbouring Sunshine West as the on-diagonal benchmark community, for comparative purposes.

Community Survey

A letterbox survey of 2 census districts per suburb was utilised to determine the general community level influence of a number of domains (as opposed to targeting only parents of young children). Residents were asked a number of questions about their experience of life in their community, including:

- Demographic questions
- Use of services, public transport, parks and recreation facilities
- Opinions of adequacy of services, public transport, parks and recreation facilities
- Engagement with local political issues
- Experience of neighbourhood social capital

Focus Groups

Parents of young children were asked to discuss their views on topics along similar lines to those in the survey. Additional questions were asked about their experiences of parenting support in the local area.

Key Stakeholder Interviews

Interviews were undertaken with service providers (topics included service diversity, usage, funding, cost, access, coordination, quality and problems) and local leaders (topics included governance and policies).

Complementary small area level data

Administrative and survey datasets were scoped. Very few data were available at the suburb-area level that could be used to help describe the community across the five KICS domains.

2. Domain specific methods

Service domain

- *Service quantity and quality measurements*

Early Years Services (EYS) were counted (per capita) and a service “score” was created to measure the EYS environment in terms of access (cost, distance from PT, waiting lists). Quality and coordination were included in an overall directory of services.

Social Domain

- *Quantitative data*

- Social capital items from the KICS Community Survey
- ABS Census data on mobility
- ABS Census data on proportion of young children in an area

- *Qualitative data*

Qualitative data gathered through focus groups and key stakeholder interviews were collated and analysed.

Physical Domain

- *GIS Mapping*

Two types of maps were created to visually describe the service and physical environments of the community:

- **GIS Maps** of housing data (including home ownership rates; private and public rental);
- **Google Map** of services and public transport (PT) in the community

- *Neighbourhood observations*

An observer completed neighbourhood audits using two tools:

- **‘Neighbourhood Observation Tool’**, a 55-item checklist that notes the quality of public places, quantity of parks, and general liveability of the neighbourhood – particularly for families with young children.
- **‘How walkable is your community?’** tool, a 5-item checklist to assess the ease, pleasantness and traffic safety while walking in the local neighbourhood with a young child.

- *Walkability*

Two methods were used to determine walkability:

- A ‘walkability’ checklist was completed concurrently with the neighbourhood observations (the 5 item tool mentioned above);
- The Walk Score® application was used to give a raw ‘walkability’ score to the whole community, based on the accessibility of services and amenities in the community by foot.

Governance Domain

- *Grey Literature Review*

Reports, meeting minutes, websites and publications were reviewed to identify key policies, stakeholders and services as well as to assist understandings of the governance environment in which these operate

- *Key stakeholder interviews*

Undertaken with governance leaders and service providers in the community

- *Partnership meeting observations*

The Brimbank Early Years Reference Group (BEYRG) was observed to facilitate understanding and classification of the governance environment and its power dynamics

- *Classification of governance structure*

The governance structure was analysed and classified according to Greg Albo’s descriptive typology of governance structures

Socio-Economic Domain

- *Geographic matching and combination of datasets*
Geographical matching and combination of the AEDI 2004-2007 Project dataset (RPD) Suburbs and ABS State Suburb Codes (SSCs) with an index from 2006 SEIFA Index of Relative Socio-economic Disadvantage (IRSD) and variables from the 2006 Census.^b
- *Analysis*
Correlations were established between SEIFA IRSD and the 2006 Census variables, and then the AEDI domains with logistic and linear regression to evaluate these relationships. Limited multilevel analysis was also undertaken.

Recommendations

Based on the results from the methodologies tested throughout the pilot stage and outlined in detail throughout this report, the following methodologies appear to be effective and practical ways to measure and/or describe the community context and its relationship to ECD:

TABLE 1: Summary table of recommended methodologies

Domain	Measures	Methodologies &/ or indicators
Cross-Domains	Service, Social, Physical and Governance domains	Community Survey
	Service, Social and Physical domains	Focus groups
	Service and Governance domains	Stakeholder interviews
Service	Quantity	Service count per capita
	Access	Scoring of service cost, distance from PT, waiting lists
	Quality and coordination	Service directory description
Social	Quantitative data (social capital, mobility, number of young children in an area)	Community Survey, ABS Census data
	Qualitative data	Focus Groups
Physical	Housing data	GIS mapping
	Services and Public Transport accessibility	GIS Google Mapping
	Physical quality of a neighbourhood	Neighbourhood Observation Tool
	Walkability at the small area level (traffic safety, pleasantness of walking)	Walkability audit tool
	Walkability at the suburb area level	Walk Score© application/ tool
Governance	Identification of key policies, stakeholders and decision-makers	Grey literature review
		Key Stakeholder interviews
	Analysis and classification of governance structures	Partnership meeting observations
		Grey literature review Classification of governance structure according to Albo's typology
SES	Geographic matching and analysis of data	Geographic matching and correlations
	Description and measurement of SES and AEDI	Linear and logistic regression with census variables
	Analysis of teacher and area effects	Undertake analysis on a set of multi-level models to understand the school effect and the area effect (suburb).

^b The Census variables used are listed in *Appendix V*

Next Steps: Phase 2

The next phase of this study (Phase 2) will require further and broader testing of the measures and methodologies established during this pilot phase. A range of “off-diagonal” communities across Australia identified from the national AEDI results will be utilised. These measures will then enable communities to better understand their own assets and challenges and provide them with much needed guidance in determining the best approach to improving outcomes for children. This will assist communities to capitalise on the opportunities and data now available to them since the full Australian rollout of the AEDI in 2009.

Introduction

The Kids in Communities Study is being undertaken by a multi-disciplinary international collaboration (see *Appendix U*). Its overall aim is to investigate the community or neighbourhood level factors that affect child development and are amenable to change. In this phase of the study, funding from VicHealth has enabled the collaboration to investigate how best to measure these factors. The following report outlines the process and results of discovering and determining practical, replicable and productive measures and methodologies. The project has tested a combination of innovative quantitative and qualitative approaches to better measure communities' assets and challenges in the context of the social, economic, cultural, physical and service environments that might influence children's development, including the local governance and policy mechanisms. It is anticipated that these measures will provide useful guidance for community effects researchers as well as being of some benefit for communities looking to explore and understand their own key influences on child development.

Background

Recognition that there are differential outcomes for children living in the poorest households in Australia is widespread. It is acknowledged that these differential outcomes are not limited to health outcomes but include poorer educational attainment and an increased risk of poorer outcomes in later life. The growing number of interventions aimed at positively influencing children's long-term health and development reflects interest in improving these outcomes through community level action. However, despite increasing interest, comprehensive understanding of the community level factors most likely to benefit outcomes for children is yet to be realised.

It is widely accepted that the nature of the local neighbourhood or environment in which families live is an important influence that can positively or negatively impact on parents' capacity to raise their children. The challenge in urban childhood research, for example, is to isolate urban effects – especially neighbourhood effects – from other influences on child health and development outcomes. There is a great weight of spatial and social scientific evidence to link urban environmental factors to child development outcomes. However, scientific inquiry remains well short of a comprehensive causal picture that weighs and discriminates between urban influences (such as the availability of public green spaces) and non-urban influences (such as parenting and household attributes) on child development.

Developing the KICS conceptual framework



From 2004-2008 an initial pilot implementation of the Australian Early Development Index (AEDI) was completed on 56,000 children across 60 Australian communities across Australia^c, as part of the *Building Better Communities for Children* project. The AEDI is a population level measure of early childhood development whose data are reported against five developmental domains (physical, social, emotional, language and cognitive, and communication and general knowledge) at a small area (suburb or small town) level. The results of the pilot revealed interesting findings arising from what have been labelled 'off-diagonal' communities; those where children appear resilient from developmental vulnerabilities in disadvantaged areas (resilient communities), or where children have exhibited high vulnerabilities in areas of advantage (at-risk communities). Similar findings were noted in Canada, in association with the Canadian EDI undertaken in British Colombia, and again in Australia when the AEDI was completed on 98% of children

Australia-wide in 2009. Preliminary analyses suggest that there appear to be neighbourhood or community

^c Rural, regional and metropolitan communities were piloted to test methodological validity in different types of areas with differing numbers of schools, teachers and children.

level effects contributing to this phenomenon, supporting the now increasing international literature claiming a demonstrable relationship between neighbourhood level factors and children's outcomes.

Based on the expertise of the collaborators and a review of the literature (funded through grants from the Australian Research Alliance for Children and Youth (ARACY) and the Canadian Social Sciences and Humanities Research Council (SSHRC)) a conceptual model was derived based on a series of community level factors within five overlapping domains: social; physical; service; socio-economic; and governance (see above).

Summary of the Kids in Communities Study

The Kids in Communities Study includes a series of phased research projects. Each phase is based on the knowledge and success of the previous phase. In this current phase the necessary preliminary testing was undertaken to determine the best quantitative and qualitative methodologies to measure each of the domains developed as a model in this new and emerging area of ecological research. Parallel work was undertaken in Australia and Canada to ensure international consistency for future comparative analyses.

The aims of Phase 1 of the KICS study were to:

1. Identify and choose suitable communities for piloting the study;
2. Identify practical and robust methodologies for measuring the environmental domains contributing to community-level effects on children's development;
3. Pilot these measures in a number of suitable research communities;
4. Make recommendations as to which of these measures might be useful, practical and effective for measuring community effects both in Australia and Canada.

- *Phase 2*

Expanded testing of measures across multiple communities nationwide (ARC grant);

- *Phase 3*

National testing (all communities) - development of "community-level indicators of child health, development and wellbeing";

- *Phase 4*

National trial to construct "positive indicator" communities

Current phase overview

This project focused on developing community tested measures and approaches that encompass each of the community level domains hypothesized to influence children's developmental outcomes. Virtual working groups led by various members of the research team (see below) were established to investigate and test the measures and methodologies. Each working group focused on the survey literature most relevant to their area of expertise. Aspects of this work were completed in parallel.

Virtual workgroups:

Off-diagonal workgroup:

Sally Brinkman (CI); Robert Tanton; Jonathon Khoo

SES workgroup:

Jenny Myers (CI); Jonathon Khoo; Sally Brinkman; Rob Tanton

Service domain workgroup:

Dr Sharon Goldfeld (CI); Prof Ilan Katz; A/Prof Paul Kershaw

Social domain workgroup:

Prof Ilan Katz (CI); Dr Sharon Goldfeld; A/Prof Paul Kershaw

Physical domain workgroup:

A/Prof Geoffrey Woolcock (CI); Dr Laurie Ford

Governance domain workgroup:

Prof John Wiseman (CI); Dr Tammy Findlay

Each of the work groups proposed a number of sub-domains for the five KICS domains outlined above, along with measures and methodologies for each of these, to be tested during the pilot phase of the study (see table 11, *Appendix A*). Details of the key methodologies for each domain are outlined in this report within relevant sections. There were also a number of methodologies that covered multiple domains and these are discussed separately.

Part 1: Cross-domain measures and methodologies

A number of methodologies were established that enabled measurements in more than one domain at a time. These are outlined in this Part 1 of this report.

1. Establishing a methodology for “off-diagonal” communities

Background

The off-diagonal workgroup was tasked with identifying ‘off-diagonal’ communities from the Victorian pilot of the AEDI, based on early childhood outcomes (measured by the AEDI) and socio-economic status (measured by SEIFA – the Socio-Economic Index For Areas). Off-diagonal communities were defined as communities where early childhood outcomes were not as expected given the disadvantage in an area. Examples are disadvantaged areas where early childhood outcomes were relatively good; and not disadvantaged areas where early childhood outcomes were relatively poor. It was intended that one or more of these communities would then be further analysed through the five domains of the KICS model.

Similar work has been undertaken for the Canadian EDI by Kershaw et al.¹ However, the identification process undertaken for this study differs for a number of reasons, including:

- Kershaw et al. identified differences between observed vulnerability of children (in the EDI) and predicted vulnerability of children using a range of socio-economic characteristics. The KICS study identified these differences using the AEDI for observed vulnerability of children, and the Index of Relative Socio-Economic Disadvantage (IRSD) from SEIFA as a predictor of vulnerability. SEIFA is a summary indicator of an area’s socio-economic status available in Australia, composed of 17 indicators collected from the 2006 population Census. The team considered the two methods to be equivalent, as both used a range of socio-economic characteristics.
- Kershaw *et al* also identified a much larger number of communities as off-diagonal than the current KICS study (100 individual communities compared with 6). The smaller numbers in the current study were chiefly due to limitations in the scope and reliability of the Australian project (pilot) data, including the following issues:
 - Some of the AEDI project data came from communities with too small a number of schools and students;
 - Some areas were not represented well by SEIFA because values were not available for a number of CDs within the suburb;
 - In some cases there were difficulties matching some suburbs in SEIFA with suburbs from the AEDI

Aims

To determine a methodological approach for identifying off-diagonal communities and to utilise this approach to determine a limited number of off-diagonal communities from the 2004-2007 project dataset for suitable analysis of community-level effects on children’s developmental outcomes (as measured by the AEDI), using the KICS model.

Methodology

The methodological approach for identifying off diagonal communities included:

1. Aggregation of the AEDI 2004-2007 “project” data file from the student level to the community level (suburb);
2. Exclusion of data from all States and Territories other than Victoria;
3. Linkage of the 2006 ABS Census SEIFA measure of disadvantage at the SSC (State Suburb Code) level by suburb name;
4. Creation of SEIFA Deciles based on the AEDI sample in Victoria;
5. Creation of AEDI Quintiles based on the percent of children vulnerable on one or more of the AEDI domains within the community;
6. Cross-tabulation of the SEIFA deciles with the AEDI quintiles to determine the off-diagonals (refer to Table 13 in *Appendix C*).

7. Interrogation of the results by visually taking note of the AEDI sample size, diversity of SEIFA (determined by the range in SEIFA values at CD level within the SSC) and the proportion of CDs within the SSC not given a SEIFA value.

Initial work looked at AEDI Deciles (as deciles had been used for SEIFA), but this analysis showed no areas that were off-diagonal (i.e. that were in the top decile of SEIFA and the bottom decile of the AEDI). Identification of some off-diagonal areas was made possible when AEDI quintiles were used.

The resultant list of communities generated aimed to maximise student numbers (to minimise the potential impact of teacher judgement skewing the results).

Results

National testing

The entire AEDI project data file including all communities (i.e. not just Victoria) was analysed to determine if this approach was viable across a broader range of local communities. The “off-diagonals” identified were primarily rural/remote and/or had a small sample of children contributing to the “community AEDI score”. Given time and resource constraints, it was concluded that it was not possible to determine how much teacher variation was contributing to these results versus a unique aspect of the rural and remote contexts.

It was therefore decided to limit the sample to non-rural and non-remote Victorian communities only, in consideration of the KICS collaboration’s budget and resource limitations. Nevertheless on analysis of the Victoria-only file, it was also found that many of its “off-diagonal” communities were again rural and/or of small sample size.

Victoria

The following sites were selected by the team as potentials for investigation at the community level, based on the 2004-2007 AEDI project data and SEIFA 2006^d:

1. **Sunshine North** (urban) had low (disadvantaged) SEIFA but a low vulnerability percentage on the AEDI (19%). It had a good sample of children (98). Sunshine North neighbours the suburbs of Sunshine and Sunshine West, which also had low SEIFA but poor AEDI results.
2. **Healesville** (peri-urban) and **Preston West** (urban) were two communities with slightly lower than average SEIFA scores but good AEDI scores.
3. **Pt Cook**, **Tarneit** and **Skye** (all peri-urban) had good SEIFA scores (i.e. not disadvantaged) but relatively poor AEDI results.

Full results tables for the off-diagonal work can be found in *Appendix B*, *Appendix C* and *Appendix D*. The cross tabulation in Table 12 (*Appendix B*) shows quantiles as determined by the AEDI sample in Victoria. Although not shown in the table, similar results were found using SEIFA quantiles based on all areas within Victoria. It should be noted that when communities with small numbers were excluded there were no extreme off-diagonals.

Pilot Communities: Sunshine North and Sunshine West

Given the resource limitations of this preliminary study, investigations were limited to Sunshine North as an off-diagonal site and Sunshine West as an on-diagonal benchmark. Sunshine North was considered a pragmatic choice for piloting purposes, given the relative strength of its results and its urban profile and proximity to the research centre. Both suburbs are located within the Brimbank LGA, approximately 15 kilometres from the Melbourne CBD. The suburbs are highly diverse in their ethnic profile, with large numbers of 2nd and 3rd generation migrants from Vietnam, southern European countries such as Malta and Italy, and Asian countries such as India and the Philippines, as well as asylum-seeking recent arrivals, from African nations such as the Sudan and Middle Eastern countries such as Afghanistan. Some 250+ languages are spoken by children attending kindergartens in the Brimbank LGA. Both suburbs also have very similar SEIFA scores (Sunshine North =870.85 and Sunshine West =866.62) and fall into the same quintile being the most disadvantaged quintile (Quintile 1) based on national data.

The table below shows an overview of key 2006 Australian Census ‘Quickstats’ for these suburbs demonstrating their relative similarity and compares them with the Melbourne Metropolitan average.

^d For more information about the AEDI please see: <http://www.rch.org.au/aedi> (accessed 27 August 2010)

TABLE 2: Quickstats profile of Sunshine North and Sunshine West

		Sunshine West	Sunshine North	Melbourne Metro Average	
Population		15,907	10,160	3,592,592	
Median Age		37	36	36	
Children under 5		6%	6%	6%	
Median weekly household income		\$769	\$714	\$1,079	
Average household size (persons)		2.9	2.8	2.6	
Country of birth (excluding visitors)	Australia	42%	42%	64%	
	Overseas (total)	50%	52%	29%	
Top 4 countries of origin	Vietnam	12%	21%	UK	4.4%
	Malta	5%	6%	Italy	2.1%
	Italy	2.7%	3.3%	Vietnam	1.6%
	Philippines	2.1%	1.7%	China	1.5%
(O/S born) English proficiency very well or well		69%	66%	85%	
(O/S born) English proficiency not well or not at all		29%	32%	14%	
Unskilled labour (i.e. all labour categories excluding managers, professionals & not stated)		81%	79%	63%	
Motor vehicles per dwelling	None	10%	12%	10%	
	One	38%	39%	35%	
	Two+	47%	45%	52%	
Highest schooling yr 12 or equiv		36%	37%	49%	
Highest schooling yr 8 or below		19%	18%	8%	
Tenure type	Owned or being purchased	78%	75%	71%	
	Renting	17%	20%	25%	
Place of usual residence 5 yrs ago	Same address	69%	67%	57%	
	Same LGA	8%	8.5%	9%	
	Other area in Vic	10%	13%	19%	
Unemployed & looking for work		12%	13%	5%	

The AEDI results for Sunshine North and West are outlined in the 2008 AEDI Project (pilot) results for the Brimbank Local Government Area, as shown below. Note that within this table, light green represents less vulnerability and dark green represents increased risk. Despite the same level of disadvantage there is quite a degree of variability in the AEDI results with Sunshine North on the whole seeming to have less developmental vulnerability.

TABLE 3: 2008 AEDI Project (pilot) results for Sunshine North and Sunshine West



Brimbank Community Summary Table

		Proportion of children developmentally vulnerable (%)							Average Scores (0-10)				
	No	Phys	Soc	Emo	Lang	Com	Vul 1	Vul 2	Phys	Soc	Emo	Lang	Com
Albanvale	28	11.5	3.8	7.7	23.1	23.1	53.8	15.4	9.77	8.94	8.46	9.23	7.81
Albion	18	0.0	5.6	16.7	16.7	11.1	38.9	11.1	9.32	8.96	7.88	8.80	8.13
Cairnlea	83	3.9	9.1	5.3	5.2	11.7	15.6	9.1	10.00	9.58	9.23	9.23	8.75
Deer Park	108	8.1	15.2	7.2	19.2	16.2	39.4	17.2	9.09	8.33	8.46	8.46	7.50
Delahey	123	8.6	12.1	7.8	20.7	18.1	32.8	22.4	9.00	8.96	8.65	8.46	8.13
Derrimut	28	8.0	12.0	0.0	12.0	12.0	32.0	12.0	9.55	8.96	8.65	8.85	8.75
Kealba	23	0.0	4.8	0.0	20.0	9.5	23.8	9.5	10.00	9.38	9.04	9.04	10.00
Keilor	66	6.3	3.1	4.7	7.8	9.4	17.2	7.8	9.77	9.17	8.46	9.23	10.00
Keilor Downs	116	8.0	7.1	5.6	9.7	15.0	24.8	11.5	9.09	8.85	8.65	8.85	6.88
Kings Park	56	6.4	4.3	4.3	14.9	19.1	27.7	12.8	10.00	9.17	8.65	8.85	8.75
St Albans	375	7.1	17.3	13.1	18.5	26.4	42.5	21.4	9.09	8.33	8.08	8.46	6.25
Sunshine North	96	9.6	13.3	13.4	22.0	18.1	36.1	18.1	9.55	8.75	8.27	8.46	8.13
Sunshine West	115	5.8	18.4	6.9	33.0	25.2	48.5	24.3	8.18	8.33	8.46	8.08	6.88
Sydenham	149	7.2	10.1	6.7	9.4	12.9	25.2	13.7	9.09	8.96	8.65	8.85	8.75
Taylors Lakes	205	4.0	6.0	5.5	6.5	6.0	16.6	8.5	9.55	9.13	8.46	8.85	9.38

Abbreviations used in Summary Table

Phys	Physical health and wellbeing	Com	Communication and general knowledge
Soc	Social competence	Vul 1	Vulnerable on one or more domains
Emo	Emotional maturity	Vul 2	Vulnerable on two or more domains
Lang	Language and cognitive skills	No	Total number of children surveyed

Please note: the following maps are an extract from the AEDI interactive mapping application. For more details, please visit our website at <http://maps.aedi.org.au>

Recommendations

It is recommended that in future, common work rules be established to determine the adequacy of areas identified. This should include:

1. Investigation of the number of children contributing to a region;
2. Investigation of the number of teachers contributing to a region;
3. The level of SEIFA comparability, as determined by:
 - The match of AEDI boundaries to ABS boundaries;
 - The diversity of SEIFA within the suburb; and
 - The proportion of usual residents within the suburb.

It should be further noted that SEIFA 2006 was created for SSCs, by aggregating CD level scores using a best-fit methodology. In some states SSCs are not always good matches to suburbs.

2. Community Survey

Background

Based on work undertaken in British Columbia, a community survey was determined the most appropriate methodology for gauging the view of the “community” on a number of issues related to the KICS domains without necessarily focusing on parents’ or individuals views alone. The survey enabled the team to ask a number of questions for which data was not available from other sources. A key aim for the survey was to test whether respondents were able to confidently report on a variety of aspects of their community, rather than simply answering questions about their own practices. The intention was therefore to generate data about community effects rather than individual or family circumstances.

Aims

To test the utility of a general household level community survey in:

- (1) Providing data on the community’s overall views;
- (2) Specifically enabling data to be collected on topics not already available at the suburb level for a number of domains;
- (3) Enabling respondents to answer general ‘community effects’ questions about their neighbourhood (e.g. ‘do you think your local area has enough...’), as opposed to specific ‘individual’ or ‘family effects’ questions about respondents’ own personal habits or beliefs (e.g. ‘how often do you...’)

Methodology

One of the key challenges in estimating both neighbourhood-level and individual-level effects in multilevel models is determining the minimum number of subjects per neighbourhood who will need to be surveyed in order to reliably estimate neighbourhood-level effects. Pilot work conducted in British Columbia examined the reliability coefficients of the neighbourhood level variance for 30, 35, 40 and 50 respondents per neighbourhood for a range of social capital measures.² This validation work found that 40 respondents per neighbourhood was the minimum sample size across all social capital measures to meet an acceptable reliability coefficient threshold (0.8 or greater).

The survey (*Appendix G*) was designed to include issues of relevance to the service, social, physical and governance domains, using a combination of:

- Items from existing surveys that have been validated and are currently used as standard measures
- Items from the UBC social capital survey³, so as to maintain as much consistency as possible for the purposes of cross comparison between the KICS study and similar work being undertaken by our Canadian colleagues
- New measures developed by the KICS team

Respondents were given the option of either filling out the paper survey provided and returning via reply-paid envelope, or filling the survey out online using a weblink to SurveyMonkey.

After piloting, ethics approval and minor modifications the surveys were hand-delivered into approximately 200 mailboxes in one representative CCD (Census Collection District, also simply known as CD - Collection District) in each of the two suburbs^e: Sunshine West and Sunshine North (urban). The CDs were chosen according to a best-fit match between 2006 Quickstats for suburb and CDs, based on the following datapoints: ‘median age’; ‘proportion of children age 0-4’; ‘household income’; ‘proportion born overseas’; ‘proportion unemployed’.^f CD maps were used to determine the boundaries of the mail drop. Examples of the Sunshine North Quickstats and CD map used are located in *Appendix E* and *Appendix F*.

Other options considered:

- Random digit dialling was considered as an alternative to paper-based surveys; however this idea was rejected for four reasons:
 - a) Many household no longer have fixed landlines due to the increasing use (and cost-effectiveness) of mobile phones

^e Urban CDs contain approximately 200 households each.

^f To locate the Quickstats for the CDs eventually used in this pilot study, please visit: <http://www.abs.gov.au/>, then go to Census Data/ 2006 Quickstats/ search 2131105 (for Sunshine West) or 2131403 (for Sunshine North)/ select the Collection District/ view Quickstats

- b) Telephone-base surveys would not have enabled data linkage with the Walkability Audit and Neighbourhood Observations (see later discussions)
 - c) All three suburbs in the Sunshine area (Sunshine North, Sunshine West and Sunshine proper) employ the same telephone prefix
 - d) High cost
- Street based surveys were also considered but were dismissed due to limitations of personnel capacity and concerns regarding safety.

Results

Approximately 10% (41) of the 400 surveys were returned by mail over a period of about five weeks from delivery into mailboxes. There were 25 responses from Sunshine North, but only 16 from Sunshine West. Data were entered using Excel spreadsheets and analysed using STATA data analysis and statistical software (version 10).⁹

All surveys returned were completed in full. Only one household chose to take up the online option, indicating that communities are either not yet ready for take-up of this technology or that respondents prefer not to take additional steps (i.e. going online) in order to complete the survey.

It is assumed that responder bias is similar in both areas. Local area Census data can be utilised to check for particular biases (e.g. overrepresentation of retirees) if required.

TABLE 4: Survey demographics

Data item	Responses	Sunshine North N=25	Sunshine West N=16
Age	25-34	12%	13%
	35-44	28%	20%
	45-54	28%	33%
	55+	24%	33%
Education	Finished high school	72%	67%
	Did not finish high school	24%	33%
	Missing data	4%	
Parent	Yes	72%	93%
	Parent of child under 18	40%	24%
Labour Force	Employed	60%	60%
	Unemployed	12%	7%
	Not working and not looking for work	28%	33%

As can be seen, the two populations were similar. In larger samples, further analyses could be undertaken to determine statistical significance; however the current sample size is too small for such analyses to be meaningful.

Further results relevant to particular domains will be discussed throughout this report.

⁹ For product information please refer to website, <http://www.stata.com/> (accessed 17 August 2010).

Recommendations

1. Quickstats can be used to determine small representative areas (CDs) that can be used for investigations. CD maps outline the physical boundaries of the CDs^h
2. Mail drop surveys are a cost-effective option for small area survey data- delivery and rating time is approximately two hours per CD
3. Given the initial low response rate for the survey, three CDs may be required *at a minimum* in each locality in order to obtain responses from the required minimum of 40 raters per area.

^h To locate CDs maps for individual suburbs or CDs, please visit: <http://www.abs.gov.au/>, then go to Census Data/ 2006 Quickstats/ Maps tab, and choose the location level required (i.e. state suburb or census collection district). Use the tools to zoom in to the desired location. Fixed maps are also provided with Quickstats. (Please see previous for Quickstats location information).

2. Focus Groups

Background

Focus Groups were conducted with parents from playgroups in order to gather more in depth qualitative data. The focus group discussions included issues relevant to the social, physical and service domains.

Aims

1. To obtain rich qualitative data about parents' experiences of bringing up children in the community, with particular regards to its service, social and physical environments.
2. To determine the most robust and useful questions to be used in focus groups with parents.

Methodology

Two parent focus groups were undertaken in Sunshine West: one with the 'Kermeen St Playgroup' (children aged approx three yrs old); and one with the 'Sunshine Babes' playgroup (babies aged approximately six-eight months).

An attempt was made to run a focus group through a Vietnamese playgroup in Sunshine proper, but this was not possible. There were no playgroups operating in Sunshine North.

The semi-structured focus group questions are provided in *Appendix H*.

Results

Both groups had good attendance. The parents in the playgroups were forthcoming and for the most part forthright in their discussions about the communities in which they live. High quality data were obtained on a wide variety of topics.

- All participating families were Anglo-Saxon
- One Vietnamese mother chose not to participate due to concerns about her English
- Six parents participated from each of the two playgroups
- New mums (of babies) were easily able to recall and discuss details about their ante- and post-natal experiences (with GPs, hospital, MCHC, immunisations etc)
- Parents of preschoolers found it easier to discuss aspects of life with older children, such as their use of parks, playgrounds, kindergarten and childcare

It was hoped that families who attended playgroups in specific locations (i.e. Sunshine West) would live in those suburbs and that investigators would therefore be able to capture the views of parents living in suburbs of interest via such groups. Unfortunately, this did not prove to be the case. Parents are instead travelling throughout their LGA to access playgroups and services that meet their particular needs.

Nevertheless, across the two groups there were five parents from Sunshine West/ Albionⁱ, two from Sunshine North and an additional four from Sunshine proper (the remaining family was from St Albans). This meant that it was unnecessary to run additional focus groups in Sunshine North.

Recommendations

1. Qualitative data from focus groups is useful for validating quantitative results and gaining a better understanding of local issues
2. Utilising existing infrastructure such as playgroups is a cost effective way of reaching parents, but can be limited
3. Seeking a broader set of views from more parents is desirable; therefore the school platform should be considered for recruitment
4. Focus groups with parents of children aged 0-6 require child care to be of most utility

ⁱ Albion is a tiny suburb that sits adjacent to Sunshine West. Addresses close to the border between the two suburbs often use the two names interchangeably – for example the Albion Medical Clinic is actually located in Sunshine West. Albion shares the same postcode as Sunshine West, Sunshine and Sunshine North (3020).

3. Interviews

Background

Key stakeholder interviews were considered an important aspect of qualitative data collection and an important supplement to domain investigations. Interviews can provide information about the meaning that community members attach to various factors about their neighbourhood, and can explore why people develop and maintain their beliefs about the community.

Aims

To utilise key stakeholder interviews to:

1. Supplement the measurement of the service and governance environments in the Brimbank LGA;
2. Gain insight into the community profile or context

Methodology

Key stakeholder interviews were conducted with service providers and council staff working in the Sunshine area. The interviews were semi-structured and covered service provision, participation in governance and general background into the living environments of the communities. Some of the governance-focused questions were taken (and modified) from a framework established by colleagues in Canada (please see Governance chapter for more details on this framework). Service-related questions were designed by the KICS team to fit the needs of its research questions (please see *Appendix I* for the list of semi-structured interview questions).

In the majority of cases, key stakeholders were responsible for services or governance at the LGA level rather than the local level. They were identified primarily in four ways:

- a) Preliminary desktop research phase
- b) Using the 'snowball method' to identify other relevant stakeholders
- c) Identification of key issues e.g. Maternal and Child Health (MCH) services and follow up of managers/leaders
- d) The development of a general checklist that includes key areas relevant for most communities' Early Years Services (EYS) and governance. This checklist should include:
 1. Council (local government) staff responsible for Early Years;
 2. Existing substantive governance bodies/ leadership groups established around the early years (e.g. Best Start)
 3. Migrant and/ or refugee advocates (where applicable or relevant);
 4. Managers of key EYS
 5. MCH coordinator;
 6. Community Centre staff;
 7. Significant outreach service providers;
 8. Major community welfare organisations (e.g. Church);
 9. Community groups (e.g. advocacy or residents groups);
 10. Other relevant groups (e.g. 'hub schools' where extra-curricular activities occur, such as playgroups)

Results

Stakeholders were forthcoming and forthright in their interviews. No one turned down a request for interview, although the consumer advocacy group *Sunshine Residents and Ratepayers Association* (SunRRA) was unable to be contacted.

General Questions

No interviewees were confident speculating as to why Sunshine North might be doing better than expected for its SES. However many were confident in articulating the deficits present in Sunshine West. There were clear opinions as to the differences between the two suburbs, and these were mostly due to the more severe socio-economic disadvantage of Sunshine West and its associated ill effects:

- Youth crime;
- Unemployment;
- Lack of private transport to mitigate the lack of public transport

However all three disadvantages were also said to be present in varying degrees throughout other parts of

the Sunshine area.

Service Questions

- Unsuitability of service locations
- Difficulties accommodating the needs of Culturally and Linguistically Diverse (CALD) residents (requirement for costly and scarce translators, interpreters, bicultural workers as well as costs of printing materials in numerous languages)
- Lack of maternal & child health services
- Difficulty recruiting and keeping staff in an area considered to be a 'hardship posting'

Governance questions

- Excellent initiatives, programs and leadership role of Communities for Children (CfC) and Best Start programs
- Increased optimism given the changes underway within the auspices of the CfC and Best Start programs and the related funding being given to service organisations to complete their objectives and meet the needs of their constituents
- General satisfaction with the Brimbank Early Years Reference Group as a forum for partnerships, coordination and governance.

Recommendations:

1. Key stakeholder interviews or consultations are an excellent source of information and should be seen as a crucial component of community effects research.
2. Impartial interviewers should undertake the consultations wherever possible, in order that interviewees feel comfortable answering questions honestly and completely.
3. Focus groups may be another avenue for obtaining information with expedience; however it should be cautioned that this could restrict some participants' willingness to speak freely.

Part 2: Domain-specific research

1. Service domain

Background

Service provision is a key community level variable influencing young children's developmental outcomes. Well-supported communities result in well-supported families and well-supported children. It is under these conditions that optimal outcomes are achieved.

Research has shown that the quality of services within a neighbourhood is connected to neighbourhood SES. Edwards⁴ found neighbourhoods that were more socio-economically disadvantaged, more remote, and had the greatest proportion of children relative to adults were all associated with parents' perceptions of poorer quality neighbourhood facilities. This implies that those most in need of services perceive themselves as the least likely to secure them.

Families have become more diverse in their structure and cultural background in recent decades. As a result, there are more families with greater needs and parenting has become a more complex task for many families. These changes translate to added problems in meeting all the needs of children effectively. Moore⁵ recognises these problems more specifically as:

- Extended waiting lists prevent timely help when needed;
- Services unable to meet contemporary family complexities;
- Families have difficulty knowing about and accessing services they need;
- Services are often not well connected with one another and therefore fail to deliver cohesive support;
- Delivery times and places often suit professionals' rather than family needs;
- Services are usually treatment-oriented; not preventative in their measures;
- The service system fails to continuously follow up with families of young children over the early years.

Neighbourhoods with greater diversity require diversified and responsive services. However, children who have complex needs are less likely to have their needs met by the current Australian service structure because of the trend for universal rather than targeted services. Services need to be better integrated and designed to put the needs of children and families first. There need to be stronger linkages between services and communities, with better communication between service providers and families, agencies and their client groups, and service systems with entire communities.

In Brimbank, 'Communities for Children' (CfC) and Best Start initiatives have been operational during the past five years. These have provided guidance, oversight and leadership for service providers in the area by identifying service needs, coordinating services and facilitating and funding service provision. Significant programs within the auspices of CfC include the facilitation and funding of targeted playgroups for young mothers and identified ethnic and religious groups (including a Vietnamese playgroup in Sunshine, and Sudanese and Muslim playgroups in Sunshine West).⁶

Aims

Develop a methodology for measuring the service environment and ascertain the potential relationship between service delivery and children's developmental outcomes at the small area level.

Methodology

Service delivery sub-domains and indicators

From the literature and discussions with key experts and stakeholders, the following sub-domains and measures were determined as important constructs of the service domain:

1. Quantity: number; number per capita; utilisation
2. Access: available hours of service per week; low cost service provision; location within 5 mins walk of public transport
3. Quality: accredited/ licensed
4. Coordination: co-locations; partnerships

Types of services

There are core universal services that are paramount for influencing children's development and that ought to be available at the local level. Therefore absolute and relative quantity of services in the area might be contributing to children's developmental outcomes. However, if quantity of services is not contributing to children's developmental outcomes, then the hypothesised hierarchy of influence is:

- Service access
- Service quality
- Service coordination

Primary service tier of investigation

The initial focus of investigation was core universal services targeting young children and families of young children:

1. General Practitioners (GPs)
2. Maternal and Child Health (MCH) centres
3. Child care
4. Pre-school/ kindergarten
5. Primary Schools
6. Outside school hours care (including vacation care)
7. Community centres/ community health centres
8. School transition programs
9. Parenting programs
10. Libraries

Core universal services and quantity of services:

The initial investigation of service provision within the two communities occurred through desk-top analysis. This included physically mapping the number of services on a Google Map and searching for services through Google searches.^j

TABLE 5: Population of children in Sunshine area

	Sunshine North	%	Sunshine West	%	National Average
Total population	10,162		15,909		
Age 0 – 4	629	6.2%	938	5.9%	6.3%
Age 0 – 9	1,304	12.8%	1,975	12.4%	11.6%
Age 0 – 14	1,965	19%	3,052	18.3%	17.9%

TABLE 6: Service number and availability in Sunshine area

	Playgroups	Preschools/ kindergartens	Childcare (not including family day care)	Occasional Care	After/ Before School	Vacation Care	Primary Schools	Maternal & Child Health	GPs	Community Centres	Libraries	TOTAL	TOTAL PER CAPITA (0-4)
Sunshine North	-	2	3	-	1	1	4	0 centres, 2 x outreach staff	3	-	-	14	0.022
Sunshine West	3	3	3	1	2	2	5	1 centre, 2 x outreach staff	3	1	-	24	0.026

^j Google Maps software (Australia) can be found at: <http://maps.google.com.au/> (accessed 24th August 2010). See the Help menu for user instructions.

Access, Quality and Coordination

- Further investigation was undertaken of services operating in the two suburbs (via internet searches and telephone surveys with service providers), in order to determine whether there might be differences between the two communities using basic measures of service accessibility, quality or coordination. A service directory was compiled (see *Appendix J*).
- Mapping work was undertaken to determine the location of services and their accessibility to residents and public transport. Mapping was undertaken with Google Maps, which was a highly effective and simple method for plotting services and public transport routes, particularly as the application allows users to do Google searches for services and import the links directly onto the map. Please see *Appendix K* for the Sunshine area service Google Map.
- Quality was measured using a blunt measure (accreditation or licensing) as well as qualitatively, through interviews and focus groups (see Part 1 of this report).

Results

Quantity

- Contrary to expectation there appear to be a greater number of core universal services in Sunshine West than Sunshine North, because Sunshine North lacks a community centre. The Sunshine West Community Centre (SWCC) runs playgroups, after school activities, homework support groups and parenting classes. The centre also has a dedicated office for Maternal and Child Health consultations; however this is not currently being used. There did not appear to be a substantial difference in the number of children's services in each local area on a per capita basis.

Access

- Many key services appear to be clustered in Sunshine proper. Access to Sunshine is easier from Sunshine North than Sunshine West; however access to all services in all locales is difficult (e.g. services located 10 minutes from nearest bus stop). Public transport is particularly poor in Sunshine West.
- Anecdotally through SWCC staff as well as local police, youth crime, intimidation and bullying are serious issues in Sunshine West. Although this is an area considered within the social domain, it is relevant here as it appears to affect people's willingness to use the facilities and services offered at the SWCC. The Centre is also located >5 mins from public transport which makes it difficult to access.

Quality

- Most services appear to be accredited or licensed in both communities
- Maternal and Child Health services in the Sunshine area are poor, including problems of:
 - Limited staff;
 - Difficulties recruiting staff;
 - Limited outreach; old buildings;
 - Non-computerised systems;
 - Only one service for three suburbs;
 - Long waitlists;
 - No targeted mother's groups (e.g. Vietnamese mothers, young mothers);
 - Service located approximately 10 mins from the nearest transport (bus) stop
- Playgroups appear to have been instrumental in engaging vulnerable families and disseminating information about parenting and local schools, the importance of kindergarten, and the availability of other services for families.

Coordination

- BPA children's services runs many of the kindergartens in the Sunshine area and has done a good job of formalising school transition programs between its centres and local schools, with the assistance and support of CfC Brimbank.
- The SWCC has partnered with the local primary school to provide a homework support program for students

- The Brimbank Early Years Reference Group (BEYRG), led by CfC, is effective in supporting, facilitating and promoting partnerships between services and agencies. It also effectively coordinates service provision in order to maximise community-wide resources and minimise overlap or wastage of service provision.

Recommendations

The work undertaken in the service domain yielded mixed results and contributes to an overall conclusion that community effects are complex.

Basic methodologies

Based on the piloting work, a number of basic methodologies are proposed for analysing, explaining and profiling the service environment, as outlined in the following table (Table 7). Please note that these require further testing in a larger number of communities (>10), to determine whether the results are meaningful.

The data for the Access, Quality and Coordination sub-domains are best accessed via telephone or email surveys with service providers.

Coordination may also be measured using Partnership evaluation tools found on the web using a Google search. Future KICS work may consider the development of such a tool.

In-depth methodologies

1. Qualitative data

In addition, further analysis would benefit from the inclusion of rich qualitative data obtained through focus groups and key stakeholder interviews (see relevant chapters in Part 1 of this report for further information about these methodologies).

2. Mapping

- Maps can be created with Google Maps and shared online with interested parties. Google Maps is a simple, costless, clever and flexible tool for mapping community assets and services. It is also advantageous because it allows multiple users to collaborate on a single map.
- Maps can also be created manually using large scale posters (approx 120x90cm) of suburbs, available for purchase through Melways Publishing (www.ausway.com)

TABLE 7: Service domain methodologies

Variable	Measures	Score 1	Score 2	Score 3	Score 4	Score 5
Quantity	Total EYS quantity per capita (0-4 year olds)	Ranking as yet undetermined				
Cost (costs are based on the maximum rate)	Cost GP services	Bulk billing for all	Bulk Bill Health Care Card (HCC)	No bulk bill, <\$40 per visit	No bulk bill, \$40-\$50 per visit	No bulk bill, >\$50 per visit
	Cost childcare services	<\$50 per day	\$50-60 per day	\$60-70 per day	\$70-\$80 per day	>\$80 per day
	Cost kindergarten services (stand alone programs)	Free for HCC	Not free for HCC and <\$140 per term	Not free for HCC and \$141-\$150 per term	Not free for HCC and \$151-\$160 per term	Not free for HCC and >\$160 per term
	Cost outside school hours care (OSHC)	<\$15 per session	\$15-\$25 per session	>\$26 per session		
	Cost vacation care	<\$50 per day	\$50-60 per day	>\$60 per day		
	Cost playgroups	<\$5 per session	\$5-\$10 per session	>\$10 per session		
Access	Access to public transport (PT) for all services	Distance to PT < 5 mins	Distance to PT 5-10 mins	Distance to PT > 10 mins		
	Waitlists for childcare/ kinder/ playgroup	No waitlist	<5 children waitlisted	5-10 children waitlisted	>10 children waitlisted	
	Hours and availability GPs	Open to new patients	Open to some new patients only (e.g. children)	Closed to new patients		
		>10 outside work hours service (after 5pm, weekends)	5-10 outside work hours service	<5 outside work hours service	No outside work hours service but full time clinic hours	No outside work hours service and part time clinic hours
	School enrolment restrictions	No restrictions	Zoning restrictions/ parish restrictions			
	Maternal and Child Health access	Local centre available and opening hours >30 hours per week	Local centre available and opening hours 20-30 hours per week	Local centre available and opening hours <20 hours per week	Non-local centre with opening hours >30 hours per week	Non-local centre with opening hours <30 hours per week
		Outreach services available	Limited outreach services available	Outreach services unavailable		
Quality	Accreditation/ licensing	Yes	In process	No		
	Class sizes preps	>15 children	16-20 children	21-25 children	26+ children	
	Group sizes childcare/ kinder	<10 children per group	10-15 children per group	16-20 children per group	21-25 children per group	26+ children per group
Coordination	School transition programs (schools, kindergartens, childcare)	Formal school transition arrangement & school obtains all Individual files on all children seen	Formal school transition arrangement but school does not obtain individual files	Informal school transition arrangement	No school transition program	

Variable	Measures	Score 1	Score 2	Score 3	Score 4	Score 5
	EYS partnerships	Membership of main local EYS partnership group	Membership of other partnership group	Not member of any local partnership groups		

2. Social Domain

Background

Ecological theory⁷ highlights the role of social environmental influences on developmental trajectories, taking into account (a) the constitution and temperament of the child (b) the child's interactions with social systems and the interplay between (a) and (b).⁸

The notion of *social capital* is playing an increasingly prominent role in the literature relating to social impacts on wellbeing. Social capital is generally seen to consist of a combination of *trust*, (generalised trust in others and trust in one's neighbours) *reciprocity* (willingness to reciprocate neighbours' acts of kindness and good will) and *participation* (giving up one's time to volunteer in the community).

High levels of social capital, particularly family and community capital have proved beneficial to early childhood health and development outcomes.⁹ Neighbourhood measures of social cohesion such as parental 'trust' and a 'sense of belonging' to a neighbourhood have been associated with a range of physical, behavioural and health outcomes for children.^{10,11} The causal relationships between these factors, however, are not easy to establish. For example, although supportive networks facilitate parental employment prospects, it may be that more enterprising parents are adept both at engaging with friends and neighbours and also at accessing good employment opportunities.

The importance of social processes within the community (as opposed to the effects of economic status) is indicated by the existence of off-diagonal communities found in Goldfeld et al.¹², Kershaw et al.¹³, and Hart et al.¹⁴ in their work on early childhood development indices. These communities demonstrate higher levels of resilience (i.e., fewer vulnerable children) than would be indicated by neighbourhood SES (or alternatively high levels of vulnerability). It was the off-diagonal communities identified in AEDI data that spurred development of the KICS model as their existence highlights the fact that factors beyond neighbourhood SES influence children's development. Clearly there is a need to further investigate how social processes may mediate adverse aspects of neighbourhood, in turn providing resilience for those in disadvantaged areas.

The recognition that community or neighbourhood processes can improve outcomes for children and adults has led to an increasing number of interventions aimed at strengthening communities. Community strengthening occurs where a sense of 'neighbourhood' develops between individuals, families and organisations. This occurs when individuals become actively engaged in the community. Individuals feel socially connected and may become volunteers or leaders, and a sense of community pride ensues.¹⁵ Community strengthening promotes personal wellbeing and helps build the capacity to overcome adversity. Empowerment, along with an increase in confidence and a reduction of a sense of powerlessness of socially excluded people, can be achieved through participation in the decision-making process around actions that influence their life. Community building can provide a means to nurture individuals' capacities and resilience, and through this process the entire community, including children, becomes more empowered and more resilient.¹⁶

Aims

Develop a set of indicators for measuring community social environments including social capital, crime, neighbourhood attachment and child-friendliness.

Methodology

The workgroup devised a table of data items to measure community health and wellbeing as well as community social capital. The primary methodologies employed were the collection and analysis of data through the KICS community survey and collection of qualitative data from focus groups. Analysis of data already in the field from other surveys and research was more difficult than initially anticipated, because of the lack of data readily available at the suburb level.

Results

TABLE 8: Data collected for the social domain

TABLE of Data collected for the Social domain								
Item	Measure	Dataset	Responses	Results SW		Results SN		Utility
				Parents of young children N=7	Non-parents N=6	Parents of young children N=11	Non-parents N=14	
Social ties and community cohesion	Do neighbours do favours for each other?	KICS survey	Often				28.5%	✓ Useful with adequate number of responses
			Sometimes	43%	50%	18%	43%	
			Rarely	43%	33%	55%	21.5%	
			Never	14%	17%	27%	7%	
		Focus groups		Qualitative data were obtained	N/A	Qualitative data were obtained	N/A	✓ Useful qualitative data were obtained
	How many neighbours have respondents spoken with for 10 minutes or more in the last 30 days?		0					✓ Useful with adequate number of responses
			1-2	57%	50%	73%	21.5%	
			3-5	14%	50%	18%	57%	
			6+	28%		9%	7%	
		Focus groups		Qualitative data were obtained	N/A)	Qualitative data were obtained	N/A	✓ Useful qualitative data were obtained
Crime/ Safety	Perceptions of neighbourhood safety	KICS survey	Safe		17%	18%	21.5%	✓ Useful with adequate number of responses
			Unsafe	86%	50%	64%	57%	
			Don't know/ not sure	14%	33%	18%	21.5%	
			Focus Groups		Qualitative data were obtained	N/A	Qualitative data were obtained	N/A
	Child abuse	DHS CASIS database re-notifications for child protection		These data are available on request with committee approval. Data transfer can take up to 6 weeks. In Victoria, contact Gina Smith 9096 7480				Unknown at this stage
	Vandalism/ property damage	Neighbour-hood observations		Some		Minimal		✓ Very useful
		Local police		These data may be made available at the suburb level on request; however this relies on goodwill and can take some time to collate.				Unknown at this stage
	Domestic violence	Local police						
	Hooning							
	Regulated public orders							
Behaviour in public								
Drug use								

Item	Measure	Dataset	Responses	Results SW		Results SN		Utility	
				Parents of young children N=7	Non-parents N=6	Parents of young children N=11	Non-parents N=14		
	Theft (vehicle)								
	Robbery								
	Assault								
	Weapons/ explosives								
Neighbourhood Attachment	Mobility	ABS 2006 Housing & Population survey: Quickstats by area	Same address	10,328/ 14,971 (69%)		6,348/ 9,531 (67%)		✓ This is a very useful item as it is easily comparable	
			Same LGA	1,206/ 14,971 (8%)		816/ 9,531 (8.5%)			
			Other area in Vic	1,429/ 14,971 (10%)		1,202/ 9,531 (13%)			
		(Melbourne Metropolitan benchmark)	Same address	1,913,946/ 3,367,884 (57%)					
			Same LGA	292,305/ 3,367,884 (9%)					
			Other area in Vic	641,169/ 3,367,884 (19%)					
		KICS survey ('How long have you lived in this suburb?')	1-5 yrs	28%		27%	14%		✓ Helpful as additional information during analysis of other survey data
			6-10 yrs	28%		36%	7%		
			11+ yrs	43%	100 %	36%	79%		
	Liveability	KICS survey ('Do you think your suburb is a good place in which to live?')	Yes	29%	83%	55%	78.5%	✓ Very useful with adequate number of responses	
			No	57%	17%	18%	14.5%		
			Not sure	14%		27%	7%		
Child friendliness	Perceptions of child friendliness of the community	KICS survey ('Do you think your suburb is a good place in which to bring up young children?')	Yes	29%	83%	45.5%	57%	✓ Very useful with adequate number of responses	
			No	57%	17%	45.5%	21.5%		
			Not sure	14%		9%	21.5%		
		Focus groups		Qualitative data were obtained	N/A	Qualitative data were obtained	N/A	✓ Useful qualitative data were obtained	
		Child friendly city report (Brimbank)							Qualitative data were obtained
	Proportion of households with children aged 0-4	ABS 2006 Quickstats by area		5.9%		6.2%		✓	

Recommendations

1. Community Survey

The KICS survey was the primary means of exploring themes around social cohesion, network ties and diversity, neighbourhood attachment, collective efficacy, social capital, mutual trust/ feelings of personal safety. The survey sample size undertaken was too small ($n = <25$ per area total, or <10 for parents of young children), but if it were scaled up to achieve a sample size of >40 residents per area, the data provided on social capital measures would be useful. This would require scaling the survey mail drop size to at least 1000 per area.

2. Available quantitative data

Unfortunately, there are very few quantitative data already available at the local area (suburb) level on aspects of social capital in communities. Crime data would be a useful addition to the survey data if accessible. Relationships would need to be fostered with local police agencies to engender enough good will for these agencies to collect and collate such data on behalf of the researchers.

3. Qualitative data

To date, the qualitative data collected has been a very useful means of assessing social capital at the suburb level. The key stakeholder interviews and focus groups with parents provided rich contextual information for the communities under investigation and were an excellent methodology for collecting these types of qualitative data.

3. Physical Domain

Background

The neighbourhood environment is important for early childhood as it allows for the development of social competencies, physical health, and growing maturity through independent actions in and away from the home.^{17,18,19} When children are able to explore their local environment, they increase their knowledge of the area, and become independent movers within the environment. However, more recently, parental concerns for child safety have kept increasing numbers of children indoors and chauffeured in cars.^{20,21}

Past urban research has not only considered 'programmed' children's spaces (for example, parks, playgrounds or backyards) and 'unprogrammed' spaces (for example, local streets, courtyards, shops, clinics, cinemas, offices and cafes where children play informally) but has also considered children's 'time budgets' (for example, time for organised play) and barriers to their movement around cities (for example, dangerous traffic, personal fear, lack of spatial knowledge, public transport costs and availability) as areas for investigation.^{22,23,24,25,26,27} Talen & Coffindaffer's important children and environments research in the US²⁸ tells us that:

- Children experience their environments differently to adults; their experience is highly personal. It is about 'texture and variety', rather than function;
- Children prefer places that are diverse and accessible, with opportunity for social interaction, as opposed to homogeneous and isolated; it is about shared spaces;
- Gender differences are important to consider;
- Level of civic mindedness, not all fun and play;
- Children tend to have socialised, commercialised view of neighbourhood rather than naturalised world.

Closer to home, this was vividly captured in Malone's child-friendly Brimbank report where the key finding was that children identified wanting better access to better parks/ playgrounds/ nature as their highest priority and greatest dissatisfaction.²⁹

Literature on the impact of the built and natural environments on childhood continues to escalate, fuelled by rising rates of obesity and mental health problems. Scholarly research and popular interest in children's health has continued into the twenty-first century, focusing particularly on the incidence of childhood obesity and the associated decrease in children's physical activity (see Gill 2007 and Louv 2008 for two of the most popular examples of these concerns³⁰). Responding to concern about childhood obesity, a growing range of studies has examined the links between children's physical activity patterns and built environment form.^{31,32,33,34}

While there have been important tributary streams of interest in children in urban scholarship - including, for example, the work of Tranter & Sharpe³⁵ on children's rights, Malone³⁶ on residential living and Walsh³⁷ on play environments - this renewed focus on children's well-being and the relationship to the built environment is not well served by a developed urban understanding.³⁸ Whatever the context, it is also unfortunately true that the vast majority of both the creation and adaptation of built environments occurs with a complete absence of children and young people's voice.³⁹

Aims

Develop a set of methodologies for measuring aspects of the physical environment that may be impacting on children's development.

Methodology

Assessing the physical domain at the neighbourhood level clearly overlaps with other domains explored in this study, as the KICS survey questions and responses confirmed. Nonetheless, the primary purpose of this domain was to establish which specific methodologies to capture the influence (or not) of a community's built and natural environments were most effective and efficient. With this overall purpose in mind, it was also important to try and identify which methodologies were most applicable to the pre-primary/primary age group and their parents/ carers.

There are many methods to pinpoint traits of the built and natural environments in any community, but this domain originally committed to trialing Community Asset Mapping (CAM) as an engaging way of

understanding such observations from the perspective of communities themselves. Unfortunately, the comprehensive nature of CAM, particularly its emphasis on widespread community involvement in conducting such mapping, prevented such an approach from being undertaken in this study. However, the key principles that underpin this approach should be features of any longer-term study.

Sub-domains of the Physical Environment

To make the exercise more manageable for the two communities assessed in this study, five sub-domains were identified as important indicators of the impact of the physical environment including:

1. Physical characteristics of buildings;
2. Building & housing ownership;
3. Park, leisure facility and other community assets;
4. Proximity and accessibility of services and transport;
5. Crime (specifically vandalism)

A number of key methodologies for measuring these sub-domains were tested:

Mapping

- GIS Maps

GIS maps highlighting housing and transport data were created using Geographic Information Systems Software¹¹ (please see *Appendix L* to *Appendix P*), including:

- Fully owned households (as a % of total households);
- Partly owned households (as a % of total households);
- Rented households (as a % of total households);
- Public housing per capita (shown as public housing per 1000 head of population);
- Accessibility to Train Stations (pedestrian access at 5, 10 and 15 minute walk distance)

- Google Maps

A Google Map of services and public transport was created. This methodology overlaps in the physical and service domains. Please see detailed discussion in the service domain chapter.

Neighbourhood Observations and Walkability

- Block Observational Tool

The neighbourhood block observational tool draws on significant assistance from the work being pioneered by Canadian colleagues Ford & Wakefield (2010) who have created a measure to observe physical characteristics of neighbourhoods that may impact child development. Their intent was to categorise and quantify physical characteristics to make meaningful comparisons of differences in Vancouver neighbourhoods on aspects related to child development.

- Walkability tool¹²

'How Walkable is your Community?' walking audit, drawn from the US Department of Transportation: a five-item checklist designed to be completed with a young child.

- Walk Score¹³

Walk Score[®] is an online software application that calculates the 'Walkability' of an area in terms of walking distance to services.

A full summary of potential methodologies is shown and discussed in the table below.

¹¹ ArcGIS Software (ESRI), Version 9.3

¹² http://www.goforyourlife.vic.gov.au/hav/articles.nsf/pracpages/Walkability_Checklist?OpenDocument (accessed 20 August 2010)

¹³ The Walk Score[®] application can be found at: <http://www.walkscore.com/>. For details on the technical aspects of the application and an explanation of the algorithm used to calculate Walk Scores for neighbourhoods, visit: <http://www.walkscore.com/rankings/ranking-methodology.shtml> (accessed 2 August 2010).

TABLE 9: Table of sub-domains and measures for the physical domain

Sub-domain	Measures	Methodologies	Utility
<i>Physical characteristics of buildings</i>	Quality	Google StreetView	✓ Google StreetView should initially be used to inspect the physical quality of each building. This allows a quicker assessment of each building to be completed compared to individual site inspections. However some ground truthing may be required as some Google StreetView images can be up to a couple of years old, which will not reflect any recent changes. It is recommended that a grading system be used for building quality, with pre-defined parameters to compare facilities.
	Density; high/ low-rise	Local government data	✓ Where possible, local government data should be used for the density characteristic. If local government data exists on building densities, it should provide a consistent measure without the need for primary data collection.
		Google StreetView	Google StreetView should initially be used to determine building density. Some ground truthing may be required.
<i>Building & housing ownership</i>	Rental; full ownership; part ownership	ABS 2006 Census Basic Community Profile	✓ The ABS 2006 Census Basic Community Profile dataset should be used to determine type of household ownership. 2006 Census variables are at the collection district (CD) level, and cover the following: <ul style="list-style-type: none"> - Fully owned; - Being purchased (i.e. owner with mortgage); - Rented (can be split further into six subcategories, e.g. rented through a real estate, housing authority); - Other
	Public housing per capita	ABS 2006 Census Basic Community Profile dataset	✓ The ABS 2006 Census Basic Community Profile dataset should be used to determine public housing per capita. 2006 Census variables are at the collection district (CD) level, with public housing determined by ownership variable above.
		FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) or local government could be alternate sources for housing data if needed
<i>Park, leisure facility and other community assets</i>	Type	Local government data	✓ Local governments should have a hierarchy of the recreational facilities in their area, listing major facilities through to small parks.
		Internet	✓ Websites such as Google and Whereis.com, or local government websites could be used as alternate sources, however these sources would require verification through council as they may not list or identify smaller recreational facilities or areas.

Sub-domain	Measures	Methodologies	Utility
	Recreational area per capita	Local government data	✓ Local government zoning data at the cadastral level for recreation and community lots can be extracted and combined to obtain a total area for recreational space.
	Physical quality	Google StreetView	<p>✓ Google StreetView should initially be used to inspect the physical quality of recreational and community spaces. However some ground truthing may be required as some Google StreetView images can be up to a couple of years old, which will not reflect any recent changes. Ground truthing will also be required for areas that cannot be seen from a roadway.</p> <p>It is recommended that a grading system be used for recreation and community spaces, with pre-defined parameters to compare facilities.</p>
		Block Observations	✓ The 'Block Observation' tool is a detailed, multi-item checklist designed to score the physical qualities of a block face (small area of approximately 15 mins walking, equivalent to an Australian urban CD). It is a useful tool that can be employed in conjunction with CD Quickstats to gain rich profiles of small areas
		'Walkability' audit tool: <i>How child friendly is my community?</i>	✓ This tool is a five-item checklist designed for rating the ease and pleasantness of walking around a small local area (>15 mins walking) with a young child. It contains items around the physical quality of green spaces and has a built-in scoring system. For communities that want to get residents involved in community-renewal and civic engagement it is a useful tool because it is simple and user-friendly for young families.
	Access to and quantity of green areas and leisure facilities	GIS mapping	✓ This should be calculated through a proximity measure to recreation and community spaces, similar to those calculated in the transport section (see below). Accessibility analysis based on walking to the nearest recreation and community space using GIS would produce a spatial representation on the level of access.
		Google Maps	✓ Visual analysis of green space availability and accessibility can be performed using Google Maps. Advantage of this methodology is that it is easy, cost-free, effective and collaborative.
<i>Proximity and accessibility of services and transport</i>	Types of transport/transport routes	Local government data	✓ Local government should have footpath/cycleway data for walking and cycling, based on total length of infrastructure within their area.
		Metlink	✓ Metlink local area guides provide a good overviews of public transport routes servicing communities

Sub-domain	Measures	Methodologies	Utility
	Proximity of transport to key services and facilities	GIS mapping	✓ Accessibility analysis of walking, cycling and public transport to key services should be performed. Analysis can be performed using Network Analyst within the GIS software ArcMap. GIS datasets required: <ul style="list-style-type: none"> • Road network – can be acquired from road/ transport department of State government, or possibly through StreetPro by MapInfo; • Public transport network – acquired from public transport authority (MetLink). Requires stop and route layers with temporal data on routes; • Walking analysis based on road network, restricting access to road segments where pedestrians cannot access. Walking speed set at 4km/h; • Cycling analysis also based on road network, restricting access to road segments where cyclists cannot access. Cycling speed set at 15km/h (leisurely cycling pace).
		Google Maps	✓ Accessibility analysis of public transport to key services can be performed using Google Maps. Advantage of this methodology is it is easy, cost-free, effective and collaborative.
		Public transport analysis	✓ Public transport analysis based on road and public transport network. Walking is assumed to and from public transport (walking speed 4km/h), and public transport speed set based on temporal data of each route. Waiting times at public transport stops set at 7.5 minutes.
	• Walkability	Walk Score©	✓
		Walkability audit	✓ Walkability audit – <i>How child friendly is my community?</i> (see above)
Crime	Evidence of vandalism	Neighbourhood observations	✓
		Local police interviews	✓

Results

The various measures and methodologies deployed to assess each of these sub-domains is captured in the tabular summary above. The first two sub-domains and crime were seen to be less significant than the community's physical assets and accessibility sub-domains in terms of their influence on the lives of young children and their parents, particularly in the locations for this study where both the physical characteristics of buildings and the levels of home ownership have remained reasonably consistent throughout each suburb over the past decade.

Mapping

- GIS Mapping
 - Housing
The GIS maps for housing ownership in *Appendix M*, *Appendix N*, *Appendix O* and *Appendix P* clearly highlight the concentration of fully owned households in Sunshine West, compared to Sunshine North and how the vast majority of these full-owned households are closer to major transport and community facilities than partly-owned households and public housing.
 - Transport accessibility
The transport accessibility map (*Appendix L*) produced by GIS highlighted how the majority of households in Sunshine West and Sunshine North are located further than 15 minutes walk from the nearest rail station, making this a less viable option for public transport, particularly for young families.
- Google Maps
Google Maps (*Appendix K*) enabled mapping of public transport services coupled together with transit stops and community services and facilities.

Neighbourhood Observations and Walkability

- Neighbourhood Observational Tool
This has produced a largely descriptive set of collated statistics to date. However, the Canadian team is in the process of undertaking further scaling of the instrument based on their pilot data, consistent with procedures used by Caughy et al.⁴⁰, using largely non-parametric statistics. A sample of the Observation Tool completed for Sunshine North is provided in *Appendix Q*.¹⁴
- Walkability audit
Similarly, questions from the Walkability tool ('How Walkable is your Community?') proved to be translatable in the Sunshine West and North communities, engaging children in identifying physical environmental features that appeal directly to their needs and interests. Overall scores for these exercises, based on the five key questions asked in "How Walkable is Your Community?" in Sunshine West (24/30) and Sunshine North (29/30) indicated that Sunshine North was a more pleasant walking environment for children and their parents/carers. The Walkability audit for Sunshine North is provided in *Appendix R*.
- Walk Score
Sunshine West and Sunshine North both scored poorly in their Walk Score rankings (42/100 and 38/100 respectively) and were deemed 'car dependent'.

¹⁴ The tool is currently in draft form, but communities wishing to get a copy can contact the KICS team via the Centre for Community Child Health for further information: enquiries.ccch@rch.org.au, (03) 9345 6150

Recommendations

On the basis of these trialed methodologies, it is recommended that for assessing the physical domain of any community that:

1. Google Streetview be utilised to assess the quality of residential and commercial buildings, as a key guide as to whether quality is a relevant factor in a particular community / neighbourhood
2. There is an alignment of GIS technologies with other mapping software to capture key physical domain data (household ownership, socio-economic status and transport accessibility) in relation to key community services, facilities and infrastructure locations. The simplest methodology for this may be Google Maps
3. A single adaptation of neighbourhood observation instruments and walkability tools that can be undertaken directly by children and their parents/ carers is developed. Until this is available, communities that wish to evaluate their strengths and weaknesses at the small area level may wish to use either the Neighbourhood Observation Tool or Walkability audit.
4. A modified community assets tool is developed that enables children and their parents/ carers to identify key community places and spaces not identified in the neighbourhood observation/ walkability tool above

4. Governance Domain

Background

The Governance and Social domains are closely interlinked because effective and supportive governance structures and policies can foster community social capital, civil society and collective efficacy. In turn, increases in community and citizen engagement are linked to the furtherance of good public policy.^{41,42,43,44,45,46} For this reason it is important to investigate overall political structures as well as collective efficacy and citizen engagement with local political issues when researching the governance domain of an area.

Governance (process) is not synonymous with Government (structure). Governance is about the collective ability of a range of government and non-government actors (including the community (people), NFP (not for profit) and private sectors as well as local, state and national government representatives) to formulate, support and implement coordinated policy agendas.⁴⁷ In relation to ECD, effective governance is necessary for countering inequalities in social capital as well as identifying and responding to service and policy gaps.

Greg Albo has identified three types of Governance regimes⁴⁸:

- *Traditional Public Management (TPM)*

TPM is a top-down approach in which Government, elected officials and the bureaucracy are emphasised over governance, democracy and transformation. Outside influence on policy is limited in addition to being filtered through formal lobbying processes. Power is institutionalised.

- *New Public Management (NPM)*

NPM systems are neoliberal, emphasising marketisation including privatisation and the outsourcing of services to charity or private sector organisations. As the emphasis is on cost saving rather than democratisation, power remains centralised and even intensified as a result of funding and accountability mechanisms.

- *Democratic Community Regimes (DCR)*

DCR regimes are characterised by democratic administration and decision-making, power sharing, community strengthening, community control, and a focus on the participation, equality and rights of the citizenry. Local democracy is also associated with higher social capital and positive policy outcomes⁴⁹.

In Australia, governance systems and structures in Local Government Areas (LGAs) are highly heterogenic, particularly in regards to ECD governance. Traditional TPM systems are less common today than previously but still occur more often than is desirable. Many communities have retained the NPM systems that commonly arose during the privatisation era of the 1990s. DCR is less common.

Unlike Canadian counterparts in British Colombia, Australian LGAs do not have a system of Early Years 'Round Tables' as a matter of course from within which Early Years stakeholders can operate. Some municipalities have distinct and idiosyncratic partnership or reference groups designed to suit their own unique circumstances, priorities and objectives. In some cases these may fall within the ambit of a significant program or grant such as the Communities for Children program. In other cases, partnerships are formed around a single issue. In many councils there are no formal partnership or meeting structures in place for early years stakeholders.

Overall, two tiers of influence have been utilised for measuring the governance domain. LGA-level measures will be difficult to differentiate at the suburb level and therefore should only be considered as contextual information at this stage. Suburb-level factors are specifically related to civic participation, and can be measured at the suburb level. These may provide a critical connection with the whole of LGA governance context.

Aims

To determine appropriate and feasible ways of analysing and describing the governance environment in which communities operate.

Methods

The governance environment of a community is somewhat different than the other domains or environments, for two key reasons:

1. It does not lend itself easily to quantitative analysis
2. It is interlinked with larger systems (e.g. local, state and national level government; non-government; community; and private organisations)

The governance domain was measured in two ways:

1. Analysis of private citizen participation and engagement in governance activities, measured at the CD/ suburb level through the community survey
2. Qualitative analysis of the overall governance environment at the LGA level, to account for the broad range of actors involved.

The following methodologies were utilised to measure the overall governance domain:

- Grey Literature analysis;
- Interviews;
- Focus groups;
- Partnership meeting observations (in the case of the Sunshine area, the Brimbank Early Years Reference Group or BEYRG);
- Classification of governance structure according to Albo's typology (discussed above)

Dr. Tammy Findlay was responsible for developing the bulk of the research design for the governance domain, based on prior work undertaken in British Colombia.⁵⁰

Results

TABLE 10: Survey Results for the Governance Domain

TABLE 10: Survey results for the Governance Domain						
Measure	Method	Results SW		Results SN		Utility
		Parents of young children N=7	Non-parents N=6	Parents of young children N=11	Non-parents N=14	
Attended a public meeting in the last 12 months	KICS survey	0	17%	18%	0	✓ May be useful with adequate number of responses
Contacted stakeholders regarding a political issue in the last 12 months	KICS survey	29%	0	18%	14%	✓ May be useful with adequate number of responses
Volunteered in the last 12 months	KICS survey	0	17%	45%	14%	✓ This data point is useful, with the caveat that some cultural and linguistic groups do not recognise the language or concept behind volunteerism, and therefore this may be an underreported item in CALD communities ⁵¹
	ABS community profiles	890/12,855 (6.9%)		620/8,198 (7.6%)		

Grey Literature Analysis

Key policy documents were found relating to a number of the domains, for example:

- Brimbank Parks and Playgrounds Strategy (council, 2008)
Audit of parks and playgrounds
- Brimbank “How Child-Friendly is My Community?” Report (UNESCO 2008)
Report on children’s audit of the child-friendliness of Brimbank
- Brimbank Communities for Children Final Scoping Paper 2009 (The Smith Family).
Community background and service review
- Brimbank Communities for Children Final Evaluation Report (CCCH 2009)
Evaluation of CfC Brimbank programs and initiatives 2006-2009
- Brimbank/Hume/ Melton/Moonee Valley Bus Service Review (State Government of Victoria, 2010)
Review of bus service audit and service upgrade recommendations for the Brimbank LGA
- Brimbank Best Start Action Plan 2008-2011 (Council)
Strategic plan/ policy priorities for the Best Start Brimbank program
- Brimbank Best Start projects 2010-2011 (Council)
Planned projects for Best Start 2010-2011
- Brimbank Youth Services Directory 2007-2008
Directory of children and youth services operating in Brimbank
- Partnership minutes
BEYRG meeting minutes

These were helpful in developing a profile of the types of ECD policies and strategies prioritised in Brimbank, and for assisting in the identification of the community’s governance structure as categorised by Albo.

Interviews

Semi-structured key stakeholder interviews confirmed the collegiality and mutual respect of service providers in the Brimbank area, who operate within an environment where funding is centrally administered, monitored and distributed (through the Brimbank Early Years Reference Group (the BEYRG), with Communities for Children (or CfC - Federal Government) and Best Start (State Government) funding sources), according to need and project merit. This has been effective in reducing competitive animosities as well as project overlap and resource wastage.

Interviews also yielded information about the overall governance structure for Early Years Services (EYS) in Brimbank, which have been well co-ordinated since the inception of the CfC and Best Start initiatives in the late 1990s. The Smith Family coordinates the CfC program, and there is a Best Start coordinator employed through Brimbank council.

Focus Groups

Focus groups with parents yielded results that would not have otherwise been available. For instance, one mother spoke of a small group of parents who had fought for a local playground to be upgraded and landscaped. Another mother spoke of how her local milk bar is used to disseminate information about local issues, both verbally (via the shopkeepers), and via notices put up in the windows.

Partnership group observations (BEYRG)

For EYS and stakeholders operating in Brimbank, the key governing body is the BEYRG, through which key decisions concerning EYS are decided and approved. The Smith Family has taken on a governance leadership role in Brimbank under the direction of its senior project officer, who is

excellent in the role as chair of the well-attended BEYRG¹⁵. The BEYRG has approximately 30 members.

Observation of a regular BEYRG meeting confirmed the popularity, strength, effectiveness, and decision-making ability of the group. Approximately 25 participants were in attendance, with each of the key player organisations represented. Unfortunately however, citizen or resident representatives, particularly young parents, do not have strong representation within the group.

Classification of governance structure

Brimbank council went bankrupt in the late 1990s and turned to a NPM system as a solution for continuing services, cutting costs and resolving debts. This system remains dominant; however promising moves towards democratisation have begun to take place. These include the design of a social justice charter for the community and the holding of public consultations over aspects of policy by council, the Smith Family and others (regarding diverse and broad-ranging topics within the dimensions of CfC scoping research, the UNESCO Child-Friendly by Design research, and other council research). The BEYRG and its sub-partnerships also hint at promising signs of increasing democratisation within Brimbank governance systems.

Recommendations

1. Survey and focus groups

The inclusion in a community survey of questions regarding individual citizen engagement and collective efficacy is an efficient and practical method of gauging the level of engagement residents have with local issues. Focus groups are an excellent supplementary forum for investigating such questions, and have the added advantage of enabling the addition of follow-up questions.

2. Semi-structured interviews and governance observations

Interviews are useful for determining the scope, strengths and weaknesses of any relevant Early Years partnership or reference groups. Interview questions for the Governance domain are included in *Appendix S*. In addition, an observation methodology template was designed to provide guidance for the observer of such partnership groups, based on work from UBC colleague Tammy Findlay.⁵² It is provided in *Appendix T*.

¹⁵ Approximately 25 representatives attend each BEYRG meeting out of a pool of approximately 30 members

5. Socio-Economic Domain

Background

There is a great deal of research showing that outcomes for children are strongly affected by family socioeconomic status (SES). However, the connection between affluence and children's developmental outcomes is not always clear-cut. Some researchers have noted that while SES is used to predict outcomes, the existence of off-diagonal communities, such as those identified in AEDI data utilised by the KICS collaboration, demonstrates that other factors also contribute to early childhood development outcomes.

Wilson has argued that the concentration of poverty and unemployment in neighbourhoods can result in reduced access to quality education, isolation from informal job networks, and limited opportunities to socialise with economically successful individuals.⁵³ For children, such a combination of factors can place them at high risk for developmental problems.⁵⁴

Unfortunately, the question as to whether neighbourhood poverty (and not just poverty at the individual level) matters for childhood development has been little studied, due to the complexity of isolating community effects from other effects. Most studies have failed to combine information at the individual, family, and neighbourhood levels in the appropriate statistical model.⁵⁵ However Kalf et al used multilevel analyses to investigate pathways of risk.⁵⁶ They found that the prevalence of behavioural problems in children was more frequent in families living in deprived neighbourhoods, irrespective of individual level socio-economic status. Thus, child behaviour problems cannot be explained completely by individual factors such as low parental education and single parent families; neighbourhood factors are also important. The effect of the neighbourhood may be attributable to contextual variables, such as the level of social cohesion among residents. It may be that prevention programs for high-risk children should focus on neighbourhood characteristics, as well as individual level characteristics.

Linked to the notion of poverty is social exclusion. Although poverty is generally measured in terms of income (usually 60% of the median equivalised family income) social exclusion is multi-dimensional. A precise definition of social exclusion has proved to be elusive, but it is generally considered to include the following aspects:

'Exclusion processes are dynamic and multidimensional in nature. They are linked not only to unemployment and/or to low income, but also to housing conditions, levels of education and opportunities, health, discrimination, citizenship and integration in the local community'⁵⁷

Australian research undertaken by Harding et al. at the National Centre for Social and Economic Modelling (NATSEM)⁵⁸ found that the major differences between the top 20% of areas with the highest rates of social exclusion of children and the top 20% of areas with the lowest levels of social exclusion of children were to be found in relation to:

1. occupational status – whether or not the family member with the highest occupation was a white-collar worker
2. whether a computer was used in the home or not
3. whether the family's highest level of school achievement was below year 12
4. whether they owned their own home or not
5. whether they attended a government school or not

Although social exclusion can refer to individuals, spatial segregation and concentration can mean that neighbourhoods and communities can become deprived, disadvantaged, or stigmatised. This may have an effect on all people in the area including children, and their potential for mobility. For instance, living in an area where factories are closing and job vacancies are scarce increases unemployment. An area with high unemployment and high levels of deprivation is also likely to have poor schools. Thus, an individual's circumstances are to some extent dependent on his or her geographical setting. Economically disadvantaged families are particularly dependent on place because they do not have the resources to access work or services away from their immediate neighbourhood.⁵⁹

Neighbourhood socio-economic status (SES) can be measured by SEIFA (Socio-Economic Index for Areas) to create an index of advantage/disadvantage for each postcode area. The ABS has developed these indexes to allow ranking of regions/areas, providing a method of determining the level of social and economic well-being in that region. The four indexes are:

- **Index of Relative Socio-economic Disadvantage (IRSD):** is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles.
- **Index of Relative Socio-economic Advantage and Disadvantage (IRSAD):** a continuum of advantage (high values) to disadvantage (low values), which is derived from Census variables related to both advantage and disadvantage such as household with low income and people with a tertiary education.
- **Index of Economic Resources:** focuses on Census variables such as the income, housing expenditure and assets of households.
- **Index of Education and Occupation:** includes Census variables relating to the educational and occupational characteristics of communities, such as the proportion of people with a higher qualification or those employed in a skilled occupation.

These indexes show where affluent people (as opposed to those who simply earn high incomes) live; where disadvantaged people (as opposed to the unemployed) live; and where the highly skilled and educated (as opposed to tertiary educated people) live. SEIFA provides information and rankings for a wide range of geographic areas (Census of Population and Housing – SEIFA 2001).

Methods

Geographic matching and subsequent reduction of the AEDI data set

The AEDI data set used for analysis was the 2004-2007 Project dataset (PDS). The data used were those from the Suburb level (the smallest geographic level of data available). These were matched to a best-fit geographic structure available for Census output, being State Suburb Code (SSC). SSCs and Suburbs are a close match but not always interchangeable.

As it was not always possible to obtain a good match for all suburbs on the Project-AEDI dataset, only a reduced number of observations were available for matching to SEIFA IRSD and the Census variables. The resulting 'reduced-Project' AEDI dataset (RPD) was used for the analysis.

Creation of a combined matched data set

Analysis was undertaken using a reduced matched dataset (RMD) created from:

- The RPD
- 2006 SEIFA IRSD
- Variables from the 2006 Census.¹⁶

Analysis

1. The properties of the RMD were described
2. A correlation structure was created for analysis between SEIFA IRSD and the Census variables
3. A correlation structure was created for analysis between the AEDI domains with SEIFA IRSD and with the Census variables
4. A basic linear regression was undertaken, using each Census variable independently to explain the variation in the AEDI measure 'Low07' (vulnerable on one or more AEDI domains), with and without controlling for SEIFA IRSD
5. A basic logistic regression was undertaken, using SEIFA IRSD to explain the variation in Low07.
6. Analysis on a set of multi-level models was undertaken to understand the school effect and the area effect (SSC). Please note that the results of this basic analysis were limited by the lack of person-level demographics, the reduced nature of the dataset, and the limited sensitivity analysis.

¹⁶ The Census variables used are listed in *Appendix V*

7. Finally, a basic analysis of the concentration of vulnerability in the AEDI domains was undertaken, looking at the SEIFA distribution of students deemed vulnerable on 0,1,2,3,4 or 5 AEDI domains.

Results

Due to the limited nature of the RPD and the apparent sensitivity of these preliminary results (across single/multi-level, year of collection, variable definitions and outliers), only limited analyses were undertaken during this preliminary research phase and detailed results tables have not been provided. The following results are therefore focused primarily on methodological issues.

The main findings from the SES analyses were as follows:

- SEIFA Index of Relative Socio-economic Disadvantage (IRSD) had a consistently strong relationship with the main AEDI measure, Low07
- There is some evidence that relationships differ depending on the AEDI measure used; however, only basic analysis has been undertaken at this stage
- All of the Census variables exhibited a positive relationship with Low07; that is, an area with a greater proportion of students deemed vulnerable on one or more AEDI domains, tended to have higher proportion of usual residents with characteristics such as low income or no post-school qualifications. Some of these results were sensitive to the year of collection and outliers (which was only briefly investigated) and are likely to be different to the full AEDI dataset. This sensitivity was particularly evident for variables with a skewed distribution; however this may not be the case for the full AEDI dataset. For all Census variables, although there was a general positive relationship with Low07, it was a loose association; and the closeness of this association changed as areas increased in proportions of vulnerable students. The closest associations with Low07 were for the following variables: no post-school qualifications; labourer occupation.¹⁷
- There was evidence found of links between the concentration of vulnerability in the AEDI domains and SEIFA IRSD; a child deemed vulnerable on 4-5 AEDI domains was more likely to reside in relatively more disadvantaged suburbs, than a child deemed vulnerable in a single AEDI domain.

There are conceptual, methodological and data issues to be aware of when using these analyses:

- The SEIFA indexes and Census variables used in these analyses were created using information from the 2006 Census, and are based on all usual residents in an area rather than only children or families in an area
- The SEIFA scores were created for all areas in Australia, not the subset in the Project or AEDI National datasets
- The Census information was collected in 2006, whereas the AEDI information was collected over 2004-2007. Caution should be used when comparing data collected at two different points in time, as family characteristics and the composition of areas can change over time.
- AEDI and SEIFA are conceptually different measures – these measures are based on information from different populations, collected at different times, and are based on different data items and different methods of collection
- The SEIFA indexes and Census variables used in these analyses were created at an area level (e.g. proportion of adults in the labour force who are unemployed). This is conceptually different to a person or family-level measure (e.g. whether or not a parent is unemployed). AEDI information is a student-level measure of developmental vulnerability. For the purposes of comparison with SEIFA and Census variables, this was transformed into an area-level measure by calculating the proportion of students deemed developmentally vulnerable in each suburb.
- The RPD may not be representative of the National dataset. Any outcomes from the current analyses are for general guidance of future work only.
- The Census data geographic boundaries are SSCs, which are aggregations of Census Collection Districts (CD), to 'best-fit' Suburb boundaries. The goodness of this fit is as yet unknown.
- The AEDI geographic boundaries used in these analyses are Suburb-Communities, which are generally based on Suburbs, but not always. AEDI respondents (teachers) fill out the suburb information; the quality of this information is unknown. These suburbs are then grouped into

¹⁷ Please refer to *Appendix V* for variable specifications

suburb-communities. The goodness of the fit between these Communities and SSCs is unknown.

- As previously mentioned, differences in geographic boundaries resulted in a reduced dataset. It is possible that results from the analyses were affected by this reduction.

Recommendations

The following additional work would improve the quality of future analyses, however would be resource-intensive:

- Extend the analysis to all of the five AEDI domains
- Extend the analysis to the National dataset
- Compare the RPD to data available from sources other than the Census, for validation purposes
- Incorporate child-level characteristics, which were not available on the PDS
- Extend the analysis to an alternative SEIFA measure. For example, SEIFA IRSAD includes both 'advantage' and 'disadvantage' measures, which measures both concepts of 'disadvantage' and 'lack of advantage'. While SEIFA IRSD and IRSAD are strongly correlated, some differences exist.
- Extend the analysis to other variables from the Census not included in the SEIFA IRSD. There are other variables available from the Census that may also be conceptually valid; such as variables that appear in other SEIFA indexes, re-definitions of variables (such as combining the low-occupation variables, or as children-family specific), or other variables that are not included in SEIFA indexes.
- Extend analysis to different formats of the Census variables. The format used in this analysis was proportions (varied 0-1). This analysis could be extended to: standardised (e.g. mean=0, std dev=1) or quantiles (e.g. deciles, 10-25-50-75-90). It would be useful to determine to what extent are the relationships dependent on a handful of 'extreme' values.
- For the correlations and linear regression, some preliminary outlier sensitivity analysis was undertaken; this work should be extended, particularly once the National AEDI dataset is available
- Improve the metadata available on the quality of the geographic matching between the AEDI dataset and Census data.
- Use of the AEDI National dataset may allow for improved modelling of teacher effects. It is possible that particular teachers mark higher/lower than other teachers; that is, the same student might receive a different mark depending on the teacher (measurement error). However, it is difficult to separate this effect from 'real' effects that occur due to similarity between students in classrooms/schools/suburbs. Another potential option is to make assumptions about the distribution of students; however any results are limited by these assumptions and require large data sets. It is hoped that the National data set will be adequate for this purpose.

Part 3: Conclusion

This pilot study has demonstrated that it is both feasible and practical to measure a number of community level factors that may be influencing children's developmental outcomes. These measures require further testing on a larger scale in order to determine their utility and reliability in differentiating geographic areas. However, in the short term they may be of some use for communities considering how best to respond to and capitalise on the knowledge opportunities provided by their AEDI results. The measures provide communities with guidance for research into the community effects that may be contributing to their AEDI results, including a number of structured methodological approaches, as well as advice on the utilisation of existing data.

The use of these data to demonstrate factors that are more prevalent in "off-diagonal" communities is yet to be fully tested. Despite this, many interesting lines of enquiry have emerged from the current phase of the project. For instance, through the process of developing measures for the five KICS domains, there was a consensus to choose those that were reflective of the community as a whole rather than focusing on measures that aggregate family level data. Perhaps the only exception to this approach was in the service domain, where early years services were the main focus¹⁸ and therefore research methods tended towards aggregates of data obtained from or about families with young children.

The final challenge has been to capitalise on the mixed methods approach to data collection. In this pilot study, qualitative data were very useful in helping to better understand the communities' views on why they might doing better than expected for their SES. No doubt the next phase of testing will require a purposeful intersection of qualitative and quantitative methods.

The second phase of KICS - broader testing of measures - will help to determine whether there are systematic community level factors that contribute to better or worse developmental outcomes for young children. Should these factors be both measurable and significant, they will have enormous benefit for community planning and monitoring as well as policy development at all levels of government.

¹⁸ With the exception of GP's

Appendices

Appendix A

TABLE 11: The measures and methodologies of the five KICS domains

Domain	Sub-domain	Measures	Methodologies &/ or indicators	Utility
Service Domain	Quantity	Number	Google/ Google Maps search	✓
			Community, Best Start or CfC service lists/ directories if available	To some extent (though list was out of date)
			Yellow and white pages searches	✓
		Number per capita	Divide number of services x population	Did not appear to make a difference
		Utilisation	Waiting lists (check with phone calls)	✓
			KICS survey	✓
	Quality	Accreditation	QIP/ AGPAL Accreditation (GP)	✓
			NCAC childcare accreditation	✓
		Perceptions of quality	Anecdotal reports - interviews	✓
			Anecdotal reports - focus groups	✓
	Access	Opening hours	Yellow pages/ internet	To some extent but needs confirmation by ph
			Phone calls	✓
		Distance to public transport	Geospatial Mapping using GIS	GIS is excellent but costly
			Geospatial mapping using Google Maps	✓ Cheap, effective and collaborative
			Accessibility defined as <5 mins to public transport	✓
		Cost	Phone calls to determine fee schedule	✓ Make note of bulk billing or other discounts available
			Anecdotal reports - focus groups	✓
		Waiting lists	Phone calls	✓
			Anecdotal reports - focus groups	✓
	Coordination	Co-locations	Google maps	✓
		Partnerships	LSEY and Best Start service coordination data where available	✓ Very useful if available and current
			Anecdotal reports – interviews/ phone	✓
			Grey literature review	✓
			LSEY and Best Start service coordination tools	✓

Domain	Sub-domain	Measures	Methodologies &/ or indicators	Utility
Service Domain (continued)	Initial concentration on <u>primary</u> services only, to determine if the <i>quantity, quality, access or coordination</i> of <u>primary</u> services seem to be having an effect on AEDI results			✓ All three methodologies useful and more or less relevant according to the particular community
	If no effects, then move on to the 'second tier of discovery': see if specialist services (<u>secondary</u> and <u>tertiary</u> services) appear to be contributing to these results			
	Follow up with qualitative work (phone calls, surveys, focus groups etc) if necessary to complete knowledge gaps (particularly for access, quality and coordination)			
Physical Domain	Physical characteristics of buildings	Quality	Google Earth	Unsure at this stage
			Google Streetview	✓
			Neighbourhood observations	✓
			Walkability audit	✓
		Density; high/ low-rise	Google Earth	Unsure at this stage
			Google Streetview	✓
	Building & housing ownership	Rental; full ownership; part ownership	Map using data from FAHCSIA, 2006 Housing Census, Local councils	✓
		Public housing per capita	Map using data from FAHCSIA, 2006 Housing Census, Local councils	✓
	Park, leisure facility and other community assets	Type	Google Maps	✓
			Google Earth	Unsure at this stage
			Google Streetview	Google Maps is easier to decipher
			Whereis.com	✓
			Council website	Not very effective
			Neighbourhood observations	✓
			Walkability audit	✓
			Parks/ leisure spaces audits	✓
		Number per capita/ geographical area, sq meterage p. km	Google maps	Unknown at this stage
			Whereis.com	Unknown at this stage
		Physical quality	Google Streetview	✓
			Neighbourhood observations	✓
			Walkability audit	✓
		Access to green areas & leisure facilities	CIV/ VicHealth survey data	LGA level data only
			DPCD survey	LGA level data only
			CfC or Best Start scoping and evaluation reports	✓
			Visual audit using Google Maps or Melways	✓
			KICS survey	✓
	Proximity and accessibility of services and transport	Types of transport	Search using Google maps	Metlink is more accurate and complete
			Metlink (local area guides)	✓

Domain	Sub-domain	Measures	Methodologies &/ or indicators	Utility
		Transport routes and PT coverage	Search using Metlink (area profiles: pdf's; individual train and bus routes for local areas)	✓
			Geospatial mapping using GIS	✓
		Proximity of transport to key services and facilities	Geospatial mapping using GIS	✓
			Search PT and services using Google Maps	✓ But only shows train lines not bus routes
			Search using Metlink route planner	✓
			Plot PT and services using Google Maps with additional data entered in manually (e.g. bus routes from Metlink)	✓
			Interviews, focus groups, phone calls	✓ Good for getting started but Geospatial mapping using GIS or Google combined with Metlink data is more accurate
Social Domain	<i>Crime</i>	Crime rates	Vic Police crime database	LGA level data only
			Local police station data	? Possibly
		Crime rates per capita	Vic Police crime database	LGA level data only
			Local police station data	? Possibly
		Types of crime	Vic Police crime database	LGA level data only
	<i>Social ties</i>	Network diversity	CIV/ VicHealth survey data	LGA level data only
			VPHS survey	LGA level data only
			Anecdotal reports - focus groups	✓
			KICS survey	✓
		Opportunities for socialising	CIV/ VicHealth survey data	LGA level data only
			Anecdotal reports - focus groups	✓
			KICS survey	✓
		Attended community event in last 12 months	DPCD survey	LGA level data only
			Anecdotal reports - focus groups	✓
		Opportunities for participating in/ participation in Arts and related social activities	KICS survey	✓
			DPCD survey	LGA level data only
			CIV/ VicHealth survey data	LGA level data only
			CfC or Best Start scoping and evaluation reports	✓
			Anecdotal reports - focus groups	✓
	<i>Trust</i>	Interpersonal trust	CIV/ VicHealth survey data	LGA level data only
			Anecdotal reports - focus groups	✓
		Tolerance of diversity	CIV/ VicHealth survey data	LGA level data only
			Anecdotal reports - focus groups	✓

Domain	Sub-domain	Measures	Methodologies &/ or indicators	Utility
	<i>Crime</i>	Perceptions of neighbourhood crime	CIV/ VicHealth survey data	LGA level data only
		Perceptions of neighbourhood safety	CIV/ VicHealth survey data	LGA level data only
			KICS survey	✓
		Perceptions of safety for children	CIV/ VicHealth survey data	LGA level data only
	<i>Neighbourhood attachment</i>	Domestic violence	Domestic violence rates	LGA level data only
		Mobility	ABS 2006 Housing & Population survey	✓
			DHS Victoria, Office of Housing	✓
			Local council	Unlikely but worth checking to see if data are collected and at what level/ frequency if so
			Department immigration or local migrant resource/ advocacy agencies	Unknown at this stage
			SEHQ	Difficult to get access to these data
			CIV/ VicHealth survey data	LGA level data only
	<i>Child friendliness</i>	Perceptions of child friendliness	KICS survey	✓
			Child friendly city report (Brimbank)	✓
			Anecdotal reports - focus groups/ interviews	✓
		Proportion of households with young children	Quickstats by area	✓
Governance Domain	<i>Characteristics of governance groups and community governance practices</i>	Description of main features and focus of governance groups	Stakeholder interviews	✓
			Governance reference group meeting observations (BEYRG)	✓
			Grey literature review	✓
			Grey literature review	✓
		Key policies related to children	Stakeholder interviews	✓
			Governance reference group meeting observations (BEYRG)	✓
			Grey literature review	✓
		Structure of governance groups	Stakeholder interviews	✓
			Governance reference group meeting observations (BEYRG)	✓
			Grey literature review	✓
		Key governance leaders	Stakeholder interviews	✓
			Governance reference group meeting observations (BEYRG)	✓
			Grey literature review	✓
		Opportunity to have a say on important issues	VPHS survey	Data unavailable at present
			CIV/ VicHealth survey data	✓ Not available at suburb level but LGA level data useful for providing context of

Domain	Sub-domain	Measures	Methodologies &/ or indicators	Utility
				LGA wide governance
			DPCD survey	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			Stakeholder interviews	✓
			Governance reference group meeting observations (BEYRG)	✓
		Democratic organisation of assets and resources	Grey literature review	✓
	<i>Engagement & participation</i>	Extent/ level of engagement &/ or participation	CIV/ VicHealth survey data	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			DPCD survey	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			CfC or Best Start scoping and evaluation reports	✓
			KICS survey	✓
		Evidence of collective efficacy	DPCD survey	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			CfC or Best Start scoping and evaluation reports	✓
			KICS survey	✓
		Membership in local community organisations and decision-making bodies	CIV/ VicHealth survey data	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			VPHS survey	Data unavailable at this stage
			DPCD survey	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			CfC or Best Start scoping and evaluation reports	✓
		Parent participation in schools	CIV/ VicHealth survey data	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			DPCD survey	✓ Not available at suburb level but LGA level data useful for providing context of LGA wide governance
			CfC or Best Start scoping and evaluation reports	✓
		Volunteering	2006 Census	✓
			CfC or Best Start scoping and evaluation reports	✓
			KICS survey	✓ To some extent, although for some cultural groups the

Domain	Sub-domain	Measures	Methodologies &/ or indicators	Utility
				term 'volunteering' is not easily translated or transferred
	<i>Coordination mechanisms</i>	Actual coordination of governance groups	Stakeholder interviews	✓
			Governance reference group meeting observations (BEYRG)	✓
			Grey literature review	✓
		Policies supporting governance coordination	Stakeholder interviews	✓
			Governance reference group meeting observations (BEYRG)	✓
			Grey literature review	✓
Socio-Economic Domain	<i>Data cleaning and preparation</i>	Data matching	Geographically match AEDI Project, SEIFA IRSD and Census variable datasets	✓ AEDI Suburbs and ABS State Suburb Codes (SSCs) are a close match but not always interchangeable
			Remove mismatched areas and create reduced dataset (RPD)	✓
		Creation of combined dataset	Create combined matched data set of RPD, SEIFA IRSD and Census variable datasets (RMD)	✓
	<i>Data analysis</i>	Descriptions	Describe the properties of RMD	✓
		Correlations	Create correlation structure for analysis between SEIFA IRSD and the Census variables	✓
			Create correlation structure for analysis between the AEDI domains with SEIFA IRSD and with the Census variables	✓
		Regressions	Undertake basic linear regression using each Census variable independently to explain variation in the AEDI measure 'Low07' with and without controlling for SEIFA IRSD	✓
			Undertake basic logistic regression using SEIFA IRSD to explain the variation in Low07	✓
		Analysis	Undertake basic analysis of the concentration of vulnerability in the AEDI domains looking at the SEIFA distribution of students deemed vulnerable on 0,1,2,3,4 or 5 AEDI domains.	✓

Domain	Sub-domain	Measures	Methodologies &/ or indicators	Utility
		Analysis of teacher and area effects	Undertake analysis on a set of multi-level models to understand the school effect and the area effect (SSC).	✓ Please note that the results of this basic analysis were limited by the lack of person-level demographics, the reduced nature of the dataset, and the limited sensitivity analysis

Note: Please refer to the section entitled “*Guide to acronyms used in this report*” (page 2) for further clarification of this table.

Appendix B

TABLE 12: Disadvantage decile (SEIFA) by Proportion of Vulnerable Children (AEDI), Victorian AEDI Sample

		Percentage of Vulnerability Quintiles					Total
		Low proportion of vulnerable children	2.00	3.00	4.00	High proportion of vulnerable children	
SEIFA	More disadvantaged areas	1	1	0	2	11	15
	2.00	0	2	2	4	7	15
	3.00	1	4	3	4	3	15
	4.00	2	3	6	1	3	15
	5.00	3	3	3	5	1	15
	6.00	2	3	6	3	1	15
	7.00	4	2	5	4	0	15
	8.00	6	1	2	4	2	15
	9.00	4	6	1	3	1	15
	Least disadvantaged areas	7	5	2	1	0	15
Total		30	30	30	31	29	150

Appendix C

TABLE 13: Selected Characteristics of identified suburbs

Off-diagonals : most appropriate for next phase (in Victoria)												
AEDI (various years)				SEIFA (2006 IRSD)								
Suburb/area Name	% vuln children	Sample- Vic. Quintile	# children	SSC Name (code)	score	Sample-Vic. Decile	Vic. Decile	Aust. Decile	min. score SSC	CD max. in score SSC	CD Usual in Resident Popln	%URP excluded
<i>Fewer vulnerable children + less disadvantage</i>												
Sunshine North	19%	Q3	98	Sunshine North (21649)	870.85	1	1	1	814	923	10161	0%
Healesville Area	10%	Q1	106	Healesville (25751)	976.91	4	3	4	903	1035	6568	0%
Preston West	11%	Q1	58	Preston (21553)	951.06	3	2	3	684	1093	27887	0%
<i>More vulnerable children + more disadvantaged</i>												
Point Cook	24%	Q4	192	Point Cook (21545)	1111.28	10	10	10	1078	1153	14164	0%
Tarneit	25%	Q4	72	Tarneit (26733)	1062.13	9	8	8	1034	1086	6669	0%

Appendix D

TABLE 14: Selected Characteristics of other suburbs

Other off-diagonals (in Victoria)													
AEDI (various years)				SEIFA (2006 IRSD)									
Suburb/area Name	% vuln children	Sample- Vic. Quintile	# children	SSC Name (code)	score	Sample-Vic. Decile	Vic. Decile	Aust. Decile	min. score SSC	CD max. in score SSC	CD Usual in Resident Popln	%URP excluded	
Bell Park	17%	Q2	29	Bell Park (22006)	913.45	D2	2	1	811	1013	4650	0%	
North Geelong	... (?)	Q2	26	North Geelong (22106)	927.93	D2	2	1	802	1034	2671	32%	
Skye	27%	Q4	101	Skye (21609)	1059.22	D9	8	8	976	1149	6899	0%	
Little River	41%	Q5	17	Little River (26021)	1043.18	D9	7	7	1021	1066	1747	0%	
Barongarook	... (?)	... (?)	20	Barongarook (25089)	805.29		1	1	805	805	579	0%	
				Barongarook West (25091)	1032.30		7	6	1032	1032	457	0%	

Appendix E



Sunshine North sample Quickstats

2006 Census QuickStats : 2131403 (Census Collection District) - Mozilla Firefox

http://www.censusdata.abs.gov.au/ABSNavigation/pre

2006 Census QuickStats : 2131403 (...)

PERSON CHARACTERISTICS (Place of usual residence)

PERSON CHARACTERISTICS 	Selected Region	% of total persons in Region	Australia 	% of total persons in Australia
Total persons (excluding overseas visitors)	638	-	19,855,288	-
Males	319	50.0%	9,799,252	49.4%
Females	319	50.0%	10,056,036	50.6%
Indigenous persons (comprises Aboriginal and Torres Strait Islander)	0	0.0%	455,031	2.3%

In the 2006 Census (held on 8th August 2006), there were 638 persons usually resident in 2131403 (Census Collection District): 50.0% were males and 50.0% were females. Of the total population in 2131403 (Census Collection District) 0.0% were Indigenous persons, compared with 2.3% Indigenous persons in Australia.

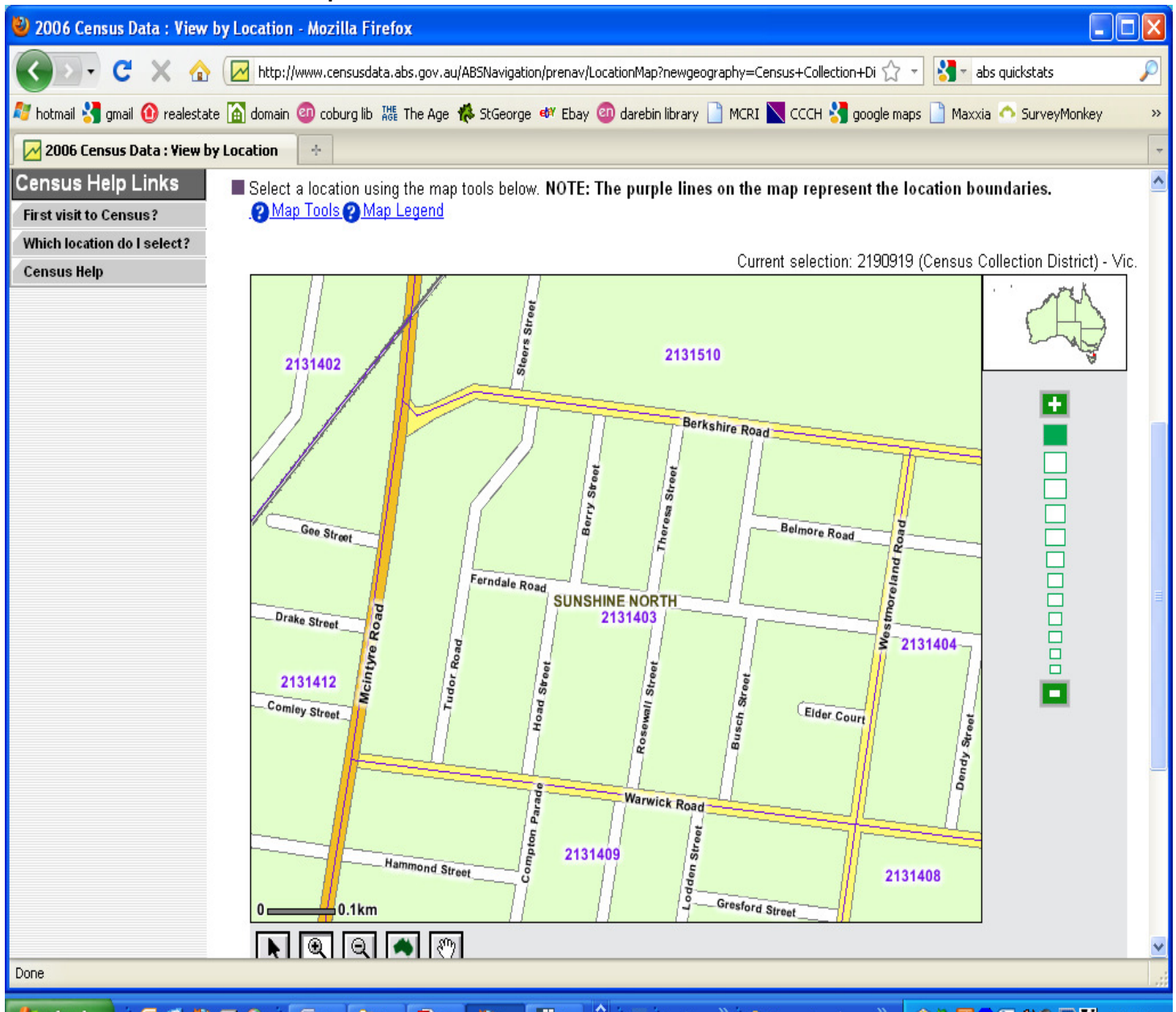
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AGE

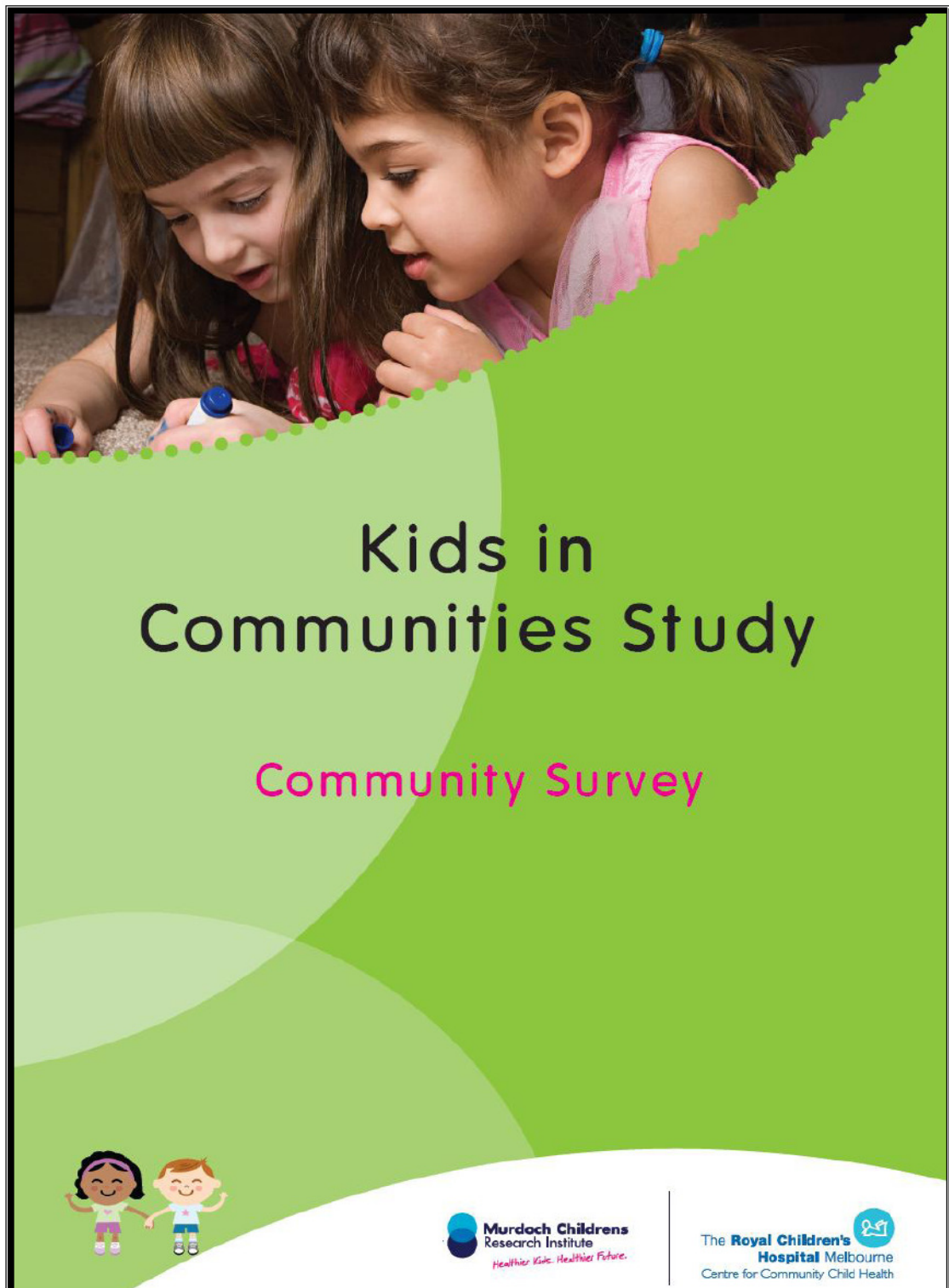
	Selected Region	% of total persons in Region	Australia	% of total persons in Australia
Age groups:				
0-4 years	39	6.1%	1,260,405	6.3%
5-14 years	78	12.2%	2,676,807	13.5%
15-24 years	82	12.9%	2,704,276	13.6%
25-54 years	263	41.2%	8,376,751	42.2%
55-64 years	50	7.8%	2,100,975	10.6%

Appendix F

Sunshine North CD Map



Appendix G
The KICS Community Survey



Kids in Communities Study (KICS)

About you

1. Which suburb do you live in? (Tick one only)

Sunshine North ☐ Sunshine West ☐

2. How long have you lived in this suburb? (Tick one only)

0-11 months ☐ 1-5 years ☐ 6-10 years ☐ 11+ years ☐

3. Are you (tick one only)

Male ☐ Female ☐

4. What is your age group? (Tick one only)

18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+ ☐

5. Which of these best describes your current employment situation? (Tick one only)

Employed ☐ Unemployed ☐ Not working and not looking for work ☐

6. Did you finish high school? (Tick one only)

Yes ☐ No ☐

7. Are you a parent or guardian? (Tick one only)

Yes ☐ No ☐

If yes, what ages are your children? _____

About transport in your area

8. Do you think there is enough public transport in your local area? (Tick one only)

Yes ☐ No ☐ Maybe/ don't know/ not sure ☐

9. Do you think your local area is a good place for walking and cycling? (Tick one only)

Yes ☐ No ☐ Maybe/ don't know/ not sure ☐

10. Do you think that there are enough local parks/ playgrounds/ sporting grounds in your area? (Tick one only)

Yes ¹☐ No ²☐ Maybe/ don't know/ not sure ³☐

11. How often do people in your household use public transport? (Tick one only)

Daily	2-3 times per week	4-8 times per month	5-10 times per year	Never/ don't use
¹ <input type="checkbox"/>	² <input type="checkbox"/>	³ <input type="checkbox"/>	⁴ <input type="checkbox"/>	⁵ <input type="checkbox"/>

12. How often do people in your household either ride a bicycle or go for a walk? (Tick one only)

Daily	2-3 times per week	4-8 times per month	5-10 times per year	Never/ don't use
¹ <input type="checkbox"/>	² <input type="checkbox"/>	³ <input type="checkbox"/>	⁴ <input type="checkbox"/>	⁵ <input type="checkbox"/>

13. How often do people in your household visit local parks/ playgrounds/ sporting grounds? (Tick one only)

Daily	2-3 times per week	4-8 times per month	5-10 times per year	Never/ don't use
¹ <input type="checkbox"/>	² <input type="checkbox"/>	³ <input type="checkbox"/>	⁴ <input type="checkbox"/>	⁵ <input type="checkbox"/>

About services in your area

14. Where do you travel to for services? (Tick one only per row)

	My suburb	Neighbouring suburb	Other area	Not applicable/ don't use
Doctors/ medical clinics	¹ <input type="checkbox"/>	² <input type="checkbox"/>	³ <input type="checkbox"/>	⁴ <input type="checkbox"/>
Maternal and Child Health	¹ <input type="checkbox"/>	² <input type="checkbox"/>	³ <input type="checkbox"/>	⁴ <input type="checkbox"/>
Child care/ occasional care	¹ <input type="checkbox"/>	² <input type="checkbox"/>	³ <input type="checkbox"/>	⁴ <input type="checkbox"/>
Preschool/ kindergarten	¹ <input type="checkbox"/>	² <input type="checkbox"/>	³ <input type="checkbox"/>	⁴ <input type="checkbox"/>

15. Do you agree that there are enough good health services in your local area? (Tick one only)

Yes ¹☐ No ²☐ Maybe/ don't know/ not sure ³☐

16. Do you agree that there are enough good childcare/ preschool/ kindergarten services in your local area? (Tick one only)

Yes ¹☐ No ²☐ Maybe/ don't know/ not sure ³☐

About your community

17. Do you agree that there are enough opportunities for people in your local area to participate in Arts and related activities (e.g. concerts, arts and craft classes)? (Tick one only)

Yes ¹☐ No ²☐ Maybe/ don't know/ not sure ³☐

18. Do you think that there are enough good places for young children (age 0-6) to play in your local area? (Tick one only)

Yes ¹☐ No ²☐ Maybe/ don't know/ not sure ³☐

19. How often do you think people in your local area do favours for each other? For example, help with shopping, lending gardening or house tools. (Tick one only)

Often ¹☐ Sometimes ²☐ Rarely ³☐ Never ⁴☐ Don't know/ not sure ⁴☐

20. In the past 30 days, how many of your neighbours have you talked with for 10 minutes or more? (Tick one only)

None ¹☐ 1-2 ²☐ 3-5 ³☐ 6+ ⁴☐ Don't know/ not sure ⁴☐

21. In the past 12 months have you done any of the following? (Tick as many as apply)

- ¹☐ Attended a public meeting
²☐ Met with, called or sent a letter or email to any public representative about a public interest issue
³☐ Volunteered

22. How safe from crime do you feel when walking alone in your local area after dark? (Tick one)

Safe ¹☐ Unsafe ²☐ Don't know/ not sure ³☐

23. Do you think your suburb is a good place in which to live? (Tick one)

Yes ¹☐ No ²☐ Maybe/ don't know/ not sure ³☐

24. Do you think your suburb is a good place in which to bring up young children? (Tick one)

Yes ¹☐ No ²☐ Maybe/ don't know/ not sure ³☐

Please place any additional comments in this box

End of survey. Thank you for your time.

Appendix H

Focus group questions template (semi-structured)

Social capital:

I'd like to ask you some questions about your community and your neighbourhood. There are no right or wrong answers. For some of these questions it might be about your own experiences or it might be just what you understand about where you live.

Firstly I'd like to explore a little about how people get on in your neighbourhood.

1. Do neighbours know each other, talk to each other, help each other out with loans of tools etc? E.g. are people friendly to each other?
2. Are there enough opportunities for people to attend free events or participate in free or low-cost activities in your local area (e.g. free outdoor concerts, local football games etc)? What about activities specifically for young children?
3. Do you think your local area is a safe place to live and bring up young children? Would you recommend it to other families with young children?
4. Are adults in your local area good role models for children? Do children respect adults in the community and vice versa? How about teenagers in your local area – are they good role models for younger children?
5. Can adults in your neighbourhood be counted on to watch out for children and keep them safe from danger (like traffic accidents)?
6. Do people in your local area organise and fundraise or fight for things they think are important, like parks, or services, or schools for instance?
7. Do you think people in your local area have an equal opportunity to have a say about things that are going on in the community, and have an equal opportunity to influence how things happen?

Now let's talk about the physical environment: I'd like to know what you think about certain physical aspects of the neighbourhood:

1. Are there good places for young children to play in your local area? Is there enough green space?
2. Is your local area safe in terms of traffic and walking?

Finally, we know that service provision is an important part of what people expect in their neighbourhood. I'd like to ask you what you think about services in your area:

Service domain:

1. Are there good childcare centres, kindergartens and schools in your local area that you are able to access?
2. How about healthcare, are there good doctors and MCHC in your local area or do you need to go to other suburbs?
3. What about services for kids, does your local area have enough in the way of specialised services for kids – like paediatricians, psychologists, speech therapists etc?
4. Are services easy to get into?
5. Do the services in your local area seem to know about each other? For example, if you asked your child's kindergarten or childcare centre to recommend a school for your child, or if you asked your doctor or MCH nurse to recommend a speech therapist or paediatrician for your child, do you think they would know whom to recommend?
6. Did you have a good experience around childbirth in terms of the service provided? For example hospital access and care, post-natal care? Did you use your local hospital (i.e. Sunshine Hospital)? Would you recommend it to others?

Appendix I

Template of semi-structured interview questions for service providers

1. How is your organisation structured?
 - Democratic
 - Membership based
 - Board of management
 - Volunteers
 - Universality vs. Targeting
2. What is your organisation's mandate or mission statement?
3. What kind of work does your organisation do?
 - Advocacy
 - Outreach
 - Service provision
 - Training
 - Welfare
 - Service coordination
4. Is your organisation represented on any key ECD partnership or reference groups?
5. Do you feel your organisation has an equal voice within this group [e.g. at the BEYRG]? Is the group democratic? If not, is it effectively led?
6. Do you believe your organisation has had an influence on local ECD policy, either through the group or other channels, and if so at which stages of the policy process?
7. Do you think the group is an effective mechanism for formulating, managing and implementing local ECD policy within the LGA? What do you think are its strengths and weaknesses?
8. Outside of the group, do you feel that there is adequate service coordination generally within the LGA? How about at the local (suburb) area?
9. Where do you think the policy gaps lie in local ECD policy?
10. Do you have a hypothesis as to why the off-diagonal community under investigation (*e.g. Sunshine North*) is faring better than the neighbouring on-diagonal community (*e.g. Sunshine West*) in AEDI results?
11. What do you believe are the key services operating in the local area that could be influencing children's development?
12. Do you know of any of the following kinds of programs in the LGA:
 - Drug and alcohol or gambling programs
 - Parenting programs
 - School transition programs
 - Antenatal programs
 - PND programs
 - Any other targeted programs to support adults with young children
13. What is your experience of social capital in the local area (suburb level)?

Appendix J

TABLE 15: Service accessibility, quality and coordination (Sunshine North)

Sunshine North									
Name	Type	Contact	Opening hours per week	Capacity/ waitlist	Accredited/ Licensed	Languages	Low cost/ discount options	Coordination/ partnerships	<5 minutes to PT
Medical									
McIntyre Rd Clinic	GP	96 McIntyre Rd Sunshine Nth (03) 9311 2979/ (03)9311 3466	46 (1.1 EFT)	Open to new patients	✓Accredited	English, Tamil	✓Bulk Billing for all patients	No	✓<5 mins to bus stop
Sunshine Nth Surgery	GP	68 McIntyre Rd Sunshine Nth (03) 9311 5977	48 (1.2 EFT)	Open to new patients	✓Accredited	English	✓Bulk billing for health care card holders, pensioners and children <17	No	✓<5 mins to bus stop
Sunshine City Medical Centre	GP	423 Ballarat Rd Sunshine Nth (03) 9312 3000	75 (1.9 EFT)	Open to new patients	✓Accredited	English	✓Bulk Billing for all patients	Pharmacy and specialists co-located	✓<5 mins to bus stop
Childcare									
Early Learning Kinders & Childcare	Childcare	457 Ballarat Rd Sunshine Nth (03) 9311 9311	60 hrs wk (1.5 EFT)	2 vacancies in 0-18 months & 18-24 months rooms 2 waitlisted in 3- 4 yr room &	Accreditation pending	English Vietnamese Arabic	\$67 per day ✓\$275 wk	Open transition with local schools	✓<5 mins to bus stop
Jigsaw Childcare	Childcare	185 Phoenix St Sunshine Nth (03) 9312 7896	57.5 (1.45 EFT)	120 places 85% capacity No kindergarten	✓Accredited	English Vietnamese Some Chinese (sic)	Under 3s: \$67 per day ✓\$295 per week Over 3s: \$64 per day ✓\$285 per week	School transition assistance only if requested Partnership with Phoenix St kinder – children walked there for kinder program Partnership with Vic Uni language school which pays for childcare while new migrant parents attend language school	✓<5 mins to bus stop
Phoenix Street	Childcare	80 Phoenix St Sunshine Nth	55 hrs wk (1.4 EFT)	55 place 100% full	✓Accredited	English Serbian	\$57 per day ✓\$260 per week	Co-located with North Sunshine	✓<5 mins to bus stop

Sunshine North									
Name	Type	Contact	Opening hours per week	Capacity/ waitlist	Accredited/ Licensed	Languages	Low cost/ discount options	Coordination/ partnerships	<5 minutes to PT
Children's Centre		(03) 9310 2929 Phoenix.st.cc@kindergarten.vic.gov.au		33 kids waitlisted		Maltese		kinder but separate entities	
Kindergarten									
Phoenix Street Children's Centre	Kindergarten	80 Phoenix St Sunshine Nth (03) 9310 2929 Phoenix.st.cc@kindergarten.vic.gov.au	11 hrs wk (0.3 EFT)	15 x 4 yr olds 100% full 12 kids waitlisted	✓Accredited/ Licensed	English Serbian Maltese	\$57 per day ✓\$260 per week (within long day care – no extra costs for kinder).	Co-located with North Sunshine kinder but separate entities	✓<5 mins to bus stop
Early Learning Kinders & Childcare	Kinder	457 Ballarat Rd Sunshine Nth (03) 9311 9311	42.5 (1.1 EFT)	2 waitlisted in 4 yr kinder room 4 yr kinder 30 places	Accreditation pending	English Vietnamese Arabic	\$67 p.d. ✓\$275 wk	Open transition with local schools	✓<5 mins to bus stop
Dorothy Carlton Preschool (BPA)	Preschool	47 Furlong Rd Sunshine Nth (03) 9311 7613 dorothy.carlton.kin@kindergarten.vic.gov.au	25 hrs (0.6 EFT)	2 x 4 yr groups 1 x 3 yr group 4 yrs = 52 kids, full, no waitlist 3 yrs = 22 kids, full, 1 x waitlisted	✓Licensed	Bilingual Vietnamese staff (assistant and leader)	\$135 term ✓Free for health care card holders	✓School transition partnerships	✓<5 mins to bus stop
North Sunshine Kinder (BPA)	Kinder	Phoenix St Sunshine Nth (03) 9311 4130 north.sunshine.kin@kindergarten.vic.gov.au	20 hrs (0.5 EFT)	2 x 4 yr groups 56 kids, full, no waitlist	✓Licensed	Bilingual Vietnamese assistant	\$140 term ✓Free for health care card holders	Co-located with Phoenix St Childcare but separate entities ✓School transition partnerships	✓<5 mins to bus stop
Furlong Park Pre-school for Deaf Children	Preschool	Cnr Furlong Road & Cooke Avenue, Sunshine North (03) 9312 3244 furlong.park.ds@edumail.vic.gov.au	50 hrs (1.3 EFT)	100% full 2 waitlisted Children with diagnosed hearing loss only	✓Licensed	English Auslan	\$300 p.a. No discounts	Co-located with Aurora Early Intervention Centre	✓<5 mins to bus stop
Schools									
Sunshine Nth P.S.	Govt primary school	65 Suffolk Road Sunshine Nth (03) 9311 2400	32 hrs (0.8 EFT)	299 kids, not full 23 kids per class cap No zoning restrictions	✓	In-class ESL support (aides) for funded kids	✓EMA	Playgroups YMCA after hours activity program After school care/ vacation care School transition programs with	✓<5 mins to bus stop

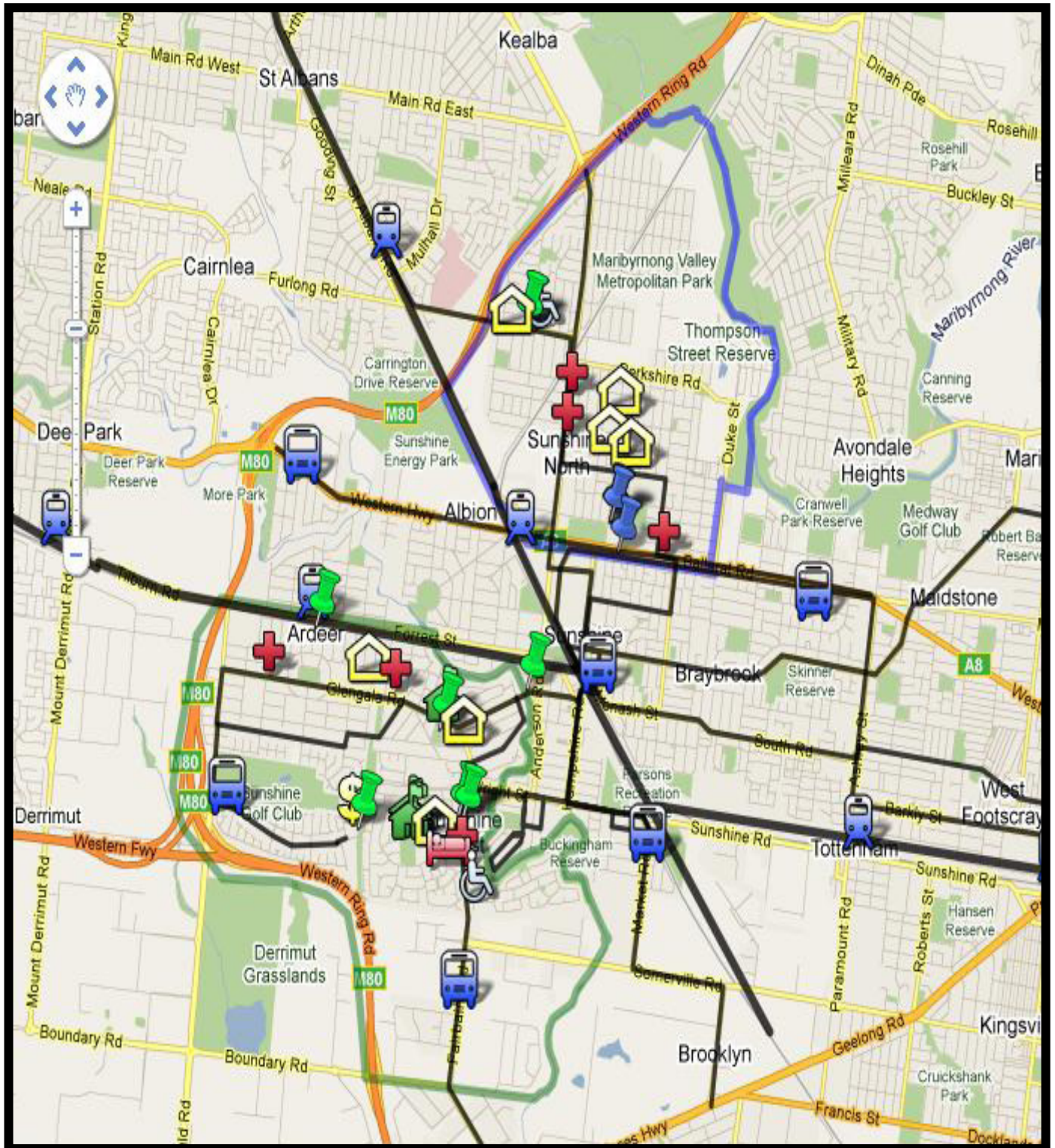
Sunshine North									
Name	Type	Contact	Opening hours per week	Capacity/ waitlist	Accredited/ Licensed	Languages	Low cost/ discount options	Coordination/ partnerships	<5 minutes to PT
								local EYS	
Sunshine Christian P.S.	Christian Primary School	Westmoreland & Warwick Rds, Sunshine Nth (03) 9312 1253	33 hrs (0.8 EFT)	No zoning restrictions 80 kids, 94 capacity, next years preps full and waitlist applies Composite classes, 24 kids to a class, 2 staff (teacher & aide)	✓	In-class ESL support including support for non-funded kids	Fees \$2,400 p.a. ✓ Reduced fees + EMA for HCC or reduced fees for individual circumstances	1-2 kids use St Bernadette's after school care program	* =>5 mins walk to transport
St Bernadette P.S.	Catholic primary School	Willey St, Sunshine Nth (03) 9311 8872	33 hrs (0.8 EFT)	Parish members only 364 kids, full No class caps	✓	In-class ESL support including support for non-funded kids	Fees \$800 per family per annum ✓ EMA for HCC	Before and after school program run by Academy for Kids	✓ <5 mins to bus stop
Albion Nth P.S.	Govt primary school	67-73 Furlong Rd, Sunshine Nth (03) 9312 5900	31 hrs (0.75 EFT)	No zoning restrictions 230 kids, 250 capacity Caps: preps – 20 1-2s – 25 3-6s – 27	✓	In-class & out-class ESL support including support for non-funded kids (ESL teacher 4 days a week)	✓ EMA for HCC	No OSHC School transition with local kinders	✓ <5 mins to bus stop
Outside School Hours Care (OSHC)									
Sunshine Nth P.S.	After school care	65 Suffolk Road Sunshine Nth (03) 9311 2400/ (03) 9311 9058	13 hrs (0.3 EFT)	65% full: 20 kids on a full day 30 kids capacity	✓ Accredited	English	\$13 per day casual ✓ \$12 per day permanent bookings ✓ CCB reductions	No	✓ <5 mins to bus stop
Academy for Kids @ St Bernadette P.S.	Before and after school care	Willey St, Sunshine Nth 0405 323 357	21 hrs (0.5 EFT)	5-10 kids casual Up to 50 kids (kids taken to Killen St when numbers exceed capacity at St Bernadette's)	✓ Accredited	English Indian (sic)	AM: \$10 PM: \$15 ✓ CCB reductions	1-2 kids from Sunshine Christian School use St Bernadette's after school program	✓ <5 mins to bus stop
Vacation care									
Sunshine Nth P.S.	Vacation care	65 Suffolk Road Sunshine Nth (03) 9311 2400/ (03) 9311 9058	50 (1.3 EFT)	65% full: 20 kids on a full day 30 kids capacity	✓ Accredited	English	\$30 per day + extra for excursions ✓ CCB reductions	No	✓ <5 mins to bus stop

Appendix K

Google Map of services and public transport in the Sunshine area

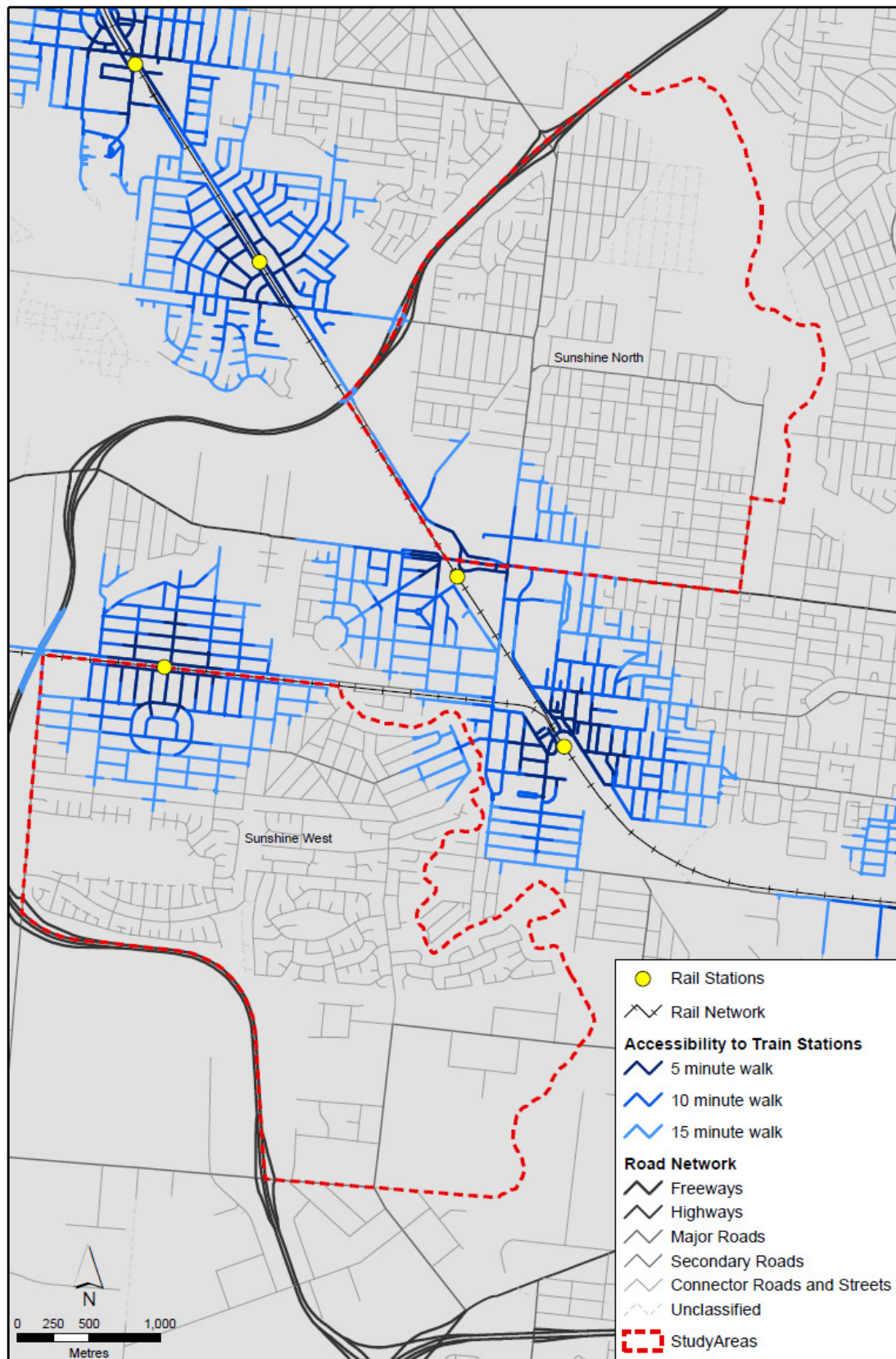
Legend:

Black lines = transport; blue lines = Sunshine Nth border; green lines = Sunshine West border; red crosses = GPs; pin points = childcare and kindergarten; yellow houses = schools; green houses = playgroups.



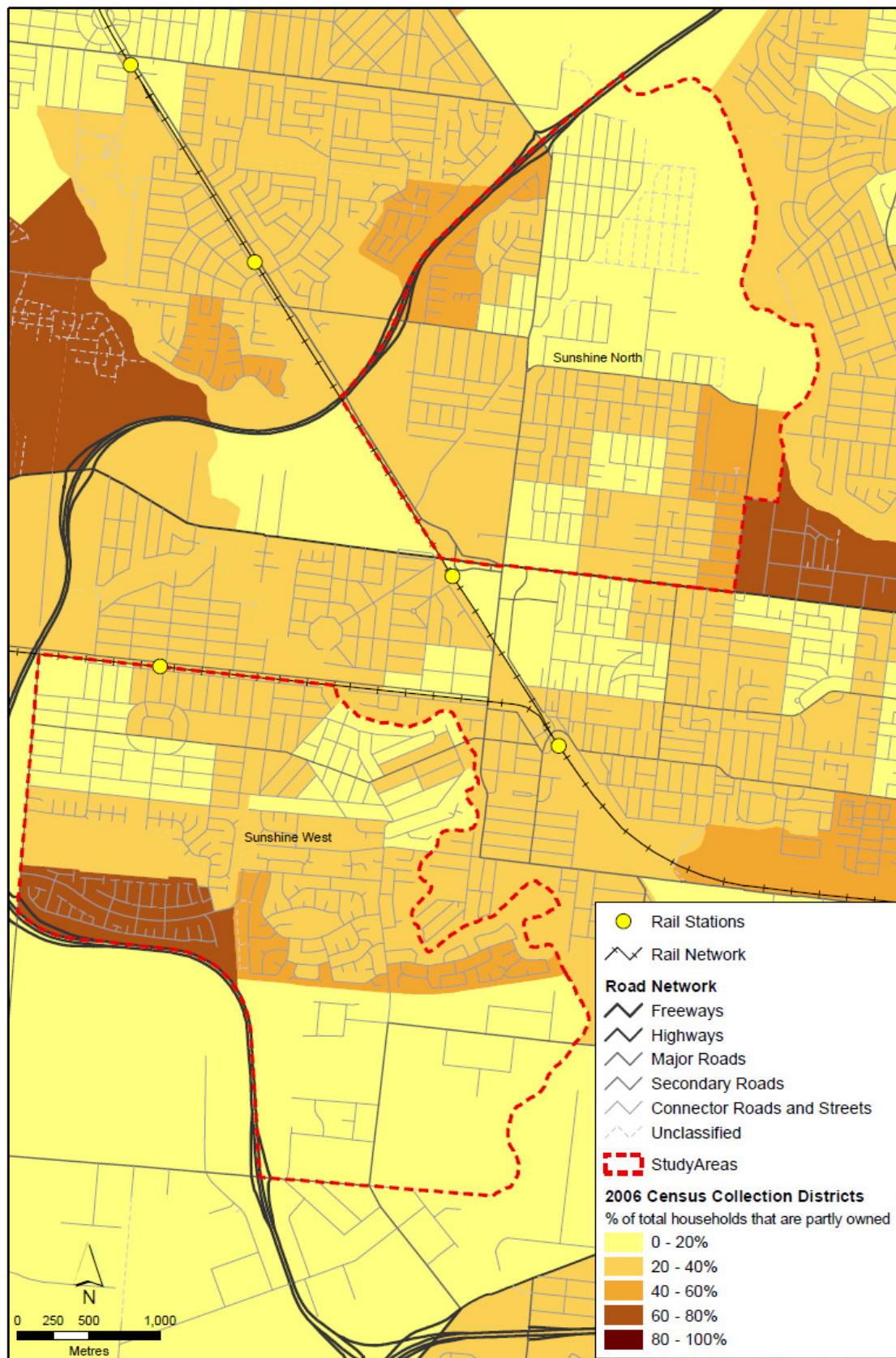
Appendix L

GIS Map - Accessibility to train stations



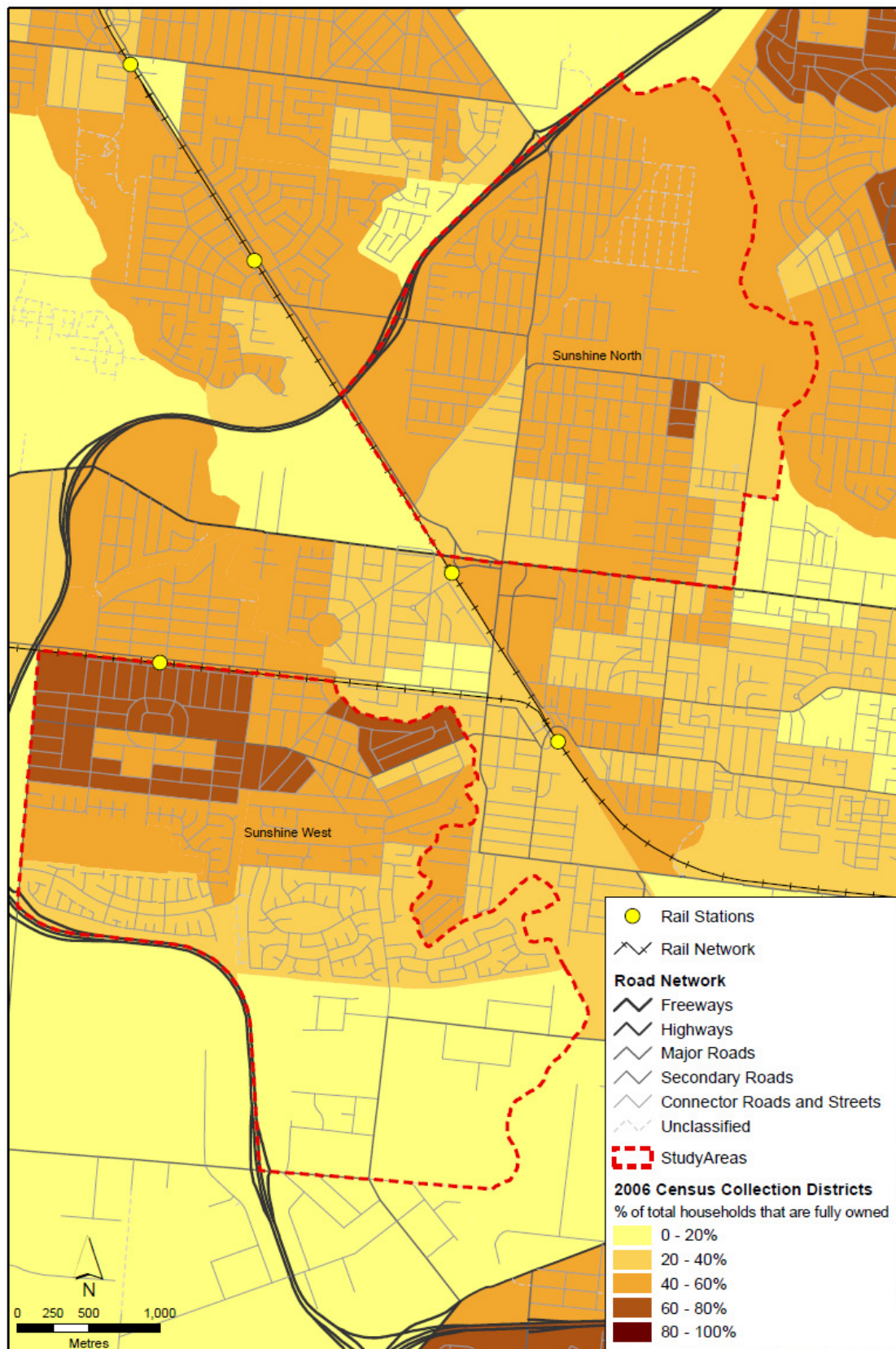
Appendix M

GIS Map - Partly owned households



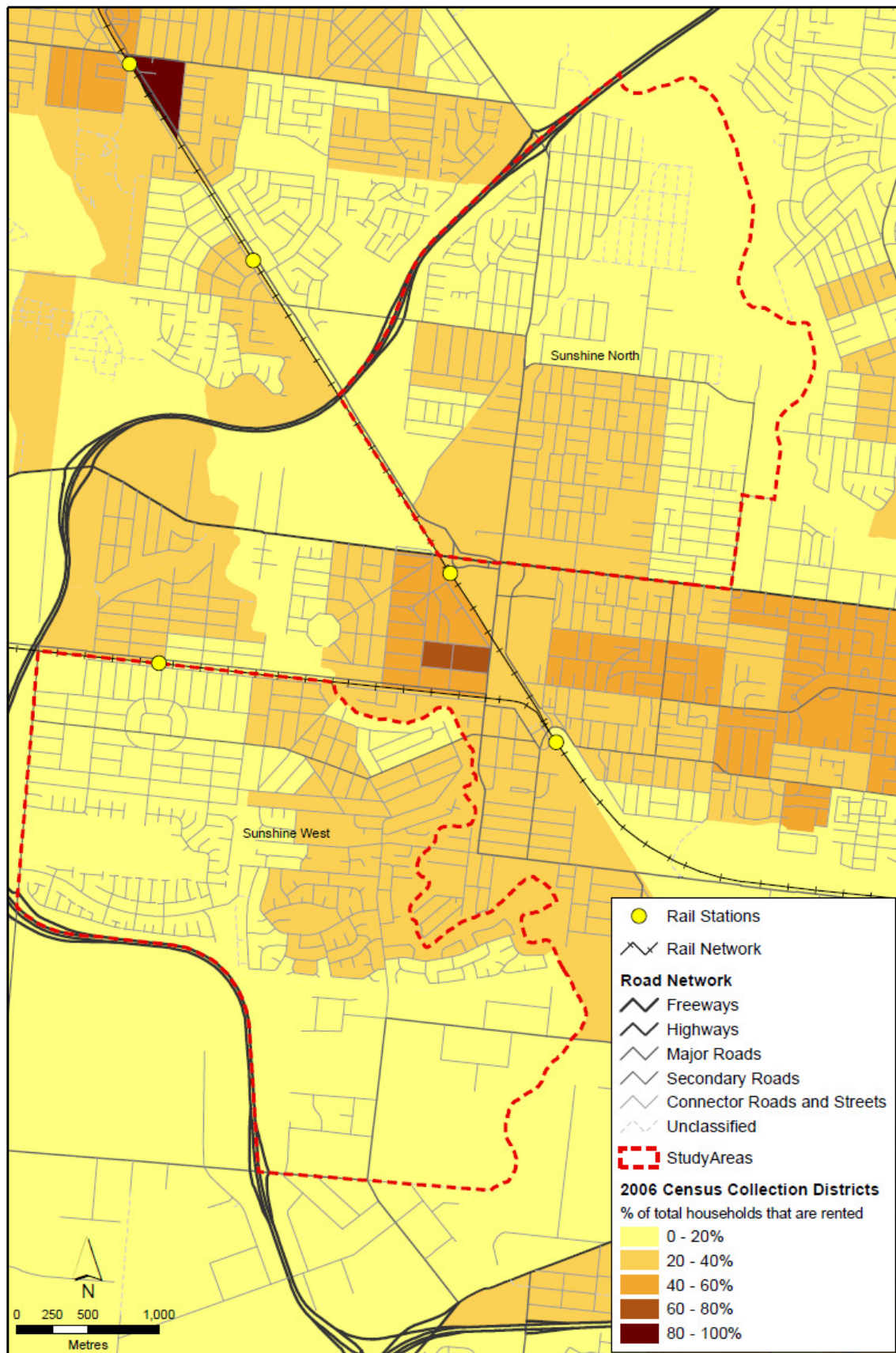
Appendix N

GIS Map - Fully owned households

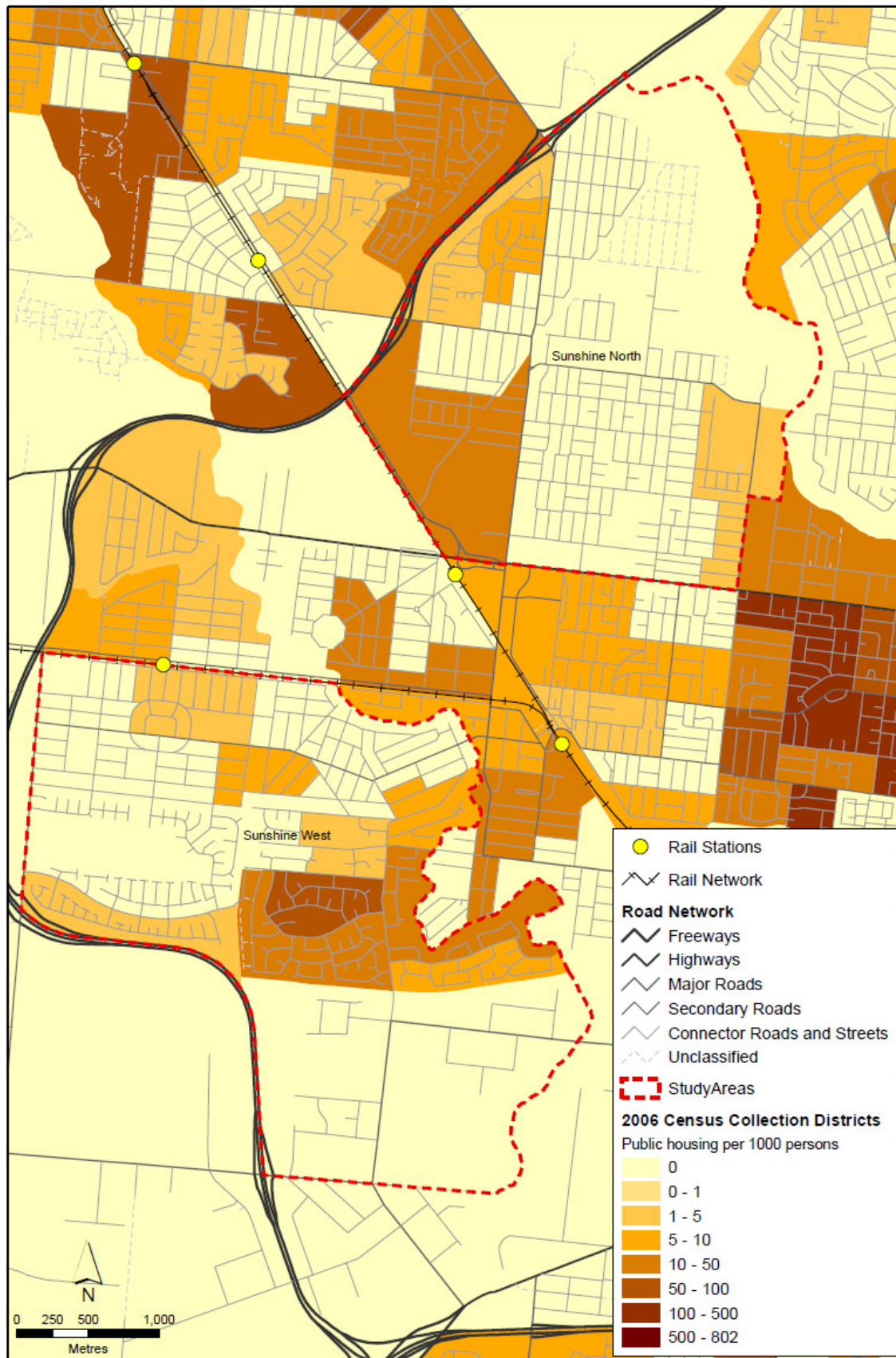


Appendix O

GIS Map - Privately rented households



Appendix P
GIS Map - Public Housing



Appendix Q

Sample page of neighbourhood observations for Sunshine North

Draft Version: Australian version 24th August 2010

Neighbourhood Observational Tool Page 1 of 11

Part 1 – NEIGHBOURHOOD/ LOCAL AREA OBSERVATION SUNSHINE NORTH

CD 2131403

STREETS & FOOTPATHS	
1.	Types of streets (tick all that apply) <input type="checkbox"/> Major thoroughfare/busy street <input checked="" type="checkbox"/> Moderately busy thoroughfare <input checked="" type="checkbox"/> Side street <input type="checkbox"/> Dead end street <input type="checkbox"/> One-way street <input checked="" type="checkbox"/> End of block street (full road closure) <input checked="" type="checkbox"/> Cul-de-sac
2.	Are there any of the following traffic signs? <input type="checkbox"/> Children playing <input type="checkbox"/> School zone <input type="checkbox"/> Reduce speed <input type="checkbox"/> Pedestrian crossing <input type="checkbox"/> Bike route
3.	How many lanes of traffic (not including bike lanes) are there in this area? Number of lanes <u>2</u> (one per direction)
4.	Are there any of the following speed controlling characteristics: <input type="checkbox"/> None <input type="checkbox"/> Speed bumps <input type="checkbox"/> Raised crosswalks <input type="checkbox"/> Chicanes <input checked="" type="checkbox"/> Roundabout <input checked="" type="checkbox"/> Reduced speed limit posted <input checked="" type="checkbox"/> School/playground zone <input type="checkbox"/> Other (Specify):
5.	What is the traffic flow in this area? <input type="checkbox"/> Very light <input checked="" type="checkbox"/> Light <u>side streets</u> <input checked="" type="checkbox"/> Moderate <u>main streets</u> <input type="checkbox"/> Heavy <input type="checkbox"/> Very Heavy
6.	How would you rate the condition of the street surfaces in this area? <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input checked="" type="checkbox"/> Good <input type="checkbox"/> Excellent <input type="checkbox"/> Under construction (describe construction: e.g. fixing potholes, adding traffic calming)
7.	How would you rate the condition of the footpaths in this area? <input type="checkbox"/> No footpaths <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input checked="" type="checkbox"/> Good <input type="checkbox"/> Excellent <input type="checkbox"/> Under construction

Appendix R

Walkability audit for Sunshine North

Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

Location of walk SUNSHINE
NORTH CD 213 1403

Rating Scale: 1 2 3 4 5 6
awful many problems some problems good very good excellent

1. Did you have room to walk?

- ☒ Yes ☐ Some problems:
- ☐ Sidewalks or paths started and stopped
 - ☐ Sidewalks were broken or cracked
 - ☐ Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
 - ☐ No sidewalks, paths, or shoulders
 - ☐ Too much traffic
 - ☐ Something else _____
- Locations of problems: _____

Rating: (circle one)

1 2 3 4 5 6

2. Was it easy to cross streets?

- ☒ Yes ☐ Some problems:
- ☐ Road was too wide
 - ☐ Traffic signals made us wait too long or did not give us enough time to cross
 - ☐ Needed striped crosswalks or traffic signals
 - ☐ Parked cars blocked our view of traffic
 - ☐ Trees or plants blocked our view of traffic
 - ☐ Needed curb ramps or ramps needed repair
 - ☐ Something else _____
- Locations of problems: _____

Rating: (circle one)

1 2 3 4 5 6

3. Did drivers behave well?

- ☒ Yes ☐ Some problems: Drivers...
- ☐ Backed out of driveways without looking
 - ☐ Did not yield to people crossing the street
 - ☐ Turned into people crossing the street
 - ☐ Drove too fast
 - ☐ Sped up to make it through traffic lights or drove through traffic lights?
 - ☐ Something else _____
- Locations of problems: _____

Rating: (circle one)

1 2 3 4 5 6

4. Was it easy to follow safety rules?

Could you and your child...

- ☒ Yes ☐ No Cross at crosswalks or where you could see and be seen by drivers?
- ☒ Yes ☐ No Stop and look left, right and then left again before crossing streets?
- ☒ Yes ☐ No Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
- ☒ Yes ☐ No Cross with the light?
- Locations of problems: _____

Rating: (circle one)

1 2 3 4 5 6

5. Was your walk pleasant?

- ☒ Yes ☐ Some unpleasant things:
- ☐ Needed more grass, flowers, or trees
 - ☐ Scary dogs
 - ☐ Scary people
 - ☐ Not well lighted
 - ☒ Dirty, lots of litter or trash (a little)
 - ☐ Dirty air due to automobile exhaust
 - ☐ Something else _____
- Locations of problems: _____

Rating: (circle one)

1 2 3 4 5 6

How does your neighborhood stack up? Add up your ratings and decide.

1. ✓ 26-30 Celebrate! You have a great neighborhood for walking.
2. _____ 21-25 Celebrate a little. Your neighborhood is pretty good.
3. _____ 16-20 Okay, but it needs work.
4. _____ 11-15 It needs lots of work. You deserve better than that.
5. _____ 5-10 It's a disaster for walking!

Total 29

Now that you've identified the problems,
go to the next page to find out how to fix them.

Appendix S

Governance interview questions template (semi-structured)

1. What organisations and govt bodies are involved in your partnership/ reference group (*e.g. the BEYRG for the Sunshine area*)?
2. Who attends? CEOs, decision-makers? Or grass roots community staff?
3. How representative is the group of the key stakeholders in the area?
4. How effective/ active are its public partners?
5. Are there any elected officials involved in your group? E.g. M.P., Cr?
6. Does the group facilitate coordination across govt?
7. How are partners selected?
8. What is the capacity of the partners (resources, access to knowledge, ability to mobilise etc.)?
9. How are the group and its activities funded? What is its operating budget?
10. How would you describe the organisational culture of the group? (Trust, reciprocity, consensual, etc.)
11. What is the awareness level of Early Childhood Development (ECD) in the local community?
12. How effective do you think the group has been in raising public awareness of ECD?
13. Are there ways for citizens to participate in the group's activities and ECD policy? (I.e. are there public discussions, workshops, town hall meetings, focus groups, surveys, web-based forums, etc.)?
14. If so, which citizens participate? (I.e. gender, race, ethnicity, class, age, sexuality, ability, citizenship status)
15. What would you say are the key strengths of your group?
16. What are your main challenges?
17. How (if at all) have AEDI results influenced your work?
18. How has the ECD policy agenda changed in the last 10 years?
19. Where gaps do you think there are?
20. What is the budget for ECD-related programs?

Appendix T

Governance group observation guide

1. Is the group more service oriented or advocacy oriented?
2. Who are the partners? Who is missing?
3. What does the group tell us about levels and forms of social capital? (I.e. is social capital weak or strong? Hierarchical? Bridging? Bonding?)
4. How/ to what extent does the group use AEDI results and other ECD research?
5. Does the group seem oriented to a specific scale of government or does it work across multiple scales?
6. Does one (or several) partner dominate? (If so, is it a public or community partner?)
7. What is the group's policy orientation? (Universality vs. targeting; family-focused vs. child-focused; etc)
8. What are the main priorities of the group?
9. What kinds of resources does the group have access to?
10. What does the organisational culture of the table seem to be?

Appendix U

Kids in Communities Study collaborator details

Dr Sharon Goldfeld FRACP FAFPHM PhD (CI)

- Paediatrician
Centre for Community Child Health
Royal Children's Hospital Melbourne (Vic)
- Postdoctoral Research Fellow
NHMRC Capacity Building Grant
Murdoch Children's Research Institute (Vic)
- Senior Fellow
University of Melbourne
- National Director
Australian Early Development Index
Centre for Community Child Health (Vic)

Sally Brinkman

- Senior Research Fellow
Curtin University's Centre for Developmental Health & Telethon's Institute for Child Health Research
University of Western Australia
- Epidemiologist and Senior Research Officer
AEDI National Program
Centre for Community Child Health (Vic)

Prof Ilan Katz

- Acting Director
Social Policy Research Centre
University of New South Wales

A/Prof Paul Kershaw

- Director of the Social Care and Social Citizenship Network
Human Early Learning Partnership
University of British Columbia (Canada)

Robert Tanton

- Principal Research Fellow
National Centre for Social and Economic Modelling (NATSEM)
University of Canberra

Prof John Wiseman

- Chair of Health Promotion & Director
McCaughey Centre: VicHealth Centre for the Promotion of Mental Health and Community Wellbeing
University of Melbourne

A/ Prof Geoffrey Woolcock

- Urban Research Program
Associate Professor, Urban Policy & Management
Griffith University

Shiji Zhao

- Assistant Director
Analytical Services Branch
Australian Bureau of Statistics (PI)

Appendix V

Census Variables and SEIFA IRSD

The Census variables used in this analysis were created from the 2006 Census, and specified to match the variables used to create the published 2006 SEIFA IRSD, as closely as possible. (Note that the variables used for this analysis were created at SSC-level, however the variables used for the published SEIFA IRSD were created at CD-level. SSCs are created by combining one or more CDs, so variables created at these different levels are conceptually different.) For more detail on the published SEIFA IRSD variables, please refer to the 2006 SEIFA Information Paper (ABS cat. no. 2039.0) and 2006 Technical Paper (ABS cat. no. 2039.0.55.001). For more detail on the 2006 Census data items, please refer to the Contents page of the Census dictionary online (ABS cat. no. 2901.0).

Mnemonic	Census Variables (area-level, SSC)
NONET	Proportion of Occupied private dwellings with no internet connection
OCC_LABOUR	Proportion of Employed people classified as Labourers
NOQUAL	Proportion of People aged 15 years and over with no post-school qualifications
INC_LOW	Proportion of People with stated annual household equivalised income between \$13,000 and \$20,799 (approx. 2nd and 3rd income deciles)
RENT_SOCIAL	Proportion of Households renting from Government or Community organisation
UNEMPLOYED	Proportion of People (in the labour force) unemployed
ONEPARENT	Proportion of One parent families with dependent offspring only
LOWRENT	Proportion of Households paying rent less than \$120 per week (excluding \$0 per week)
DISABILITYU70	Proportion of People aged under 70 who have a long-term health condition or disability and need assistance with core activities
NOCAR	Proportion of Occupied private dwellings with no car
INDIGENOUS	Proportion of People who identified themselves as being of Aboriginal and/or Torres Strait Islander origin
OVERCROWD	Proportion of Occupied private dwellings requiring one or more extra bedrooms (based on Canadian National Occupancy Standard)
SEP_DIVORCED	Proportion of People aged 15 years and over who are separated or divorced
OCC_DRIVERS	Proportion of Employed people classified as Machinery Operators and Drivers
NOSCHOOL	Proportion of People aged 15 years and over who did not go to school
OCC_SERVICE_L	Proportion of Employed people classified as Low Skill Community and Personal Service Workers
ENGLISHPOOR	Proportion of People who do not speak English well

- ¹ Kershaw, P., Forer, B., Lloyd, J. E. V., Hertzman, C., Boyce, W. T., Zumbo, B. D., Guhn, M., Milbrath, C., Irwin, L. G., Harvey, J., Hershler, R., and Smith, A. 2009. 'The use of population-level data to advance interdisciplinary methodology: a cell-through-society sampling framework for child development research', *International Journal of Social Research Methodology*. 1-16.
- ² Jeon M.J., Lee G., Hwang J.W., Kang S.J. 2009. Estimating reliability of school-level scores using multilevel and generalizability theory models. *Asia Pacific Education Review*. 10:149-158.
- ³ Carpiano, Richard M., Kershaw, Paul, & Ostry, Aleck. 2010. Neighbourhood-based Social Capital and Human Development in British Columbia Survey. Unpublished survey instrument. University of British Columbia, Vancouver, BC Canada.
- ⁴ Edwards B. 2006. 'Views of the village: Parents' perceptions of their neighbourhoods'. *Family Matters*. 74: 26-33.
- ⁵ Moore T. 2005. 'Towards improved support for families of young children: The role of communities'. Presented at the 9th Australian Institute of Family Studies Conference, Melbourne, February 2005. Melbourne: Centre for Community Child Health.
- ⁶ Ibid
- ⁷ Bronfenbrenner, U. 1992. Ecological systems theory. In Vasta R, ed. *Annals of child development. Six theories of child development: Revised formulations and current issues*. London: Jessica Kingsley.
- ⁸ Garbarino, J, Ganzel, B. 2000. *The human ecology of early risk*. In Shonkoff JP, Meisels SJ, eds. *Handbook of early childhood intervention* (2nd Ed.). NY: Cambridge University Press.
- ⁹ Putnam RD. 2000. *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- ¹⁰ Sampson RJ, Morenoff JD, Gannon-Rowley T. 2002. Assessing "Neighborhood Effects": social processes and new directions in research. *Annual Review of Sociology*. 28: 443-478.
- ¹¹ Edwards B, Bromfield LM. 2007. Neighborhood influences on young children's conduct problems and prosocial behavior: Evidence from an Australian national sample. *Children and youth services review*. 31(3): 317-324
- ¹² Goldfeld S, Oberklaid F, Silburn S, Sayers M, Brinkman S. 2005. *Australian Early Development Index: Building Better Communities for Children. Community Results 2004-2005*. Melbourne: Centre for Community Child Health and Telethon Institute for Child Health Research.
- ¹³ Kershaw P, Irwin L, Trafford K, Hertzman C. 2005. *The British Columbia atlas of child development* (1st ed. Vol. 40): Human Early Learning Partnership. Vancouver, BC: Western Geographical Press.
- ¹⁴ Hart B, Brinkman S, Blackmore S. 2003. *How well are we raising our children in the North Metropolitan Area? Early Development Index 2003*. Perth, Australia: North Metropolitan Health Service (WA).
- ¹⁵ Vinson T. 2004. *Community adversity and resilience: the distribution of social disadvantage in Victoria and New South Wales and the mediating role of social cohesion*. Melbourne: Jesuit Social Services, Ignatius Centre for Social Policy and Research.
- ¹⁶ Cadell S, Karabanow J, Sanchez M. 2001. Community, empowerment, and resilience: paths to wellness. *Canadian Journal of Community Mental Health*. 20: 21-35.
- ¹⁷ Sallis J, McKenzie T, Elder J, Broyles S, Nade P. 1997. Factors parents use in selecting play spaces for young children. *Archives of Pediatrics and Adolescent Medicine*. 151(4): 414-17.
- ¹⁸ Christensen P. 2003. Place, space and knowledge: children in the village and the city. In Christensen P, O'Brien M, eds. *Children in the City: Home, Neighbourhood and Community*. London: Routledge/Falmer.
- ¹⁹ Driskell D. 2002. *Creating better cities with children and youth: A manual for participation*. Paris: UNESCO Publishing/Earthscan Publications.
- ²⁰ Collins D, Kearns R. 2001. The safe journeys of an enterprising school: negotiating landscapes of opportunity and risk. *Health and Place*. 7: 293-306.
- ²¹ Zubrick, S. Wood, L. Villanueva, K. Wood, G. Giles-Corti, B. & Christian, H. 2010. *Nothing but fear itself: parental fear as a determinant of child physical activity and independent mobility*. Melbourne: Victorian Health Promotion Foundation (VicHealth).
- ²² Lynch K. 1977. *Growing up in Cities*. Cambridge, MA: MIT Press.
- ²³ Zehner R. 1977. *Indicators of the Quality of Life in New Communities*. Chapel Hill, NC: University of North Carolina.
- ²⁴ Moore R, Young D. 1978. Childhood outdoors: toward a social ecology of the landscape. In Altman I, Wohlwill J, eds. *Children and the Environment*. New York: Plenum Press.
- ²⁵ Michelson W, Roberts E. 1979. Children and the urban physical environment. In Michelson W, Levine S, Spina A, eds. *The child in the city: changes and challenges*. Child in the City Programme, Toronto: University of Toronto Press.
- ²⁶ Berg M, Medrich E. 1980. Children in four neighbourhoods: the physical environment and its effect on play and play patterns. *Environment and Behavior*. 12(3): 320-48.
- ²⁷ Van Vliet W. 1983. Exploring the fourth environment: an examination of the home range of city and suburban teenagers. *Environment and Behavior*. 15(5): 567-88.
- ²⁸ Talen, E. & Coffindaffer, M. 1999. The Utopianism of Children: An Empirical Study of Children's Neighbourhood Design Preferences. *Journal of Planning Education and Research*. 18:321-331.
- ²⁹ Malone, K. 2008. *How child-friendly is my community? A study of the child friendliness of the City of Brimbank*, Wollongong: University of Wollongong.
- ³⁰ Gill, T. 2007. *No Fear: Growing Up in a Risk-Free Society*. London: Calouste Gulbenkian Foundation.; Louv, R.

2008. *Last Child in the Woods: Saving our Children from Nature Deficit Disorder*. Chapel Hill, NC: Algonquin Books.
- ³¹ Richardson, S. & Prior, M. eds. 2005. *No Time to Lose: The well-being of Australia's children*, Melbourne: Melbourne University Press.
- ³² Davison, K.K. & Lawson, C.T. 2006. Do attributes in the physical environment influence children's physical activity? A review of the literature. *International Journal of Behavioral Nutrition & Physical Activity*. 3: 19–35.
- ³³ Cutumisu, N. & Spence, J.C. 2008. Exploring associations between urban environments and children's physical activity: Making the case for space syntax. *Journal of Science & Medicine in Sport*, doi:10.1016/j.jsams.2008.09.002
- ³⁴ American Academy of Pediatrics. 2009. The Built Environment: Designing Communities to Promote Physical Activity in Children. *Pediatrics* 123(6): 1591-1598.
- ³⁵ Tranter, P. & Sharpe, S. 2007. Children and Peak Oil: An Opportunity in Crisis. *International Journal of Children's Rights* 15, 181-197.
- ³⁶ Malone, K. 2007. The bubble-wrap generation: children growing up in walled gardens. *Environmental Education Research* 13 (4): 513-527.
- ³⁷ Walsh, P. 2006. Creating Child-Friendly Play Spaces: A Practitioner's Perspective. In: Gleeson, B. and Sipe, N., eds., *Creating Child Friendly Cities: Reinstating Kids in the City*, London: Routledge, 136-150.
- ³⁸ Gleeson, B. & Sipe, N. eds. 2006. *Creating Child Friendly Cities: Reinstating Kids in the City*, London: Routledge.
- ³⁹ Nordstrom, M. 2010. Children's Views on Child-Friendly Environments in Different Geographical, Cultural and Social Neighbourhoods. *Urban Studies*. 47(8), forthcoming.
- ⁴⁰ Caughy M, O'Campo P, Patterson J. 2001. A brief observational measure for urban neighborhoods. *Health Place*. 7: 225–236.
- ⁴¹ Bradford, N. 2007. Placing Social Policy? Reflections on Canada's New Deal for Cities and Communities. *Canadian Journal of Urban Research*, 16 (2), 1-26
- ⁴² Beauvais, C. and J. Jenson. 2003. *The Well-being of Children: Are There "Neighbourhood Effects"?* Canadian Policy Research Networks (CPRN). http://www.cprn.org/documents/18049_en.pdf (accessed 24 August 2010)
- ⁴³ Gualini, E. 2002. "Institutional Capacity Building as an Issue of Collective Action and Institutionalisation: Some Theoretical Remarks." In *Urban Governance, Institutional Capacity and Social Milieux*. G. Cars et al., eds. Burlington: Ashgate Publishing. 29-44
- ⁴⁴ Graham K. and Phillips, S. eds. 1998. *Citizen Engagement: Lessons in Participation from Local Government*. Toronto: Institute of Public Administration of Canada.
- ⁴⁵ Phillips, S.D. 2001. "SUFA and Citizen Engagement: Fake or Genuine Masterpiece?" *Policy Matters*. Montreal: Institute for Research on Public Policy. pp. 36
- ⁴⁶ Young, R. 2005. *Cities: Issues in Demography, Governance and Finance*. Background Paper, Conference of the Ditchley Foundations: Langdon Hall, Cambridge, Ontario.
- ⁴⁷ Bradford, N. 2007. Placing Social Policy? Reflections on Canada's New Deal for Cities and Communities'. *Canadian Journal of Urban Research*. 16(2): 1-26
- ⁴⁸ Albo, G. 1993. 'Democratic Citizenship and the Future of Public Management' in *A Different Kind of State? Popular Power and Democratic Administration*. 17-33
- ⁴⁹ Bradford, op. cit.
- ⁵⁰ Findlay, T. 2008 (Draft). *Democratic Community Effects: Research Design*. (Unpublished).
- ⁵¹ Brimbank City Council. 2008. *Voluntary Activity in Brimbank: Towards Cross-Cultural Understandings*. Located at <http://www.brimbank.vic.gov.au/Files/VolunteersBooklet.pdf> (accessed 2 August 2010).
- ⁵² Findlay, op. cit.
- ⁵³ Wilson WJ. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University Chicago Press.
- ⁵⁴ Coulton CJ, Pandey S. 1992. Geographic concentration of poverty and risk to children in urban neighbourhoods. *American Behavioural Scientist*. 35: 238-257
- ⁵⁵ Brooks-Gunn J, Duncan GJ, Klebanov PK, Sealander N. 1993. Do neighborhoods influence child and adolescent development? *American Journal of Sociology*. 99(2): 353-95
- ⁵⁶ Kalff AC, Kroes M, Vles JSH, Hendriksen JGM, Feron FJM, Steyaert J, Van Zeben TMCB, Jolles J, van Os J. 2001. Neighbourhood level and individual level SES effects on child problem behaviour: A multilevel analysis. *Journal of Epidemiology & Community Health*. 55: 246-250
- ⁵⁷ European Commission. 1994. *European Social Policy – A Way Forward for the Union*. A White Paper. Cited in Oppenheim C, Harker L. 1996. *Poverty: the facts*. London: Child Poverty Action Group, p. 156
- ⁵⁸ Harding A, McNamara J, Tanton R, Daly A, Yap M. 2006. *Poverty and disadvantage among Australian children: a spatial perspective*. 29th General Conference of the International Association for Research in Income and Wealth, Joensuu, Finland.
- ⁵⁹ Shaw M, Dorling D, Davey Smith G. 2006. Poverty, social exclusion, and minorities. In Marmot M, Wilkinson RG, eds. *Social Determinants of Health 2nd Edition*. New York: Oxford University Press.