# THE STATE OF LOGAN'S CHILDREN AND FAMILIES VOLUME 3

Summary and update

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16





# TABLE OF CONTENTS

Introduction	
We need to act	
We need to do things differently	6
We need to understand Logan	8
Children in Logan	
Logan is growing and changing	
Aboriginal and Torres Strait Islander children	
Employment	
Family incomes	
Disability	
It starts in pregnancy	
Perinatal risk factors	23
Families are where it all happens	24
Parent support for learning	
AEDC data tells us how our children start school	
Logan AECD data	
Transition to school	
NAPLAN gives an insight into the primary school years	
Closing the NAPLAN gap	
Some areas really need our attention	



# Introduction

Logan Together is 10-year community movement to ensure Logan kids grow up as healthy and full of potential as any other group of Queensland children. This will be achieved via a cross-sector, collaborative partnership of government agencies, service providers, and community representatives committed to using a placebased, Collective Impact framework to establish shared aspirations and goals, prioritise investment decisions and identify "game changing" programs.

Community listening and consultation will drive mobilisation campaigns within Logan. Mobilising the community around the information and actions that make a difference to kids at each life stage is crucial to creating sustainable, long term change in Logan.

Logan Together has emerged in response to concerns about persistent disadvantage and developmental vulnerability for many children in Logan.

The State of Logan's Children and Young People Volume 3 report brings together relevant data to help identify where effort and investment can best be targeted to achieve real change for vulnerable children and families in Logan.

#### **CAREFULLY ANALYSING DATA GIVES US CLEAR DIRECTION**

The data analysis and information brought together in Volume 3 provides powerful insights to inform the work of Logan Together and of communities, organisations, governments and policy makers.

This summary document highlights some of the key data from the Volume 3 report to help policy makers, planners and service providers to hone their work in Logan. It reinforces the need to change the way we work in Logan, clearly reminding us that:

1 Too many Logan children are developmentally vulnerable, placing them at significant risk of long-term, inter-generational poverty and disadvantage

We estimate there are more than 14,265 0-8 year old children in Logan who are likely to be developmentally vulnerable – that's 31.7% of Logan's children.

#### 2 Children in particular parts of Logan are much more likely to be vulnerable, due to concentrated social disadvantage in their local communities

Children in some Logan suburbs are much more likely to be at risk – we identify the current Top 10 at-risk suburbs in our report. Targeting our interventions in these communities through place-based approaches make sense,

#### 3 Acting early to address causal factors in these communities will improve children's prospects

Addressing pre-natal, ante-natal and early childhood risks will lead to significant improvement in outcomes over the course of children's lives.

#### 4 We can make a big difference if we act together

together

To bring Logan children up to Queensland and Australian benchmarks we need to improve the situation of approximately 5,000 children by 2025. Pooling our resources, efforts and knowledge makes this very achievable.

#### The full report is available at www.logantogether.org.au for download. It presents comprehensive evidence about the need for intervention and the opportunities for improvement.

## THIS SUMMARY REPORT IS JUST THE START

This summary report extracts highlights from the full report, and updates some of the data with 2016 Census information and other more current sources.

#### This summary report outlines:

- Why we need to act
- Why we need to do things differently
- What's going on in Logan
- How we are going in pregnancy
- How we are going in families
- How we are going in early childhood
- How we are going at school
- Where we should focus our efforts
- Where to find more information.

For more detailed data, please see the full report at www.logantogether.org.au

Where possible we have updated the data with current information, however statistics date guickly. Visit the Australian Bureau of Statistics website or Logan City Council's excellent online community profile for updated information.





# We need to act

# We need to close the gap in healthy development for Logan children.

The Australian Early Development Census (AEDC) data for 2015 tells us that there is a gap between the figures for Logan children and national and state figures. Based on the AEDC survey of prep children, we estimate that 31.7% of children in Logan are vulnerable in one or more areas of their development while 17.2% are vulnerable in two or more areas.

This means around 14,265 0-8 year olds in Logan are vulnerable in one or more areas of development: social, physical, emotional, language or cognitive or communication, while approximately 7,740 are vulnerable in two or more of these areas. These children are likely to need extra help to reach their potential.

We need to intervene early to make sure we reduce the number of children who are developmentally vulnerable in future years. We can increase the chances of success for Logan's current and future babies, toddlers and pre-schoolers.

#### **OUR STARTING POINT**

Here's some baseline numbers on a range of important issues across the lifecourse.

FIGURE I: CLOSING THE GAP FOR LOGAN'S CHILDREN							
31./% rulnerable on or more AEDC domains		Smoking in later pregnancy	Low number of antenatal visits	Children from families with low parent support for learning	Children develop- mentally vulnerable at age 5	Not meeting minimum standards in NAPLAN in year 3	Achieving in the top 2 bands in NAPLAN in year 3 (2014)
vulnerable on	Logan %	14.5%	10.5%	12.7%	31.7%	8%	28.9%
domains	Estimated Logan number	690 mothers p.a.	500 mothers p.a.	5,300 of all 0-8 year olds	1400 prep children p.a or 13,400 of all 0-8 year olds in Logan	230 Year 3 children	1,370 Year 3 children
0-8 year olds evelopmentally vulnerable	Queensland %	12.6%	4.9%	7.5%	26%	5.4%	39.8%
	To reach Queensland standards each year we need:	Support 90 more women to maintain healthful habits in pregnancy p.a.	Better maternity care for 265 women p.a.	Build parent support for learning in the families of 2,200 children 0-8	Reduce vulnerability for 2,400 kids out of the total population of 0-8 year olds	Improve results for 75 year 3 children each year	555 more year 3 children in the top 2 bands each year

-9 months

690 mothers smoking in later pregnancy

**5,300** of all 0-8 year olds from families with low parent support for learning

🕂 tögether

500 mothers with low number of antenatal visits

> 14,265 0-8 year olds developmentally vulnerable

8 years

230 Year 3 children not meeting minimum standards in NAPLAN

> 1,370 kids achieving in Top 2 Bands in NAPLAN

**Figure 1** This figure shows how many parents and children we would need to help in order to improve outcomes and reduce risk factors for children in Logan to Queensland levels or better. Improvements required range from relatively small (e.g. reduce smoking rates in late pregnancy by less than 8%) to much more ambitious (e.g. halve the number of women receiving inadequate antenatal care). This data has informed the big goals we're collectively seeking through Logan Together's Roadmap. Our targets don't take population increases into account.



# We need to do things differently

#### We need to change our approach so we can achieve real change for vulnerable children.

In Australia, as elsewhere, current social investment is skewed heavily towards responding to immediate challenges that manifest across society. We have homelessness programs to deal with homelessness, jobs programs to deal with joblessness, family support programs to deal with families in crisis, young offender programs, mental health programs, drug programs ... the list goes on. Demand for these services is increasing faster than population growth. These initiatives - as worthy and well delivered as many are - are focussed on ameliorating the consequences of marginalisation and disadvantage. Too few are concerned with addressing the causes.

There is well-documented evidence about the benefits of intervening early in order to disrupt the accumulation of developmental vulnerabilities and social disadvantage. Logan Together's ecological data analysis strongly supports the claim that poor

maternal and perinatal health and lack of preventative work in early childhood correlate strongly with delays and difficulties later in the life cycle. It reflects broader research findings that complex and intractable social disadvantage is multidimensional, interdependent and cumulative. Early intervention can reduce developmental vulnerabilities and the accumulation of social disadvantage.

For example, Nobel Prize winning economist, James Heckman from the University of Chicago, argues that intervening early in the life of disadvantaged children will yield much higher cost-benefits than trying to fix problems later in life. The "Heckman Curve" diagram in Figure 2 below shows how the return on investment for pre-natal and early years programs are much higher than investments at school age or beyond.

The argument for early childhood programs is reinforced by many other researchers. In a meta-analytic review of a range of early years prevention programs, a Griffith University team found that programs like structured pre-school, home visitation, family support and parent education had significant benefits on development, education success and wellbeing that lasted into adulthood. As shown in Figure 3 below, improvements in outcomes in adolescence were very significant across a range of factors – the overall effect was equivalent to a 61% improvement compared with control groups.



#### FIGURE 3: MEAN EFFECT SIZE OF EARLY YEARS PROGRAMS ON ADOLESCENT OUTCOMES



Source: Manning, Homel & Smith, A meta-analysis of the effects of early developmental prevention programs in at-risk populations on non-health outcomes in adolescence, 2010, p. 512.

#### FIGURE 2: THE HECKMAN CURVE - return on investment from interventions at life stages





# We need to understand Logan

#### There are more than 42,000 children aged 0-8 in Logan right now. In the next few years this will grow to 45,000 or more.

Logan Together is focused on children aged 0-8. The 2016 Census tells us there were 42,202 children aged 0-8 in Logan City. So where are they? **Figure 4** and **Table 1** show the distribution of children in Logan's SA2 statistical areas.

Some areas have more children (in number and/or percentage terms) than others – for example Jimboomba (our largest SA2) has the highest number at 3,890 while Marsden has the highest percentage at 18,4% of the area's population.

The data used in our full report is at the level of Statistical Area 2. Breaking this down even further to suburb or SA1 level shows even more detail of how children are distributed. For example, in the emerging suburb of Yarrabilba in 2016, 24% of the suburb's 3,580 people were aged 8 or under. This compares with 14.3% (1,889 children) for Jimboomba.

## WHAT'S AN SA2?

On average

SA2s have a

population of

approximately

The Australian Bureau of Statistics defines Statistical Areas Level 2 (SA2s) as medium-sized general purpose areas that aim to represent a community that interacts together socially and economically.

10,000 people 42,202 24% children aged 0-8 of the suburb's in Logan City 3,580 people 45,000+ were aged 8 or under expected by 2025 18.4% Most are designed 3,890 to be within the children aged 0-8 children aged 0-8 population range of the area's population in Jimboomba 3,000-25,000 reside in Marsden

SA2s include one or two suburbs

> There are **30** SA2s in Logan, shown in the map at Figure 4



#### FIGURE 4: MAP OF LOGAN SA2S WITH DISTRIBUTION OF O-8 YEAR OLDS





STATISTICAL AREA	0-4	0-8	0-14	Total population	0-8%
Queensland	296,466	549,684	912,701	4,703,193	11.7%
Logan LGA region	23,109	42,202	68,533	303,386	13.9%
Jimboomba	2,057	3,890	6,473	25,744	15.1%
Marsden	1,467	2,661	4,178	14,447	18.4%
Regents Park - Heritage Park	1,281	2,311	3,734	15,934	14.5%
Crestmead	1,158	2,110	3,402	11,989	17.6%
Rochedale South – Priestdale	1,181	2,057	3,261	15,452	13.3%
Woodridge	1,124	1,894	3,007	12,579	15.1%
Eagleby	1,093	1,875	2,283	13,326	14.1%
Greenbank	785	1,629	3,007	12,852	12.7%
Loganholme - Tanah Merah	863	1,570	2,480	11,130	14.1%
Boronia Heights - Park Ridge	818	1,529	2,487	12,237	12.5%
Kingston	815	1,506	2,506	10,413	14.5 %
Loganlea	838	1,484	2,351	10,434	14.2 %
Slacks Creek	735	1,480	2,368	10,432	14.2%
Bethania - Waterford	860	1,473	2,219	10,870	13.6%
Shailer Park	717	1,341	2,215	11,647	11.5%
Edens Landing - Holmview	674	1,179	1,815	7,450	15.8%
Browns Plains	625	1,126	1,703	7,368	15.3%
Hillcrest	568	1,081	1,781	8,152	13.3%
Springwood	595	1,065	1,756	9,279	11.5%
Waterford West	580	1,018	1,555	7,244	14.1%
Underwood	568	977	1,473	6,341	15.4%
Beenleigh	564	971	1,584	8,252	11.8%
Cornubia - Carbrook	409	909	1,636	8,455	10.8%
Logan Central	521	901	1,437	6,133	14.7%
Daisy Hill	424	824	1,410	6,638	12.4%
Wolffdene - Bahrs Scrub	412	774	1,321	6,105	12.7%
Logan Village	388	765	1,420	6,994	10.9%
Mount Warren Park	380	739	1,206	5,791	12.8%
Chambers Flat - Logan Reserve	323	527	1,003	5,057	10.4%
Munruben - Park Ridge South	235	388	862	4,617	8.4%

Source: Australian Bureau of Statistics, Census of Population and Housing 2016 Census community profiles.

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## **CHILDREN IN LOGAN**

Across Logan in 2016 there were 33,372 families with children under 15 (32.4% of all Logan households), including:



Almost one third of households in Logan are families with children under 15, higher than state or national averages as shown in **Figure 5** below.



Between 2011 and 2016, the overall number of families with children in Logan grew, although the proportion of households that were families with children fell slightly, as shown in **Table 2** below.

#### TABLE 2: HOUSEHOLDS WITH CHILDREN BY LIFE STAGE, 2016 AND 2011

Households with children	2016 Greater Brisbane	2016 Logan		2011 Logan		Change 2011-2016
		Number		Number		Number
Couples with children	31.7%	35,936	34.9%	34,483	36.4%	+1,453
Couples with young children (all under 15)	17.7%	19,079	18.5%	18,567	19.6%	+512
Couples with mixed-age children (under 15 plus older)	4.5%	5,898	5.7%	5,702	6%	+196
Couples with older children (aged 15 and over)	9.5%	10,959	10.6%	10,214	10.8%	+745
Single parents with children	11%	14,788	14.4%	13,723	14.5%	+1,065
Single parents with young children	4.4%	6,246	6.1%	6,168	6.5%	+78
Single parents with mixed-age children	1.4%	2,149	2.1%	1,972	2.1%	+177
Single parents with older children	5.3%	6,393	6.2%	5,583	5.9%	+810
Total households with children	42.7%	50,724	49.3%	48,206	50.8%	+2,518
Total households	100%	102,925	100%	94,862	100%	+8,063

Source: Australian Bureau of Statistics, Census of Population and Housing 2011 and 2016 data used in Logan City Council Community Profile, sourced August 2017.

Source: Australian Bureau of Statistics, Census of Population and Housing 2011 and 2016 data used in Logan City Council Community Profile, sourced August 2017,

12



#### LOGAN IS GROWING AND CHANGING

Logan City's population has grown by an average of 1.9% per year over the past 10 years, similar to Queensland's overall growth rate. Bethania-Waterford has seen the greatest growth over the past 10 years, almost doubling its population in that time. In the past five years, growth has centred around Jimboomba and Chambers Flat – Logan Reserve.

Population projections suggest Logan's population will reach almost 500,000 over the next 20 years.



#### FIGURE 6: POPULATION PROJECTIONS, LOGAN CITY 2011 - 2036



Source: Queensland Government Population Projections, 2015 edition (medium series)

- together

Over the next 20 years, government population projections show growth focusing on the Jimboomba area (which includes Yarrabilba) and the Greenbank statistical area (which includes Greater Flagstone). By 2036, these areas are expected to house 28% of the population of Logan City, compared with 12% today.

It will be critically important to watch these emerging populations closely and to support families and children to thrive. While we won't be able to rely on historical data, we know from research that greenfield communities where housing affordability is the main attractor are likely to be home to many young families.

Age projections by government statisticians suggest that Logan will continue to attract young families, with significantly greater numbers of children as a proportion of the population compared with the Queensland average.

**Figure 7** below shows the expected age composition of the 2036 population in Logan compared with the state as a whole.

#### FIGURE 7: PROJECTED AGE AND SEX DISTRIBUTION 2036



Source: Queensland Government Population Projections. 2015 edition (medium series).





#### TABLE 3: INDIGENOUS STATUS BY SA2, LOGAN LGA REGION AND QUEENSLAND, 2016

	Aboriginal and Torres Strait Islanders						
	Aboriginal	Torres Strait Islander	Both <sup>(a)</sup>	Τα	otal		
STATISTICAL AREA	N	N	Ν	Ν	%		
Queensland	148,943	21,053	16,493	186,482	4%		
Logan LGA region	8,622	642	552	9,823	3.2%		
Beenleigh	395	30	8	435	5.3%		
Bethania – Waterford	277	34	26	343	3.2%		
Boronia Heights – Park Ridge	342	18	31	391	3.2%		
Browns Plains	228	7	20	254	3.4%		
Chambers Flat – Logan Reserve	104	3	3	118	2.3%		
Cornubia – Carbrook	148	6	3	159	1.9%		
Crestmead	446	29	50	518	4.3%		
Daisy Hill	117	9	9	129	1.9%		
Eagleby	522	35	32	593	4.4%		
Edens Landing – Holmview	207	8	8	219	2.9%		
Greenbank	327	36	14	366	2.8%		
Hillcrest	221	14	3	238	2.9%		
Jimboomba	792	36	20	852	3.3%		
Kingston	530	40	54	626	6%		
Logan Central	281	23	15	320	5.2%		
Logan Village	149	8	10	168	2.4%		
Loganholme – Tanah Merah	216	11	18	242	2.2%		
Loganlea	396	21	41	462	4.4%		
Marsden	455	45	34	536	3.7%		
Mount Warren Park	125	7	6	133	2.3%		
Munruben – Park Ridge South	98	8	0	107	2.3%		
Regents Park – Heritage Park	354	12	28	394	2.5%		
Rochedale South – Priestdale	226	7	15	247	1.6%		
Shailer Park	147	15	5	170	1.5%		
Slacks Creek	463	38	16	517	5%		
Springwood	109	32	7	155	1.7%		
Underwood	78	7	3	89	1.4%		
Waterford West	252	10	15	286	3.9%		
Wolffdene – Bahrs Scrub	119	12	0	127	2.1%		
Woodridge	498	81	58	629	5%		

(a) Applicable to persons who are of 'both Aboriginal and Torres Strait Islander origin'. Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 Census, Aboriginal and Torres Strait Islander People's Profile sourced from <u>http://statistics.qgso.qld.gov.au/profiles</u> July 2017.

together

#### EMPLOYMENT

#### In some areas, unemployment is very high and children are growing up in jobless households.

Overall, Logan's employment picture is a success story. Since 2014, unemployment in the LGA has dropped from around 9% to around the state average of 5.66%. However there are some areas where unemployment is much higher than average and where parents are less likely to be working, as shown in **table 4** on page 19.

Logan workers are more likely to be technicians and trades workers, machinery operators and drivers, labourers or clerical and administration workers than the whole Queensland workforce, and less likely to be managers or professionals as shown in Figure 9 below.

#### **FIGURE 9: OCCUPATIONS OF LOGAN RESIDENTS**



Source: ABS, Census of Population and Housing, 2016, Basic Community Profile – B45 (usual residence)

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#### TABLE 4: SELECTED EMPLOYMENT STATISTICS BY SA2

STATISTICAL AREA	Labour Force March quarter 2017	Unemployment rate March qtr 2017 %	Unemployed persons March qtr 2017	Families with no working parent 2011 %
Queensland				13.5%
Logan LGA region				17.5 %
Beenleigh	3,919	9.3%	365	27.9 %
Bethania – Waterford	4,140	5.7%	234	19.1 %
Boronia Heights – Park Ridge	5,550	5.5%	303	19.1 %
Browns Plains	3,607	6.3%	226	18.7%
Chambers Flat – Logan Reserve	2,119	5.4%	115	12.8%
Cornubia – Carbrook	4,625	1.8%	82	7.7%
Crestmead	5,526	7.2%	396	21.1%
Daisy Hill	3,413	2.5%	86	10.4%
Eagleby	5,423	9.4%	508	32%
Edens Landing – Holmview	3,522	5.3%	185	14.9%
Greenbank	6,500	2.6%	166	7.2%
Hillcrest	4,246	3.9%	167	12.7%
Jimboomba	10,557	4.2%	442	9.4%
Kingston	4,217	12.9%	542	36.5%
Logan Central	2,365	17.3%	408	40.1%
Logan Village	3,410	2.9%	98	8.4%
Loganholme – Tanah Merah	5,767	3.4%	197	10.2%
Loganlea	4,771	8.3%	395	23.4%
Marsden	5,804	8.2%	478	23.7%
Mount Warren Park	2,958	4.5%	132	13.1%
Munruben – Park Ridge South	2,470	2.5%	61	9.6%
Regents Park – Heritage Park	8,184	3.4%	278	10.9%
Rochedale South – Priestdale	8,287	2.3%	191	9%
Shailer Park	6,599	2.1%	140	7.5%
Slacks Creek	4,787	8.1%	387	27.6%
Springwood	5,142	2.5%	129	9.5%
Underwood	3,463	3.3%	116	9.6%
Waterford West	3,468	7%	243	21.3%
Wolffdene – Bahrs Scrub	3,147	2.8%	89	9.2%
Woodridge	5,029	15.8%	797	39.1%

Source: https://www.employment.gov.au/small-area-labour-markets-publication retrieved June 2017 and ABS Census of Population and Housing 2011 unpublished data sourced from http://statistics.ggso.gld.gov.au/profiles sourced July 2017. Note that data about families with no working parent is from 2011 – more recent data has not been released however there is evidence of strong employment growth since this time.

18



#### FAMILY INCOMES

Overall, family incomes in Logan are distributed much the same as in Queensland as a whole. However there is significant variation between suburbs.

Figure 10 below shows the distribution for Woodridge, which has the most low income families, and for Shailer Park which has the least, as well as Logan City as a whole and Queensland.

#### FIGURE 10: FAMILY INCOME 2016, SELECTED AREAS



Source: 2016 Census. See Table 2.20 in Volume 3 for more detail.

**together** 

#### A significant number of children and adults in some areas live with a disability

Overall, Logan has a similar profile as the whole of Queensland in terms of number and proportion of people living with a disability significant enough to require assistance with everyday life. 17,043 Logan residents were identified in the 2016 Census as needing assistance due to a profound or severe disability, or 5.6% of the population. The distribution of people with a disability is not even across Logan, as shown in Table 5, ranging from 2.9% of people in Underwood to 10% of people in Bethania – Waterford.

The table also presents data about the number of children with significant disabilities needing assistance in daily life. In 2016, 2,190 Logan children aged 0 to 14 were recorded as having severe disabilities, ranging from 1.3% of children in Underwood to 6.3% of children in Eagleby.

#### TABLE 5: NEED FOR ASSISTANCE WITH A PROFOUND OR SEVERE DISABILITY BY SA2, 2016

STATISTICAL AREA	Need for assistance all ages	Need for assistance %	Need for assistance 0-14 year olds	Need for assistance 0-14 %
Queensland	243,267	5.2%	25,714	2.8%
Logan LGA region	17,043	5.6%	2,190	3.2%
Beenleigh	676	8.2%	65	4.1%
Bethania - Waterford	1,089	10%	68	3.1%
Boronia Heights - Park Ridge	984	8%	100	4%
Browns Plains	489	6.6%	49	2.9%
Chambers Flat - Logan Reserve	213	4.2%	19	1.9%
Cornubia - Carbrook	365	4.3%	53	3.2%
Crestmead	737	6.1%	155	4.6%
Daisy Hill	350	3.8%	33	2.3%
Eagleby	1,119	8.4%	143	6.3%
Edens Landing - Holmview	449	6%	62	3.4%
Greenbank	565	4.4%	91	3%
Hillcrest	425	5.2%	50	2.8%
Jimboomba	1,082	4.2%	202	3.1%
Kingston	661	6.3%	80	3.2%
Logan Central	432	7%	51	3.5%
Logan Village	324	4.6%	39	2.7%
Loganholme - Tanah Merah	493	4.4%	81	3.3%
Loganlea	611	5.9%	76	3.2%
Marsden	805	5.6%	134	3.2%
Mount Warren Park	319	5.5%	38	3.2%
Munruben - Park Ridge South	228	4.9%	31	3.6%
Regents Park - Heritage Park	694	4.4%	131	3.5%
Rochedale South – Priestdale	560	3.6%	71	2.2%
Shailer Park	405	3.5%	55	2.5%
Slacks Creek	783	7.5%	74	3.1%
Springwood	366	3.9%	50	2.8%
Underwood	181	2.9%	19	1.3%
Waterford West	583	8%	54	3.5%
Wolffdene - Bahrs Scrub	223	3.7%	40	3%
Woodridge	932	7.4%	76	2.5%



# TABLE 6: AVERAGE PERINATAL RISK FACTORS AND AVERAGE PERINATAL HEALTH STATUS, RANKED BY AVERAGE RISK FACTORS

# It starts in pregnancy

Wellbeing and success for children starts long before birth. Perinatal (pregnancy) factors are known to be critical for the health of infants and the ongoing development of children. The State of Logan's Children and Families report brings together available data to show how Logan is faring on known risk factors, and how this is likely to be impacting infant wellbeing at birth.

The report uses 2013-14 data from the Queensland Perinatal Data Collection held by the Health Statistics Branch of the Queensland Department of Health to show that:

- Key risk factors are relatively high in Logan for example, pregnant women in Logan are more likely to smoke during pregnancy, make fewer antenatal visits during pregnancy, become pregnant while a teenager, and be overweight or obese when compared to pregnant women in Queensland specifically and Australia generally
- Babies born to Logan mothers relative to babies born elsewhere in Australia are more likely to be born premature, to be lower birthweight, to have low APGAR scores, and to be admitted to ICN/SCN facilities in hospitals
- Both perinatal risk factors and baby health status are strongly related to a broad range of social demographic variables, including socio-economic status.

#### In some suburbs, perinatal risk factors are unacceptably high.

Perinatal risk factors are common in some parts of Logan. As shown in **Figure 11**, there is a very wide range in prevalence of risk factors across Logan.

#### FIGURE II: PREVALENCE OF PERINATAL RISK FACTORS - Logan, selected SA2s and Queensland



**Table 6** shows the average prevalence of these perinatal risk factors for each statistical area in Logan ranked in order of average risk across all factors. It shows the average proportion of mothers presenting with each of the risk factors in that statistical area during 2013-14. It also shows the average prevalence of perinatal health status – the average proportion of babies from that statistical area born with issues like low birthweight, prematurity and low APGAR scores during 2013-14.

LOCATION	Number of mothers in 2013-14 data set	Average perinatal risk factors - % of mothers	Average perinatal health status - % of babies with suboptimal health status
Kingston	223	25.9%	11.38%
Eagleby	260	24.3%	11.18%
Beenleigh	139	23.4%	11.86%
Marsden	281	21.7%	8.42%
Slacks Creek	192	21.6%	12.68%
Loganlea	179	20.9%	8.72%
Woodridge	313	20.5%	10.54%
Waterford West	116	20%	14.04%
Crestmead	233	19.5%	10.76%
Logan Central	92	18.7%	8.92%
Munruben – Park Ridge South	38	18.4%	12.28%
Browns Plains	153	18.2%	9.8%
Bethania – Waterford	175	17.9%	9.48%
Chambers Flat – Logan Reserve	47	17.7%	16.66%
Edens Landing – Holmview	139	16.9%	10.8%
Regents Park – Heritage Park	230	16.5%	9.36%
Boronia Heights – Park Ridge	153	15.8%	13.62%
Mount Warren Park	74	15.6%	8.38%
Hillcrest	122	15.5%	8.24%
Jimboomba	252	15.1%	10.16%
Greenbank	171	14.9%	10.78%
Loganholme – Tanah Merah	181	13.5%	9.18%
Shailer Park	117	13.4%	10.58%
Logan Village	55	13.3%	10.54%
Daisy Hill	89	12.4%	11.12%
Wolffdene – Bahrs Scrub	73	11%	10.8%
Rochedale South – Priestdale	208	10.6%	9.16%
Springwood	113	9.3%	9.82%
Underwood	100	7.8%	7.4%
Cornubia – Carbrook	88	7.6%	8.76%





# Families are where it all happens

While it is clear that there are strong links between disadvantage and poor outcomes for children, there is also strong research evidence that parenting has a significant effect on children's development and their long-term life opportunities.

After its comprehensive review of the Australian and international research literature, ARACY (2015, pp. 28, 2) reports that the single most important factor influencing a child's intellectual and social development is the quality of parenting and care they receive and the quality of the home environment this creates. As ARACY (2015, p.2) suggests, "parenting is so influential that it can moderate the impact of social and economic disadvantage."

Figure 12 below shows the potential to improve outcomes for children by building strong home learning environments – for example encouraging parents to talk and read to children, sing to them and help them learn through play and activities - and that the home learning environment has a substantially larger impact on both numeracy and literacy than the mother's education, earned family income or an aggregate SES measure.

#### FIGURE 12: RELATIVE IMPACTS ON CHILD LEARNING OUTCOMES



Source: Melhuish et al. (2008) 'Effects of the Home Learning Environment and Preschool Center Experience upon Literacy and Numeracy Development in Early Primary School', Journal of Social Issues, Vol. 64, No.1.

Table 7 below brings together some available data indicating parent support for learning averaged to the SA2 level, including:

- Proportion of children in the SA2 enrolled in pre-school
- Proportion of children growing up in homes with limited English proficiency
- Parent support for learning as assessed by prep teachers in the AEDC survey.

Suburbs are listed in order of risk, with the top suburbs identified where data suggests parent support for learning is likely to be lowest on average. Note that AEDC data is reported at a suburb or community level rather than by SA2.

#### TABLE 7: PARENT SUPPORT FOR LEARNING: VARIATIONS BY SA2

SUBURB/ COMMUNITY	% Pre-School Attendance¹	% Limited English Language Proficiency at Home	Mean Score for Parent Support for Learning (1-3)
Logan	46.1%	5.9%	2.5
Beenleigh	27.5%	7.4%	2.14
Logan Central	33.9%	20.7%	2.30
Woodridge	30%	14.7%	2.18
Kingston	48.3%	11%	2.30
Eagleby	27.9%	4%	2.40
Marsden	34.6%	7.1%	2.35
Browns Plains – Berrinba	29.2%	8.2%	2.52
Loganlea	40.6%	6.2%	2.49
Waterford West	32.5%	5.7%	2.57
Boronia Heights	25.6%	8.1%	-
Slacks Creek	42%	0.7%	2.44
Bethania – Waterford	61.7%	2.8%	2.45
Crestmead	30.5%	6.6%	_
Jimboomba	-	1.8%	2.26
Rochedale South – Priestdale	72%	8%	2.68
Mount Warren Park	47.7%	3.6%	
Edens Landing – Holmview	54.9%	2.5%	2.63
Underwood	60%	8.7%	2.68
Park Ridge – Park Ridge South	-	4%	2.43
Loganholme	48.9%	2.7%	2.67
Greenbank – New Beith	-	5.1%	2.57
Chambers Flat – Stockleigh	-	8.9%	-
Hillcrest	36%	5.9%	-
Daisy Hill	75.0%	3.2%	2.58
Wolffdene – Bahrs Scrub	43.8%	1.6%	2.56
Shailer Park	79.6%	4.4%	2.67
Cornubia – Carbrook	66.7%	1.4%	2.73
Regents Park	29.9%	2.3%	-
Springwood	74.8%	3.6%	2.75
Source	AEDC Logan Community Profile,	ABS	AEDC

2012, pp. 15-16

Family dysfunction and violence, including domestic violence and child abuse, correlate strongly with poorer home learning environments and lower parents support for learning, as well as increased risk of mental health issues for children and adolescents.

Parent support for learning also tends to be lower on average in areas where parents have lower levels of education themselves, are unemployed or are on low incomes.

<sup>1</sup>Estimating actual preschool enrolments has been difficult and should be interpreted with great caution.

#### FIGURE 14: PERCENTAGE OF CHILDREN IN LOGAN VULNERABLE OR AT RISK ON EACH AEDC DOMAIN, By gender, indigenous status and socio- economic status

# AEDC data tells us how our children start school

The Australian Early Development Census (AEDC) is a population measure of children's development as they enter school, generally at around age 5. It is based on a Canadian data program and provides unique insights into how children are developing. For instance, the Canadian work demonstrated that children did best in locations with relatively equal proportions of affluent and disadvantaged families. This suggested that children residing in mixed income neighbourhoods may benefit from both the presence of affluent residents and from the presence of services aimed at assisting lower income residents.

It is now widely recognised among researchers and policy makers that moving the focus of effort from the individual child to all children in the community can make a bigger difference in supporting early childhood development. At the same time, investing time, effort and resources in children's early years, when their brains are developing rapidly and they are developing as social beings, benefits children and the whole community.

The AEDC measures five areas of early childhood development from information collected through a checklist completed by teachers. Teachers assess prep children's development using detailed descriptors. This data is used to determine the number of children considered to be at risk developmentally. AEDC measures predict later educational and behavioural outcomes. Nationally about 10% of children will start school developmentally vulnerable and still be "missing out" in early adulthood. We estimate that figure to be higher in Logan. In plain language, about half of children who start out behind will struggle into adulthood.



#### FIGURE 13: THE AEDC DEVELOPMENTAL DOMAINS



Developmental vulnerability and risk are associated with low socio-economic status.

**Figure 13** shows the increased prevalence of developmental vulnerability among boys, Indigenous children, and children in the most disadvantaged quintile.

Source: AEDC 2013; Lamb et al. 2015, p.8.

Lower middle

Lowest

togeth

26



## LOGAN AECD DATA

In the most recent AEDC survey in 2015, 329 teachers in 138 Logan schools assessed more than 3,000 children. Table x below shows some characteristics of this sample to provide context for the results.

#### TABLE 8: CHARACTERISTICS OF AEDC LOGAN COMMUNITY SAMPLE, 2015

	LUGAN
Children surveyed (not including children in additional SA2s now included in Logan LGA and included in the analysis that follows; n = 3,768)	3,347
Schools contributing to the community results	138
Teachers contributing to the community results	329
Mean age of children at completion	5.5
Gender	
Male	50.5%
Female	49.5%
Indigenous children	5.7%
Children born in a country other than Australia	8.8%
Children with English as a second language	15.3%
Children who speak a language other than English at home	
Proficient in English	16%
Not proficient in English	3.5%
Percentage of children with a primary caregiver who reported they completed some form of post-school qualification	52.7%
Percentage of children attending preschool or kindergarten	55.3%
Percentage of children attending playgroup	10.2%
Percentage of children attending daycare	36.2%
Percentage of children attending family daycare	4.5%
Percentage of children with special needs status	4.4%
Percentage of children identified by teachers as requiring further assessment (e.g. medical and physical, management, emotional and cognitive development)	14.5%
Teachers' positive responses to the question: "Would you say that this child is making good progress in adapting to the structure and learning environment of the school?"	94.9%
Teachers' positive responses to the question: "Would you say that this child has parents(s)/caregiver(s) who are actively engaged with the school in supporting their child's learning?"	87.2%
Teachers' positive responses to the question: "Would you say that this child is regularly read to/encouraged in his/her reading at home, as far as you can tell?"	83.9%

Source: Australian Bureau of Statistics, Census of Population and Housing 2016 Census community profiles.

tögether

assessed as vulnerable on one or more domains while 17.2% of children were considered Both these figures are significantly higher than state and national averages.





# LOGAN CHILDREN ARE MORE DEVELOPMENTALLY VULNERABLE THAN THE STATE OR NATIONAL AVERAGE

As expected, vulnerability is not evenly distributed across Logan. **Table 9** on page 31 shows the percentages of children assessed as vulnerable in 2015, ranked from highest proportion of vulnerable children to lowest. Note however that there has been considerable movement over time in the ranking of suburbs in Logan. In suburbs where the number of children in the AEDC sample is low, considerable variation can be expected.

There are strong links between many demographic factors and AEDC status. These are explored fully in chapter 5 of the full report. The relationship between some key factors and AEDC vulnerability is summarised in **Figure 16** below. Importantly, these correlations are at the community level rather than at the individual level.

The full report explores the relationship between a range of demographic and family background characteristics and practices, on the one hand, and the AEDC domains and summative measures, on the other, at the SA2 level. The higher the positive or negative correlation value on the x axis, the stronger the correlation.

For example, the relationship between preschool attendance and AEDC measures of developmental vulnerability is negative and significant – the higher percentage of children in an area attending preschool, the lower the percentage of developmentally vulnerable children. By contrast, the relationship between the percentage of families in which limited or no English is spoken at home, and the seven AEDC measures is positive, linear and statistically significant: the higher percentage of children from families who speak only limited or no English at home in an area, the higher the percentage who are developmentally vulnerable.

#### FIGURE 16: CORRELATION SUMMARY OF FAMILY FACTORS AND DEVELOPMENTAL VULNERABILITY



Correlation with vulnerability on one or more domains

Source: extracted from Table 5.13, The State of Logan's Children and Young People Vol 3. Correlations are with 2011 Census data.

#### TABLE 9: DEVELOPMENTALLY VULNERABLE CHILDREN BY LOGAN SUBURB, RANK ORDERED, 2015

<b>SUBURB</b> (excludes suburbs where no or very few children were assessed)	Number of children assessed 2015	Average % vulnerable on each domain	% Vulnerable on one or more domains	% Vulnerable on two or more domains
Queensland	65200	10.7%	26.1%	14%
Logan	4950	13.5%	31.7%	17.2%
Crestmead	271	19.74%	46.3%	23.5%
l ogan Central	114	16.72%	41.8%	22.7%
Loganholme	130	17.3%	39.5%	24.4%
Woodridge	232	15.62%	39.2%	20.3%
Loganlea	122	15.42%	39%	22.9%
Eagleby	233	17.16%	36.9%	25.8%
Marsden	201	14.66%	36.7%	19.6%
Tanah Merah	69	10.62%	36.4%	9.1%
Chambers Flat / Park Ridge South	40	11.8%	35.9%	15.4%
Kinaston	220	15.62%	35.5%	22.7%
Boronia Heights	147	13.04%	34.8%	15.9%
Berrinba	24	13.02%	34.8%	17.4%
Waterford West	00	17/1%	3/1%	24.2%
Beenleigh	116	13.32%	33.3%	19.4%
Waterford	90	12.04%	32.0%	16.5%
Slacks Creek	169	14.52%	32.5%	18.9%
Underwood	120	11 02%	32.5%	14.7%
Edens Landing / Holmview	1/0	12.64%	32.3%	15.4%
Cedar Grove	22	0.06%	31.8%	13.6%
Logan Village / Stockleigh	70	13/1%	31.3%	19.4%
Daisy Hill	112	11.86%	31.1%	18.0%
Mount Warren Park	86	15.5%	30.6%	18.8%
Browns Plains	100	12.62%	30.4%	18.5%
Park Ridge	20	17%	30%	25%
Bahrs Scrub	30	10.36%	29.6%	11 1%
Springwood	117	12.5%	29.5%	15.2%
Munruben	15	11.7%	20.3%	171%
Hillcrest	92	11.02%	28.7%	13.8%
New Beith	78	13%	28.6%	15.6%
Regents Park	208	12.2%	27.3%	15.7%
Bethania	10	10.0%	27.3%	13.6%
Greenbank	100	11.74%	25.5%	13.7%
Windaroo	51	13 3/1%	25%	20.8%
Logan Reserve	10	8.5%	25%	11.1%
Rochedale South	23/	0.2%	24.8%	10.6%
limboomba	238	0.12%	24.3%	11.3%
Meadowbrook	17	782%	23.0%	10.0%
North Maclean	18	11 78%	23.5%	11.8%
Shailer Park	175	8,28%	231%	12.4%
Heritage Park	85	10%	21.2%	13.8%
Cornubia	08	63%	10.6%	0.8%
Cedar Vale	71	6.94%	10.1%	10.1%
Mundoolan	30	712%	170%	71%
Tamborine	54	5.88%	17.5%	78%
Forestdale	35	1%	1/ 3%	5.7%
TOTOSIQUIG	55	470	14.3/0	5.770



#### **TRANSITION TO SCHOOL**

The AEDC also asked teachers a single question about how well they thought each of their students in the AEDC sample were making the transition to school – specifically, "to what extent they were making good progress in adapting to the structure and learning environment of the school." **Table 10** below shows that teachers rated Logan children behind their peers across the state or nation on this important transition. Note that this is 2012 data – 2015 data on this question had not been released at the time of publishing this document.

#### TABLE IO: PERCENTAGES FOR TEACHER RESPONSES TO QUESTION ON STUDENT ADJUSTMENT TO SCHOOL





There are strong links between successful transition to school and other data explored in this report. **Table 11** below shows the correlations between AEDC school transition data from 2012 and other factors at the suburb or SA2 area. Strong and Very Strong correlations are **highlighted in yellow** to show the factors that are most likely to occur together.

#### TABLE II: CORRELATIONS BETWEEN STUDENT ADJUSTMENT (TRANSITION) TO SCHOOL AND RELATED OUTCOME MEASURES, 2012

Indicator (n=20-24)	r	Indicator	r
Perinatal Risk Factors		Vulnerability on one or more domains	897**
Mother smoking first 20 weeks	667**	Vulnerability on two or more domains	854**
First antenatal visit during 3rd trimester	407*	Children at Risk of Developmental Vulnerability	
Mother overweight/obese	532**	Physical Health	461*
Teen other	440*	Social Competence	.062
Parent Support for Learning		Emotional Wellbeing	079
Attended Pre-School	.477*	Language and Cognitive Skills	255
Parent support for reading	.512**	Communication and General Knowledge	461*
Parent support for learning	.576*	Average at Risk	342
No Internet connection	407*	Year 3 NAPLAN (MNS)	
Family Violence		Reading MNS	.191
Domestic Violence	264	Punctuation and Grammar MNS	.380
Child Abuse	485*	Spelling MNS	.200
Family Violence	403	Writing MNS	.397
Developmental Vulnerability (AEDC)		Numeracy MNS	.104
Physical Health DV	763**	Year 3 NAPLAN (T2B)	
Social Competence DV	652**	Reading T2B	.837**
Emotional Wellbeing DV	.169	Punctuation and Grammar T2B	.538*
Language and Cognitive Skills	693**	Spelling T2B	·553 <sup>*</sup>
Communication and General Knowledge	757**	Writing T2B	.430
Average Developmental Vulnerability	867**	Numeracy T2B	.425

Correlation is a statistical measure that indicates the extent to which two or more variables are related. The higher the correlation is, the more likely it is that a relationship exists. A positive correlation indicates the extent to which those change together; a negative correlation indicates the extent to which one variable increases as the other decreases. For example the table above suggests a very strong positive correlation between AEDC measures of student transition to school and being in the top 2 bands in NAPLAN for reading in year 3. There is a strong negative correlation between school readiness and mothers' smoking in the first 20 weeks of school (i.e. communities where more people smoke in pregnancy are less likely to score well on school readiness measures). Correlations are measured in a range: -1 to +1. Correlations of more than + 0.5 are considered very strong.

together

# NAPLAN gives an insight into the primary school years

NAPLAN data gives us a way to see how our children are going at critical points in their school lives. National Assessment Program - Literacy and Numeracy (NAPLAN) is an assessment that is run annually for Year 3, 5, 7 and 9 students.

We report NAPLAN results for 37 Logan primary schools. The NAPLAN results in Logan used in the full report and summarised here exclude Beenleigh Special School, Logan City Special School, The Centre Education Programme and YMCA Vocational School. The full report includes data at the school level and the suburb or area level. See Chapter 6 in the full report for more information.

Results are reported at two levels: the National Minimum Standard (NMS), and for the top two bands of performance. The national minimum standards represent minimum performance standards in literacy and numeracy for a given year level, below which students will have difficulty progressing satisfactorily at school. For Year 3 NAPLAN, the NMS is set at Band 2; for Year 5 NAPLAN, at Band 4. The top two bands for Year 3 NAPLAN are Bands 5 and 6, and for Year 5 NAPLAN, Bands 7 and 8 (See Figure 17 below).

#### **FIGURE 17: NAPLAN BAND ASSESSMENT SCALES**

**Together** 



Source: National Assessment Progream: Literacy and Numeracy. National Report for 2014. Sydney: ACARA, 2014, p. v.

NAPLAN results suggest that children to match their peers in Queensland and nationally, both in terms of how many are meeting national minimum standards and how many are achieving the top two bands





## **CLOSING THE NAPLAN GAP**

NAPLAN results suggest that children in Logan state schools on average are behind their peers in Queensland and nationally, both in terms of how many are meeting national minimum standards and how many are achieving the top two bands for their year level. This data is summarised in Table 12 below by suburb/area. Where there is more than one school in an area, these results are combined.

#### TABLE 12: YEAR 3 NAPLAN RESULTS, MINIMUM NATIONAL STANDARD, 2014, BY LOCATION (SA2)

	National Minimum Standard		Top 2 bands	
LOCATION	Average %	Rank order (L-H)	Average %	Ranking (L-H)
Australia	93.64%		42.26%	
Queensland	93.4%		38.5%	
Logan	88.46%		27.4%	
Berrinba	75.26%	1	18%	5
Kingston	81.73%	2	14.9%	2
Marsden	82.17%	3	13.8%	1
Boronia Heights – Park Ridge	82.61%	4	21%	8
Waterford West	82.61%	5	17.8%	4
Browns Plains	84.09%	6	20.7%	7
Slacks Creek	88.17%	7	20%	6
Beenleigh	88.46%	8	33.4%	19
Rochedale South – Priestdale	89.62%	9	28.9%	12
Crestmead	91.47%	10	32.5%	17
Eagleby	91.92%	11	16.6%	3
Edens Landing – Holmview	92.18%	12	33.1%	18
Loganholme – Tanah Merah	92.44%	13	39.1%	22
Woodridge	92.55%	14	25.1%	10
Regents Park – Heritage Park	93.56%	15	29.6%	14
Jimboomba	93.63%	16	26.4%	11
Shailer Park	93.79%	17	36.3%	21
Munruben – Park Ridge South	93.9%	18	21.2%	9
Springwood	93.95%	19	32.2%	15
Greenbank	94.14%	20	35.4%	20
Logan Village	94.88%	21	29.1%	13
Mount Warren Park	95.65%	22	32.4%	16
Windaroo	98.17%	23	39.2%	23
Cornubia – Carbrook	98.26%	24	40.1%	24

# GAPS IN NAPLAN PERFORMANCE WIDEN IN LATER GRADES

Our full report includes three sets of statistics from 2014 for Logan's state primary schools:

- Enrolment data the number of children who attend the school
- ICSEA data the Index of Community Socio-Educational Advantage, a scale that allows for comparisons among schools by pulling together socio-economic data
- Year 3 and Year 5 NAPLAN averages.

These results are intriguing, and indicate a decline in the percentage of students achieving national minimum standard (NMS) between Year 3 and Year 5, and with a similar decline in percentage of students attaining the top two bands (T2B) in NAPLAN between Year 3 and Year 5.

#### Overall, for Logan as a whole, the percentage of students attaining the NMS in Year 5 compared to Year 3 was down 5.0%, and for the T2B, down 9.16%. These are substantial and concerning results.

Although the data is cross sectional and not longitudinal, and compares two cohorts at the same point in time, it indicates that between Year 3 and Year 5 some combination of family effects and wider effects appears to drive NAPLAN scores downwards by Year 5. Unravelling this finding will take a considerable research effort that employs a multilevel, longitudinal research design so that we can compare the same cohort over time (that is, between Year 3 and Year 5). In the meantime, the data indicates the likelihood that social disadvantage congeals or is cumulative over time in line with the broader theoretical findings discussed in the full report.

# SOCIO-EDUCATIONAL ADVANTAGE DRIVES STRONGER PERFORMANCE IN NAPLAN

The Index of Community Socio-Educational Advantage (ICSEA) is calculated for each school. It brings together social and educational data known to contribute to a student's performance, such as parent's occupations and education levels, combined with socio-economic factors in the catchment. The higher the ICSEA value is for a school, the greater the educational advantage likely to apply to children at that school. The average ICSEA is 1,000, so higher values indicate above average educational advantage. In Logan in 2014, ICSEA scores ranged from 857 for Woodridge State School to 1,039 for Carbrook State School.

The full report includes detailed examination of the correlations between various factors and NAPLAN performance and concludes, in line with existing knowledge, that ICSEA has the strongest correlation with NAPLAN performance. In other words, schools in more advantaged areas with more advantaged parents are likely to perform better in NAPLAN. And schools which have higher average NAPLAN results in Year 3 are likely to continue to have higher results in Year 5 than schools where students don't do as well in Year 3.



# Some areas really need our attention

The full report, The State of Logan's Children and Families Volume 3, brings together data to identify areas where we need to focus our attention and efforts. In some parts of Logan, children are much more likely to fall behind. The map below highlights the communities where our data suggests children and parents need most support to succeed.

The report collates the following data to create an average rank order for the suburbs of Logan, including:

- Perinatal Risk Factors
- Perinatal Health Status
- Limited Parent Support for Learning
- Family Violence
- AEDC for Developmentally Vulnerable Children
- AEDC for Children At Risk
- Adjustment to School
- NAPLAN Year 3 National Minimum Standard
- NAPLAN Year 3 Top Two Bands.

together

Over time we will need to keep a watchful eye on the emerging communities of Logan. Figure x brings together information about growth projections with data about vulnerability to show where we will need to focus over the next 20 years.

Logan Village

Woodridge

Logan Centra

Kingsto

Loganlea

Waterford

Marsden

**Browns Plains** 



The full report is available at www.logantogether.org.au for download. It presents comprehensive evidence about the need for intervention and the opportunities for improvement.



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