

It's a child's life

Learning new skills

In Wave 5, primary carers were asked a series of questions about the physical development of their child. The questions about being able to tie a shoe lace or bow and being able to ride a bike without training wheels asked of the older cohort were also asked in Waves 3 and 4. Comparing the development across the three waves we can build up a picture of the physical skills that children are learning over time. In Wave 3, only 29.7 per cent¹ of the children could tie a bow well. By Wave 4 this had increased to 51.8 per cent and to 70.0 per cent by Wave 5. This varies slightly by level of relative isolation: only 58.9 per cent of children in remote areas could do this activity well in Wave 5 compared with around 70 per cent in areas with less isolation. Also, girls are more likely than boys to be able to do it well (78.6 per cent of girls and 62.0 per cent of boys).

In Wave 5, 88.4 per cent of the older cohort could ride a bicycle without training wheels compared with 79.7 per cent in Wave 4 and 64.1 per cent in Wave 3. Children in areas of high or extreme isolation were more likely to be able to ride than children in urban areas but there was little difference between boys and girls.

Three new questions about the older cohort children's abilities were included in Wave 5: tell the time using an analogue clock, know their left from their right and write clearly. Table 1 shows the percentage of responses for these three questions.

Table 1: Older cohort children's abilities, per cent

Ability level	Tell time	Left/right	Write clearly
Yes—well	29.6	83.2	79.6
Yes—not well	32.5	12.7	16.8
Not yet	38.0	4.1	3.6
Total number	514	519	525

Being able to tell the time is not a skill that many of the children in the older cohort have yet mastered, unlike being able to distinguish between left and right and being able to write clearly. Children in year 3 at school are more likely to be able to tell the time well than are children in year 2. Children in areas of high isolation are most likely to be able to tell the time well (35.7 per cent) whereas in areas of moderate isolation, only 9.0 per cent of children can tell the time well. Similarly, children in areas of moderate isolation are least likely to distinguish their left and right or to write clearly. In terms of the sex of the child, girls are more likely to be able to do both these activities well.

Interestingly, language also plays a part in children's ability to know left from right. Children whose dominant language is English are significantly more likely to know the difference between left and right than are children whose dominant language is an Indigenous language or who speak equally fluently in English and an Indigenous language. This may reflect the different way Indigenous languages describe relative placement (Levinson 1997).

¹ All these figures exclude children who have a disability or whose parent said they didn't know.

Without controlling for other differences, all three of these skills are individually significantly associated with children's English reading scores as measured by the Progressive Achievement Test in Reading (PAT Reading).² Children who know the difference between left and right (either yes—well or yes—not well) had average reading scores 17.9 points higher than those who did not. Similarly, children who could tell the time (either yes—well or yes—not well) had average reading scores 10.8 points higher than those who could not. Children who could write clearly had average reading scores 10.6 points higher than those who could not write clearly or whose clarity of writing was only OK.

Sleep

Sleep is especially important for children as it directly impacts on mental and physical development ([Sleep Foundation 2014](#)). The amount of sleep a child needs for normal development depends on the individual child, but a preschool child aged 3 to 5 years typically sleeps between 11 and 13 hours every night and a school-aged child aged 5 to 12 years needs around 10 to 11 hours ([Sleep Foundation 2014](#)). For the first time in Wave 5, there is data about the times children wake up and go to bed, enabling us to also calculate the length of time children are sleeping (or at least the time between going to bed and waking up) to the closest 15 minutes.

The average length of time *Footprints in Time* children are sleeping during the week is 10.6 hours.³ Children in the younger cohort are sleeping on average slightly longer (10.6 hours) than children in the older cohort (10.4 hours). Interestingly, children who are not yet at school are sleeping less (10.3 hours) than children in the younger cohort who are at school (10.7 hours). This is perhaps because those not at school are having a daytime sleep or rest. The most commonly selected time for children in both cohorts to go to bed on weeknights is 8.30pm and the most commonly selected time for children to wake up is 7.00am. On weekend nights, primary carers were most likely to respond that children do not have a regular bedtime. Of those for whom a specific time was stated, the younger cohort most commonly went to bed at 8.30pm and the older cohort at 9.00pm.

The amount of sleep time *Footprints in Time* children have varies by level of isolation. Table 2 shows that children living in areas with higher levels of isolation tend to sleep less than the urban children. There is no statistical difference between children living in areas of moderate isolation and children living in areas of high or extreme isolation. However the urban, low and the combined moderate/high/extreme categories are all significantly different from each other. Table 2 includes children in both cohorts as age of the child was not found to be significantly associated with the average hours of sleep. This analysis has not taken into account the time of the year the interview was conducted or the length of daylight hours at the latitude of the areas in which the children live, both of which may have an impact on waking and bedtimes. □

² PAT Reading scores in Wave 5 range from 17.3 to 130.3 with a median score of 88.6 and a standard deviation of 25.3.

³ These times are averages based on times provided in 15 minute intervals.

Table 2: Children’s sleep time by level of relative isolation, per cent both cohorts

	Urban	Low	Moderate	High/Extreme	Total
Less than 10 hours	9.4	15.3	21.5	32.4	16.0
10 to 11 hours	64.9	64.2	67.7	59.5	64.4
More than 11 hours	25.7	20.5	10.8	8.1	19.6
Average hours:minutes	10:43	10:35	10:19	10:08	10:33
Number of children	350	590	158	111	1,209

It was not always possible to calculate the sleep time for all children. For example, four primary carers responded that their child had no regular waking time. In addition, 27 primary carers responded that their child had no regular bedtime and 22 responded that the child’s bedtime depends of the length of their daytime nap. However, it does not appear that lack of regular bedtime is related to sleeping problems for the 217 children who had difficulty getting to sleep or staying asleep: only five had no regular bedtime.

Of the children who had problems getting to or staying asleep, 56.7 per cent had experienced their sleeping problems on four or more nights a week in the last month. The most common reasons were overexcitement or overstimulation followed by wanting to stay with the primary carer and being afraid. The average hours of sleep for these children was 10.7 hours, slightly higher than average, but it may be that the time they went to bed and the time they went to sleep are quite a distance apart. However, it is interesting to note that they woke up about the same time as average.

The proportion of children experiencing sleep difficulties decreases with age. At 1 year of age 29.7 per cent of *Footprints in Time* children experienced sleep difficulties. This decreased to 20.6 per cent for children aged 6 years and 16.5 per cent for children aged 8 years.

By looking at the sleeping data of children for whom there is five waves of data (the balanced panel), it is possible to examine the persistence of sleep problems. Table 3 shows the number of waves that children had sleep problems reported by their primary carers.

Table 3: Proportion of children experiencing sleep problems by number of waves

Number of waves	Number of children	Percentage of children
0	376	41.4
1	220	24.2
2	149	16.4
3	87	9.6
4	53	5.8
5	24	2.6
Total	909	100

For the balanced panel, in each of Waves 1–4, around 26 per cent of primary carers reported that their child had sleeping problems. In Wave 5 this decreased to 18.1 per cent. However, the table shows that nearly 60 per cent of the children had experienced sleeping problems at some stage over the 5 waves. In a bivariate analysis with social and emotional difficulties scores from Wave 4,⁴ we find that children who have had sleeping difficulties at any time during the first four waves had average difficulty scores 2.7 points higher ($p < 0.001$) than those who had never had sleeping difficulties.

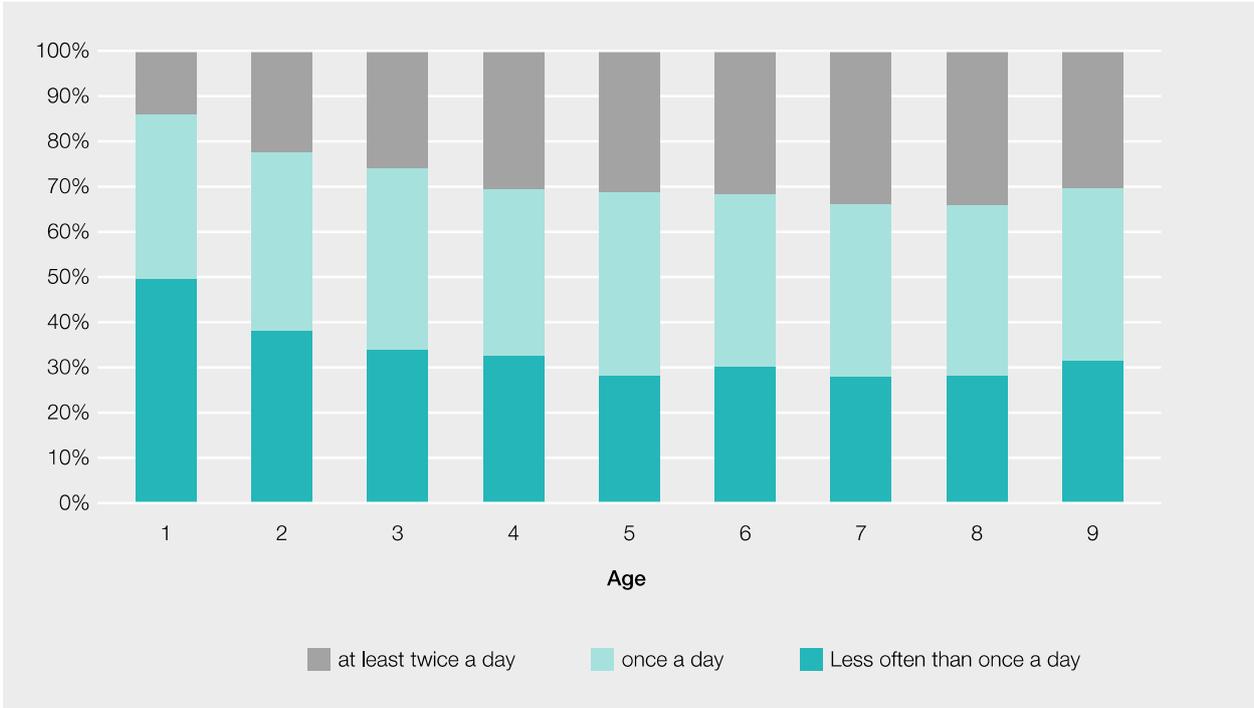
⁴ For more information on this score refer to Appendix B.

The data also shows an association with overall health. In general, children who have less than 10 hours sleep per night are more likely to have primary-carer-reported poor or fair health. Blunden and Camfferman (2013) also note that recent findings suggest links between obesity and reduced sleep duration. While the *Footprints in Time* data show children who are underweight or obese have between 10 and 15 minutes less sleep a night, the differences are not statistically significant in this analysis. Children whose primary carer reported that they had experienced chest infections such as bronchitis or pneumonia in the previous 12 months also had about 10 minutes less sleep per night than children who had not experienced chest infections. This finding is significant at the 90 per cent level ($p < 0.1$). On the other hand, children whose primary carer reported that they suffered from asthma did not have significantly different sleep times from children who did not. However, these children were significantly more likely to have experienced sleep difficulties.

Dental health

Good oral health is an essential part of overall health. Tooth loss can restrict eating and may thereby lead to weaker nutritional intake. The ramifications of poor oral health can be immense and there is a marked oral health disparity between Indigenous and non-Indigenous Australians. In Australia, Indigenous people have more caries, periodontal disease and tooth loss than other Australians, and given that problems are likely to go untreated, are also more likely to have teeth removed (University of Adelaide Indigenous Oral Health Unit 2014). Brushing teeth regularly is a major activity in the prevention of dental problems. ‘Teeth should be brushed twice a day, preferably after breakfast and before bedtime’ (Simply Teeth 2014). Each wave, *Footprints in Time* asks how often children brush their teeth and about any visits to the dentist. Figure 1 shows that as children get older, the rate at which they tend to brush their teeth also increases, up until 5 years of age. After 5 years, the rate remains more or less stable.

Figure 1: Frequency of teeth brushing by age of child, per cent



Tabular version of figure 1

Age of child	At least twice a day	Once a day	Less often than once a day
1	49.6	36.3	14.1
2	38.1	39.4	22.5
3	33.9	40.0	26.0
4	32.5	37.0	30.5
5	28.3	40.6	31.1
6	30.3	28.0	31.7
7	28.0	38.2	33.8
8	28.1	37.9	34.0
9	31.6	38.2	30.3

Less than half of the children (48.3 per cent) had seen a dentist or dental nurse in the 12 months prior to interview. Seven primary carers indicated that they were not sure. Of those who responded to the questions about where the child had been to a dentist, the most common response was at school (44.1 per cent) followed by Aboriginal Medical Centre (16.0 per cent). However the pattern of access was quite different by level of relative isolation. Children were least likely to visit a dentist at school if they lived in areas of low isolation but this group was most likely to visit a dentist at an Aboriginal Medical Centre. Private practice dental care was most commonly provided to children in urban areas. The differences between areas by level of relative isolation are likely to be a reflection of the accessibility of appropriate services in the area. The fact that for all levels of isolation, children were most likely to visit a dentist through their school is an indication of widespread provision of dental services through schools. However, this raises the question about whether children who are not yet school age have access to appropriate services.

Table 4: Dental service access by level of relative isolation, per cent

Type of service	Urban	Low	Moderate	High/extreme	Total
School	44.3	39.6	59.1	43.1	44.1
Aboriginal Medical Service	10.9	24.6	6.8	3.4	16.0
Private practice	25.3	8.8	4.5	0.0	12.1
Hospital	11.5	13.7	12.4	27.6	13.9
Community health centre	12.6	16.1	21.6	27.6	17.0

Note: Totals add up to more than 100 per cent as some children visited more than one type of service. There were also a small number of children who visited an 'other' type of service not shown in the table.

As children get older, primary carers are more likely to report that they have experienced dental problems in the last year. This proportion increases from 5.9 per cent when they are 1 year old to around 40 per cent when they are 6 years old. From this age the proportion remains fairly stable between 38.2 and 42.1 per cent.

If a child had experienced one or more problems with their teeth, their primary carer was significantly more likely to report poorer overall health for their child. The data also show a statistically significant association between dental problems and the number of times the child drank soft drink in the day prior to interview. Children who had experienced problems with their teeth were more likely to have drunk soft drink and were more likely to have drunk it more times in the day.

One study child was so impressed with the new *Footprints in Time* toothbrush that I had given her that she sat on the chair brushing her teeth while I was interviewing her.

Peers and friends

Having friends provides support and promotes mental health and wellbeing. Friendships also help children develop their social and emotional skills. Children who have more friends are more likely to be self-confident and are more likely to perform better at school (Kids Matter 2014).

When they enter school, children have increased opportunity to select who they wish to play and become friends with. For some, this involves playing with the same group of children while others have no particular group or prefer to play alone. Primary carers of children in the older cohort were asked whether their child usually played with the same group of friends. Of the 530 children in the cohort, 371 children (70.0 per cent) were reported by their primary carer as playing with the same group, 25 (4.7 per cent) preferred to play alone and 125 (23.6 per cent) did not always play with the same friends. Of the remaining 9, 8 primary carers said that they did not know. The primary carers whose child always played with the same group of friends were asked a series of questions about the characteristics of their child's friends.

Table 5: Parental perception of child's friendship groups, per cent

What parents think about their child's friends	Definitely not	Usually not	Sometimes	Mostly	Always
They are a good group of kids (4)	2.5	1.1	20.2	24.8	51.5
You worry when study child is with their friends (4)	46.1	15.9	22.4	2.9	12.7
They are a bad influence on study child (4)	57.2	16.1	21.3	1.9	3.5
They need to be closely supervised by adults (0)	33.3	18.7	23.9	6.8	17.3
They like school (23)	2.6	1.2	12.9	23.9	59.5
They like sports (13)	2.8	2.2	9.8	19.3	65.9
They are often in trouble (13)	45.3	21.5	27.7	2.2	3.4
They respect elders, aunties and uncles (20)	2.6	1.1	13.1	20.5	62.7
They have nothing to do (17)	44.4	20.3	25.1	4.5	5.7
They try out things they are not old enough for (7)	79.1	4.7	6.3	4.7	5.2
They are helpful and kind (6)	1.9	1.9	17.8	21.6	56.8
Study child has a fun time with them (47)	0.6	0.6	5.6	17.0	76.2

Note: Numbers in brackets indicate the number of 'don't know' or 'refused' responses to the particular question. The percentages in the columns do not include missing responses.

Over half (51.5 per cent) of the primary carers said that their child always played with 'a good group of kids' and a further quarter considered they were mostly 'a good group of kids'. Only 2.5 per cent of parents said that their children definitely did not play with 'a good group of kids'.

The responses show that on the whole the parents are happy with the friendships that their children have formed. The two main exceptions are for the questions asking about whether primary carers are worried about them when they are with their friends and whether they need to be closely supervised by adults. Relatively high proportions in the 'always' category may reflect the age of the child rather than the primary carers' attitudes to the child's friends.

The responses to these questions may be turned into a measure reflecting parental satisfaction with the children's friendship groups.⁵ The measure assigns a score of between 10 and 50, where high scores reflect higher parental satisfaction. This can then be used to determine associations with child outcomes. The measure of parental satisfaction with friendship groups does not show a significant association with reading outcomes for children. However, higher social and emotional difficulties scores in Wave 4 were significantly associated with lower primary carer satisfaction with the child's friendship group in Wave 5.

⁵ The measure excludes the questions about needing close supervision by adults and liking sports. The alpha for this measure is 0.8.

Children share their feelings

As the children get older the *Footprints in Time* study is asking them to share with us more information about themselves. The children in the older cohort were asked how often they felt certain emotions; happiness, fear, sadness, anger and pride. Table 6 shows the responses given by the children.

Table 6: Child reported feelings, per cent

How often do you ...	Lots	Sometimes	Hardly ever
... feel happy	54.3	42.6	3.2
... get scared	11.7	47.5	40.8
... feel sad	6.3	53.4	40.4
... get angry or mad	21.8	49.1	29.1
... feel proud	59.2	36.2	4.7

Overall, the children said they experience the positive emotions lots of times and the more negative emotions less frequently. The majority of children responded that they feel happy and proud on lots of occasions and most do not live with lots of fear or sadness. It is worth noting that most of the children who said that they feel sad or scared lots of times also responded that they also felt happy lots of time or sometimes. On the whole there are no differences in the response patterns to the questions by level of relative isolation. The one exception is found in the question about feeling happy. Children in areas of moderate isolation were significantly more likely to respond that they felt happy lots of the time than children living in areas of low isolation. The question about feeling happy was also the only one that showed significant differences for boys and girls. Girls were significantly more likely than boys to respond that they felt happy lots of the time.

Favourite animals and pets

People have been living with animals throughout history but it is only in recent times that scientific studies have sought to prove the beneficial effects of keeping animals as pets. Studies have found that:

- Children who grow up learning to treat a pet as a member of the family tend to mature into adults with greater empathy towards other members of society (Poresky 1990).
- Children who grow up with pets have less risk of allergies and asthma (Johns Hopkins Medicine 2014).
- Pets may promote a healthy lifestyle through increasing exercise by activities such as walking a dog, riding a horse, playing with a kitten (News in Health 2014).

At the age of 5 years, the children in the younger cohort are developing their own preferences. In Wave 5, they were asked about their favourite animals. Of the 728 children in the younger cohort, 667 children specified their favourite animal.

Not surprisingly, some children talked about their pets as being their favourite animals. While some children mentioned animals with which they were familiar or wanted as pets such as cats and dogs, other children mentioned more exotic animals which they wanted to meet such as dinosaurs and elephants.

Children in the younger cohort were also asked if they had a pet and if so were invited to tell us about that pet. There were 487 children who said they had pets but at least six went on to say that either their pet had died or run away or that they didn't have one but would like one.

Reflecting the children's favourite animals, dogs and cats were the most common pets followed by birds (including chickens), guinea pigs and rabbits. There were also seven children who had pet snakes. The number of girls who had dogs was the same as for boys but girls were more likely than boys to have cats. Of the 352 children who had a dog as a pet, 105 (29.8 per cent) also mentioned it as their favourite animal and of the 122 who had a pet cat, 30 (24.6 per cent) mentioned it as their favourite.

As part of the household the family pet is sometimes hard for interviewers to ignore. Dogs goats and even draught horses make it difficult to get past the gate. Interviewers are not always as enthusiastic about snakes and rats as their owners and dogs climbing up your legs biting your ankles or fighting in the background can make interviewing difficult.

Family and social support

As they begin to make sense of their world, young children tend to seek advice and comfort from the adults in their lives, although in some cases they will turn to their peers. *Footprints in Time* children in the older cohort were asked a series of questions about who they would go to for assistance or to talk to in various situations. These included who they would go to for help with homework, if they were hurt or sick, if they were sad or upset, if they wanted to talk about something good that had happened, if they were being bullied, if they needed money or if they wanted to learn about being Aboriginal or Torres Strait Islander. Children were asked to nominate all the different people to whom they would turn in each situation.

In all situations except being bullied, children were most likely to nominate their mother as the person they would turn to. Nearly 80 per cent of children turned to their mothers when they were sick or hurt. Just over 60 per cent of children turned to their mother but not their father while around 20 per cent turned to both their mother and father and a further 6 per cent turned to their father but not their mother. The situation in which children were most likely to turn to their fathers was when they wanted to talk about something good that had happened (36.6 per cent). Children not living with their father in the household were less likely to seek help from their father.

Children who experienced bullying were most likely to turn to their teacher for help (71.3 per cent) suggesting that this is very much a school based problem. Teachers were also seen as someone to turn to for help with homework (12.5 per cent) but not as often as children turned to mothers (68.7 per cent) or fathers (19.6 per cent). Children also turned to their teacher when they were sick or hurt (22.7 per cent).

Mothers and fathers again played the most important role in helping their children learn about being Aboriginal or Torres Strait Islander although the difference between the two was much smaller than for all other situations (39.9 per cent for mothers and 30.6 per cent for fathers). Not surprisingly, children are more likely to go to their mothers to learn about being Aboriginal or Torres Strait Islander if their mother is Indigenous (43.3 per cent vs 23.8 per cent for non-Indigenous mothers). Grandmothers and teachers were also seen as good sources of information for this (21.5 per cent and 21.7 per cent respectively). Children were most likely to ask for help from Aboriginal elders or leaders when they wanted to learn about being Indigenous; 12.0 per cent of children nominated them as someone they would ask. Interestingly, a number of children nominated the *Footprints in Time* interviewer as someone they would ask about this.

One study child asked his friend to come over to his house while I was interviewing him. He told him 'this is the lady that does black fellas stuff with me'.

Another child asked her mother ‘when is my Aboriginal teacher coming to see me?’

Friends were most likely to be someone with whom to discuss something good that had happened (15.0 per cent), compared to seeking their help or advice in other situations.

Overall, most children had someone they felt comfortable going to for problems or talking with. Of the different situations asked about, children were most likely to say they turned to no-one for help with homework (5.5 per cent) and only two children (0.4 per cent) said they turned to no-one when they were sick. In all situations, more than a quarter of the children had more than one person they would go to. Children were especially likely to share with more than one person when something good had happened (43.8 per cent) and were least likely to ask more than one person for help with homework (25.2 per cent).

Children at play

Play is so important for optimal child development that it has been recognised by the United Nations High Commission for Human Rights as a right of every child. Play is essential to development because it contributes to the cognitive, physical, social and emotional wellbeing of children (Ginsberg 2007).

The learning benefits of play are as numerous as the play activities children engage in. Children in the older cohort were invited to tell us their favourite thing to do when they are not at school. There were 509 children who provided an answer and between them they liked to do a wide range of activities. Many of the children provided more than one activity that they particularly enjoyed. Their responses have been grouped to provide information about the types of activities they engage in. The most commonly mentioned activities were playing the computer or other console based games, watching TV or DVDs and playing with their friends. Responses have been grouped into indoor and outdoor type activities.⁶ Many children listed more than one activity and many (36.3 per cent of the responses) said they enjoyed both indoor and outdoor activities.

Indoor type activities were mentioned by 367 children (78.9 per cent of responses). These included watching TV, playing computers, playing with toys, reading, musical activities and doing arts and crafts. There were 103 (20.2 per cent) children who mentioned watching TV or DVDs as a favourite activity but over 40 per cent of these children also mentioned an outdoor activity. Computers and console-based games were the most popular activity, with 316 children (62.1 per cent) saying they enjoyed these. Computer-based activities were more popular with boys than with girls (66.0 per cent as opposed to 57.9 per cent). Girls were more likely to mention activities such as arts and craft, reading and music. Overall the same proportion of boys as girls (79.8 and 78.1 per cent respectively) nominated an indoor activity as one of their favourites.

Outdoor type activities were mentioned by 263 children (51.7 per cent of responses). These included playing various ball sports, going to the park, riding bikes, swimming and fishing. Trampolining was specifically mentioned as a favourite by 28 children. Of the children who responded to this question, 48.6 per cent of girls and 56.5 per cent of boys mentioned an outdoor type of activity. These types of activities involve physical activity and, besides the obvious advantages of increasing physical health and fighting obesity, they promote skills such as social interaction, decision making and leadership, confidence and resilience (Ginsberg 2007).

⁶ There are a number of responses for which the indoor outdoor distinction cannot be made, for example, “playing with friends”.

Contact with other people was especially important for children in their activities out of school, with 117 children specifically mentioning that they liked to do things with their friends and 56 children mentioning playing or spending time with various family members, especially siblings and cousins. Boys and girls were equally likely to enjoy spending time with family and friends but children who lived in areas of higher isolation were more likely to state that they enjoyed this.

Examples of children's favourite activities outside of school

'I like going on YouTube and playing with my rabbit'

'Art, dancing, singing. Play with my brothers, annoying my eldest brother, singing'

'Playing with friends, playing cops and robbers, playing the Play Station'

'Playing with family and friends, watching DVDs, jumping on the trampoline, going looking for bush tucker'

'Making cubby house with my friends and playing with my family'

'Doing my homework, reading, eating healthy food'

'Going shopping with Mum, playing Uno with Mum, painting and making jewellery, playing with Dad'

'Play, I surprise my Mum by cleaning up'

'I like to write songs'

'I like to design clothes for my Barbie'

Visiting one of the islands one day I saw a group of boys around 10 years old who had made a raft from an old shipping crate. They had launched it into the water and were diving from it for crayfish. They sailed around the island on this raft. Each boy took his turn to remain on the raft as lookout; there were sharks on one side of the island and crocodiles on the other

For references and appendices cited in this research, please refer to the full version of the *Footprints in Time: the Longitudinal Study of Indigenous Children Report from Wave 5*.