

STATE OF PLAY SURVEY

EXECUTIVE REPORT

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HUMAN POTENTIAL CENTRE
AN AUT UNIVERSITY RESEARCH CENTRE

in partnership with Persil



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Section 1: The situation

New Zealand (NZ), like most developed and developing countries, is experiencing rapid change in how we live our lives. We are in the midst of a digital revolution, whereby advancing technology presents us with increasing opportunities to conserve energy and to distance ourselves from the natural world. Consequences of this revolution include obesity and related downstream chronic diseases that are now common in our communities.

We have become reliant on technology for activities of daily living, and as a result many of our children are living lives which are more sedentary and experience less adventure and risk than their parents enjoyed in their own childhoods. This 'new normal' for our children is founded on insufficient movement, excessive screen time, and less time spent in the natural environment. Play that is challenging, stimulating, and involves some physical risk is an important contributor to healthy growth and development in children.¹

There is a growing concern that our increasingly risk averse society is contributing to a generation of 'bubble-wrapped' children that have limited opportunities to play creatively, instigate physical activity, overcome challenges independently, and learn to manage risks appropriately.²⁻⁵

This report provides a snapshot of NZ parent's perceptions of play, using data from the 2015 State of Play survey. These results tell us about how NZ parents perceive their children's play behaviours and opportunities, and how these perceptions influence the level of unstructured play and the resultant levels of risk permitted by parents.



1.1 Why 'real' play?

The importance of quality play experiences for children's physical, social, and emotional development is well established. Play provides opportunities for children to be physically active, and enhances motor, social and communicative skills, cognitive abilities, resilience, wellbeing, and creativity.⁶⁻⁸ Over the last three decades, however, children in the developed world have shifted from mostly unstructured, unsupervised, outdoor play to structured, supervised, and/or indoor activities.^{9,10} Modern outdoor public and school playgrounds are typically static structures designed by adults to support a predetermined set of activities that prioritise injury prevention above all else.^{3,4} Furthermore, as parental efforts to safeguard their children increase, opportunities for children to engage in risky and unstructured 'real' play diminish.¹¹ Play spaces created by adults habitually align with their own perspective of children's play preferences, with safety being a key factor. This frequently leads to brightly coloured and highly structured play spaces, whereas it appears that children prefer to play in natural outdoor environments.¹²

In recent years, several overseas agencies have called for a return to a 'real play' culture that allows children the freedom to play creatively on their own terms, balancing exposure to risk with the potential developmental benefits.^{3,4,13,14} Real play has been described in the literature as any play that involves risky play (play involving rough-and-tumble, speed, heights, natural elements, tools, or independent exploration) and object play (play that uses loose parts or objects to construct, move, or interact with others).^{15,16} Real play is associated with a range of positive physical and mental health outcomes, including increases in physical activity,¹⁷ social skills,¹⁷⁻¹⁹ resilience,^{14,17,18} creativity,^{17,18,20,21} risk management skills,^{22,23} and a decrease in anxiety.²⁴ Recently, real play was linked to increased executive function in children,²⁵ an advanced cognitive system essential for planning, problem solving, inhibitory control, and managing novel or potentially dangerous situations. Furthermore, there is evidence that providing real play opportunities for children does not increase the prevalence of injuries.¹⁷ Despite the prospective benefits of promoting real play in children, we know very little about the real play perceptions and practices in NZ families. This information is essential if we are to map a way forward, building real play back into the lives of Kiwi kids.

Creating further concern is that greatest predictive factor of children's independent mobility – roaming the neighbourhood unsupervised by adults – appears to be parental concern about their child's safety, with 'good parenting practice' perceived as chauffeuring children to a wide range of activities and destinations.²⁶ Paradoxically, lower parental license for child independent mobility and risky play may generate much greater risks in terms of impaired physical and emotional development. Reduced driver safety practices due to low presence of pedestrians and children in public spaces result in an environment that is less safe for our children to roam in. Similarly, parental concern about traffic and their child's safety has led to fewer children walking or riding their bikes to school. The subsequent traffic congestion created by children being driven to school creates further difficulties for children to engage in active transport to and from school.

In response to these ongoing issues, AUT University's Human Potential Centre, in partnership with Persil, has developed the first nationwide survey of real play perceptions and practices. We believe this comprehensive and representative dataset will enable us to determine where the greatest areas of concern lie, and how we might best engage with parents to adopt real play philosophies in their daily lives.



1.2 What's in this report?

1.2.1 Survey design

This report presents key findings relating to real play perceptions and practices, independent mobility, active transport, and screen time. Our interpretation of real play was largely based on the definition of risky play by Ellen Sandseter.^{15, 24} In her seminal work, she identifies six main components of risky play that we have incorporated into the survey design: (1) play at great heights, (2) play with high speed, (3) play with dangerous tools, (4) play near dangerous elements, (5) rough-and-tumble play, and (6) play where children can 'disappear'. We have also added two additional components to broaden our concept of real play: play with loose objects (e.g., sticks, timber, tyres, tarpaulins) and 'messy' play (e.g., mud, dirt, sand, water, paint).

The survey structure consisted of a combination of questions specific to real play in NZ and several existing scales developed overseas:

- The Tolerance of Risk in Play Scale (TRiPS)²⁷: A series of 32 questions for assessing the relative risk tolerance or risk aversion in parents.
- Perception of Positive Potentiality of Outdoor Autonomy for Children (PPPOAC) scale²⁸: A scale that quantifies parental perception of social danger and traffic danger.
- Risk Engagement & Protection Survey²⁹: A series of questions designed to quantify the degree of protective behavior in parents.
- Licenses for Children's Independent Mobility³⁰: A set of mobility 'licenses' that parents give their children.

Sociodemographic questions were taken from the NZ Census or the NZ Health Survey questionnaires.

1.2.2 Survey implementation

The 2015 survey included 2,004 parents or caregivers aged 18 years and over, randomly selected from one of NZ's largest research panels. Email invitations were sent to a total of 13,400 active panel members (return rate 19%) that were listed as having at least one dependent child younger than 18 years. Participants completed a web-based survey using a typical point-and-click interface visually and functionally similar to a paper-based survey. The benefits of using online surveys include: reduced recruitment, data entry and data collection costs, increased variation in sample population (urban and rural householders), and increased accuracy of data. The NZ branch of TNS Global carried out the recruitment and data collection. The results in this report refer to the sample selected from 19th to 31st August 2015.



1.2.3 Key demographics of the sample

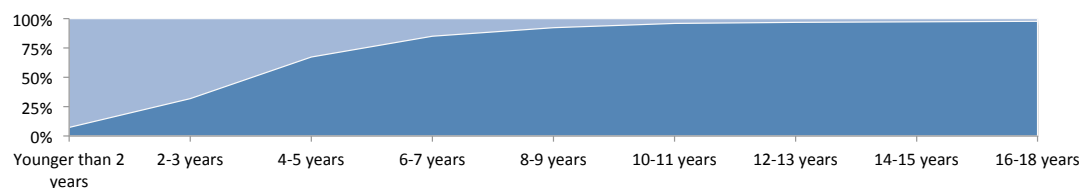
- Male: 628; Female: 1376; Total: 2004.
- One child: 33.7%; Two children: 41.1%; Three children: 17.4%; Four or more children: 7.8%.
- Under 30 years: 9.6%; 30-39 years: 31.5%; 40-49 years: 39.9%; over 49 years: 19.1%.
- NZ European: 70.6%; NZ Maori: 11.7%; Pacific Island: 5.7%; Asian: 7.3%.
- North Island: 77.1%; South Island: 22.6%.
- Large city: 46.9%; small city: 22.8%; town: 18.8%; small town: 5.1%; rural: 6.1%.
- Income less than \$40,000: 18.6%; \$40,000-100,000: 42.7%; more than \$100,000: 21.5%.
- Working in paid employment: 63.6%; housework: 16.4%.

Section 2: State of Play in NZ

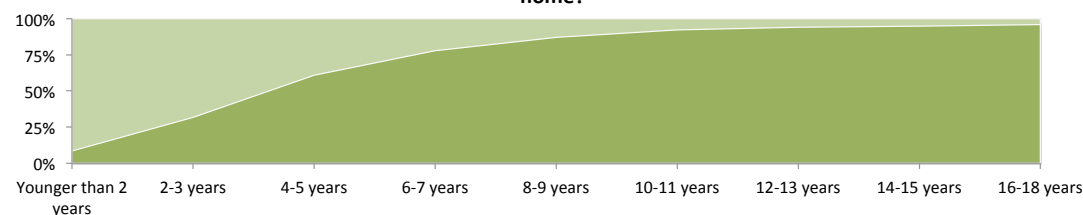
2.1 Perceptions of play

Most parents believe that children should be allowed to engage in real play at some point in their development, but the age at which they should first be allowed depends on play type and setting.

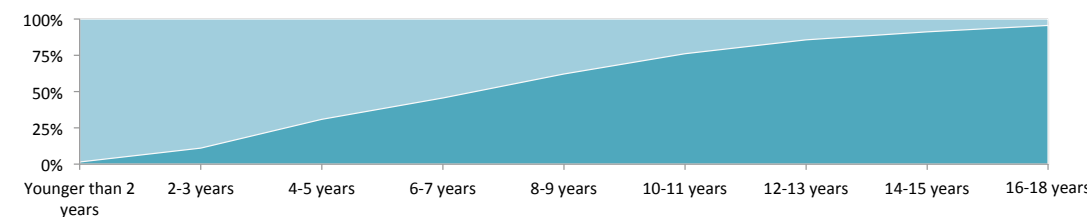
At what age should children first be allowed to climb trees at home or in their local park/recreation areas?



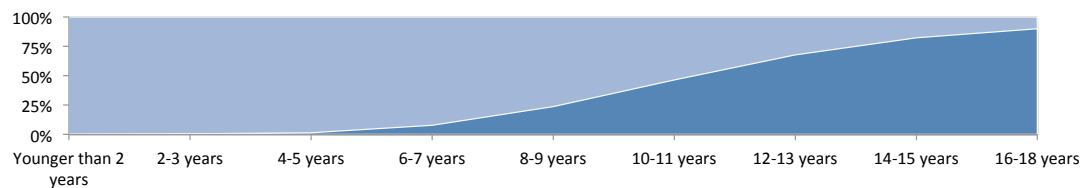
At what age should children first be allowed to engage in rough-and-tumble play at home?



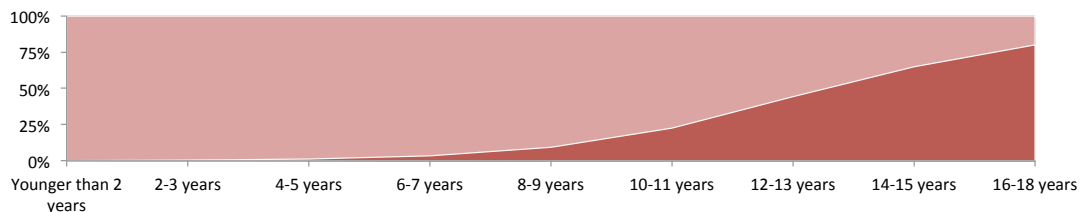
At what age should children first be allowed to use adult tools at home?



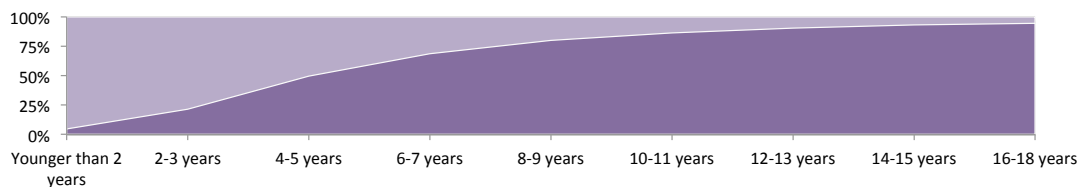
At what age should children first be allowed to roam the neighbourhood with friends but unsupervised by adults?



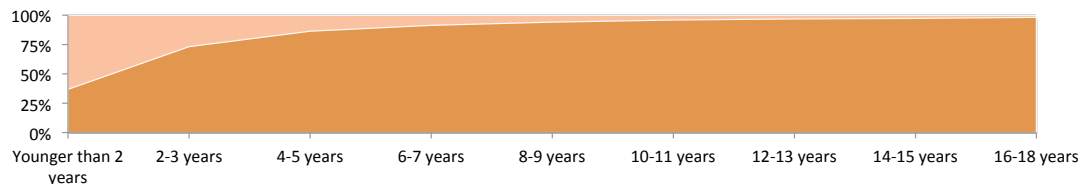
At what age should children first be allowed to roam the neighbourhood alone?



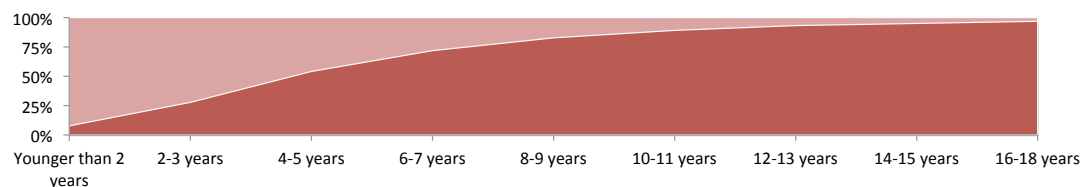
At what age should children first be allowed to use loose parts (e.g., sticks, tyres, timber) during outdoor play at home?



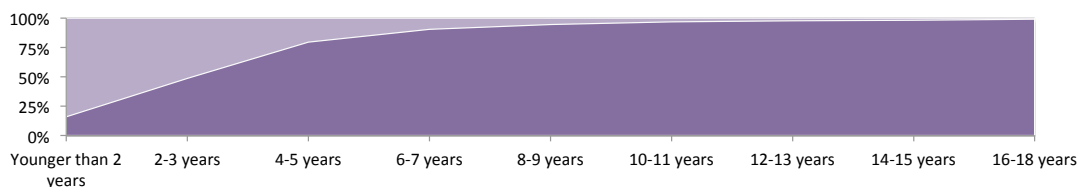
At what age should children first be allowed to engage in 'messy' play (e.g., mud, dirt, sand, water, paint) at home?



At what age should children first be allowed to ride non-motorised vehicles (e.g., bikes, scooters) in their neighbourhood?

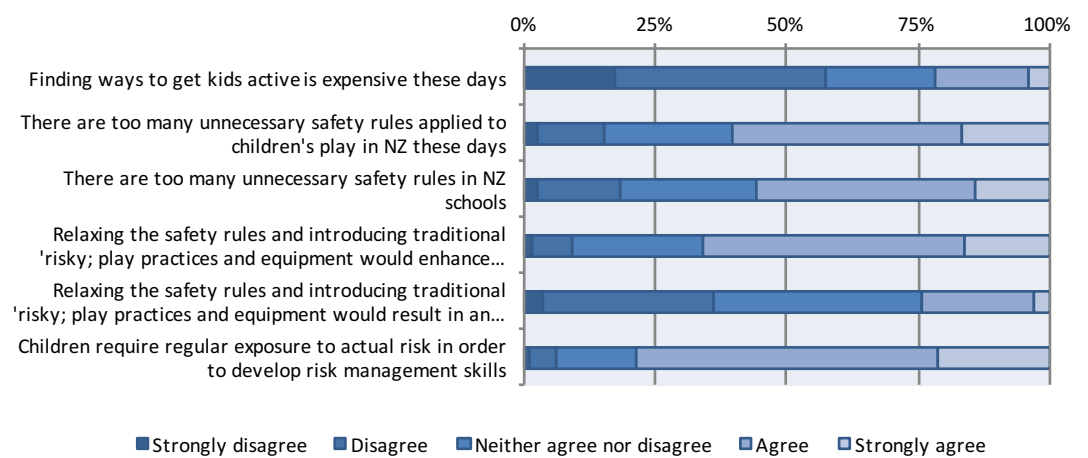


At what age should children first be allowed to climb and play on playground equipment (e.g., monkey bars, ladders, slides)?



- Most parents thought that children should take part in messy play, use playground equipment, climb trees, and use loose parts by the time they were 4-5 years old.
- Activities that parents believed should only be done by older children included roaming the neighbourhood with friends (median: 10-11 years), roaming the neighbourhood alone (median: 12-13 years), and using adult tools (median: 6-7 years).
- Almost 25% of parents believed even 18-year-olds should not be allowed to roam the neighbourhood alone.

There is a common perception among NZ parents that some risk in play is good for children's development, and that NZ children are generally overprotected.



- 60.4% of NZ parents believe there are too many unnecessary safety rules applied to children's play these days.
- 78.6% of NZ parents believe that children require regular exposure to actual risk in order to develop risk management skills.
- 66.2% of NZ parents believe that relaxing the safety rules and introducing 'risky' play practices and equipment in schools would enhance children's development.

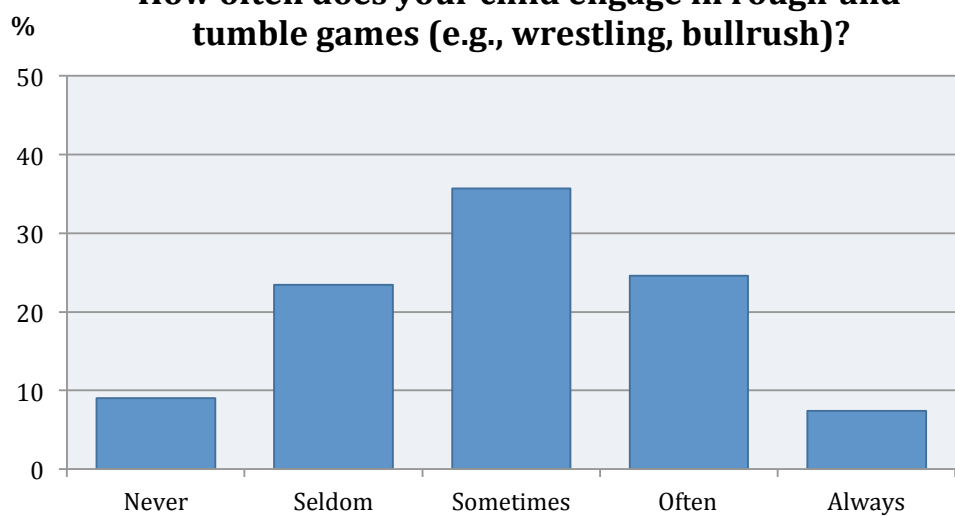
2.2 Play practices

Despite positive perceptions of real play, the majority of NZ children do not often participate in real play activities.

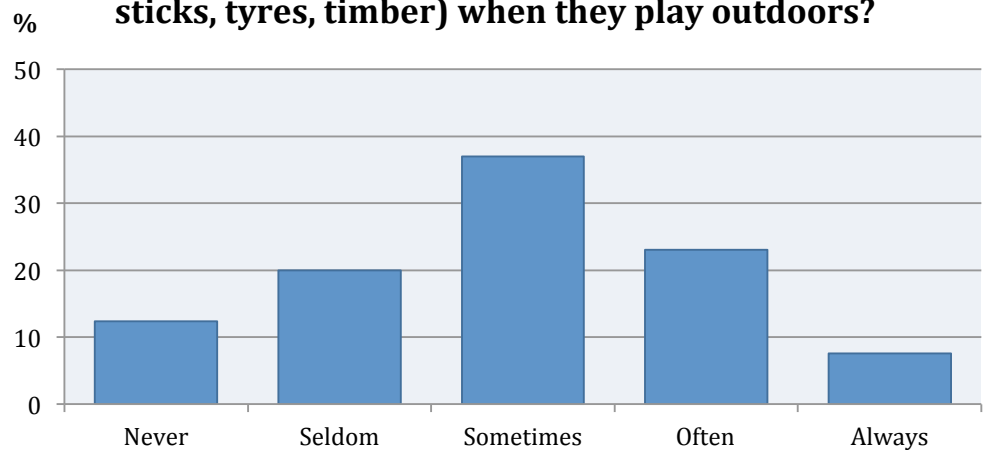
How often does your child climb trees?



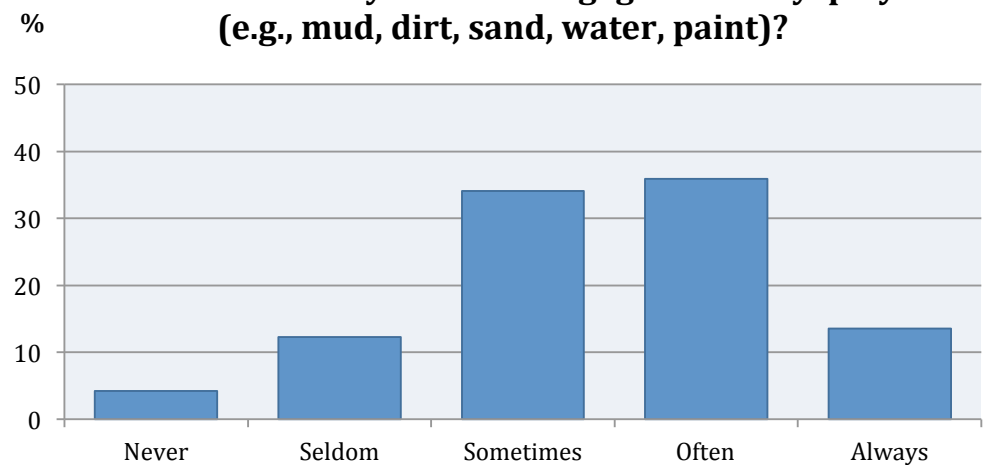
How often does your child engage in rough-and-tumble games (e.g., wrestling, bullrush)?



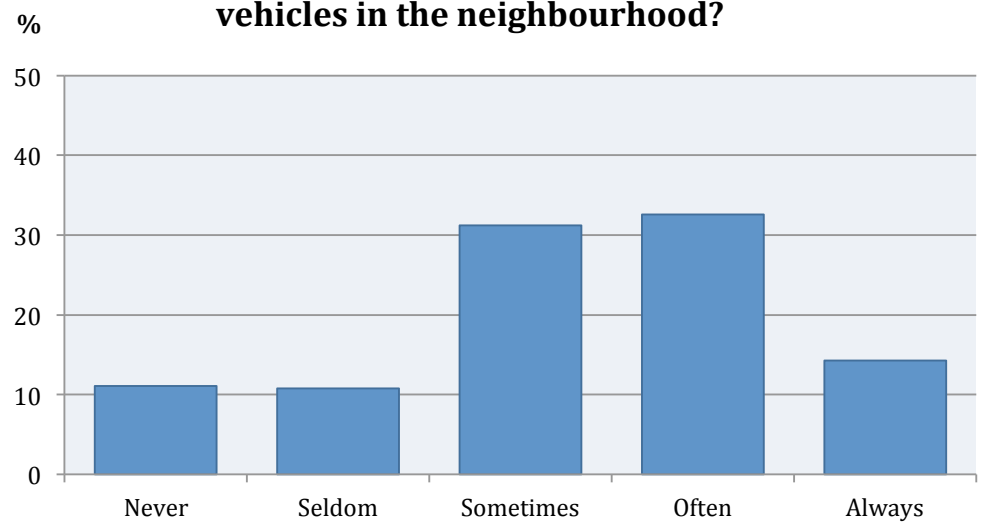
How often does your child use loose parts (e.g, sticks, tyres, timber) when they play outdoors?



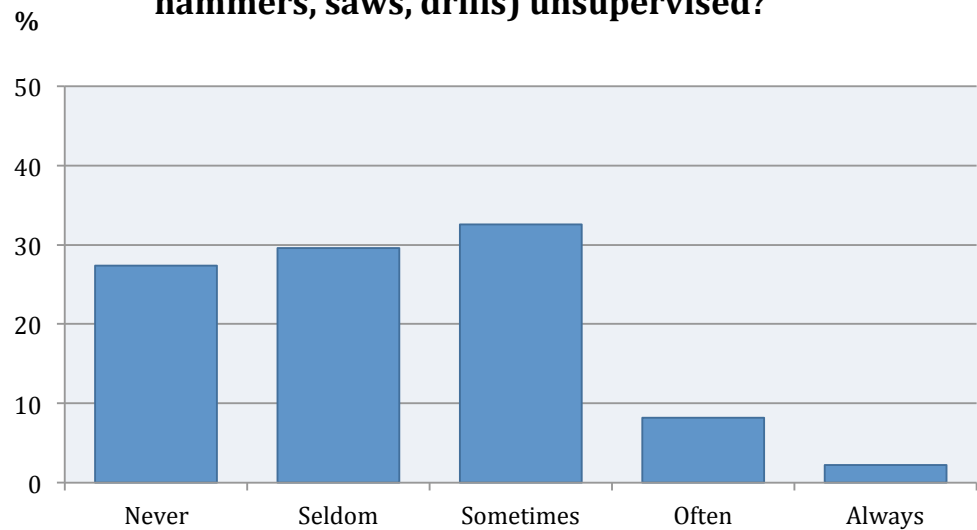
How often does your child engage in 'messy' play (e.g., mud, dirt, sand, water, paint)?



How often does your child ride non-motorised vehicles in the neighbourhood?



How often does your child use adult tools (e.g., hammers, saws, drills) unsupervised?

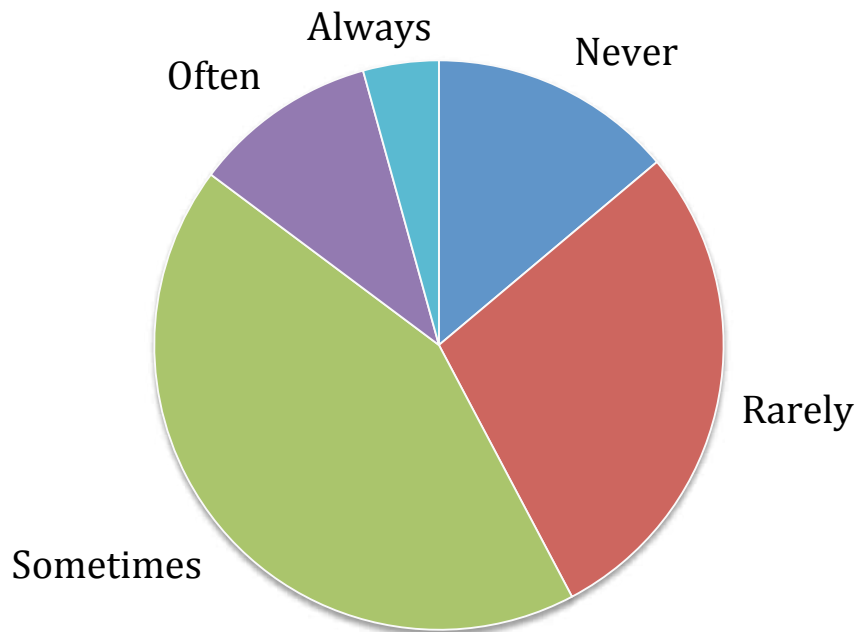


- 71.8% of NZ children do not often climb trees.
- 68.4% of NZ children do not often engage in rough-and-tumble games.
- 69.9% of NZ children do not often use loose parts (e.g., sticks, tyres, timber) when they play outdoors.
- 51.1% of NZ children do not often engage in messy play (e.g., mud, dirt, sand, water, paint).
- 53.8% of NZ children do not often ride bikes, scooters, or other non-motorised vehicles.
- 90.0% of NZ children do not often use adult tools unsupervised.
- Only 5.7% of NZ children participate in all six of the above activities often or always.



Playing outside in the rain is a fun opportunity for children to engage in real play; however, only a small proportion of NZ children regularly do so.

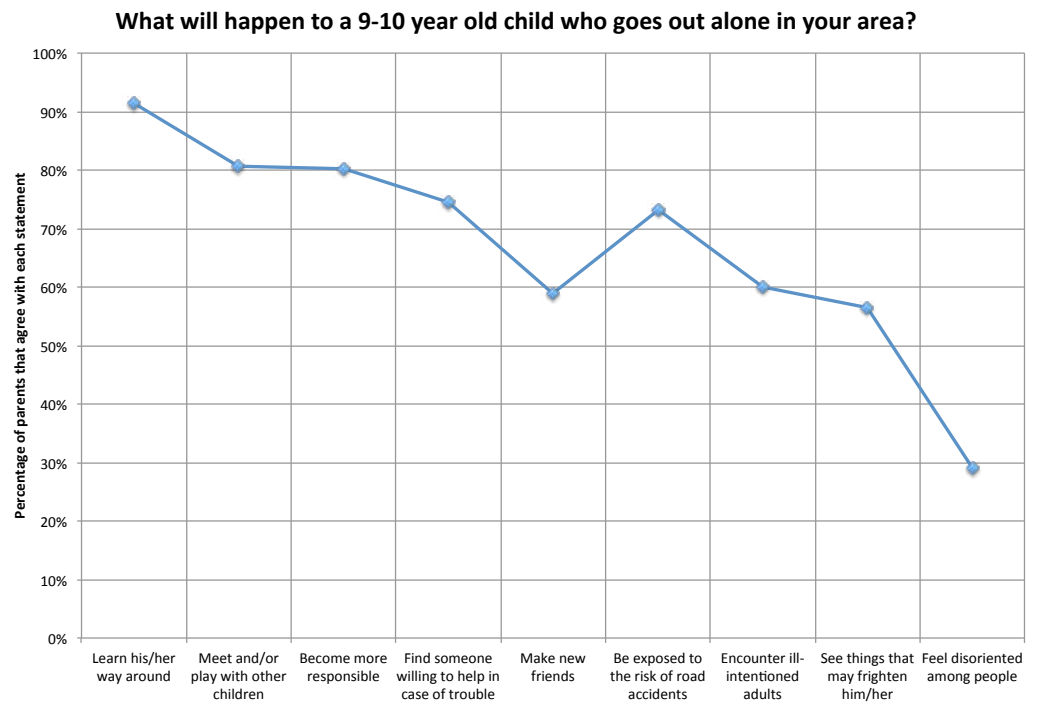
How often do you allow your child to play outside when it is raining?



- Only 14.8% of NZ children are often allowed to play outside in the rain.
- The two major reasons that parents do not allow their children to play outside in the rain are concerns that it will be too cold (51.8%) and the perceived risk that their child will get sick (53.9%).
- Mothers were 1.6 times more likely to regularly allow their child to play outside in the rain than fathers.
- Compared with mothers, fathers were more concerned of their child getting sick or getting too messy when playing outside in the rain.

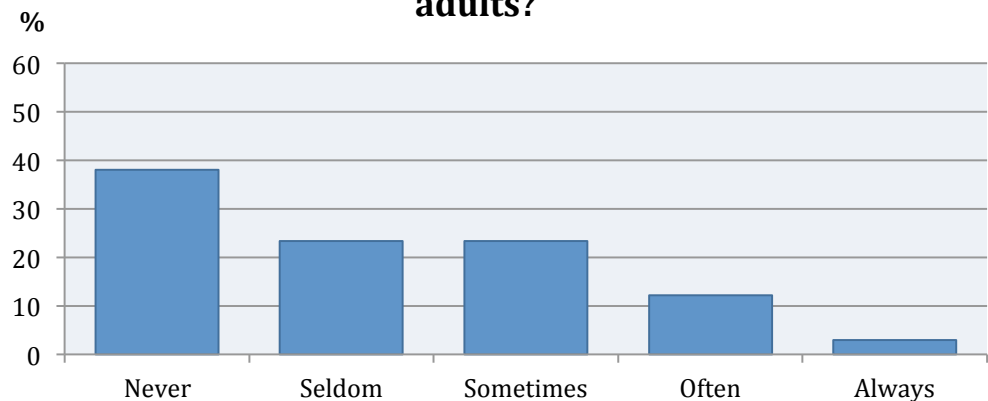
2.3 Exploring the neighbourhood

Most NZ parents believe that allowing older children to go out alone in their neighbourhood would be positive for their development, but very few permit them to do so, largely due to a fear of traffic accidents and stranger danger.

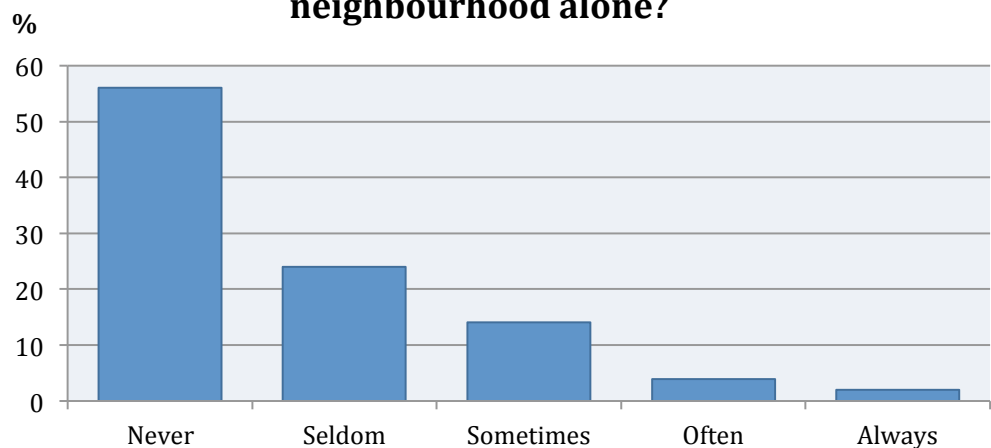


- 91.5% of NZ parents believe independent roaming helps children to learn their way around the neighbourhood.
- 80.7% of NZ parents believe independent roaming allows children to meet and play with other children.
- 58.8% of NZ parents believe independent roaming helps children to make new friends.
- 80.2% of NZ parents believe independent roaming helps children become more responsible.

How often does your child roam their neighbourhood with friend but unsupervised by adults?

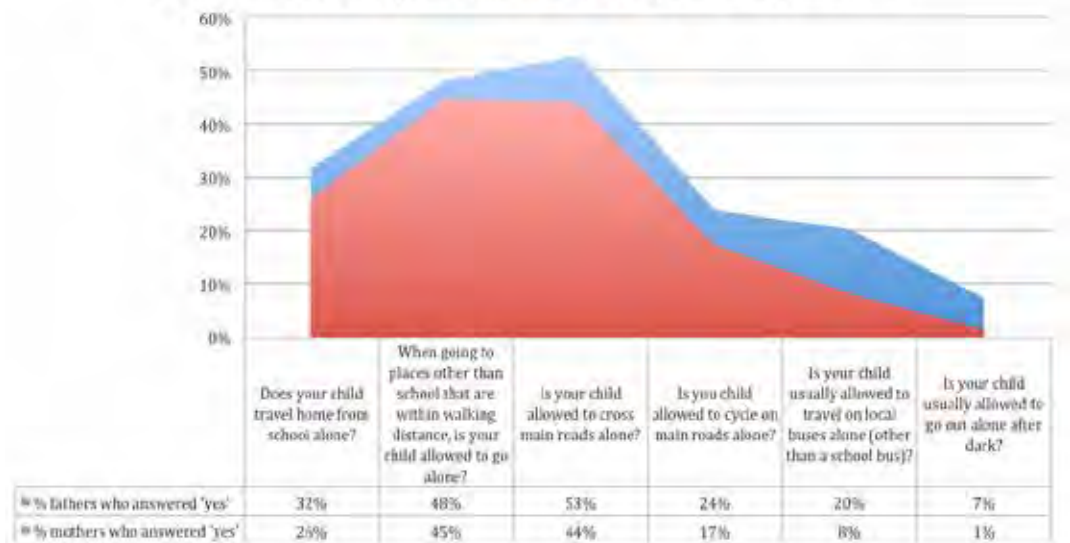


How often does your child roam their neighbourhood alone?



- 94.1% of NZ children aged 8-12 years do not often roam their neighbourhood alone, and 84.9% do not often roam their neighbourhood with friends (but unsupervised by adults).
- 73.2% of NZ parents believe independent roaming exposes children to the risk of road accidents.
- 59.9% of NZ parents believe children who independently roam their neighbourhood are likely to encounter ill-intentioned adults.
- Children of parents who are not concerned about traffic accidents or stranger danger are 1.7 times more likely to regularly roam the neighbourhood with friends or by themselves compared with children of parents who are concerned about traffic accidents or stranger danger.

What rules do we place on our 8-12-year-old children?



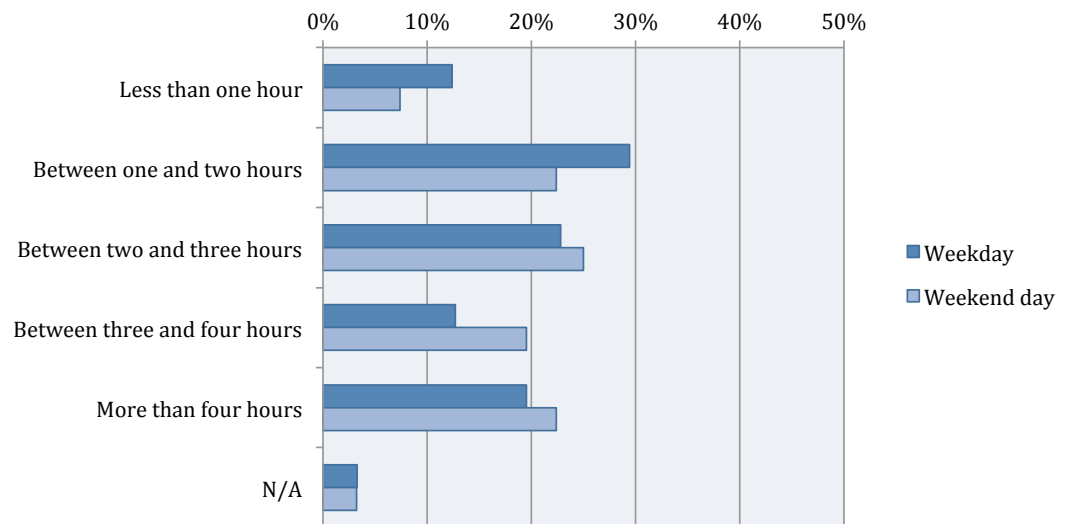
- The majority of NZ parents of children aged 8-12 years have rules about roaming the neighbourhood.
- Mothers are more likely to have rules about roaming than fathers, especially for travelling alone on a local bus.
- Only 47% of NZ children aged 8-12 years are allowed to cross main roads on their own, and only 19% are allowed to cycle on main roads alone.



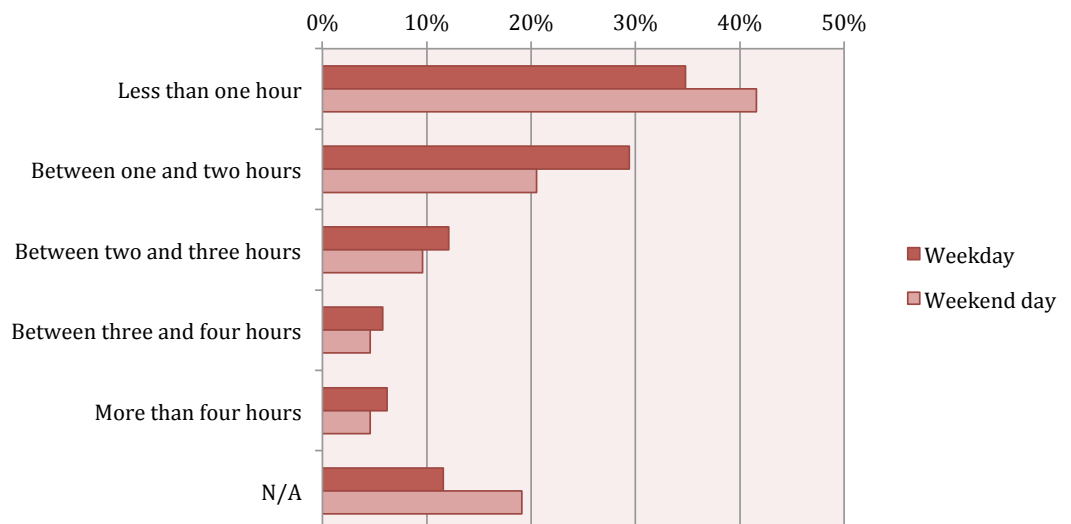
2.4 Screen time

Most NZ children aged 5-12 years spend a substantial proportion of the day in front of a screen.

Hours of screen time for recreational purposes



Hours of screen time for work/ homework purposes



- The percentage of NZ children who are in front of a screen for more than the recommended maximum of two hours per day was 82.9% on weekdays and 87.8% on weekend days.
- 58.1% and 62.7% of NZ children are in front of a screen for more than four hours each weekday and weekend day, respectively.
- Most of the time spent in front of a screen is for recreational reasons, not for work or homework.
- 62.7% of NZ parents allow their children to watch television or use an electronic device at dinnertime (although only 17.5% allow it often or always).
- Children who spent less time in front of a screen engaged in a greater amount of real play (climbing trees, messy play, object play, wheels etc).

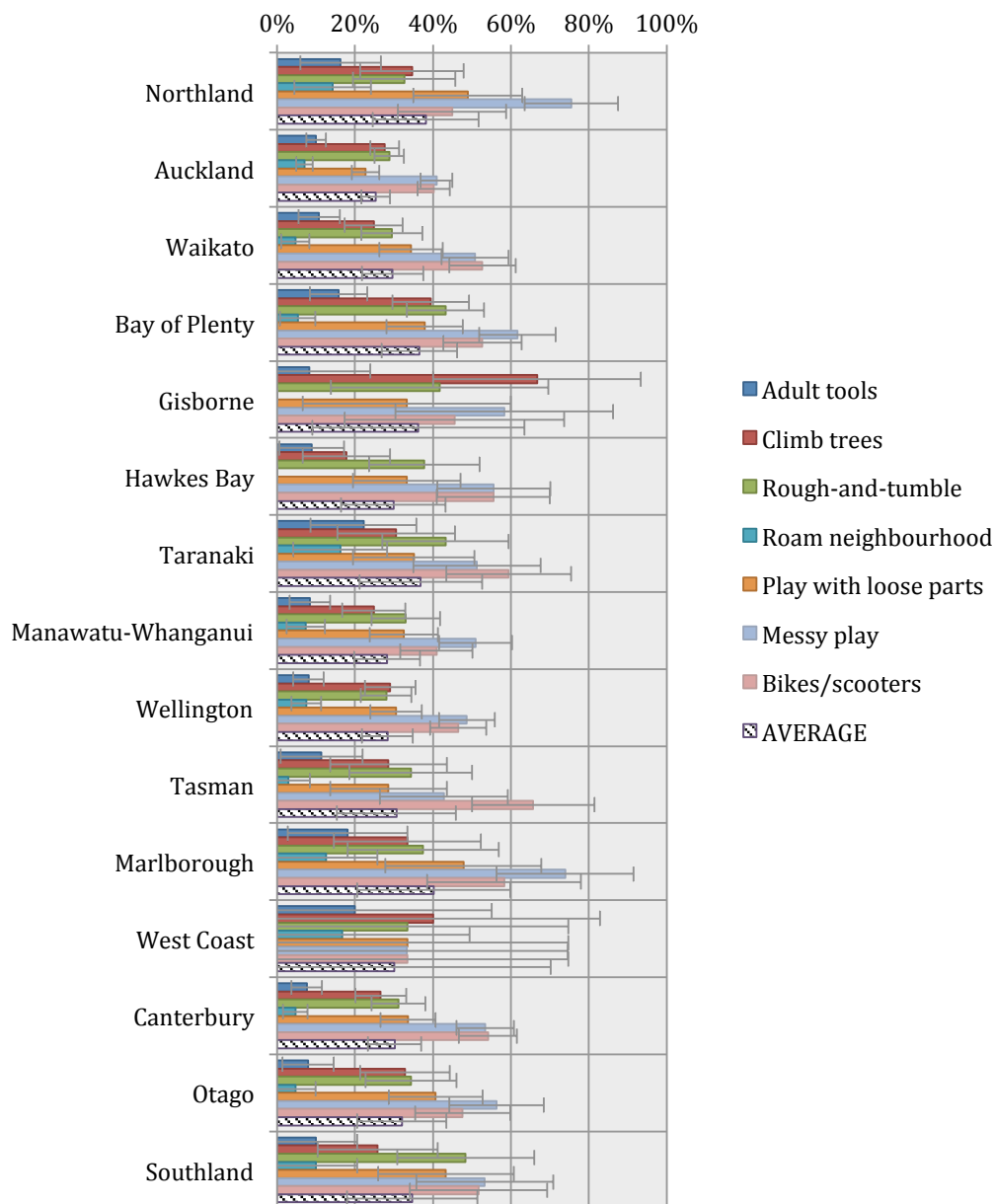


Section 3: Important things that influence play

3.1 Region of NZ

While the profile of real play practices depends on where in NZ a child lives, the overall participation in real play is reasonably consistent across the country.

Percentage of children who often take part in real play activities

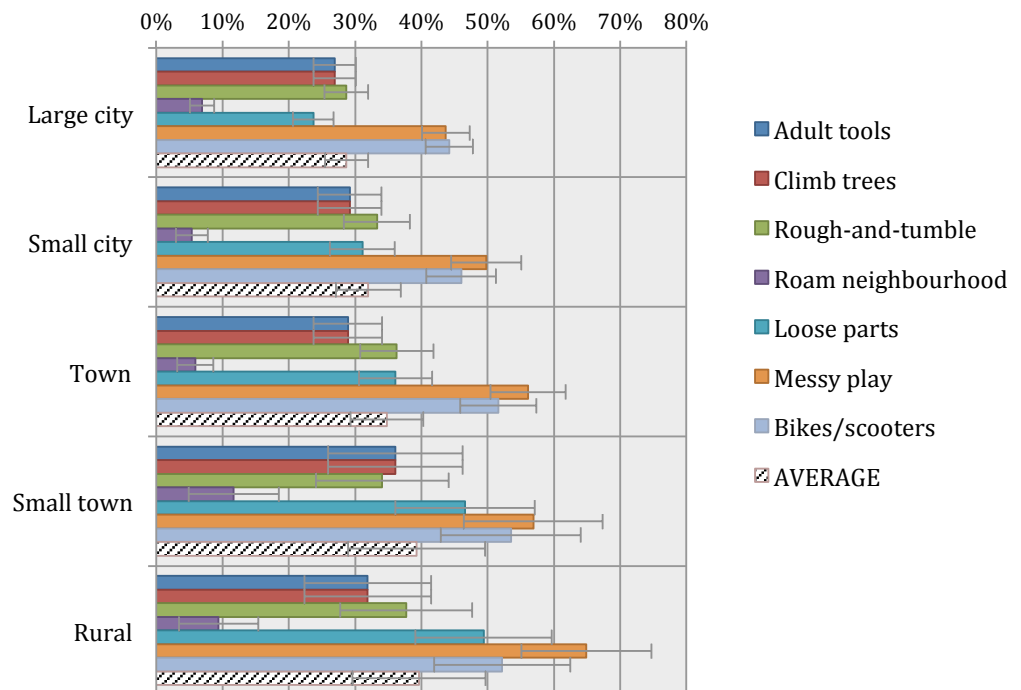


- There were some individual profile differences by region: for example, Gisborne children climbed trees, Northland and Marlborough children engaged in messy play, Tasman and Marlborough children rode bikes/scooters.
- On average, however, there were no major regional differences in the percentage of children who often participate in real play activities.

3.2 Urban vs rural

Participation in real play activities is generally lower in more urbanised areas.

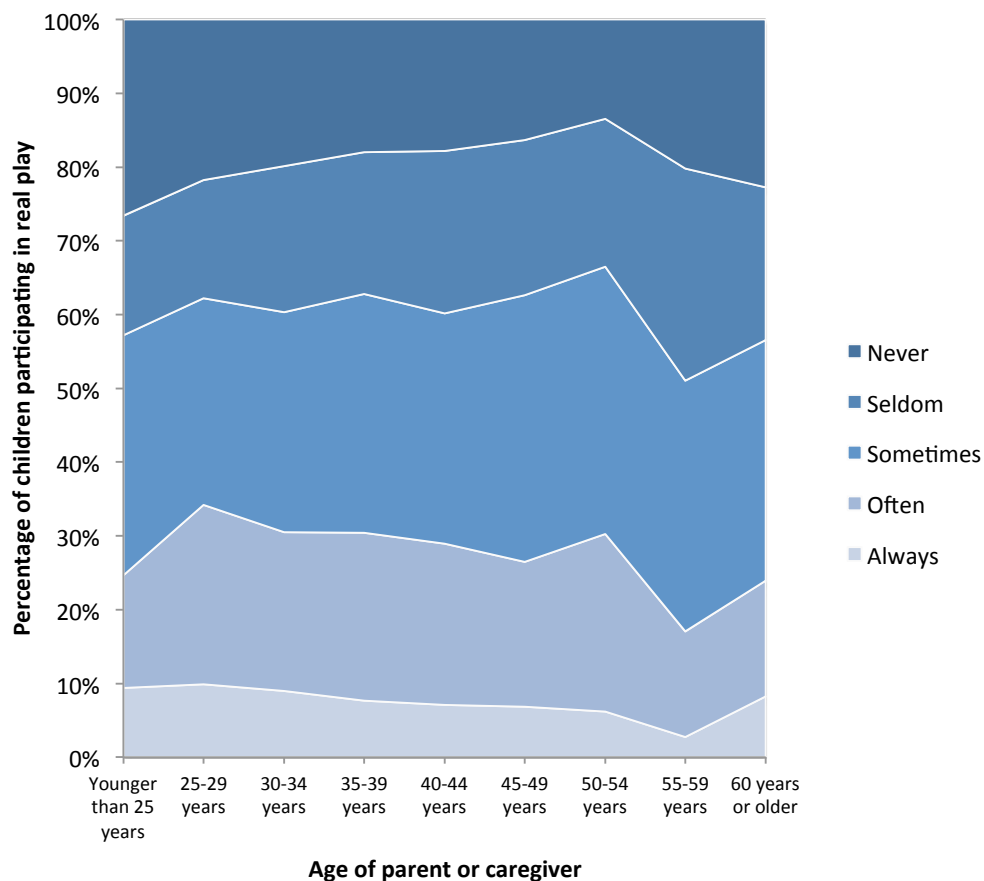
Percentage of children who often take part in real play activities



- Children living in rural areas were most likely to often engage in rough-and-tumble play, play with loose parts, and messy play.
- Children living in small towns were most likely to use adult tools, climb trees, roam the neighbourhood, and ride bikes or scooters in their neighbourhood.
- On average, children living in large cities were the least likely to often engage in real play activities.

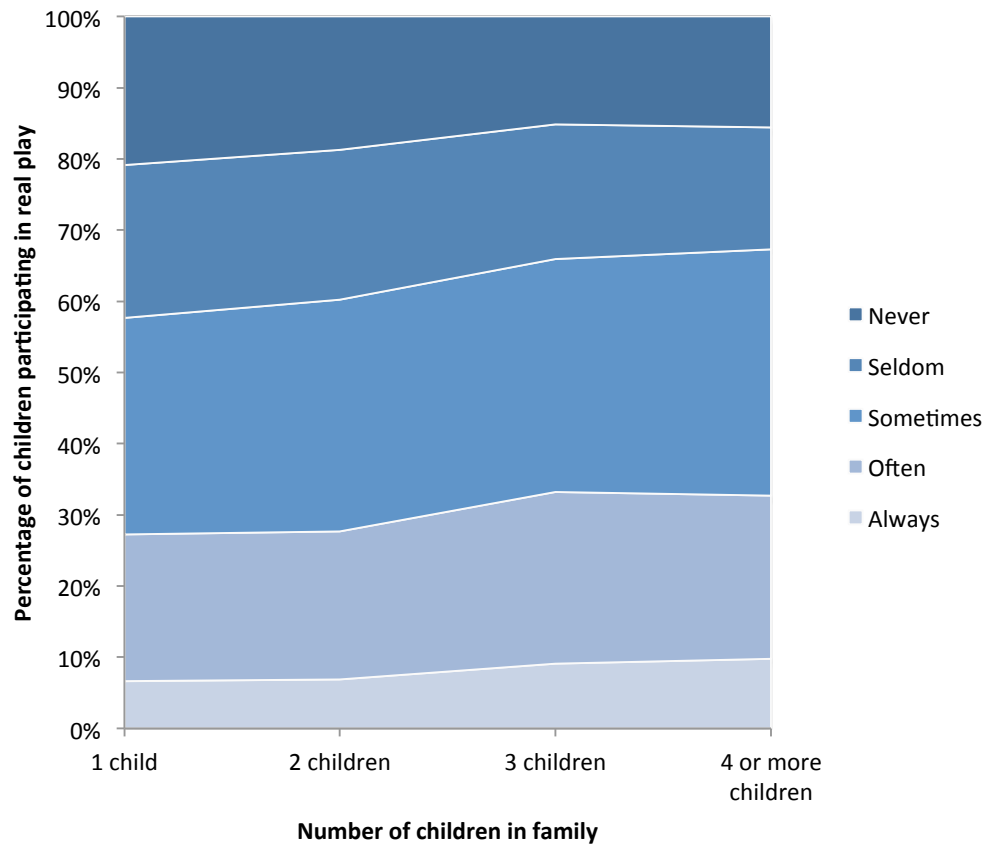
3.3 Family demographics

The amount of real play children engage in is not affected by the age of their parent or caregiver.



- There was a slight increase in the proportion of children who engage in real play between the age groups of < 25 and 50-54 years, followed by a decrease between 50-54 and 60+ years.
- Overall, the trends were minor, suggesting that parent or caregiver age does not have an important role in how much free play children are exposed to.

The amount of real play children engage in is slightly higher in families with multiple children.



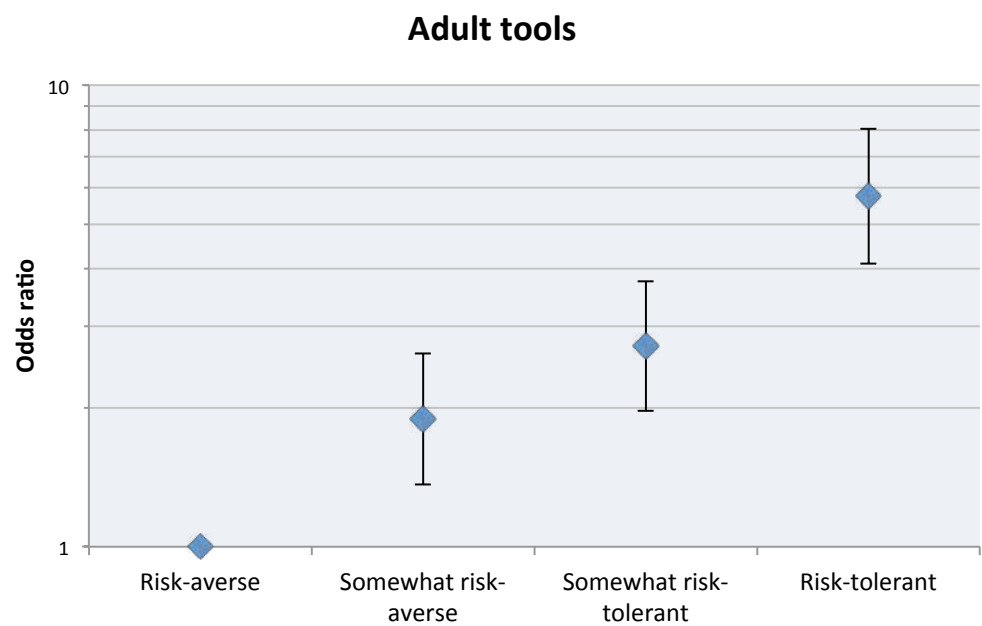
- The proportion of children who used adult tools, engaged in rough-and-tumble play, and roamed their neighbourhood increased substantially as the number of children in the family increased.
- On average, small positive trends were observed, suggesting that real play engagement is facilitated when multiple children live in the same household.



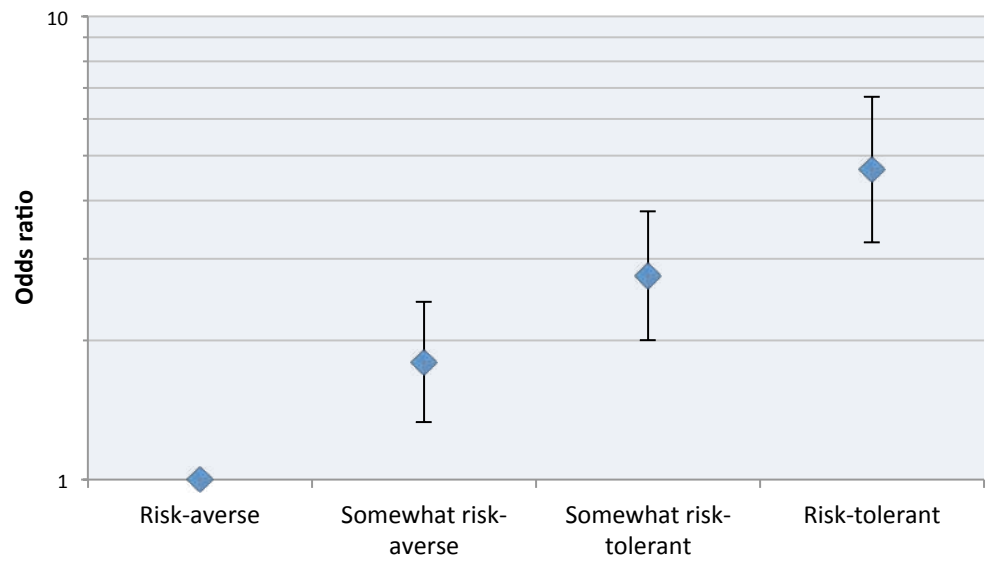
3.4 Parental tolerance of risk in play

Parental tolerance of risk in play is the most important predictor of the types of play children engage in.

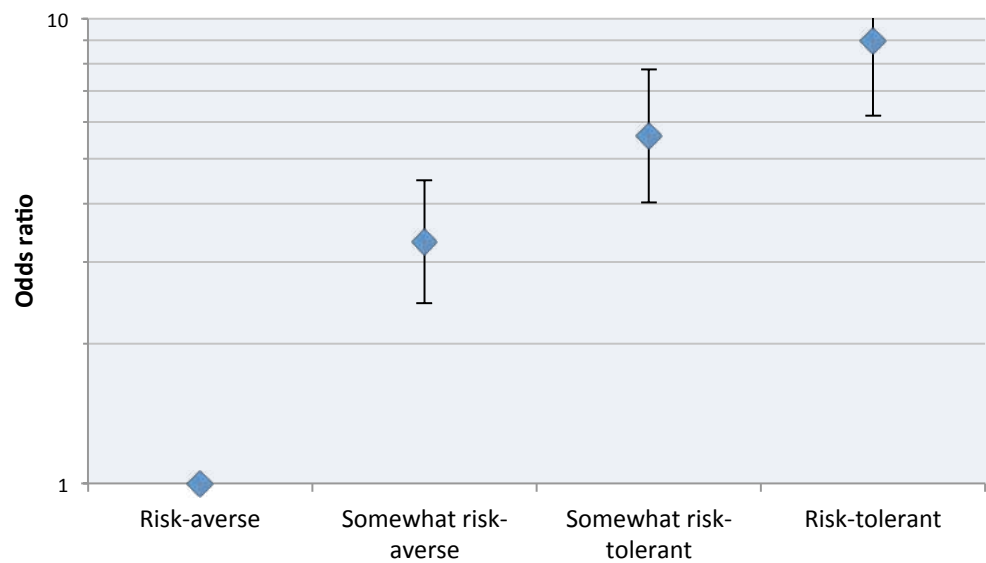
We assessed parents attitudes towards risk using 30 questions from the Tolerance of Risk in Play Scale (TriPS). We used the answers to group parents into one of four categories: (1) risk-averse, (2) somewhat risk-averse, (3) somewhat risk-tolerant, and (4) risk tolerant. We then worked out how the odds of a child participating – at least sometimes – in various real play activities in the last three groups compared with the risk-averse group (while adjusting for child age). The results were remarkable:



Tree climbing



Rough-and-tumble



- The odds of any form of real play were significantly greater in children of parents who were not 'risk-averse'.
- The odds of free play were 5-12 times greater for children of risk-tolerant parents when compared to children of risk-averse parents.
- Parental tolerance for risk in play is a modifiable factor that has substantial effects on the amount of real play children are exposed to.

Section 4: What does it all mean?

The State of Play survey is the only major study of real play perceptions and practices in Aotearoa. For the first time, we have an understanding of how Kiwi parents view their children's play and the associated risks. This information will help us to determine the best approach for generating widespread change in our communities, making real play a natural part of growing up in NZ.

Several major findings arose from the survey. Firstly, it is clear that most NZ parents recognise the potential development benefits of real play: climbing trees, using loose objects, riding bikes or scooters, rough-and-tumble, messy play, using adult tools, and (in older children) roaming the neighbourhood unsupervised by adults. While this is a positive finding, our other results showed that these parental beliefs do not necessarily translate into actual real play practices. The majority of children do not often participate in a wide range of real play activities; in fact, a reasonable proportion do not engage in real play at all. Clearly, translating generally positive parental perceptions about real play into action is the next challenge we face.

Some other interesting findings include the relatively small proportion of parents that regularly allow their children to play outside when it is raining. Playing in the rain is an excellent opportunity for children to connect with natural elements – water, wind, mud – and builds a resilience in children that can be beneficial as they age. Staying indoors when it's raining not only limits the amount of outdoor opportunities children have (especially in winter), but could decrease the fun and learning that comes with playing in the wild weather.

One of the most striking findings was the perceptions and practices related to independent mobility (roaming the neighbourhood unsupervised). In the last 20-30 years, there has been a dramatic decrease in children's roaming area throughout the Western world – and it appears NZ is no exception. Most parents can recall weekends spent riding their bike to their friends house, exploring the local bush, or walking to the nearest shopping malls. At present, less than half of Kiwi kids aged 8-12 years are allowed to travel alone in their neighbourhood, with around 5% doing so often. Key reasons identified by parents are the likelihood of road accidents (73.2%) and of encountering ill-intentioned adults (59.9%). These perceptions of risk are much greater than the actual risks, for reasons that are quite understandable: children are the most important thing in parents' lives and they are therefore naturally cautious when it comes to calculating odds of injuries or incidents. Nonetheless, when the perceived risks become elevated well beyond reality, opportunities that would otherwise be beneficial to children's development disappear.

Another key association was the link between parental tolerance of risk and the real play opportunities afforded to their children. The four groups we created in the analysis – risk-averse, somewhat risk-averse, somewhat risk-tolerant, and risk-tolerant – clearly distinguishes between parents that are already actively engaging in real play and those that may need assistance or advice to understand the benefits of real play. It is likely that a meaningful societal change would result if a proportion of those classified as risk-averse were able to transfer to a more risk-tolerant state. Whether or not this is possible (or if risk aversion is biologically-driven, static state) requires further experimental research.



To conclude, it is clear that children are naturally drawn to real play, especially to the thrill and excitement of risky play, and this approach may prove more effective at engaging children and parents than traditional health promotion messages centred on physical activity, sport, and exercise. The time to act is now - the current generation of NZ parents is likely to be the last to have experienced a 'free-range' independently mobile childhood, and so may be the last to be amenable to initiatives that promote independence and managed risk in their own children.

As a nation, we need to re-evaluate how we are raising our children. We need to find ways to re-engage children with their communities, promote healthy living, and unlock their full potential. We believe NZ parents are ready and willing to adopt the philosophies of real play. The next step is to make it happen.



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