safekids
Aotearoa

SAFE AS HOUSES
RECOMMENDATIONS FOR CHILDSAFE RENTAL PROPERTIES IN NEW ZEALAND

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Data Note

This 2020 edition of Safe as Houses utilises new data. For deaths, it is from 2012-2016 and for hospitalisations, it is 2014 -2018.

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Foreword

It has been said that home is where the 'heart' of a family is, a place of shelter and safety from the world at large. Unfortunately, it is also the most common place where injuries occur to children and adults alike, particularly for children under five years of age [1-4]. It is estimated that New Zealanders spend around 70% of their lives indoors in a home environment, which highlights the need to address hazards that can lead to injuries [3]. Between 2012-2016, 178 children aged between 0 to 14 years died in a home environment from unintentional injuries, with children aged 0 to 4 years accounting for 90% of these deaths [5]. In the five years between 2014-2018 a total of 12,618 children aged between 0 to 14 years were admitted to hospital due to suffering an unintentional injury within a home. Of these, 56% of hospitalisations were for children aged 0 to 4 years, 28% for children aged 5 to 9 years and 16% for children aged 10 to 14 years [5].

Children are naturally inquisitive, and learning by exploring their immediate environment is an integral and important part of their growth and development. Parents and caregivers may underestimate a child's determination, resourcefulness and abilities; and conversely may overestimate their ability to follow directions and fully understand safety instructions [6-8]. Young children in particular can be injured through this innocent exploration as they *"have not developed the cognitive function and/or the mobility skills to mediate or moderate their environment safely"* [9, p. 1657].

Environmental hazards within the home contribute to the risk of children experiencing injuries. Minimising hazards can be undertaken during the planning and design phase of new builds or renovations. Existing issues can be addressed through modifications and home maintenance activities [2, 10-11].

Children are reliant on adults to enhance the safety of the environment in which they live. Many of the common home hazards that put children at increased risk of an injury also pose a risk to adults within the home. Improving housing to create safer living environments is not only beneficial for a child, their immediate and extended family, but also for society as a whole [11-14]. General home safety guidance may not focus on the specific needs of developing children, or their respective injury patterns.

Safekids Aotearoa has produced this guide to help private landlords and social housing providers identify home safety hazards unique to children. It presents strategies to minimise injury risk to young children aged 0 to 14 years. Recommendations focus primarily on design or structural modifications to improve child safety. This information can guide development of new houses, renovation projects, or existing home maintenance.

Care must be taken to ensure government and local council requirements and regulations, and national standards are followed where necessary. Consultation of certified professionals for more in-depth guidance when undertaking any building or home renovation projects is advised to ensure current regulations are met [2].

This guide should be read in conjunction with the following in-depth documents:

- New Zealand Building Act 2004 [15]
- New Zealand Building Regulations 1992 (SR 1992/150) [16]
- Associated documentation that guides how to meet the requirements of the Building Act including regulatory and policy guidelines such as:
  - New Zealand and joint Australian/New Zealand Standards
  - NZ Building Code Acceptable Solutions and Verification Methods
- Standards New Zealand Handbook - Safety in the Home: A guide to reducing injuries through home design, building and maintenance SNZ HB 4102:2011 [2].

SAFETY TIP: THE USE OF A DOOR BARRIER OR SAFETY GATE WILL HELP PREVENT CHILDREN FROM ACCESSING THE KITCHEN INDEPENDENTLY.

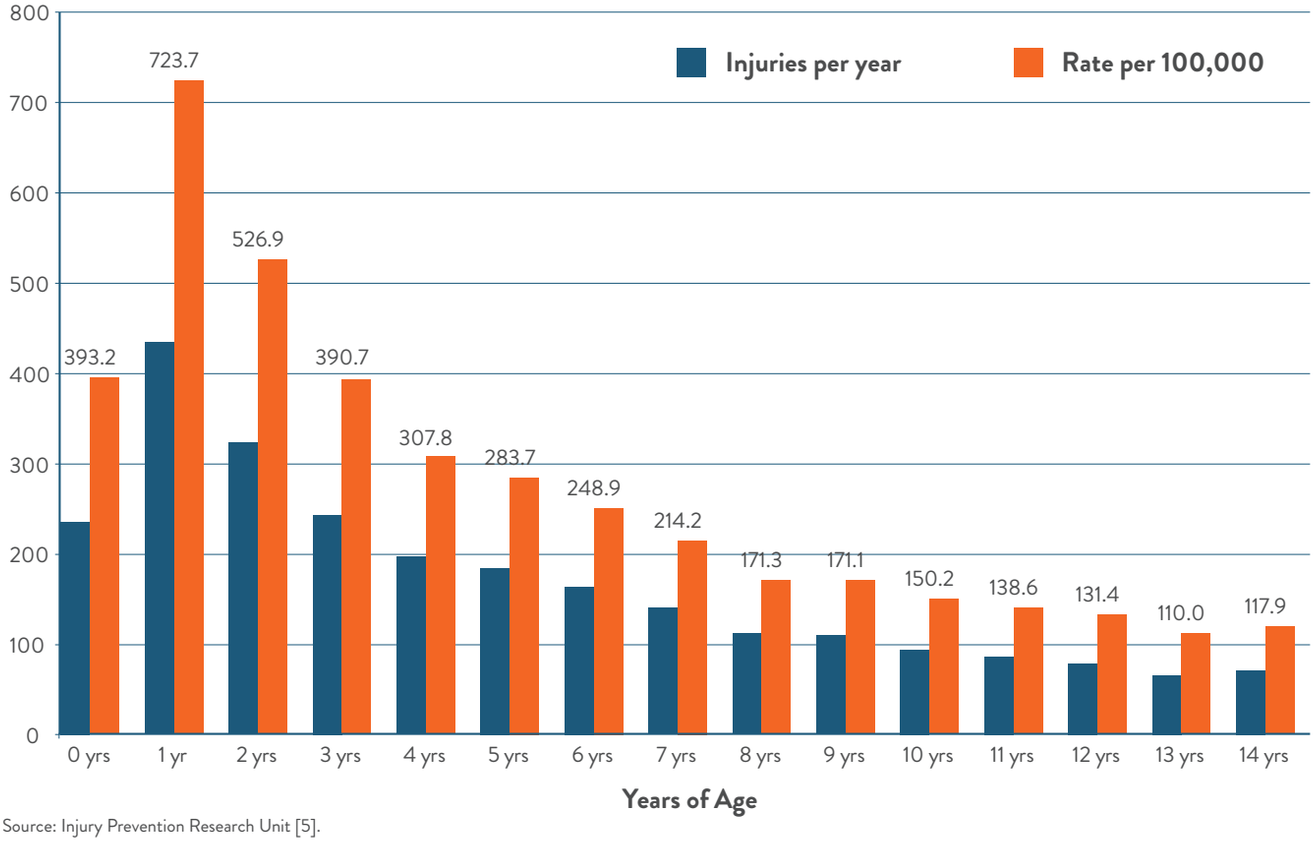
Table of contents

1. Introduction

An overview of child unintentional injuries in New Zealand

Between 2012-2016 an average of 36 children aged 0 to 14 years died each year from unintentional injuries sustained in a home environment. Children aged 0 to 4 years accounted for 32 of these deaths per year** (see note below) [5]. In the five years between 2014-2018 a total of 12,618 children aged between 0 to 14 years were admitted to hospital due to suffering an unintentional injury within a home (See Figure 1). The greatest burden of home injury hospitalisations was experienced by children aged 0 to 4 years and in particular children aged 1 to 2 years. Children aged between 0 to 4 years accounted for 56% of these hospitalisations, with children aged 1 to 2 years alone accounting for 30% [5].

FIGURE 1: Number and rate of unintentional injury hospitalisations for children aged 0-14 years occurring in a home setting, 2014-2018.



Source: Injury Prevention Research Unit [5].

[1] Of the children aged 0-4 years, 72% died due to suffocation (please note: care must be taken when interpreting these figures as there may be a cross-over between suffocation and sudden unexpected death in infancy (SUDI) deaths) [5].

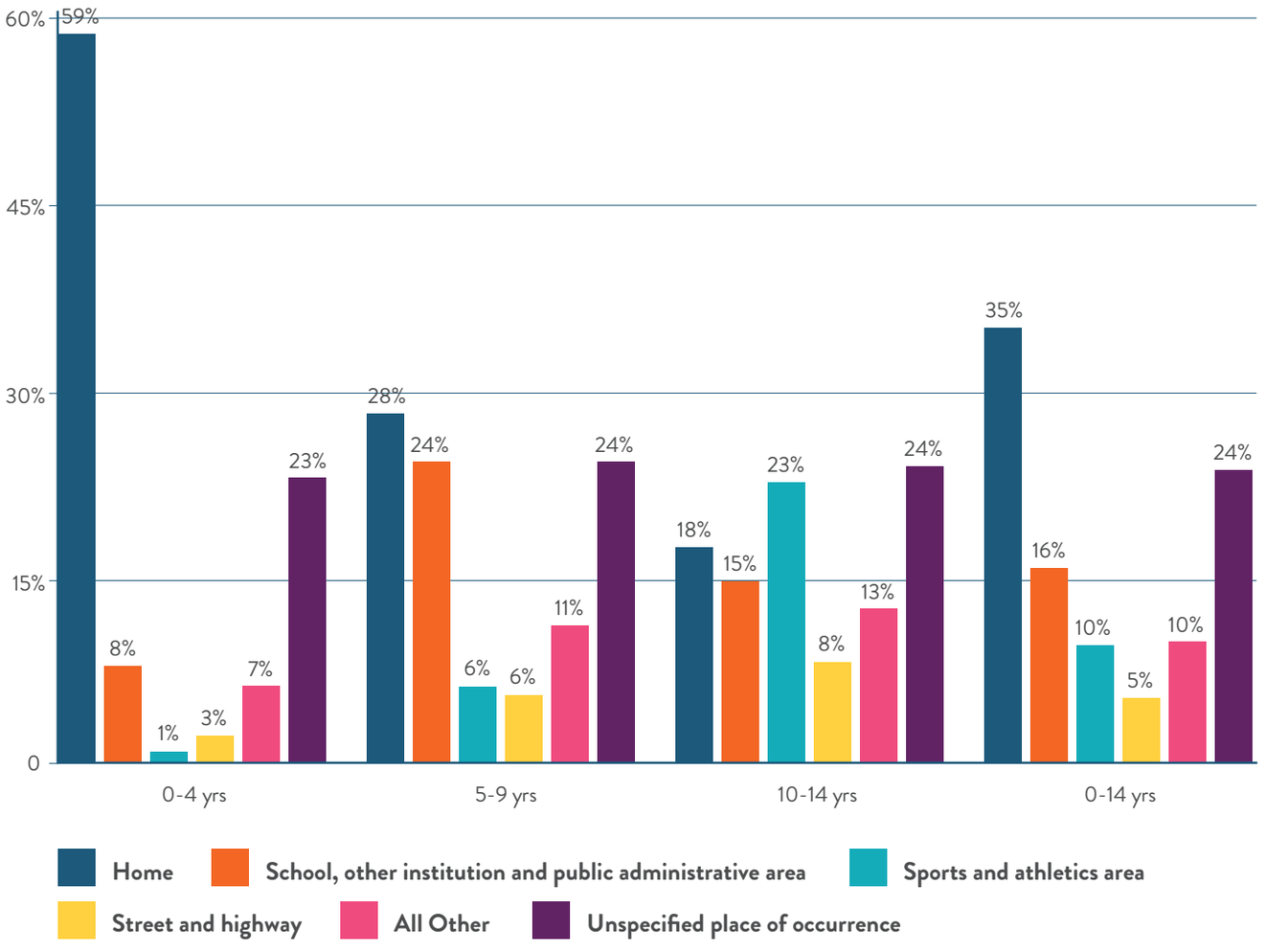
It should be noted that in 24% of the unintentional injury hospitalisations for children aged 0 to 14 years the place of injury occurrence was not reported or known, so it is likely these figures would be an underestimation of the true extent of home injury [5]. When the number of hospitalisations resulting from a home injury are compared to 'other' and 'unknown' places of injury, the significance of unintentional injuries in the home is further illuminated (see Figure 2).

Child unintentional deaths and hospitalisations are commonly referred to as the 'tip of the iceberg', as obviously these injuries are the most serious in nature. The Growing Up in New Zealand study found that 28% of children had an injury that required medical attendance at a general practitioner's (doctor's) surgery, a health clinic or a hospital attendance by the age of two years. Of these children, only 7% required an admission to hospital as a result of their injury [17].

A wealth of evidence identifies just how important a safe home environment is to a child's health and wellbeing, allowing children to play and learn safely [6, 18]. Children have very little control over their home environment and the quality of their housing mediates their parent's ability to protect their health and wellbeing. The physical condition of New Zealand housing stock is a major influence on New Zealand children's health [19].

Whilst changes to legislation and standards result in enhanced environmental safety design for new properties or those recently renovated, much of New Zealand's housing stock predates such legislation. Many New Zealand children living in rental properties are exposed to older and subsequently less regulated home environments [9].

FIGURE 2: Percentage of unintentional injury hospitalisations, place of injury, age group, 2014-2018.



Source: IPRU [5].

The 2010 BRANZ House Condition Survey of a nationally representative sample of both private rental and owner occupied properties found that rental properties did not compare well with owner occupied homes. Rental properties were found to have poorer outcomes in areas such as kitchen, bathroom and laundry fittings and linings, than in owner occupied premises. The report expressed concern given its sample was comparable to findings in New Zealand census data that identified almost half of New Zealand children less than five years of age lived in rental properties, despite rental properties accounting for approximately one third of all New Zealand houses [20].

New Zealand research has identified an estimated increase of "22% in the odds of injury occurrence associated with each additional injury hazard found in the home"; suggesting home safety modifications "may be effective in reducing home injuries" [21, pg. 887]. Further research has found that in New Zealand houses where owners lived in their own properties, all built before 1980, 38% of home injuries that occurred could have been linked to structural aspects of the home. For children aged under 4 years, 50% of home injuries were related to structural issues [22]. Properties were assessed for injury hazards and some of the most commonly identified included:

- *A lack of working smoke detectors (65%)*
- *Inadequately fenced driveway (55%)*
- *Hot water temperature at tap measured at over 60°C (49%)*
- *Poison hazards: lack of safe storage in kitchen or laundry (29%)*
- *Lack of visibility stickers or strips on ranch sliders or low-level windows (22%)*
- *Bathroom floor: identified as uneven, slippery or rotten (15%)*
- *External steps: uneven risers, lack of handrail, poorly defined step edges, slippery with missing treads (11%)*
- *Deck: significant fall from deck and inadequate balustrades and rails (7%)*
- *Lack of fencing around section/yard to protect children from the roads etc. (6%) [22, pg.128].*

New Zealand parents/caregivers often underestimate the ability of their child's risk of injury. Parents can overestimate a child's developmental stage and their corresponding abilities, in comparison to other children of a similar age. A lack of skill in anticipating changes to a child's abilities also increases their risk of injury, or not recognising a risk when one is present [1]. Simpson found that common themes preceded injury in children aged 0 to 4 years within their home environment. These included a change in routine and busy times of the day – which reinforces the importance of environmental changes that provide consistency to injury prevention activities in the home, to mediate other risk factors. Parents were also found to hold a general belief that 'accidents happen' and even moderate to serious injuries are to be expected in children [1], however this is not the case.

Injuries are predictable and therefore preventable [6]. Design and structural hazards in home environments can be both anticipated and identified, and either designed out in early stages of housing development, and modified or removed if in existing properties [2, 6].

International research has shown that addressing injury hazards in the home environment can lead to a reduction in medical consultations [23]. The HOME injury study found a statistically significant reduction in both injury hazards in the home and a 70% reduction in modifiable injury medical attendances for children in the first two years of their life, following installation of home safety devices (including stair gates, window opening restrictors or barriers, cupboard locks and smoke alarms). They further proposed that such modifications may lead to a 30% reduction in all housing-related medical attendances for children under the age of five [23].

The cost of child injuries to the country is high. Accident Compensation Corporation (ACC) figures for the financial year period 2017/2018 reveal the total cost of child injuries for children aged 0-14 years, to be $254 million. Home injuries accounted for $77 million of the overall cost [24]. The social cost of home injuries (including a loss of life or quality of life, health care costs and loss of output) over all age groups has been estimated to be around $13 billion New Zealand dollars per year; around three and a half times more than the social cost attributed to road injuries each year [25].

Many families renting properties may be either unable to work on properties they are renting, or unable to afford taking remedial action or to purchase equipment to rectify unsafe situations. A lack of discretionary income has also been frequently cited as a barrier in making environmental changes to enhance the safety of children [8, 26]. The Residential Tenancies Act 1986 states it is the responsibility of the tenant to not affix any fixture to the premises or renovate or alter a property in any manner, without such activities complying with the tenancy agreement or first seeking approval from the landlord [27]. This may pose a potential barrier for some tenants' ability to modify the home environment.

Increasingly, New Zealand children are living in rental properties, with the decline in home ownership. The 2013 New Zealand census found 453,135 households rented homes they resided in, 83.7% of these were private sector rental properties, an increase when compared to 78.4% in 2001 [28]. Safekids Aotearoa recognises this societal change and the unique position that rental property owners hold in being able to support such families by ensuring their properties are as safe as possible for children by addressing potential hazards in the home environment. Age appropriate improvements made to homes where children live can help to reduce the risk of injury and death.

2. Building and tenants' regulatory and legislative framework in New Zealand

The Residential Tenancies Act 1986 defines the *"rights and obligations of landlords and tenants of residential properties"* [27, pg. 9]. It further identifies that houses should be in a 'reasonable' state of repair and comply with all health and safety building requirements [27]. The Housing Improvement Regulations 1947 (SR 1947/200) provides information on minimum standards of fitness for houses. This includes information such as required room spaces, their dimensions and components; and the number of people permitted to sleep in each bedroom as defined by room dimensions [29].

The Building Act 2004 identifies the regulatory framework for building in New Zealand. All new building work in New Zealand must meet the requirements of the Building Act, Building Code and associated regulations, irrespective of whether the work is required to be consented by a local authority or not [15-16, 30]. Building-consent applications to local building consent authorities (usually councils), need to demonstrate how proposed work meets the Building Code requirements [30]. New Zealand's Building Code is 'performance based', which means that it describes what new building work needs to achieve, rather than how a building must be constructed. The Building Code has 37 technical clauses which include a focus on areas such as protection from falling, fire, and hazardous building materials such as glass [31]. Detailed information included outlines mandatory requirements that must be met in new builds, with accompanying non-mandatory options – 'Acceptable Solutions and Verification Methods', as one way to meet the mandatory Building Code requirements [32]. Table 1 is reproduced from 'Building Performance' at the Ministry of Business, Innovation and Employment (MBIE) and illustrates this process.

Standards are often cited in Acceptable Solutions and Verification Methods clause documentation, either as a full standard or part of a standard with or without modification. They are produced by committees of independent practitioners and subject expert members who review best practice evidence and make recommendations and develop in-depth guidelines on specific subject matters [33-34]. Consult the Building Performance website (http://www.building.govt.nz/?url=/building-index) and accompanying documents for further information on Building Code requirements for new buildings and for alterations to existing buildings. Alternate solution proposals other than those included in the Acceptable Solutions and Verification Method options are possible; however they require justification and acceptance at the building consent stage [30-32, 35].

See Appendix Two for excerpts of mandatory Building Code clauses, and consult each separate clause document in the following sections for suggested acceptable solutions and verification methods - as a means to meet the mandatory requirements 2 (i.e. Such as Clause F4 Safety from Falling or Clause G12 Water Supplies).

TABLE 1: Building Code performance-based overview demonstrating mandatory and non-mandatory requirements.

	LEVEL	DESCRIPTION
Building Code (Mandatory)	1. Objective	The social objective the building must achieve
Building Code (Mandatory)	2. Functional requirement	What the building must do to satisfy the social objective
Building Code (Mandatory)	3. Performance criteria	Qualitative or quantitative criteria which the building must meet in order to comply
Means of compliance a BCA must accept if followed (Non-Mandatory)	4. Verification method	Prescriptive test or calculation method that provides one means of compliance
Means of compliance a BCA must accept if followed (Non-Mandatory)	5. Acceptable solution	Prescriptive step-by-step solution that provides one means of compliance

Source: Reproduced from MBIE [32].

[2] Important - Please note when Building Code clauses are cited as above, go directly to the actual document to obtain other mandatory requirements and to view noted limits to the clauses. Documentation pertaining to the Building Act (including standards) are amended or updated regularly and frequently contains records of clauses which may preclude or include certain requirements pertaining to the subject. Ensure you view the latest version.

3. Priority recommendations to reduce key child home injuries relating to house structural design and modifications

Safekids Aotearoa recommends the following strategies when designing, modifying and maintaining rental properties, in order to minimise injury hazards and enhance the safety of children both living and visiting the properties.

Preventing Falls

Background and rationale for key recommendations

Falls are the most common cause of home injury for children and adults alike [42]. Fall-related hospitalisations accounted for 42% of all home injury hospitalisations for children aged 0-14 years (2014-2018), with approximately 21 children per week being hospitalised [5]. Falls can result in serious injuries and death, the extent of which is impacted by both the height of the fall and factors in the immediate environment, such as the presence of glass or a hard surface such as concrete under a trampoline or other playground equipment [1, 37, 43].

Fall hazards in the home are related to household structure and design, the age of the house and subsequent potential lack of compliance with current building regulations or standards, and a lack of maintenance [12, 42]. For example, decks, balconies and entrance ways with no balustrades (railings), or that are poorly designed or maintained put young children at risk of injuries [2, 21]. The 2010 Branz House Condition survey found over 60% of decks did not have a barrier of at least 1000mm or higher to minimise the risk of falls where required under the legislation at the time [20].

A New Zealand study found that there was an estimated 26% reduction in the rate of overall fall injuries that required medical treatment in homes that underwent modifications to improve home safety. Examples of specific modifications made included – handrails on external steps, grab rails in bathrooms, edging for external steps and slip resistant surfacing on outdoor areas such as decks and entrance ways. Injuries associated with the actual house modifications undertaken reduced by 39% [42].

Safekids recommends priority be given to addressing the following fall hazards in homes - preventing falls from windows, decks, entranceways, balconies, stairs and steps; and the provision of slip resistant surfaces. See Table 2 for key recommendations and Table 3 for examples of fall injury hospitalisations.

TABLE 2: Key recommendations for preventing falls.

WINDOWS	• Safekids recommends the use of window restrictors (i.e. security stay or restrictor stay) to restrict the ability of a window to open more than 100mm. Window restrictors should be used on all upper-floor windows and windows with fall heights greater than 1000mm [36].
	• Window restrictors should be able to be released with the use of a key or tool in the event of an emergency such as fire [2, 37].
	• Given that children frequently fall out of windows following climbing up on an object such as furniture to gain access to a window, Safekids recommends that upper storey windows should not have a sill under 1200mm from the internal floor and not be able to be opened more than 100mm [2].
DECKS, ENTRANCE WAYS, LANDINGS, MEZZANINE FLOORS AND BALCONIES	• All decks, balconies, entranceways/landings and mezzanine floors over 1000mm in height incorporate appropriate balustrading. Please note that height requirement for balustrading varies by both the site and the type of residential dwelling [36, 38].
	Balustrades should be at least [2]: • 1000mm high on exterior decking and balconies, where a hazard is extreme balustrades of at least 1100mm are recommended • 900mm in stairwells and landings, with 1100mm high where an extreme hazard exists • 1200mm on external stairways • Safekids contends that due to children's ability to climb and utilize objects to gain the ability to climb higher, that balustrade heights of 1100mm to 1200mm should be considered where circumstances merit enhanced protection.
	• Balustrade rungs should be vertical to prevent children's ability to climb and be designed in a manner to prevent entrapment or a child falling through, with uprights not spaced greater than 80mm apart [2].
	• Where possible, the surface below areas which do not require balustrading (with a fall height under 1000mm in height), is impact absorbent in nature i.e. grass rather than concrete.

FALL SAFE STEPS, STAIRS AND RAMPS	• Consider building new homes with a stepless entrance and/ or a single storey which alleviates access related height fall risks [2].
	Sturdy safety stair gates at both the top and bottom of stairs are installed, as outlined in the NZ Standard for Safer Home Design Handbook and the Trading Standards 'Keeping kids safe' information [2, 39].
	• The presence of slip resistant walking surfaces, steps evenly spaced, step tread that is both visible and prevents children from either getting stuck or falling through if open risers are used, and handrails are crucial for safe access routes [2, 36, 38].
	• Ensure adequate hand rails are installed and that any balustrading is designed in a manner to prevent entrapment, or a child falling through or climbing up the uprights, with uprights not spaced greater than 80mm apart [2].
	• Further safety measures are undertaken to improve the safety of stairs and steps – such as ensuring they are regularly maintained, as recommended in the NZ Standard for Safer Housing Design Handbook [2], and in NZ Building Code Clauses F4 and D1 [36, 38].
PEDESTRIAN SURFACES - OUTDOOR GROUND SURFACES AND INDOOR FLOORING	• Flooring and external pedestrian surfaces are chosen for their slip resistance qualities and regular maintenance is undertaken to ensure its ongoing quality from a safety perspective. Refer to AS/NZS 4663, 2004 [40]; the guidelines in NZ Standard for Safer Housing Design Handbook [2] and AS/ NZS 3661.2:1994 – Slip resistance of pedestrian surfaces – Part 2: Guide to the reduction of slip hazards [41].

TABLE 3: Leading Causes of Unintentional Fall Injury Hospitalisations, Child Age Groups, Home setting, 2014-2018.

CAUSE OF FALL	0-4 YRS	5-9 YRS	10-14 YRS	TOTAL	% ALL FALLS
W09 - Fall involving home playground equipment (includes trampolines)	354	505	218	1077	20.1%
W01 - Fall on same level from slipping, tripping and stumbling	272	199	139	610	11.4%
W07 - Fall involving chair	429	134	18	581	10.8%
W06 - Fall involving bed	404	108	32	544	10.2%
W13 - Fall from, out of or through building or structure	192	171	72	435	8.1%
W17 - Other fall from one level to another	248	116	50	414	7.7%
W18 - Other fall on same level	199	122	69	390	7.3%
W10 - Fall on and from stairs and steps	158	74	39	271	5.1%
W14 - Fall from tree	27	164	46	237	4.4%
W04 - Fall while being carried or supported by other persons	197	13	10	220	4.1%
W02 - Fall involving ice-skates, skis, roller-skates or skateboards	62	73	61	196	3.7%
W08 - Fall involving other furniture	122	17	3	142	2.7%
All the rest	111	68	62	241	4.5%
Total	2775	1764	819	5358	100%

Source: Injury Prevention Research Unit [5].

Preventing falls from windows

Multi-story private dwellings have become increasingly common since 2006, which has implications for child safety in the home [28]. Falls from windows have been recognised internationally as an area of risk for children in home environments [6, 44]. Between January 2014 and December 2018 a total of 36 children were hospitalised at Starship Children's Health due to falling out of a window, 20 of these children were aged 1-2 years. Of note, 6 of these hospitalisations were considered to be a major trauma admission [45].

Provision of a mechanism to ensure children cannot fit through a window opening, or a barrier to ensure children cannot fall out, is an internationally recognised strategy to reduce fall injuries and deaths from windows [6, 46]. Safekids recommends the use of window restrictors (i.e. a security stay or restrictor stay) to restrict the ability of a window to open more than 100mm. Window restrictors should be used on all upper-floor windows and windows with fall heights greater than 1000mm [2, 36].

Safekids notes a requirement in NZ Building Code Clause F4 - Safety from Falling, to restrict window-opening spaces in homes frequented by children under six years of age. A lower window edge sill height of only 760mm is permissible as an option to protect children from falling out of a window, where a fall height of over 1000mm can occur [36]. Safekids contends this height is not adequate, given children frequently fall out of windows following climbing up on an object such as furniture to gain access to a window. Consequently, Safekids recommends that upper storey windows in particular should not have a sill under at least 1200mm from the internal floor and should not be able to be opened more than 100mm, as is advocated in SNZ HB 4102:2011 [2].

SAFETY TIP: USE RESTRICTORS/ STAYS ON WINDOWS WITH FALL HEIGHTS GREATER THAN 1000MM.

Preventing falls off decks, entranceways and balconies

Between January 2014 and December 2018 a total of 25 children were hospitalised at Starship Children's Health due to falling off a deck, 63% of these children were aged 0-4 years, 12% of which were considered to be a major trauma admission [45].

The New Zealand Building Regulations 1992 Schedule 1- NZ Building Code Clause F4 Safety from Falling and Clause D1 Access Routes, both outline **mandatory** requirements that require buildings to be constructed to reduce the likelihood of a fall, including access routes that are suitable and safe [36,38].

In areas where a child could fall 1000mm or more (such as on staircase landings, decking areas, or landings) a barrier/balustrade shall be provided (F4.3.1) and that barriers must cover the entire length of the hazard, be at a correct height and constructed to stop children falling through them (F4.3.4). However, it should be noted despite Clause F4.3.4 (g) stating "Restrict the passage of children under 6 years of age when provided to guard a change of level in areas likely to be frequented by them" [16, pg. 56-57), it is recognised that some children, in particular those over the age of 3 years will be able to climb up the balustrade's height options in the F4 Acceptable Solutions suggested [36].

Access routes into and out of a building shall provide safe access, including the provision of handrails to assist movement on steps (D1.1 and D1.3.3) [38].

Preventing falls on stairs and steps

On average 54 children were hospitalised every year due to falling on steps and stairs in a home environment between 2014 and 2018. Children aged zero to two years accounted for 44% of these hospitalisations [5].

The provision of stair gates to reduce the risk of young children falling down steps is advocated internationally [6, 46]. However, stair gates need to be sturdy and suited to the situation. For example, the use of pressure mounted stair gates are not recommended at the top of stairs. Pressure mounted gates are secured to the wall via pressure from a tightening mechanism directly onto side walls, rather than using brackets and screws, which provides the most secure option [46]. Kendrick and researchers found the presence of a landing in the stairwell, carpeted stairs and stairs in good condition, contributed to reduced stair fall related injuries. Children living in homes without stair gates were two and a half times more likely to be injured than children living in homes with stair gates. They estimated that 45% of fall injuries could have been prevented by having fitted and closed stair gates [47].

The presence of slip resistant walking surfaces, steps evenly spaced, step tread that is both visible and prevents children from either getting stuck or falling through if open risers are used, and handrails are crucial for safe access routes (as per Clause D1.3.3, F4/AS1) [36, 38]. For in-depth guidance see the following documentation: Acceptable Solution D1/AS1 Access Routes [38], AS/NZS 3661.2 Guide to the reduction of slip hazards [41] and SNZ HB 4102:2011 [2].

SAFETY TIP: USE SAFETY GATES TO PREVENT FALLS FROM STAIRS.

Preventing falls on outdoor ground and internal flooring surfaces

Building regulations 1992 Schedule 1- The building code - NZ Building Code Clause D1 Access Routes – outlines mandatory requirements for buildings to be constructed to reduce the likelihood of a fall, by providing safe and suitable access routes – including slip resistant surfaces under normal use [38]. Safekids recommends that all outdoor ground surfaces and internal flooring areas used for pedestrian access into and within homes are chosen for their slip resistant characteristics, and maintained to ensure the surface's on-going protective qualities. For in-depth guidance see the following documentation: Acceptable Solution D1/AS1 Access Routes [38], AS/NZS 3661.2 Guide to the reduction of slip hazards [41] and SNZ HB 4102:2011 [2].

Preventing Burns

Background and rationale for key recommendations

Aound 190 children were admitted to hospital per year between 2014 to 2018, due to injuries caused by contact with a hot object or substance or being exposed to fire/flame. Burns due to heat and hot substances were the most common reason why children were hospitalised in the home, accounting for 92% of all these hospitalisations [5].

Safekids recommends priority be given to addressing the following burn hazards in homes - safer hot water temperature at the taps, provision of smoke alarms, and safer use of electrical appliances by the provision of adequate numbers of power points.

See Table 4 for key recommendations and Table 5 for examples of burns caused by heat and hot substances.

TABLE 4: Key recommendations for preventing burns.

SAFER HOT WATER TEMPERATURE AT THE TAPS	Water is delivered to hot water taps at an optimum temperature of 50 °C. However, water must be stored in the cylinder at least 60°C [48].
	Such work is undertaken by a registered plumber. Adjustments are made to the hot water system to ensure adequate water supply and pressure are achieved for the needs of the tenants [2].
PROVISION OF SMOKE ALARMS	Photoelectric (long life battery) smoke alarms are used and fitted in all properties [49].
	The use of interconnected smoke alarms is recommended to alert parents to fire in another area of the house [49-50].
	Smoke alarms are fitted as per the recommendations of the NZ Fire Service, being the installation of long-life photoelectric type smoke alarms in every bedroom, living area, and hallway – on every level in the house [49].
	A maintenance schedule is in place for all smoke alarms to ensure they are regularly tested and checked during tenancy inspections. For non-photo electric alarms - ensure batteries are replaced at least yearly [51]. Ensure checking the smoke alarm's expiry date is included in your maintenance schedule [52].
	Tenants are provided with easy to read information (in their own language if necessary), communicating why smoke alarms are important, why they need to be maintained and tested, and how to do this [53].
SAFER USE OF ELECTRICAL APPLIANCES BY THE PROVISION OF AN ADEQUATE NUMBER OF POWER POINTS	An adequate number of power points (wall sockets) are provided throughout the home, to minimise the use of multi boxes [2, 54].

TABLE 5: Examples of heat and hot substance-related hospitalisation categories, by age, 2009-2013.

BURNS HEAT AND HOT SUBSTANCES CATEGORY	0-4 YRS	5-9 YRS	TOTAL
Contact with hot drinks, food, fats and cooking oils	358	24	382
Contact with other hot fluids	188	45	233
Contact with hot tap-water	128	11	139
Contact with hot household appliances	88	6	94
Contact with hot heating appliances, radiators and pipes	40	3	43
Total	802	89	891

Source: Injury Prevention Research Unit [5].

Preventing burns by the provision of safer hot water temperature at the taps

The New Zealand Building Code Clause G12 Water Supplies, outlines mandatory requirements for water systems to provide water at a temperature that both reduces the risk of burns and adequately controls the growth of *Legionella* [48]. The G12 Acceptable Solution identifies that the provision of hot water at a sanitary fixture used for personal hygiene (including showers, baths and hand basins) should not be delivered higher than 45°C for early childhood centres and schools, or higher than 55°C within residential homes at the tap [48]. Hot water temperature should be stored at or above 60°C at the hot water cylinder, to prevent the growth of *Legionella* (Legionnaires disease) [48]. Lowering the temperature at which hot water is delivered at tap outlets is both a recognised and advocated strategy to reduce hot water tap burns to children [55, 56]. A BRANZ study found over 80% of electric hot water cylinders had an unsafe delivery temperature at the taps (over 55°C). Of concern, 60% were found to have hot water delivery at the tap above 60°C [57].

To enable lower hot water temperature delivery at the tap and a higher temperature in the hot water cylinder, the use of a tempering valve that mixes both the hot and cold water for appropriate tap delivery temperature is recommended. The New Zealand Building Code has required tempering valves to be installed in new homes with hot water cylinders since the early 1990's [57]. Tempering valves can be retrospectively fitted to enable safer hot water delivery temperatures at the tap. Consult with a registered plumber for advice on how this can be undertaken [2]. Safekids recommends water tap temperature (in particular at sanitary fixtures) to be delivered at 50°C, due to the shorter time it takes for a child to burn compared to an adult [58-61]. Please see Table 6 which highlights these differences.

TABLE 6: Required contact times with hot water for full thickness burns.

TIME TO BURN				
Temperature °C	50°C	55°C	60°C	70°C
Adult	5 min	30 sec	5 sec	1 sec
Child	5 min	7 sec	1 sec	0.5 sec

Source: MOH [62]

Key points

1. Families have been found to turn down the temperature mechanism/thermostat on hot water cylinders in an attempt to minimise the risk of burns to children. This is not appropriate as the cylinder must be set at 60°C to prevent the growth of *Legionella* [57, 62].
2. Tempering valves should be sited as close as possible to the tap outlet. See footnote 3 for specifications on best practice installation, operation and maintenance for tempering valves to minimise the risk of *Legionella* bacteria [62-63].
3. The best way to achieve delivery at the taps at 50°C for an individual hot water system is to consult a registered plumber, which is especially important where water is heated by means of a wet back or solar water heating system. These systems can produce extremely hot water temperatures that can potentially be delivered at the tap [2].
4. For further in-depth standard information please refer to

   AS/NZS 3500.4.2015 Plumbing and drainage – Part 4: Heated water services [64] (please note – the previous standard AS/NZS 3500.4. 2003 is still cited in the G12 Water Services documentation and is currently still where cited, until the updated standard has been reviewed by MBIE [48]).

   NZS 4617: 1989 Tempering (3-port mixing) [65]

SAFETY TIP: WATER FROM THE TAP SHOULD NOT BE HOTTER THAN 50°C, AND ALWAYS RUN THE COLD WATER FIRST IN THE BATH.

[3] Recommended best practice to reduce the risk of Legionella bacteria is to site tempering valves within two metres of the tap outlet, storage of water in the hot cylinder must be held at 60°C, the delivered hot water temperature must reach 50°C within one minute of the opening of the outlet and maintenance activities need to be scheduled [62, 63].

Preventing fire/flame related injuries and deaths by the provision of smoke alarms

Between 2014 to 2018, less than 5 children aged 0-14 years died in a fire or flame injury in the home [5]. The Growing Up in New Zealand study found that in 21% of families of children aged 2 years, no working smoke alarms were present in the home. Those living in areas of socio-economic deprivation or living in private rental accommodation were more likely to not have working smoke alarms [17]. This corresponds to a 2013 Branz report that found people in rental accommodation were least likely to have smoke alarms installed in comparison to owner occupied homes (11% versus 6%). Households with a total income of between $10,001 and $30,000 were also less likely to have a working smoke alarm compared to higher income groups [66]. The New Zealand Fire Service states that on average in 80% of fires where a fatality occurs there are either no smoke alarms installed, or the smoke alarm was not 'working' due to the lack of/or expired batteries [49].

Clause F7 Warning Systems of the Building Code requires newly built homes or those being renovated to provide a warning system (smoke alarms) to alert residents to fire, to allow them to reach a safe place [67]. From 1 July 2016, landlords are required to have working smoke alarms installed in all their residential rental homes. Any replacement alarms installed after that date will need to have long life batteries and a photoelectric sensor. Hardwired smoke alarms are also permitted.

Tenants will be responsible for replacing worn-out batteries in the smoke alarms and informing their landlords of any defects [68].

The NZ Fire Service advises that photoelectric long-life battery alarms should now be used in preference to the older standard ionisation smoke alarms [49]. The benefits of these alarms include a longer battery life providing around 10 years smoke detection without the need to replace batteries on a regular basis, and they are particularly sensitive to smouldering fires [49, 50]. MBIE estimates that although long-life photoelectric smoke alarms are more expensive to purchase initially, in comparison to a standard smoke alarm, the cost would be recouped within three to four years (due to not having to regularly change the batteries) [68].

Key points

1. Smoke alarms have expiry dates. The date is normally clearly marked on the rear of the alarm (see Figure 3). Pushing the test button only completes the circuit from the battery to the sounder and does not test whether the alarm will react to smoke. Any alarms older than the use-by date should be replaced with long-life photoelectric smoke alarms [52].
2. Smoke alarms should be fitted and maintained in accordance with the manufacturer's guidelines [2].
3. Wired-in interconnected smoke alarms are recommended as they alert tenants to a fire in another section of a house. However, it is important to note they do not work when there is a power cut or tenants turn off their power at night to reduce their power bills, if the battery backup system within the unit has been removed or not installed in each individual alarm [49-50, 52].
4. For more in-depth information on smoke alarms, including appropriate placement and maintenance guidelines see NZS 4514:2009 Interconnected smoke alarms for houses, the NZ Fire Service website www.fire.org.nz/smokealarms, and Building Code Clause F7 – Warning Systems [49-50, 67].

FIGURE 3: Example of the rear of a smoke alarm, identifying an expiry date.

Source: NZ Fire Service [52]

Remember working smoke alarms are crucial, and are associated with a reduction in both injuries and deaths from fires [69-70]. They ultimately contribute to saving houses as well as people's lives.

Preventing burns and electrocutions through the safer use of electrical appliances by the provision of an adequate number of power points

Increasingly in today's world we use a large number of appliances and technological items that require mains power. With many older homes not designed with this in mind, parents may use multi boxes, double adaptors and extension cords in an attempt to rectify a lack of wired-in power points. Multi boxes pose a hazard to children, especially those who are crawling and exploring their environment at ground level. If they are used it is imperative that they have safety shuttered outlets or blank plugs, with an integrated RCD protector in case a child attempts to insert something into a socket [71]. Multi boxes, when overloaded can also cause fires and if used in conjunction with extension cords can be a tripping hazard [72]. Provision of an adequate number of appropriately located and configured socket outlets is hence recommended [2, 54, 71].

A wider variety of power point wall outlets are available including multi wall socket outlets, rather than those with the traditional one or two outlets that have only been available in the past [2, 54]. Multi socket outlets can be purchased with safety shutters. Safety shutters have an internal mechanism that requires the plug to be inserted in a certain manner to minimise the risk of children being electrocuted by inserting an object into a socket [2, 54]. See Table 7 for the recommended number of sockets in each room in the home.

TABLE 7: Recommended number of socket-outlet locations [54].

AREA	DESIRABLE	MINIMUM
Work area of kitchen	8	6
Dining area	4	2
Living area	8	5
Double bedrooms	6	4
Single bedrooms	4	2
Hallways and landings (each)	2	1
Laundry	4	2
Store/workshop/garage	4	3

Please see NZMP 6004:1999 Safer electrical installations in homes for children, the elderly and people with disabilities, SNZ HB 4102:2011 and the Energy Safety website for further in-depth information on socket outlets and the safe use of electrical appliances and electricity [2, 54].

Photo courtesy of Schneider Electric

Outlet plugs to prevent children inserting objects into sockets.

SAFETY TIP: REDUCE THE RISK OF ELECTROCUTION BY INSTALLING MULTI SOCKETS WITH SAFETY SHUTTERS.

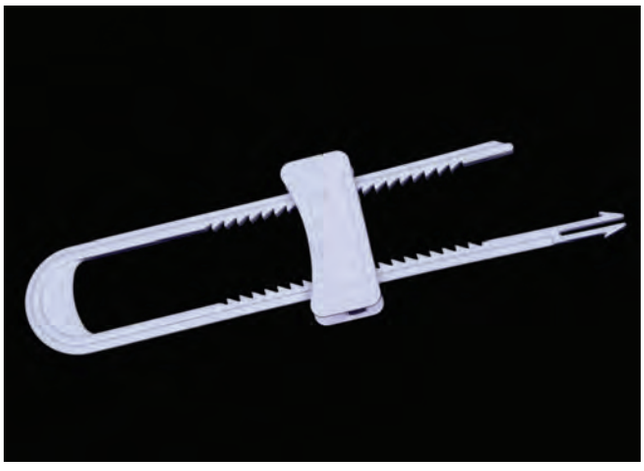
Preventing Poisonings

Background and rationale for key recommendations

Between 2014-2018 a total 1028 children aged between 0-14 years were hospitalised due to poisoning that occurred in a home environment. Of these, children aged 0-4 years accounted for 87% of the hospitalisations. Children aged 1-2 years represented 61% of all the poison-related hospitalisations of children aged 0-14 years [5]. Children were hospitalised for unintentionally being poisoned by a wide range of toxic substances such as medications (both prescribed and over the counter products), pesticides and other chemicals, alcohol and gases and vapours [5]. For further information on the type of agents responsible for poisoning in children refer to the Safekids poisoning prevention paper [74].

Young children are unable to discriminate between safe and unsafe substances, and common ways that children explore their environment put them at increased risk of being poisoned i.e. very young children putting things into their mouth [75]. Despite the introduction of a number of poisoning prevention initiatives, such as child resistant packaging, and changes to the chemical composition of some products, poisoning is still a leading cause of hospitalisations [74, 76]. Young children are resourceful in their attempts to access toxic substances, and frequently have been found to climb to gain access and to reach further onto bench tops than their parents or caregivers had anticipated [7].

The availability and use of safe storage locations is crucial to minimise the risk of children accessing toxic substances and being poisoned. Safe storage is storage which is 'out of reach and sight of children', in a high locked cupboard, and using a child resistant latch [73]. See Table 8 for key recommendations.



SAFETY TIP: USE CHILD RESISTANT LATCHES TO LOCK CUPBOARDS.

TABLE 8. Key recommendations for preventing poisonings.

CHILD RESISTANT STORAGE FACILITIES	• Child resistant storage facilities are provided so toxic products and substances such as medications and household cleaners are stored safely, up high and out of the reach and sight of children [46, 73].
	• Child resistant storage facilities are present in all areas of the home where toxic substances are likely to be stored, such as the kitchen, bathrooms, laundry, and the garage/garden shed [2, 74].
	• A child resistant catch/latch is used to secure the storage unit, rather than relying on just a keyed lock system [73-74].

Preventing Serious Cuts and Lacerations

Background and rationale for key recommendations

Glass is considered a hazardous building material as it can cause cuts and lacerations if children collide or fall onto it, and it breaks, or if broken glass falls onto children, including from glass furniture [2, 79]. A total of 556 children aged 0-14 years were hospitalised due to injuries sustained by 'contact with sharp glass' between 2014-2018. Children aged 5-9 years accounted for 43% of those hospitalisations [5].

These national figures show overall glass related injury hospitalisations, including those that do not arise directly from structural aspects of the home, however Starship Children's trauma data reveals between January 2014 and December 2018, 66 children were hospitalised due to contact with glass in windows, doors or furniture. Overall, these structural/design glass injuries accounted for 42% of all glass related injuries in this time period [45]. This included: injuries sustained from glass panels in hinged and sliding doors which accounted for 27% and windows 15%.

The use of safety glass in high-risk applications where children commonly frequent or may collide with is an important preventative method to reduce the likelihood of serious lacerations/cutting injuries in the home environment [79, 80]. Safety glass is glass that has been tested and complies with the relevant requirements of AS/NZS 2208 or similar, and has been produced so it breaks safely to reduce the risk of serious cuts and lacerations [81].

Glazing is covered in Building Regulations 1992 – Schedule 1- New Zealand Building Code Clause F2 Hazardous Building Materials, which outlines the mandatory requirement for new houses and those being renovated to protect people from injuries that can result from glass. It requires glass to be resistant to a certain degree of force or to break in a manner that reduces the likelihood of serious injury, or to be protected from impact [80]. Acceptable solution F2/AS1 Clause 1.1.1 states glazing subject to human impact should comply with NZS 4223: 3 Glazing in buildings - Human impact safety requirements [79, 80]. Consideration of human impact safety requirements is necessary in high-risk areas such as glass doors and door side panels, low-level windows and glass panels, areas surrounding stairways, balustrades and shower/bath enclosures [79]. See Table 9 for key recommendations.

TABLE 9: Key recommendations for preventing serious cuts and lacerations.

SAFE GLAZING	The use of safety glass for high risk areas with low level glazing, including hinged and sliding doors (such as a ranch slider), door side panels, windows and around or in shower/bath enclosures in accordance with NZS4223:3. Glazing in buildings – Human impact safety requirements [77, 79].
	Replacement of pre-existing ordinary glass with safety glass, to minimise the risk of injury in high risk areas.
	Glass panels in doors or large low lying windows need a manifestation strip or sticker attached to ensure they are visible. This will minimise the risk of children thinking there is nothing there and colliding into glass [77].
	Refer to 'Glass Association of New Zealand Code of Practice for Glass in Furniture and Similar Applications', for guidance on safety recommendations for household furniture and cabinetry that contains glass [78].

Key points

1. To assess if existing glass is safety glass - look for permanent marking in the form of etching or printed stamps on the glass pane – for further information refer to the GANZ [81-82] and NZS 4223: 3 Glazing in buildings - Human impact safety requirements [77].
2. Large glass panels that may be mistaken for an unimpeded path of travel are a particular risk for children, such as in the case of a glass sliding door, or low-level window. Increasing the visibility of such glazing by the use of window stickers, graphic design strips or an opaque band in the glass (commonly referred to as 'manifestation strips') can be used to alert a child to the presence of glass. Manifestation should be placed at a level appropriate for the height of children, not just adults [2, 77, 79].
3. Please note a new updated version of NZS 4223: 3 Glazing in buildings - Human impact safety requirements was released in February 2016, however the previous version is still cited in the current F2 Hazardous Building Materials document [77, 80].
4. View the jointly produced Safekids and New Zealand Glass Association's video that demonstrates why the use of safety glass is crucial in homes [83].

SAFETY TIP: USE SAFETY GLASS IN DOORS, WINDOWS AND FURNITURE – WHERE THERE IS NO MARKING, ALWAYS ASSUME IT IS NOT SAFETY GLASS.

Preventing Drowning in Home Swimming Pools

Background and rationale for key recommendations

Between 2012 and 2016 the home environment was the most common place for a child to drown [5]. In total, 12 children aged between 0-14 years died due to a drowning or submersion event occurring in a 'domestic' or a 'home pool' setting between 2012 and 2016. The majority of the children who died were aged 0-4 years (83%). Forty two percent of these deaths occurred in a home swimming pool (a home pool, portable, or spa pool) and 33% in a bath [87].

Babies and young children are irresistibly drawn to water and can drown quietly, quickly and in vessels containing only a small amount of water such as a bucket [88-89]. A child can drown in as little as around 5cm of water, within one minute [89]. Children who survive near drowning may suffer permanent neurological effects, which can have life-long consequences for the child and their families [85].

Reducing access to water hazards through strategic use of barriers is internationally advocated. It is recommended that home swimming pools have four-sided child resistant fencing, with a self-closing gate [88, 90-91]. An international review found that fencing that adequately prevents children reaching the pool unsupervised can prevent about three quarters of all child drownings in pools. This involves fencing that completely encircles the pool and isolates it from the house. Four-sided fencing has been found to be more effective at preventing drownings than alternative methods, such as where children can gain access to the pool through the house [91].

A 2009 Child and Youth Mortality Review Committee Report reviewed deaths that occurred in home pools between 2002 and 2008 for children under 5 years of age (where access information was available - 94%). All pools had a pool fence, but 70% were found to not be compliant with legislation at the time of the drowning. The committee identified that mechanical component deterioration and structural modifications to the fence or gate contributed to the child home pool drownings [85].

The Fencing of Swimming Pools Act (1987) promoted the safety of young children, stipulating the mandatory fencing of certain pools in New Zealand. Since the inception of the New Zealand Fencing of Swimming Pools Act in 1987, drowning of young children in home pools, portable pools and spa pools had declined from an average of 10 per year before the Act, to 2.1 per year (based on a 10 year average) [86].

The Building (Pools) Amendment Bill (2016) came into effect on 01 January 2017 and repealed the Fencing of Swimming Pools Act 1987. The new swimming pool safety requirements are incorporated into the Building Act rather than as a standalone statute.

The new Bill is expected to save an additional six young children's lives per decade.

Key changes include:

- Requirement that residential swimming pool barriers be inspected every three years
- Acceptance of safety covers as barriers for spa pools and hot tubs if they restrict access to young children with a lockable, child-resistant cover and are at least 760mm above ground
- Provision of additional tools to enable territorial authorities to enforce pool barrier requirements, including notices to fix and infringement notices
- Requirement for retailers and manufacturers to inform purchasers of their legal obligations for child safety
- Exclusion of garden and drainage ponds from swimming pool fencing requirements
- Flexibility in requirement for four-sided fencing of pool if the access of children is adequately excluded. A cliff face or infinity pool feature where children cannot get access will meet the law. It also allows new technologies to be used to ensure gates and doors prevent access.

Additional information from the Ministry of Building, Innovation and Employment

- The Amendment Act created new Building Code Clause F9 Restricting access to residential pools. The Ministry of Building Innovation and Employment has published two Acceptable Solutions for Clause F9.
- You can read more about restricting access to residential pools on the Building Performance website.
- The Building (Pool Manufacturers and Retailers) notice in the New Zealand Gazette sets out the requirements for notices that manufacturers and retailers must supply with pools from 1 September 2017.
- The Building (Pools) Regulations 2016 sets out the fees payable by independently qualified pool inspectors, and the certificate they will issue if a pool has compliant barriers.

TABLE 10: Key recommendations for preventing drowning in home swimming pools.

SAFE ACCESS TO SWIMMING POOLS	• Pool fencing, gates and surrounding area should be checked regularly in between inspections, to ensure the fencing components and surrounding area continues to comply with the regulations [2, 85].
	• Safekids recommends the following, which are in addition to the current regulations: ◊ All swimming pools, including spa pools, portable pools, and paddling pools with a depth of water over 300mm in height shall be fenced by four sided isolation fencing [86]. ◊ All new pools should have four sided isolation fencing, including those accessed via an internal door which is permissible under the current Act, with the use of self-closing mechanisms or alarms.

Key points:

- International research shows that four-sided fencing prevents children reaching the pool unsupervised and is more effective at preventing drownings than alternative methods.
- The Fencing of Swimming Pools Act (1987) reduced drowning of young children in home pools, portable pools and spa pools from an average of 10 per year before the Act, to 2.1 per year (based on a 10 year average).
- The Building (Pools) Amendment Bill (2016) repealed the Fencing of Swimming Pools Act 1987. The new Bill is expected to save an additional six young children's lives per decade. For more information, refer to New Zealand's Ministry of Building Innovation and Employment - www.mbie.govt.nz

Preventing Children Being Hit or Driven Over by Motor Vehicles in Home Driveways

Background and rationale for key recommendations

On average 4 children (2012-2016) are killed and around 16 (2014-2018) are hospitalised from being hit or runover in a driveway in a New Zealand home annually. Internationally, New Zealand has one of the highest rates of driveway injuries and deaths in the world [96]. Children most frequently run over are those aged 0-4 years, a typical child is identified as being around two years old, living in high household occupancy situations and in an area of high deprivation. Such events are influenced by three factors that increase the risk of child driveway run overs from occurring: vehicle design (blind zones in vehicles); human factor (lack of awareness by both children and adults); and property design [93-94, 96]. See Table 11 for property design features found in a New Zealand research study that increase the risk of a driveway runover occurring [93].

TABLE 11: Built environment risk of injury by driveway characteristics.

BUILT ENVIRONMENT	RISK OF INJURY
Exiting the driveway onto a local (less busy) road	Fivefold risk
Additional parking on the property	Threefold risk
Driveway runs along the property boundary	Threefold risk
Driveway length greater than 12 m	Twofold risk
Driveway exiting onto a cul de sac	Twofold risk

Source: Reproduced from Safekids New Zealand [96].

Concerningly, 40% of families in the Growing Up in New Zealand study (aged 2 year cohort) did not have a fully fenced driveway and approximately 25% of families reported not having a fenced outdoor area where children could play. The percentage of properties that did not have a fenced play area or driveway fenced was highest for those that lived in private rental properties (43%), compared to those living in public rental properties (38%) or where families owned their own home (37%) [17].

The New Zealand Building Code Building Regulations 1992 – Schedule 1- NZ Building Code Clause D1 Access Routes – outlines mandatory requirements including the need to protect people from injuries from vehicle movements in and out of properties [38]. See Table 12 for key recommendations.

For more in-depth information please see:

- Child driveway runover injuries: Safekids New Zealand position paper http://www.safekids.nz/Resources/ProdID/70/CatID/2 [96].
- Housing New Zealand Driveway Safety Programme - A Guide to driveway safety for property owners http://www.hnzc.co.nz/our-publications/Brochures/A-guide-to-driveway-safety-for-property-owners/A-guide-to-driveway-safety-for-property-owners-brochure [97].

TABLE 12: Key recommendations for preventing children being hit or driven over by motor vehicles in home driveways.

SECURE PLAY AREAS	Safe driveway design is an integral part of a new house build or when renovating and undertaking maintenance activities in existing properties. Including: • The avoidance of long driveways and those that run along the property boundary [2, 93] • The use of speed restriction mechanisms and warning signs if long driveways are present [93-94, 96-97] • The siting of vehicle garaging and parking as close as possible to the front of the property [2] • The separation of children's play areas and the front door, from the driveway and garage [2, 94-97] • The reconfiguration of driveway and parking areas which currently utilize multiple areas for parking, to minimise complex vehicle movements [93-94, 96].
	Greater care is taken in the design, layout and fencing of driveways and /or children's play areas to separate children from driveways and moving or stationary vehicles by: • Provision of a separate pedestrian access to the house, away from the driveway [2, 93, 96] • The provision of a fence and self-latching and closing gates to separate children's play areas from driveways and areas where vehicles move [96] • Fencing should be at a height and of a design that discourages climbing and incorporates a self-closing gate and a child resistant latch [97] • Front section fencing also needs to be placed and designed to maximise visibility for drivers and pedestrians at the driveway entrance [2].

4. General strategies to reduce child home injuries by home room location and building element

The recommendations in the following sections focus on additional methods to modify or remove existing structural, design hazards, or household features/ building elements that contribute to childhood injury within homes, to further minimise the risk of injuries occurring to children aged 0-9 years. Information on hazards and injury prevention strategies are provided by both house 'rooms', and specific 'house components' are addressed separately, for example 'Furniture, floorings and furnishings'.

Residential Tenancies Amendment Act 2020 (2020/59)

Making minor changes to a rental dwelling

The 2020 amendment to the Residential Tenancies Act means that from 11 February 2021, tenants can ask to make changes to the property and landlords must not decline if the change is minor. This has important implications for tenants who wish to make their homes safer for children and request permission from their landlord. Landlords must respond to a tenant's request to make a change within 21 days.

Tenants are responsible for any costs associated with the installation and reversal of a minor change that they request. Landlords can place reasonable conditions around how the minor change is carried out. Tenants must remove the minor changes and restore the property to substantially the previous condition when the tenancy ends, if the landlord does not agree to the changes staying.

Landlords must not unreasonably withhold consent for a fixture, renovation, alteration or addition, but can decline a request for a minor change if:

- the change is not low risk for installation and removal
- substantial restoration of the property to its previous condition is not reasonably possible
- the change will pose a health and safety risk, disturb hazardous materials or compromise the structural integrity, waterproofing or fundamental safety or character of the building
- the change will require a regulatory consent or breach an obligation such as a body corporate rule.

Examples of minor changes that can be made are:

- visual fire alarms and doorbells, where they have low impacts
- securing furniture to baby-proof or protect against earthquake risk
- installing a baby gate
- curtains.

A landlord commits an unlawful act if the landlord withholds consent for a minor change. This section is a summary of the change and the new sections should be consulted. Sections 42a and 42b are the relevant sections and can be found on the New Zealand Legislation website.

http://legislation.govt.nz/

The Kitchen

Kitchens are rooms where injuries frequently occur. The NZ Fire Service has identified that 25% of all fires they attend start in the kitchen [72, 98].

Kitchen design, modifications and safety recommendations

Design

Provide at least two high lockable cupboards, fitted with child resistant latches for safe storage of toxic substances/products such as kitchen cleaners, dishwashing powder, medications and knives [2, 74].

Ensure the flooring surface is slip resistant (for guidance on recommended flooring please refer to SNZ HB 4102: 2011 [2], NZBC Compliance Document D1 Access Routes [38] and the AS/NZS 3661:2:1994 – Slip Resistance of pedestrian surfaces- Part 2: Guide to the reduction of slip hazards) [41].

Plan the placement of rooms to allow parents to maintain a clear view of children whilst working in the kitchen (both indoors and outdoors) [2, 98].

Consider foot traffic flow through a kitchen and keep to a minimum, especially near the oven and hob/cooktops [2, 98].

Ideally the fridge should be situated next to the entry of the kitchen to further minimise foot traffic in the food preparation area [2].

Adequate bench space for food preparation and safe placement of appliances is important. This assists in minimising the risk of hot food or liquids falling onto children and contributes to restricting their ability to reach up and pull appliances or their contents over themselves. Refer to SNZ HB 4102: 2011 for in-depth information on space requirements for next to the oven, microwave, cooktop, sink, fridge and storage cupboards and shelves [2].

Microwaves, for example, should be at bench top level, ideally with a heat resistant surface beside it of 450mm [2].

If floor ovens are used, purchase one which comes with an anti-tip restraint that secures and attaches the oven to either the floor or wall to ensure its stability if a child attempts to climb up it [2, 98].

When purchasing a cook-top, buy one with knobs up the side, rather than on the front and with the larger elements at the rear if possible [2].

Ensure gas stoves and cooktops are fitted by registered tradespeople and final inspections are undertaken by a certified gas fitter. Follow manufacturers' guidelines for installation, use and maintenance requirements [2]. Ensure they have an automatic cut-off facility (flame failure device) to cut off gas supply if a child independently turns them on.

Ensure glass splash-backs are fitted by a qualified professional.

Have a minimum of six power points (ideally eight) that are situated as far away from the edge of benches as possible, to minimise the risk of children pulling appliance cords [2].

All bench tops, drawer handles and furniture should have rounded edges, which are not sharp if fallen or collided into [2].

Modifications and safety practices

The use of a door barrier/stair gate to keep young children from accessing the kitchen independently or entering during kitchen cooking and food preparation activities is advocated [2].

Provision of a fire blanket and fire extinguisher in the kitchen is highly recommended [72].

If providing a dishwasher, purchase one with a lock system or allow the use of a lock on dishwashers, as children may climb on hinged doors that are open and access dishwasher powder from the powder dispenser or sharp utensils [73].

Ensure no mats or rugs are placed near the oven or cooktop as they could be a tripping hazard.

If a window is near an oven or cooktop use blinds as a window cover in preference to curtains to minimise the risk of fire [72], however always ensure that blinds do not present a suffocation hazard [2,100] (refer to the following recommendation section 'Furniture, flooring and furnishings' for further information).

SAFETY TIP: HAVE A FIRE BLANKET OR FIRE EXTINGUISHER IN CASE OF KITCHEN FIRES.

The Bathroom and Toilet

The bathroom is a common place where children are injured in a variety of ways. This includes being submerged under water and drowning in the bath, burns from hot water and from slips, trips and falls due to wet slippery surfaces including floors, but predominantly in the bath or shower [101-102]. For example, in New Zealand 128 children aged under 5 years were hospitalised from home-based hot tap water burns between 2009 to 2013, 73% of these were due to contact with hot tap water in a bathroom setting[4] [5].

Bathroom and toilet design, modifications and safety recommendations

Design

Provide a high lockable cupboard with a child resistant latch to store hazardous and toxic products such as toiletries, cleaning products and razors [2, 74].

Safety glass must be used in all glazed bathroom fittings and structures (such as shower doors, screens, shelves, glazed panels and windows) in accordance with NZS 4223.3 [77, 79], and the NZBC Compliance Document F2 Hazardous Building Materials [80].

Ensure glass shower doors do not collide with furniture or other bathroom fittings to minimise the risk of damage to the glass [2, 79].

All bathroom electrical fittings shall comply with the requirements of the Electrical (Safety) Regulations 2010 [103], NZBC Compliance Document G9 Electricity [104], and AS/NZS 3000:2007 Electrical installations (known as the Australian/New Zealand Wiring Rules) [105]. Consult the Energy safety website for further information.

Bathrooms should not contain any regular power points. Towel rails, heaters, lights and fans should all be permanently wired in, using an RCD protection device [2].

Ensure the flooring surface is slip resistant (for guidance on recommended flooring please refer to SNZ HB 4102: 2011 [2], NZBC Compliance Document D1 Access Routes [38] and the AS/NZS 3661:2:1994 – Slip Resistance of pedestrian surfaces- Part 2: Guide to the reduction of slip hazards) [41].

Bathroom vanities and drawer handles should have rounded edges and not be sharp if fallen onto or collided into [2].

Modifications and safety practices

Windows should be sited away from the side of baths. If a window is sited next to a bath or over a bath there is a risk of slipping and falling into the glass window. If this is the case, safety glass should be retrospectively fitted [2].

The Laundry

The laundry as a household workroom contains many hazards to young children, in particular those associated with poisonings, burns, and drowning [2].

Laundry design, modifications and safety recommendations

Design

Provide at least one high lockable cupboard with child resistant latches to store hazardous and toxic products such as sharp objects, bleach and other household cleaning products [2, 74].

All laundry electrical fittings shall comply with the requirements of the Electrical (Safety) Regulations 2010 [103], NZBC Compliance Document G9 Electricity [104], and AS/NZS 3000:2007 Electrical installations (known as the Australian/New Zealand Wiring Rules) [105].

Provide a minimum of two power points (ideally four), away from the laundry tub [2, 54].

Ensure the flooring surface is slip resistant (for guidance on recommended flooring please refer to SNZ HB 4102: 2011 [2], NZBC Compliance Document D1 Access Routes [38] and the AS/NZS 3661:2:1994 – Slip resistance of pedestrian surfaces- Part 2: Guide to the reduction of slip hazards) [41].

[4] In the 85% of specific rooms identified.

Living Room

The living room is often the hub of the house where both adults and children relax. Children often play independently in this room, hence the need for careful consideration of the types of hazards often found in the living room that may not be immediately obvious to family members.

Living room design, modifications and safety recommendations

Design

Plan good visibility between the living room, kitchen, and outdoor spaces, to facilitate monitoring of children's activities [2].

Provide a secure, fixed barrier/fireguard with open fires/wood burners and other fixed heating sources [2, 72].

Provide a minimum of five power points (ideally eight) [2, 54].

Modifications and safety practices:

Ensure furniture has rounded edges and no protrusions to minimise the extent of injuries if a child collides or falls onto it. Furniture needs to be stable and secured to walls - for example bookshelves or wall units to prevent the furniture falling onto a child and crushing them [2, 106].

Children have also been severely injured and died due to unsecured televisions falling on top of them [107]. Televisions should never be placed on a high drawer cabinet where a child might use the drawers to climb to reach the television. Televisions should be secured to the wall or alternatively onto a low stable television cabinet using a restraint [106-107].

Safety glass should be used in all low level glazing (such as sliding doors, door side panels, and windows) in accordance with NZS 4223.3 [77,79], and the NZBC Compliance Document F2 Hazardous Building Materials [80].

Glass coffee tables pose a risk to children as they can be fallen onto or climbed on due to their low level [2]. Ensure glazed living room furniture uses safety glass [78].

Ensure a photoelectric smoke alarm is fitted in accordance with the directions of the NZ Fire Service [49] and NZS 4514:2009 [50].

Ensure fireplace chimneys or flues are cleaned annually [72].

SAFETY TIP: SECURE TELEVISIONS TO THE WALL.

Bedrooms

Bedroom design, modifications and safety recommendations

Design

Provide a minimum of five power points (ideally eight) [2, 54].

Modifications and safety practices

Ensure a working photo-electric smoke alarm is fitted in every bedroom [49].

Use window restrictors to prevent children falling out. Purchase a variety that can be released by the use of a key or tool in the event of a fire [2].

Ensure furniture from which a child could climb up and fall from or which could fall onto a child is secured and situated away from potential hazards such as windows, power points, blind and curtain cords [2, 100, 106].

Blind and curtain cords pose a strangulation hazard, ensure they are out of reach of children and secured on a cleat [100]. See the following furnishing section for more in-depth information.

Provide furniture that is stable, with rounded edges and no protrusions to minimise the extent of injuries if a child collides or falls onto it [2].

Be alert to small objects that a child could swallow and choke on such as small drawer knobs [2, 39].

If bunk beds are supplied it is recommended they are only used by children over 9 years of age [39].

SAFETY TIP: SECURE BLIND CORDS OUT OF REACH, USING A CLEAT; BUNK BEDS SHOULD ONLY BE USED BY CHILDREN OVER 9 YEARS OLD.

The Front and Backyard

Front and backyard design, modifications and safety recommendations

Paths should be even and consider the use of slip resistant qualities in the choice of materials used [2].

Maintain paths, outside steps, entranceways and decks to ensure they are not slippery [2].

Ensure fences are designed so children find it difficult to climb up or to get under them [2].

Ensure there is provision for garage or garden sheds to be locked and there is a safe storage facility within them.

Allow the use of child resistant gates on the front and back doors, in particular where the door opens directly onto a driveway or in a situation where no fencing is present between the house and the driveway [94].

The use of impact absorbing materials such as sand or wood chips is recommended to reduce playground equipment related injuries [46,108]. See AS/NZS ISO 8124.6:2011 – Safety of toys. Part 6: Swings, slides and similar activity toys for indoor and outdoor family domestic use, for recommendations on the safety of home playground equipment [109].

Doors and Windows

Doors and windows cause injuries to children. Children can be injured by crashing into low-level glass windows, or by falling out of windows, potentially with dire consequences [40]. For children aged under 5 years fingers being jammed predominantly in the hinge part of a door, as a result of a door being shut, frequently results in hospital admissions. Between January 2010 and April 2015, a total of 392 children were admitted to Starship Children's Health following a child's finger/fingers being caught in either a door hinge or frame. Of these 56% were aged 1 or 2 years [45].

Window and door design, modifications and safety recommendations

Design

Consider the placement of windows to reduce the risk of falls. Children frequently climb to access windows so ensure house fittings or furniture does not facilitate easy access [2].

Modifications and safety practices

Use safety glass in areas where there is potential for impact between glass and children i.e., low-level doors, windows, near or around stairs or landings and shower enclosures as per NZS 4223.3 [77, 79].

Replace existing standard glass with safety glass when replacing it due to breakage, in high-risk areas as identified in NZS 4223.3 [79].

Upper storey windows and windows with a fall height greater than 1000mm, should have a window restrictor to stop the window being opened more than 100mm [36].

Window sills should be no less than 1200mm from the floor in the upper storey [2].

Ensure floor coverings are slip resistant around low-level glass structures, especially in high-risk areas such as the bathroom and kitchen [2, 41].

Use stickers or manifestation strips to alert children to large glass panels, such as on ranch sliders or low large windows [79].

Consider providing a doorstop or hooks on suitable high traffic internal doors (such as the living room door), to enable them to be secured to prevent fingers being caught.

SAFETY TIP: USE STICKERS TO ALERT CHILDREN AGAINST RUNNING INTO GLASS DOORS.

Furniture, Floorings and Furnishings

Design, modifications and safety practices

Furniture

Unstable or top heavy furniture and appliances such as stoves, televisions, drawers, wardrobes, and bookshelves should be secured to the wall or floor to prevent them falling onto children [2, 106-107]. Refer to AS/NZS 4935: 2009 Domestic furniture – freestanding chest of drawers, wardrobes and bookshelves/ bookcases – determination of stability for information on choosing and stabilising furniture. Please note that some standards such as AS/NZS 4935 identify that the safety of young children may not be fully covered by the standard, due to their unpredictable and unsupervised use of furniture [110].

Ensure furniture and cabinetry has safety glass [78].

Furniture placed near windows, on decks or balconies near balustrades is hazardous; children may use it as a means to access window ledges or to climb up onto barrier/balustrades [37].

Furnishings

The use of furnishings and furniture with fire resistant properties is advocated [2].

Be aware of the risks that blind and curtain cords pose as a

strangulation hazard. Children have died in New Zealand due to accessing these [100]. Keep them out of reach of children and ensure they cannot form a noose, and that children do not have ready access from nearby furniture [2]. Cleat mechanisms which are secured to the wall can be purchased to anchor cords up high and away from children, or consider purchasing blinds that do not use cords with mechanisms such as wands [100, 111]. The Australian Competition and Consumer Commission recommends that curtain and blind cords are cut or tied onto a cleat at a minimum of 1600mm above the floor surface [111]. For further in-depth information on how to minimise this strangulation risk, view the Australian Competition and Consumer Protection – Product Safety Australia – Blinds, curtains and window fittings – products and installation https://www.productsafety.gov.au/content/index.phtml/itemId/974977

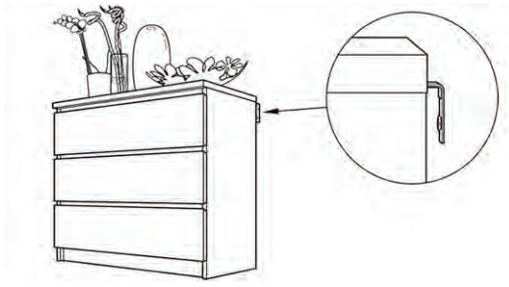
Flooring

Ensure floor coverings are chosen for their slip resistant qualities, especially around low-level glass structures, and in high-risk areas such as the bathroom and at the top of a stairwell [2, 41].

Ensure floor coverings such as carpet are secure and in good condition [41].

Rugs, mats and carpets not firmly fixed to the floor can be a tripping hazard and have been associated with childhood falls on one level [2, 112]. In particular, do not place any rugs or mats next to a heating source or glass structures [2].

SAFETY TIP: SECURE UNSTABLE AND TOP HEAVY FURNITURE AGAINST THE WALL.



Electricity, Gas and Heating

Design

In new house builds or during renovation install socket outlets with multiple plug outlets with shuttered power points [2, 71].

Ensure fitted heating appliances and open fires/wood burners have fixed and secure guards to provide protection to children [72].

See SNZ HB 4102: 2011 and Energy Safety documentation for in-depth information and safety considerations on electricity and gas; associated safety devices such as RCD devices which protect against burns and electrocutions; home heating and the safe installation and use of gas/electrical appliances [2, 71, 113]. See Energy Safety at www.energysafety.govt.nz.

Modifications and safety practices

Ensure electrical and gas work is undertaken by certified professionals.

Please refer to the following standards for in-depth information on the safe use of heating appliances:

- AS/NZS 60335.2.30:2009 [114] and AS/NZS 60335.2.30:2015 – Household and similar electrical appliances – safety Part 2.30: Particular requirements for room heaters. (Supersedes AS/NZS 60335.2.30:2009 in 2018 [115].
- AS/NZS 2286:2001 Space heaters- secondary guards [116].

SAFETY TIP: HAVE FIXED GUARDS TO KEEP CHILDREN AWAY FROM HEATING APPLIANCES.

5. Resources – for further information

Safekids Aotearoa

www.safekids.nz

For information on unintentional child injury prevention in New Zealand. Includes in-depth information on NZ child injury data; position papers, factsheets, infographics on themed topics and resources for community agencies; an information Service and more.

BRANZ (Building Research Association of New Zealand)

www.branz.co.nz

For in-depth information on:

- Comprehensive maintenance information and resources including:
  - ◊ Maintenance schedule and maintenance record chart (including an online house specific or 5 properties licence tool)
  - ◊ Common issues and repair guidelines on specific topics i.e. barriers and balustrades, decks, paths and pavement, stairs and steps
  - ◊ Themed good repair guides available to purchase online i.e. timber floorboards, aluminium windows.
- Good practice guides and reports i.e. 'Guide to acceptable solutions: Protection from fire'
- Helplines - including a building and construction professionals helpline and a pay for service consumer hotline.

Ministry of Business, Innovation and Employment (MBIE) – Government Ministry including the following related services:

Building, Renovating and Maintenance

www.mbie.govt.nz/info-services/buildingconstruction

For provision of information and guidance on building legislation and controls including all Acceptable Solutions and Verification Methods documents, Building Act 2004 guidance, practice advisory notifications, and links to other pertinent building information such as 'Building Consent Authority Accreditation Publications'.

Product Safety

www.tradingstandards.govt.nz/for-consumers/keeping-kids-safe

For provision of information on product safety with specific information on keeping kids safe including guidance on items such as bunk beds and safety gates.

Energy Safety – under WorkSafe NZ

www.energysafety.govt.nz

For information on Energy Safety's role as the regulator for ensuring the safe supply and use of electricity and gas. Information also provided on the safe installation and use of electrical and gas appliances in New Zealand and safety alerts for faulty products.

Standards New Zealand

www.standards.co.nz

Standards NZ provides:

- An in-depth list of current and superseded standards in New Zealand – including those which are AS/NZ Standards (combined NZ and Australian standards)
- A library of NZ and overseas standards available for purchase (please note some NZ libraries hold hard copies of standards and online databases of standards)
- A list of standards cited in legislation or in policy documents
- Information on how standards are used in New Zealand.

Tenancy Services

www.tenancy.govt.nz

For provision of information to guide both landlords and tenants on rights and responsibilities, maintenance guides and processes for renting properties.

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- Starship Children's Health Trauma Service
- Water Safety New Zealand

Appendix One – Data Analysis Methods

Injury Prevention Research Unit (IPRU) data

Home scene of injury hospitalisation data for the period 2014-2018, and mortality data for the period 2012-2016 for children aged 0 to 14 years, was sourced from the Ministry of Health (MoH) data collections by the Injury Prevention Research Unit (IPRU), University of Otago [5], and analysed by Safekids Aotearoa. All rates were calculated by Safekids Aotearoa.

Home hospitalisation data were filtered as follows:

Includes:

- Children aged 0 to 14 years
- Primary diagnosis of injury
- Injury scene at home
- Injuries of unintentional intent between 2014-2018
- ICD10-AM external cause of morbidity code for identification of reasons for hospitalisation.

Excludes:

- Day patients
- Readmissions for the same incident
- Patients discharged dead [5].

Death data were filtered as follows:

Includes:

- Children aged 0 to 14 years
- Deaths registered between 2012-2016
- Injury scene at home
- Deaths of unintentional intent
- Includes deaths on the NZ Coronial Register
- Identifying as occurring due to an injury event coded as ICD10-AM external cause of death/mortality codes [5].

Starship Children's Health

Supplementary data was sourced from Starship Children's Health for hospitalisations due to injuries sustained in a home environment for children aged 0 to 14 years, between January 2014 and December 2018. The narrative descriptions were used to identify pertinent hospitalisations [45].

Appendix Two - New Zealand Building Code Excerpts from Building Code Clauses in Building Regulations 1992 (SR 1992/150) [16]

The following are 'partial' excerpts from a selection of New Zealand Building Code Clauses at the time of publication of this document. Please consult the referenced and associated documentation for all current and regulatory requirements. Acceptable solution and verification documentation should be consulted for options to meet these mandatory requirements.

F4 Safety from Falling [16, pg. 56-57]

F4 Safety from Falling – outlines mandatory requirements that require buildings to be constructed to reduce the likelihood of a fall (also covers falls into a swimming pool)

- *"F4.3.1 Where people could fall 1 metre or more from an opening in the external envelope or floor of a building, or from a sudden change of level within or associated with a building, a barrier shall be provided*
- *F4.3.3 Swimming Pools having a depth of water exceeding 400mm, shall have barriers provided*
- *F4.3.4 Barriers shall:*
  - a. *Be continuous and extend for the full extent of the hazard,*
  - b. *Be of appropriate height,*
  - c. *Be constructed with adequate rigidity,*
  - d. *Be of adequate strength to withstand the foreseeable impact of people and, where appropriate, the static pressure of people pressing against them.*
  - e. *Be constructed to prevent people from falling through them, and*
  - f. *In the case of a swimming pool, restrict the access of children under 6 years of age to the pool or the immediate pool area.*
  - g. *Restrict the passage of children under 6 years of age when provided to guard a change of level in areas likely to be frequented by them.*
- *F4.3.5 Barriers to swimming pools shall have in addition to performance:*
  - a. *All gates and doors fitted with latching devices not readily operated by children, and constructed to automatically close and latch when released from any stationary position 150mm or more from the closed and secured position, but excluding sliding and sliding folding doors that give access to the immediate pool surround from a building that forms part of the barrier, and*
  - b. *No permanent objects on the outside of the barrier that could provide a climbing step."*

D1 Access Routes [16, pg. 37-41]

D1 Access Routes – outlines mandatory requirements including

- *"D1.1 The object of this provision is to*
  - a. *Safeguard people from injury during movements into, within and out of buildings*
  - b. *Safeguard people from injury resulting from the movement of vehicles into, within and out of buildings*
- *D1.3.3 Access routes shall*
  - a. *Have adequate activity space,*
  - b. *Be free from dangerous obstructions and from any projections likely to cause an obstruction,*
  - c. *Have a safe cross fall, and safe slope in the direction of travel,*
  - d. *Have adequate slip resistant walking surfaces under all conditions of normal use,*
  - e. *Include stairs to allow access to upper floors irrespective of whether an escalator or lift has been provided,*
  - f. *Have stair treads, and ladder treads or rungs which:*
    - a. *Provide adequate footing*
    - b. *Have uniform rise within each flight and for consecutive flights,*
  - g. *Have stair treads with a leading edge that can easily be seen,*
  - h. *Have stair treads which prevent children falling through or becoming held fast between treads, where open risers are used,*
  - j. *Have smooth, reachable and graspable handrails to provide support and to assist movement along a stair or ladder,*
  - k. *Have handrails of adequate strength and rigidity as required by Clause B1 "Structure"*
  - l. *Have landings of appropriate dimensions and at appropriate intervals along a stair or ramp to prevent undue fatigue.*

- D1.3.4 An accessible route, in addition to the requirement of Clause D1.3.3 shall:
  - g. *Not include spiral stairs, or stairs having open risers*
  - h. *Have stair treads with leading edge that is rounded, and*
  - i. *Have handrails on both sides of the accessible route when the slope exceeds 1 in 20. The handrails shall be continuous along both sides of the stair, ramp and landing except where the handrail is interrupted by a doorway.*
- *D1.3.5 Vehicle spaces and circulation routes shall have*
  - c. *Adequate sight distances."*

G12 Water Supplies [16, pg. 82-84]

G12 Water Supplies – outlines mandatory requirements including:

- *"G12.1 (b) to safeguard people from injury caused by hot water system explosion, or from contact with excessively hot water.*
- *G12.3.6 Where hot water is provided to sanitary fixtures and sanitary appliances used for personal hygiene it must be delivered at a temperature that avoids the likelihood of scalding.*
- *G12.3.9 A hot water system must be capable of being controlled to prevent the growth of legionella bacteria."*

F7 Warning Systems [16, pg. 62]

F7 Warning Systems – outlines mandatory requirements including:

- "F7.1 The objective of this provision is to safeguard people from *injury or illness due to lack of awareness of an emergency.*
- *F7.2 Buildings shall be provided with appropriate means of warning people to escape to a safe place in an emergency."*

F2 Hazardous Materials Building Materials [16, pg. 53]

F2 Hazardous Building Materials – outlines mandatory requirements including:

- *"F2.1 The objective of this provision is to safeguard people from injury and illness caused by exposure to hazardous building materials.*
- *F2.2 Building materials which are potentially hazardous shall be used in ways that avoid undue risk to people.*
- *F2.3.3 Glass or other brittle materials with which people are likely to come into contact shall:*
  - a. *If broken on impact, break in a way which is unlikely to cause injury, or*
  - b. *Resist a reasonably foreseeable impact without breaking, or*
  - c. *Be protected from impact."*

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SAFETY TIP: LOCK GARDEN SHEDS AND GARAGES TO PREVENT CHILDREN FROM ACCESSING TOOLS AND CHEMICALS.

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Safekids Aotearoa's mission is to reduce the incidence and severity of unintentional injuries to children in New Zealand aged 0-14 years.