

# Swimming Pool Safety

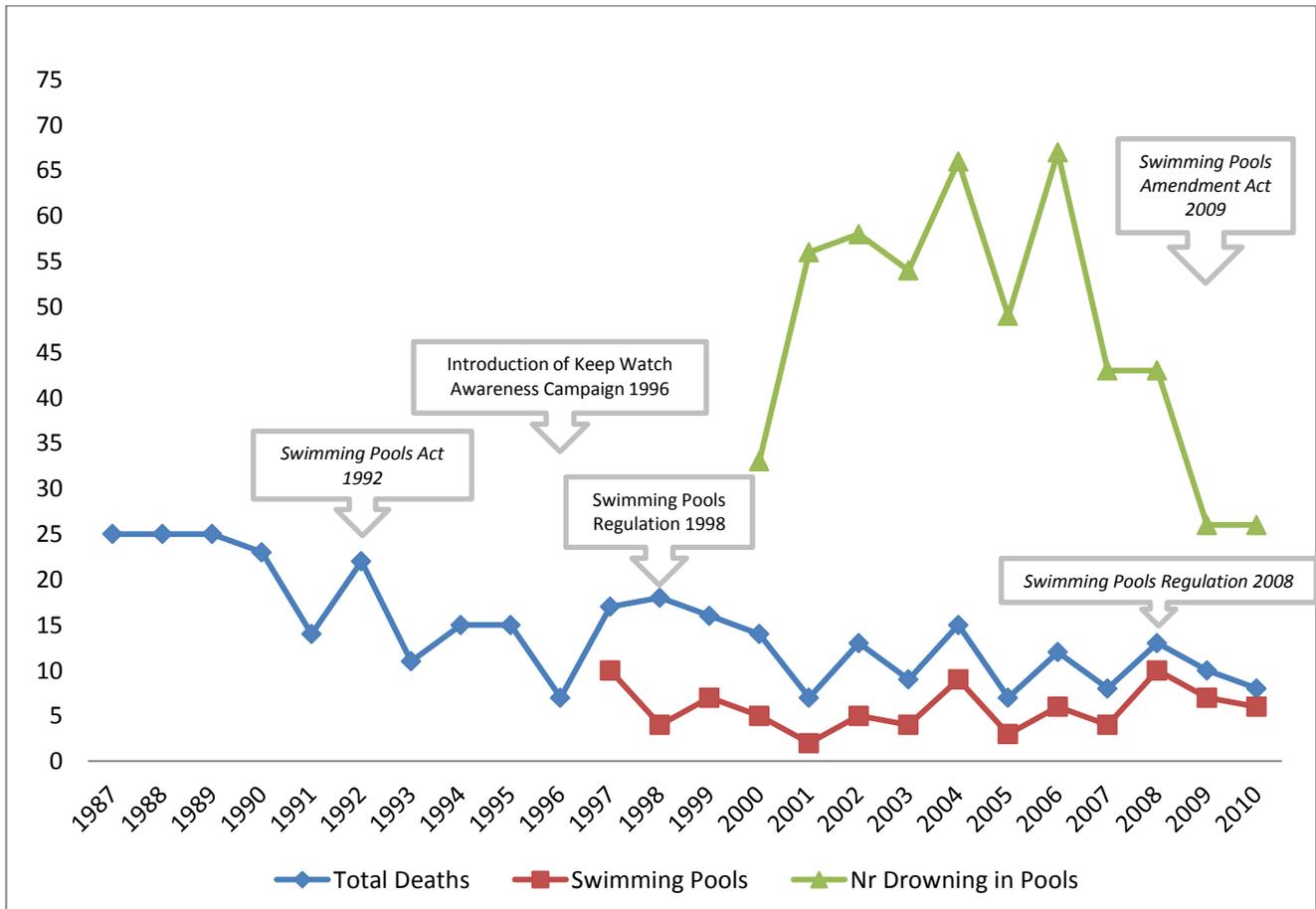
The introduction of mandatory pool fencing in NSW in the 1990s has proven to decrease the number of drowning deaths by approximately 50% (see Table 1). However, mandatory four sided fencing and mandatory swimming pool inspections in Western Australia (WA) has proven to further decrease the drowning rate (see Table 2). The popularity and affordability of inflatable swimming pools continues to pose a major risk to children under the age of five, especially as a large proportion are not being fenced according to the legislation. Recent changes to inspection practices for new swimming pools (the removal of the requirement for temporary fencing and the removal of the requirement for a final inspection *before* filling the swimming pool with water) have also increased the risk of injury among children under the age of five.

A number of changes need to be made in order to address current issues with drowning among children under the age of five in NSW.

## Drowning Mortality and Morbidity

Drowning is a leading cause of death among children under five years of age. In NSW, from 1 July 2007- 30 June 2009, an average of 11 drowning deaths occurred annually among children under five years of age<sup>1,2</sup> with a further 62 children being hospitalised for near drowning each year.<sup>3</sup> Assuming the drowning deaths are included in the hospitalisation rate, this equates to 4-5 children being hospitalised for every child death in this age group. This represents the highest drowning rate out of any age group, with approximately 70% of the drowning deaths occurring in swimming pools.<sup>1,2</sup>

**Table 1: Drowning among children 0-4 years in NSW, 1987-2010**



Source: RLSSA NSW Drowning Reports 2002-2010, Chief Health Officer's Report, Injury Risk Management Research Centre (IRMRC) (unpublished data)

\*Note: Drowning death statistics in swimming pools are not available prior to 1997 and near drowning hospitalisation statistics are not available prior to 2000

According to unpublished data from IRMRC, there was an average of 24.91 near drowning incidents per year among children under the age of five that occurred in swimming pools from 2007/08 to 2009/10 (assuming the 6.75 drowning deaths during the same time period are included in the hospitalisations).<sup>3</sup> The Division of Local Government estimated approximately 10% of all non-fatal admissions result in permanent brain damage based on data from various sources.<sup>4-6</sup> More recent data suggests that of all near drowning incidents, 22.3% will experience some form of permanent brain damage, leading to the need for long term care, resulting in persistent and ongoing disability.<sup>7</sup> This of course does not include the emotional impact that a drowning death or disability has on families and the community. The Division of Local Government has estimated the total cost to NSW of child immersions in home swimming pools per year to be approximately 23 million, based on 5 drowning deaths and 3 near drowning incidents that result in severe brain damage.<sup>4</sup>

Near drowning figures are currently not discussed as part of the overall statistical reporting on drowning and a large bank of knowledge about the circumstances of the non-fatal drowning is absent from the evidence base for prevention programs. This also means the general public and policy decision makers in government are not accessing the full impact of drowning and near drowning in NSW. There is a need to produce near drowning statistics, including long term care, on an annual basis to determine the true extent of drowning in NSW.

## Swimming Pool Fencing

The Australian Water Safety Strategy 2008-2011<sup>8</sup> identified children under five years of age and home swimming pools as high risk and priority areas for drowning prevention. The Strategy aims to reduce drowning deaths and near drowning by 50% by 2020 and recommends supervision, pool fencing, cardio-pulmonary resuscitation (CPR) and water familiarisation to reduce drowning among children under five years of age. Supervision plays a role in the majority of drowning cases, with over 75% of children under five years of age having been left alone without adult supervision.<sup>9</sup> There is also strong evidence that a large proportion of children under five years of age who drown in swimming pools, do so as a result of fencing that is not compliant with the Australian Standards.<sup>9-11</sup> Pool fencing significantly reduces the chance of drowning, with four sided isolation fencing being superior to fencing enclosing the property and pool.<sup>12,13</sup>

The common reasons why a large majority of pool fences are noncompliant include:

- gates that do not self-latch or self-close or gates that open inwards into the pool area,
- climbable objects within the non-climbable zone,
- excess space under the fence,
- faults with the location or shielding of the gate latch,
- doors and/or windows that are not child resistant,
- inadequate CPR signage,
- fence height less than 1.2m and
- incorrect vertical or horizontal spacing of the pool fence.<sup>14,15</sup>

## Swimming pool legislation

The pool fencing legislation in NSW includes the *Swimming Pools Act 1992* (“the Act”), the *Swimming Pools Regulation 2008* and the *Swimming Pools Amendment Act 2009*. The legislation states all pools must comply with the Australian Standard AS1926-2007: *Fences and Gates for Private Swimming Pools* (AS1926-2007) and requires the owner of the residence on which an outdoor swimming pool is located, to make sure that a child resistant barrier surrounds the pool. Local councils may grant exemptions however, in cases where barrier requirements are impracticable or unreasonable. The *Environmental Planning and Assessment Act 1979* outlines approval of development proposals and building certification, the *Environmental Planning and Assessment Regulation 2000* outlines critical stage inspections to be carried out by the Principal Certifying Authority (PCA) and the *Local Government Act 1993* gives councils the power to make orders requiring the owner of swimming pool to bring it into compliance with the Act.

Currently there is confusion among pool owners due to differing standards for pools built at different times. There is even confusion among local council inspectors on how to interpret the legislation (Local Government Training Institute, personal communication, 9<sup>th</sup> December 2010), indicating the need for a mandatory training program for all swimming pool inspectors and accredited certifiers to increase knowledge and consistency of application across the state.

The Division of Local Government administers the Act, which prescribes the child-resistant barrier requirements for private swimming pools in NSW. Local councils are responsible for promoting awareness about the requirements of the Act and taking reasonable steps to ensure they are notified of the existence of private swimming pools in the council area. There is no mandatory requirement in the Act for councils to regularly inspect swimming pools, despite strong evidence that there is significant non-compliance with the Act.<sup>11,14</sup> Regular swimming pool inspections have proven to be effective in increasing compliance rates and reducing the risk of drowning among children under five years of age.<sup>16</sup>

## Response by the Division of Local Government

The review of the Act from 2006-2009 gave councils, stakeholders and members of the public an opportunity to comment on the issues with the existing legislation and propose changes to enhance the safety of children aged five years or less around swimming pools in NSW.<sup>4,17</sup> There were a number of recommendations made as a result of the review; however the resulting changes applied to new pools and not retrospectively for older pools, which are likely to have undergone change and also having more faults due to wear and tear over time. A summary of the changes is provided below:<sup>18</sup>

- As of 1 July 2010, exemptions for all new pools will be removed on properties less than 230 square metres, properties 2 hectares or more or waterfront properties.
- Local authorities must investigate any complaints made about non-compliance with the Act.
- Local authorities have the power to enter a property and rectify pool barriers if non-action poses a significant risk to public safety.
- Council's must serve a notice of intention to comply with the Act before any work is carried out, unless a person's safety would otherwise be at risk.
- Increased penalties for most offences for non-compliance from \$1,100 to \$5,500.

There are over 300,000 swimming pools in NSW with approximately 5,000 new swimming pools being installed per year (Division of Local Government, written communication 18<sup>th</sup> June 2010). Anecdotally, up to 50% of existing swimming pools in some council areas are exempt from the requirement for four sided barrier fencing.<sup>19</sup> Assuming the same figures apply for new pools; this means the removal of exemptions for all new swimming pools will apply to approximately 2,500 of all new swimming pools in NSW. There aren't many complaints made to council about swimming pools,<sup>19</sup> so the above changes are only reaching a very small number of swimming pools within NSW. Older swimming pools with faulty pool fencing are still placing young children at risk of drowning.

The Division of Local Government rejected the introduction of mandatory pool inspections after the review of the Act and a cost benefit analysis due to the high costs to pool owners.<sup>4,19</sup> The introduction of a mandatory pool register was also said to be ineffective in the absence of a regular pool inspection program. The Division has said they are still looking at ways to address compliance for older pools.

In December 2009, the NSW Deputy State Coroner held a coronial inquest of eight drowning deaths that occurred from June 2006 to January 2009 in backyard swimming pools among children under five years of age in NSW. On 30 April 2010, the Deputy State Coroner made the following recommendations:<sup>20</sup>

- An ongoing media campaign about the dangers of home swimming pools and the importance of supervision and regular maintenance of pool fences and gates.
- Removal of all exemptions from the *Swimming Pools Act 1992*.
- Establishment of a register of private swimming pools in NSW.
- Regular inspections of private swimming pools to ensure compliance with the Act.

- The owner of a property that is subject to a residential tenancy agreement should ensure the swimming pool complies with the Act at the commencement of each residential tenancy agreement.
- Sellers of above ground pools should inform the relevant local authorities of the delivery of such pools and advise purchasers of their obligations at point of sale.
- Enactment of a criminal offence where a person dies due to the negligence of a third party in regards to the maintenance of a swimming pool.

Previous coronial inquests for drowning deaths among children, such as those in 1999 and 2002, have also made similar recommendations including regular swimming pool inspections, especially at point of sale, certification of home swimming pools and media campaigns. The Division of Local Government has established a cross-agency working group to address the above recommendations as well as any other initiatives to strengthen swimming pool safety.

## New Swimming Pools

Previous to 3 September 2010, temporary swimming pool fencing was required during the construction of a swimming pool to reduce the hazards associated with children falling into an empty swimming pool or drowning if water is present in the pool after it rains. A permanent swimming pool barrier had to be installed before the final inspection was completed and a pool could not be filled with water until this inspection was completed. This raised issues with fibreglass pools as they need to be filled with water during construction.

Recent changes to the *Environmental Planning and Assessment Act 1979 (Environmental Planning and Assessment Amendment Regulation 2010)* in NSW means as of 3 September 2010, the final inspection of a swimming pool has to be completed “as soon as practicable after the permanent barrier has been erected”. This means pool owners can fill their swimming pool with water before ensuring the barrier is safe and before the final inspection is completed. There is no time frame specified for when the final inspection must be carried out, which could lead to a delay with pool owners receiving the final inspection.

## Inflatable Swimming Pools

In America, drowning in inflatable pools has been increasing over the years among children under five years of age from 9 in 2004 to 17 in 2005 and 21 in 2006.<sup>21,22</sup> Data in NSW is available for swimming pools but not specifically for inflatable or portable pools. Inflatable swimming pools are increasing in popularity due to their easy set up and affordability, especially among low socioeconomic communities who may not be able to afford a permanent swimming pool and the costs associated with installing a permanent child-resistant fence. However, it is not well known among the community and retail sector that inflatable or portable swimming pools that are capable of being filled with 300mm of water or more require a four sided fence.

In 1998 in NSW, warning labels were developed and have since been updated as follows for all inflatable pools capable of being filled with more than 300mm of water:<sup>23</sup>

- “Pool fencing laws affect this product. Before you buy this pool you should consult your local council.”
- “Pool owners, parents and carers need to be aware of the potential for drowning even in shallow water. You should ALWAYS SUPERVISE CHILDREN when they are using these products.”
- “Ensure that the water is kept pure. Water left in inflatable pools for periods of time can become contaminated and cause illness.”
- “Empty the pool and store it safely (away from young children) when it is not in use.”

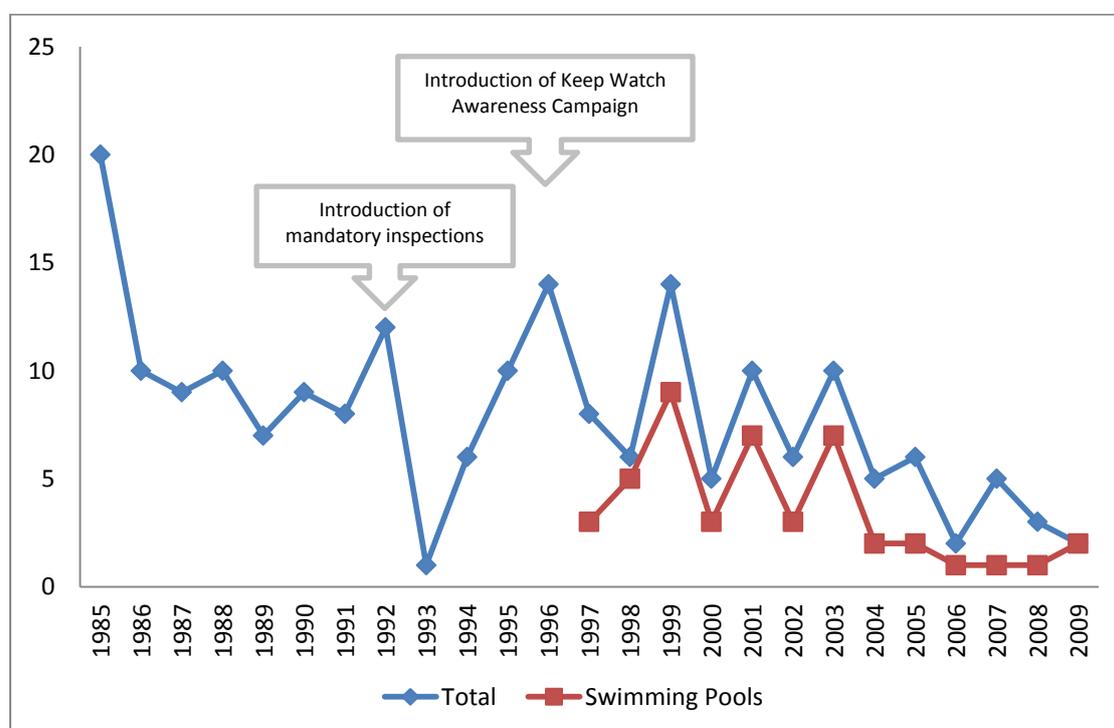
The above warning labels are only voluntary, although most products seem to comply.<sup>24</sup> Inflatable and portable swimming pools do not currently require a development application from local councils and there is no requirement for a PCA to inspect the final pool fence to make sure it is safe and compliant with the legislation, as is done with permanent swimming pools. Many cheap inflatable or portable swimming pools are widely available from most major department stores and online stores and local councils are not notified when these pools are purchased or where they are located. Therefore the fencing requirements under the Act cannot be adequately enforced.

When inflatable pools can cost as little as \$50, it is unreasonable to think pool owners are going to spend thousands of dollars installing a pool fence, especially when buyers may not be aware of fencing requirements, despite the above warning labels, or do not have the money to install a fence. The pool fencing legislation was established to protect young children from drowning; however inflatable and portable swimming pools are easily accessible to young children and unsafe because people are failing to ensure the pool is fenced.

## Swimming Pool Inspections

Western Australia (WA) is the only state in Australia that conducts mandatory swimming pool inspections every four years, which commenced in 1992.<sup>16</sup> Compliance rates based on a random sample of swimming pools in WA were 45% at first inspection, 57% four years later at the second inspection and 71% eight years later at the third inspection. Isolation barriers were 12% more likely to be compliant than barriers that included child resistant doors/windows.<sup>15</sup> In addition, the common faults with isolation fencing are typically minor and easily fixed, while faults with other pools are usually more complex (RLSSA WA, personal communication 18<sup>th</sup> January 2011). This inspection program is well accepted by the community and has led to a 46% decrease in toddler drowning deaths in WA since 1999.<sup>25</sup>

**Table 2: Drowning deaths among children 0-4 years in WA, 1985-2009**



Source: RLSSA WA (written communication 22nd September 2009)

\*Note: Drowning statistics in swimming pools are not available prior to 1997

Given this decrease in swimming pool related deaths, toddlers are more likely to drown in other locations such as bathtubs, dams and fishponds. The combination of swimming pool barrier legislation and the introduction of the Keep Watch awareness campaign in 1996 have contributed significantly to the reduction in toddler drowning deaths in Western Australia. According to the Swimming Pool Safety Review Committee (2009),<sup>26</sup> pool owners in WA are required to pay up to \$55 each year to fund the inspection program throughout the state; however the actual fees charged range between \$13.20 and \$33.00, with some councils even offering pensioner discounts.

A pilot project in the Illawarra area of NSW found compliance rates were higher in areas where the local council had a well-resourced inspection program.<sup>14</sup> Additional inspections of pools by councils in NSW, other than those required by the Act, such as inspections upon installation of a

new pool, is largely dependent on available resources and the priority placed on it by the council.<sup>14,27</sup>

In 2002, Mitchell and Hadrill<sup>27</sup> conducted a survey of 172 local councils in NSW and found only 28% of councils undertook swimming pool inspections, such as upon installation of a new pool, upon sale of a property or on receipt of a complaint or with other property inspections. The majority of councils could not identify how many pools in their area did not comply with the Act or the number of exemptions that existed in their area. Some studies have revealed less than 50% of swimming pools comply with the legislation,<sup>14, 16, 27-29</sup> so currently there is an increased risk for children under five years of age and the potential for a greater amount of drowning incidents to occur. The most common barriers that councils faced when enforcing the Act was lack of resources (86%), followed by lack of awareness among pool owners of the requirements of the Act (46%) and lack of swimming pool owners to comply (25%).<sup>27</sup>

The Swimming Pool and Spa Association of NSW (SPASA NSW)<sup>30</sup> surveyed 100 pool owners in 2009 in NSW and found 43% never check their pool fences and 19% admitted that their pool fences are only sometimes clear of climbable objects such as tables, chairs and pots. Van Weerdenburg also found there is a large lack of awareness among pool owners and low level of understanding of the Act.<sup>14</sup> It is clear that pool owners may not be aware that their pools do not comply with the Act, choose not to comply with the Act or are unaware of the consequences for non-compliance.

### Inspections at point of sale or lease

The Division of Local Government worked with the Land and Property Management Authority to make changes to the Conveyancing (Sale of Land) Regulation 2010, so that the following warning notice must be included in any contracts at point of sale:

*"An **owner of a property** on which a swimming pool is situated must ensure that the pool complies with the requirements of the Swimming Pools Act 1992. Penalties apply. Before purchasing a property on which a swimming pool is situated, a **purchaser** is strongly advised to ensure that the swimming pool complies with the requirements of that Act."*

However, this is only a warning notice and pool owners are not forced to make their swimming pool comply before they sell or lease the property.

Queensland (QLD) recently introduced legislation making four sided fencing compulsory for all swimming pools and spas, regardless of when they were installed. The following amendments were also made to the legislation:<sup>31</sup>

- Pool and spa owners have until 30 November 2015 to comply with the new pool safety laws, or earlier if they sell or lease the property before this time.
- A state-based pool safety register has been developed and inspections are now mandatory at point of sale or lease to ensure the swimming pool or spa complies. If a swimming pool or spa fails an inspection, the pool owner has three months to comply.
- Inspections are also mandatory by local governments following immersion incidents of children under five in swimming pools, which will improve the reporting of drowning incidents in the state.
- Pool safety inspectors must complete a pool safety inspector course from an eligible course provider that has been approved by the Pool Safety Council to obtain a license, which ensures consistency across the state.

The legislation in QLD does not set a fee for the cost of inspections and, as a result, some pool owners have reported paying up to \$400 for inspections.<sup>32</sup> As much as 90% of swimming pools in some areas of QLD have reported failing inspections.<sup>33</sup> Inspections at point of sale or lease was introduced in QLD to target new pool owners as children are most at risk within the first six months of moving in to a property with a swimming pool.<sup>6,34</sup> However, only a small number of houses and units with pools are sold every year in NSW (5,100 in NSW in 2008/09),<sup>19</sup> so this strategy would not reach a large number of swimming pools in NSW.

### Cost benefit analysis of mandatory pool inspections

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According to Williamson et al,<sup>9</sup> of all cases among children 0-4 years that occurred in swimming pools from 1995-2001, approximately 38.2% involved defective pool fencing as a contributing factor. In NSW, an average of 6.75 drowning deaths occurred per year between 2007/08 to 2009/10 (see Table 1) and an average of 24.91 hospital admissions occurred per year between 2007/08 to 2009/10 among children 0-4 years in swimming pools (assuming the drowning deaths are included in the hospitalisations).<sup>1,3</sup> Of the 24.91 admissions, evidence suggests approximately 10%-22.3% (2.49-5.56 children) experience permanent brain damage.<sup>4-7</sup>

A cost benefit analysis of mandatory pool inspections using the lower bounds of the above drowning cases is provided below. The Value of Statistical Life Year (VSLY) and the indexation for 2011 were estimated according to the Australian Government Best Practice Regulation, which was released after the Division of Local Government conducted their cost benefit analysis where they used a lower Value of Statistical Life (VSL).<sup>35</sup>

<b>Drowning 0-4yrs in swimming pools</b>		
Average drowning deaths 06/07-09/10 (RLSSA NSW)	6.75	
Average near drowning 07/08-09/10 (IRMRC)	24.91	
Average near drowning resulting in permanent brain damage 07/08-09/10 (IRMRC)	2.49	
<b>Contribution of pool fencing (38.2%)</b>		
Drowning deaths	2.58	
Severe near drowning	0.95	
*DALYs= YLL+YLD [2.58x78]+[0.95x0.5x78]	238.29	
<b>Assumptions</b>	<b>2007</b>	<b>2011</b>
VSLY (\$)	\$151,000	\$169,952
Discount factor	7%	
Expectation of life (years)	78	
Severity weight for severe near drowning	0.5	

\*Disability adjusted life years (DALY)

\*Years of life lost (YLL)

\*Years lost due to disability (YLD)

<b>Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Drowning deaths prevented	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58
Severe near drowning prevented	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
DALYs prevented	238	238	238	238	238	238	238	238	238
Benefit (\$m)	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
Discounted benefit (\$m)	37.7	35.1	32.6	30.3	28.2	26.2	24.4	22.7	21.1

(The discounted benefit is applied in these types of analyses to capture time preference: a benefit accrued now is worth more than a benefit accrued sometime in the future.)

The VSL detailed in this analysis is likely to be higher as it is based on young children under the age of five who have longer to live.<sup>35,36</sup> The savings mentioned above does not include the savings achieved from reduced health care costs of drowning and near drowning incidents, ongoing health care costs for children that survive immersions, does not account for ED presentations that are not admitted and 'near misses' and near drowning incidents that are taken to GPs or other child health specialists not in the Hospital environment.

If NSW were to introduce an inspection program on a user pays basis every four years, it would cost approximately \$3.75-\$6.25 million per year over four years (\$15-\$25 million total), costing March 2011

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pool owners \$12.50-\$20.83 per year (\$50-\$83.33 total).<sup>4</sup> According to the above calculations, this could potentially lead to a saving of \$37.7million in the first year (total of \$135.7 million over the first four years) if all drowning death and near drowning cases involving faulty pool fencing are prevented. The inspection process is a good opportunity for local inspectors to not only educate the pool owner on pool safety, but also on other water safety issues in all aquatic locations including the bathtub, beach, rivers and creeks. The NSW Child Death Review Team Reports consistently report the majority of drowning deaths in swimming pools involve pool fencing as a contributing factor.<sup>37</sup> Two studies from Victoria also found defective pool fencing contributed to a larger amount of drowning cases (100% and 80%),<sup>10,11</sup> so the amount of money saved as a result of an inspection program could be much higher.

Looking at the discounted benefit and taking WA's experience into consideration, if an inspection program initially provided compliance rates of 45%, which only led to 45% decrease in the drowning death and near drowning cases that involved pool fencing as a contributing factor, it would lead to an average saving of \$15.3 million per year over the first four years. Over the next four years (2015-2018), at second inspection, compliance rates of 57% would achieve an average saving of \$14.5 million per year and at third inspection (2019); compliance rates of 71% would achieve a saving of \$15.0 million.

The conclusion appears that resources allocated to a mandatory swimming pool inspection program would prove to be very beneficial.

## Recommendations

### 1. Remove exemptions

Remove exemptions on all swimming pools and require all pools to have four sided fencing by a specified date or if the property is sold or leased (whichever occurs first). A two year transition period was deemed appropriate by the Division of Local Government;<sup>4</sup> however the Division should consider a five year transition period, as was done in QLD. Allow local councils to only grant exemptions for people with a disability; however this means if the property was to be sold or leased to a person without a disability, the new owner would have to modify the property to comply.

### 2. Training for swimming pool inspectors

An independent body should be set up to regulate and approve course providers, as is done in QLD. The development of training modules should be developed in consultation with the Local Government Training Institute (LGTI) and the Australian Institute of Building Surveyors (AIBS), who already have training programs. Local councils should also be consulted. A set fee for the training would be beneficial to make the training accessible to all.

The training of all local council inspectors should be completed prior to the implementation of mandatory inspections.

### 3. Swimming pool register

Require all local councils to keep an up to date register of all swimming pools and spas within the council area including details on:

- address,
- type of property
- type of pool/spa
- whether the pool or spa is exempt
- type of pool fence
- year of construction
- details of approved modifications after pool fence was constructed
- date of last inspection
- date of next inspection
- outcome of inspections and whether any follow up is required
- follow up completion
- whether any orders or penalties have been issued
- whether any court action has been taken and details of drowning deaths, near drowning incidents and complaints.

A state based register would be useful to collectively examine the above information at a state-wide level. In order to keep this register up to date, it should be accessible to all local councils so they can input the above information rather than developing their own local pool registers. Real

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estate agents, lawyers and conveyancing practitioners could also apply for a compliance report from this register, after gaining authority from the owner, to determine whether a property with a swimming pool has a current compliance certificate at point of sale or lease.

#### **4. Mandatory pool inspections**

Require all swimming pools to be inspected every four years on a user pays basis, as is done in WA. A set fee should be specified for the inspections (\$50-\$83.32 total as estimated by the Division of Local Government)<sup>4</sup> and a standard template should be developed for compliance certificates which would be valid for four years. The pool owner is responsible for obtaining a valid certificate and a property with a swimming pool must have a valid certificate before the property can be sold or leased. It should be an offence for a pool owner not to hold a current certificate of compliance and may result in an on-the-spot fine. Inspections should be able to be carried out by local council inspectors or private building certifiers as long as they are trained and hold a valid license. The Division of Local Government should also consider the mandatory requirement for professional indemnity insurance for all pool safety inspectors, as is done in QLD. A standardised checklist should be developed to be used for all inspections.

Mandatory swimming pool inspections should commence 2 years after the implementation of the new legislation, which allows the phase in period for mandatory four sided fencing and time for pool owners to upgrade their fence, time for councils to create and/or update the swimming pool register, time for an independent body to create a training and licensing program for pool safety inspectors and time for the inspectors to complete the training.

#### **5. Extension of the *Swimming Pools Act 1992***

Extend the pool safety laws to moveable dwellings, hotels, motels and indoor pools so they all require four sided fencing regardless of when they were built (with the exception of indoor pools that require child resistant doors and windows) and require mandatory inspections every four years.

#### **6. Annual statistical reporting of near drowning incidents in NSW**

Annual statistical reporting of near drowning incidents by NSW Health, IRMRC or a similar body to help evaluate the effectiveness of current work along with annual drowning death data from the Royal Life Saving Society NSW Drowning Reports and The Child Death Review Team Reports to improve the evidence base for future drowning prevention programs.

#### **7. Investigation of immersion incidents**

Ambulance staff and Hospitals should be required to report all drowning and near drowning incidents to NSW Health. The mandatory investigation of immersion incidents for children under five years of age will then be carried out by local councils to improve the reporting of drowning incidents in NSW, as is done in QLD (not only for swimming pools, but all locations).

#### **8. Liaise with the Department of Planning to amend the *Environmental Planning and Assessment Act 1979***

All swimming pools should require temporary fencing while being built. The final inspection of a new swimming pool should be completed before filling the pool with water to eliminate the injury hazards for children under five years of age. As fibreglass pools require the pool to be filled with water as it is being built, the pool owner should install a temporary or permanent fence beforehand. Compliance certificates can be granted by local council inspectors or private building certifiers as long as they are trained and hold a valid license.

#### **9. Education campaign**

The money saved as a result of reducing drowning and near drowning incidents should be invested in to education campaigns to raise awareness of the issues surrounding drowning among children under the age of five. Educational resources should be created for pool owners, new pool owners/renters, real estate agents and industry professionals, in consultation with injury prevention and water safety organisations, in regards to the new legislation. These resources should also be accessible to people from language backgrounds other than English.

#### **10. Inflatable swimming pools**

Option 1 (preferred option): These products have proven to be unsafe and consumers are not complying with the legislation. Liaise with the Office of Fair Trading to ban all inflatable and portable swimming pools that are capable of being filled with more than 300mm of water.

Option 2: Liaise with the Department of Planning to remove inflatable and portable swimming pools from the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*, so they require a development application, approval from the local council and appointment of a Principal Certifying Authority (PCA) before the inflatable or portable pool can be purchased and a final inspection by a PCA to ensure the pool fencing is compliant, as per the *Environmental Planning and Assessment Act 1979* and the *Environmental Planning and Assessment Regulation 2000*. However, this creates issues at point of sale, especially from online stores, as the buyer would need to show evidence of approval from the local council before they can purchase the product. Another option would be to sell the inflatable pool with the required fencing; however this may not be welcomed by retailers as it will make owning the pool too costly. Furthermore, follow up by the PCA can be difficult if the pool owner empties the pool and stores out of sight upon inspection, misleading the PCA that they no longer have the pool, but can later use the product without the required fencing and without the knowledge of the local council.

Option 3: Amend the legislation to require all inflatable or portable swimming pools to have a child resistant lid, as is required for spas. However, this would be difficult due to the different materials used for these products. It would be difficult for a lot of these products to include a lid that would be effectively child resistant and not create gaps that a young child can get through. Furthermore, according to the Act, the walls of an above ground pool are not considered an effective fence and a four sided child-resistant barrier is still required.

## Acknowledgements

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