

Child Injury in Thailand

The time to act is now



A report on the Thai National Injury Survey

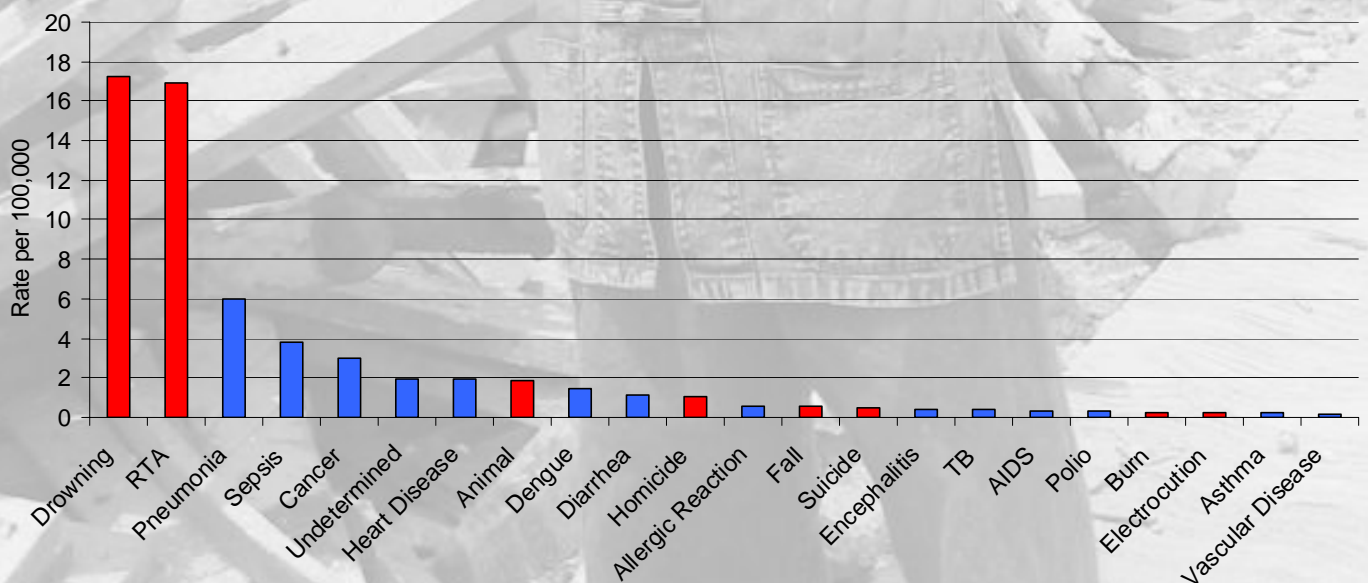


Nearly 6,000 Thai children die from injury each year, this is more than 16 children who die every day

The leading killer of children: a snapshot

- The groundbreaking Thai National Injury Survey has revealed that injury is the leading killer of children aged 1-17.
- The study also shows that a child is seriously injured every two minutes in Thailand; injuries leave a child disabled every few hours; and 16 children die every day from injuries.
- For Thai children older than one, drowning and road traffic accidents account for more deaths than all other diseases and infections combined.
- Injury is also a leading cause of morbidity and disability, with more than 1,600 children left disabled from injuries every year. Then, for every disabled child, another 10 spend at least ten days hospitalized, 37 spend between one and nine days hospitalized, and 88 miss at least three days of school or work.
- Missing school or work for at least three days was the most minor category considered for the survey — bumps, bruises and scratches do not figure among the nearly 220,000 Thai children injured every year.
- While the figures are staggering, the true tragedy of injury is how preventable it is. The lives and futures of thousands of children could be easily saved through a combination of political will and simple interventions in homes, schools and in communities, such as teaching a child to swim or how to safely cross a road.

Leading causes of death in children age 1-17



After infancy, injury kills more children than all infections and non-communicable diseases combined

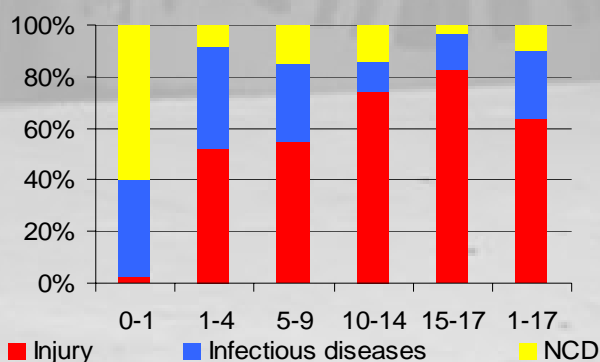


Preventing child injury is today's challenge

There have been fundamental changes in global public health over the last two decades. As a result of improving social and economic conditions, many countries are experiencing an epidemiologic transition. This situation exists in Thailand and other countries in the Asian and Pacific region, where traditional child survival efforts during the past 20 years have been met with great success, so child deaths from infectious and non-communicable diseases (NCD) have dropped significantly. This results in morbidity and mortality from non-communicable causes, such as injury, becoming increasingly more prominent.

Fatal and non-fatal injury increases as children get older. Injuries cause just 2 per cent of infant deaths, but after infancy, drownings and road traffic accidents alone kill more children than all infections and NCD combined. In fact, injury causes almost two thirds (64 per cent) of all deaths after a child's first birthday, and nearly 70 per cent of deaths for children aged between 5 -17 years.

Cause of death by age



Accident vs Injury

Serious injuries are not the inevitable scrapes of curious children; they are not fatalistically predestined, nor are they punishment for sins in a previous life. Yet these are beliefs one hears throughout South and East Asia.

Most injuries are preventable. In developing countries in particular, thousands of lives can be saved through basic preventions, such as raising awareness among parents that children need adult supervision or encouraging parents to create barriers around water bodies, cooking areas or animal pens. Cost-effective, simple measures exist that can save thousands of lives.

Child deaths are estimates: why injury has been obscured

Child death estimates rarely reveal the true extent of the child injury burden. In Thailand, as in other developing countries, child deaths are not actually counted one-by-one. In most cases, the total numbers are estimated from the number of deaths that are reported by hospitals and clinics. To gain an accurate number from this method, it would mean that all child deaths had to occur in the clinic or hospital, or were reported there.

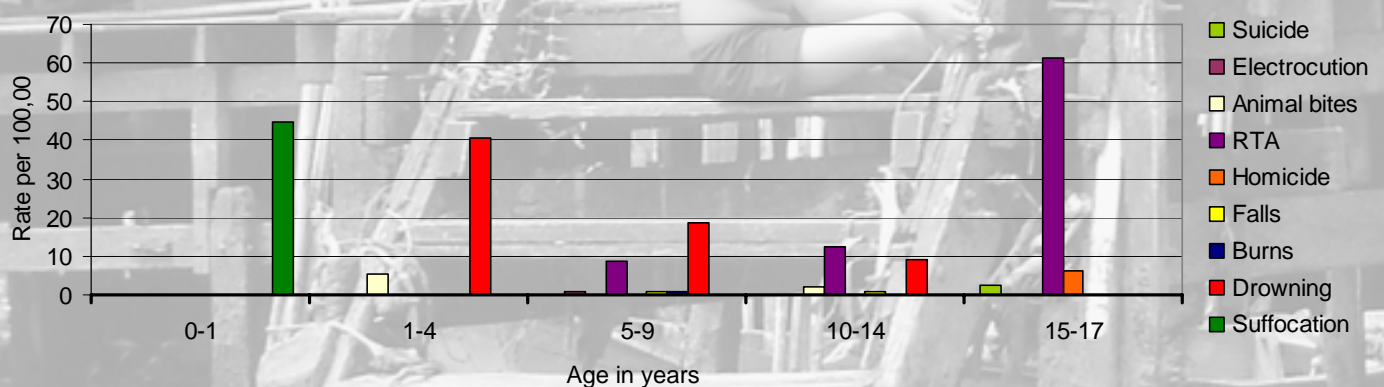
In reality this never happens. This is especially true when a child dies suddenly from an injury, such as drowning, which kills in seconds or minutes. The child is long dead before the family can get to a hospital, so the family quickly buries their child and this death is lost to the reporting system. This means the system used in Thailand, as in most developing countries, greatly underestimates the actual numbers of child deaths, as well as their real causes.

Most of the deaths that were previously occurring in early childhood from infectious diseases have now shifted to injury and are now occurring later in childhood

Key points of new knowledge

- There is a previously unrecognized epidemic of child injury in Thailand.
- Injury is a leading killer of children after infancy (ages 1-17) and drowning is the largest single leading cause of death in this age group. Road traffic accidents (RTA) come in a close second.
- Injury is also a leading cause of morbidity and a major cause of permanent disability.
- Drowning, road traffic accidents, burns, falls, animal bites, electrocution, suffocation and intentional injuries are the most significant causes of child injury.
- Different injuries affect children at different ages.

Fatal injury rates by age



Who is injured?

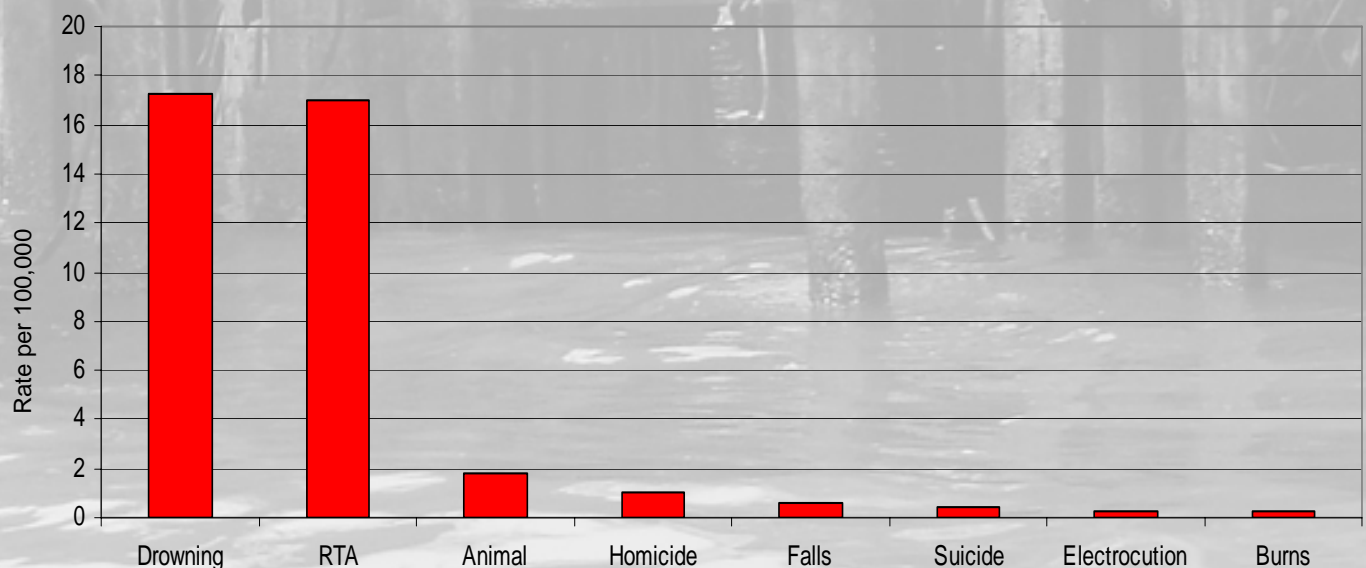
- Children of all ages, from infants to children 17 years of age.
- Infants have the lowest injury rates; the situation changes dramatically when an infant begins to walk at age one.
- At all ages after infancy, injury is the leading cause of death of children in that age group. Injury accounts for almost two thirds (64 per cent) of all deaths in children aged 1- 17.
- Many health statistics focus only on children under five, which means health issues for older children are susceptible to dropping off the policy radar. But it is in older children, particularly for late adolescence, that non-fatal injury predominates and is the leading cause of death.
- Injury is also the leading cause of death for young adults 18 to 29, who are often parents of infants and young children.



Causes of injury deaths

- Most infant deaths occur in the first month of life. These neonatal deaths are usually related to low birth weight, birth complications and infectious diseases. Injury is not a leading cause of infant death, but a significant one with suffocation in the first four months, drowning in the last two months and falls throughout infancy. Suffocation kills 450 infants every year in Thailand.
- For toddlers, children aged 1 to 4, drowning was by far the leading cause of death. Animal bites were also in the top five causes of death.
- For primary school aged children, drowning kills twice as many children as the second leading cause of death, road traffic accidents.
- For older children between the ages of 10 – 14, road traffic accidents and drowning are again the leading killers, followed by cancer, injuries from animals and then pneumonia.
- Road traffic accidents are the biggest killer for adolescents. Homicide and suicide also rank in the top five.
- Overall, drowning and road traffic accidents (RTA) are the leading killers of children aged 1– 17. Not surprisingly they are also the two leading causes of injury deaths, followed by animal bites, usually by rabid dogs, then homicide, falls and suicide.

Deaths by type of injury (1-17 years)





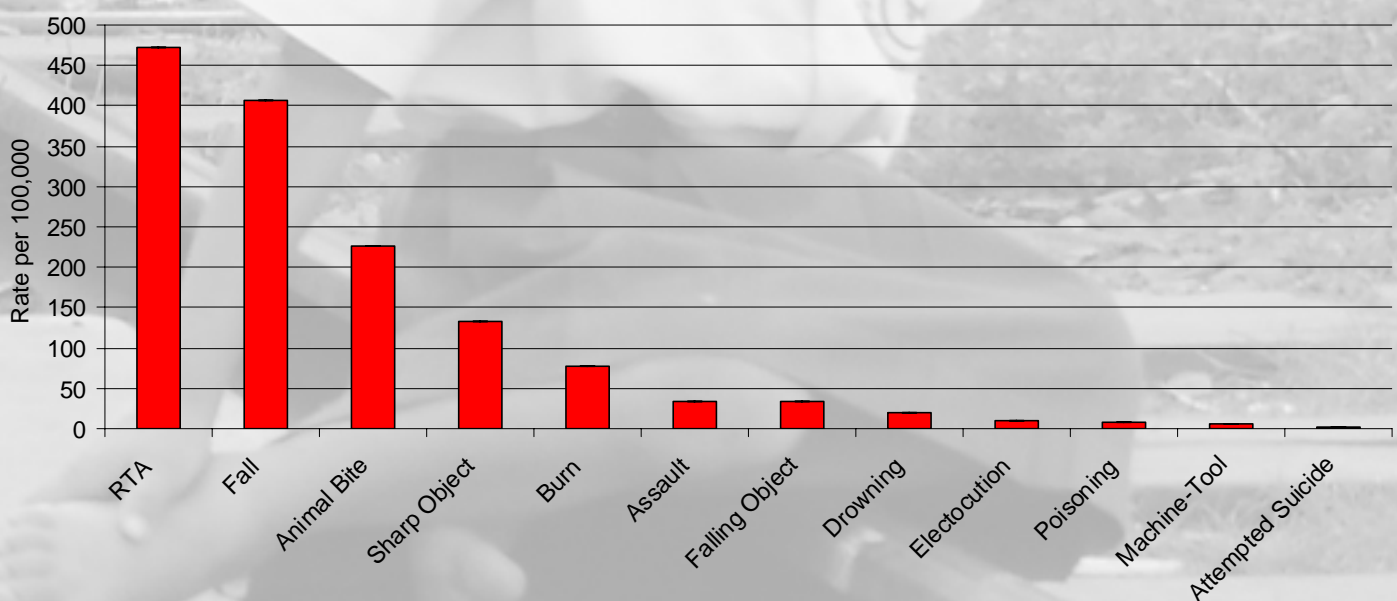
Children are injured throughout childhood - as infants, toddlers, primary schoolers and as adolescents - it's not just the under-fives

Causes of non-fatal injuries

Injury is a leading cause of morbidity in children aged 1-17.

- Three causes, road traffic accidents, falls and animal bites, accounted for more than three-quarters of all non-fatal injury (77 per cent).
- The leading cause of non-fatal injury was road traffic accidents, which injure more than 72,000 Thai children every year, or almost 200 children every day. Road traffic accidents (RTA) account for one in three childhood injuries.
- Falls, the second leading cause of injury, injured more than 62,000 children, or almost 175 a day.
- In younger children, falls, burns and cuts predominate; in older children it is road traffic accidents.
- Middle childhood and early adolescence have a more complex set of injury issues with drowning, RTA, falls and animal injury as they range further outside the home and further removed from adult supervision.
- Overall, an estimated 220,000 children suffer an economically and medically significant injury every year.

Leading causes of non-fatal injury in children aged 1-17



Disability causes huge financial, social and psychological costs. Families above the poverty line often slip below it, those already below often dissolve as a family



Permanent disability

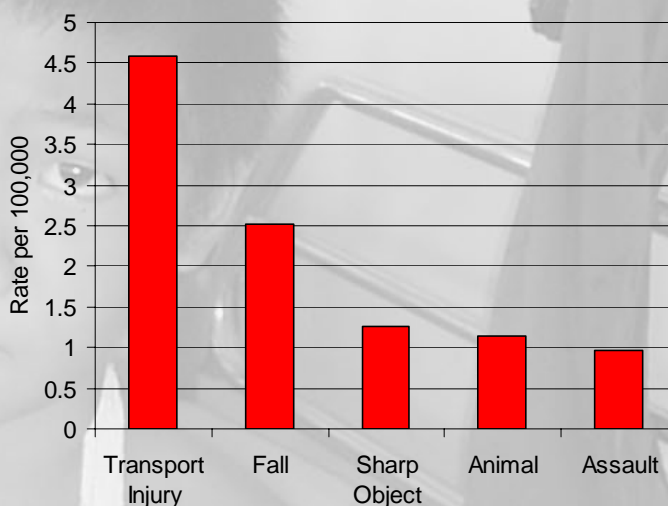
More than 1,600 children are permanently disabled from injury every year. This is more than four children each day, or one child every six hours on average.

The leading causes of permanent disability from injury in children are road traffic accidents, falls, cuts, animal bites and assaults.

Road traffic accidents leave two children permanently disabled every day, while falls are estimated to leave one child disabled every day.

With limited social and rehabilitative services available for disabled children, these injuries effectively rob them of their future.

Causes of permanent disability in children aged 1-17



Just the tip of the iceberg for non-fatal injury

The economic cost as well as the social burden imposed by non-fatal injury is a major drag on both the health and economic development of Thailand.

This is especially true for costs associated with permanent disability, which outstrip fatal injury. There is an urgent need to focus on the issue of non-fatal injury for Thai children.

Estimated number of children disabled due to injury		
Injury Type	Per Year	Time between each disability
RTA	705	12.4 Hours
Fall	385	22.7 Hours
Cut	195	1.9 Days
Animal	175	2.1 Days
Assault	150	2.4 Days
All permanent injuries	1,610	5.4 Hours

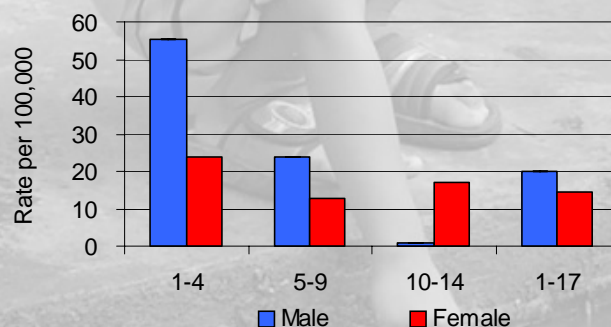
Drowning is the leading cause of death in children after infancy

One child drowns every three hours in Thailand

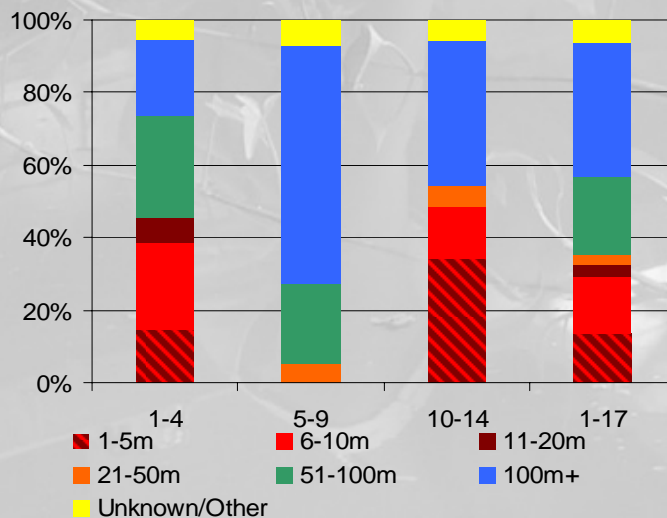
Drowning and near drowning in Thai children

- Drowning is the leading cause of death in children aged one year and over in Thailand, causing nearly 2,650 deaths every year.
- Drowning caused almost half (46 per cent) of all child deaths in the 1-4 age group.
- On top of these figures, some 3,000 children nearly drown every year.
- Most drowning occurs in rural areas, during the day, when mothers are busy with housework or other chores and the unsupervised child unexpectedly wanders away.
- More than half (56 per cent) of all drowning deaths occur within 100 metres of the child's home. For toddlers, this proximity is even more striking. Almost three quarters of drownings (74 per cent) occur within 100m of the home, and two in five occur within 10m of the home.
- Children younger than five account for more than half of all drownings (53 per cent). These children are too young to learn to swim so prevention requires increased supervision, especially as infants develop into toddlers and outstrip a busy mother's ability to closely supervise them.
- Reducing child drowning, particularly for the under-fives, requires developing ways to increase close adult supervision as well as reducing access to drowning hazards close to home. This could be by using play pens or door barriers for very young children, and fences or other barriers around water bodies for older, more adventurous children. These measures need to be in conjunction with close supervision and swimming lessons.

Drowning rates by age and sex



Distance from home where child drowned



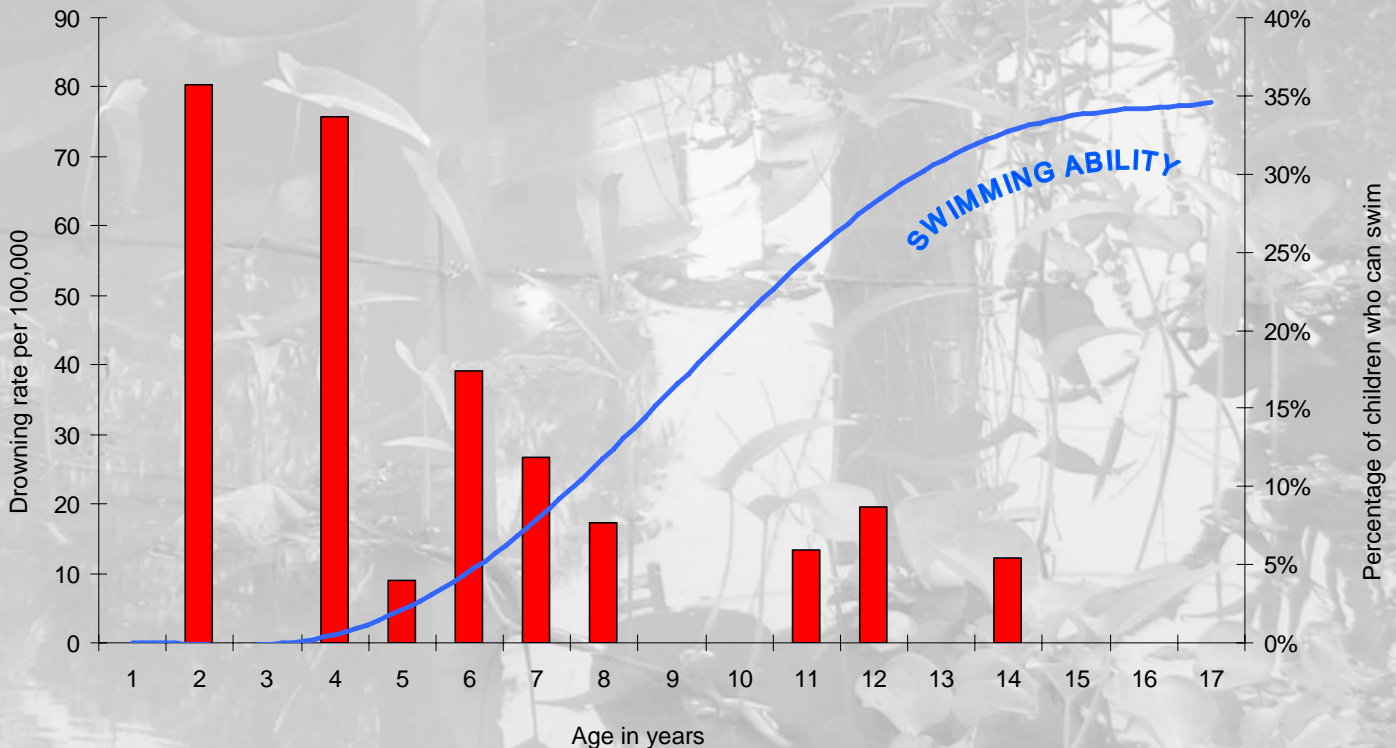
The drowning epidemic's simple cures - supervising young children and teaching children over five how to swim



Swimming saves child lives

- For children five and over, those who know how to swim simply do not drown.
- Only about one third (34 per cent) of Thai children ever learn to swim.
- Most children do not learn to swim until after their ninth birthday and this is reflected in the fact that more than four out of five (83 per cent) of all drowning deaths are among children younger than nine. Children aged between five and nine account for 30 per cent of drowning deaths.
- Learning to swim does not require what is assumed by western swim learning convention, such as swimming pools, certified instructors and life guards. Many parents teach their children themselves.
- Preventing drowning saves lives and money. The investments in immunization and nutrition programs or education are wasted if a child drowns.

Drowning rates (left axis) versus swimming ability (right axis) by age



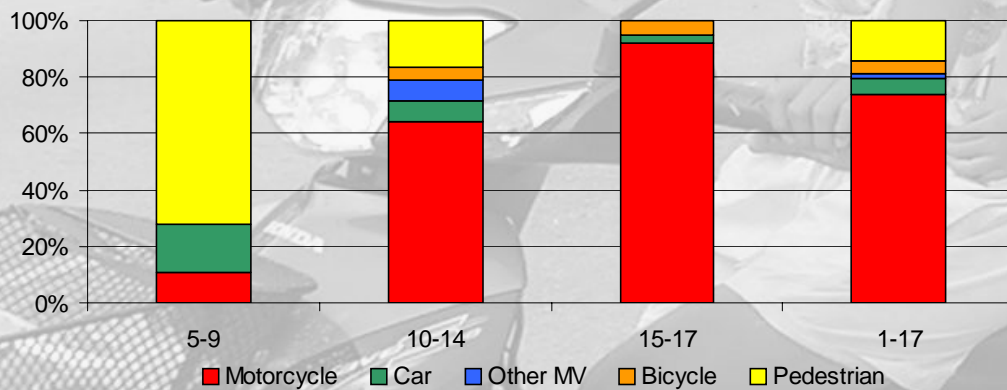
Motorcycles are particularly deadly to children — six out of seven child RTA deaths are from motorcycles



Road traffic accidents

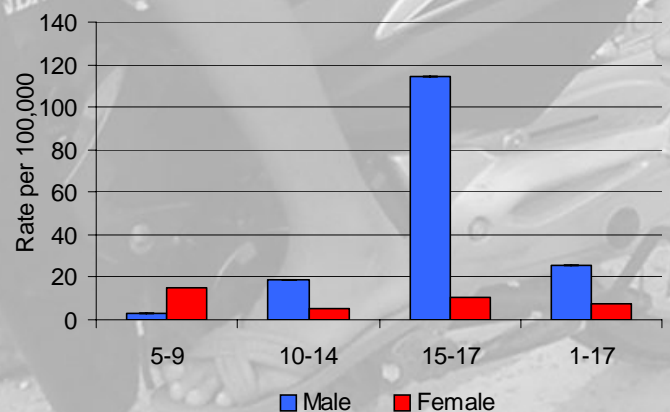
- Road traffic accidents (RTA) are the most common form of transport injury experienced by children.
- More than 2,600 children die of road traffic accidents annually, this is more than seven children every day.
- Nine in 10 (92 per cent) child RTA deaths result from riding, driving or being struck by motorcycles.
- Almost three-quarters (74 per cent) of all RTA deaths in children aged 1 to 17 occur when the child is on a motorcycle.
- Motorcycles are also responsible for every two out of three (or 63 per cent) of all non-fatal RTA injuries.

Mode of transport involved in fatal RTA



- Male motorcyclists in late adolescence are at particular risk. Almost one in 200 adolescent males die on a motorcycle; they comprise 90 per cent of RTA deaths.
- In children 10 and older, 85 per cent of all RTA deaths are as riders and drivers of motorcycles.
- For children between 6 and 9, pedestrians make up three in four (72 per cent) of all deaths in this age group.
- The survey was self-report, so alcohol use was not determined. However, special surveys on alcohol use have found that it is a major factor in adolescent (and adult) RTA crashes and must be a major enforcement focus.

RTA fatalities by age and gender



One child is disabled daily from falls



Falls

- Falls are second only to road traffic accidents in causing non-fatal injuries, with some 62,500 children annually injured to such a level that they have to seek care, or miss three days of school or work.
- Falls are one of the major causes of permanent disability in children, disabling nearly 400 children each year, or more than one child a day. Many of these disabilities were from spinal cord injuries.
- Fatal falls were less common, with 86 children dying from falls every year.
- Homes are hazardous places for children in Thailand, especially for falls. Even infants had relatively high rates of falls, which were all from furniture. Infants are particularly vulnerable to brain trauma, given their soft, incomplete skulls.
- Older children are also at risk of serious falls at home, for example from stairs and roofs that often lack railings. The area outside many homes have potential fall risks for young children who love to climb, such as trees, water towers and easily accessible roofs.
- Supervision is a key prevention tool in keeping children, particularly younger children, safe from falls. Learning first aid can help reduce the severity of injuries.



Cuts

- One child is cut every 26 minutes; this is more than 20,000 children a year.
- Almost 200 children become permanently disabled each year due to cuts.
- One in five cuts resulted in hospitalization. Cut injuries in toddlers were most likely to result in a trip to a care provider, while the 15 - 17 year olds were least likely.
- Cuts are common causes of injury in all age groups due to the universal exposure of infants and children to knives and other cutting instruments.
- The most common instrument causing non-fatal cut injuries was a knife, accounting for more than half (55 per cent) of all cuts. For the 1 to 4 year olds, knives caused two-thirds of cuts.
- Raising awareness among parents to store knives and other sharp objects where children cannot reach them would save thousands of children from injuries.



A child's risk of injury is determined by the risk awareness and safety behaviours of their parents and caregivers.



Animal injury

- More than 280 children die from animal bites each year, ranking it as the third most fatal injury for children aged 1– 17. Most of these bites are from rabid dogs.
- Animals injure 35,000 children annually, or about 95 per day. About one in six cases requires hospitalization.
- Most non-fatal injuries were in urban areas, where stray dogs and cats roam freely. Most fatalities occurred in rural areas, where there is limited access to health care such as the rabies immunoglobulin.
- Prevention measures include improving rural health access and also making it mandatory to immunize all animals, even strays, against rabies.



Burns

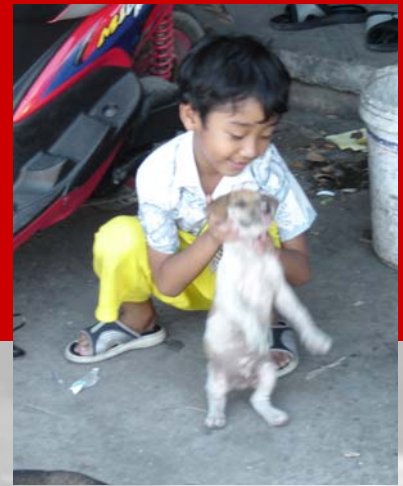
- Nearly 12,000 children are injured from burns every year, or one child every 45 minutes.
- One out of every five toddlers who were burned required hospitalization. Burns in toddlers often occur when they reach up to a boiling pot and pull the scalding water down onto their upturned face.
- Half of all non-fatal burns in children aged 1-17 occur while they are doing housework, including cooking. Females are more likely to be burned in late adolescence or as infants.
- More than 40 children die from burns every year.



Poisoning

- Three children are poisoned every day, or more than 1,270 every year. Fatal poisonings are rare.
- Soaps and detergents are the principal cause of poisoning; causing half of the cases in 1-4 year olds and all the poisoning in 5-14 year olds.
- Poisoning is most common among 15 -17 year olds, particularly males by pesticides and kerosene.
- Preventative measures such as child-proofing containers, putting first aid information on labels, as well as warning signs such as the skull and cross bones could be implemented because most of the poisonous substances are packaged locally.

To protect children from injury, parents and caregivers must be targeted



Electrocution

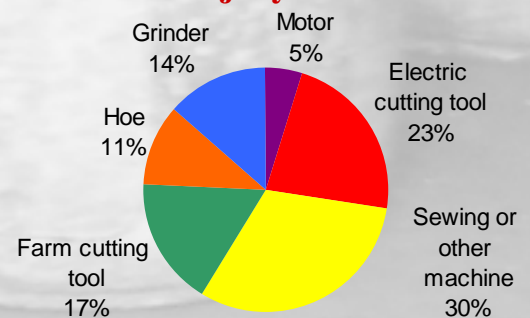
- More than 40 children die from electrocution every year in Thailand.
- Electrocutions injure four children every day.
- Nearly one in four electrocutions occur in the living room. Other likely locations are the bathroom, kitchen and bedroom. It is rare for children to be electrocuted outside the home.
- The top three activities that lead to children being shocked are cooking, bathing, or retrieving an object, such as a kite.
- Most Thai parents do not know that there are very economical and low technology ways to reduce electrocution hazards in their homes, such as using ground fault interrupter devices or putting caps over the electrical outlets.



Machine injury

- More than 900 children are injured by machines every year, or two per day.
- Most machine injuries occurred to children aged between 15 -17, likely as a result of them entering work.
- Urban girls had the highest rate of machine injuries, which may indicate that the machines causing these injuries are found in urban factories with large female workforces, such as in garment factories.
- Injuries to working children also impacts on their families if they are forced to miss work which would often equate to lost wages and an increase in medical bills.

Type of machine causing non-fatal injury



Child proofing

- It is rare in Thailand to find antenatal care programs that include counseling parents about “child proofing” their home. Yet the experience of developed countries is that introducing ‘child proofing’ programs as parts of antenatal care programs is effective in reducing electrocution and other injuries for infants and pre-school children.
- Child proofing does not need to be a difficult or expensive exercise. Simple, cost-effective measures include covering electrical outlets, putting sharp or hazardous objects out of reach and ensuring doors can be barred or locked to stop curious children reaching nearby water sources, stray animals or other dangers.

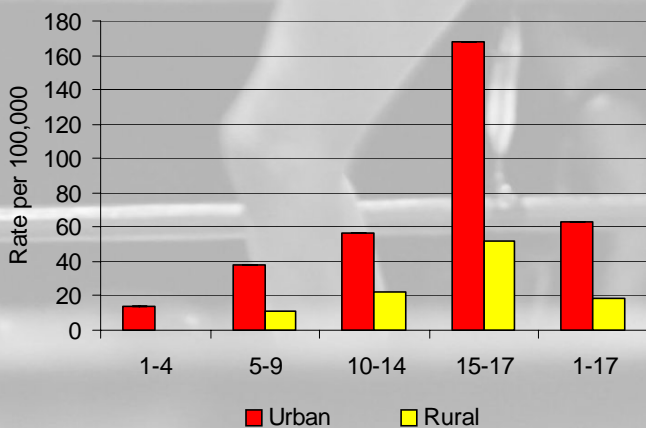
Violence and suicide are leading causes of deaths for older children. This is an area policy makers need to examine more closely



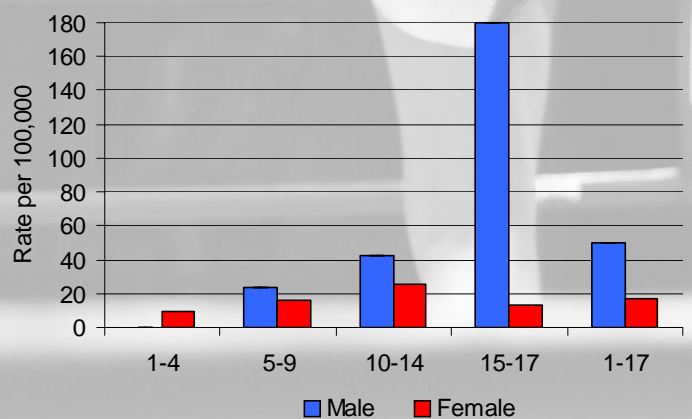
Violence and suicide

- Household surveys almost always underestimate the actual rates of intentional injury, and often quite significantly. Despite this limitation, the rates found for violence and suicide are high in the survey. Suicide and attempted suicide are problems that policy makers do not normally associate with children. Nevertheless, both are significant causes of fatal and non-fatal injuries for children in Thailand.
- The nature of intentional injury depends on age – in the younger age groups it is entirely violence and in the older age groups, it is a mixture of violence and suicide.
- The proportion of intentional injury increases with the age of the child.
- More females than males committed suicide in the year preceding the survey, while older boys were more likely to be victims of homicide.
- Most commonly, non-fatal assault was committed by a friend or acquaintance (58 per cent). Assaults by a stranger account for 20 per cent of injuries and 8 per cent of all non-fatal assault injuries were inflicted by a parent.

Non-fatal assault injury by age and residence



Non-fatal assault injury by age and sex



Injury is the leading cause of death in parents during most child-raising years



Injury Orphanhood

Injury affects children by affecting their parents and survival becomes a much tougher challenge after a child has lost a parent.

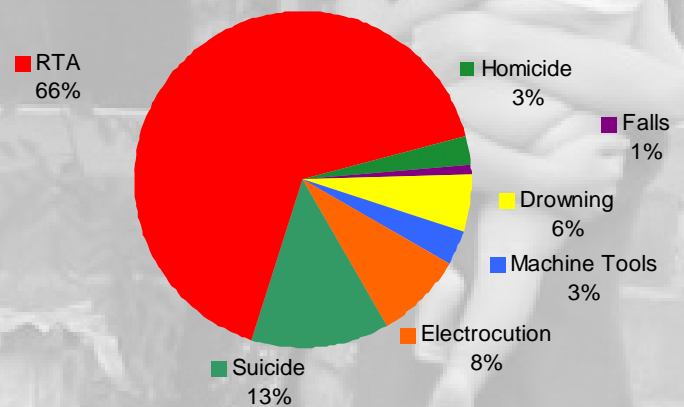
- About 16,700 children of all ages lose a parent because of injury, about 46 children each day.
- Over 1,000 infants lose a parent to injury every year, or about 3 per day.
- About 2,800 children 1-4 years have a parent killed from injury every year, about 8 per day.

Mothers

For mothers, road traffic accidents (RTA) are the biggest injury killer, followed by homicide and suicide.

- About 2,700 mothers die from injury in Thailand every year, this is about seven children who lose their mother every day.
- Injury accounts for one in five deaths among women aged 24 to 42 (mothers). This is twice the number killed by HIV related causes.

Cause of injury death in mothers of children aged 0-17

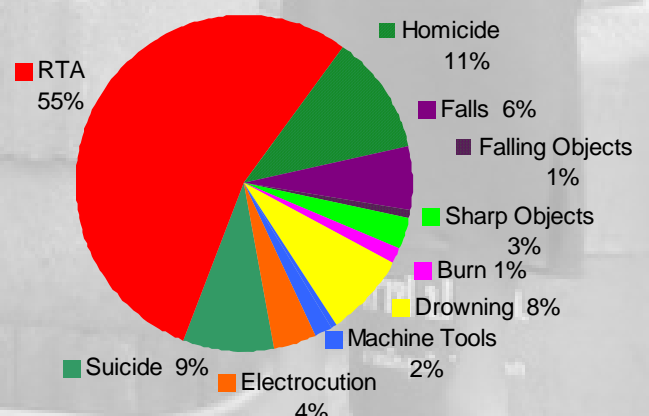


Fathers

For fathers, road traffic accidents (RTA) are the biggest injury killer, followed by suicide and electrocution.

- Road traffic accidents (RTA) alone kill almost 5,500 fathers annually, meaning about 15 children lose their fathers per day because of RTA injury.
- Amongst all men of fatherhood age (27 to 45 years old), injury accounts for 31 per cent of all deaths, three times as many as die by HIV.
- Losing a father will have an added negative impact upon a child because Thai men are typically the primary earners for a family.

Cause of injury death in fathers of children aged 0-17



The rates of child death and disability will not decrease without concrete action at the national level

A Call For Action: Recommendations

The priorities: drowning, traffic accidents, suffocation and animal injuries



Drowning is the leading cause of child injury deaths. In the toddler age group, drowning caused almost half of all deaths; so reducing these would lead to a rapid decrease in the under-five mortality rate. For Thai children of all ages, drowning rates are 10 times the rates of child drowning in rich countries.

A country does not have to be rich to successfully decrease child drowning rates; programs in Bangladesh have shown two-thirds reductions in child drownings. Thailand could emulate the successful approach of many other countries to drowning reduction by integrating water safety and swimming teaching programs into school curricula.



Road traffic accidents are the second leading cause of injury death in children in Thailand. Adolescent boys make up nine out of 10 road traffic accident deaths, so these boys must be a key target group for prevention activities. For children younger than 14, most deaths occurred as pedestrians or passengers. Prevention activities for these children could occur as part of a series of school road safety lessons. For both of these target groups, there must be a focus to raise awareness among parents and other key community members.



Suffocation is the leading cause of fatal injury in infancy. This provides an opportunity to significantly reduce the number of infant deaths. Counseling mothers on safe ways for babies to sleep is an efficient intervention because it can link in with the same providers that work directly with pregnant women and mothers of young infants.



Animal injury, mainly rabies from dogs and poisonous snake bites, is the third leading cause of fatal child injury in Thailand, and the fourth leading cause of injury morbidity. Because dog bites cause more than two out of three (69 per cent) of all animal injuries, a program that covers keeping dogs separate from young children, teaching children how to avoid being bitten and enforcing rabies immunizations for dog owners would have a major impact on child deaths and injuries.

Political will needs to result in injury prevention programs for homes, schools and communities



A national child injury prevention program for Thailand

A national prevention effort would significantly lower the number of child injury deaths as well as the very high serious injury and permanent disability rates in children. A national strategy is needed to comprehensively cover an integration of prevention, control and rehabilitation interventions to address the complexity and magnitude of the problem.

Child health to extend beyond the under-fives

Addressing the causes of injury requires working in all child age groups.

- Interventions that focus on infants and young children will target parents and homes.
- Those that focus on school aged children will need to extend their focus to the children themselves, the schools and teachers, and the areas of the community where school children spend most of their times.
- Interventions for older adolescents must recognize the importance of suicide in particular but also of violence, and focus on psychological resiliency and social support.

Safe home, safe school, safe community

The conceptual framework of *Safe Home, Safe School and Safe Community* meets the need to target children where their injury risks are highest, and the interventions possible are most effective.

- Homes in Thailand are dangerous places for children — full of risks for falls, burns, scalds, poisons, cuts and other injuries. There are cheap and effective ways to make homes safer and a *Safe Home* program is needed to do this.
- The walk or ride commuting to school in Thailand is dangerous for children, and much can be done to ensure that the schools themselves are safer as well. *Safe Schools* programs need to develop and enforce safety standard and regulations, promote education for behavior change and modify the environment to remove injury hazards.
- The community must also be involved. The public safety and welfare institutions - police, fire, and health as well as the governing structures - must provide leadership and authority for much needed *Safe Community* programs.

Complement existing programs

Child safety is cross-sectoral in nature. Child injury interventions need to cross the boundaries of health, education, public security and communication.

Injury prevention activities can be most efficiently combined with successful ongoing activities, extending and reinforcing them. Addressing child injury provides an opportunity to integrate resources and activities that affect all ages of children by integration into the antenatal program, EPI (Expanded Programme on Immunisation), early childhood development, nutrition, girls' education, HIV/AIDS and other adolescent programs.

The toll of fatal and non-fatal injury (for all children under 18)

Fatal injury	Per year	Time between each death
Drowning	2,645	3.3 Hours
RTA	2,605	3.4 Hours
Suffocation	450	20 Hours
Animal	280	1.3 Days
Homicide	160	2.3 Days
Fall	85	4.2 Days
Suicide	70	5.2 Days
Burn	45	8.5 Days
Electrocution	45	8.5 Days
All injury deaths	6,385	82 Minutes

Non-fatal injury	Per year	Time between each injury
RTA	72,680	7.2 Minutes
Fall	63,400	8.3 Minutes
Animal	34,910	15 Minutes
Cut	20,310	26 Minutes
Burn	12,680	42 Minutes
Assault	5,210	1.7 Hours
Falling Object	5,180	1.7 Hours
Drowning	3,000	2.9 Hours
Electrocution	1,530	5.7 Hours
Acc. Poisoning	1,270	6.9 Hours
Machine-Tool	945	9.3 Hours
Suicide Attempt	370	1.0 Days
All injuries	221,485	2.4 Minutes

Thai National Injury Survey Background



In response to the need for a deeper understanding of the causes and factors contributing to Thailand's child mortality and morbidity patterns, the Institute of Health Research (IHR) at Chulalongkorn University and The Alliance for Safe Children (TASC) conducted the Thai National Injury Survey (TNIS) in collaboration with UNICEF.

The national survey involved interviews with more than 100,000 randomly selected households representing nearly 400,000 residents - including 100,000 children - making it the largest community based survey on child mortality and morbidity ever conducted in Thailand.

Of the households surveyed between September 2003 and April 2004:

- more than 60,000 households were in rural areas.
- nearly 36,000 were in suburban areas.
- 3,000 were from slum areas.

The methodology employed in this survey is the same one developed by TASC for the other national surveys undertaken by UNICEF/TASC and local institutional partners in the region.

- The head of household and caretaker of any child in the household were interviewed to examine the health of the 389,531 infants, children and adults in the households.
- Causes of death were determined by medical certificates where available and by verbal autopsy where a medical certificate was unavailable.
- The recall period was three years for injury deaths and one year for non-fatal injuries.

This landmark study provides extraordinary detail on what really kills children in Thailand today.

Non-fatal injury severity level	Per year	Definition
Moderate	143,800	Injuries that required seeking medical care, or missing three days of work or school. This was the minimum level definition accepted for injury in the survey.
Major	60,200	Injuries requiring hospitalization, but for less than ten days.
Serious	15,855	Injuries requiring hospitalization of 10 days or more.
Severe	1,610	Injuries that resulted in permanent disability, regardless of length of hospitalization.
Fatal	6,385	Injuries that resulted in death.

For more information on the Thai National Injury Survey



www.chula.ac.th



www.tasc-gcipf.org



www.unicef.org



www.moph.go.th

**More than 16 children will die from injuries in Thailand today.
Most of these deaths could be prevented.**

- The landmark Thai National Injury Survey (TNIS) was conducted by the Institute of Health Research (IHR) at Chulalongkorn University and The Alliance for Safe Children (TASC) in collaboration with UNICEF to gain a better understanding of child mortality and morbidity.
- The TNIS was the largest community based survey on childhood deaths and morbidity, with researchers covering more than 100,000 randomly selected households of nearly 400,000 residents, including 100,000 children.
- More than 60,000 households were in rural areas, nearly 36,000 were in suburban areas and 3,000 were from slum areas.
- Between September 2003 and April 2004, researchers interviewed the heads of the 100,000 households and caretakers of any children in those households to examine the health of infants, children and adults living there.