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HOW SAFE IS YOUR HOME?

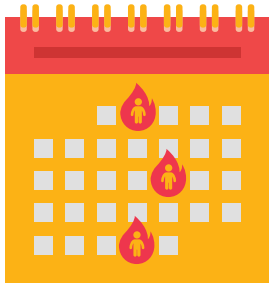
Protecting Children from Fire, Burns and Scalds in Kuala Lumpur

November 2016



Fire and Burn Injuries in Malaysia: Key Facts

Every two weeks, a child in Malaysia dies from a fire or burn.



6.4% of parents reported there had been a fire in their home in the past two years.



54% of parents reported that their child suffered at least one form of burn injury in the past two years.



Top 5 causes of burn or scald injuries.



Hot utensils



Hot iron



Hot water heater



Hot motorcycle exhaust pipe

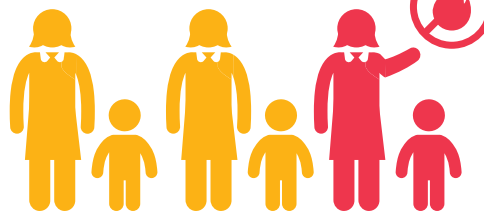


Firecrackers

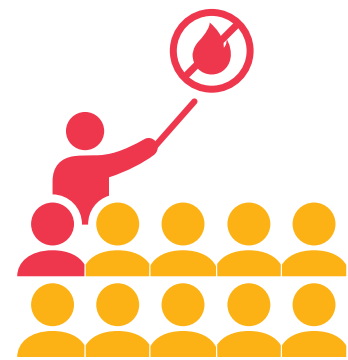
While **51%** of parents are worried that their children are more likely to suffer a burn or scald than any other injury,



only **one in three** parents consistently teach their kids about fire safety.



Only 11% of parents report that schools frequently teach fire safety education.



Executive Summary

Children are naturally curious, and in the process of learning and exploring, they often touch, taste or play with things that can cause them harm. Many people are surprised to learn that every year around the world, one million children die due to unintentional injuries like car crashes, fires, falls or drowning.¹ The home is a common place for injuries, second only to those that occur on the road, and fire and burns, including scalds, are among the leading causes of home injuries.

According to the Global Burden of Disease study, in 2013, an estimated 42,640 children under the age of 14 across the globe died as a result of fire or burn. More than 96 percent of these deaths occurred in low- and middle-income countries.² In addition to deaths, severe burn injuries can affect a child for a lifetime. Safe Kids Malaysia, with support from Honeywell Malaysia, conducted research to explore the scope of the issue in Kuala Lumpur.

Safe Kids Malaysia surveyed 640 parents of children between 7 and 12 years of age to better understand the frequency of fire and burns to children. The survey also explored what preventative measures parents are taking and how they are treating injuries when they occur. Finally, the survey reviewed the current level of education being provided and what is needed to protect children in the future.

The research reveals that fires and burns are serious public health issues that demand our attention. Every two weeks, a child in Malaysia dies from a fire or burn.² In our survey, more than half of parents (54 percent) report that their child suffered at least one form of burn injury in the past two years and 6.4 percent of parents report there had been a fire in their home in the past two years.

This is a problem we can solve: fire and burns are preventable.

Parents play an important role in protecting children from these injuries. But while more than half of parents (51 percent) of parents surveyed report that they are worried that their children are more likely to suffer a burn or scald than any other injury, only 1 in 3 parents say they consistently teach their kids about fire safety. There is clearly a need to educate children and encourage more parents to reinforce key safety messages at home.

Parents may expect their kids to get this education at school, but that may not always be the case. Only 11 percent of parents report that their children's school frequently included fire and burn prevention as part of their educational efforts.

Furthermore, when an injury does occur, the research shows a surprising number of parents surveyed are not using the appropriate measures to treat burns, and therefore are using methods that can cause more harm than good. In the study, almost 2 out of 5 parents would reach for a household remedy to treat a burn. And when asked what is the most effective household remedy to treat a burn, 83 percent of parents say toothpaste. This is concerning as, not only is this remedy ineffective, it may actually worsen the injury and increase the risk of infection and scars.

Awareness programs that address the causes of injury and educate families on how to prevent and treat them are essential to minimizing immediate pain, suffering and health care costs for children in Kuala Lumpur. They will also reduce ongoing trauma and disability that could affect children into adulthood. By working together with parents, schools and other key stakeholders, we can change the outcomes for families and keep the children of Kuala Lumpur safer from fire and burns.

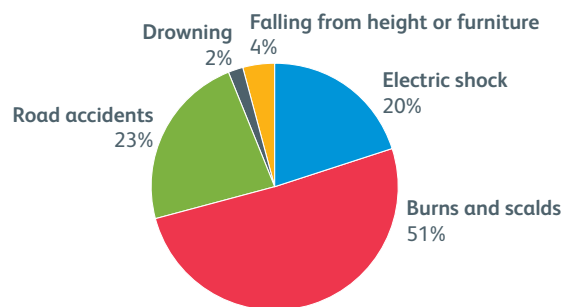


Fire and Burns

How Prevalent Are They?

The WHO Global Burden of Disease Project for 2004 made it clear that burns are an important contributor to the overall death and injury toll in children in low-income and middle-income countries.³ Burns in children are reported to be the most prevalent traumatic injuries around the world³ and are a serious concern for the parents of Kuala Lumpur. When asked which injuries parents perceived as the greatest threat to their children, more than half of the 640 parents surveyed identified burns and scalds (Figure 1). What's more, 54.1 percent of parents report that their child has suffered at least one form of burn injury in the last two years, which was the second most frequently reported injury by parents behind slips and falls (Figure 2).

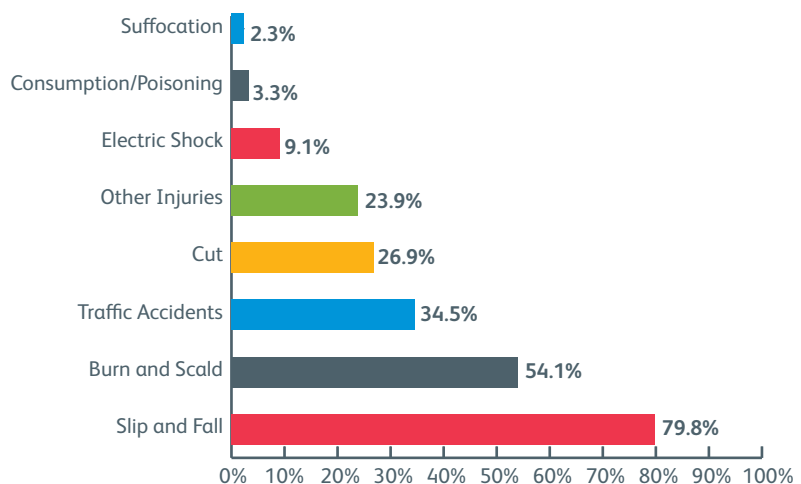
Figure 1: Parents' perception of the injuries posing the greatest potential threat to children (N=640)



Since we know many burns are the result of fire, we asked parents about the frequency of fire in their homes or in the homes of their friends or neighbors. More than 6 percent of parents report there had been a fire in their home in the last two years. Twice as many parents (12 percent) report there had been fire in a friend's or neighbor's home in the same time period.

The prevalence of home fire and burn injuries, combined with the overwhelming concern of the issue by parents illustrates an urgent need for additional education and awareness programs in Kuala Lumpur.

Figure 2: Frequency of Child Injuries in the Past Two Years by Cause (N=640)



What Are the Causes and Risk Factors?

To determine the most appropriate areas to focus education and awareness efforts, we asked parents what are the most common causes of both the home fires they had reported and the burn injuries their child experienced in the last two years in the home. Candles are the most common cause of the fire (37.5 percent) followed by playing with matchsticks/lighters (18.8 percent) or firecrackers (16.7 percent) and gas flames (14.6 percent) (Figure 3).

In terms of burn risks in the home, parents indicate that the most frequently occurring causes are hot utensils (24.4 percent). Additional causes include hot irons, water heaters, motorcycle exhaust pipes and firecrackers (Figure 4).

Figure 3: Causes of Fires in Home and in the Homes of Friends and Neighbors in the Last 2 Years (N=96)

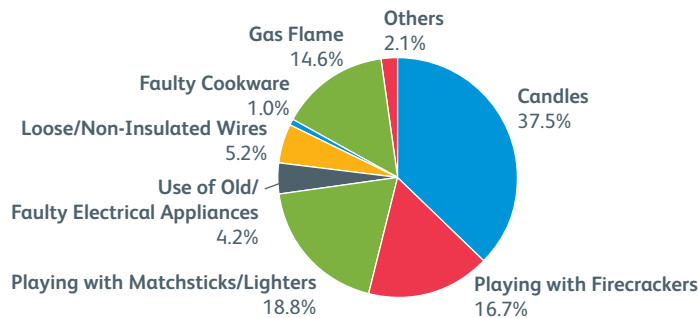
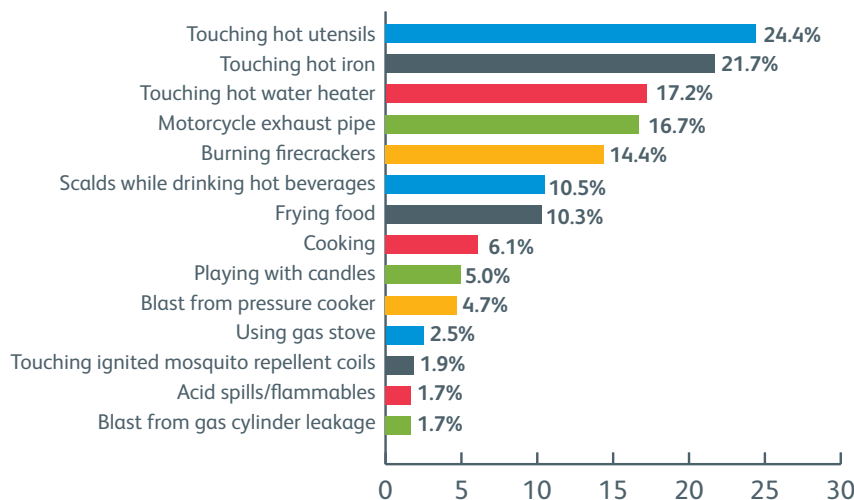


Figure 4: Most Common Causes of Burn Injury in the Home (N=640)

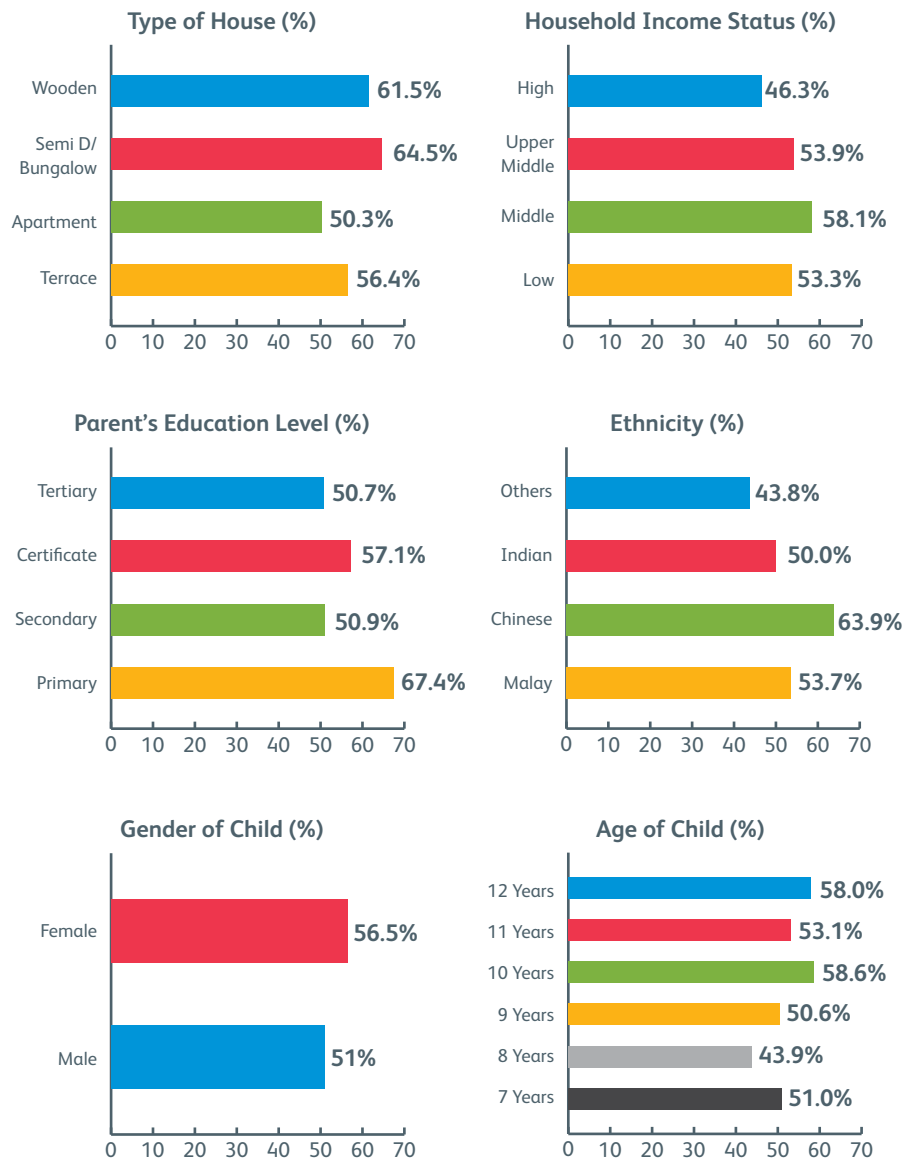


Who is Getting Injured?

We examined the frequency of reported burn injuries across socio-demographic characteristics such as type of housing, level of education for parents, household income and ethnicity.

As illustrated in Figure 5, burns affect all children and parents in Kuala Lumpur. Families who live in semi-D housing/bungalows (64.5 percent) as well as families who live in apartments (50.3 percent); parents of both high (46.3 percent) and low (53.3 percent) income levels; and boys (51 percent) and girls (56.5 percent) of all ages. Based on these results, education efforts must be diverse and adaptable so we reach as many families as possible with the safety information that is best suited for their home environments.

Figure 5: Prevalence of Burn Injury in the past 2 years Across Socio-Demographics (N=640)



How Are Injuries Treated?

When injuries do occur, proper treatment is important. However, when we asked parents how they would treat a burn injury, what we learned was surprising.

Two out of five parents indicate they would choose household remedies either alone or in combination with other treatments (Figure 6). When asked what they believed are the most effective household remedies to treat a burn, more than 4 out of every 5 parents mention toothpaste (Figure 7).

Not only is this remedy considered ineffective, it may actually worsen the injury and increase the risk of infection and scars. This misconception illustrates the need for education efforts to include messages on both proper prevention and treatment methods.

Figure 6: Primary Medication Used to Treat Burn Injuries (N=640)

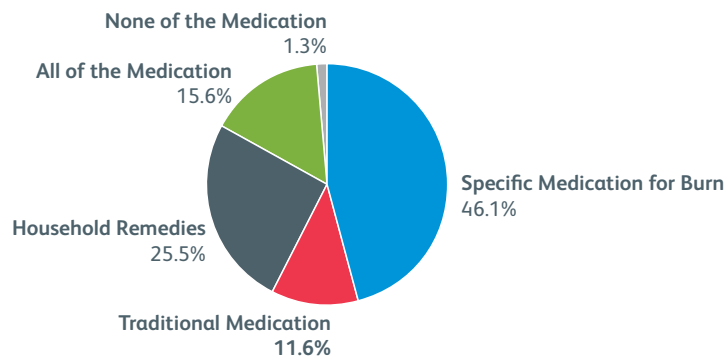
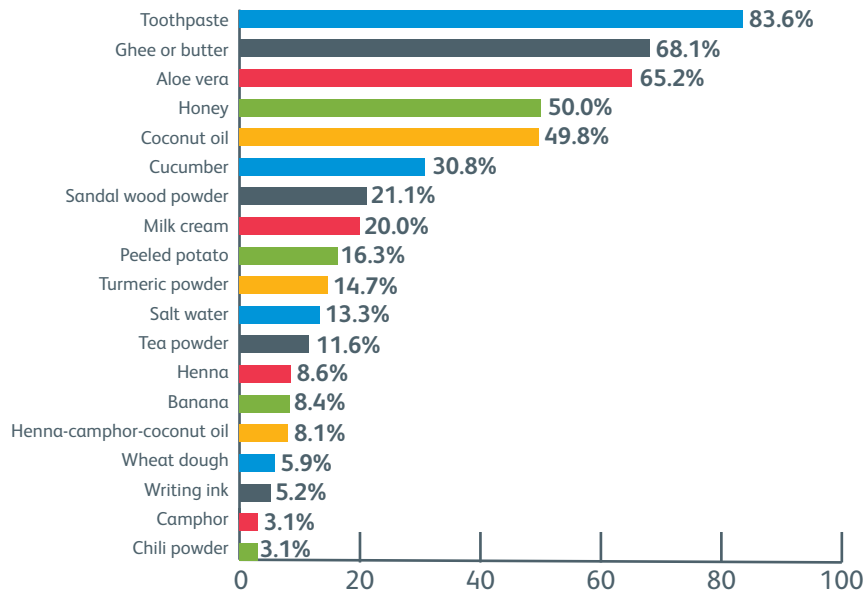


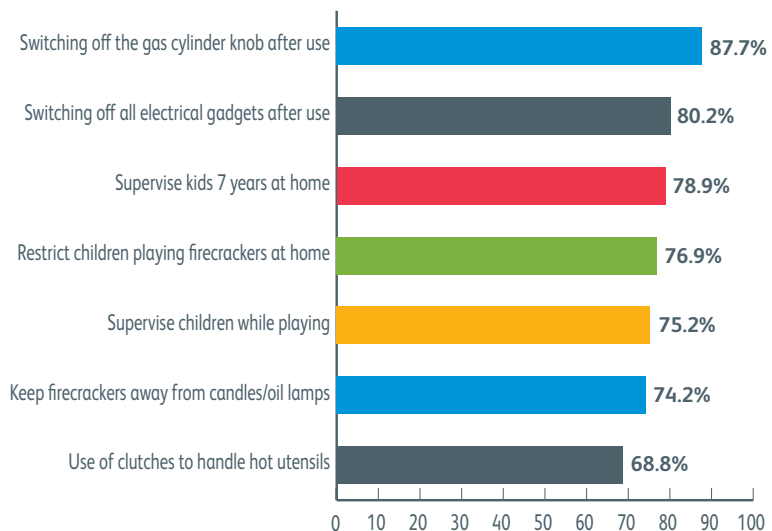
Figure 7: Most Frequently Used Household Remedies to Treat Burn Injuries (N=640)



What Are Parents Doing to Keep Children Safe in the Home?

We asked parents what steps they take to prevent fire and burn injuries in their homes. In our study, parents report a variety of safety actions they believed could keep their kids safe (Figure 8) such as switching off the gas cylinder knob (87.7 percent), switching off electrical gadgets after use (80.2 percent) and supervising kids younger than 7 years old (78.9 percent). However, the frequency of reported fire and burn injuries in the past two years from this study suggests that there are additional preventative measures that parents can take to create a safer home environment.

Figure 8: Parent Behavior That Increases Child Safety (N=640)

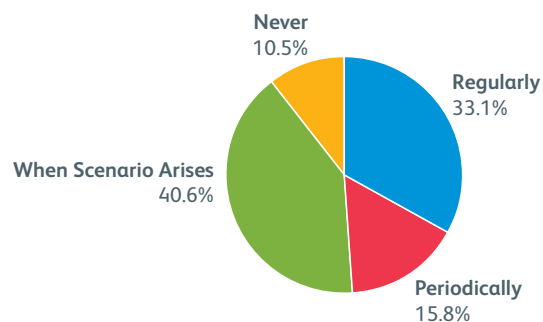


Educating Children

At Home and at School

Education and awareness are critical to changing outcomes and parents play a key role in this effort. However, only 1 in 3 parents surveyed report providing consistent education about fire and burn safety. Additionally, 40 percent of parents report that they teach their children about fire and burn safety only when a dangerous scenario arises (Figure 9).

Figure 9: How Often Parents Teach Children about Fire and Burn Safety (N=640)



Parents were also asked what fire and burn safety education their child receives in school. Only 11 percent of the parents surveyed say that their children are frequently taught about preventive measures in school (Figure 10). In addition, less than half of the parents report that their children's school engaged them in awareness programs (Figure 11). This presents an opportunity to influence changes in behavior by creating an educational program where parents and schools work together to teach and reinforce safety messages.

Figure 10: Parent Reported Frequency of Fire and Burn Safety Education in School (N=640)

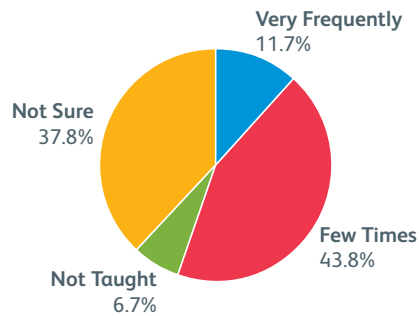
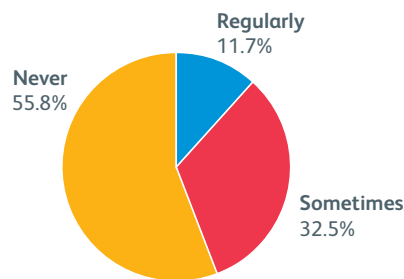


Figure 11: Parents Engagement in Fire and Burn Injury Awareness Program in Schools (N=640)



Recommendations for School-Based Education

Safe Kids Malaysia is committed to working with parents, teachers and community stakeholders to develop and implement a school-based educational program to reduce fire and burn injuries in Kuala Lumpur.

Based on the research, recommendations for development of the program include:

- Reach a diverse population of families that includes all ethnicities, education and income levels, and types of home.
- Focus education on addressing the most common risk factors and preventing the most common causes of fire and burn injuries.
- Teach children and families how to properly treat minor burns and respond in a fire emergency.
- Engage both children and parents so messages can be reinforced at home.



Preventing Fire and Burns: Top Tips for Parents

Parents can take the following steps to prevent injuries in the home.⁴

Safety Around Open Flames

- Keep burning candles and mosquito coils out of children's reach and away from furniture, curtains and other flammable items.
- Remember to blow out candles before going to sleep.
- Ensure that cigarette butts are properly doused and disposed in an ashtray and not in the dustbin.

Cooking Safety

- Be attentive and alert while cooking. Unattended cooking or grilling could lead to a kitchen fire.
- Tuck in all loose ends of clothing and wear short or tightly rolled sleeves when cooking. Keep a safe distance from fire.
- Items such as towels, wooden spoons and food packages may catch fire. Move these items away from stoves and open flames.
- Keep matchsticks and lighters out of children's reach.
- Keep hot utensils away from children's reach as they may cause severe burns.
- Young children should keep a safe distance from the cooking area. Teach older children about cooking safely.

Preventing Burns and Scalds

- Children love to reach, so keep hot food and liquids away from the edge of counters and tables.
- Do not hold a child while cooking or handling hot liquids. It can cause a burn or scald to your infant.
- Check the temperature of hot water before bathing infants.
- Be careful to keep children away from a bucket of water which has a heating rod immersed in it.

Safety Around Electrical Appliances

- Be careful not to overload electric sockets as this may cause overheating and result in fire.
- Do not use electrical appliances with wet hands, in wet clothes or shoes.
- Unplug and safely store electrical appliances such as irons, toasters and water heating rods immediately after using them and out of children's reach.
- Ensure that electric wires do not run under rugs or carpets. Replace worn out or damaged wires immediately.

Firecracker Safety

- Wear fitted cotton clothes that do not catch fire easily when lighting firecrackers.
- Teach children to wait for an adult before lighting firecrackers.
- Use a long stick to light a firecracker. It is unsafe to light a firecracker in your hand.
- Keep a safe distance when lighting firecrackers and light them at an arm's length.
- It is not safe to relight a firecracker that did not ignite the first time.
- Keep a bucket of sand or water nearby when lighting firecrackers in case there is a fire.
- Find an open area away from trees and homes before lighting a firecracker. Do not light firecrackers inside the house.

Safety in a Fire Emergency

- Create and practice a fire escape plan with your family and identify a safe meeting place outside the home.
- If there is a fire, exit the house immediately.
- If there is a lot of smoke and it is difficult to see, get low and crawl out of the house as quickly as possible.
- Know the emergency contact number for Fire and Rescue, Ambulance and Police in Malaysia – 999.

Methodology and Study Design

The study was a cross-sectional survey of parents of children attending standard one to standard six in primary schools in one area of Kuala Lumpur. Nine primary schools from the Education Office of Sentul Territory [Pejabat Pendidikan Wilayah Sentul (PPWS)] Kuala Lumpur, were randomly selected from among the 58 primary schools in the sub area of Kuala Lumpur-Sentul. The study was conducted for three months (March-May 2016).

The nine schools were randomly selected by using a random number generator. A letter was sent to each selected school requesting their permission to conduct research with their students. Once school permission was obtained, a consent form was distributed to students ages 7 to 12 years in each school. A total of 1,150 students took the consent form home for parent signature and completed consents were collected in class two days later. The 640 children who obtained parental consent were given a questionnaire developed specifically for the study to take home to their parents (Response rate = 640, 55.6 percent). Completed questionnaires were collected after two days. Questionnaires were analyzed and results are reported here.

References

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- 4 How Safe Is Your Home? Protecting Children from Fire and Burns in Pune. Pune, Maharashtra: Safe Kids Foundation India. November 2015.

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