Massachusetts Burn Injury Reporting System

2013 Annual Report

Department of Fire Services
Division of Fire Safety

Deval L. Patrick, Governor
Andrea J. Cabral, Secretary of Public Safety
Stephen D. Coan, State Fire Marshal

Massachusetts Burn Injury Reporting System

2013 Annual Report

28 Years

Helping Prevent Burn Injuries

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Executive Summary

M-BIRS was established in the Department of Public Safety in 1984 as a tool to help fire service and law enforcement personnel identify arsonists that may have been burned while setting fires. M-BIRS, along with the Office of the State Fire Marshal, was carried over to the Department of Fire Services in 1996. It remains a joint program of the Department of Fire Services and the Massachusetts Department of Public Health (DPH). The "Burn Registry" also provides valuable data on the nature of the burn problem in the Commonwealth. In 2013, the twenty-eighth full year of the Massachusetts Burn Injury Reporting System (M-BIRS), 42 acute care hospitals and other health care facilities reported 432 victims of burns. Fifty (50) of these 432 victims received care at two Massachusetts hospitals and were reported to the system twice.

Massachusetts is renowned for its medical institutions and in particular for the advanced treatment available for burn and trauma victims. Many advances in treatment that have lead to increased ability for victims to survive serious burn injuries took place in Massachusetts. Those advances started in the desperate days after the deadly 1942 nightclub fire at Boston's Cocoanut Grove and continue today with advances from The 2003 Station nightclub fire in West Warwick, RI.

Statutory Authority for M-BIRS in MGL 112, Section 12A
According to Massachusetts General Law (MGL) Chapter 112, Section 12A, the treatment of all burn injuries extending over 5% or more of a person's body surface area must be reported immediately to the State Fire Marshal.

M-BIRS Has Two Main Purposes — Identifying Arsonists and Burn Prevention
Data collected by the Massachusetts Burn Injury Reporting System is used in several ways. Investigators use the data to determine if an arsonist was treated for a burn that resulted from an attempt to illegally burn a building or vehicle. If these burns are not reported promptly, arsonists may continue to light fires that threaten life and property.

Our data has also been used to identify problems that need to be addressed by public education, regulation or development of appropriate intervention strategies. We need to know what type of activities cause injuries, if the injuries are seasonal and how old the victims are in order to develop and implement effective prevention programs. We appreciate the efforts of the many dedicated doctors, nurses and clerical personnel who report the burn injuries promptly and completely. They make the program work.

Painful, disfiguring and expensive burn injuries exact a tremendous toll from their victims, their families and society. The statistics in this report illustrate the need for more burn prevention education and indicate to whom specific safety messages should be targeted.

State Fire Marshal Stephen D. Coan invites fire, health and medical professionals, classroom and community educators, day care teachers and elder service workers to join with him in making the Commonwealth safer from burn injuries.

DPH Alerts OSHA to Severe Burn Injuries in the Workplace
DPH notifies one of the three Occupational Safety and Health Administration (OSHA) area offices about those companies in which an employee was burned as a result of explosions, chemical exposures, electrocutions, or those that appeared to indicate likely violations of OSHA standards. Thirteen (13) burn injuries were referred to OSHA in 2013 for cases that met their criteria.

Scalds Caused 47% of Reported Burn Injuries
Scalds have been the leading cause of burn injuries for the past 28 years. In 2013, scalds caused 201, or 47%, of the burn injuries reported to M-BIRS. Cooking liquids caused the majority of scald burns. Hot beverages, hot tap water, and hot foods also caused significant numbers of scald burns.

Keep Hot Liquids Away from Babies and Preschoolers
In 2013, young children were the most frequent victims of scald burns. Forty-seven percent (47%) of the 201 scald victims were under five years old, and most were less than one year old. Children under five years of age were 8.3 times more likely to be scalded. Hot beverages posed the greatest risk to these young children; parents and caregivers of young children must remember that it is dangerous to drink hot beverages while holding a baby.

Set Hot Water Heaters at 125°F or Lower
Hot tap water is also a danger to very young children. It takes only one second of exposure to water at 155°F to cause a third degree burn. Hot water heaters should be set to temperatures of 125 °F or lower. Massachusetts state law states that the temperature must be set between 110°F and 130°F. Caregivers should never leave a baby or toddler alone in a bath. Young children like to turn knobs and use levers and they may turn on the hot water when an adult is distracted.

Kitchen Is a Dangerous Place
A significant number of the burn injuries occur in the kitchen each year. Flame burns such as sleeves igniting while cooking, scald burns from grease splatters and hot liquids while cooking take place in the kitchen as well as scalds to young children who inadvertently get in the way. Since we must cook every day, we must learn to do so safely.

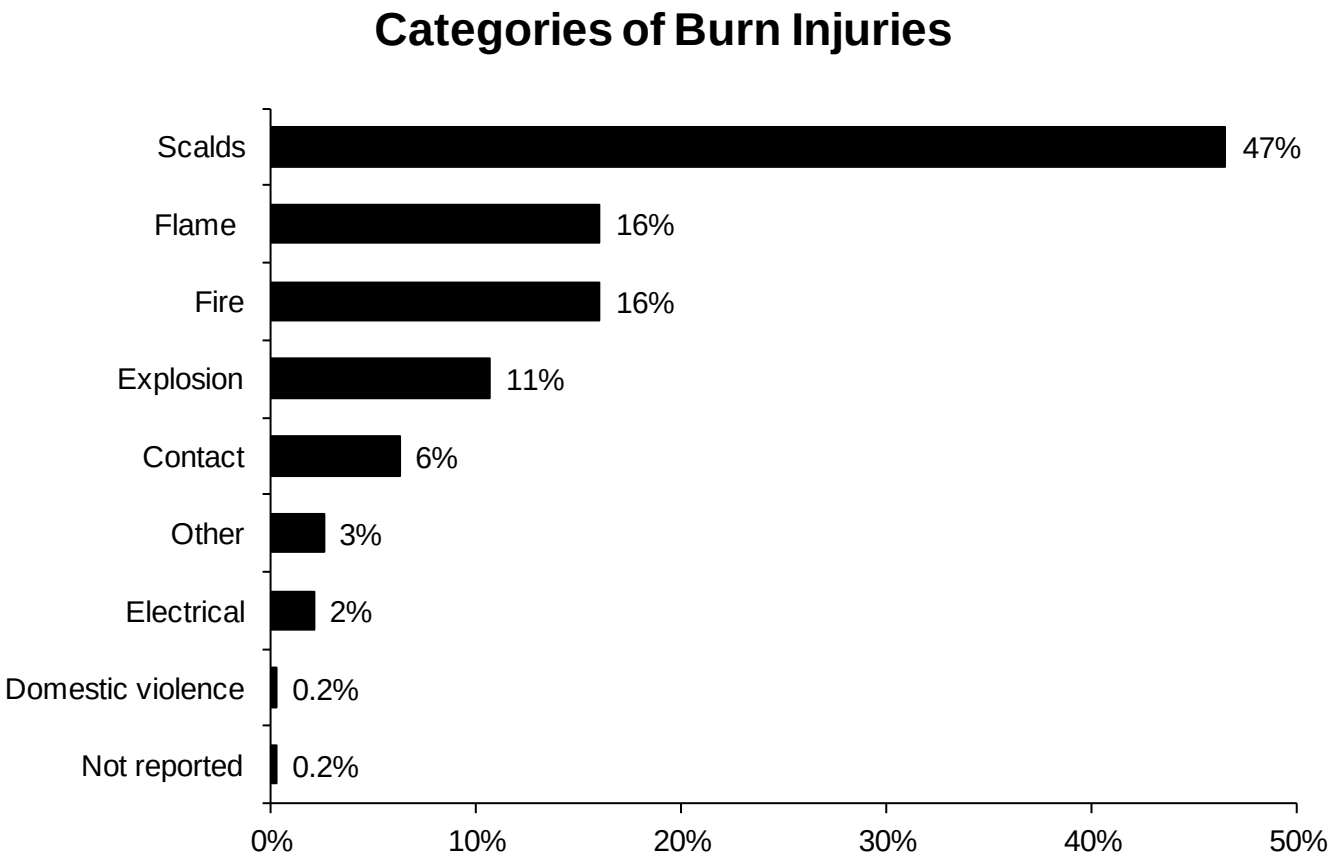
Cooking Fire Safety Campaign
The Department of Fire Services developed a public awareness campaign focused on cooking fire safety as it is the leading cause of home fires and injuries. The Cooking Fire Safety Campaign has two key messages: *Stand by Your Pan* and *Put a Lid On It*.

Flame Burn Injuries Cause the 2nd Most Burn Injuries
Flame burn injuries were the second highest cause of burn injuries in 2013 accounting for 16% of the burn injuries. Cooking related flame burn injuries caused 32% of flame burns in 2013. Burns from fires also caused 16% of the 2013 burn injuries. Camp or bon fires caused 64% of these burn injuries.

Almost 2/3 of Burns Occurred in the Victim's Home
Of the 432 burn injuries reported to M-BIRS in 2013, 284, or 66%, occurred in the victim's home or surrounding yard. Over half, or 57% of these burn injuries were scalds. Eight (8), or 3% of the home-related burn injuries resulted in the victim succumbing to his or her injuries.

Causes of Burn Injuries

In this report, we look at burn injuries in two different ways. In the first section, we look at the type of incident that caused the burn. Was the burn caused by a fire, a flame[1], a scald or something else? In the second section we look at burns by age, gender, work-related burns, burns in the home, burns reported by individual hospitals, and burn injuries by month.



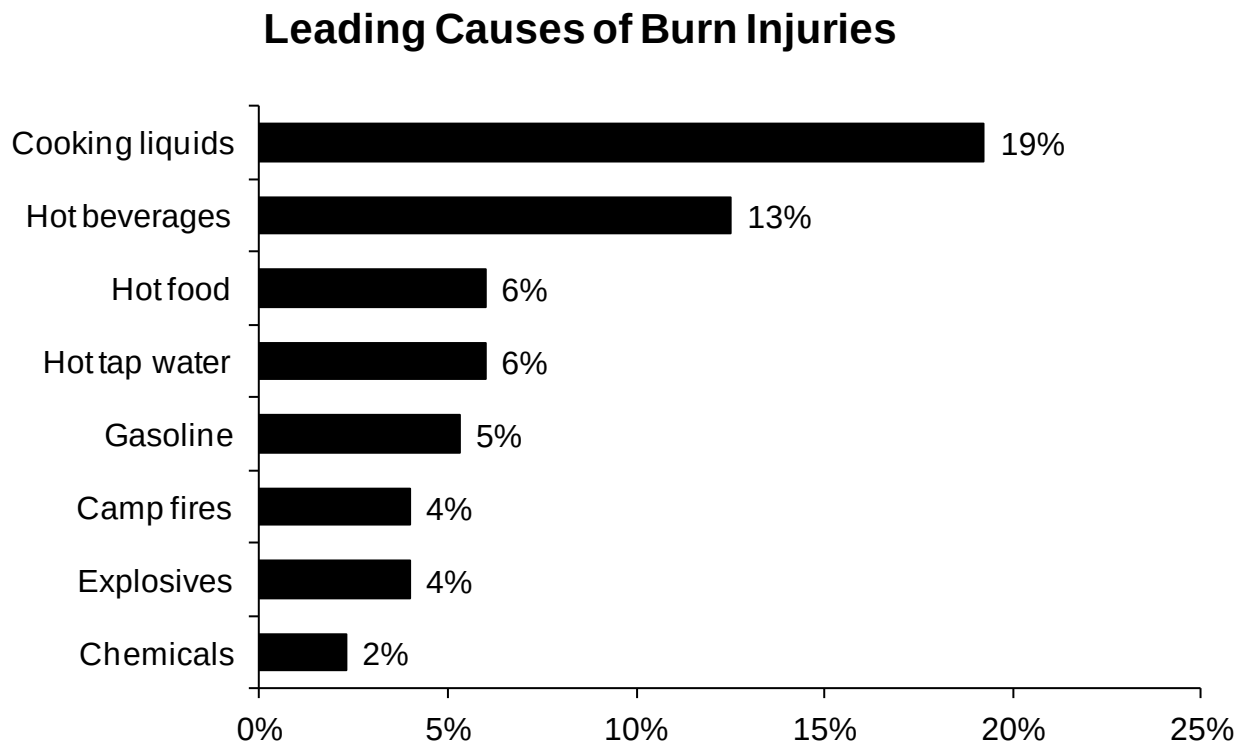
Almost 1/2 of All Burn Victims Never Come Near a Flame

Scalds from cooking liquids and grease, hot liquids, tap water, food and steam caused 47% of the 432 burn injuries reported in 2013. Flames from burning clothing, bedding or similar objects caused 16% of the burns. Another 16% were caused by fires. Explosions caused 11% of these burns; 6% were caused by contact with hot objects; while electrical incidents such as electrocutions caused 2% of the burns. Three percent (3%) of the reported burns in 2013 had other causes, such as chemical burns or sunburns; and less than 1% of the burns were caused by an incidence of domestic violence. The burn type was not reported for less than 1% of these injures.

[1] A burn is said to result from a flame when the fire is confined to the victim or the victim's clothing. When a wider area burns, the injury is considered to result from fire.

Type of Incidents Causing Burn Injuries

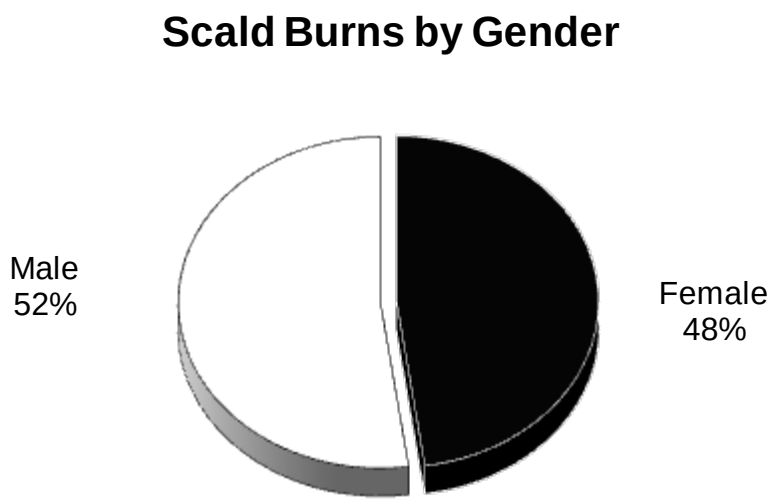
Look at Specific Causes and Equipment to Develop Prevention Strategies
To develop effective burn prevention policies and programs, we must first look at the specific items or behaviors that caused the burns. Nineteen percent (19%) of the 432 burn injuries reported in 2013 were scalds from cooking liquids. Thirteen percent (13%) of the burns were caused by hot beverages. Hot food and hot tap water each caused 6% of the burn injuries in 2013. Gasoline caused 5% of total burns. Camp fires and explosives each caused 4%; and chemicals were involved in 2% of the total burn injuries in Massachusetts in 2013. For more information, please refer to the table *Specific Causes of Burn Injuries* in the Appendix.



Burn Injuries Caused by Scalds

Scalds Have Been the Leading Cause of Burn Injuries Every Year
Scalds have been the leading cause of burn injuries every year since the inception of M-BIRS. The percentage of total burns has ranged from a high of 47% this year[2] to a low of 35% in 2005. The 10-year average from 2004 through 2013 is 41% of total annual reported burns.

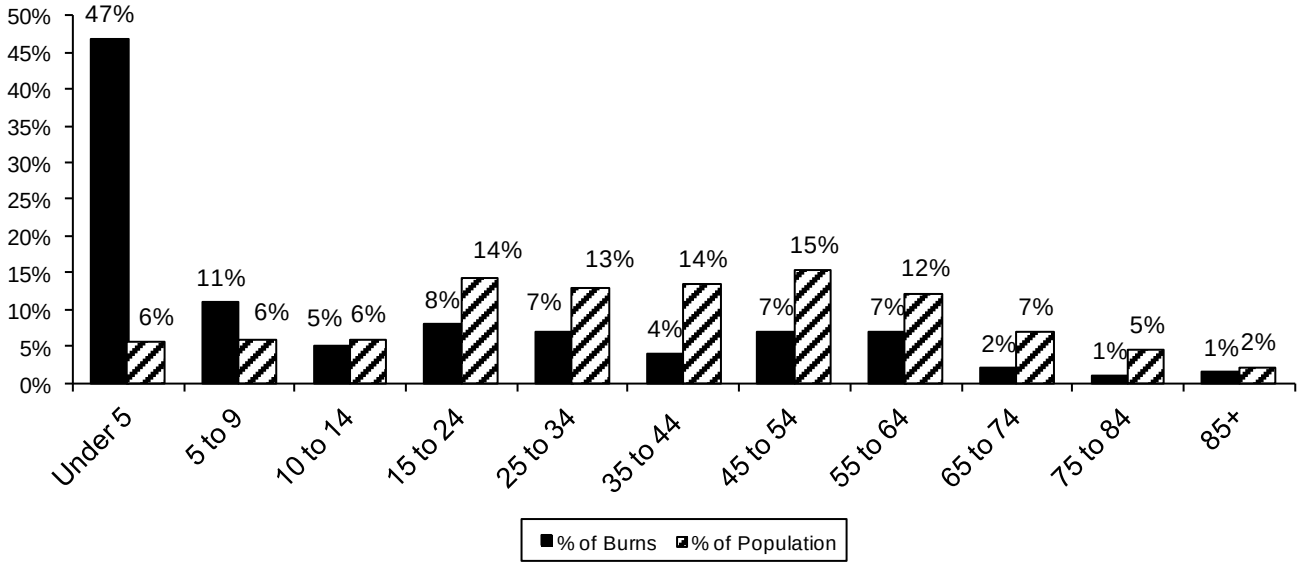
Scalds Caused 46% of All Burns
Two hundred and one (201), or 47%, of the 432 reported burns were scalds. Twelve (12), or 6%, of the 201 scalds occurred while the victim was working. One hundred and five (105), or 52%, of the 201 scald victims were male and 96, or 48%, were female.



Children Under 5 Years Old Were Most at Risk for Scald Burns
Young children were the most frequent victims of scald burns. According to the 2010 U.S. Census, children under the age of five comprised 6% of the Massachusetts population. However that same age group accounted for almost half, or 47% of all scald burns in 2013. Seventy-three (73), or 36%, were infants one year old or younger. Children aged five to nine accounted for 11% of scald burn injuries, while children aged 10 to 14 accounted for 5% of these injuries.

[2] In 1998 scalds were also responsible for 47% of all reported burn injuries.

Scalds by Age Group



Pre-schoolers 8.3 Times More Likely to Suffer Scald Burns

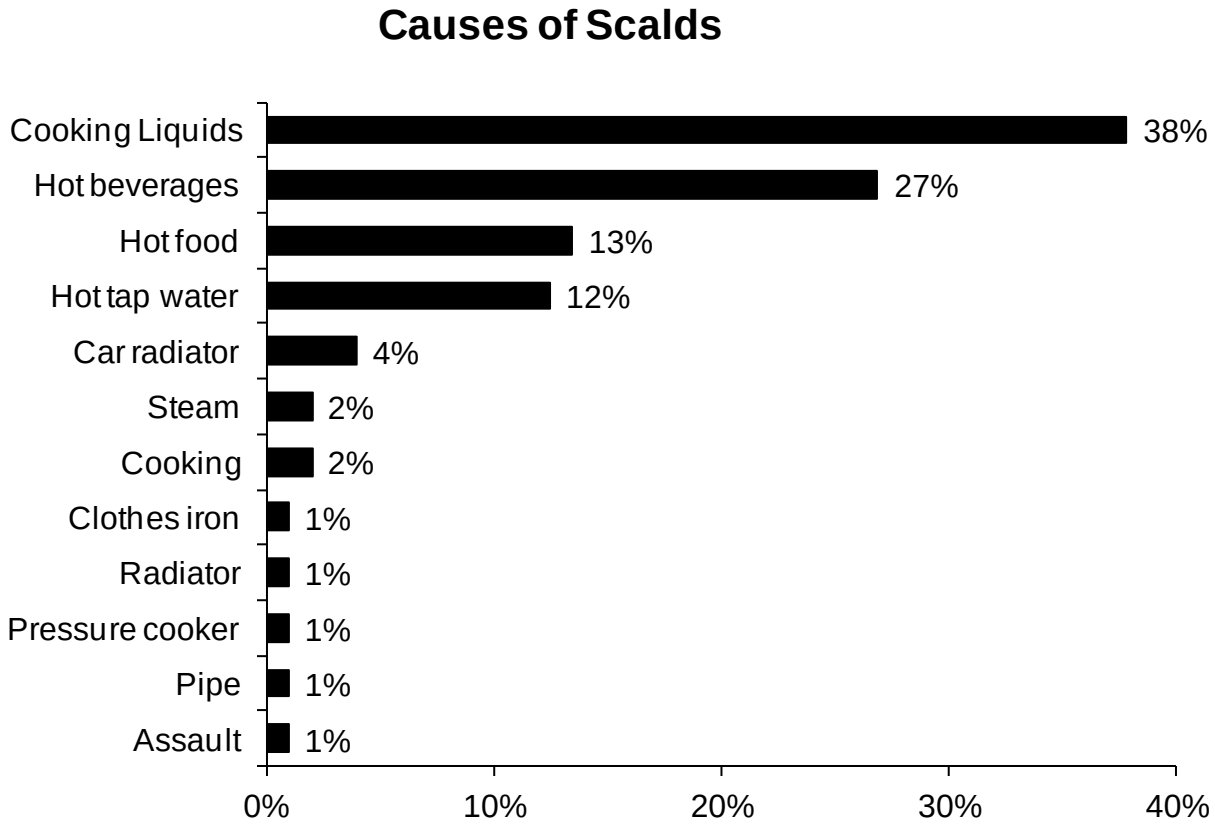
Many adults also suffered burns from scalds. Eight percent (8%) of scald burn victims were between 15 and 24 years old; 7% were between 25 and 34; 4% were between 35 and 44 years of age; 7% were between 45 and 54; 7% were between 55 and 64; 2% were between 65 and 74; 1% were between 75 and 84; and 1% were victims over the age of 84. A three-month old boy was the youngest scald burn victim, while the oldest victim was a 92-year old man. When the black shaded bar of the graph representing the percent of scald burns is higher than the black and white shaded bar representing percent of population, higher than expected risk at this type of injury exists. Only pre-schoolers were scalded at a disproportionate rate; they were 8.3 times more likely to suffer a scald burn and children five to nine were almost twice as likely to suffer from a scald burn.

Cooking Liquids Caused 38% of All Scald Burns

Cooking liquids were the leading cause of scald burns, accounting for 38% of all scald burns in 2013. Scald burns from hot beverages were the second leading cause of scald burns, causing 27% of the 201 scald burns. Thirteen percent (13%) were caused by hot food. Twelve percent (12%) were caused by hot tap water. Scald burns from car radiators caused 4% and steam and unspecified cooking activities each caused 2% of scald burns. A clothes iron, a heating radiator, pressure cookers, a pipe and an assault each caused 1% of these scald burn injuries in 2013.

From the beginning of M-BIRS in 1984, hot beverages were the leading cause of scalds. However, this was not the case in 1999 or from 2005 through 2008[3]. Since 2010 cooking liquids has been the leading cause of scalds.

[3]In 1999, and from 2005 – 2008 and 2010 - 2013, cooking liquids were the leading cause of scald burns. From 1984 – 1998, 2000 – 2004 and in 2009, hot beverage scalds were the leading cause.



10-Year Old Boy Scalded by Cooking Liquids
On September 17, 2013, a 10-year old boy received scald burns to his arm, face and torso when he was scalded by boiling water falling on him.

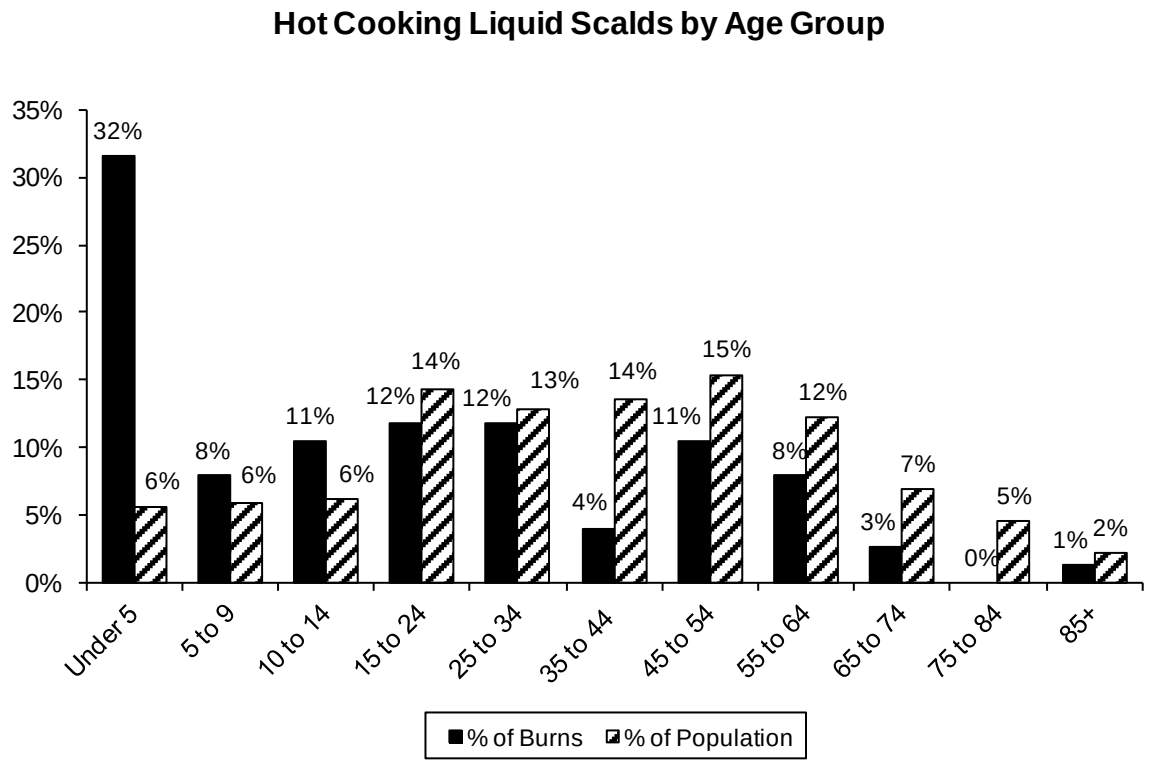
39-Year Old Man Receives Scald from Car Radiator
On May 18, 2013, a 39-year old man received scald burns to 25% of his body surface area when he opened his car radiator and anti-freeze exploded on him.

Hot Cooking Liquids

Hot Cooking Liquids Caused 38% of Scalds, 18% of All Burns
Scald burns from hot cooking liquids were the leading cause of all burn injuries. Hot cooking liquids which includes boiling water, grease and oil, caused 73, or 38%, of the 201 scald burns and 18% of the 432 total burn injuries reported in 2013. Sixty-one percent (61%) of the victims were female and 39% were male. Hot cooking liquids scalded six people while they were at work, of which four victims were women and two were men.

32% of Cooking Liquid Scald Victims Were Under 5

Those most likely to be under foot in the kitchen were most at risk to be burned by hot liquids on the stovetop. In 2013, 32% of the cooking liquid scald victims were under five years old. They were just over five and a half times more likely to be victims of a hot cooking liquid scald. This risk is most likely attributed to children getting in the way of adults as they prepare meals. Establishing a "No Zone" in the kitchen and putting toddlers safely in high chairs or playpens during meal preparation can reduce these injuries.



Eight percent (8%) were children between the ages of five and nine. Eleven percent (11%) of the victims were within the age group between 10 and 14; members of the age group between 15 and 24 accounted for 12%, this is most likely due to young adults working for the first time especially in fast food restaurants and also cooking for themselves for the first time. Another 12% were between 25 and 34. Four percent (4%) were between 35 and 44; 11% were between 45 and 54; 8% were between 55 and 64; 3% were between 65 and 74; and 1% were over the age of 85. No one between the ages of 75 and 84 was reported to have received a scald burn injury from hot cooking liquids. The youngest hot cooking liquid scald burn victim was a nine-month old boy, while the oldest person to have one of these burns was a 92-year old man.

1-Year Old Scalded by Cooking Liquids

On August 14, 2013, a one-year old girl was splashed with boiling hot water when she pulled the pot down on herself. She received severe scald burns to her neck, arms and torso.

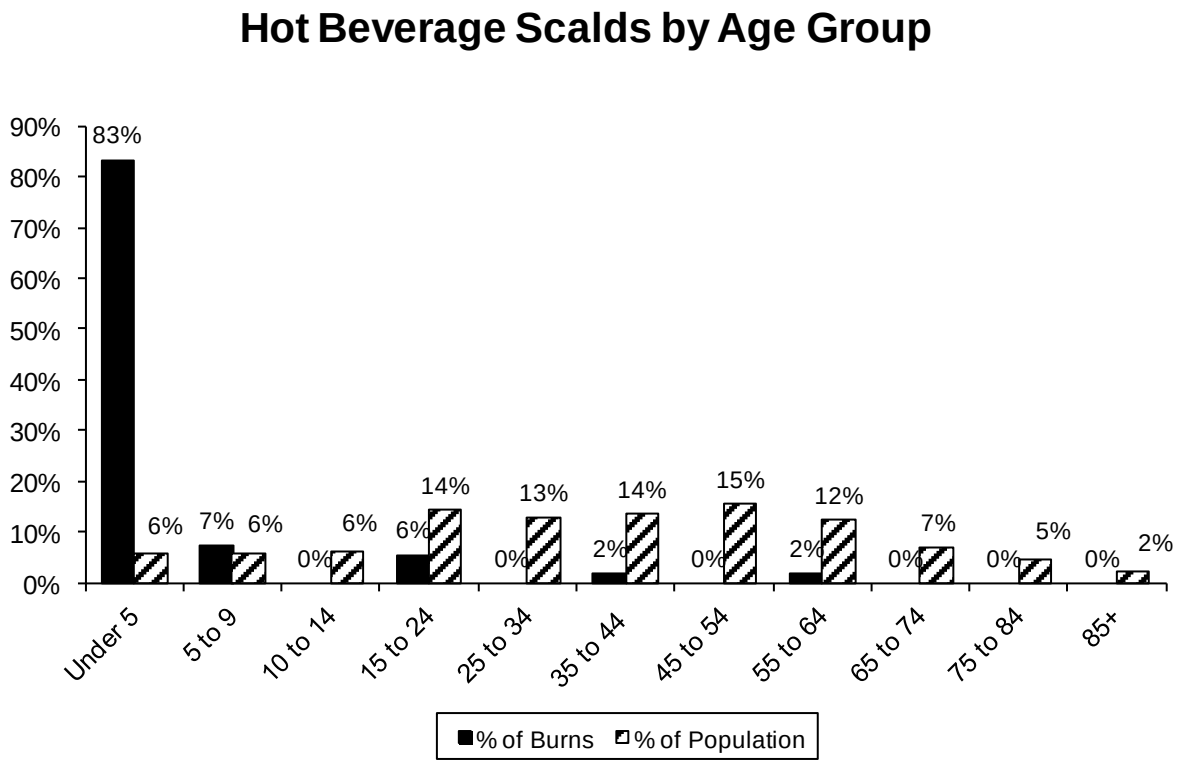
14-Year Old Girl Scalded by Cooking Liquids at Home
On December 7, 2013, a 14-year old girl was scalded by hot cooking oil. When someone added water to the boiling oil and it splashed outside of the pot. She received severe burns to approximately 20% of her body surface area.

Hot Beverages

Hot Beverages Caused 27% of All Scalds
Fifty-four (54), or 27%, of the 201 scald burns were caused by hot beverages. They accounted for 13% of the 432 total burn injuries. Since the inception of M-BIRS in 1984, hot beverages have historically been the leading cause of scald burns except for 1999 and 2005 to 2008. Since 2010 they have been the second leading cause of scald burns.

Fifty-six percent (56%) of the 54 hot beverage scald victims were male and 44% were female. In 2013, two people were reported to have received a hot beverage scald while working, one man and one woman.

83% of the Hot Beverage Scald Victims Were Under 5
Eighty-three percent (83%) of the 54 hot beverage scald victims were less than five years of age. Children under five years old were 15 times more likely to be scalded by a hot beverage. Thirty-six (36), or 67% of the victims who were scalded were one-year old or younger. Another



five, or 9%, were two-year old toddlers. Last year, 58% of the victims of hot beverage scalds were also less than five years old.

Seven percent (7%) of the hot beverage scald victims were between five and nine years old; there were no reported hot beverage scald burns to anyone between the ages of 10 and 14; 6% were between the ages of 15 and 24; no one between 25 and 34 was reported to receive a scald from a hot beverage; 2% were between 35 and 44; there were no reported hot beverage scald burns to anyone between the ages of 45 to 54; and 2% of these victims were between 55 and 64 years old. No one over the age of 59 was reported to have received a scald burn from a hot beverage in 2013. A nine-month old girl was the youngest person to be scalded by a hot beverage in 2013, while the oldest person was a 59-year old man.

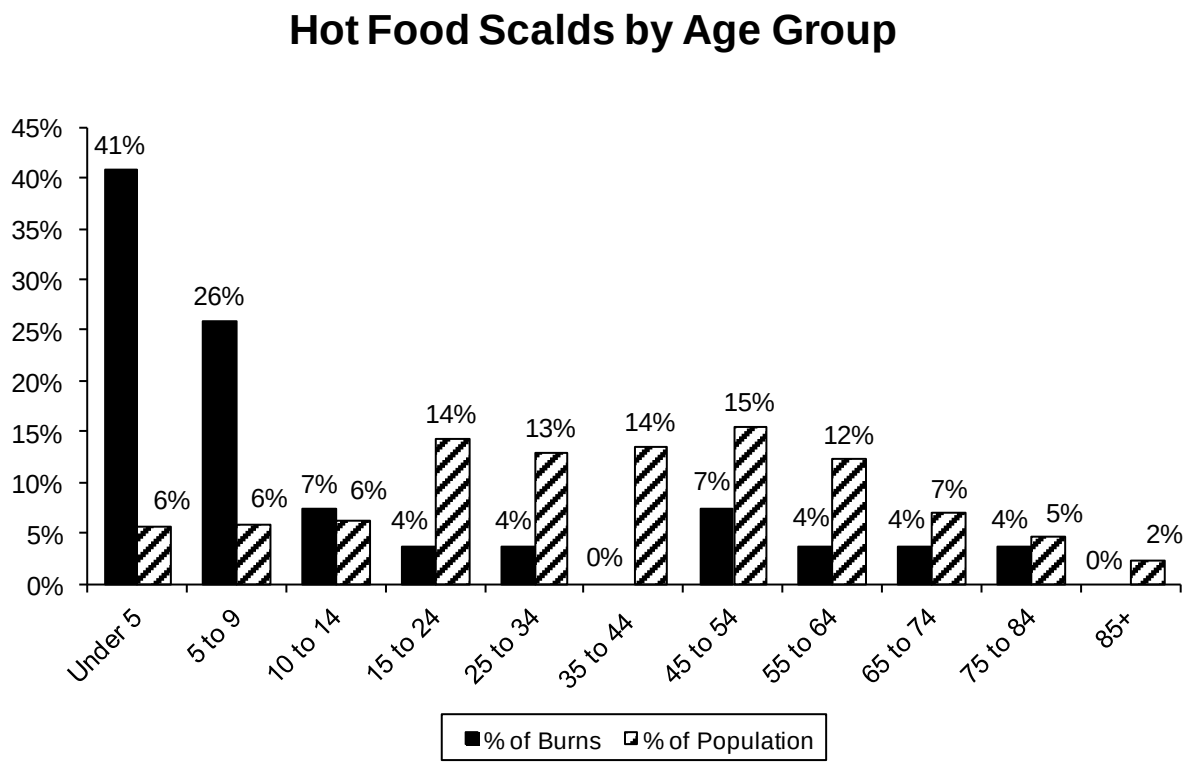
1-Year Old Scalded by Beverage
On January 2, 2013, a 1-year old girl was splashed with hot tea. She received severe scald burns to 20% of her body surface area.

7-Year Old Scalded by Beverage
On July 18, 2013, a 7-year old boy was getting a slushy at a Cumberland Farms when someone spilled hot coffee on him. He received severe scald burns to his chest and abdomen.

Hot Food

Hot Food Caused 13% of Scalds, 6% of All Burns
Hot food caused 27, or 13%, of the 201 scald burns and 6% of the 432 total burn injuries reported in 2013. Fifty-nine percent (59%) of the victims were female and 41% were male. There was one work-related hot food scald reported in 2013, and it happened to a man.

2/3 of Hot Food Scald Victims Were Under 10
Of the 27 reported scald victims from hot food in 2013, 18, or 67%, were under the age of ten. Eleven (11), or 41%, were under five years old; seven victims, or 26%, were between five and nine; two victims, or 7%, were between the age of 10 and 14; one victim, or 4%, was between 15 and 24; one victim, or 4%, were between 25 and 34. No one between 35 and 44 years old was reported to have received a scald burn from hot food. Two (2) victims, or 7%, were between the ages of 45 to 54 years old; one victim, or 4%, was between 55 and 64 years old; another victim, or 4%, was between 65 and 74; and the last victim, or 4%, was between 75 and 84 years old. No one over the age of 73 was reported to have received a scald burn injury from hot food in 2013. The youngest hot food scald burn victim was a one-year old boy, while the oldest person to have one of these burns was a 79-year old woman.



79-Year Old Woman Receives Scald Burns from Food
On November 20, 2013, a 79-year old Ludlow woman received scald burns to30% of her body surface area when a pot of hot soup she was cooking on the stove accidentally spilled on her.

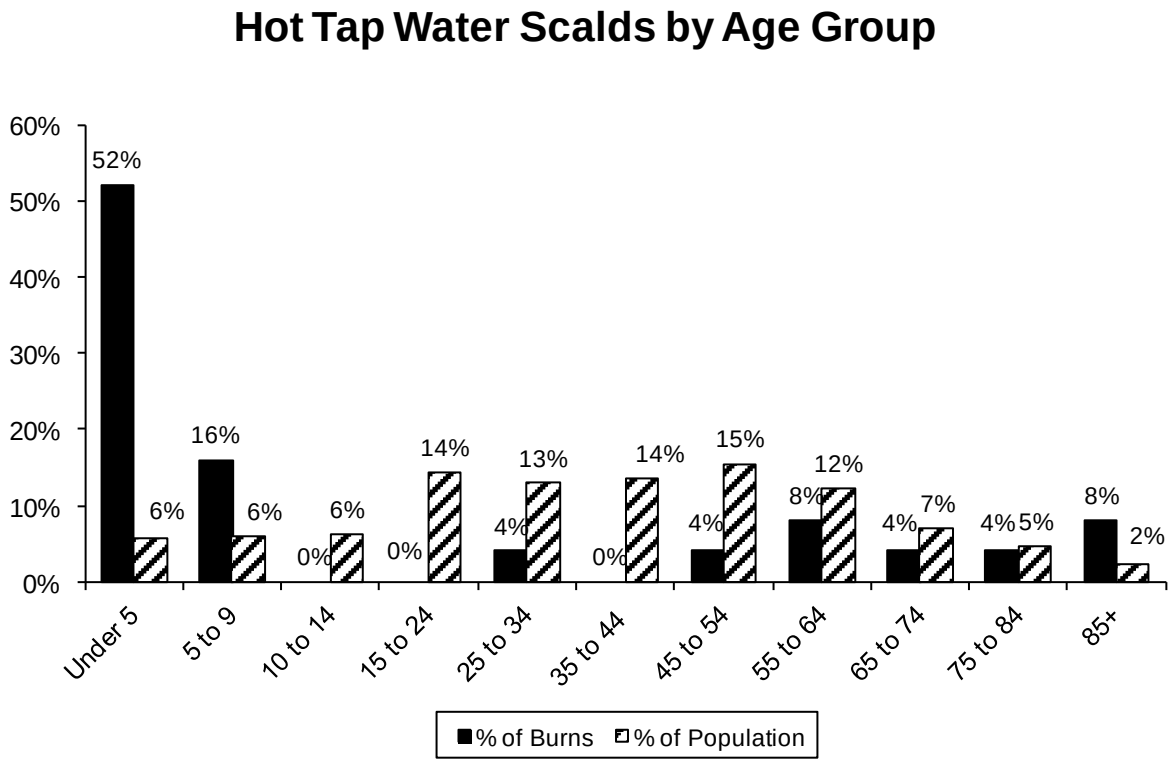
Hot Tap Water

Hot Tap Water Caused 12% of All Scalds & 6% of All Burns
Excessively hot tap water caused 25, or 12%, of the 201 scald burns and 6% of the 432 total burn injuries reported to M-BIRS in 2013. Hot water heaters should be set to temperatures of 125º Fahrenheit or less. Massachusetts law states that the temperature must be set between 110º and 130º F and most dishwashers have coils to boost their internal water temperature. It is important for homeowners to make sure their own water heaters are set in the appropriate range. At 155º F it takes only one second to sustain a third degree burn. At 130º F it takes thirty seconds. At 120º F it can take a full five minutes to sustain a third degree burn.[4] Adults may prepare a safe bath, but a child may turn on the hot water if left alone for a moment or two. Experts recommend placing a child in the tub facing away from the faucet.

In 2013, 53% of the victims were male while the other 47% were female. None of the 25 victims were scalded during work-related activities.

[4] Source: Knapp Burn Foundation

Over 1/2 of Tap Water Scald Victims Were Under the Age of 5
Fifty-two percent (52%), or 13 of the 25 hot tap water scald victims were less than five years old. Some were very young infants placed in water that was too hot for their sensitive skin. Other children were interested in exploring their environment and turned on faucets. In 2012, 10, or 67%, of the hot tap water scald burn victims were under the age of five.



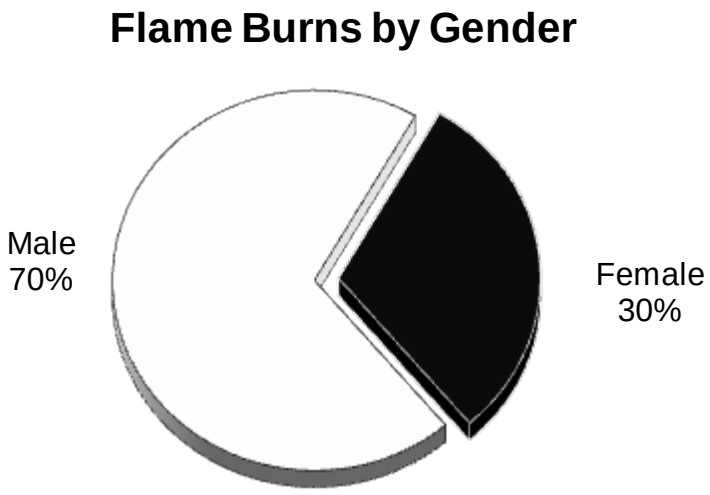
Sixteen percent (16%) were between five and nine years of age; there were no reported burns between 10 and 24 years of age; 4% were between the ages of 25 and 34; no one between the ages of 35 and 44% were reported to have had a hot tap water scald. Four percent (4%) were between 45 and 54; 8% were between 55 and 64; 4% were between 65 and 74; another 4% were between 75 and 84 and 8% were over the age of 85. The youngest hot tap water scald burn victim was a three-month old boy, while the oldest person to have one of these burns was a 92-year old woman.

27-Year Old Scalded While Taking a Bath
On April 22, 2013, a 27-year old handicapped man was scalded while taking a bath. His caretaker did not monitor the temperature of the bath. He received severe scald burns to30% of his body surface area.

Flame Burn Injuries

Flames Caused 16% of Reported Burn Injuries
There were 69 reported flame burn injuries. These 69 injuries accounted for 16% of the 432 burn injuries reported in 2013. A burn is said to result from flame when the fire is confined to the victim or the victim's clothing. When a wider area burns, the cause of the injury is considered a fire. Burns caused by self-immolation, smoking in bed or burning clothing usually result from flames.

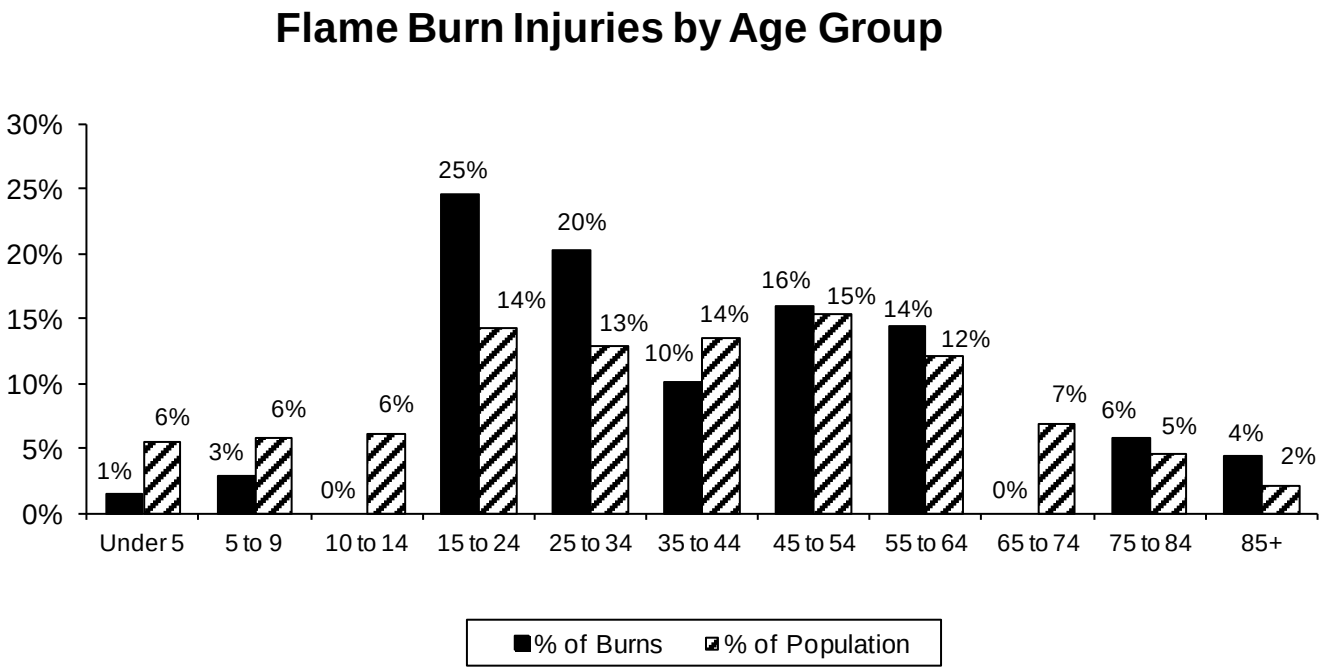
Seventy percent (70%) of the flame burn casualties were male and 30% were female. Eight (8), or 12%, of the 69 flame burns occurred during work-related activities; all eight were men.



Adults 15 to 34 Faced Higher Risk of Flame Burns
Five (5) groups were at a higher risk for burns from flames. Young adults between 15 and 24 were 1.4 times more likely to be burned, adults between the ages of 25 to 34 were 1.6 times more likely; people between 45 and 54 were 1.2 times more likely to receive a flame burn injury; people between 55 and 64 were 1.2 times more likely; older adults between the ages of 75 to 84 were 1.3 time more likely; and older adults over the age of 85 were twice as likely to receive a flame burn injury.

There was one reported flame burn injury to a child under the age of five, accounting for 1% of these burns. Three percent (3%) were between the ages of five and nine; no one between 10 and 14 was reported to have received a flame burn; 25% were victims aged 15 to 24; 20% were between 25 and 34; 10% were between 35 and 44; 16% were between 45 and 54; 14% were between 55 and 64; there were no reported flame burn injuries to people between the ages of 65

and 74; 6% were between 75 and 84; and 4% were over the age of 85.. The youngest person to receive a flame burn injury was a three-year old girl, while the oldest was an 89-year old woman.



Cooking Was the Leading Cause of Flame Burns
Cooking was the leading cause of flame burn injuries in 2013. Twenty-two (22), or 32% of all flame burn victims received their injuries while cooking. Seven (7), or 10%, received their flame burn injuries from ignitions of hot cooking liquids, generally grease or oil. Five (5), or 7 %, were burned while barbequing on grill; three involved gas grills. Six percent (6%), or four of the victims, were burned by a stove. Clothing ignitions while cooking and unspecified cooking acts were each involved in two, or 3% of the cooking-related flame burns. Hot food and an oven were each involved in one, or 1% of flame burn injuries.

Ignitable Liquids Were the 2nd Leading Cause of Flame Burn Injuries
In 2013, ignitable liquids caused 11, or 16%, of flame burn injuries. Gasoline caused seven, or 10%; and ignitable liquids other than gasoline caused four, or 6% of the flame burns.

Smoking Also Caused of 16% of Flame Burn Injuries
Smoking accounted for 11, or 16% of all flame burn injuries in 2013. Seven (7) flame burns, or 10%, were from smoking while on oxygen. Clothing ignition from smoking and unspecified smoking acts each caused two, or 3% of flame burn injuries.

Candles Caused 6% of Flame Burns
Candles were responsible for four, or 6% of flame burns in 2013. Two (2), or 3% of these four burns involved clothing ignitions.

Welding & Cutting Torches Caused 4% of Flame Burns
Welding and cutting torches were responsible for four, or 6% of flame burns in 2013. Three (3), or 4% involved welding; and one, or 1% involved a cutting torch.

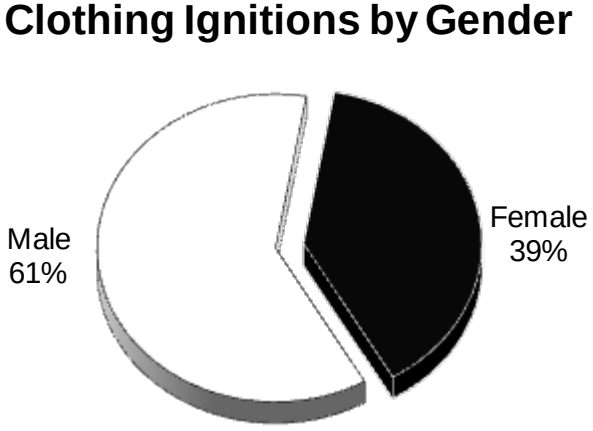
Multiple Triple & Double Causes
Unspecified clothing ignitions and self-immolation each caused three, or 4% of flame burn injuries. Alcohol, assaults, chemicals, fireworks and woodstoves each caused two, or 3% of these burns. Propane caused one, or 1% of flame burns in 2013.

62-Year Old Woman Burned While Smoking on O_2
On March 7, 2013, a 62-year old Boston woman was smoking a cigarette while on home oxygen. The fire ignited her and caused severe burns to approximately 20% of her body surface area.

58-Year Old Man Killed in Successful Suicide Attempt
On July 25, 2013, a 58-year old Boston man set himself on fire outside his home. The resultant burns covered approximately 80% of his body surface area. He later succumbed to his injuries.

Clothing Ignitions

Clothing Ignitions Account for Only 26% of Flame Burn Injuries
There were 18 clothing ignitions resulting in flame burn injuries, which accounted for 26% of all flame burn injuries. Clothing was the primary cause of the injury in eight of these injuries. Because of more detailed descriptions as to how burn injuries occurred, it was determined that clothes were also involved in four additional injuries that were coded with a different primary description. There were five reported clothing ignitions while cooking in 2013 accounting for 7%. Smoking was involved in three clothing ignitions, accounting for 4%. Another three injuries, or 4%, were unspecified clothing ignitions. Two (2) victims, or 3% of flame burn clothing ignitions involved candles. Another two victims' clothing ignitions involved ignitable liquids, accounting for 3% of all flame burn ignitions. Fireworks, a woodstove and welding each caused one clothing ignition, accounting for 1% of all 2013 flame burn injuries.



61% of Clothing Flame Burn Injuries Were Men
Eleven (11), or 61%, of clothing ignition victims were men and seven, or 39%, were women.

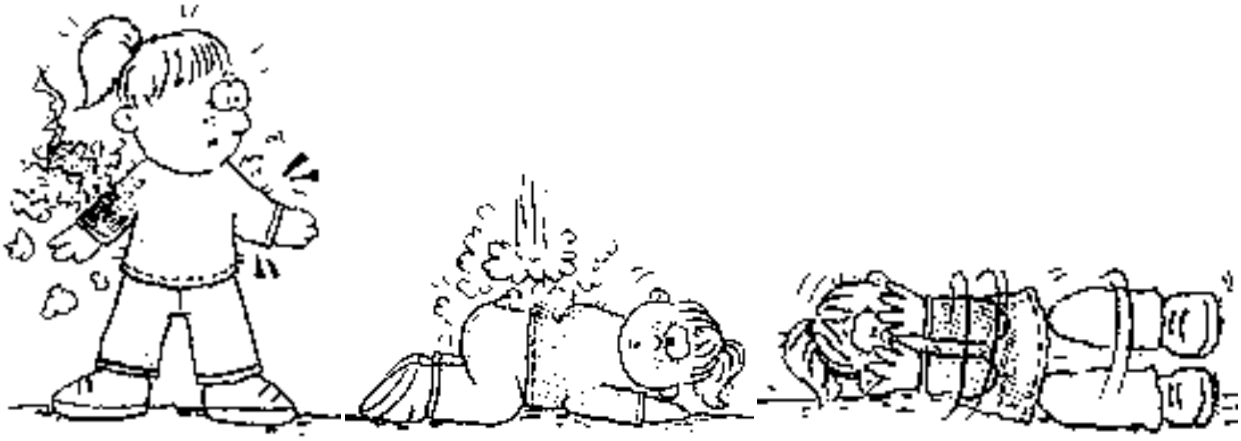
Flame Burns Due to Clothing Ignitions Rise in 2013
There were 18 flame burn injuries due to clothing ignitions reported in 2013. In 2012 there were eight flame burn injuries from clothing ignitions, this is a 125% increase in these kinds of burns from last year. No one under the age of five received a flame burn due to a clothing ignition. One (1) child between the ages of five and nine received this type of burn. Eight (8) victims were in the age group 15 to 24. Three (3) people between the ages of 25 and 34 received clothing flame burn injuries. Four (4) victims of flame burn injuries due to clothing ignitions were between 45 and 54 years old; and two victims were over the age of 85. The youngest person to receive a flame burn injury from a clothing ignition was a three-year old girl whose clothing was ignited by ignitable liquids. The oldest victim of a clothing ignition flame burn injury was an 89-year old woman whose clothes ignited while she was smoking.

18-Year Old Woman Killed Lighting a Candle
On February 22, 2013, an 18-year old Boston woman was burned when her pajamas ignited when she was lighting a candle. She received burns to approximately 55% of her body surface area. She succumbed to her injuries a month later.

86-Year Old Man Burned While Cooking
On August 23, 2013, an 86-year old Gardner man was cooking his breakfast when his bathrobe ignited, giving him severe burns to approximately 35% of his body surface area.

ALWAYS REMEMBER TO:

STOP DROP & ROLL



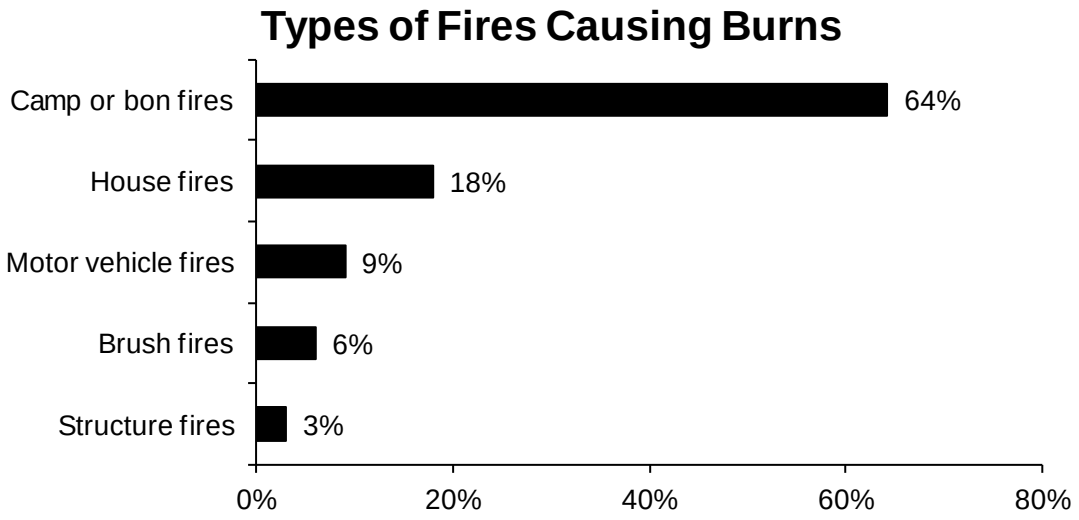
Burn Injuries Caused by Fires

Fires Caused 16% of All Burn Injuries
Sixty-seven (67), or 16% of the 432 burn injuries reported in 2013 were caused by fires. This is a 5% increase from the 64 fire burns reported the previous year. The highest number of burn injuries from a fire were the 96 burn injuries in 2003, excluding the 26 burn victims from the Station nightclub fire who were treated in Massachusetts.

Seventy-three percent (73%), of the 67 victims were male and 27% were female. Analysis of data from the Massachusetts Fire Incident Reporting System found that the majority of fire injuries occurred while the victim was escaping or attempting to control the fire and that men are more likely than women to attempt to control the fire and become injured[5].

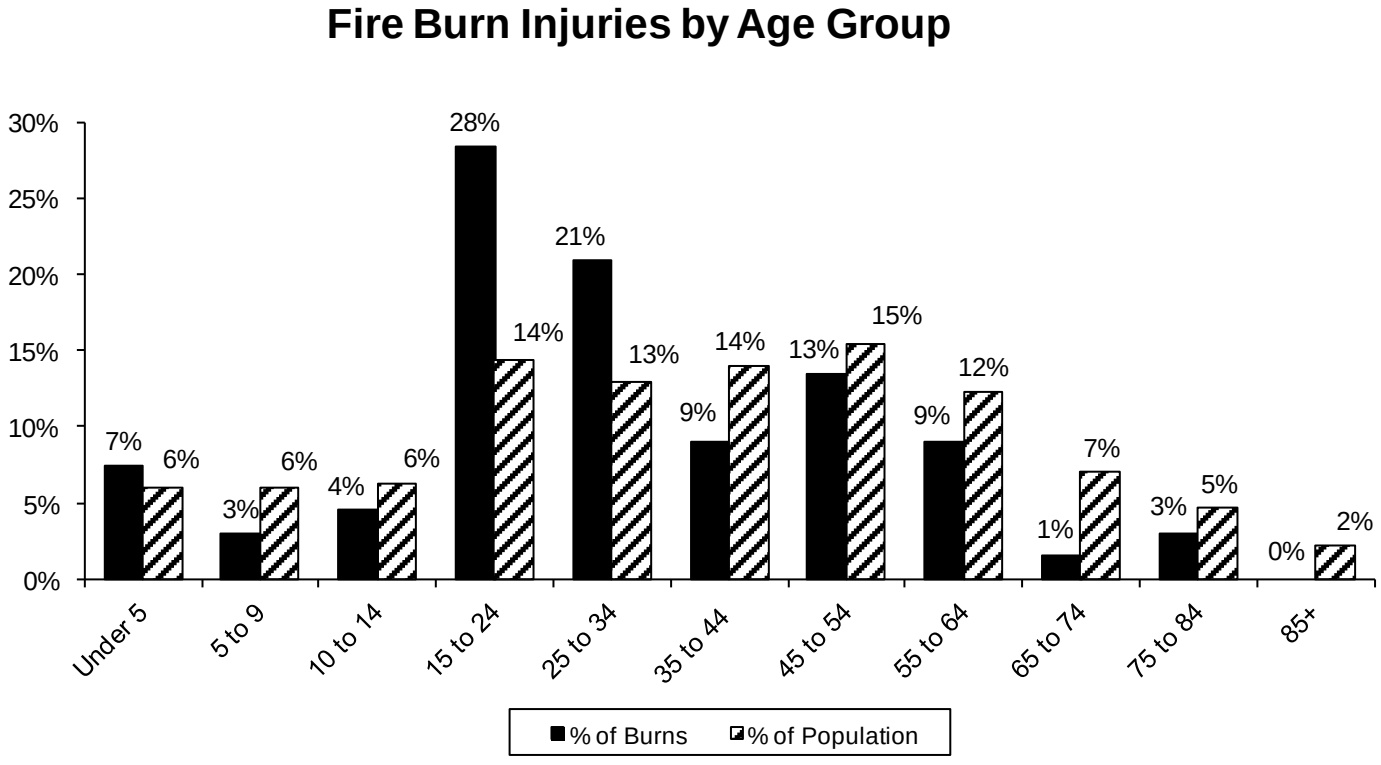
64% of Fire Burn Injuries Occurred at Camp or Bon Fires
Camp or bon fires caused 43, or 64% of the 67 fire burn injuries reported in 2013. House fires caused 12, or 18%. Six (6), or 9%, were due to motor vehicle fires; four, or 6% of the victims received their burns at brush fires; and two, or 3%, were burned at structure fires.

[5] 2012 Annual Report of the Massachusetts Fire Incident Reporting System, MA Dept. of Fire Services, pg. 111.



Young Adults Most Likely to Be Burned in Fires

Five (5), or 7% of the victims burned in fire incidents were under five years old; two, or 3%, were between five and nine years of age; three, or 4%, were between 10 and 14; 19, or 28%, were between 15 and 24; 14, or 21%, were between 25 and 34; six, or 9%, were between 35 and 44; nine, or 13%, were between the ages of 45 and 54; six, or 9%, were between the ages of 55 and 64; one, or 1%, were between the ages of 65 and 74; and two, or 3%, were between the ages of 75 and 84. No one over the age of 80 was reported to receive a burn injury in a fire. Young



adults between the ages of 15 and 24 were two times more likely to be burned in fires. Adults between the ages of 25 and 34 were 1.6 times more likely to be burned in a fire.

The previous chart illustrates the data mentioned in the above paragraph.

Reported Burns Are a Fraction of Injuries from Fires
Only burn injuries that extend to 5% or more of the body surface area and are treated by a medical professional are reported to the *Massachusetts Burn Injury Reporting System*. Consequently, the human cost of fires is under-reported in this analysis. Smoke inhalation, cuts, fractures and less severe burns incurred while fighting or fleeing the fire are not recorded here. Most fire deaths are not recorded in M-BIRS; only the severely burned who survive for a period of time and die later in a hospital are reported. Properly maintained smoke detectors and quick-response residential sprinklers could prevent many of the injuries caused by fires. Detectors sound an early warning to leave the area and quick-response sprinklers can control or possibly extinguish a fire in its earliest stages thus preventing injuries.

Refer to MFIRS Annual Report for More Information about Fires
For more information about the causes of fires and fire-related casualties, please refer to the *Massachusetts Fire Incident Reporting System – Annual Reports*. Using data collected by the Massachusetts Fire Incident Reporting System (MFIRS), these reports examine the causes of fires, fire deaths and fire injuries. Information is provided on fires in different occupancies and on special topics such as children and fire, fires caused by smoking, electrical fires, cooking fires and heating equipment fires.

4 Fire Deaths Recorded in M-BIRS
Four (4) of the victims that were reported to have received their burn injuries from fires died as a result of their injuries. Three (3) of the four victims were Massachusetts residents. Of these victims, two victims died in residential fires, both caused by cooking. One (1) victim died in a brush fire.

39-Year Old Arsonist Injured in House Fire
On August 14, 2013, a 39-year old Springfield woman was injured in a house fire. The victim set the fire herself in an act of arson. She received burns to her arm and face.

58-Year Old Woman Injured in Self-Immolation Attempt
On April 11, 2013, a 58-year old Lenox woman sustained life-threatening burn injuries to her hands and head when she attempted suicide inside her apartment.

26-Year Old Homeless Man Injured in Tent Fire
On September 30, 2013, a 26-year old homeless man received severe burns to 18% of his body surface area when the barbeque he was using to keep warm inside a tent ignited the tent.

25-Year Old Woman Injured in MVC with Ensuing Fire
On June 5, 2013, a 25-year old Sandwich woman was a passenger in a car involved in a motor vehicle crash with ensuing fire in Barnstable. The driver was able to escape and flee the scene,

but she was trapped inside the vehicle and received severe burns to 25% of her body surface area.

24-Year Old Springfield Man Injured in Motorcycle Crash & Fire
On July 30, 2013, a 24-year old Springfield man received life-threatening burns to 64% of his body surface area when his motorcycle collided with a van and caught fire.

47-Year Old Man Killed in Brush Fire
On March 30, 2013, a 47-year old homeless man in Boston received second and third degree burn injuries to his entire body during a brush fire. Firefighters found him while extinguishing the brush fire. He was transported to a local hospital and eventually succumbed to his injuries.

80-Year-Old Man Gets Life-Threatening Burns in Brush Fire
On March 4, 2013, an 80-year old Ashby man was burning brush in his backyard when his pants ignited. He received life-threatening burns to approximately 40% of his body.

29-Year Old Man Injured at Bon Fire
On June 23, 2013, a 29-year old Ayer man received burns to approximately 18% of his body surface area when someone threw an aerosol spray can into the bonfire they were standing around. The spray can exploded spraying him with flaming fluids.

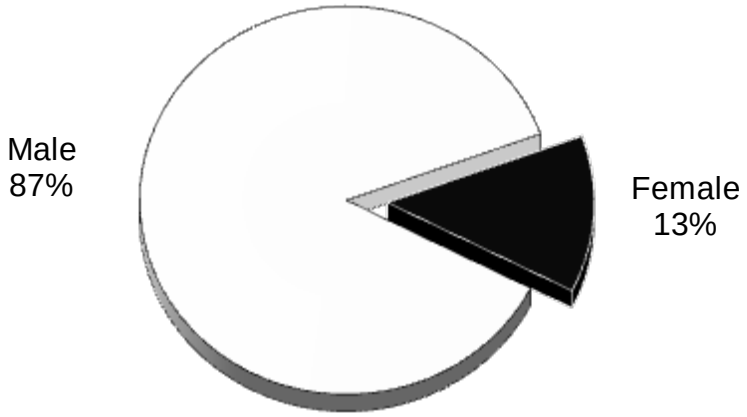
17-Year Old Teenager Burned by Camp Fire
On August 15, 2013, a 17-year old male teenager was standing near a camp fire when someone added an accelerant to the fire. The victim received severe burns to his hands, forearms and abdomen.

28-Year Old Man Burned by Camp Fire
On August 10, 2013, a 28-year old Chicopee man tripped and fell into a camp fire. The victim received burns to his hands, arm and back.

Burn Injuries Caused by Explosions

Explosions Caused 11% of Reported Burn Injuries
Forty-six (46), or 11%, of the 432 burn injuries reported in 2013 were caused by explosions. Eighty-seven percent (87%) of the explosion burn victims were male and 13% were female.

Explosion Burn Injuries by Gender



Eight (8) burns, or 17%, occurred during work-related activities. All eight of these work-related victims were men. One of the explosion burn injuries involved fireworks.

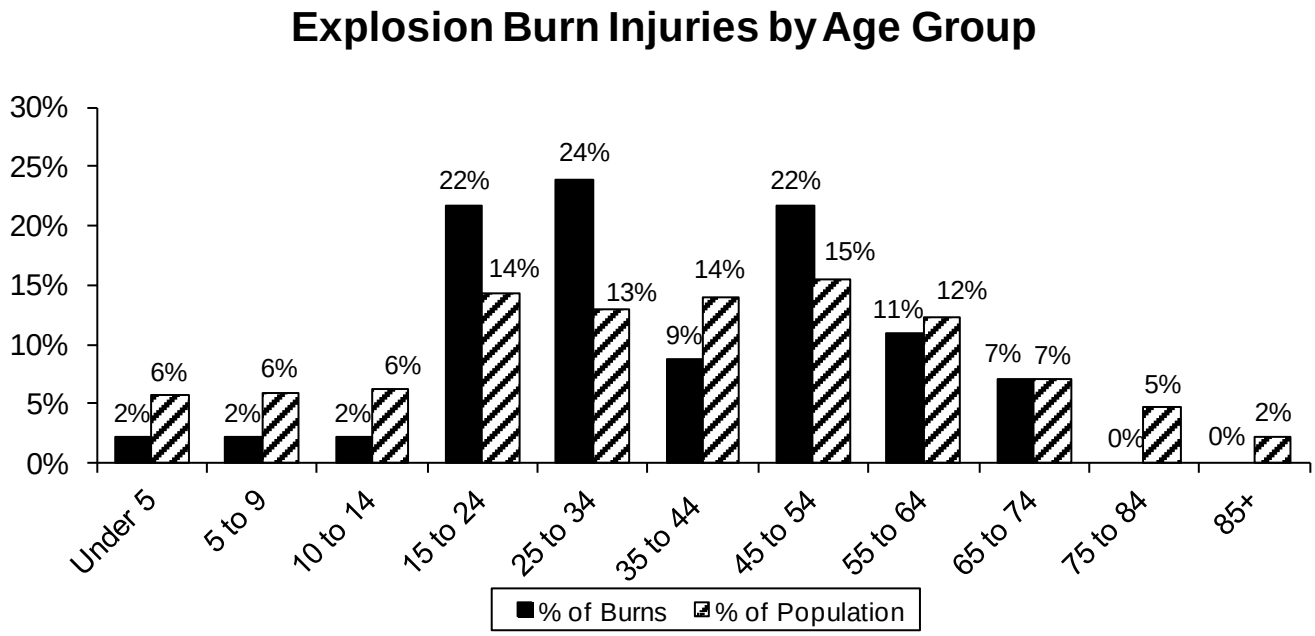
Out of these 46 injuries there were two explosion events with two or more injuries. The first one was the events that occurred at the finish line of the Boston Marathon on April 15, 2013. Sixteen (16) people received burn injuries that met the standard reporting threshold of 5% body surface area. Eight (8) of these burn victims were treated at Massachusetts General Hospital and eight others were treated at Brigham & Women's Hospital. Many victims received shrapnel wounds which required amputations.

The other explosion was an incident at a facility in Manchester, NH that was started by an explosion of ignitable liquids. A 24-year old man and a 31-year old man were injured while they were working. One of these men died from his injuries.

Young Adults & Middle-Aged Adults Face Greatest Risk of Explosion Burns
One (1) child under the age of five, or 2%, was reported to have received a burn injury from an explosion in 2013. One (1) child, or 2%, between the ages of five and nine was burned in an explosion. One (1) child, or 2%, between the ages of 10 and 14 received their burn injuries from explosions. Ten (10) young adults between the ages of 15 and 24 were burned in explosions, accounting for 22% of these burns; adults between the ages of 25 and 34 received 11, or 24%, of the explosion related burns; four, or 9%, were between 35 and 44; 10 or 22%, were between 45 and 54 years of age; five, or 11%, were between 55 and 64 years old. Three (3) people, or 7%, between the ages of 65 and 74 were burned in explosions. No one over the age of 72 received a burn injury due to an explosion. The youngest victim to receive a burn injury from an explosion

in 2013 was a three-year old boy; and the oldest person to receive one of these burns was a 72-year old man.

The following graph illustrates the data in the above paragraph.



Explosives Were the Leading Cause of Explosion Burn Injuries
Explosives caused 18, or 39% of the burn injuries caused by explosions. The two bomb blasts from improvised explosive devices at the Boston Marathon finish line caused 16, or 35% of these burn injuries. Bomb making and fireworks each caused one injury, or 4%.

Ignitable gases accounted for 8, or 17% of the explosion-related burn injuries in 2013. Five (5), or 11%, were from propane; one, or 2%, was from a gas grill; one, or 2% was from an unspecified ingitable gas; and one, or 2%, was from natural gas.

Seven (7), or 14% of the explosion burns involved ignitable liquids. Five (5), or 11%, were from gasoline, and two, or 4%, involved ignitable liquids other than gasoline. Chemicals caused three, or 7%, of the explosion related burn injuries in 2013; and two, or 7% of these burns involved boilers. Cooking activities also caused two, or 4% of these burns; one was from an unspecified cooking activity and the other was from a pressure cooker, each causing 2% of explosion related burn injuries.

A child with a lighter, an unspecified clothing ignition, an electrical event, a lighter, welding and an unknown cause of the explosion each accounted for one, or 2%, of the explosion related burn injuries in 2013.

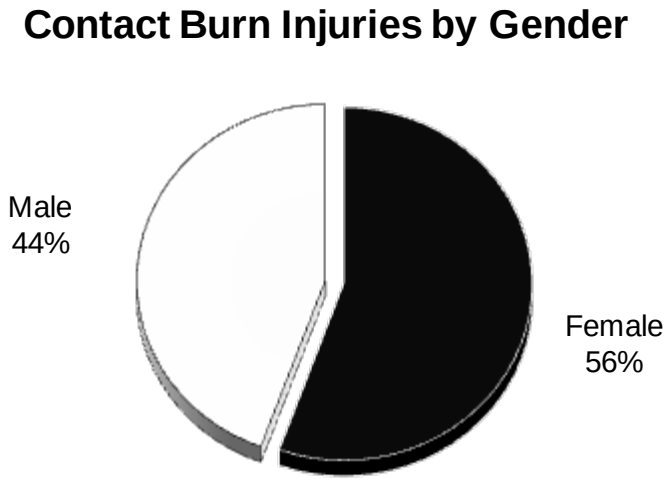
16 People Injured by Bombs at Boston Marathon
On April 15, 2013, 16 people that were near the finish line of the Boston Marathon on Boylston Street received burns that needed to be treated when two improvised explosive devices (IEDs) made from pressure cookers exploded. One of these burn injuries was considered severe, four were moderate and 11 were considered minor. The youngest victim to receive a burn at the Marathon was a 3-year old boy who's face was burned and the oldest was a 65-year old woman who received burns to 6% of her body surface area. Eight (8), or half of these victims were treated at Massachusetts General Hospital and the other half were treated at Brigham & Women's Hospital.

51-Year Old Man Killed in a Chemical Explosion at Work
On October 10, 2013, a 51-year old Peabody man was killed as a result of a chemical explosion while he was working at a North Andover lab. He received burns to approximately 60% of his body surface area and succombed to his injuries.

19-Year Old Man Injured by Fireworks Explosion
On March 18, 2013, a 19-year old Dartmouth man received severe burns to his hand, when the fireworks he was holding with his hands exploded inside his home.

Contact Burn Injuries

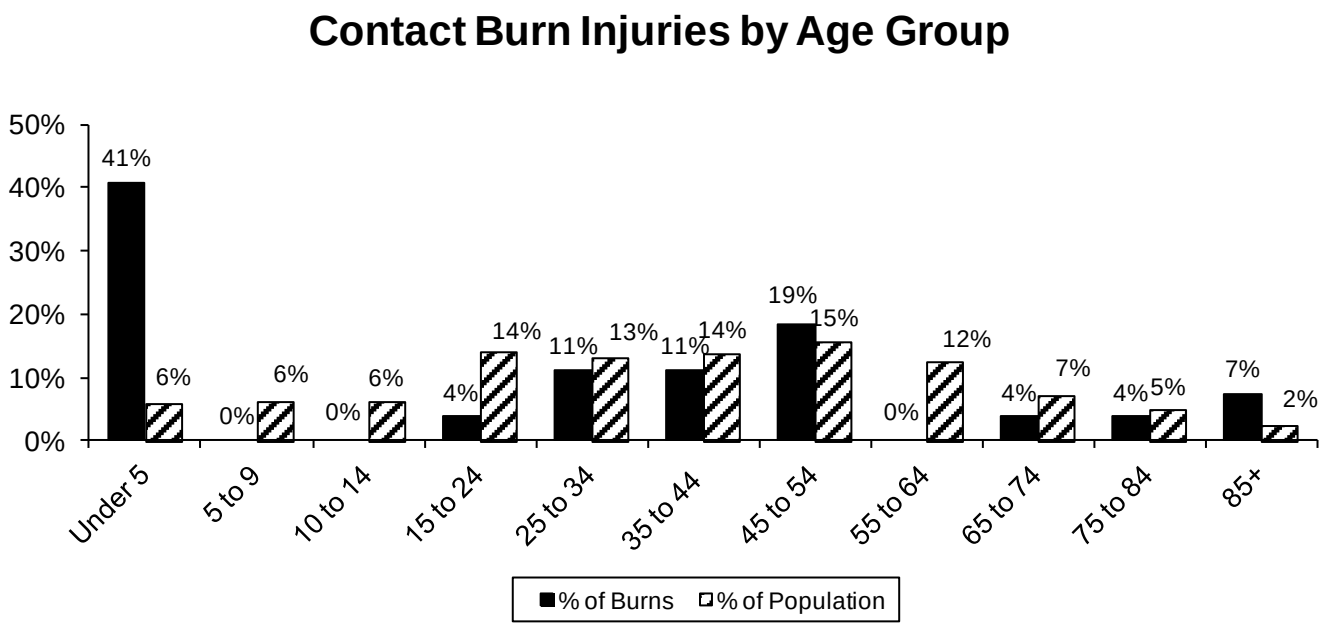
Contact with Hot Objects Caused 6% of Reported Burn Injuries
Twenty-seven (27), or 6%, of the 432 burn injuries reported in 2013 were caused by contact with hot objects. Fifty-six percent (64%) of the burn victims were female and 44% were male. There were four reports of contact burns that occurred at work in 2013, two were men and two victims were women.



41% of Contact Burns Were to Children Under 5
Children under the age of five accounted for 11, or 41%, of all contact burns. Pre-schoolers faced just over eight times the risk of contact burns. This disproportionate risk could be the result of young children exploring their environment and underscores the need for constant supervision of toddlers.

There were no reported burn injuries between the ages of five and nine and 10 to 14; one person, or 4%, was between the ages of 15 and 24; three of the victims, or 11%, were between 25 and 34; and another three injuries, or 11%, occurred to the age group 35 to 44; there were five contact burns to people between the ages of 45 and 54, accounting for 19%; none of the victims were between the ages of 55 and 64; one victim, or 4%, was between the ages of 65 and 74; another victim, or 4%, was between the ages of 75 and 84; and two people over the age of 85, or 7%, were victims of contact burn injuries in 2013. The youngest person to receive a contact burn in 2013 was an eight-month old boy, and the oldest person was a 90-year old woman.

The following graph illustrates the data in the above paragraph.



Cooking Was the Leading Cause of Contact Burns
Contact with cooking equipment caused 10, or 37% of the contact burns in 2013. Contact with barbeques caused three, or 11%, of which one was the result of contact with a gas grill; contact with stoves, ovens, and unspecified cooking device each caused two, or 7%; and contact with a toaster caused one, or 4% of 2013 contact burn injuries.

Heating Equipment & Embers Were the Next Leading Causes of Contact Burns
Heating equipment caused six, or 22% of these burns; contact with a heater accounted for four, or 15%, and woodstoves accounted for two, or 7% of these injuries. Embers caused two, or 7% of these types of burn injuries.

Coming into contact with asphalt, a car radiator, a clothes iron, a machine, metal, and hot wax each caused one, or 4%, of contact burns in 2013.

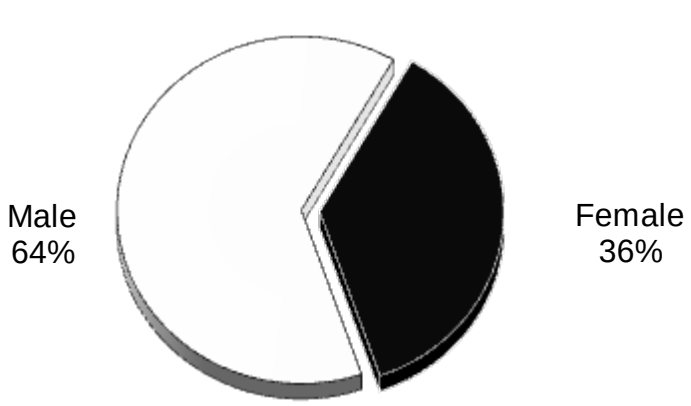
8-Month Old Burned by Heater
On October 27, 2013, an eight-month old Brockton boy received burns to his chest, arm and both legs when he rolled over in bed and leaned against a heater.

36-Year Old Man Burned by Hot Asphalt
On August 8, 2013, a 36-year old Boston man was at work when he stepped into hot asphalt. He received burns to both legs.

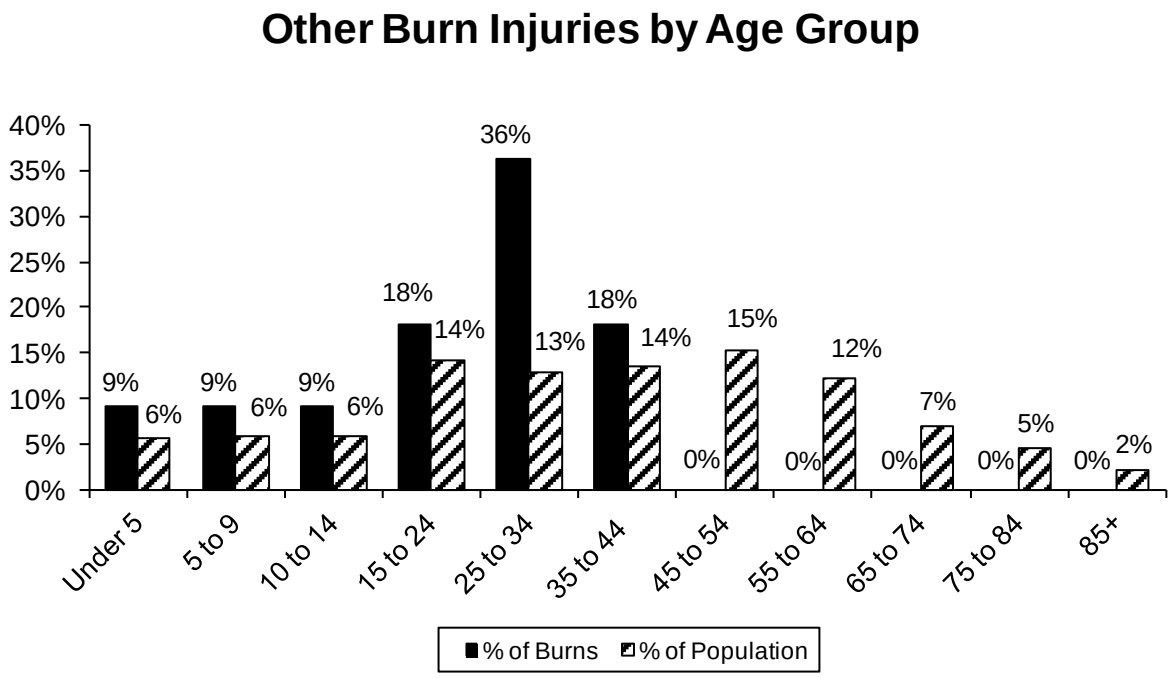
Other Types of Burn Injuries

***Other* Type Burns Cause 11 Injuries**
In 2013, there were 11 burn injuries that were characterized as *Other*. These 11 injuries caused 3% of all 2013 burn injuries. Seven (7) burns, or 64%, were caused by severe sunburns. Four (4) *Other* burns, or 36%, were attributed to exposure to chemicals.

Sixty-four percent (64%) of the 11 victims were male and 36% were female. Health care facilities reported that one, or 9% of the 11 *Other* burn victims was working when injured. Exposure to chemicals caused the work-related injury, who was a man.



Over 1/3 of *Other* Burn Victims Were Between 25 & 54 Years Old
In 2013 there was one *Other* burn victims under five-years old; he accounted for 9% of these burns. Another victim was between five and nine, accounting for 9%. One (1) victim, or 9%, was between the ages of 10 and 14; two victims, or 18%, were between 15 and 24; four victims, or 36%, were between the ages of 25 and 34; two victims, or 18%, were between 35 and 44 years old. No one over the age of 38 suffered an *Other* type of burn injury. The youngest victim was a four-year old boy and the oldest victim was a 38-year old man.



18-Year Old Woman Burned Sunbathing
On June 2, 2013, an 18-year old Hanover woman received a sunburn to her face, shoulders, neck arms and legs when she stayed out too long without using sunscreen.

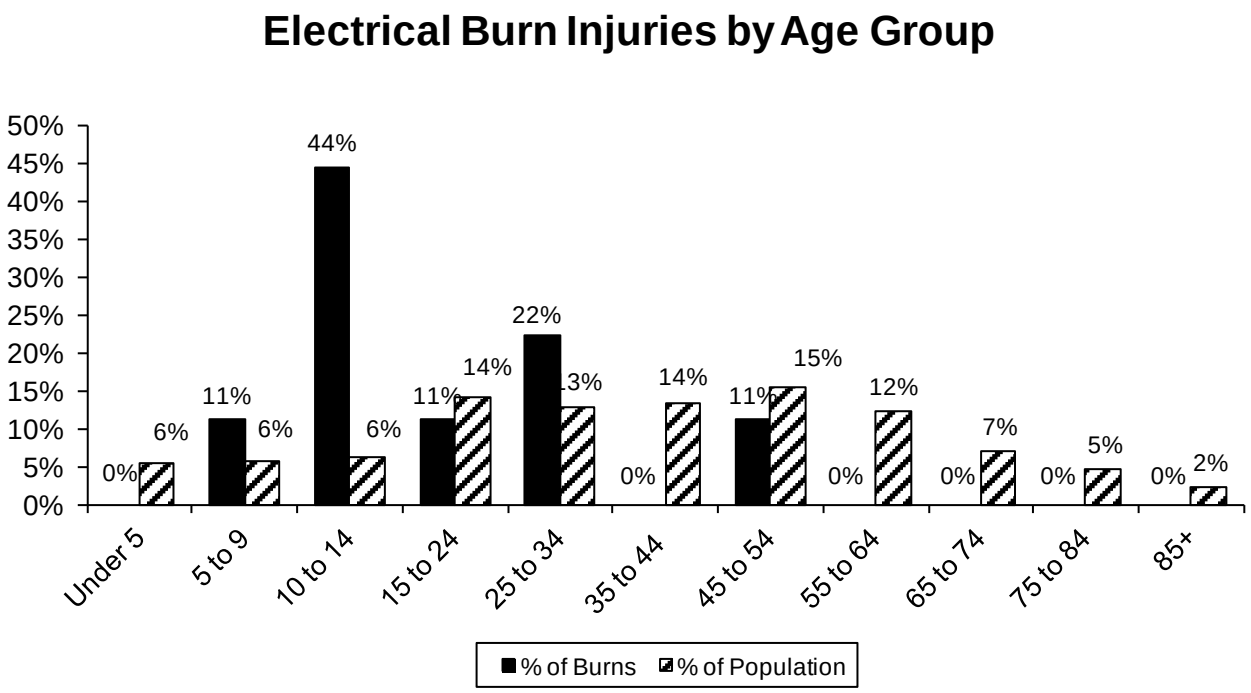
38-Year Old Man Received a Chemical Burn from Experimenting with Fireworks
On September 20, 2013, a 38-year old Boston man received severe chemical burns to approximately 30% of his body surface area. He was experimenting at home with chemicals and fireworks when they exploded.

32-Year Old Man Burned by a Chemical at Work
On August 29, 2013 a 32-year old Brockton man received chemical burns to his face and forearms when a rubber sealant spilled on him while he was at work.

Electrical Burn Injuries

Electrical Incidents Caused 2% of Burn Injuries
Nine (9), or 2%, of the 432 burn injuries reported in 2013 were caused by electrical accidents. All of the electrical burn victims were men. Three (3), or 33%, occurred during work-related activities.

44% of Electrical Burn Victims Were Between 10 & 14 Years Old
In 2013 there were no electrical burn victims under five-years old. One (1) victim was between five and nine accounting for 11%. Four (4) victims, or 44%, were between the ages of 10 and 14; one victim, or 11%, was between 15 and 24; two victims, or 22%, were between the ages of 25 and 34; no one between the ages of 35 and 44 received an electrical burn injury; and one victim, or 11%, was between 45 and 54 years old. No one over the age of 45 suffered an electrical burn injury. The youngest victim was a four-year old boy and the oldest victim was a 38-year old man.



8 of 9 Electrical Burns Were Electrocutions
Eight (8), or 89%, of the 2013 electrical burns were caused by electrocutions. One (1), or 11%, was caused by an unspecified electrical event.

30-Year Old Tree Worker Killed While Working Next to Power Lines
On August 20, 2013, a 30-year old man was trimming tree limbs in Holliston in an extendable bucket when the extended saw he was using made contact with nearby power lines. He received full thickness electrical burns to 85% of his body surface area. He succumbed to his injuries.

45-Year Old Tree Worker Burned
On August 12, 2013, a 45-year old male tree worker received third degree electrical burns to approximately 10% of his body surface area when he was trying to cut a large branch near power lines. The branch fell onto the power lines causing a brilliant arc and burned the victim.

Domestic Violence Burn Injuries

Domestic Violence Burns Cause 1 Injury
In 2013, there was one burn injury that was characterized as domestic violence. This one burn accounted for less than 1% of the total 432 burn injuries in 2013. On March 17, 2013, a 17-year old woman received chemical burns to 14% of her body surface area when a chemical was thrown at her during a domestic altercation.

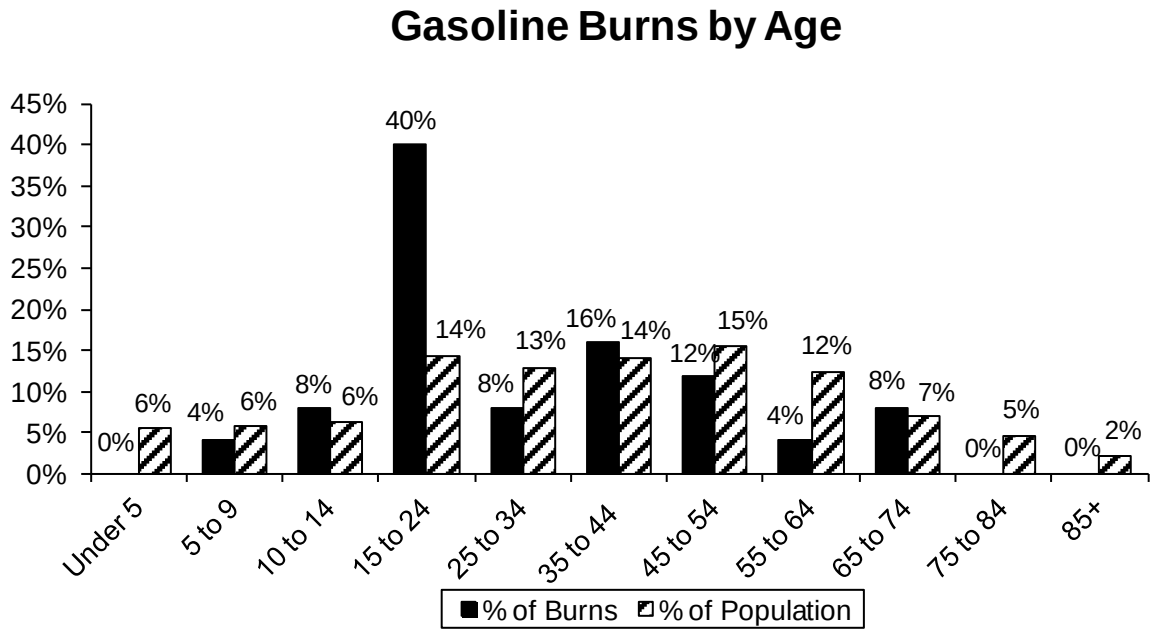
Gasoline Related Burn Injuries

Gasoline Involved in 6% of Reported Burn Injuries
Gasoline was involved in 25, or 6%, of the 432 burns reported to M-BIRS in 2013. Gasoline was the primary cause of the injury in 23, or 92%, of these injuries. Because of more detailed descriptions as to how burn injuries occurred, it was determined that gasoline was also involved in two additional, or 8%, of burn injuries that were coded with a different primary description, such as using it to start a cutting torch.

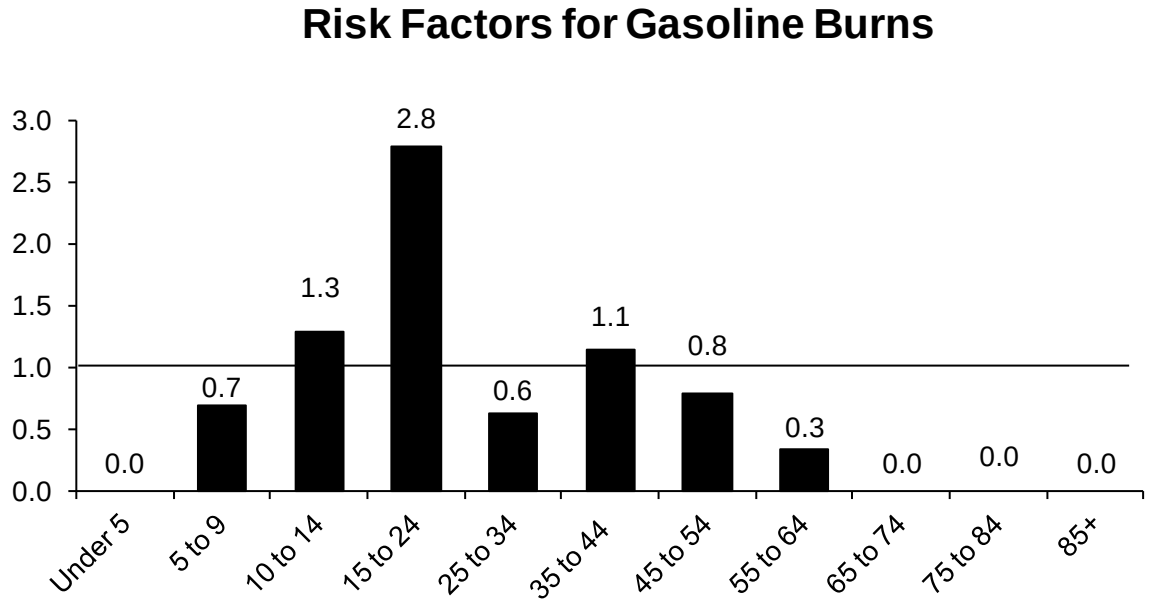
Eleven (11), or 44% of the gasoline related burn injuries were caused by fires. Nine (9), or 36%, of the burn injuries involving gasoline were flame burn injuries. Five (5), or 20% of these injuries were caused by explosions. Twenty-three (23), or 92%, of the 25 gasoline related burn victims in 2013 were men, and two, or 8% were women. Two (2), or 8%, of the injuries occurred during work-related activities. Six (6), or 24% of the gasoline burn injuries in 2013 were to children; 19, or 76% of these injuries occurred to adults.

40% of Gasoline-Related Burn Victims Were Between the Ages of 15 & 24
No one under the age of five in 2013 was the victim of a burn injury involving gasoline. One (1), or 4% of the victims was between the ages of five and nine. Two (2), or 8% of the victims were between the ages of 10 and 14. This age group has historically been the most at risk for these types of injuries. Ten (10), or 40% of the victims were between 15 and 24. Two (2), or 8%, were between 25 and 34; four, or 16%, were between 35 and 44; three victims, or 12%, were between the ages of 45 and 54; one victim, or 4%, was in the age group 55 to 64 years old; and two victims, or 8%, were between 64 and 74; No one over the age of 72 was the victim of a gasoline

related burn. The youngest victim was a nine-year old girl and the oldest victim was a 72-year old man.



The following graph illustrates the risk factor for gasoline burns by age group. If an age group has a risk factor greater than one it is said that an individual in that age group has a greater risk of being burned by gasoline. If an age group has a risk factor less than one, then individuals in that age group have a lesser risk of receiving any burns involving gasoline. In 2013, young adults between the ages of 15 to 24 had the highest risk of getting a burn involving gasoline. Members



of the age group 10 to 14 had the second highest risk of getting a gasoline burn which has historically, had the greatest risk of getting a burn involving gasoline.

29-Year Old Man Burned by Gasoline Fire
On July 26, 2013, a 29-year old Rowley man received severe burns to 20% of his body surface area. The victim used gasoline to clean paint off of his hands then lit a cigarette. He tried to extinguish the flames by patting them out on his pants but that just ignited his pants.

34-Year Old Man Kills Self Using Gasoline
On February 2, 2013, a 34-year old Boston man poured gasoline over himself and ignited it in a successful self-immolation attempt. This resulted in second and third degree burns to approximately 75% of his body surface area.

Some Safety Measures
It is actually gasoline vapors that burn, not the liquid itself. The vapors are generated at very low temperatures, are heavier than air and can travel a distance to find a spark or other ignition source. A spark or lit cigarette is enough to ignite the invisible fumes that may linger on clothing.

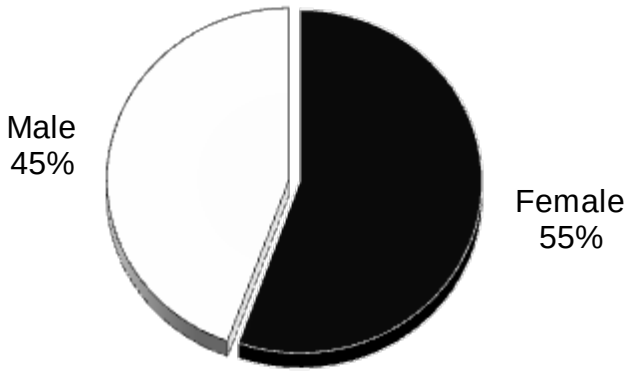
- If you must store gasoline, store it outside the home in a detached garage or shed in approved safety cans away from open flames, and out of reach of children.
- Never regularly carry gasoline in your trunk.
- A one-gallon approved container could be carried empty to be used only for emergencies.
- Never add gasoline to any fire or smoldering embers, the vapors spread quickly and ignite explosively.

Burns Caused by Cooking Activities

Cooking Activities Caused 34% of Reported Burn Injuries
Cooking activities caused 146, or 34% of the 432 total burn injuries reported to the Massachusetts Burn Injury Reporting System in 2013. Cooking activities were the primary cause of the injury in 143, or 98% of these injuries. Because of more detailed descriptions as to how burn injuries occurred, it was determined that cooking activities were also involved in three, or 2% of other burn injuries that were coded with a different primary description such as ‘natural gas.’

Eighty-one (81), or 55%, of the 146 victims were female and 65, or 45%, were male. Nine (9), or 6% of the 146 people burned by cooking activities were working when injured.

Cooking-Related Burns by Gender



Scalds Cause 73% of Cooking-Related Burn Injuries
One hundred and seven (107), or 73%, of the 146 burn injuries caused by cooking were scalds. Seventy-six (76), or 52% of these scald victims were injured by hot cooking liquids; hot food accounted for 27, or 18% of these injuries; two, or 1%, were caused by unclassified cooking activities; and a pressure cooking and an assault with cooking liquids each accounted for one, or 1% of cooking injuries.

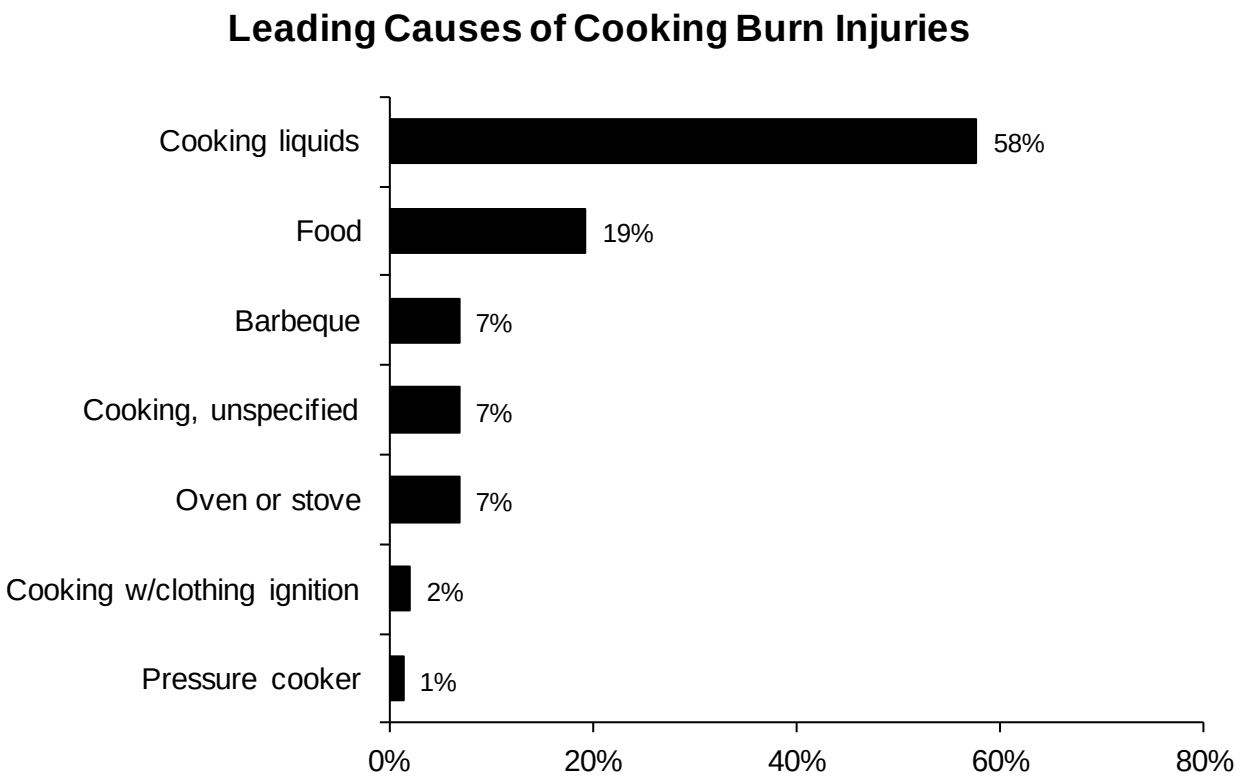
Twenty-four (24), or 16% of all cooking-related burns were flame burn injuries. Seven (7), or 5% of the cooking-related flame burn injuries involved cooking liquids. Six (6), or 4% of these injuries involved stoves or ovens. Five (5), or 3% of these flame burns involved barbeques. Three (3), or 2%, involved clothing ignition while cooking. A microwave, propane and an unspecified cooking act were each responsible for one, or 1% of cooking-related flame burn injuries in 2013.

Nine (9), or 6% of all cooking-related burn victims received contact burns while cooking. Contact with stoves or ovens caused four, or 3%; contact with barbeques caused three, or 2%; and an unspecified cooking act accounted for two, or 1%, of burn injuries while cooking.

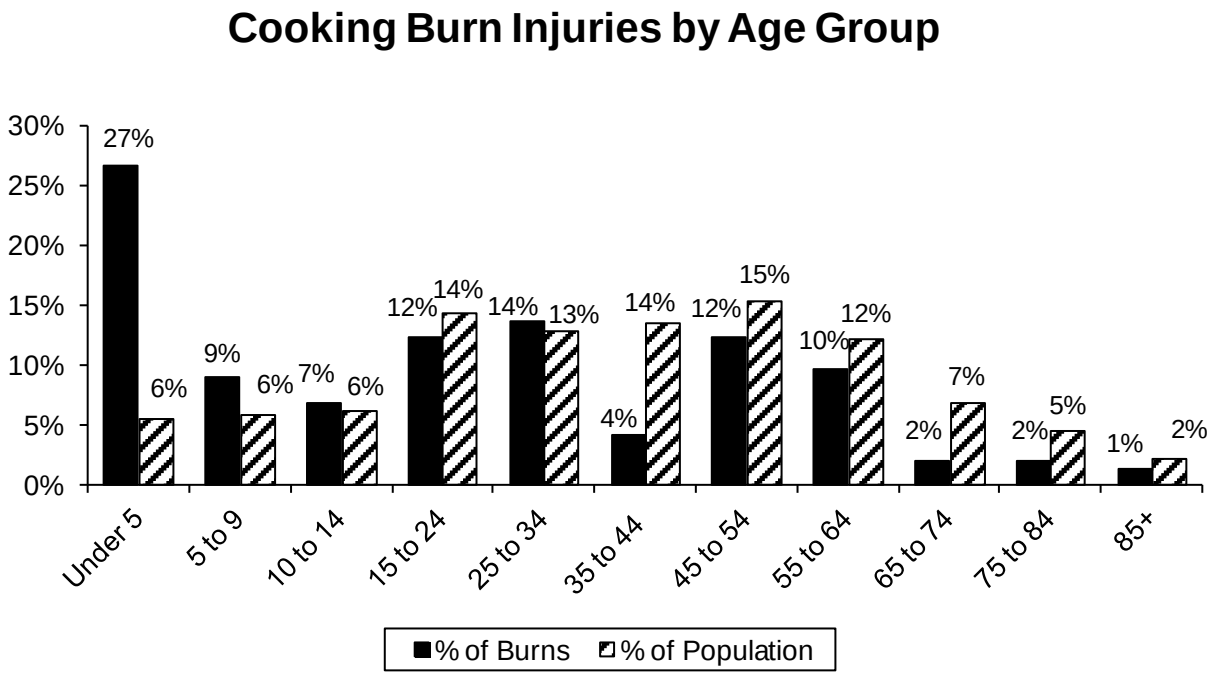
Three (3) victims received burn injuries in cooking-related explosions, accounting for 2% of cooking burn injuries in 2013. A gas grill, a pressure cooker and an unspecified cooking act were each involved in one, or 1% of the cooking-related explosion burn injuries.

Three (3) of these cooking burn injury victims, or 2%, received their burn injuries from a fire. One was in an unspecified cooking act resulting in a house fire; the other cooking burn injury was a tent fire started by someone cooking with a barbeque, accounting for 1% of all cooking related burns.

Cooking Liquids Were the Leading Cause of Cooking-Related Burns
Burns from cooking liquids were the leading cause of all cooking-related burns in Massachusetts in 2013. These burns accounted for 84, or 58% of all cooking-related burn injuries. Burns from hot food were the second leading cause of cooking-related injuries. They caused 28, or 19% of these injuries. Burns received while barbequing also accounted for 10, or 7%, of all cooking burn injuries. Burns from conventional ovens and stoves caused 10, or 7% of these burns. Unspecified cooking acts were responsible for 10, or 7%, of these burns. Clothing ignitions while cooking caused thee, or 2%. Pressure cookers were involved in 2, or 1% of the cooking related burns in the Commonwealth in 2013.



Children Under 5 Almost 5 Times as Likely to be Burned by Cooking Activities
Thirty-nine (39), or 27% of the cooking-related burn victims were under age five. This age group was 4.8 times more likely to be burned by cooking related activities. Thirteen (13), or 9%, were aged between five and nine years of age; 10, or 7%, were between 10 and 14; 18, or 12%, were between 15 and 24 years old; 20, or 14%, were between 25 and 34; six or 4%, were between 35 and 44; 18, or 12%, were between 45 and 54; 14, or 10%, were between 55 and 64; three victims, or 2%, were between 65 and 74; three, or 2%, of the victims belong to the age group between 75 and 84 years of age; and two, or 1%, were over the age of 85. The youngest victim of a cooking-related burn was a nine-month old boy who was burned by cooking liquids, while the oldest victim was an 86-year old man who received his burn injuries from a clothing ignition while cooking.



The cause of burns varied with age. Pre-schoolers generally do not cook. They do, however, grab pot handles and sometimes get underfoot when adults are cooking. Cooking liquids or cooking grease frequently scalds them. Adults should keep young children safely away from the stove and food preparation areas while they are cooking.

In 2013 Older Adults Not at a Higher Risk for Cooking-Related Burn Injuries
Historically, older adults over the age of 65 were more likely to be burned while cooking. However in 2013, eight older adults received burn injuries as a result of cooking. They represented 5% of the cooking burn injuries and 14% of the population, therefore were not injured by cooking at a disproportionate rate. Five (5), or 63% of these victims were women and three, or 38%, were men. Four (4) of these older adults were burned by cooking liquids, two by food, one involved cooking and propane and the last by a clothing ignition while cooking.

5 Clothing Ignitions while Cooking
Loose-fitting sleeves can easily come into contact with burners and catch fire. Unlike 2012 where there were no reported clothing ignition while cooking, in 2013 there were five reported clothing ignitions while cooking. These five burn injuries accounted for 3% of all cooking related burn injuries.

According to data collected by the Massachusetts Fire Incident Reporting System (MFIRS), unattended and other unsafe cooking practices caused 11,736 fires in 2012. These fires caused three civilian deaths, 88 civilian injuries, 29 fire service injuries along with $13.7 million in losses. Many of these people also suffered from smoke inhalation[6].

[6] 2012 Annual Report of the Massachusetts Fire Incident Reporting System; MA Dept. of Fire Services; pg. 130.

Serious Burns from Cooking

- On January 22, 2013, a 9-year old Boston girl received scald burns to20% of her body surface area when her arm hit a pot of boiling water spilling it all over her.
- On January 23, 2013, a 75-year old Ayer woman received burns to 35% of her body surface area when she was frying bacon and the grease in the pan ignited.
- On June 29, 2013 a 47-year old Haverhill man received burn injuries to 6% of his body surface area when the gas grill blew up in his face.

Safety Measures

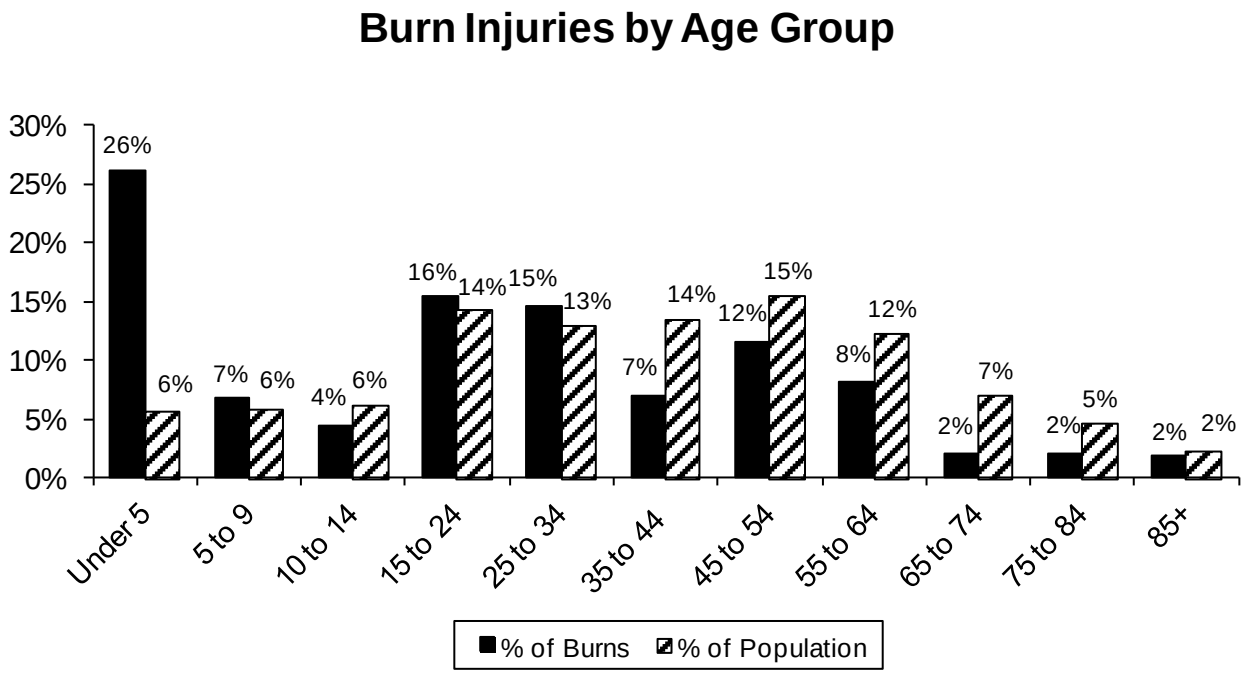
- ✓ Never leave cooking food unattended.
- ✓ Stand by your pan.
- ✓ Put a lid on stovetop fires, never move the pan.
- ✓ Keep a large pot lid handy to put out stovetop fires.
- ✓ Keep children at a safe distance from all hot items by using playpens, high chairs, etc.
- ✓ Create and enforce a 3 foot **NO** zone around the stove. Do not let children play around the stove or barbeque.
- ✓ Test all heated food before giving it to young children.
- ✓ Keep pot handles turned in over the stove or countertop.
- ✓ Always use oven mitts or potholders.
- ✓ Secure loose sleeves or wear short sleeves while cooking.
- Never use water on a stovetop grease fire.
- ✓ Read and follow directions when using microwave ovens and other cooking appliances.
- ✓ Children should not be allowed to use cooking or heating appliances until they are mature enough to understand safe-use procedures and tall enough to safely handle items and reach cooking surfaces.
- ✓ If cabinets exist over cooking surfaces use them to store only items that will not be needed during cooking.
- ✓ When barbequing, use only charcoal lighter fluid to start a fire. Once the coals have been ignited, never add more charcoal lighter fuel to the fire; the container may explode in your hand.

Burn Injuries by Age Group

Four (4) age groups of our population were at a greater than average risk of a burn injury. Although burn injuries were reported in all age groups, very young children suffer more than their share and are just over four and a half times more likely to be burned. Children under the age of five were 4.7 times more likely to suffer a burn injury in Massachusetts in 2013. Adolescents aged five to nine, young adults between 15 and 14 years old, and adults between the ages of 25 and 34 are all slightly at a higher risk, at 1.1 times more likely to receive a burn injury in 2013.

Twenty-six percent (26%) of all burn victims were children under the age of five. One hundred and thirteen (113) children under age five were seriously burned in 2013. Twenty-nine (29), or 7% of the burn injuries occurred to children aged five to nine; 19, or 4%, were youths aged 10 to 14. Sixty-seven (67), or 16% of the burn victims, were young adults aged 15 to 24. Sixty-three (63), or 15% of the 2013 burn victims were adults aged 25 to 34. Thirty (30), or 7%, were people aged 35 to 44. Fifty (50), or 12% of the burn injuries occurred to adults aged 45 to 54; 35, or 8% of people who were reported to have incurred burns were between 55 and 64; nine, or 2% of 2013 burn victims, were older adults in the 65 to 74 age group; another nine, or 2%, were in the 75 to 84 year old age group; and eight adults over the age of 85, or 2% of all reported burn victims in 2013 received burns of more than 5% of their body surface area.

The following graph illustrates the figures in the previous paragraph.



Children Under 5 At Highest Risk of Burn Injuries
The graph on the previous page compares the percentage of burn injuries incurred by each age group with the percentage that age group represents in the general population. Only 6% of the population in Massachusetts is under the age of five (source: 2010 U.S. Census data). We would expect therefore that children under five would account for a maximum of 6% of the burn injuries. In fact, they accounted for 26% of the reported burn injuries in 2013, making them 4.7 times more likely to suffer burn injuries. Children of this age group are the most dependent on others to protect them and are the least able to move out of harm's way unassisted.

The threat of burns is most severe for children less than two-years old. Seventy (70) babies and toddlers under the age of two accounted for 16% of all burn victims, but all children under the age of five accounted for only 6% of the Massachusetts population.

Scald Burns the Leading Type of Burn to Most Age Groups
While scalds remain the leading cause of burn injuries overall, they were also the leading cause of burn injuries to eight of the age groups. Scalds were the leading cause of burn injuries in the age groups of children under five, children between the ages of five and nine, young adults between the ages of 10 and 14, adults between the ages of 35 to 44, 45 to 54, 55 to 64 and older adults over the age of 65.

Scalds, burns from fire and flame burns were tied as the leading type of burn to adults between the ages of 25 and 34. Burns from fire were the leading cause of burns to young adults in the age group 15 to 24. Flame burns were leading cause of burns to older adults between the ages of 75 and 84.

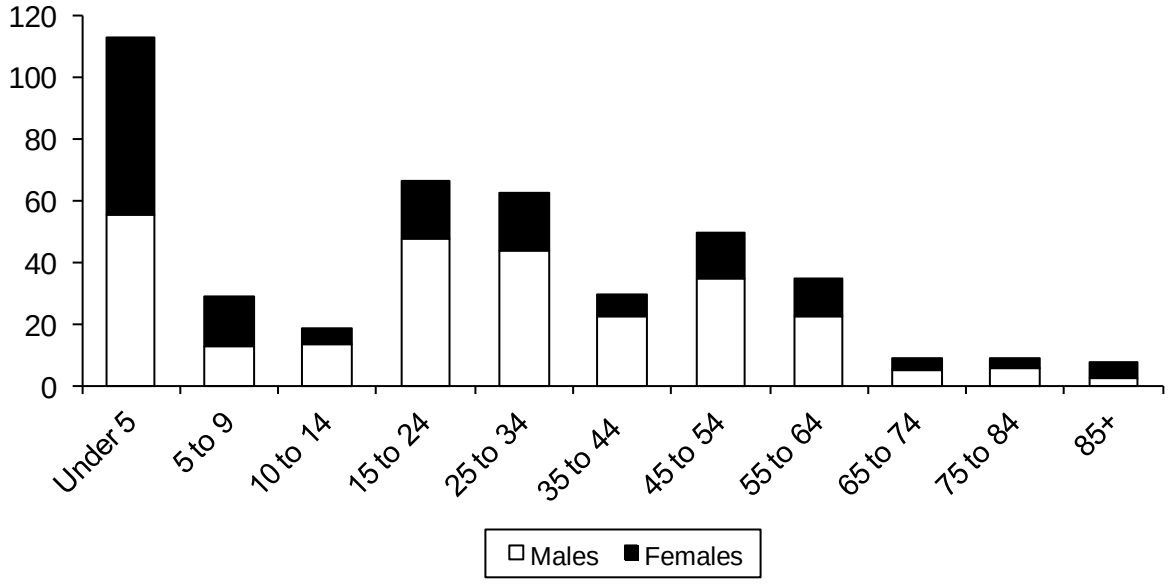
To learn more about the specific causes for each age group, please look at the age specific sections within *Burn Injuries by Age Group*.

Causes of Burn Injuries by Age and Gender

The leading causes of burn injuries vary widely between age groups depending on the nature of activities in which people are involved. Children under five are busy exploring their environment and reaching for anything in their grasp. Forty percent (40%) of the burns incurred by these young children were scalds caused by hot beverages, 21% were caused by cooking liquids, and 12% were caused by scalds from hot tap water. Hot food, gasoline and other ignitable liquids were frequent causes of burn injuries to older teens and young adults.

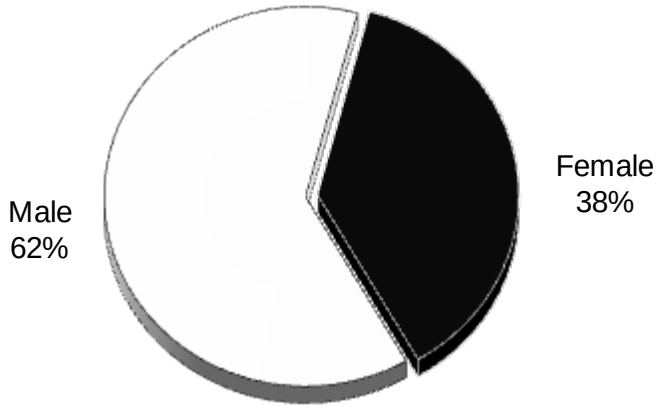
Parents of young children must be educated about the danger of scalds from hot beverages, cooking liquids and tap water. Teens and young adults need information about cooking safely, procedures to follow when a car overheats and the correct uses of gasoline. To be effective, burn prevention educators must develop strategies that address the risk faced by each age group.

Burn Victims by Age and Gender



Except for the age groups of children under five, between the ages of five and nine, and older adults over the age of 85, males were burned more frequently than females. In 2013, 270, or 62% of the 432 burn victims were male, and 162, or 38%, were female.

Burns by Gender



Children Under 5

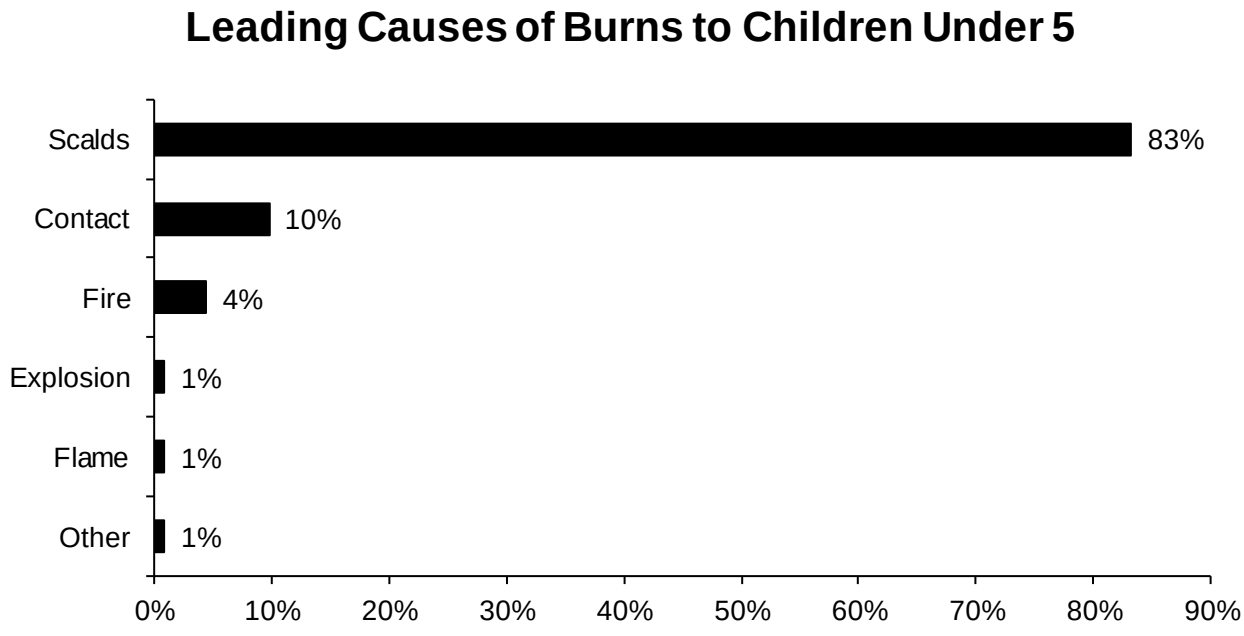
26% of Reported Burns Incurred by Children Under 5
One hundred and thirteen (113), or 26%, of the burn injuries reported to M-BIRS in 2013 were incurred by children under five years old. According to the 2010 U.S. Census, only 6% of Massachusetts residents are under the age of five. Children under five were 4.7 times as likely to be burned, as were members of the general population. No other age group faced a risk this high. Fifty percent (50%) of burned pre-schoolers were boys and 50% were girls.

Scalds Caused 83% of Burns to Pre-Schoolers
Scalds caused 94, or 83%, of the burn injuries incurred by children under five. Forty-five (45) were from hot beverages; 37 were from cooking activities; 24 burns were from cooking liquids and 11 were from hot food. Thirteen (13) burns to children under five were from hot tap water. A scald from a clothes iron caused one burn to a child under five in 2013.

Contact burns accounted for 11, or 10% of the injuries to children under the age of five. Five (5) children were burned during cooking activities; two from touching a barbeque and one each from touching an oven, a stove and a toaster. Embers and a heater each burned two children. Contact with a clothes iron and a hot piece of metal each caused one burn injury to this age group.

Fires caused five, or 4% of the injuries to this age group. Four (4) involved camp fires, one of which involved the remaining embers. One (1) injury was caused by a child playing with matches that caused a house fire.

One (1) child under the age of five received a burn injury from an explosion at the Boston Marathon causing 1% of these injuries. One (1) child, or 1%, received a flame burn from ignitable liquids and one child under the age of five, or 1%, was sunburned.



Children Ages 5 to 9

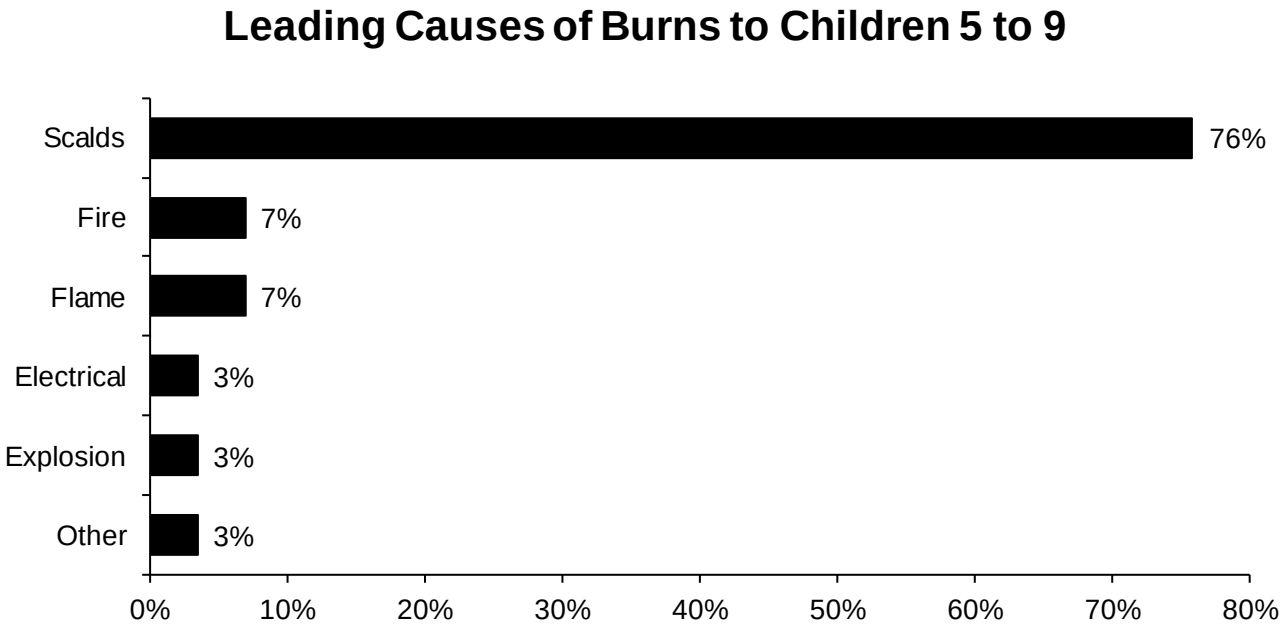
7% of Reported Burn Injuries Incurred by Children 5-9 Years of Age
Twenty-nine (29), or 7%, of the burn injuries reported in 2013 were incurred by children between five and nine years of age. Sixteen (16), or 55% of the burn victims were girls, and, 13 or 45%, were boys. Children in this age bracket accounted for 6% of the population of Massachusetts and 7% of the burn injuries in 2013.

Burns from Scalds Were the Leading Cause to Children 5-9
The leading cause of burn injuries to children aged five to nine were scalds. Scalds caused 22, or 76%, of the burn injuries incurred by children aged five to nine in 2013. The scald burn injuries included 13 from cooking activities, seven from hot food and six from cooking liquids; four from hot beverages, four from hot tap water, and one from a radiator.

In 2013, burns from fires accounted for two burn injuries, or 7%, to this age group. An electrical house fire and a camp fire caused these injuries.

Flame burns accounted for two, or 7%, of the burn injuries to this age group. Gasoline and fireworks each caused one of these flame burn injuries.

An explosion, as a result of a child playing with a lighter caused one, or 3% of the injuries to this age group. An electrocution caused one electrical burn, or 3% of all burns to this age group. One (1) child in this age group suffered a sunburn accounting for 3% of these injuries.



Children Ages 10 to 14

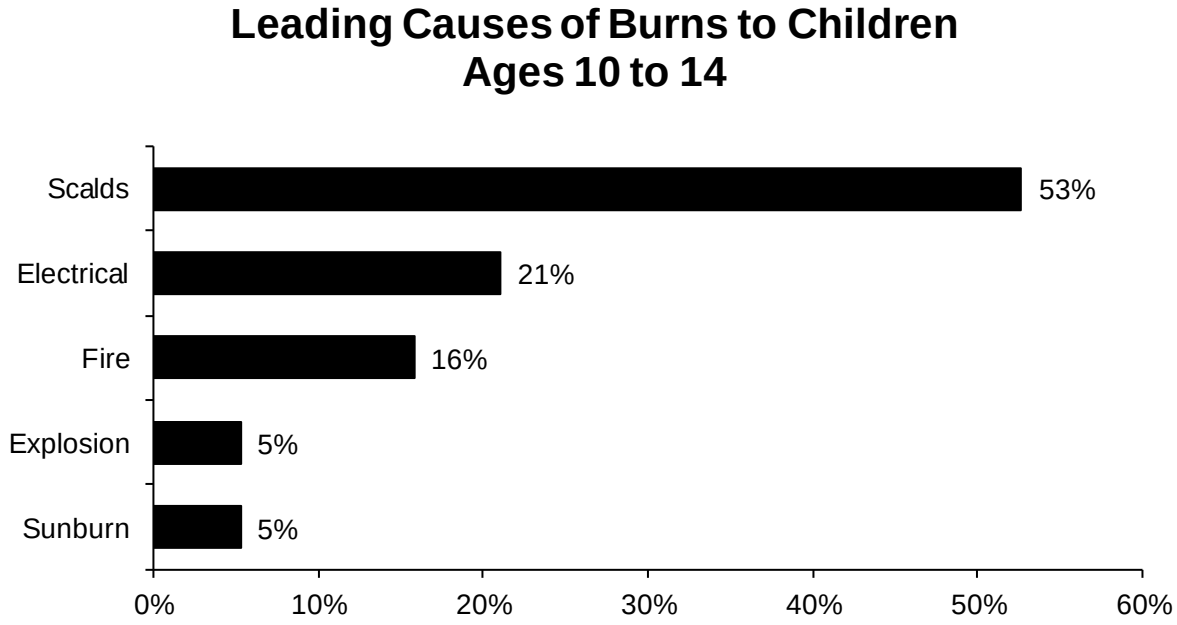
4% of Reported Burns Incurred by Children 10-14 Years of Age
Children between the ages of 10 and 14 suffered 19, or 4% of the burn injuries reported in 2013. Fourteen (14), or 74%, were boys and five, or 26%, were girls. Children in this age bracket accounted for 6% of the population in the Commonwealth of Massachusetts and 4% of the total reported burn injuries. At this age, children are exploring their environment more on their own, but often without the maturity or experience to reason out cause and effect.

Burns from Scalds Were the Leading Cause of Burns to Children 10-14
Scalds caused 10, or 53% of the burns incurred by children aged 10 to 14. Cooking activities caused all 10 of these burns; cooking liquids were responsible for eight and hot food for two.

Electrical burns caused four, or 21% of the burns injuries to this age group. Three (3) were from unspecified electrical accidents and one was an electrocution.

Burns from fire caused three burn injuries to this age group, accounting for 16% of these burns. Two of these burns involved camp fires, one of which involved gasoline. Another burn was from a brush fire.

One (1) pre-teen, or 5%, was injured by explosions caused by gasoline. Another pre-teen, or 5%, received a sunburn.



Gasoline Caused 2 Pre-teen Burns
Historically gasoline, other ignitable liquids, and fireworks are significant factors in pre-teen burn injuries. In 2013, they were only a factor in two, or 11%, of the burn injuries to pre-teens. Two children misusing gasoline were involved in burn injuries to this age group.

Ages 15 to 24

16% of Reported Burn Victims Between 15-24 Years of Age
Teens and young adults between the ages of 15 and 24 incurred 67, or 16% of the burn injuries reported in 2013. Forty-eight (48), or 72%, were male and 19, or 28%, were female. Young adults aged 15 to 24 account for 14% of the population of Massachusetts and 16% of the burn injuries in 2013. Nine (9), or 13% of the burn injuries incurred by this age group were work-related: seven were male and two were female.

28% of Burns Were From Fires
Twenty-eight percent (28%), or 19 of the burn injuries incurred by people aged 15 to 24 were from fires. Fifteen (15) victims received burns from camp or bonfires. Two (2) victims were hurt in motor vehicle accidents with ensuing fire. Two (2) other victims in this age group were burned in house fires. Most young adults are injured in fires that occur outside the home.

The second leading cause of burn injuries to this age group were flame burn injuries. Seventeen (17), or 25% of the burn injuries to this age group were caused by flames. Ignitable liquids caused five of these injuries; three from gasoline and two from ignitable liquids other than gasoline. Cooking activities also caused five of these injuries; three from cooking liquids and one each from a barbeque and a clothing ignition while cooking. Two (2) flame burns were caused by unspecified clothing ignitions. An assault, a clothing ignition from a candle, a clothing ignition from smoking, self-immolation, and welding each caused one injury.

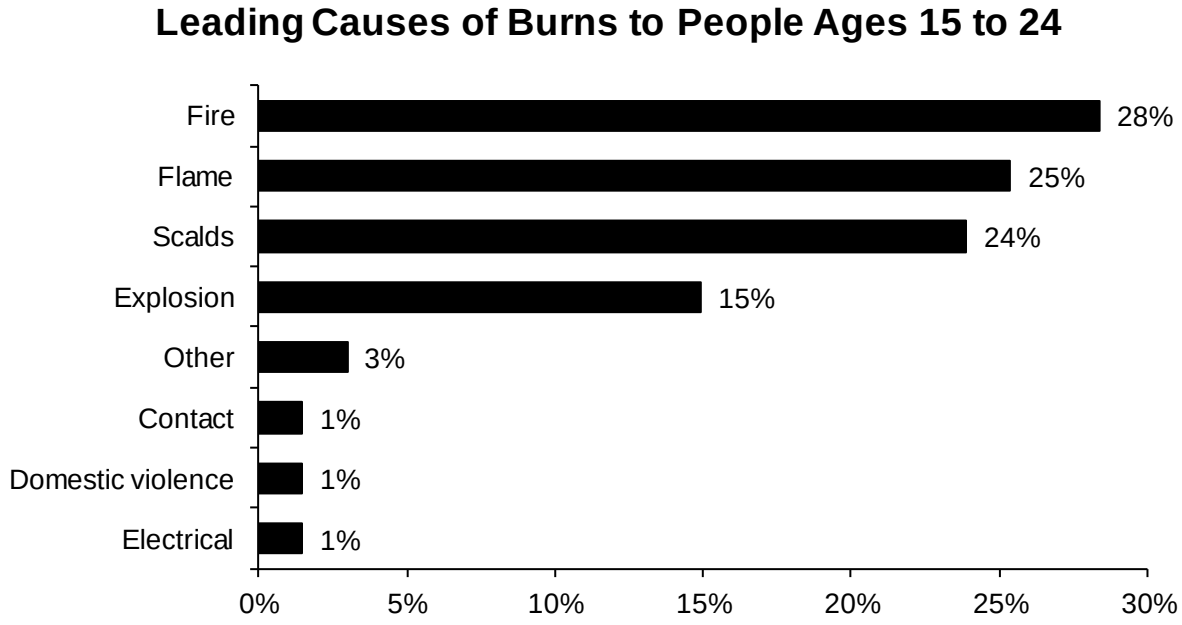
Sixteen (16), or 24% of the burn injuries to people 15 to 24 years of age were caused by scalds. Ten (10) were caused by cooking activities; nine from cooking liquids and one from hot food. Hot beverages caused three of these injuries. A car radiator, a pipe and steam each caused one of these burns.

Explosions injured 10, or 15% of people in this age category. Explosives caused six of these injuries; four were from the Boston Marathon, one was from bomb making and the other was from fireworks. Ignitable liquids were involved in two of these injuries; one was from gasoline and the other was from another ignitable liquid. Propane and an unspecified cooking act were each involved in one explosion burn injury to this age group.

Two (2), or 3% of the burn injuries to this age group were *Other* type burns caused by sunburns.

Contact with hot objects in an unspecified cooking act caused one, or 1%, of the burns to this age group. There was one electrocution to this age group accounting for 1% of the injuries to 15 to

24 year olds in 2013. There was also one case of domestic violence in which a victim was of a chemical burn. This represented 3% of these burn injuries.



Ages 25 to 34

15% of Burns Were to Adults 25-34 Years of Age
Sixty-three (63), or 15% of the burn injuries reported in 2013 were incurred by people between 25 and 34 years of age. Forty-four (44), or 70% of the victims were men and 19, or 30% were women. Twelve (12), or 19% of the burn injuries suffered by this age group were work-related; nine were men and three were women. People between the ages of 25 and 34 accounted for 13% of the population of Massachusetts while accounting for 15% of the total number of burn injuries reported in 2013.

Fire, Flame & Scald Burns Each Caused 22% of Burn Injuries
Burns from fires caused 14 burn injuries and accounted for 22% of the burn injuries to this age group. These fire-related burns included nine from camp or bon fires, two from house fires, two from motor vehicle fires and one from a structure fire. The majority of these burn injuries occurred outside the home.

Flame burns also caused 14, or 22% of the injuries to 25-34 year olds. Cooking caused four of these burns; three were from stoves, one was from flaming cooking liquids, and another was from an oven. Two (2) of these injuries involved ignitable liquids; one involved gasoline, and the other another ignitable liquid. Another two involved candles, with one of the injuries being a

clothing ignition from a candle. Alcohol, fireworks, an attempt at self-immolation, smoking and a cutting torch each caused one flame burn injury to someone in this age group.

Scalds also accounted for 14 burns, or 22% of the burn injuries for this age group. Ten (10) of the scalds involved cooking activities; nine were from cooking liquids, and one was from hot food. Two (2) were from car radiators, and an assault and hot tap water each caused a scald burn injury to this age group.

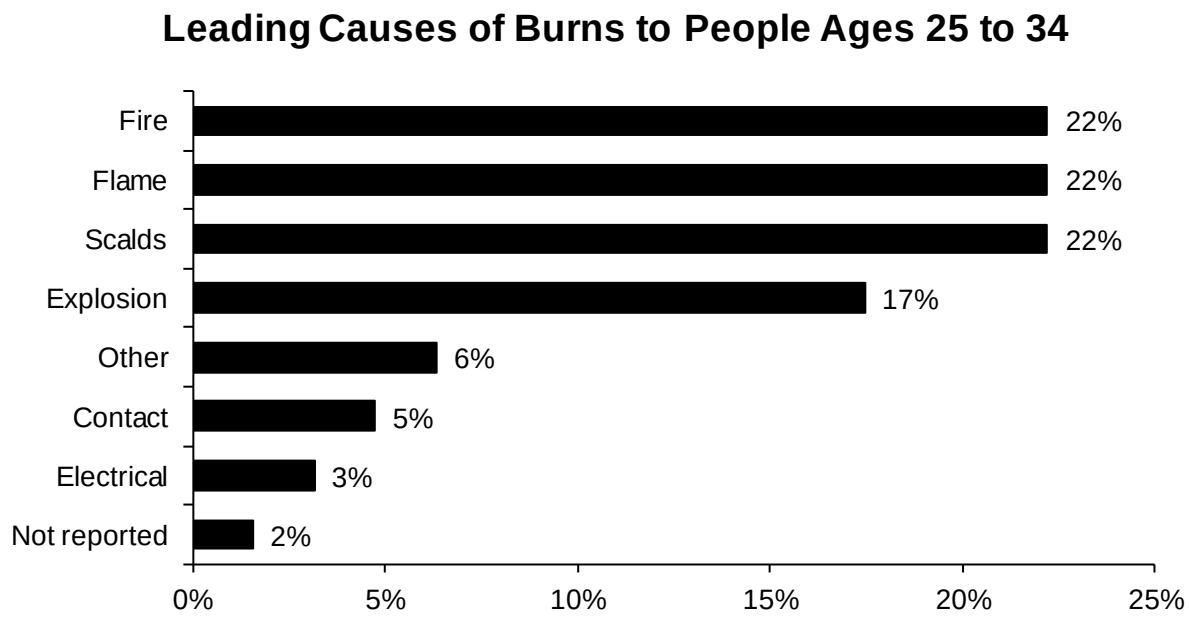
Eleven (11), or 17% of the burns to 25 to 34 year olds were caused by explosions. Five (5) of these people were victims at the Boston Marathon. Ignitable gases caused two of these injuries; one from natural gas and the other from propane. A boiler, a chemical, an ignitable liquid and a lighter were each involved in an explosion that injured one person in this age group.

Four (4) people, or 6%, between the ages of 25 and 34 received *Other* type burns. Three (3) were burned by chemicals and one had a sunburn.

Contact burns caused three, or 5% of the injuries to this age group. Cooking caused two; one was from a stove and the other was an unspecified cooking activity. Pavement burns caused the other contact burn injury to this age group.

Two (2), or 3% of people between the ages of 25 to 34 received electrical burns from being electrocuted.

The burn injury of one person, or 2%, of this age group was not described.



Ages 35 to 44

7% of Reported Burn Victims Were Between 35-44 Years of Age
Thirty (30), or 7%, of the burn injuries reported in 2013 occurred to people between the ages of 35 and 44. Twenty-three (23), or 77% of the victims were men and seven, or 23% of the victims were women. Adults between the ages of 35 and 44 accounted for 14% of the Massachusetts population but only 7% of the reported burns in 2013.

13% of Burn Injuries Were Work-Related
Four (4), or 13%, of the burn injuries incurred by this age group were work-related. Three (3) of these work-related burn victims were men, and one was a woman.

Burns from Scalds Were the Leading Cause of Injuries to 35-44
In 2013, burns from scalds were the leading cause of burns to 35 to 44 year olds. Scalds caused eight, or 27% of the burn injuries to this age group. Three (3) of these injuries involved cooking liquids. Car radiators were responsible for another three injuries. A hot beverage and clothes iron each caused one scald burn injury to this age group.

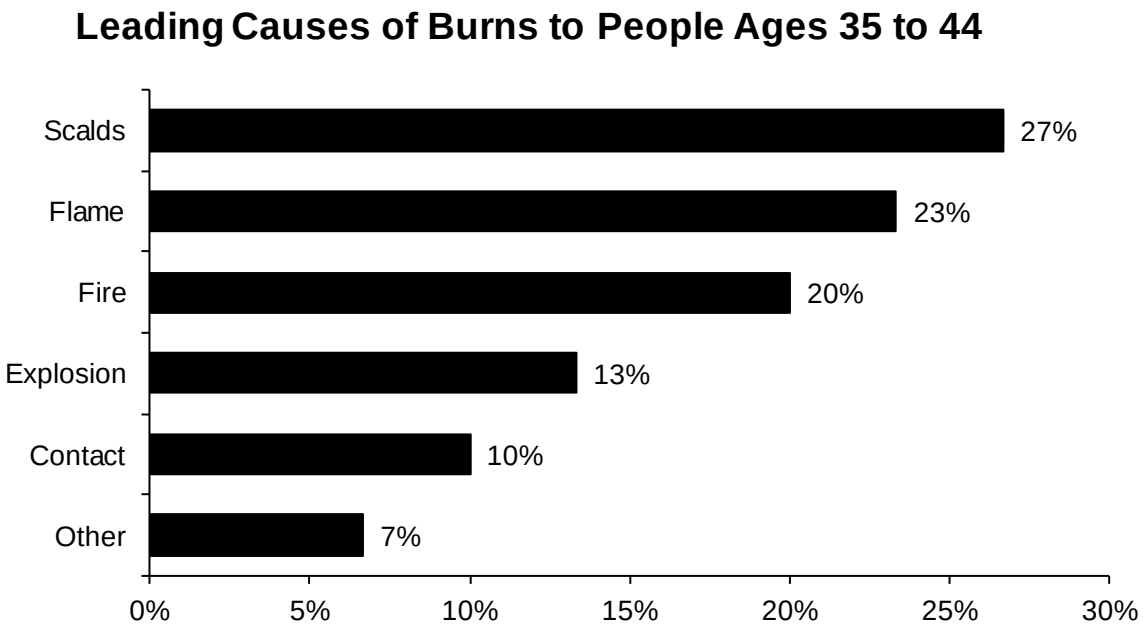
Flame burns caused seven, or 23% of burn injuries to adults between the ages of 35 and 44. Gasoline and welding each caused two burns to this age group. Cooking activities also caused two burn injuries; a gas grill caused one and cooking liquids the other one. Alcohol was involved in one flame burn injury in this age group.

Burns from fires accounted for six, or 20% of the burn injuries to this age group. Four (4) were from camp or bon fires, one was from a house fires and another injury was from a brush fire.

Explosions caused four, or 13% of these injuries. Two (2) people in this age group were injured at the Boston Marathon. A boiler and a pressure cooker each caused one of the explosion related burn injuries to this age group.

Contact with hot objects were responsible for three, or 10% of injuries to people between the ages of 35 and 44. Contact with asphalt, a hot machine and hot wax each accounted for one of the burns to this group.

Other type burns accounted for two, or 7% of burns to this age group. One (1) was from a chemical and one was from a sunburn.



Ages 45 to 54

12% of Reported Burn Injuries Were Between 45-54 Years of Age
People between the ages of 45 and 54 incurred 50, or 12% of the reported burns in 2013. Thirty-five (35) or 70% of the victims were male, and 15, or 30%, were female. Eleven (11) of the 50 burn victims aged 45 to 54, or 22%, were burned while at work; all eight of them were men. This age group represents 15% of the population of Massachusetts while it received only 12% of the burn injuries in 2013.

Scald Burns Were the Leading Cause of Burns
Scalds caused 14, or 28% of the burn injuries to this age group. Cooking activities caused 10 of these injuries; cooking liquids caused eight and hot food caused two. Car radiators were responsible for two of these injuries. Steam and hot tap water each caused one of these injuries.

Flame burns were incurred by 11, or 22% of the burn victims between the ages of 45 and 54. Cooking activities were responsible for five of these injuries; three were from barbeques, one was from a clothing ignition while cooking and the other was from cooking liquids. An assault, a candle, a chemical, an unspecified clothing ignition, a clothing ignition while smoking, and a woodstove each caused one of the burns to this age group.

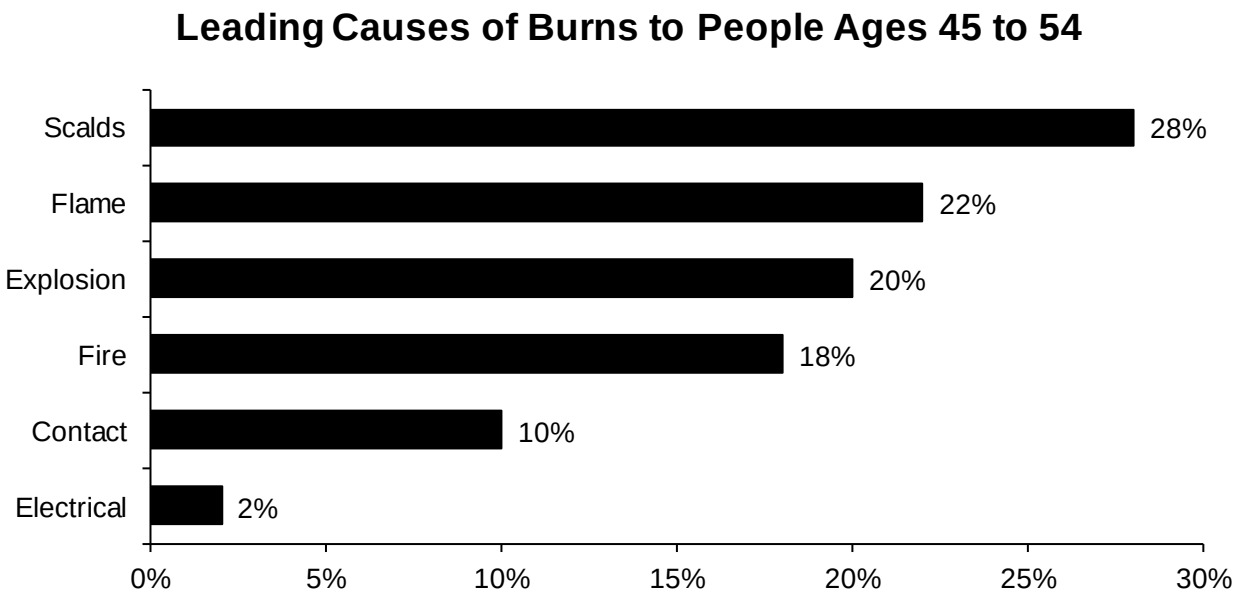
Ten (10) members of this age group were victims of explosions. They accounted for 20% of the burn injuries to this age group. Four (4) of these injuries involved explosions from ignitable gases; three were from propane, one was from a gas grill, and another was an unspecified ignitable gas. Two (2) people from this age group were injured at the Boston Marathon. A

chemical, a clothing ignition, an electrical explosion, and gasoline each caused one of these injuries.

Burns from fires caused nine, or 18% of the burn injuries to victims 45 to 54 years old. Five (5) burns were from camp or bon fires, one was from a brush fire, one was from a house fire and the other was from a structure fire.

Contact burns accounted for five, or 10% of burn injuries to people between the ages of 45 and 54. Two (2) of the burns involved cooking; one involved a gas grill and the other an oven. A car radiator, a heater and pavement burn each caused one of these injuries.

An unspecified electrical burn was responsible for one, or 2% of the burns to this age group.



Ages 55 to 64

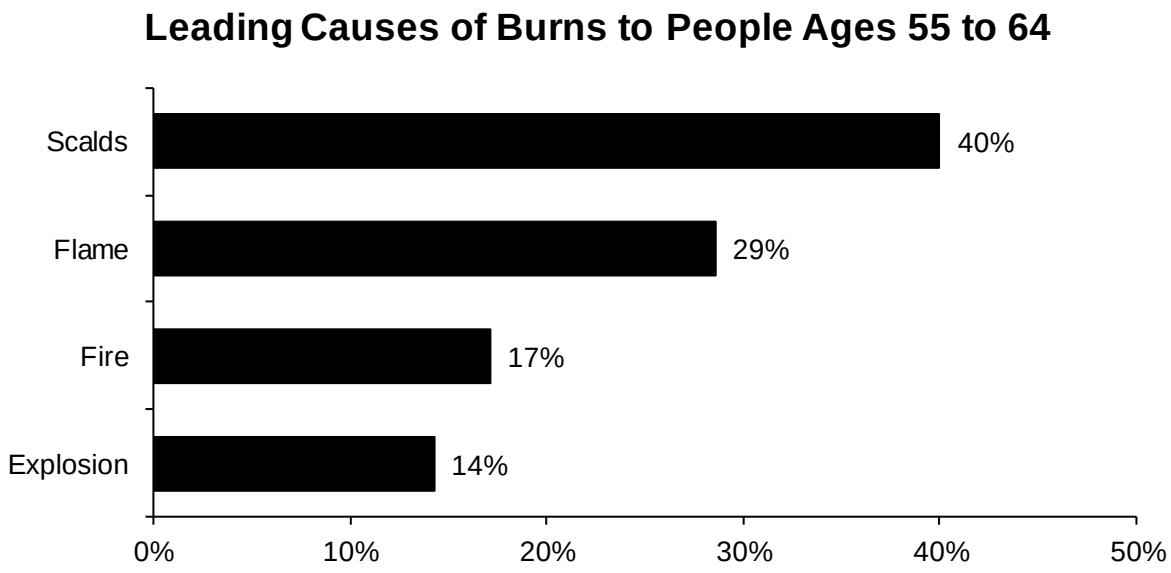
8% of Burn Victims Were Between 55-64 Years Old
Thirty-five (35), or 8% of the burns reported in 2013 were incurred by people between the ages of 55 and 64. Twenty-three (23), or 66% of the victims were men, and 12, or 34% were women. One (1), or 3%, of the 35 burn injuries incurred by people between 55 and 64 years old was reported to be work-related; this burn injury occurred to a man. People of this age group represent 12% of the total population of Massachusetts but only received 8% of the burns in 2013.

Scalds Were the Leading Causes of Burns
Scalds caused 14, or 40% of the burn injuries to people between the ages of 55 and 64. Cooking activities caused 10 of these burns; cooking liquids caused six, unspecified cooking acts caused two, and hot food and a pressure cooker each caused one of these burns. Hot tap water caused two of these burns, and a hot beverage and steam each caused one scald burn injury to this age group in 2013.

Flame burns accounted for 10, or 29% of the injuries to this age group. Smoking on oxygen caused five burn injuries to this age group. Three (3) of these injuries involved cooking activities; one involved hot food, another involved a stove and the other an unspecified cooking act. A chemical and a self-immolation each caused one flame burn injury to someone in this age group.

Burns from fires caused six injuries to people between the ages of 55 and 64 years of age in 2013, accounting for 17% of these injuries. Four (4) were injured in house fires, and two were injured in camp or bon fires.

Burns from explosions, fires and flame burns each caused five, or 14%, of the injuries to this age group. A chemical, gasoline, propane, welding and an unknown event were each the cause of one of these burn injuries.



Over 65 – Older Adults

26 Burn Victims Over 65 Years Old
Twenty-six (26), or 6% of the burn victims in 2013 were over 65 years old. Nine (9) were between 65 and 74; another nine were between 75 and 84; and eight were 85 years old or older. Fourteen (14), or 54% of the victims were men, and 12, or 46%, were women. Older adults represent 14% of the total Massachusetts population but only 6% of the burn injuries in 2013, which means that in 2013 they were proportionately less likely to receive a burn injury.

Historically older adults account for 7% of the total number of burn injuries during the year. Since the inception of M-BIRS in 1984 there have been 14,282 reported burn injuries to M-BIRS, and 981 of these have been incurred by people over the age of 65. In 2001, they accounted for 11% of the total number of burn injuries, the highest percentage of any year since the inception of M-BIRS. In 2006, older adults accounted for the smallest percentage of total burn injuries since 1984, 3%.

Scalds Caused Over 1/3 of Burns to Older Adults
In 2013, scalds were the leading cause of burns to older adults. Scalds caused nine, or 35% of the burn injuries to this age group. Five (5) of these involved cooking; three were from cooking liquids and two were from hot food. Four (4) of these injuries were caused by hot tap water.

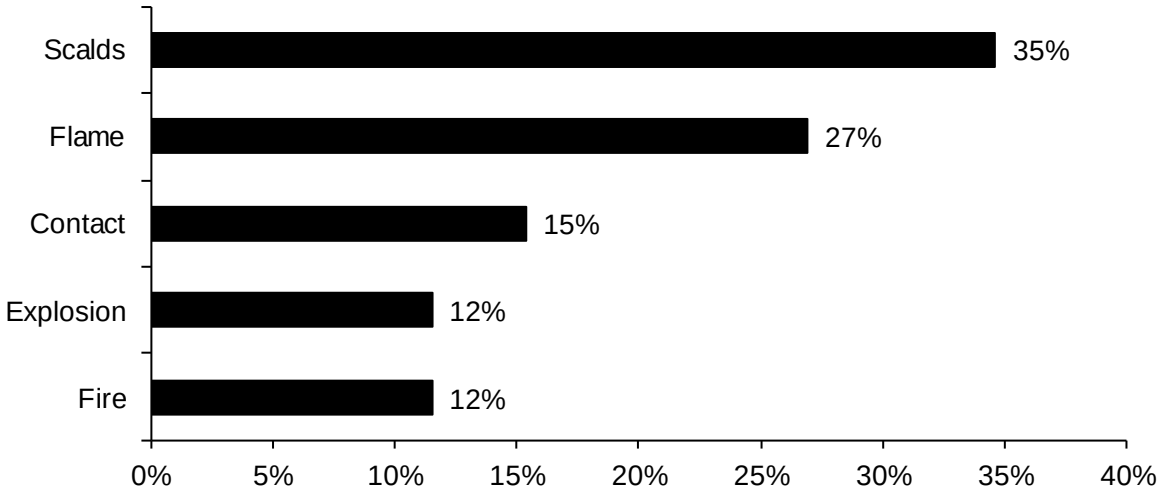
Flame burns caused seven, or 27% of the burn injuries to people over the age of 65. Smoking caused three of these injuries; smoking while on oxygen caused two, and an unspecified smoking act caused one. Cooking caused two of these burns; one involved cooking liquids and the other an unspecified cooking act. Propane and a woodstove each caused one flame burn injury to this age group.

Contact burns caused four, or 15% of burns to older adults. Three (3) of these burns involved heating equipment, 2 from contact with a woodstove and one with a heater. The other contact burn involved pavement burns.

Explosions caused three, or 12% of the injuries to older adults. Two (2) people in this age group were injured at the Boston Marathon. Gasoline was the cause of the other explosive injury to older adults in 2013.

Burns from fires also caused three, or 12%, of burn injuries to adults over the age of 65. A house fire, a brush fire and a camp fire each caused one of these injuries.

Leading Causes of Burns to Older Adults (65+)



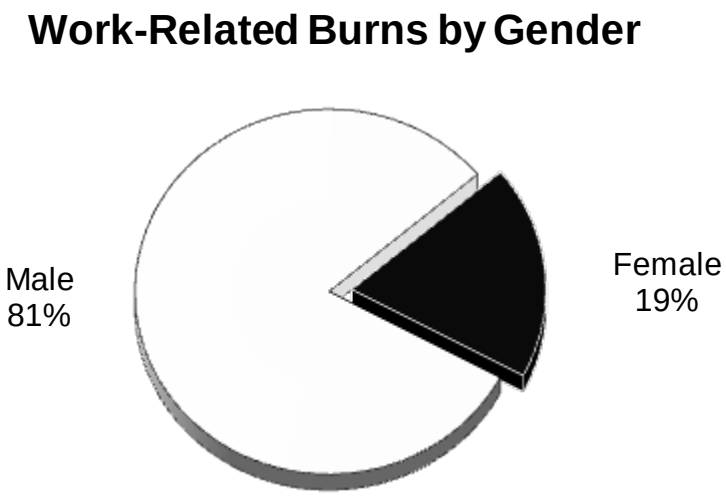
According to the Burn Awareness Coalition, the following scenarios increase the chance of a burn injury for older adults: smoking when tired, drinking alcohol or taking medications which can cause drowsiness, wearing loose fitting clothing while cooking, kitchen fires from unattended cooking, and grease fires on the stove top. During 2013, cooking accounted for seven, or 27% of the reported burn injuries in Massachusetts incurred by older adults and smoking accounted for three, or 12% of the burn injuries to older adults.

Safety Tips for Older Adults

- Cook with the pot and pan handles turned in.
- Wear clothes with short or tight fitting sleeves and watch for clothes touching elements on the stove.
- Never leave boiling, broiling or frying food unattended.
- Keep stove surfaces clean of built up grease.
- Do not attempt to lift or carry heavy pots of hot liquid or food.
- Do not use a cooking stove for heating purposes or for drying clothes.
- Remember “Stop, Drop, & Roll”: It just may save your life.
- Do not smoke when you are tired, drinking alcohol or taking medications that make you drowsy. If you must smoke, make sure there are working smoke detectors in the immediate vicinity.

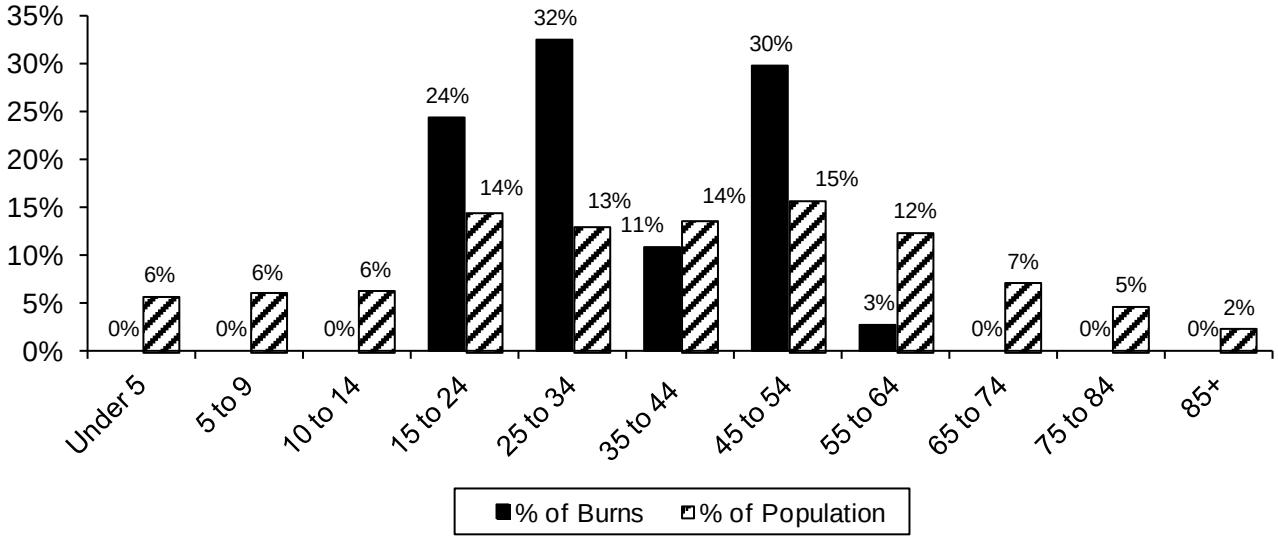
Work-Related Burn Injuries

9% of Reported Burns Occurred at Work
Massachusetts hospitals indicated that 37, or 9% of the 432 burn injuries reported in 2013 occurred while the victim was at work. Men were much more likely to be burned while working than women. Thirty (30) men, or 81%, and seven women, or 19%, were burned at work in 2013.



Over 1/2 of Work-Related Burns Incurred by People Between 15 and 34
No one under the age of 18 received a work-related burn in 2013. Nine (9), or 24%, were between 15 and 24 years of age. Twelve (12), or 32%, of the victims were between 25 and 34 years of age; four, or 11%, belonged to the 35 to 44 age group. Eleven (11), or 30%, of work-related burn injuries were victims 45 to 54 years old. One (1), or 3%, of work-related burns occurred in the 55 to 64 age group; which was the oldest age group to have any work-related burns. There was only one work-related burn injury to this age group in 2012. The youngest person to receive treatment for a work-related burn in Massachusetts in 2013 was an 18-year old girl who received a scald burn from a hot beverage. The oldest victim to receive a work-related burn was a 55-year old man who received a scald burn from steam.

Work-Related Burns by Age Group



Scalds Caused 32% of Work-Related Burns
Scalds were the leading cause of work-related burns in 2013. These 12 burn injuries accounted for 39% of work-related burns. Seven (7) involved cooking activities; six were caused by cooking liquids and one was caused by hot food. Hot beverages and steam each caused two of these burns. A car radiator accounted for one of the work-related scald burns in 2013.

Explosions caused eight, or 22% of the work-related burns. Ignitable liquids caused three of these injuries; ignitable liquids other than gasoline caused two, and gasoline caused one of these injuries. Chemicals and propane each caused two explosion-related burn injuries and an electrical explosion caused one work-related explosion burn injury in 2013.

Flame burns also accounted for eight, or 22% of these work-related burns. Welding and cutting torches caused three of these burns; welding caused two and a cutting torch caused one. Ignitable liquids were responsible for two of these injuries; one was caused by gasoline, the other by another ignitable liquid. Alcohol, a chemical and an oven each caused one of the work-related flame burn injuries in 2013.

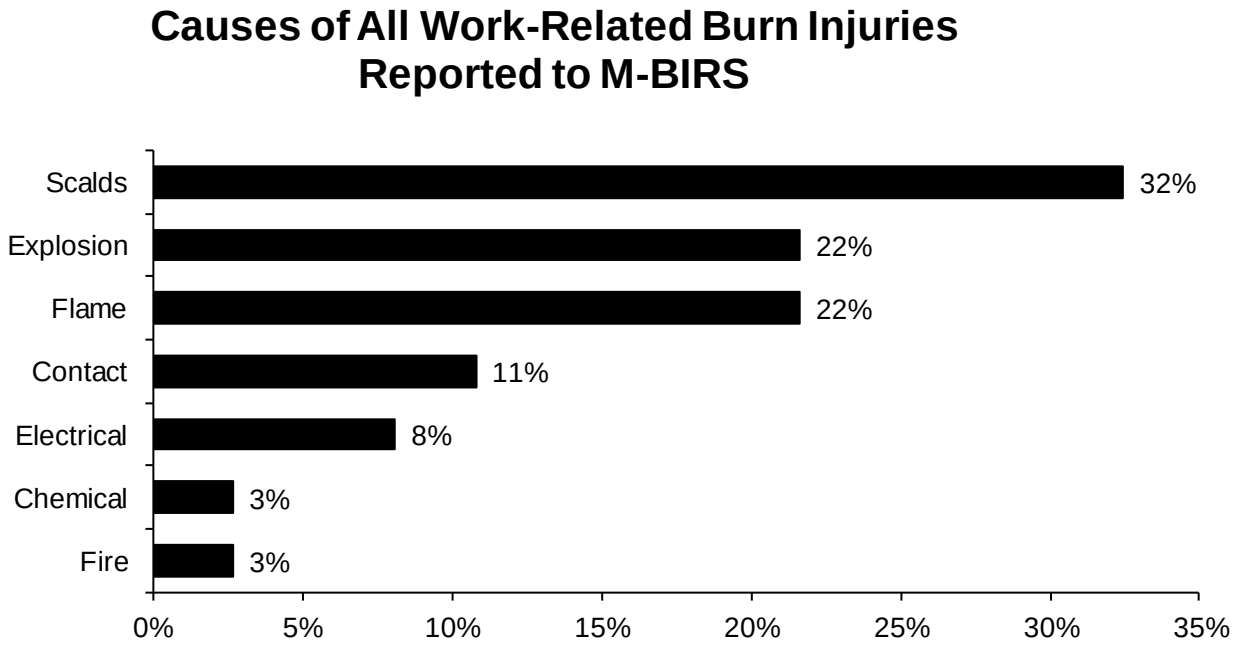
Four (4) victims, or 11%, received contact burns while working in 2013. Asphalt, a machine, pavement burns and a stove were each responsible for one burn injury.

Three (3) electrocutions accounted for all three electrical work-related burns. These accounted for 8%, of work-related burns in 2013.

One (1) victim was burned in a structure fire while at work in 2013. This burn accounted for 3% of the work-related burn injuries in 2013.

A chemical caused the only *Other* type work-related burn in 2013. This accounted for 3%, of work-related burns.

The following chart shows the breakdown of the causes of all work-related burn injuries reported to M-BIRS regardless of whether they occurred in Massachusetts or not.



78% of Work-Related Burns Reported to M-BIRS Occurred in MA
Most, but not all of the work-related burn injuries treated in Massachusetts occurred in Massachusetts. Twenty-nine (29), or 78% of the 37 work-related burns reported to M-BIRS in 2013 occurred in Massachusetts. Three (3) of the work-related burns reported to M-BIRS occurred in New Hampshire, two occurred in Maine, and one each in New York and Vermont. There was one reported injury where the victims lived in Massachusetts but the address where the burn occurred was not reported.

Intervention and Prevention Efforts
The Massachusetts Department of Public Health (MDPH) tracks work-related burn injuries as part of ongoing sentinel surveillance of work-related injuries and illnesses in Massachusetts. MDPH refers select burn injuries to the Occupational Safety and Health Administration (OSHA) for inspection to ensure that the hazardous conditions associated with the burn injuries among employees in the private sector have been corrected, and to ensure that workers are no longer at risk from hazardous conditions. MDPH also refers work-related burn injuries among public sector workers to the Massachusetts Department of Labor Standards (DLS).

MDPH requested that OSHA investigate 13 workplaces in 2013; OSHA was already involved in investigating the two incidents that resulted in fatalities. OSHA was also investigating another

life-threatening burn injury from an explosion at a powder metallurgy company and one additional burn injury involving electrical hazards in landscaping work. No referrals were made to DLS for burn injuries this year.

Twelve (12) companies were inspected by OSHA based solely on the MDPH referrals. Ten investigations resulted in citations and fines and one resulted in an OSHA Hazard Alert letter. At one company, OSHA found seven citable violations including two regarding management of flammable liquids, one about wiring and two regarding workers' right to know. In this company, subsequent investigations also found violations of other health hazards, including failure to protect workers against lead.

2 Work-related Fatalities Due to Burn Injuries
A 26-year-old male foreman employed by a landscaping company suffered electrical and thermal burns while trimming tree branches. The victim was working from a raised aerial lift when the pole saw he was using came in contact with energized overhead power lines that also ignited the gas tank on the saw.

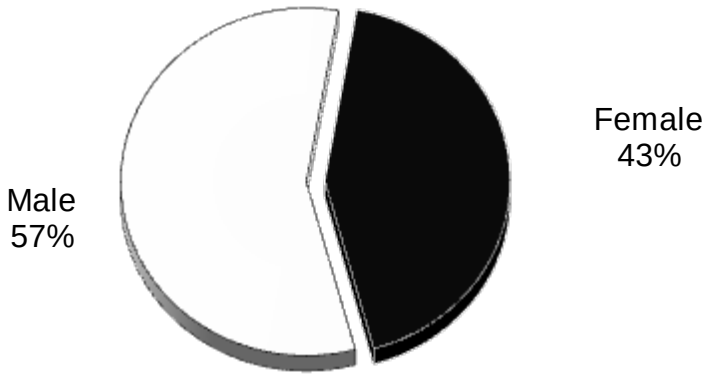
A 51-year-old male chemist employed by a chemical manufacturing company was killed during a chemical explosion with ensuing fire. The victim had been working in a laboratory making a pyrophoric or air-sensitive metal organic product when the special container exploded.

The relationship between the Department of Fire Services, Department of Public Health and OSHA serves as a model for how state and federal agencies can collaborate around the country. Based on this model, MDPH has also initiated referrals for amputation injuries, and is working on a guide for health departments to learn about OSHA which will enhance communication and action on serious work-related cases.

Burn Injuries in the Home

Almost 2/3 of Burn Injuries Occur in the Home
The home is the most common place for burn injuries to occur. In 2013, 284 people, or 66%, of all the reported burn injuries took place in the victim's home or surrounding yard. More men were burned at home than women. One hundred and sixty-two (162) men, or 57%, and 122 women, or 43%, were burned at home in 2013.

Home Burns by Gender



57% of All Home Burns Are Scalds
One hundred and sixty-three (163), or 57% of the burn injuries that occurred in the home in 2013 were scalds. Cooking activities caused 92 of these home burn injuries; cooking liquids caused 65, hot foods caused 24, a pressure cooker and an unspecified cooking act each caused one. Hot beverages caused 41 of burns at home. Scalds from hot tap water accounted for 24 of these burns. Clothes irons caused two of these burns. An assault, a car radiator, a heating radiator and steam each accounted for one of all home burn injuries in 2013.

Flame Burns Were the 2nd Leading Cause of Burns at Home
Flame burns were the second leading cause of burn injuries in the home. Flame burns accounted for 54, or 18% of all home-related burn injuries. Cooking activities accounted for 17 home flame burn injuries; cooking liquids caused six, stoves caused four, gas grills also caused four, unspecified cooking acts accounted for two and a clothing ignition while cooking caused one of these injuries. Smoking caused nine of these flame burn injuries; smoking while on oxygen caused seven injuries, a clothing ignition from smoking and an unspecified smoking act each caused one of these burns. Seven (7) were caused by ignitable liquids; five were from gasoline and two were from other ignitable liquids. Four of these burn injuries involved candles; two of them were clothing ignitions. Three (3) people were burned attempting self-immolation inside their homes in 2013. Three (3) of these injuries resulted from clothing ignitions. Alcohol, an assault, a chemical, propane and welding each caused one, or less than 1% of the home burn injuries in 2013.

Burn Injuries From Fires Responsible for 10% of Burns in Homes
Burn injuries from fires accounted for 28, or 10% of all burn injuries in homes. There were 16 injuries caused by camp or bon fires in the victim's yards. Eleven (11) injuries were from house fires. Brush fires caused two of these injuries.

6% of Home Burns Come from Touching Hot Items
Contact burn injuries accounted for 17, or 6% of all the burn injuries that occurred in homes in 2013. Cooking activities caused seven of these burns; two from contact with an oven, two from

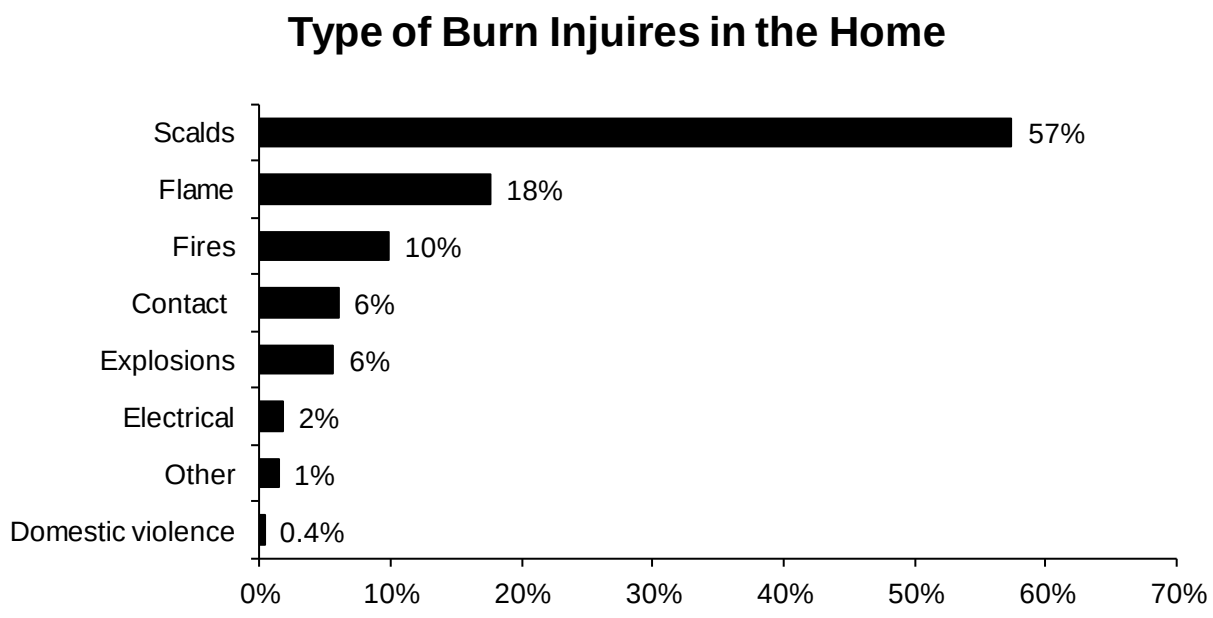
unspecified cooking acts and one each from contact with a gas grill, a stove and a toaster. Touching heating equipment burned five victims at home; four injuries involved heaters, the other a woodstove. Contact with a car radiator, a clothes iron, embers, pavement burns, and hot wax each caused one of the reported burn injuries that occurred in homes in 2013.

Explosions Responsible for 6% of Burns in Homes
Explosions caused 16, or 6%, of all reported burn injuries in homes in 2013. Cooking activities were involved in three home explosion injuries; one was from a gas grill, one involved a pressure cooker, and the other involved an unspecified cooking act. Two (2) of these injuries involved boilers. Ignitable gases were involved in two of these burn injuries; one involved propane and the other three involved another ignitable gas. Explosives were also involved in two explosion related burn injuries in the home in 2013; one involved making a bomb and the other fireworks. Two (2) of these injuries involved lighters, with one handled by a child. A chemical, a child playing with a lighter, a clothing ignition, gasoline, welding and an unknown act were each involved in one of the 2013 home explosion burn injuries.

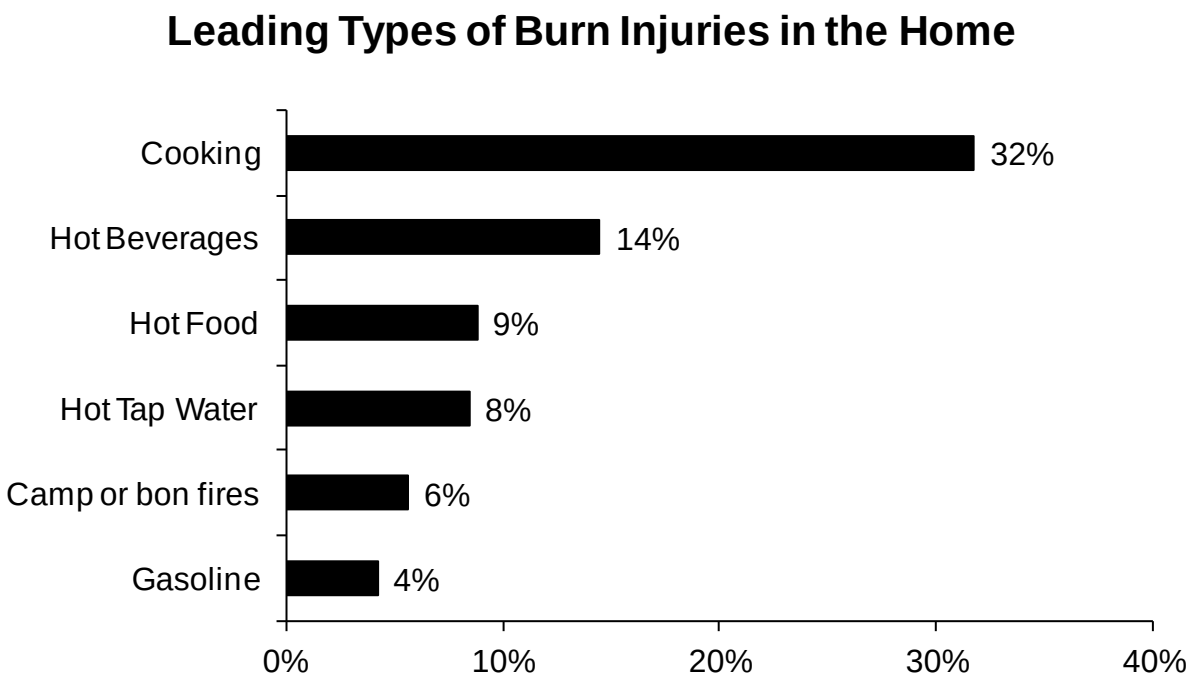
2% of Home Burns Caused by Electrical Problems
Five (5) persons received electrical burns at home in 2013 from electrocutions. These five injuries account for 2% of all burns in the home in 2013.

***Other* Types of Burns Caused 1% of Home Burns**
Four (4) *Other* types of burn injuries were reported occurring to victims in their homes in 2013, accounting for 1% of home burn injuries in 2013. Three (3) of these injuries involved chemicals and the other involved a sunburn.

1 Case of Domestic Violence in the Home
In 2013, one person was burned in a case of domestic violence in the home. This chemical burn injury accounted for less than 1% of all home burns.

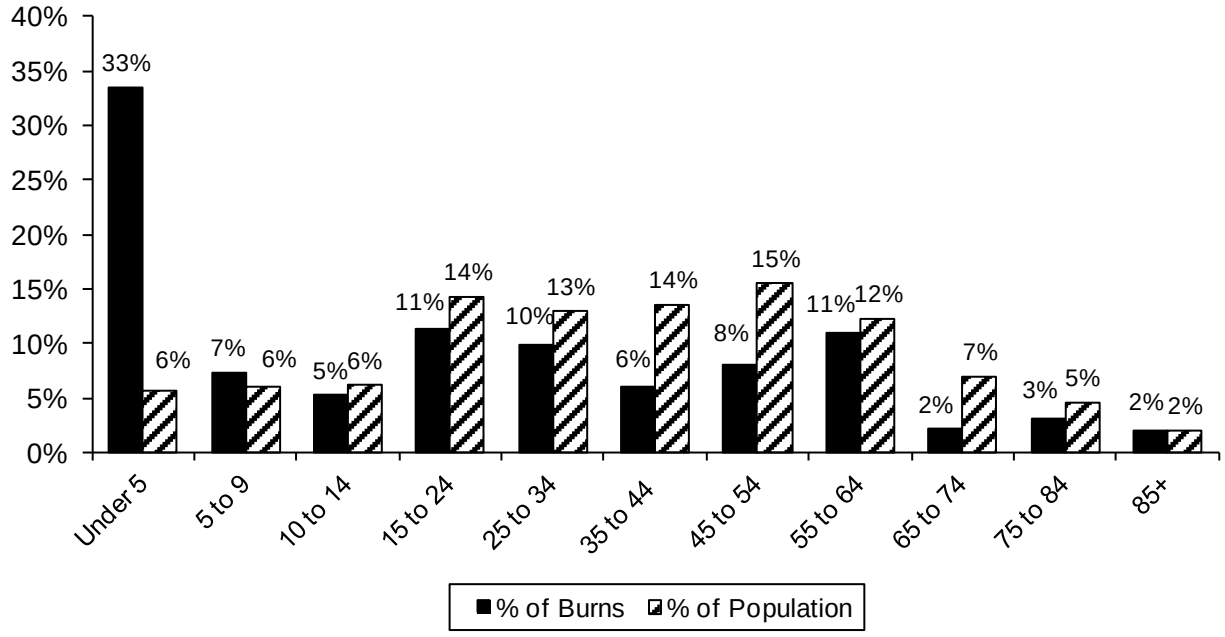


Cooking Caused Almost 1/3 of Burn in Homes
In 2013 cooking activities, other than hot food, caused the most overall burns regardless of burn type. Burns from cooking caused 90, or 32% of burns in Massachusetts homes. Hot beverages were the cause of 41, or 14%, of home burns in 2013. Hot food was the cause of 25, or 9% of home burns in 2013. Hot tap water accounted for 24, or 8% of these burns. Camp or bon fires in people's back yards caused 16, or 6% of these burns. Gasoline was involved in 12, or 4% of home burn injuries.



1/3 of Home Burns Were to Children Under 5
Thirty-three percent (33%) of the 284 victims that received their burns at home were less than five years old. They were six times more likely to suffer a burn at home. Children between the ages of five and nine received 7% of the burn injuries that occurred in people's homes, while children aged 10 to 14 accounted for 5% of these injuries. Young adults between the ages of 15 and 24 accounted for 11% of these burns; 10% were between 25 and 34; 6% were between 35 and 44; 8% were between 45 and 54; 11% were between 55 and 64; 2% were between 65 and 74; 3% were between 75 and 84; and 2% were over the age of 85.

Home Burn Injuries by Age Group



Hot Tap Water Scalds Youngest Victim
A three-month old boy, who received scald burns to 20% of his body surface area from hot tap water, was the youngest victim to receive an at-home burn injury. The oldest victim to receive a burn at home was a 92-year old woman who received burns to 40% of her body surface area from tap water while taking a bath.

3% of Home Burns Resulted in Death
Eight (8), or 3%, of the 284 reported burn injuries that occurred in homes in 2013 resulted in death for the victim. Four (4), or 50% of these deaths, were men; and four, or 50%, were women. The youngest victim was an 18-year old woman who died when her clothes ignited from a candle. The oldest victim to succumb to his injuries was a 60-year old man who received burns to 60% of his body surface in a house fire started by cooking.

For more information on all residential fire deaths please refer to the annual reports of the Massachusetts Fire Incident Reporting System (MFIRS). Most victims of fatal fires die immediately and are not reported to or captured by M-BIRS.

Burn Injury Reports by Hospital

Forty-two (42) out of the 97 acute care health care facilities in Massachusetts submitted a total of 482 burn injury reports for 432 victims to the Massachusetts Burn Injury Reporting System (M-BIRS). Some individuals were treated at more than one hospital, resulting in more burn reports than total victims. For information on the number of burn reports submitted by each hospital, please refer to the table *Number of Reported Burn Injuries Per Hospital* in the Appendix.

Law Requires Hospitals to Report Burn Injuries Over 5% of the Body
Massachusetts General Law (MGL) Chapter 112, Section 12A requires all physicians and medical treatment facilities to immediately report treatment of every burn injury extending to 5% or more of a person's body surface area to the State Fire Marshal and to the police department in the community in which the burn occurred.

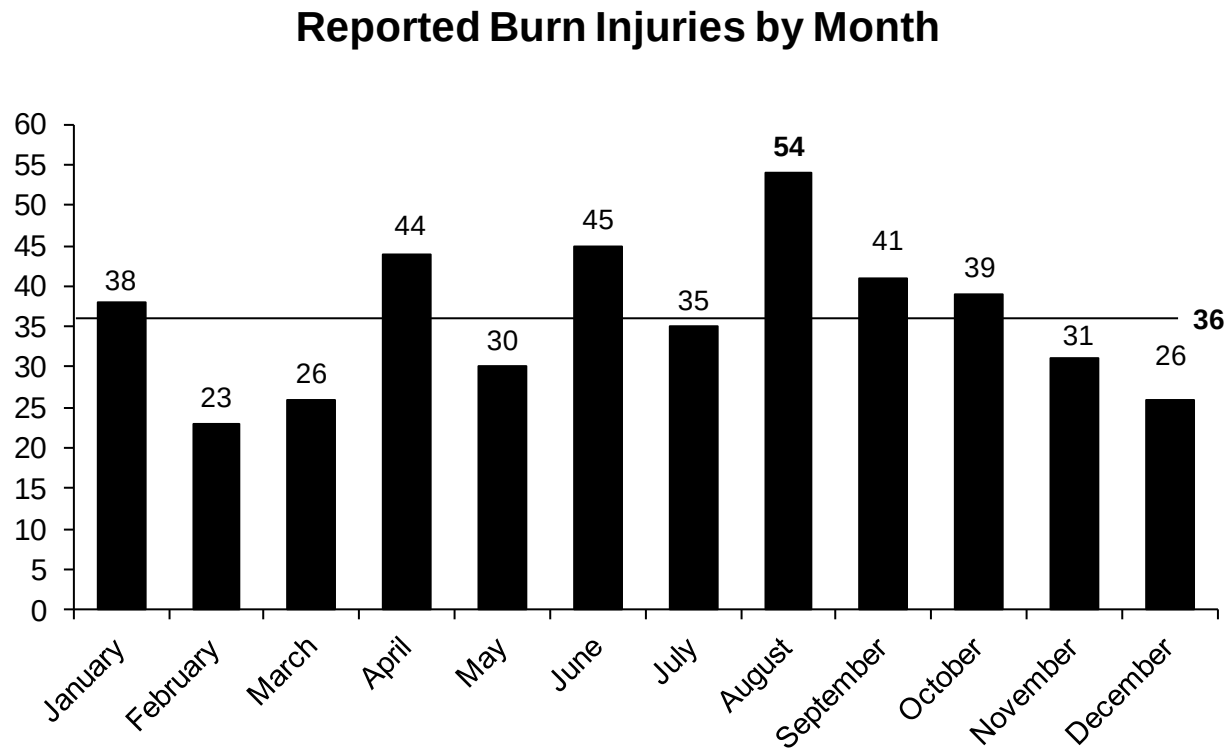
Hospitals May Fax Reports or Call and Submit Written Reports
Health care facilities have a choice about how to report burn injuries. Health care providers may fax their burn injury reports to the State Fire Marshal at the Department of Fire Services, (978) 567-3199. A completed transmission will satisfy both the telephone and written notification provisions of the law. Hospitals not opting for the fax report method must report burn injuries by telephone at (800) 475-3443 and submit a written report.

Although M-BIRS was instituted under the Department of Public Safety in June of 1984, Massachusetts hospitals have been required to report burn injuries to a government agency since 1973. M-BIRS, along with the Office of the State Fire Marshal, was carried over to the newly created Department of Fire Services in 1996. It remains a joint program of the state Department of Fire Services and the Massachusetts Department of Public Health.

M-BIRS Has Two Main Purposes — Identifying Arsonists and Burn Prevention
Data collected by the Massachusetts Burn Injury Reporting System is used in several ways. Investigators use the data to determine if an arsonist was treated for a burn that resulted from an attempt to illegally burn a building or vehicle and then attempt to avoid detection by seeking medical treatment far from the crime scene. Our data has also been used to identify problems that need to be addressed through public education or regulation and to develop appropriate strategies. We need to know what type of activity injures who, if the injuries are seasonal, and how old the victims are in order to develop and implement effective prevention programs. We appreciate the efforts of the many dedicated doctors, nurses and clerical personnel who report the burn injuries promptly and completely. They make the program work.

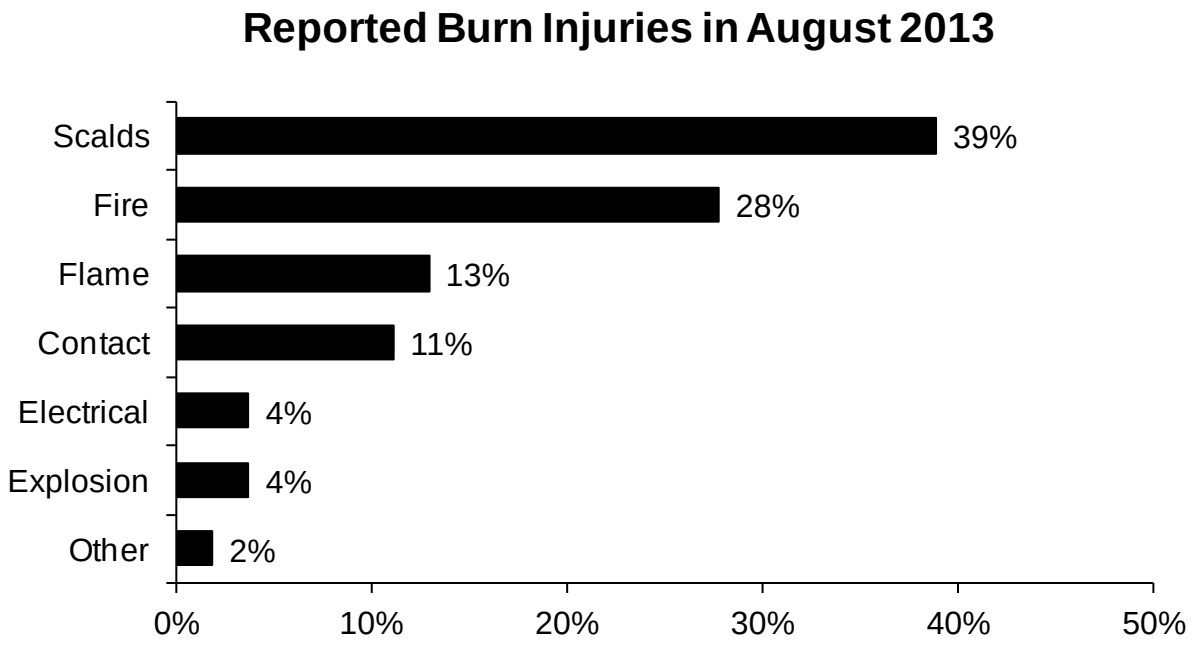
Burn Injuries by Month

Average of 36 Burns a Month
An average of 36 burns was reported during each month of 2013, from a low of 23 in February to a high of 54 in August. It is greater than the 5-year (2009-2013) average of 35 burns per month and also above the 10-year (2004-2013) average of 33 burns per month.



Scalds caused the most burn injuries during all 12 months of the year.

August Was the Peak Month for Burns
August was the peak month for burns in 2013. Fifty-four (54) burn injuries were reported to M-BIRS during August. Scalds accounted for 21, or 39% of these burns during this month. Burns from fires caused 15, or 28% of the burn injuries in August. Flame burn injuries caused seven, or 13%, of these burns. Contact burns accounted for six, or 11% of these injuries. Electrical burns caused two, or 4% of these injuries. Burns from explosions accounted for two, or 4% of August's burn injuries. *Other* burns caused one, or 2% of these injuries.



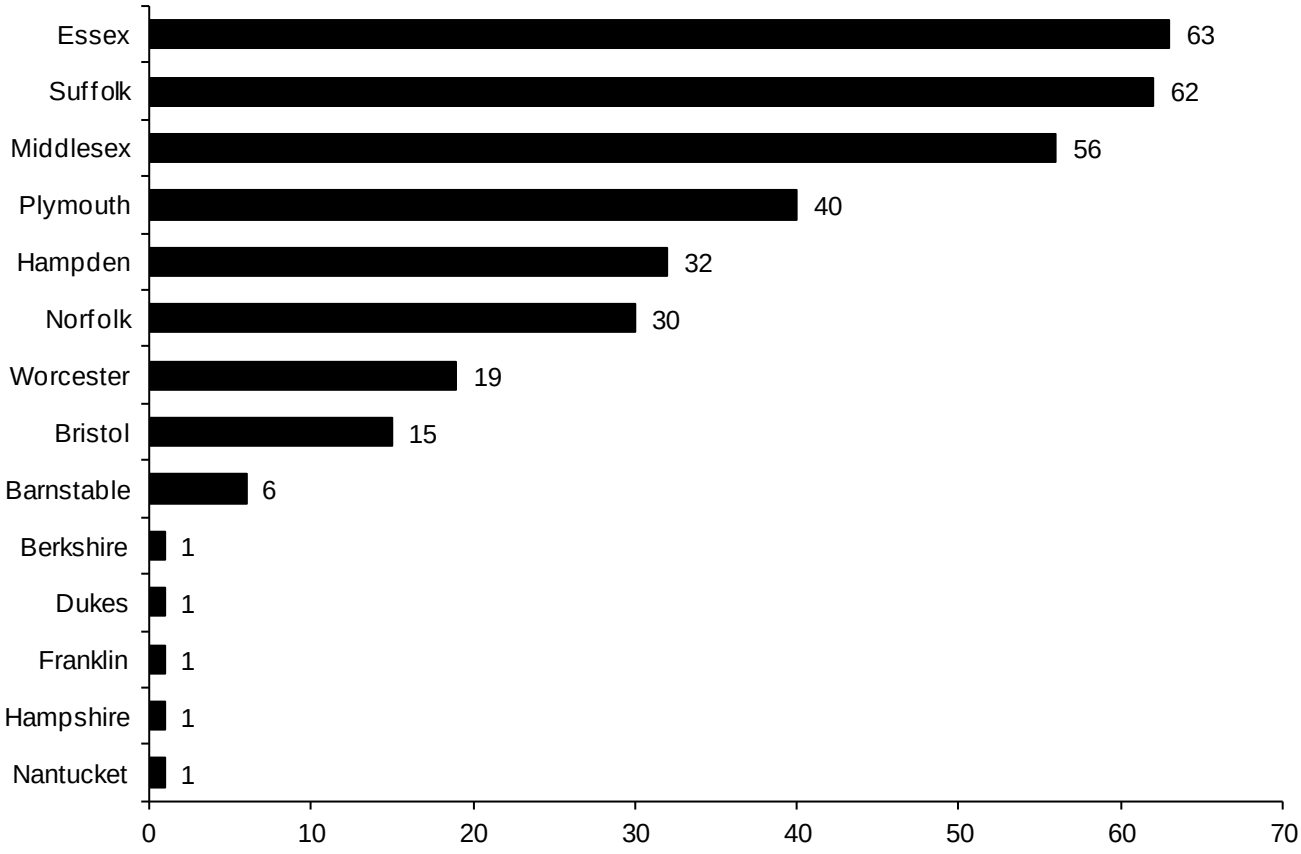
For more information, please refer to the table *Causes of Burn Injuries by Month* in the Appendix.

Geographical Demographics

Massachusetts Burn Victims from 135 Cities and Towns
Massachusetts medical facilities treated 328 residents of 135 Massachusetts cities and towns. Burn victims came from all 14 counties in the Commonwealth. The largest numbers of reported burn injuries were incurred by residents of Essex, Suffolk and Middlesex counties. It appears that some large Boston hospitals (Suffolk County) may have under reported the burns they treated.

One hundred and four (104) burn victims from out-of-state received treatment at Massachusetts facilities. Some of the people were injured while vacationing here; others came to Massachusetts specifically for the specialized treatment of burn injuries that is available in the Commonwealth.

Reported Burn Injuries by County



For information on the number of burn victims from each Massachusetts community, please refer to the table *Burn Injuries by Victim's Community* in the Appendix.

Boston & Springfield had the Most Reported Burn Injuries

Boston was home to the most burn injury victims with 51 of its residents reported to have a burn injury in 2013. This is up from 39 reported in 2012. Springfield had the second largest number of victims with 19. Lawrence had 17 injury reports, Brockton had 13, Haverhill had nine and Chelsea had seven residents receive burn injuries. Weymouth had six residents with burn injuries and both Lowe1l and Lynn each had five reported burn injuries in 2013.

Burns Per 10,000 Population

The map on page 63, *2013 Burns by 10K Population*, displays the number of burns reported by community per 10,000 of its residents. The darker the community is shaded the more burns per 10,000 population were reported from that municipality. Cities and towns that are white did not have a reported burn injury in 2013.

If we look at the number of burn injuries compared to the total population of the individual community we get a different picture. One would expect the bigger cities and towns to have more burn injuries because of their populations. When we calculate the rate of reported burn injuries for every 10,000 people in a given municipality, the ranking changes. The top six communities in terms of the total number of reported injuries fall towards the bottom of the rankings. Communities with one, two or three reported burns take over the top spots because of the very small populations. These communities may have a rate that far exceeds the actual number of burns that were reported. The legend symbols are consistent in both maps.

East Brookfield had the highest rate of burn injuries per 10,000 population at 4.58. Next highest was Plympton with 3.55 burn injuries per 10,000 population; Ashby had 3.25; Hatfield had 3.05; Brookfield had 2.95; and Princeton had 2.93 burn injuries per 10,000 population[7].

Scalds Per 10,000 Population

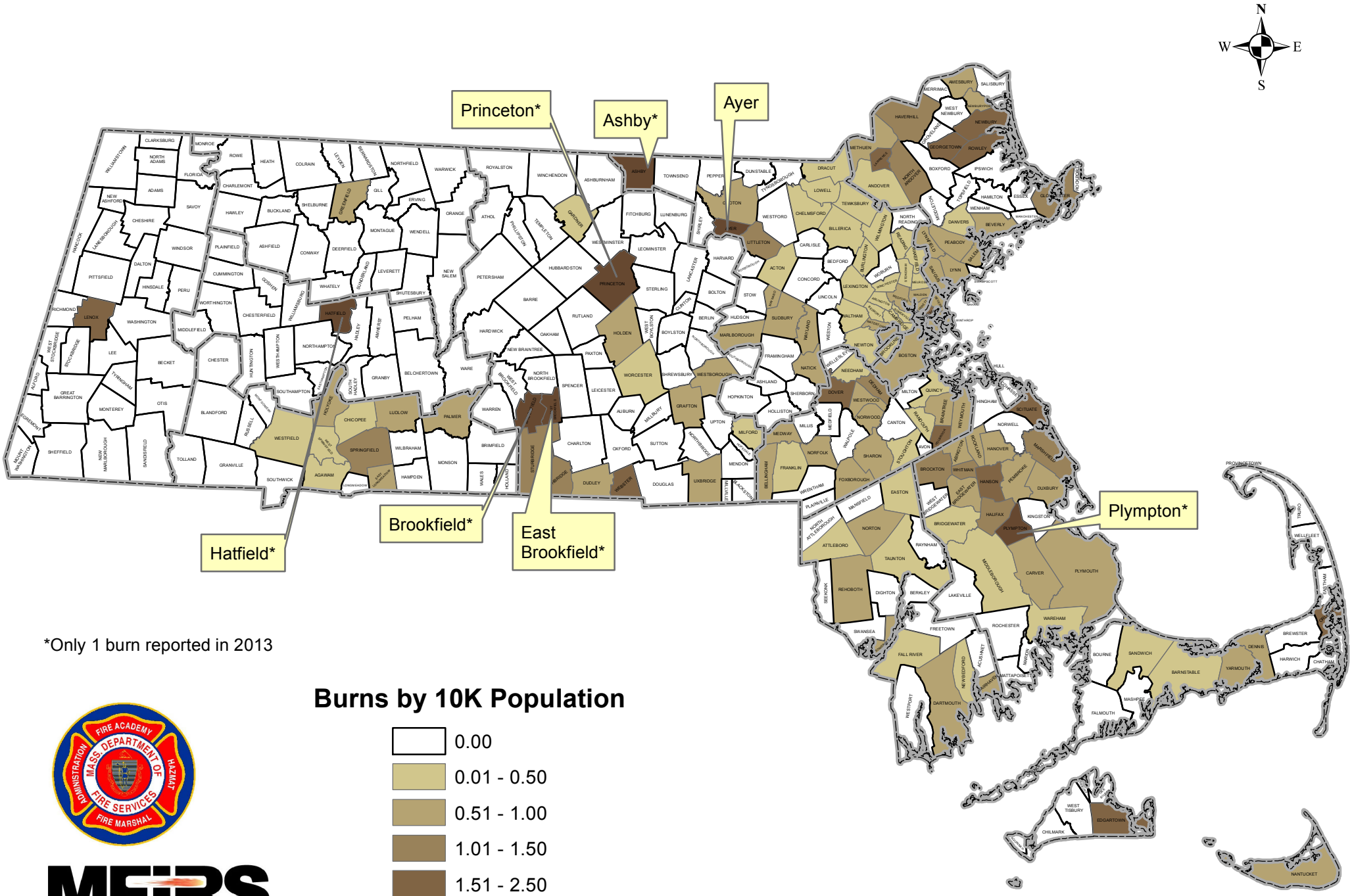
The map on page 64, *2013 Scalds per 10K Population*, displays the rate of reported scald burn injuries by the victim's home community for every 10,000 of that community's population. The darker the community is shaded the more burn injuries per 10,000 people were reported from that municipality. Cities and towns that are white did not have a reported burn injury in 2013.

Manchester had the highest rate of 3.89 scald burn injuries per 10,000 population. Next highest was Hatfield with 3.05 scald burn injuries per 10,000 population; Edgartown had 2.46; Dover had 1.79; and Orleans had 1.70 scald burn injuries per 10,000 population[8].

[7] Each of these towns only had 1 burn injury reported in 2013.

[8] Each of these communities only had one scald burn reported in 2013, except Manchester which had two reported scalds.

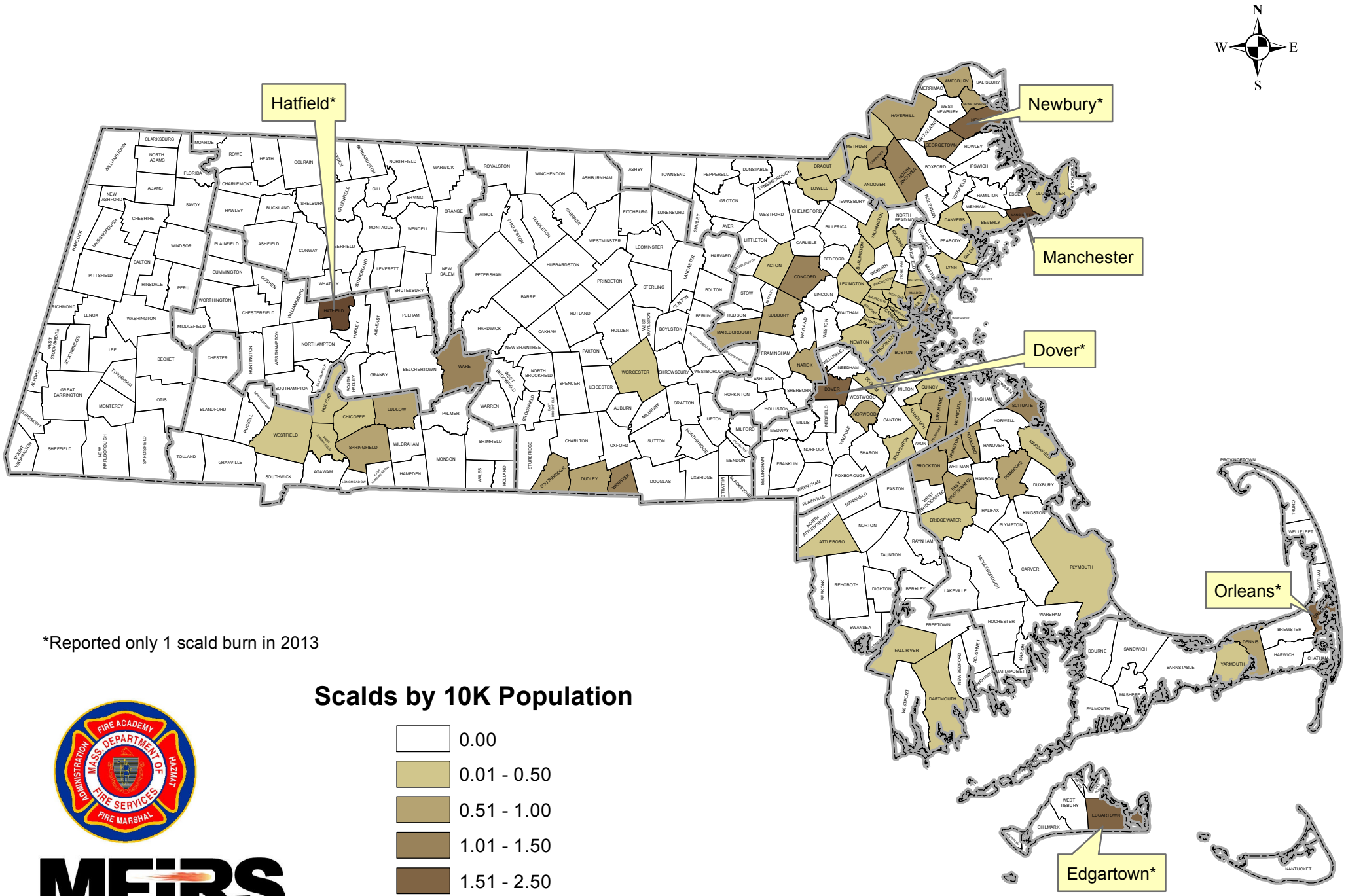
2013 MA Burns by 10K Population



*Only 1 burn reported in 2013

MFIRS
Massachusetts Fire Incident Reporting System

2013 MA Scalds by 10K Population



*Reported only 1 scald burn in 2013

MFIRS
Massachusetts Fire Incident Reporting System

2013 Appendix

* Italicized names are sub-categories for the headings listed above them.

Specific Causes of Burn Injuries

Cause	# of Burns	% of Burns
Scalds	**201**	**46.5%**
Cooking	102	23.4%
Cooking Liquids	*76*	*17.6%*
Food	*27*	*12.5%*
Cooking (Unspec.)	*2*	*0.5%*
Pressure Cooker	*1*	*0.2%*
Beverages	54	12.5%
Hot Tap Water	25	5.8%
Car Radiator	8	1.9%
Steam	3	0.7%
Clothes iron	2	0.5%
Assault	1	0.2%
Pipe	1	0.2%
Radiator	1	0.2%
Flame Burns	**69**	**16.0%**
Cooking	22	5.1%
Cooking Liquids	*7*	*1.6%*
Stove	*4*	*0.9%*
Barbeque (gas)	*3*	*0.7%*
Barbeque	*2*	*0.5%*
Cooking (Unspec.)	*2*	*0.5%*
Cook/Clothes	*2*	*0.5%*
Food	*1*	*0.2%*
Oven	*1*	*0.2%*
Ignitable Liquids	11	2.5%
Gasoline	*7*	*1.6%*
Ignitable Liquids	*4*	*0.9%*
Smoking	11	2.5%
Smoking on Oxygen	*7*	*1.6%*
Smoking (Unspec.)	*2*	*0.5%*
Smoking/Clothes	*2*	*0.5%*
Candles	4	0.9%
Candle	*2*	*0.5%*
Candle/Clothes	*3*	*0.5%*
Welding/Cutting Torch	4	0.9%
Welding	*3*	*0.7%*
Cutting Torch	*1*	*0.2%*

Cause	# of Burns	% of Burns
Flame Burn (con't)		
Clothes (Unspec.)	3	0.7%
Self-immolation	3	0.7%
Alcohol	2	0.5%
Assault	2	0.5%
Chemical	2	0.5%
Fireworks	2	0.5%
Woodstove	2	0.5%
Propane	1	0.2%
Fires	**67**	**15.5%**
Camp or Bon Fires	43	10.0%
Camp Fire	*17*	*3.9%*
Gasoline	*10*	*2.3%*
Bon Fire	*6*	*1.4%*
Embers	*3*	*0.7%*
Flammables	*3*	*0.7%*
Ignitable Liquids	*2*	*0.5%*
Aerosol	*1*	*0.2%*
Assault	*1*	*0.2%*
House Fires	13	2.8%
Unspecified	*4*	*0.9%*
Cooking (Unspec.)	*2*	*0.5%*
Arson	*1*	*0.2%*
Child w/matches	*1*	*0.2%*
Electrical (Unspec.)	*1*	*0.2%*
Fireplace	*1*	*0.2%*
Lamp	*1*	*0.2%*
Self-immolation	*1*	*0.2%*
Motor Vehicle Fires	6	1.4%
MV Accident	*4*	*0.9%*
Car Fire	*1*	*0.2%*
Gasoline	*1*	*0.2%*
Brush Fires	4	0.9%
Unspecified	*2*	*0.5%*
Gasoline	*1*	*0.2%*
Self-immolation	*1*	*0.2%*
Structure Fires	2	0.5%
Barbeque	*1*	*0.2%*
Unspecified	*1*	*0.2%*

Cause	# of Burns	% of Burns
Explosions	**29**	**8.1%**
Explosives	18	4.2%
Unspecified	*16*	*3.7%*
Bomb Making	*1*	*0.2%*
Fireworks	*1*	*0.2%*
Ignitable Gases	7	1.6%
Propane	*5*	*1.2%*
Natural Gas	*1*	*0.2%*
Ignitable gases	*1*	*0.2%*
Ignitable Liquids	7	1.6%
Gasoline	*5*	*1.2%*
Ignitable Liquids	*2*	*0.5%*
Chemical	3	0.7%
Cooking	3	0.7%
Barbeque (Gas)	*1*	*0.2%*
Cooking (Unspec.)	*1*	*0.2%*
Pressure Cooker	*1*	*0.2%*
Child w/Lighter	1	0.2%
Clothes (Unspec.)	1	0.2%
Electrical	1	0.2%
Lighter	1	0.2%
Welding	1	0.2%
Unspecified	1	0.2%
Contact Burns	**27**	**6.3%**
Cooking	10	2.3%
Barbeque	*2*	*0.5%*
Cooking (Unspec.)	*2*	*0.5%*
Oven	*2*	*0.5%*
Stove	*2*	*0.5%*
Barbeque (Gas)	*1*	*0.2%*
Toaster	*1*	*0.2%*
Heating	6	1.4%
Heater	*4*	*0.9%*
Woodstove	*2*	*0.5%*

Cause	# of Burns	% of Burns
Contact Burn (con't)		
Pavement Burns	3	0.7%
Embers	2	0.5%
Asphalt	1	0.2%
Car Radiator	1	0.2%
Clothes Iron	1	0.2%
Machine	1	0.2%
Metal	1	0.2%
Wax	1	0.2%
Other Burn Injuries	**11**	**2.5%**
Sunburn	7	1.6%
Chemical	4	0.9%
Electrical	**9**	**2.1%**
Electrocution	8	1.9%
Electrical (Unspec.)	1	0.2%
Domestic Violence	**1**	**0.2%**
Chemical	1	0.2%
Not Reported	**1**	**0.2%**
Unknown	1	0.2%

Causes of Burn Injuries by Age

UNDER 5	**113**	**26.2%**
Cause	**# of Burns**	**% By Age**
Scalds	**94**	**83.2%**
Beverages	45	39.8%
Cooking	37	32.7%
Cooking Liquids	*24*	*21.2%*
Food	*13*	*11.5%*
Hot Tap Water	13	11.5%
Clothes Iron	1	0.9%
Contact	**11**	**9.7%**
Cooking	5	4.4%
Barbeque	*2*	*1.8%*
Oven	*1*	*0.9%*
Stove	*1*	*0.9%*
Toaster	*1*	*0.9%*
Embers	2	1.8%
Heater	2	1.8%
Clothes Iron	1	0.9%
Metal	1	0.9%
Fire	**5**	**4.4%**
Camp or Bon Fires	4	3.5%
Camp Fire	*3*	*2.7%*
Embers	*1*	*0.9%*
House Fires	1	0.9%
Child w/Matches	*1*	*0.9%*
Flame	**1**	**0.9%**
Ignitable Liquids	1	0.9%
Explosions	**1**	**0.9%**
Explosives	1	0.9%
Other	**1**	**0.9%**
Sunburn	1	0.9%

AGES 5 TO 9	**29**	**6.7%**
Cause	**# of Burns**	**% By Age**
Scalds	**22**	**75.9%**
Cooking	13	44.8%
Food	*7*	*24.1%*
Cooking Liquids	*6*	*20.7%*
Hot Beverages	4	13.8%
Hot Tap Water	4	13.8%
Radiator	1	3.4%
Fires	**2**	**6.9%**
House Fires	1	3.4%
Electrical	*1*	*3.4%*
Camp or Bon Fires	1	3.4%
Camp Fire	*1*	*3.4%*
Flame	**2**	**6.9%**
Fireworks	1	3.4%
Gasoline	1	3.4%
Electrical	**1**	**3.4%**
Electrocution	1	3.4%
Explosions	**1**	**3.4%**
Child w/Lighter	1	3.4%
Other	**1**	**3.4%**
Sunburn	1	3.4%

AGES 10 TO 14	**19**	**4.4%**
Cause	**# of Burns**	**% By Age**
Scalds	**10**	**52.6%**
Cooking	10	52.6%
Cooking Liquids	*8*	*42.1%*
Food	*2*	*10.5%*
Electrical	**4**	**21.1%**
Electrocution	3	15.8%
Electrical (Unspec.)	1	5.3%
Fire	**3**	**15.8%**
Camp or Bon Fires	2	10.5%
Gasoline	*1*	*5.3%*
Camp Fire	*1*	*5.3%*
Brush Fires	1	5.3%
Brush Fire	*1*	*5.3%*
Explosion	**1**	**5.3%**
Gasoline	1	5.3%
Other	**1**	**5.3%**
Sunburn	1	5.3%

AGES 15 TO 24	**67**	**15.5%**
Cause	**# of Burns**	**% By Age**
Fire	**19**	**28.4%**
Camp or Bon Fires	15	22.4%
Gasoline	*6*	*9.0%*
Bon Fires	*3*	*4.5%*
Camp Fires	*2*	*3.0%*
Ignitable Liquids	*2*	*3.0%*
Assault	*1*	*1.5%*
Embers	*1*	*1.5%*
Motor Vehicle Fires	2	3.0%
MV Accident	*2*	*3.0%*
House Fires	2	3.0%
Fireplace	*1*	*1.5%*
House Fire	*1*	*1.5%*
Flame	**17**	**25.4%**
Cooking	5	7.5%
Cooking Liquids	*3*	*4.5%*
Barbeque	*1*	*1.5%*
Cooking/Clothes	*1*	*1.5%*
Ignitable Liquids	5	7.5%
Gasoline	*3*	*4.5%*
Ignitable Liquids	*2*	*3.0%*
Assault	1	1.5%
Clothes	1	1.5%
Self-immolation	1	1.5%
Smoking/Clothes	1	1.5%
Welder	1	1.5%
Scalds	**16**	**23.9%**
Cooking	10	14.9%
Cooking Liquids	*9*	*13.4%*
Hot Food	*1*	*1.5%*
Hot Beverages	3	4.5%
Car Radiator	1	1.5%
Pipe	1	1.5%
Steam	1	1.5%
Explosion	**10**	**14.9%**
Explosives	6	9.0%
Explosives	*4*	*6.0%*
Bomb Making	*1*	*6.0%*
Fireworks	*1*	*6.0%*
Ignitable Liquids	2	3.0%
Gasoline	*1*	*1.5%*
Ignitable Liquids	*1*	*1.5%*
Cooking (Unspec.)	1	1.5%
Propane	1	1.5%
Other	**2**	**3.0%**
Sunburn	2	3.0%
Contact	**1**	**1.5%**
Cooking (Unspec.)	1	1.5%
Domestic Violence	**1**	**1.5%**
Chemical	1	1.5%
Electrical	**1**	**1.5%**
Electrocution	1	1.5%

AGES 25 TO 34	**63**	**14.6%**
Cause	**# of Burns**	**% By Age**
Fire	**14**	**22.2%**
Camp or Bon Fires	9	14.3%
Camp Fires	*2*	*9.5%*
Aerosol	*1*	*1.6%*
Bon Fire	*1*	*1.6%*
Embers	*1*	*1.6%*
House Fires	2	3.2%
Cooking	*1*	*1.6%*
Unspecified	*1*	*1.6%*
Motor Vehicle Fires	2	3.2%
Car Part	*1*	*1.6%*
MV Accident	*1*	*1.6%*
Structure Fires	1	1.6%
Barbeque	*1*	*1.6%*
Flame	**14**	**22.2%**
Cooking	4	6.3%
Stove	*3*	*4.8%*
Oven	*1*	*1.6%*
Ignitable Liquids	2	3.2%
Gasoline	*1*	*1.6%*
Ignitable Liquids	*1*	*1.6%*
Candle	2	3.2%
Candle	*1*	*1.6%*
Candle/Clothes	*1*	*1.6%*
Alcohol	1	1.6%
Fireworks	1	1.6%
Self-immolation	1	1.6%
Smoking (Unspec.)	1	1.6%
Cutting Torch	1	1.6%

Cause	**# of Burns**	**% By Age**
Scalds	**14**	**22.2%**
Cooking	10	15.9%
Cooking Liquids	*5*	*11.6%*
Food	*1*	*1.6%*
Car Radiator	2	3.2%
Assault	1	1.6%
Hot Tap Water	1	1.6%
Explosions	**11**	**17.5%**
Explosives	5	7.9%
Ignitable Gases	2	3.2%
Natural Gas	*1*	*1.6%*
Propane	*1*	*1.6%*
Boiler	1	1.6%
Chemical	1	1.6%
Lighter	1	1.6%
Other	**4**	**6.3%**
Chemical	3	4.8%
Sunburn	1	1.6%
Contact	**3**	**4.8%**
Cooking	2	3.2%
Cooking (Unspec.)	*1*	*1.6%*
Stove	*1*	*1.6%*
Pavement Burns	1	1.6%
Electrical	**2**	**3.2%**
Electrocution	3	3.2%
Not Reported	**1**	**1.6%**
Unknown	1	1.6%

AGES 35 TO 44	**30**	**6.9%**
Cause	**# of Burns**	**% By Age**
Scalds	**8**	**26.7%**
Car Radiator	3	10.0%
Cooking Liquids	3	10.0%
Hot Beverages	1	3.3%
Clothes Iron	1	3.3%
Flame	**7**	**23.3%**
Gasoline	2	6.7%
Welding	2	6.7%
Cooking	2	6.7%
BBQ (Gas)	*1*	*3.3%*
Cooking Liquids	*1*	*3.3%*
Alcohol	1	3.3%
Fire	**6**	**20.0%**
Camp or Bon Fires	4	13.3%
Flammables	*2*	*6.7%*
Bon Fires	*1*	*3.3%*
Gasoline	*1*	*3.3%*
Brush Fires	1	3.3%
Gasoline	*1*	*3.3%*
House Fires	1	3.3%
Arson	*1*	*3.3%*
Explosions	**4**	**13.3%**
Explosives	2	6.7%
Boiler	1	3.3%
Pressure Cooker	1	3.3%
Contact	**3**	**10.0%**
Asphalt	1	3.3%
Machine	1	3.3%
Wax	1	3.3%
Other	**2**	**6.7%**
Chemical	1	3.3%
Sunburn	1	3.3%

AGES 45 TO 54	**50**	**11.6%**
Cause	**# of Burns**	**% By Age**
Scalds	**14**	**28.0%**
Cooking	10	20.0%
Cooking Liquids	*8*	*16.0%*
Food	*2*	*4.0%*
Care Radiator	2	2.0%
Steam	1	2.0%
Hot Tap Water	1	2.0%
Flame	**11**	**22.0%**
Cooking	5	10.0%
BBQ (Gas)	*2*	*4.0%*
Barbeque	*1*	*2.0%*
Cooking/Clothes	*1*	*2.0%*
Cooling Liquids	*1*	*2.0%*
Assault	1	2.0%
Candle	1	2.0%
Chemical	1	2.0%
Smoking/Clothes	1	2.0%
Woodstove	1	2.0%
Explosions	**10**	**20.0%**
Ignitable Gases	4	8.0%
Propane	*2*	*4.0%*
BBQ (Gas)	*1*	*2.0%*
Ignitable Gases	*1*	*2.0%*
Explosives	2	4.0%
Chemical	1	2.0%
Electrical	1	2.0%
Gasoline	1	2.0%

Cause	**# of Burns**	**% By Age**
Fires	**9**	**18.0%**
Camp or Bon Fires	5	10.0%
Camp Fires	*1*	*2.0%*
Flammables	*1*	*2.0%*
Gasoline	*1*	*2.0%*
Brush Fire	1	2.0%
Brush Fire	*1*	*2.0%*
Motor Vehicle Fires	1	2.0%
MV Accident	*1*	*2.0%*
Structure Fires	1	2.0%
Structure Fire	*1*	*2.0%*
Contact	**5**	**10.0%**
Cooking	2	4.0%
BBQ (Gas)	*1*	*2.0%*
Oven	*1*	*2.0%*
Car Radiator	1	2.0%
Heater	1	2.0%
Pavement Burns	1	2.0%
Electrical	**1**	**2.0%**
Electrocution	1	2.0%

AGES 55 TO 64	**35**	**8.1%**
Cause	**# of Burns**	**% By Age**
Scalds	**14**	**40.0%**
Cooking	10	28.6%
Cooking Liquids	*6*	*17.1%*
Cooking (Unspec.)	*2*	*5.7%*
Food	*1*	*2.9%*
Pressure Cooker	*1*	*2.9%*
Hot Tap Water	2	5.7%
Hot Beverages	1	2.9%
Steam	1	2.9%
Flame	**10**	**28.6%**
Smoking on Oxygen	5	14.3%
Cooking	2	5.7%
Cooking (Unspec.)	*1*	*2.9%*
Food	*1*	*2.9%*
Chemical	1	2.9%
Self-immolation	1	2.9%
Welding	1	2.9%
Fire	**6**	**17.1%**
House Fires	4	11.4%
House Fire	*1*	*2.9%*
Cooking	*1*	*2.9%*
Lamp	*1*	*2.9%*
Self-immolation	*1*	*2.9%*
Camp or Bon Fires	2	5.7%
Bon Fire	*1*	*2.9%*
Camp Fire	*1*	*2.9%*
Explosion	**5**	**14.3%**
Chemical	1	2.9%
Gasoline	1	2.9%
Propane	1	2.9%
Welding	1	2.9%
Unknown	1	2.9%

AGES 65+	**26**	**6.0%**
Cause	**# of Burns**	**% By Age**
Scalds	**9**	**34.6%**
Cooking	5	19.2%
Cooking Liquids	*3*	*11.5%*
Food	*2*	*7.7%*
Hot Tap Water	4	15.4%
Flame	**7**	**26.9%**
Smoking	3	11.5%
Smoking on Oxygen	*2*	*7.7%*
Smoking (Unspec.)	*1*	*3.8%*
Cooking	2	7.7%
Cooking (Unspec.)	*1*	*3.8%*
Cooking Liquids	*1*	*3.8%*
Propane	1	3.8%
Woodstove	1	3.8%
Contact	**4**	**15.4%**
Heating	3	11.5%
Woodstove	*2*	*7.7%*
Heater	*1*	*3.8%*
Pavement Burns	1	3.8%
Explosion	**3**	**11.5%**
Explosives	2	7.7%
Gasoline	1	3.8%
Fire	**3**	**11.5%**
Brush Fires	1	3.8%
Clothes	*1*	*3.8%*
Camp or Bon Fires	1	3.8%
Gasoline	*1*	*3.8%*
House Fires	1	3.8%
House Fire	*1*	*3.8%*

Causes of Work-Related Burns

Cause	# of Burns	% of Total
Scalds	**12**	**32%**
Cooking	7	19%
Cooking Liquids	*6*	*16%*
Hot Food	*1*	*3%*
Hot Beverage	2	5%
Steam	2	5%
Car Radiator	1	3%
Explosions	**8**	**22%**
Ignitable Liquids	3	8%
Ignitable Liquids	*2*	*5%*
Gasoline	*1*	*3%*
Chemical	2	5%
Propane	2	5%
Electrical	1	3%
Flame	**8**	**22%**
Welding or Cutting	3	8%
Welding	*2*	*5%*
Cutting Torch	*1*	*3%*
Ignitable Liquids	2	5%
Gasoline	*1*	*3%*
Ignitable Liquids	*1*	*3%*
Alcohol	1	3%
Chemical	1	3%
Oven	1	3%

Cause	# of Burns	% of Total
Contact	**4**	**11%**
Asphalt	1	3%
Machine	1	3%
Pavement Burns	1	3%
Stove	1	3%
Electrical	**3**	**8%**
Electrocution	3	8%
Fire	**1**	**3%**
Structure Fires	1	3%
Structure Fire	*1*	*3%*
Other	**1**	**3%**
Chemical	1	3%
Total	**37**	**100%**

Number of Reported Burns Per Hospital

Addison Gilbert Hospital	2
Anna Jacques Hospital	6
Baystate Medical Center	22
Berkshire Medical Center	2
Boston Medical Center	2
Brockton Hospital	7
Brigham & Women's Hospital	53
Charlton Memorial Hospital	1
Children's Hospital	22
Cooley Dickinson Hospital	2
East Boston Health Center	1
Emerson Hospital	2
Good Samaritan Medical Center	7
Harrington Memorial Hospital	5
Holyoke Hospital	1
Hubbard Regional Hospital	1
Jordan Hospital	1
Lahey Hospital	1
Lawrence General Hospital	31
Lowell General Hospital	4
Marlborough Hospital	1
Massachusetts General Hospital	146
Mercy Hospital	2
Merrimack Valley Hospital	1
Metro West Medical Center	1
Milton Whitinsville Hospital	1
Morton Hospital	1
North Shore Children's Hospital	1
Nantucket Hospital	1
Nashoba Valley Hospital	1
Newton Wellesley Hospital	2
Norwood Hospital	2
St. Anne's Hospital	1
St. Elizabeth's Medical Center	6
St. Luke's Hospital	2
Salem Hospital	1
South Shore Hospital	21
Shriners Hospital for Children	96
Sturdy Memorial Medical Center	4
Tobey Hospital	3
UMass Med. Ctr., Univ. Campus	13
Wing Memorial Hospital	1

Causes of Burn Injuries by Month

JANUARY	38	8.8%
Cause	**# of Burns**	**% By Month**
Scalds	**19**	**50.0%**
Cooking	8	21.1%
Cooking Liquids	*6*	*15.8%*
Hot Food	*2*	*5.3%*
Hot Beverages	7	18.4%
Hot Tap Water	4	10.5%
Flame	**7**	**18.4%**
Ignitable Liquids	2	5.3%
Gasoline	*1*	*2.6%*
Ignitable Liquids	*1*	*2.6%*
Smoking	2	5.3%
Smoking on Oxygen	*1*	*2.6%*
Smoking (Unspec.)	*1*	*2.6%*
Clothing	1	2.6%
Cooking Liquids	1	2.6%
Contact	**3**	**7.9%**
Clothes Iron	1	2.6%
Oven	1	2.6%
Woodstove	1	2.6%
Electrical	**3**	**7.9%**
Electrocution	3	7.9%
Fire	**3**	**7.9%**
House Fires	2	5.3%
Child w/Matches	*1*	*2.6%*
Electrical	*1*	*2.6%*
Camp or Bon Fires	1	2.6%
Camp Fire	*1*	*2.6%*
Explosion	**1**	**5.3%**
Boiler	1	2.6%
Bomb Making	1	2.6%
Other	**1**	**2.6%**
Chemical	1	2.6%

1 Death

FEBRUARY	23	5.3%
Cause	**# of Burns**	**% By Month**
Scalds	**12**	**52.2%**
Cooking	7	30.4%
Hot Food	*4*	*17.4%*
Cooking Liquids	*3*	*13.0%*
Hot Beverages	2	8.7%
Hot Tap Water	2	8.7%
Car Radiator	1	4.3%
Flame	**7**	**30.4%**
Clothes	2	8.7%
Candle/Clothes	*1*	*4.3%*
Cooking/Clothes	*1*	*4.3%*
Alcohol	1	4.3%
Hot Food	1	4.3%
Ignitable Liquids	1	4.3%
Self-immolation	1	4.3%
Cutting Torch	1	4.3%
Contact	**3**	**4.3%**
Heater	1	4.3%
Electrical	**1**	**4.3%**
Electrocution	1	4.3%
Explosion	**1**	**4.3%**
Propane	1	4.3%
Fire	**1**	**4.3%**
House Fires	1	4.3 %
House Fire	*1*	*4.3%*

3 Deaths

MARCH	**26**	**6.0%**
Cause	**# of Burns**	**% By Month**
Scalds	**12**	**46.2%**
Hot Beverages	8	30.8%
Cooking	3	11.5%
Hot Food	*2*	*7.7%*
Cooking Liquids	*1*	*3.8%*
Hot Tap Water	1	3.8%
Flame	**5**	**19.2%**
Cooking	2	7.7%
Cooking Liquids	*1*	*3.8%*
Stove	*1*	*3.8%*
Clothes	1	3.8%
Self-immolation	1	3.8%
Smoking on Oxygen	1	3.8%
Fire	**4**	**15.4%**
Brush Fires	3	11.5%
Brush Fires	*2*	*7.7%*
Clothes	*1*	*3.8%*
Camp or Bon Fires	1	3.8%
Bon Fire	*1*	*3.8%*
Contact	**1**	**3.8%**
Heater	1	3.8%
Domestic Violence	**1**	**3.8%**
Chemical	1	3.8%
Electrical	**1**	**3.8%**
Electrocution	1	3.8%
Explosion	**1**	**3.4%**
Natural Gas	1	3.4%
Not Reported	**1**	**3.8%**
Unknown	1	3.8%

1 Death

APRIL	**44**	**10.2%**
Cause	**# of Burns**	**% By Month**
Explosion	**18**	**40.9%**
Explosives	16	36.4%
Boiler	1	2.3%
Unknown	1	2.3%
Scalds	**15**	**34.1%**
Hot Beverages	7	15.9%
Cooking Liquids	4	9.1%
Hot Tap Water	3	6.8%
Pipe	1	2.3%
Flame	**8**	**18.2%**
Gasoline	2	4.5%
Smoking on Oxygen	2	4.5%
Candles	2	4.5%
Candle	*1*	*2.3%*
Candle/Clothes	*1*	*2.3%*
Cooking	2	4.5%
BBQ (Gas)	*1*	*2.3%*
Stove	*1*	*2.3%*
Fire	**2**	**4.5%**
Camp or Bon Fires	1	2.3%
Gasoline	*1*	*2.3%*
House Fires	1	2.3%
Self-immolation	*1*	*2.3%*
Contact	**1**	**2.3%**
Heater	1	2.3%

MAY	**30**	**6.9%**
Cause	**# of Burns**	**% By Month**
Scalds	**17**	**56.7%**
Cooking	11	36.7%
Cooking Liquids	*8*	*26.7%*
Hot Food	*3*	*10.0%*
Hot Beverages	3	10.0%
Hot Tap Water	2	6.7%
Car Radiator	1	3.3%
Fire	**6**	**20.0%**
Camp or Bon Fires	4	13.3%
Camp Fires	*3*	*10.0%*
Gasoline	*1*	*3.3%*
House Fires	2	6.7%
House Fire	*2*	*6.7%*
Flame	**5**	**16.7%**
Alcohol	1	3.3%
Chemical	1	3.3%
Clothes	1	3.3%
Gasoline	1	3.3%
Smoking (Unspec.)	1	3.3%
Contact	**1**	**3.3%**
Embers	1	3.3%
Electrical	**1**	**3.3%**
Electrical	1	3.3%

JUNE	**45**	**10.4%**
Cause	**# of Burns**	**% By Month**
Scalds	**20**	**44.4%**
Cooking	13	28.9%
Cooking Liquids	*9*	*20.0%*
Hot Food	*4*	*8.9%*
Hot Beverages	3	6.7%
Hot Tap Water	3	6.7%
Car Radiator	1	2.2%
Flame	**8**	**17.8%**
Smoking/Clothes	2	4.4%
Cooking	2	4.4%
Barbeque	*1*	*2.2%*
Cooking/Clothes	*1*	*2.2%*
Assault	1	2.2%
Fireworks	1	2.2%
Gasoline	1	2.2%
Propane	1	2.2%
Fire	**6**	**13.3%**
Camp or Bon Fires	3	6.7%
Aerosol	*1*	*2.2%*
Camp Fire	*1*	*2.2%*
Gasoline	*1*	*2.2%*
House Fires	2	4.4%
House Fire	*1*	*2.2%*
Lamp	*1*	*2.2%*
MV Fires	1	2.2%
MV Accident	*1*	*2.2%*
Explosion	**5**	**11.1%**
Ignitable Gases	3	6.7%
BBQ (Gas)	*1*	*2.2%*
Ignitable Gas	*1*	*2.2%*
Propane	*1*	*2.2%*
Cooking (Unspec.)	1	2.2%
Gasoline	1	2.2%
Contact	**3**	**6.7%**
Barbeque	1	2.2%
Car Radiator	1	2.2%
Pavement Burns	1	2.2%
Other	**3**	**6.7%**
Sunburn	2	4.4%
Chemical	1	2.2%

1 Death

JULY	**35**	**8.1%**
Cause	**# of Burns**	**% By Month**
Scalds	**11**	**31.4%**
Cooking	5	14.3%
Cooking Liquids	*3*	*8.6%*
Cooking (Unspec.)	*1*	*2.9%*
Hot Food	*1*	*2.9%*
Hot Beverages	3	8.6%
Hot Tap Water	2	5.7%
Car Radiator	1	2.9%
Fire	**8**	**22.9%**
Camp or Bon Fires	6	17.1%
Gasoline	*3*	*8.6%*
Camp Fires	*2*	*5.7%*
Bon Fire	*1*	*2.9%*
Motor Vehicle Fires	2	5.7%
MV Accident	*1*	*2.9%*
Self-immolation	*1*	*2.9%*
Flame	**6**	**17.1%**
Cooking	3	8.6%
Barbeque (Gas)	*2*	*2.9%*
Cooking (Unspec.)	*1*	*2.9%*
Stove	*1*	*2.9%*
Ignitable Liquids	2	5.7%
Gasoline	*1*	*2.9%*
Ignitable Liquids	*1*	*2.9%*
Self-immolation	1	2.9%
Explosion	**4**	**11.4%**
Gasoline	3	8.6%
Propane	1	2.9%
Other	**3**	**8.6%**
Sunburn	3	8.6%
Contact	**3**	**8.6%**
Cooking	2	4.5%
Barbeque	*1*	*2.9%*
Stove	*1*	*2.9%*
Pavement Burns	1	2.9%

1 Death

AUGUST	**54**	**12.5%**
Cause	**# of Burns**	**% By Month**
Scalds	**21**	**38.9%**
Cooking	13	24.1%
Cooking Liquids	*9*	*16.7%*
Hot Food	*4*	*7.4%*
Hot Beverages	4	7.4**%**
Car Radiator	2	3.7%
Clothes Iron	1	1.9%
Steam	1	1.9%
Fire	**15**	**27.8%**
Camp or Bonfires	13	24.1%
Camp Fires	*5*	*9.3%*
Flammables	*3*	*5.6%*
Embers	*2*	*3.7%*
Bon Fire	*1*	*1.9%*
Gasoline	*1*	*1.9%*
Ignitable Liquids	*1*	*1.9%*
House Fires	1	1.9%
Arson	*1*	*1.9%*
Motor Vehicle Fires	1	1.9%
MV Accident	*1*	*1.9%*
Flame	**7**	**13.0%**
Cooking	2	3.7%
BBQ (Gas)	*1*	*1.9%*
Cooking (Unspec.)	*1*	*1.9%*
Ignitable Liquids	2	3.7%
Gasoline	*1*	*1.9%*
Ignitable Liquids	*1*	*1.9%*
Fireworks	1	1.9%
Smoking on Oxygen	1	1.9%
Woodstove	1	1.9%
Contact	**6**	**11.1%**
Cooking	3	5.6%
BBQ (Gas)	1	1.9%
Cooking (Unspec.)	1	1.9%
Toaster	1	1.9%
Asphalt	1	1.9%
Embers	1	1.9%
Metal	1	1.9%
Electrical	**2**	**3.7%**
Electrocution	2	3.7%
Explosion	**2**	**3.7%**
Child w/Lighter	1	1.9%
Gasoline	1	1.9%
Other	**1**	**1.9%**
Chemical	1	1.9%

1 Death

SEPTEMBER	**41**	**9.5%**
Cause	**# of Burns**	**% By Month**
Scalds	**16**	**39.0%**
Cooking	11	26.8%
Cooking Liquids	*8*	*19.5%*
Hot Food	*2*	*4.9%*
Cooking (Unspec.)	*1*	*2.4%*
Hot Beverages	2	4.9%
Assault	1	2.4%
Clothes Iron	1	2.4%
Hot Tap Water	1	2.4%
Fire	**8**	**19.5%**
Camp or Bon Fires	3	7.3%
Assault	*1*	*2.4%*
Camp Fire	*1*	*2.4%*
Gasoline	*1*	*2.4%*
Motor Vehicle Fires	2	4.9%
Car Part	*1*	*2.4%*
MV Accident	*1*	*2.4%*
Brush Fires	1	2.4%
Gasoline	*1*	*2.4%*
House Fires	1	2.4%
Cooking	*1*	*2.4%*
Structure Fires	1	2.4%
Barbeque	*1*	*2.4%*
Explosion	**6**	**14.6%**
Ignitable Liquids	2	4.9%
Ignitable Gases	2	4.9%
Natural Gas	*1*	*2.4%*
Propane	*1*	*2.4%*
Electrical	1	2.4%
Lighter	1	2.4%
Flame	**5**	**12.2%**
Cooking Liquids	2	4.9%
Assault	1	2.4%
Smoking on Oxygen	1	2.4%
Welding	1	2.4%
Contact	**3**	**7.3%**
Cooking	3	7.3%
Cooking (Unspec.)	*1*	*2.4%*
Oven	*1*	*2.4%*
Stove	*1*	*2.4%*
Other	**3**	**7.3%**
Sunburn	2	4.9%
Chemical	1	2.4%

1 Death

OCTOBER	**39**	**9.0%**
Cause	**# of Burns**	**% By Month**
Scalds	**20**	**51.3%**
Cooking	9	23.1%
Cooking Liquids	*8*	*15.4%*
Hot Food	*1*	*2.6%*
Hot Beverages	6	15.4%
Car Radiator	2	5.1%
Hot Tap Water	1	2.6%
Steam	1	2.6%
Fire	**8**	**20.5%**
Camp or Bon Fires	7	17.9%
Bon Fires	*3*	*5.1%*
Camp Fires	*3*	*5.1%*
Gasoline	*1*	*2.6%*
House Fires	1	2.6%
Cooking	*1*	*2.6%*
Flame	**7**	**17.9%**
Cooking	4	10.3%
Barbeque	*1*	*2.6%*
Cooking Liquids	*1*	*2.6%*
Oven	*1*	*2.6%*
Stove	*1*	*2.6%*
Welding	2	5.1%
Smoking on Oxygen	1	2.6%
Explosion	**2**	**5.1%**
Chemical	2	5.1%
Contact	**2**	**5.1%**
Heater	1	2.6%
Pavement Burns	1	2.6%

2 Deaths

NOVEMBER	**31**	**7.2%**
Cause	**# of Burns**	**% By Month**
Scalds	**21**	**67.7%**
Cooking	14	45.2%
Cooking Liquids	*9*	*29.0%*
Hot Food	*4*	*12.9%*
Pressure Cooker	*1*	*3.2%*
Hot Beverages	4	12.9%
Radiator	1	3.2%
Steam	1	3.2%
Hot Tap Water	1	3.2%
Explosion	**3**	**9.7%**
Chemical	1	3.2%
Pressure Cooker	1	3.2%
Welding	1	3.2%
Fire	**3**	**9.7%**
Camp or Bon Fires	2	6.5%
Gasoline	*1*	*3.2%*
Ignitable Liquids	*1*	*3.2%*
Structure Fires	1	3.2%
Structure Fire	*1*	*3.2%*
Contact	**3**	**9.7%**
Machine	1	3.2%
Wax	1	3.2%
Woodstove	1	3.2%
Electrical	**1**	**3.2%**
Electrocution	1	3.2%

DECEMBER	**26**	**6.0%**
Cause	**# of Burns**	**% By Month**
Scalds	**17**	**65.4%**
Cooking Liquids	8	30.8%
Hot Beverages	5	19.2%
Hot Tap Water	4	15.4%
Flame	**4**	**15.4%**
Candle	1	3.8%
Chemical	1	3.8%
Cooking Liquids	1	3.8%
Woodstove	1	3.8%
Fire	**3**	**11.4%**
Camp or Bon Fires	2	7.7%
Camp Fire	*1*	*3.8%*
Embers	*1*	*3.8%*
House Fires	1	3.8%
Fireplace	*1*	*3.8%*
Explosions	**2**	**7.7%**
Clothes	1	3.8%
Propane	1	3.8%

Burn Injuries by Victim's Community

County	# of Burns
Barnstable	**6**
Barnstable	1
Dennis	1
Orleans	1
Sandwich	1
Yarmouth	2
Berkshire	**1**
Lenox	1
Bristol	**15**
Attleboro	2
Dartmouth	2
Easton	1
Fairhaven	1
Fall River	1
New Bedford	3
Norton	1
Rehoboth	1
Somerset	1
Taunton	2
Dukes	**1**
Edgartown	1
Essex	**63**
Amesbury	1
Andover	1
Beverly	3
Danvers	1
Georgetown	2
Gloucester	3
Haverhill	9
Lawrence	17
Lynn	5
Lynnfield	1
Methuen	4
Newbury	1
Newburyport	1
North Andover	3
Peabody	4
Rowley	1
Salem	4
Saugus	2

County	# of Burns
Franklin	**1**
Greenfield	1
Hampden	**32**
Agawam	1
Chicopee	2
East Longmeadow	1
Holyoke	3
Ludlow	2
Palmer	1
Springfield	20
West Springfield	1
Westfield	1
Hampshire	**1**
Hatfield	1
Middlesex	**56**
Acton	1
Arlington	1
Ashby	1
Ayer	2
Belmont	1
Billerica	1
Burlington	1
Cambridge	3
Chelmsford	1
Dracut	1
Everett	3
Groton	1
Lexington	1
Littleton	1
Lowell	5
Malden	4
Marlborough	3
Maynard	1
Medford	4
Melrose	1
Natick	2
Newton	3
Reading	1
Somerville	3
Stoneham	1
Sudbury	1

County	# of Burns
Middlesex (con't)	
Tewksbury	1
Wakefield	1
Waltham	1
Watertown	2
Wayland	1
Wilmington	1
Winchester	1
Nantucket	**1**
Nantucket	1
Norfolk	**30**
Bellingham	1
Braintree	3
Brookline	2
Dedham	3
Dover	1
Foxborough	1
Franklin	1
Holbrook	2
Medway	1
Needham	1
Norfolk	1
Norwood	2
Quincy	2
Randolph	1
Sharon	1
Stoughton	1
Westwood	1
Weymouth	5
Plymouth	**40**
Abington	1
Bridgewater	1
Brockton	13
Carver	1
Duxbury	1
East Bridgewater	1
Halifax	1

County	# of Burns
Plymouth (con't)	
Hanover	1
Hanson	2
Hull	2
Marshfield	3
Middleborough	1
Pembroke	1
Plymouth	3
Plympton	1
Rockland	1
Scituate	3
Wareham	1
Whitman	2
Suffolk	**62**
Boston	51
Chelsea	7
Revere	3
Winthrop	1
Worcester	**19**
Brookfield	1
Dudley	1
East Brookfield	1
Gardner	1
Grafton	1
Holden	1
Milford	1
Princeton	1
Southbridge	2
Sturbridge	1
Uxbridge	1
Webster	3
Westborough	1
Worcester	3
Out of State	**104**

FP-84F
(Rev. 04-2010)

The Commonwealth of Massachusetts
Department of Fire Services
Division of Fire Safety

Post Office Box 1025 – Stow, Massachusetts 01775

TO: Massachusetts Burn Injury Reporting System

FROM: _____

Name of Hospital and Attending Physician

RE: Burn Injury Extending to 5% or More of Body Surface Area

To fax burn injury reports, dial (978) 567-3199.

When you fax the burn report, you satisfy both the telephone and written reporting notification requirements for the State Fire Marshal. You still need to notify the police chief in the community where the burn occurred.

-OR-

Call 1-800-475-3443 anytime to report burns over the phone AND mail this sheet to the above address.

Victim's Name _____
Last *First* *M.*

Victim's Home Address _____
Street Address (No PO Boxes) **City / Town** **State** **Zip**

Victim's Age _____ Gender _____ Local Police Department Notified? ❑ Yes ❑ No

Was the Victim at Work When Burned? ❑ Yes ❑ No

Date of Burn _____ If Yes: Employer _____

Address Where Burn Occurred _____
Street Address (No PO Boxes) **City / Town** **State** **Zip**

Part of Body Injured or %BSA: _____

Cause of Burn (e.g. spilled coffee, tap water, clothing ignited while cooking): _____

_____

Type of Burn: *(check one)*

☐ Flame ☐ Scald ☐ Domestic Violence

☐ Fire ☐ Electrical ☐ Other
☐ Sunburn
☐ Chemical

☐ Explosion ☐ Contact

Severity: *(check one)*

☐ Minor ☐ Life-threatening

☐ Moderate ☐ Dead

☐ Severe

If you have any questions about the Massachusetts Burn Injury Reporting System, call the Fire Data and Public Education Unit at (978) 567-3380 or leave a message at 1-800-475-3443.

NEW
Burn Hotline
1-800-475-3443

FAX Reporting Number
1-978-567-3199

Massachusetts General Law Chapter 112, Section 12A, Amended by the Acts of 1986 and 1996 (Excerpted)

"Every physician ... examining or treating a person with a burn injury affecting five per cent or more of the surface area of his body, or, whenever any such case is treated in a hospital, sanitarium or other institution, the manager, superintendent or other person in charge thereof, shall report such case... at once to the state fire marhsal and to the police in the community where the burn occurred...Whoever violates any provision of this section shall be punished by a fine of not less than fifty nor more than one hundred dollars."