Massachusetts Burn Injury Reporting System

2007 Annual Report

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Massachusetts Burn Injury Reporting System

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Executive Summary

In 2007, the twenty-second full year of the Massachusetts Burn Injury Reporting System (M-BIRS), 46 acute care hospitals and other health care facilities reported 382 victims of burns. Forty-three (43) of these 382 victims received care at two Massachusetts hospitals and were reported to the system twice. 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. The "Burn Registry" also provides valuable data on the nature of the burn problem in the Commonwealth.

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.

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 activity injures whom, if the injuries are seasonal and how old the victims are 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 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 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. Ten (10) burn injuries were referred to OSHA in 2007 for cases that met the criteria.

Scalds Caused 40% of Reported Burn Injuries
Scalds have been the leading cause of burn injuries for the past 21 years. In 2007, scalds caused 152, or 40%, of the burn injuries reported to M-BIRS. Spilled hot beverages caused the majority of scald burns. Hot tap water, cooking liquids and grease, and hot food also caused scald burns.

Keep Hot Liquids Away from Babies and Preschoolers
In 2007, young children were the most frequent victims of scald burns. Forty-nine percent (49%) of the 152 scald victims were under five years old, and most were less than one year old. Children under five years of age were over seven and a half times more likely to be scalded. Hot beverages posed the greatest risk to young children; parents and caregivers of young children must remember that it is dangerous to drink coffee or tea 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. Parents 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 a parent 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, many hot coffee and tea spills, contact burns from touching hot stoves, take place in the kitchen. Since we must cook every day, we must learn to do so safely. Children should also be kept in a safe area such as a high chair or playpen while cooking is taking place.

49% of Burns from Fire Are from House Fires
Burn injuries from fires were the second highest cause of burn injuries in 2007 accounting for 22% of the burn injuries. House fires caused 49% of these burns, camp or bon fires caused 33%; brush fires caused, and 10%, motor vehicle fires caused 4% of these burn injuries.

13% of Burns Work-Related
Hospitals reported that 13% of the burn victims were burned while working, the same as in 2006. Eighty-five percent (85%), of the people burned while working were male.

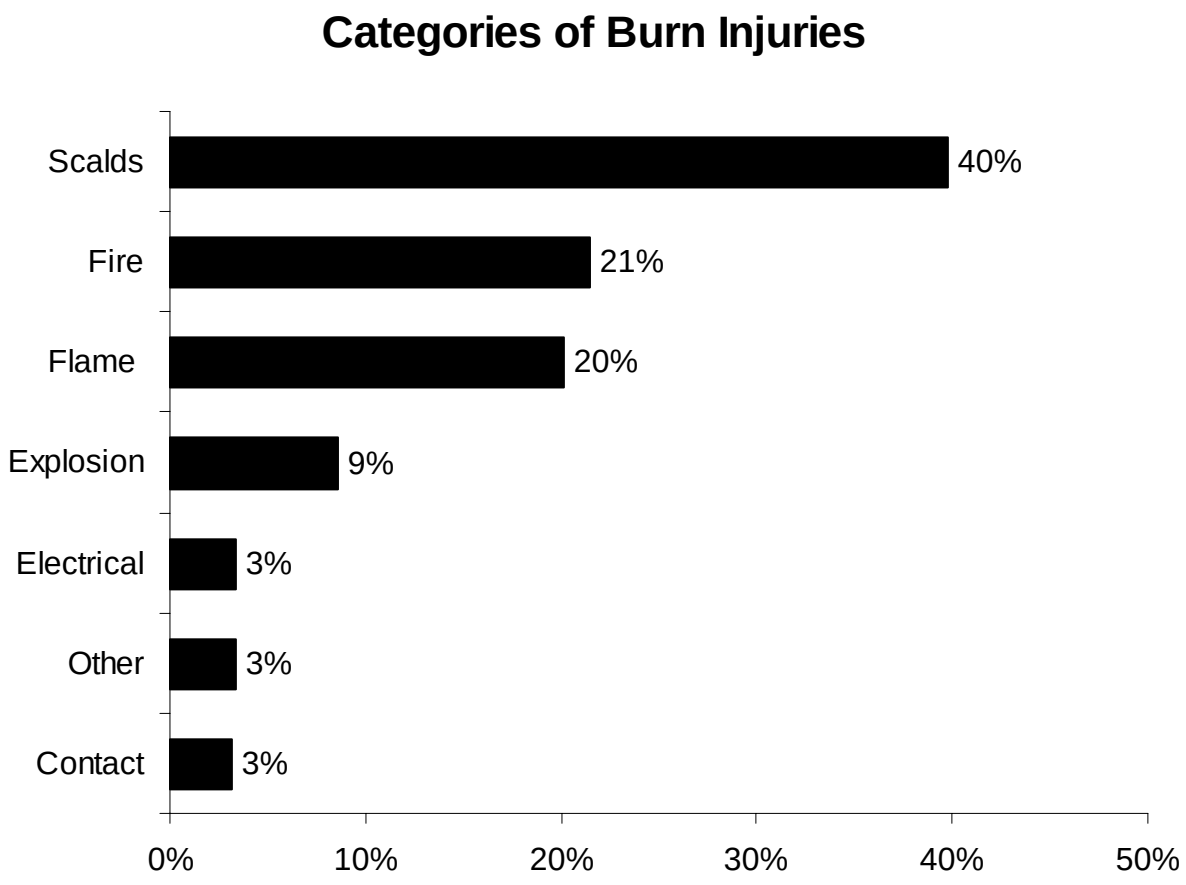
Over 2/3 of Burns Occurred in the Victim's Home
Of the 382 burn injuries reported to M-BIRS in 2007, 264, or 69%, occurred in the victim's home or surrounding yard. Forty-seven percent (47%) of these burn injuries were scalds. Nine (9), or 3%, of the home-related burn injuries resulted in the victim 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[3], 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 hospital, and burn injuries by month.

40% of All Burn Victims Never Come Near a Flame

Scalds from hot liquids, cooking grease and steam caused 40% of the 382 burn injuries reported in 2007. Twenty-one percent (21%) were caused by fires. Flames from burning clothing, bedding or similar objects caused 20% of the burns; 9% were caused by explosions. Electrical incidents such as electrocutions, flashburns[4] and explosions and contact with hot objects each caused 3% of the burns. Another 3% of the reported burns in 2007 had other causes, such as chemical burns or sunburns.

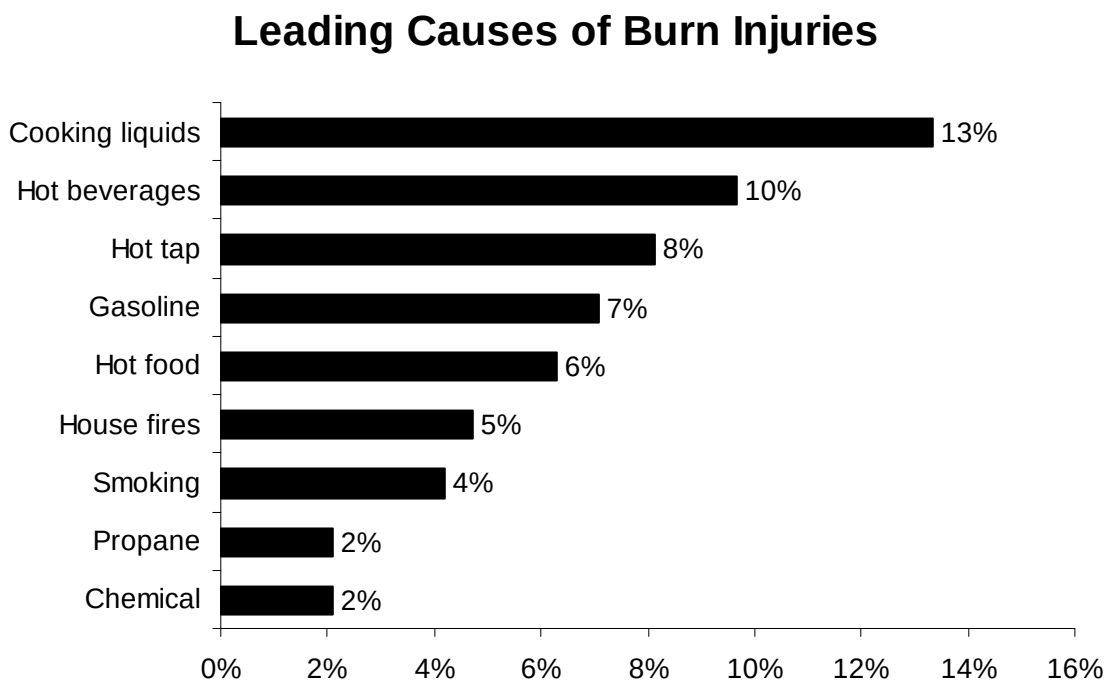


[3] A burn is said to result from a flame when the fire is confined to the victim or the victim's clothing. When a wider area burns, the injury is considered to result from fire.

[4] A flashburn is a burn caused by short-term exposure to super-heated air, there is no direct contact with flame.

Type of Incidents Causing Burn Injuries

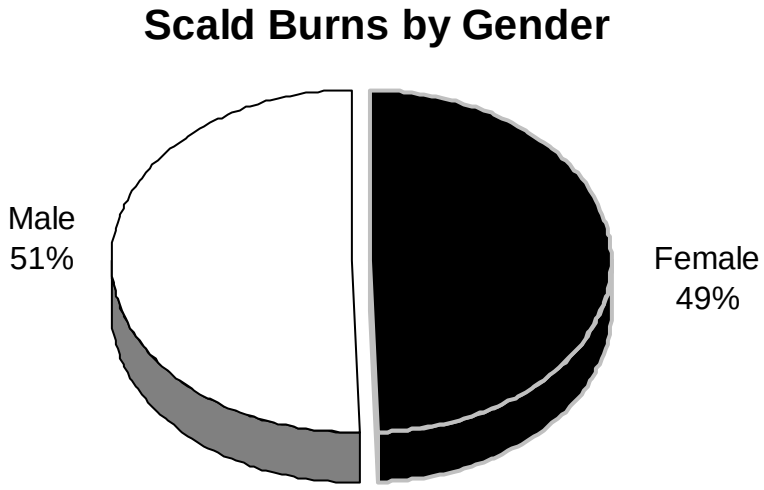
Look at Specific Causes and Equipment to Develop Prevention Strategies
To develop effective burn prevention policies and programs, we must first look at the specific items or behaviors that caused the burns. Thirteen percent (13%) of the 382 burn injuries reported in 2007 were scalds from cooking liquids. Ten percent (10%) of the burns were caused by hot beverages. Hot tap water caused 8% of the burn injuries. Gasoline use by adults was involved in 7% of the burn injuries in 2007; and hot food caused 6%. House fires accounted for 5% of these burn injuries. Smoking was the cause for 4%; and propane and chemical burns each caused 2% of the burn injuries in Massachusetts in 2007. For more information, please refer to the table *Specific Causes of Burn Injuries* in the Appendix.



Burn Injuries Caused by Scalds

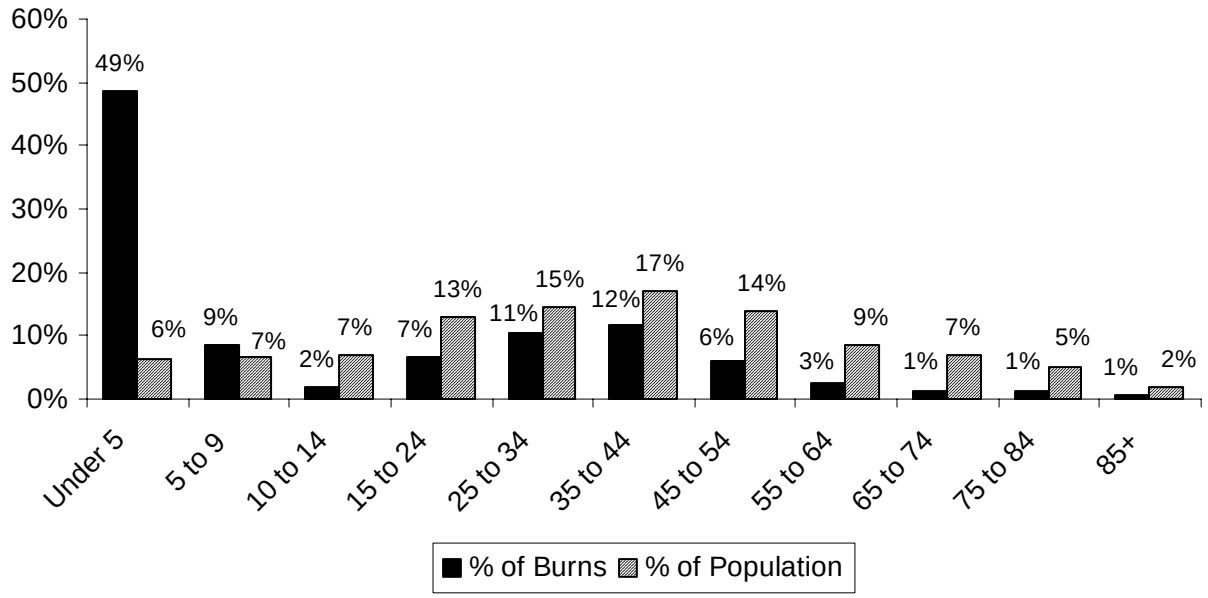
Scalds Caused 40% of All Burns
Scalds have been the leading cause of burn injuries every year since the inception of M-BIRS. Over the past 10 years, scalds have averaged 40% of total burns. The percentage of total burns has declined from a high of 47% in 1998 to a low of 35% in 2005. The 10-year average from 1998 through 2007 is 40%[5] of total annual reported burns.

One hundred fifty-two (152), or 40%, of the 382 reported burns were hot scalds. Thirteen (13), or 9%, of the 152 scalds occurred while the victim was working. Seventy-seven (77), or 51%, of the 152 scald victims were male and 75, or 49%, 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 2000 U.S. Census, children under the age of five comprised 6% of the Massachusetts population. However that same age group accounted for almost half, 49% of all scald burns in 2007. Forty-seven (47), or 31%, were infants one year old or younger. Children aged five to nine accounted for 9%, while children aged 10 to 14 accounted for 2% of these injuries.

[5] In 2003, scalds represented 36% of all the burns reported to M-BIRS. However if not for The Station nightclub fire victims that were treated in Massachusetts, scalds would have represented 38% which would still be the second lowest in the past 10 years.



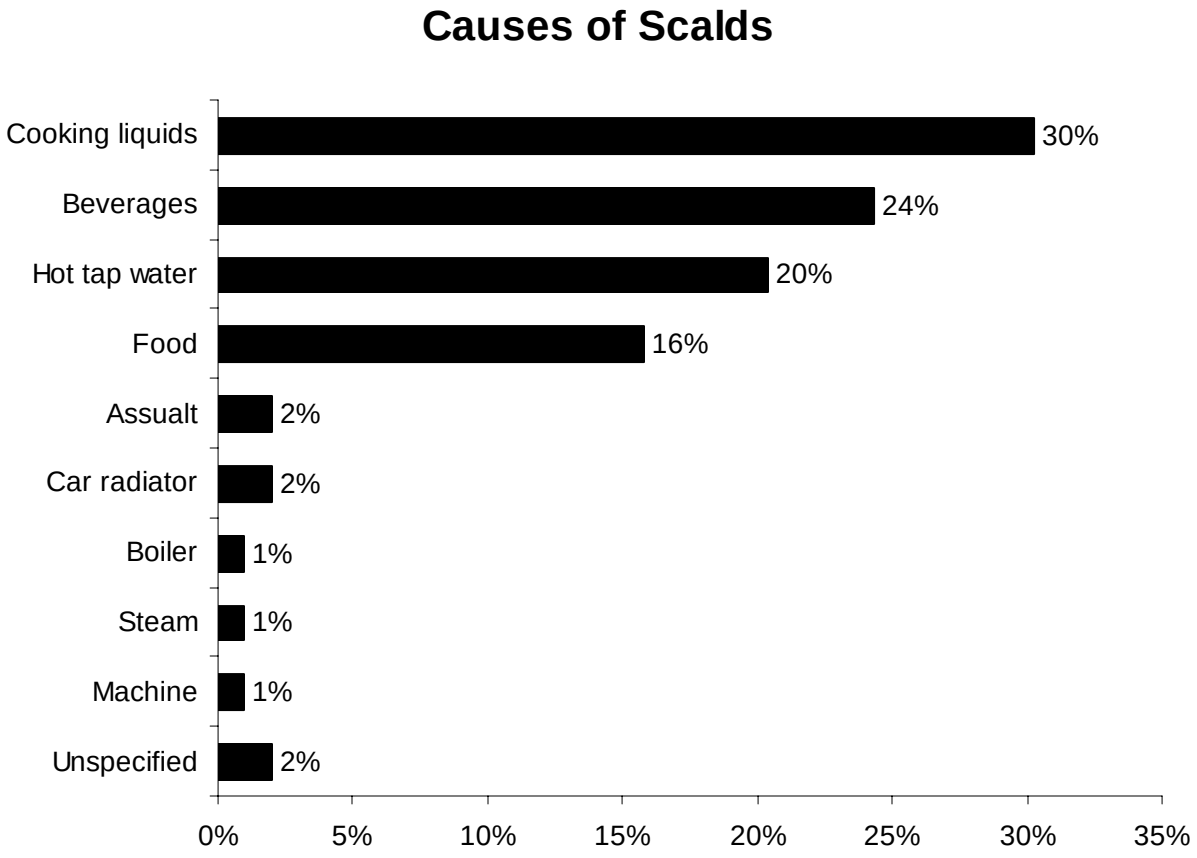
Pre-schoolers Nearly 8 Times More Likely to Suffer Scald Burns

Many adults also suffered burns from scalds. Seven percent (7%) of scald burn victims were between 15 and 24 years old; 11% were between 25 and 34; 12% were between 35 and 44 years of age; 6% were between 45 and 54; 3% were between 55 and 64; 1% were between 65 and 74; 1% were between 75 and 84; and 1% were over the age of 84. A four-month old girl was the youngest scald burn victim, while the oldest person was a 73-year old woman. When the shaded bar of the graph representing the percent of scald burns is higher than the striped 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 nearly 8 times more likely to suffer a scald burn.

Cooking Liquids Caused Almost 1/3 of All Scald Burns

Cooking liquids accounted for 30% of all scald burns. This is the fourth year and third consecutive year since the beginning of M-BIRS in 1984 that hot beverages was not the leading cause of scald burns[6]. Scald burns from hot beverages were the second leading cause of scald burns, causing 24%, of the 152 scald burns. Twenty percent (20%) were caused by hot tap water. Sixteen percent (16%) were caused by hot foods. Two percent (2%) each were caused by assaults and car radiators. Boilers, steam, and a machine each caused 1% of these scald burn injuries. Unspecified scalds were responsible for 2% of the reported scald burn injuries in 2007.

[6] In 1999 scald burns from cooking liquids were one percentage point higher than scald burns from hot beverages. In 2005, hot cooking liquids were 10 percentage points higher than scald burns from hot beverages.



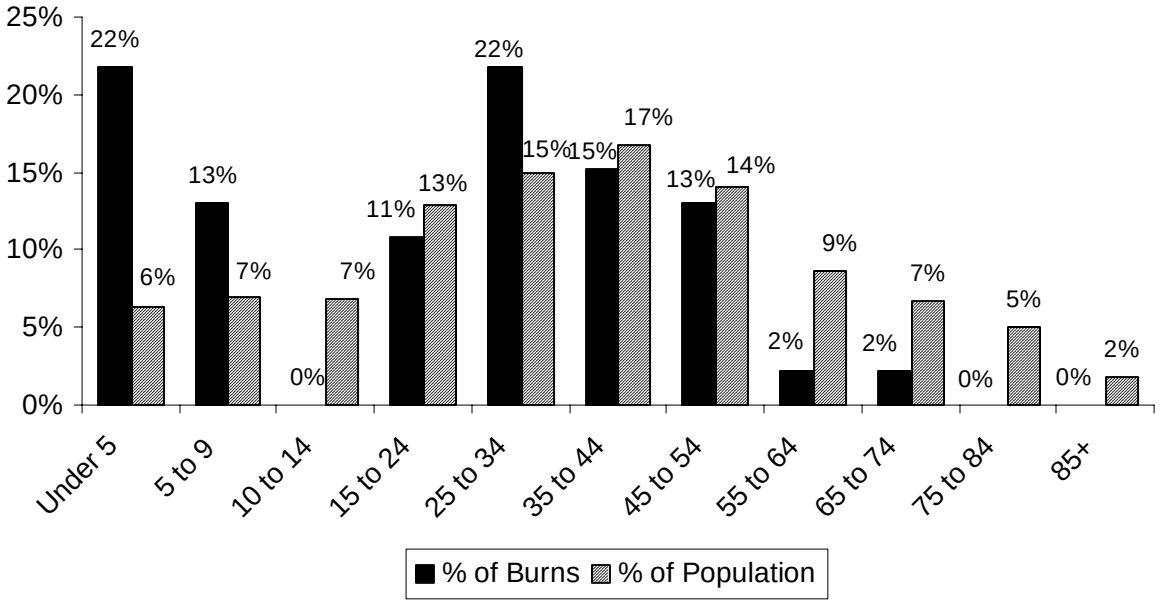
3-Year Old & 26-Year Old Assaulted with Hot Cooking Grease
On October 26, 2007, a 3-year old girl and her 26-year old mother received scald burns when an attacker threw hot cooking grease onto them while they were sleeping. The girl received burns to 3% of her body surface area and her mother received burns to her arms, face, back and chest.

46-Year Old Receives Steam Burn
On July 11, 2007, a 46-year old man received scald burns to 35% of his body surface area. He was cutting away an old steam pipe that led into a boiler when the pipe gave way and steam erupted out of it.

Hot Cooking Liquids

Hot Cooking Liquids Caused 30% of Scalds, 12% of All Burns
Hot cooking liquids which includes boiling water, grease and oil, caused 46, or 30%, of the 152 scald burns and 12% of the 382 total burn injuries reported in 2007. Fifty-two percent (52%) of the victims were female and 48% were male. Hot cooking liquids scalded eight people while they were at work, seven were men and one victim was a woman.

Hot Cooking Liquid Scalds by Age Group



Almost 1/4 of Cooking Liquid Scald Victims Were Under the Age of 5

Those most likely to be under foot in the kitchen were most at risk to be burned by hot liquids on the stovetop. Twenty-two percent (22%) of the cooking liquid scald victims were under five years old. They were three and a half times more likely to be victims of a hot cooking liquid scald; in 2006 they were 5.7 times more likely to be victims of a hot cooking liquid scald. Thirteen percent (13%) were children between the ages of five and nine. No one within the age group between 10 and 14 received a cooking liquid scald; members of the age group between 15 and 24 accounted for 11%; 22% were between 25 and 34, and tied children under five for the most hot cooking liquid scalds; 15% were between 35 and 44; 13% were between 45 and 54; 2% were between 55 and 64; and another 2% were between 65 and 74; no one over the age of 65 received a scald burn injury from hot cooking liquids. The youngest hot cooking liquid scald burn victim was a four-month old girl, while the oldest person to have one of these burns was a 73-year old woman.

23-Year Old Scalded by Cooking Liquids

On March 22, 2007 a 23-year old Abington woman accidentally splattered cooking oil on herself that she was using to cook dinner. She received scald burns to her face, scalp, hands, forearms, and neck, or approximately 20% of her body surface area.

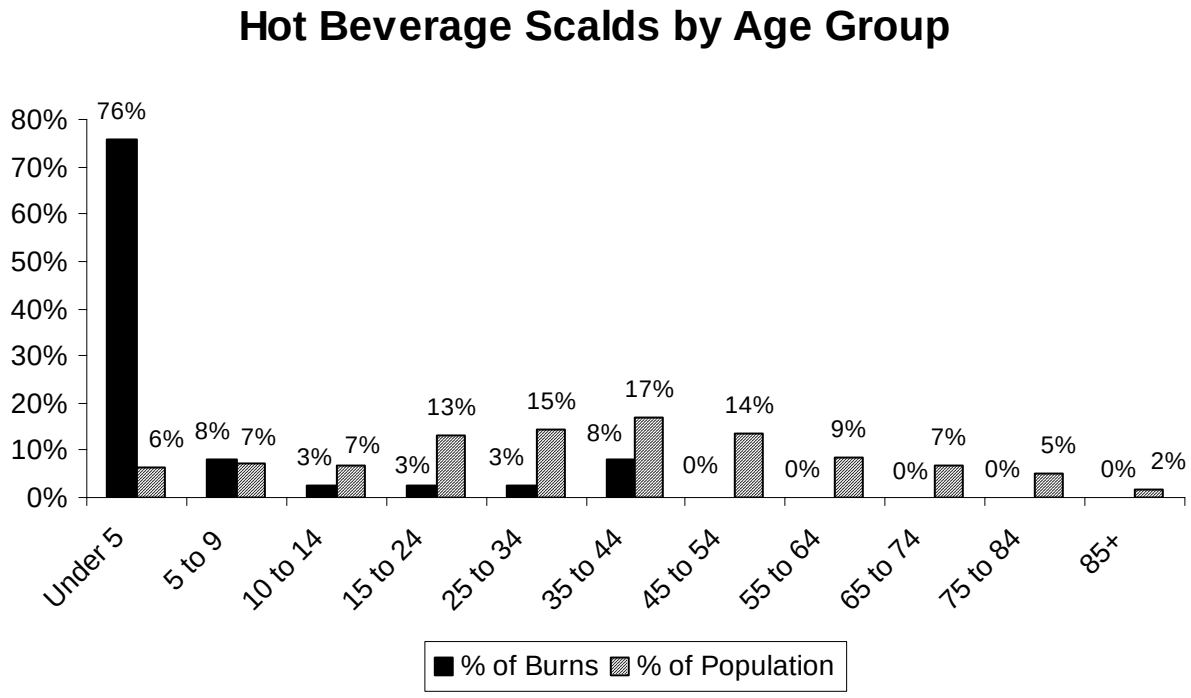
Hot Beverages

Hot Beverages Caused 24% of All Scalds
Thirty-seven (37), or 24%, of the 152 scald burns were caused by hot beverages. In 2004, hot beverages were responsible for 52, or 35%, of all scald burns, in 2005 they were responsible for 35, or 27%, of all scald burns; and in 2006 they caused 25, or 19%, of all scald burns. This is a strong down turn. These 37 burns accounted for 10% of the 382 burn injuries reported in 2007. Historically, hot beverages have been the leading cause of scald burns since the inception of M-BIRS in 1984 except for 1999, 2005, 2006 and 2007.

Fifty-one percent (51%) of the 31 hot beverage scald victims were female and 49% were male. In 2007, no one was reported to have received a hot beverage scald while working.

Over 3/4 of the Hot Beverage Scald Victims Were Under 5
Seventy-six percent (76%) of the 37 hot beverage scald victims of known age were less than five years of age. Children under five years old were 12 times more likely to be scalded by a hot beverage. Twenty-two (22), or 59%, of the victims who were scalded were one-year old or younger. Another five, or 14%, were two-year old toddlers. Last year, 75% of the victims of hot beverage scalds were also less than five years old.

Eight percent (8%) of the hot beverage scald victims were between five and nine years old; 3% were between the ages of 10 and 14; another 3% were between the ages of 15 and 24; 3% were also between 25 and 34; 8% were between 35 and 44. No one over the age of 44 received a scald burn from a hot beverage in 2007. A five-month old girl was the youngest person to be scalded by a hot beverage in 2007, while the oldest person was a 44-year old woman.



Hot Tap Water

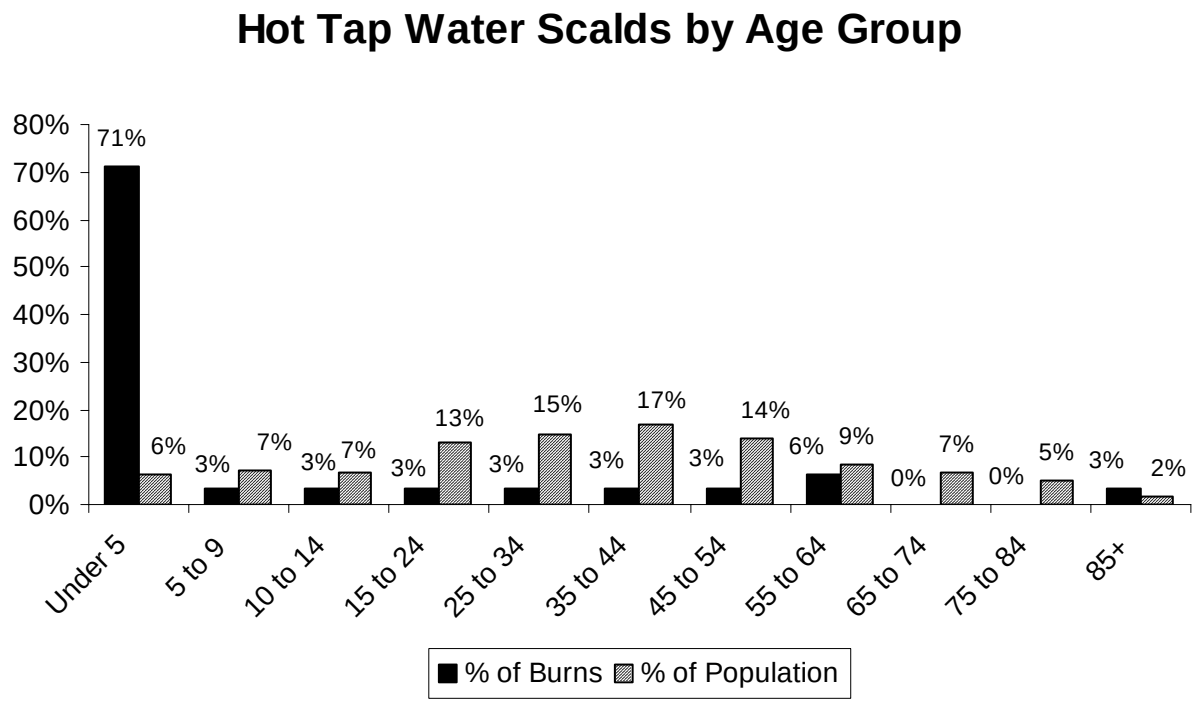
Hot Tap Water Caused 20% of All Scalds

Excessively hot tap water caused 31, or 20%, of the 152 scald burns and 8% of the 382 total burn injuries reported to M-BIRS in 2007. 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.[2] 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 2007, 61% of the victims were female while the other 39% were male. Since the beginning of M-BIRS, 52% of the hot tap water scald victims have been men and 48% have been women, but in the previous three years more females have been burned by hot tap water than males. None of the 29 victims were scalded during work-related activities.

Almost 3/4 of Tap Water Scald Victims Were Under the Age of 5

Seventy-one percent (71%) of the 31 hot tap water scald victims of known age 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. Last year in 2006, 55% of the hot tap water scald burn victims were under the age of five.



[2] Source: Knapp Burn Foundation

Three percent (3%) of the reported hot tap water scald burn victims were between the ages of five and nine years old; 3% were between 10 and 14 years of age; another 3% were between 15 and 24 years of age; 3% were between the ages of 25 and 34; another 3% were between 35 and 44; another 3% were between the ages of 45 and 54; 6% of hot tap water scald victims were between 55 and 64. No one between the ages of 65 to 84 received a hot tap water scald in 2007. One person over the age of 85, or 3%, received a hot tap water scald injury. The youngest hot tap water scald burn victim was a one-month old girl, while the oldest person to have one of these burns was an 85-year old woman.

14-Year Old Scalded While Bathing
On February 24, 2007, a 14-year old girl was scalded while she was bathing. She received scald burns to approximately 40% of her body.

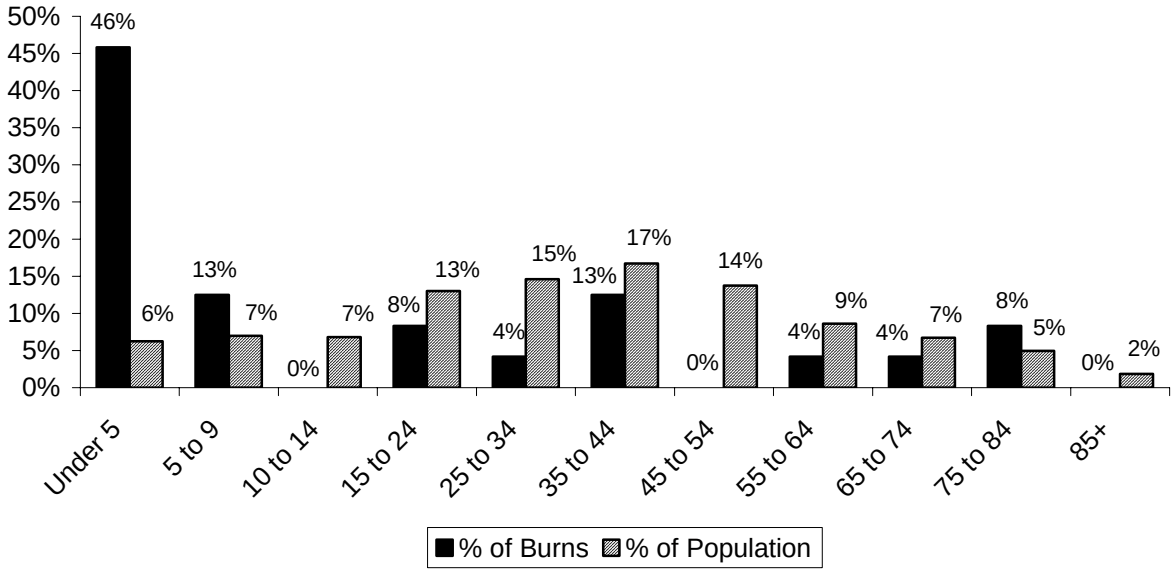
11-Month Old Scalded While Bathing
On May 17, 2007, an 11-month old girl was scalded while she was being bathed. She received scald burns to approximately 30% of her body.

Hot Food

Hot Food Caused 16% of Scalds, 6% of All Burns
Hot food caused 24, or 16%, of the 152 scald burns and 6% of the 382 total burn injuries reported in 2007. Sixty-seven percent (67%) of the victims were male and 33% were female. There was one work-related hot food scald reported in 2007 to a 37-year old woman.

Almost 1/2 of Hot Food Scald Victims Were Under 5
Of the 24 reported scald victims from hot food in 2007, 46%, almost one half, were under five years old; three victims, or 13%, were between five and nine; no one between the ages of 10 and 14 received a scald burn from hot food in 2007; two victims, or 8%, were between 15 and 24; one victim, or 4%, was between the ages of 25 and 34; three victims, or 13% were between 35 and 44; there were no victims between 45 and 54 years old; there was another victim, or 4% of these injuries, between the ages of 55 and 64; there was one victim, or 4%, between the ages of 65 and 74; and two victims, or 8%, were between the ages of 75 and 84; and no one over the age of 85 was reported to have received a scald burn injury from hot food in 2007. The youngest hot food scald burn victim was a one-month old boy, while the oldest person to have one of these burns was an 83-year old man.

Hot Food Scalds by Age Group



7-Year Old Boy Receives Scald Burns from Food
On August 10, 2007, a 7-year old boy received scald burns to 25% of his body surface area when he accidentally spilled hot soup on himself at home.

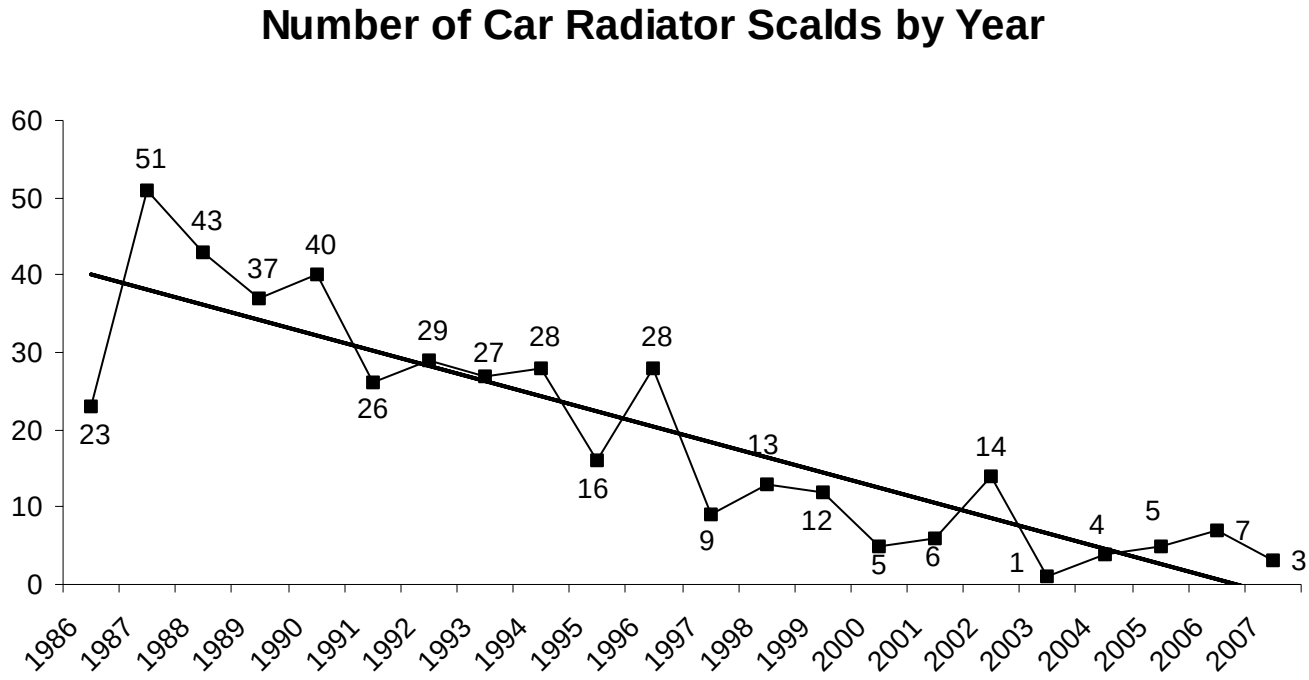
Car Radiators

Three Reported Car Radiator Scald Burns In 2007
In 2007, there were three reported scald burn injuries caused by the improper opening of a hot car radiator. All three of the victims, were male. One was a 24-year old man, another was 28 years old and the third victim was 50-years old.

Car Radiator Scalds Drop 77% in the Last Decade
These three injuries are a decrease over the seven injuries reported in 2006, five injuries reported in 2005, and the four injuries reported in 2004. As the chart below depicts, even though there have been some years where the number of reported car radiator burns has increased from one year to the next, only twice has there been an increase two years in a row, from 2000 to 2002 and from 2003 to 2006. But when working with such small numbers, even the slightest increase can seem disturbing. Overall the trend for the past 21 years has been one of decline. From 1988 to 2007 there was a 93% drop in reported car radiator scald burns. In the past decade, from 1998 to 2007, there was a 77% drop in reported car radiator scald burns.

Changes in Car Radiator Design Cause Drop
The main reason for this drastic decline in car radiator scalds is changes in car radiator design. The radiators now come with pressure relief caps that divert coolant to the overflow reservoirs at lower pressures than before, and today's coolants work at higher temperatures. These engineering changes have significantly reduced this type of injury.

Two of these burns occurred during the month of September and the other occurred in October.



50-Year Old Man Receives Scald Burns to Chest & Arms
On September 23, 2007, a 50-year old man received scald burns to his chest and arms when he opened his car radiator hose and scalding fluid blew out on him.

24-Year Old Man Receives Scald Burns to Face
On September 30, 2007, a 24-year old man opened his overheated car radiator and received burns to his face.

28-Year Old Man Receives Scald Burns from Car Radiator While at Work
On October 20, 2007, a 28-year old man received scald burns to his chest, arms and abdomen when the car radiator in the car he was working on exploded.

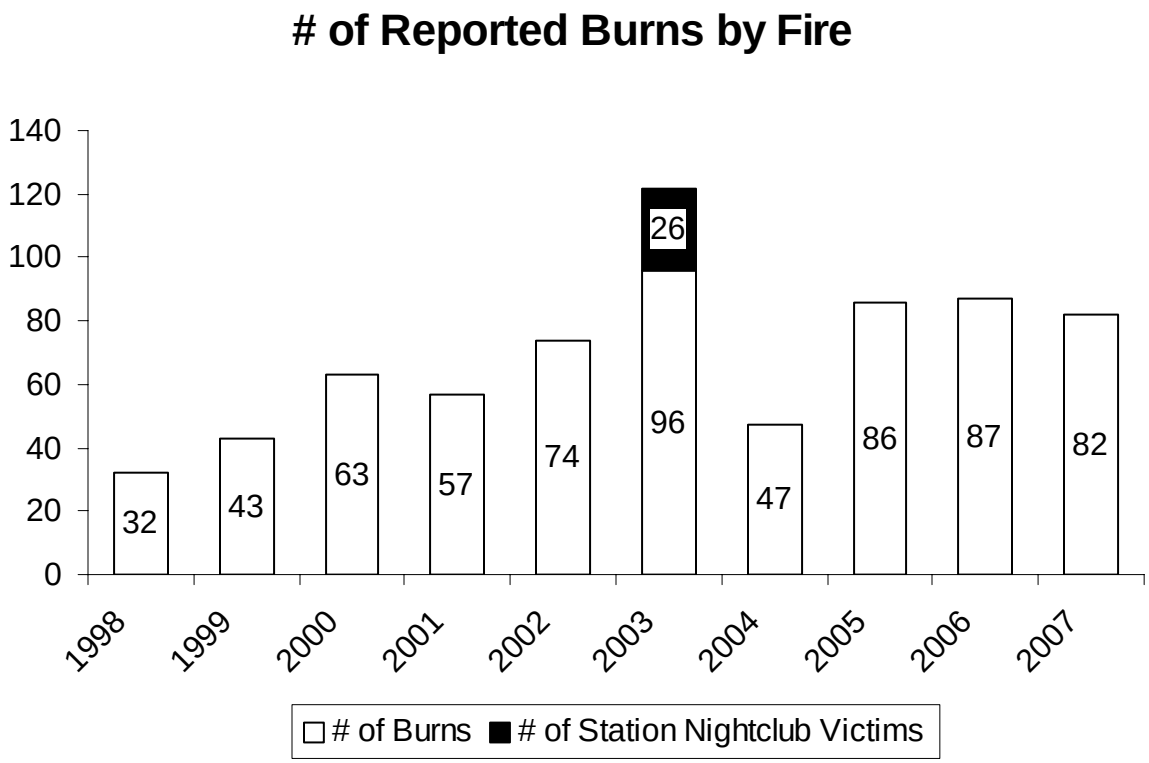
Car Radiator Safety Measures

- ✓ When your car overheats, keep in mind that the contents of the radiator are under tremendous pressure. If you open it, the boiling liquid and steam can erupt and cause severe burns to your hands, arms and face. Wait at least a half hour for the car to cool down, and then use a rag to slowly open the cap, releasing the pressure as slowly as possible.

- ✓ The coolant in your overflow reservoir may also be extremely hot and may also be under pressure. Take the same precautions when opening the coolant reservoir that you would when taking off the radiator cap.

Burn Injuries Caused by Fires

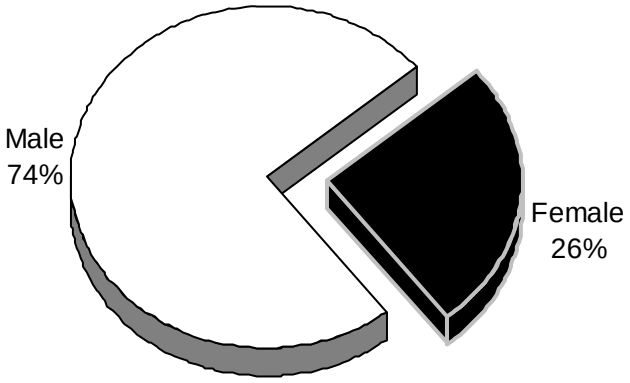
Fires Caused Over 1/5 of All Burn Injuries
Eighty-two (82), or 22% of the 382 burn injuries reported in 2007 were caused by fires. This is a 6% decrease from the 87 fire burns reported the previous year. With the exception of 2004, this is the lowest number of reported burn injuries from fires in the past five years. In 2006, there were 87 fire burns; in 2005 there were 86 and in 2003, there were 96 burn injuries caused by fires, excluding the 26 burn victims from the Station nightclub fire that were treated in Massachusetts. The following graph shows the number of burns from fire reported to M-BIRS from 1998 through 2007.



Seventy-four percent (74%) of the 82 victims were male and 26% 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[7].

[7] 2006 Annual Report of the Massachusetts Fire Incident Reporting System, MA Dept. of Fire Services, pg. 109.

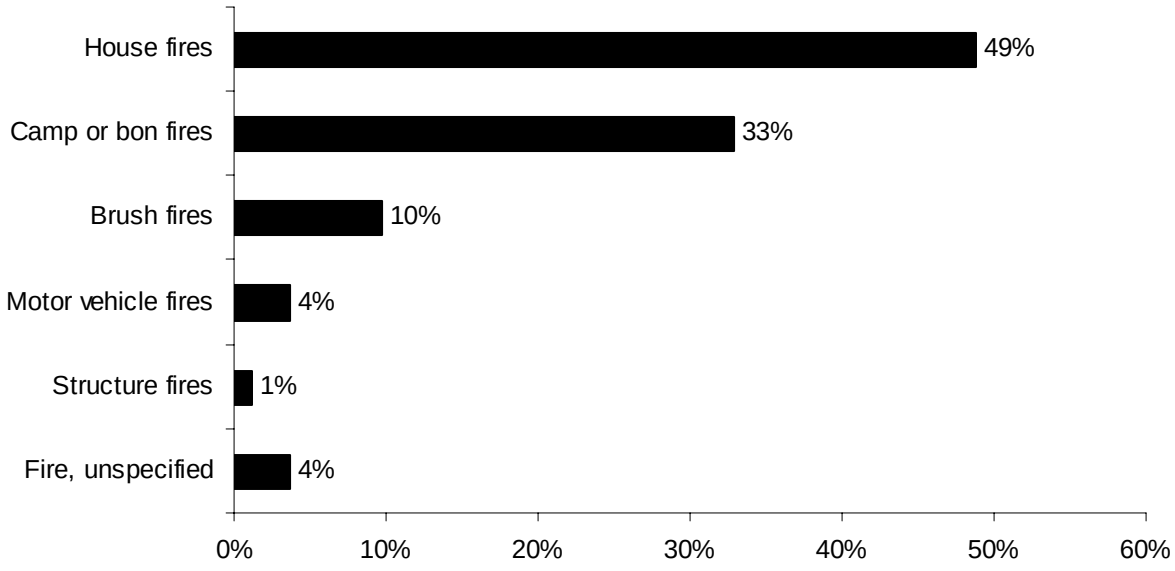
Fire Burn Victims by Gender



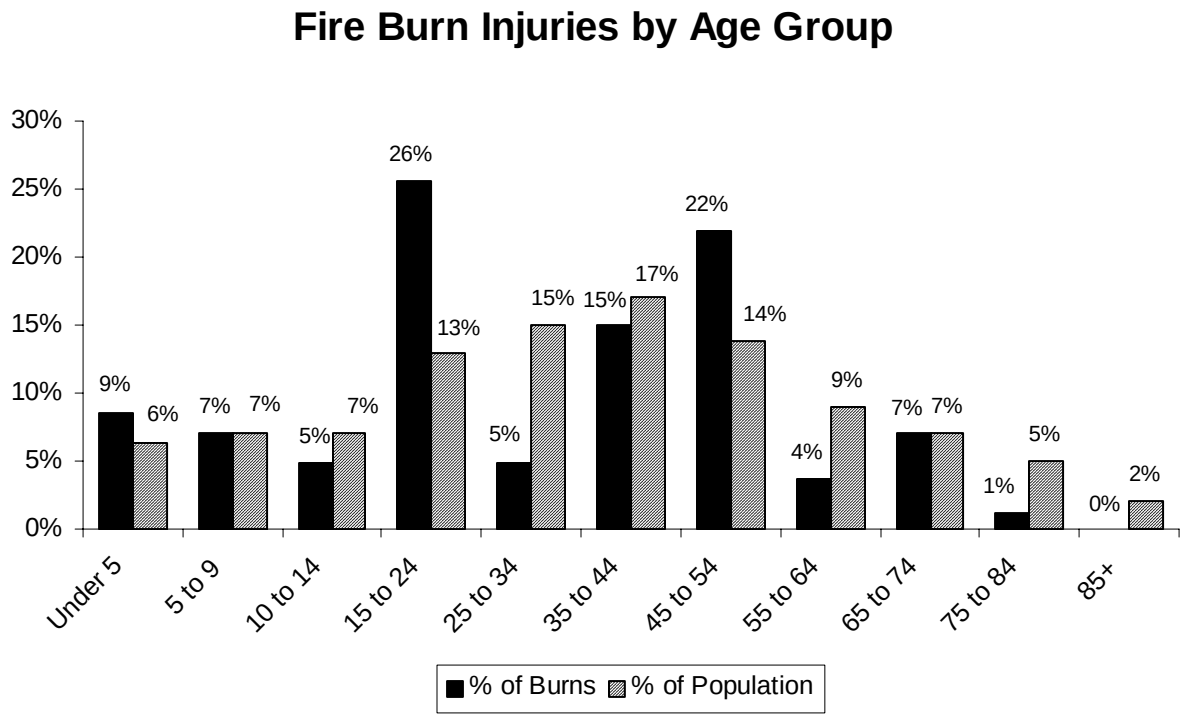
Almost 1/2 of Fire Burn Injuries Occurred in People's Homes

Residential fires caused 40, or 49%, of the 82 fire burn injuries reported in 2007. Twenty-seven (27), or 33%, were caused by camp or bon fires; eight, or 10%, were due to brush fires; three, or 4%, of the victims received their burns in motor vehicle fires; one victim, or 1%, was burned in a non-residential structure fire; and three victims, or 4%, of fire burn injuries occurred in a unclassified fires.

Types of Fires Causing Burns



Young Adults Most Likely to Be Burned in Fires
Seven (7), or 9%, of the victims burned in fire incidents were under five years old; six, or 7%, were between five and nine years of age; four, or 5%, were between 10 and 14; 21, or 26%, were between 15 and 24; four, or 5%, were between 25 and 34; 12, or 15%, were between 35 and 44; 18, or 22%, were between the ages of 45 and 54; three, or 4%, were between the ages of 55 and 64; six, or 7%, were between the ages of 65 and 74; one victim, or 1%, was between 75 and 84; and no one over the age of 85 received a burn injury in a fire in 2007. Young adults were the most likely to be burned in fires. Fifteen (15) to 24 year olds accounted for more than a quarter of all fire burn injuries.



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. Fire deaths are not recorded. 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.

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. All four of these were the result of residential structure fires. Of these four victims, three were injured while smoking, one of which fell asleep while smoking; and the cause of the fire that killed the other victim was electrical.

48-Year Old Woman Dies in House Fire Caused by Domestic Violence
On January 7, 2007, a 48-year old woman received burns to her entire body surface area in a house fire caused by domestic violence. She soon succumbed to her injuries. The victim's 31-year old estranged boyfriend threw gasoline on her and ignited it. He was also severely burned in the attack.

80-Year Old Woman Dies While Smoking
On January 18, 2007, an 80-year old woman died in a house fire caused by the improper disposal of smoking materials. She received burns to her face, chest, right arm and back as a result of the fire.

65-Year Old Woman Dies in House Fire
On February 17, 2007, a 65-year old woman died in a house fire caused by electrical arcing. The victim received burns to approximately 65% of her body surface area.

46-Year Old Man Dies in Smoking Fire at Home
On July 26, 2007, a 46-year old man was killed in a house fire started by the improper disposal of smoking materials. He received burns to his head and arms in the fire.

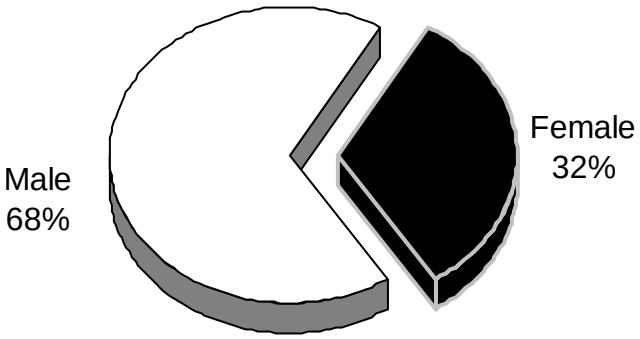
74-Year Old Man Killed While Smoking in Bed
On December 5, 2007, a 74-year old man received burns to 80% of his body when his house caught fire after he fell asleep while smoking. He died from his injuries. The victim's 52-year old son-in-law received burns to his hands as he attempted to rescue him.

Flame Burn Injuries

Flames Caused 20% of Reported Burn Injuries
There were 77 reported flame burn injuries. These 77 injuries accounted for 20%, or one-fifth, of the 382 burn injuries reported in 2007. 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.

Sixty-eight percent (68%) of the flame burn casualties were male and 32% were female. Ten (10), or 13%, of the 77 flame burns occurred during work-related activities; eight were men and two were women.

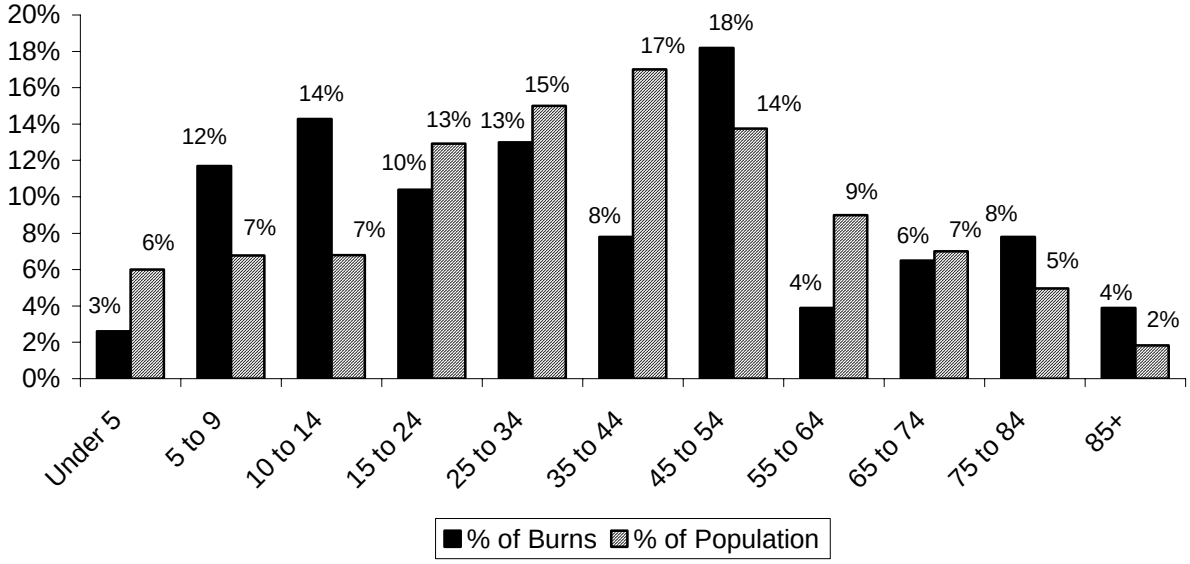
Flame Burns by Gender



Young Teens & Older Adults 85+ Faced Highest Risk of Flame Burns

Four (4) groups were at a higher risk for burns from flames. Young teens between the ages of 10 and 14 and adults over the age of 85 were both 2.1 times as likely to receive a flame burn injury. Children between the ages of five and nine were 1.7 times more likely to receive a flame burn injury; and middle aged adults between 45 and 54 were 1.3 times more likely to receive a flame burn injury. Older adults between the ages of 75 and 84 were 1.6 times more likely to receive a flame burn injury.

Flame Burn Injuries by Age Group



Three percent (3%) of the 77 flame burn victims were children under the age of five; 12% were between the ages of five and nine; 14% were between 10 and 14; 10% were victims with ages 15 to 24; 13% were between 25 and 34; 8% were between 35 and 44; 18% were between 45 and 54; 4% were between 55 and 64; 6% were between the ages of 65 and 74; 8% were between 75 and 84; and 4% were over the age of 85. The youngest person to receive a flame burn injury was a four-month old girl, while the oldest was a 90-year old woman.

Cooking Was the Leading Cause of Flame Burns

Cooking was the leading cause of flame burn injuries in 2007. Nineteen (19), or 25%, of all flame burn victims received their injuries while cooking. These 19 cooking-related flame burn injuries included seven clothing ignitions while cooking that accounted for 9% of the total flame burn injuries. Five (5), or 6% of the victims, received their flame burn injuries from ignitions of hot cooking liquids, generally grease or oil. Five (5), or 6%, of the victims were burned while barbequing, two while using a gas grill. Two (2), or 3%, of the cooking-related flame burns involved an unreported cooking activity. One (1), or 1%, of the victims received their injury by coming into contact with an oven.

Smoking Caused of 14% of Flame Burn Injuries

Smoking accounted for 11, or 14%, of all flame burn injuries in 2007. Five (5) flame burns, or 6%, were from smoking while in bed. Three (3), or 4%, were clothing ignitions while smoking. Another three, or 4%, of the flame burn injuries involved unspecified smoking materials.

Children Playing Caused 12% of Flame Burn Injuries

Children playing with lighters and gasoline caused nine, or 12%, of flame burn injuries. Six children were burned while playing with lighters, accounting for 8% of flame burn injuries; and three children, or 4%, received their flame burn injuries when they were playing with gasoline.

Candles & Ignitable Liquids Each Caused 10% of Flame Burn Injuries

In 2007, ignitable liquids caused eight, or 10%, of flame burn injuries. Gasoline caused six, or 8%, of the flame burns. The other two burns, or 3% of these injuries, were caused by unspecified ignitable liquids. Flame burns from candles also caused eight, or 10%, of these injuries. Clothing ignitions from a candle accounted for seven, or 9% and one victim was burned directly by the candle's flame, accounting for 1% of the flame burn injuries in 2007.

Heating Equipment Involved in 5% of All Flame Burns

Four (4) flame burn injuries involved heating equipment, accounting for 5% of these types of injuries. Two (2) injuries, or 3%, involved unspecified heaters. A fireplace and a woodstove were each the cause of one, or 1%, of the flame burn injuries in 2007.Welding and cutting torches were the cause of three, or 4%, of these flame burn injuries. Two (2), or 3%, were caused by welding and the other one, or 1%, was caused by a cutting torch. Unspecified clothing ignitions from open flames represented three, or 4% of flame burn injuries. Two unsuccessful attempts at self-immolation accounted for 3% of flame burn injuries in 2007.

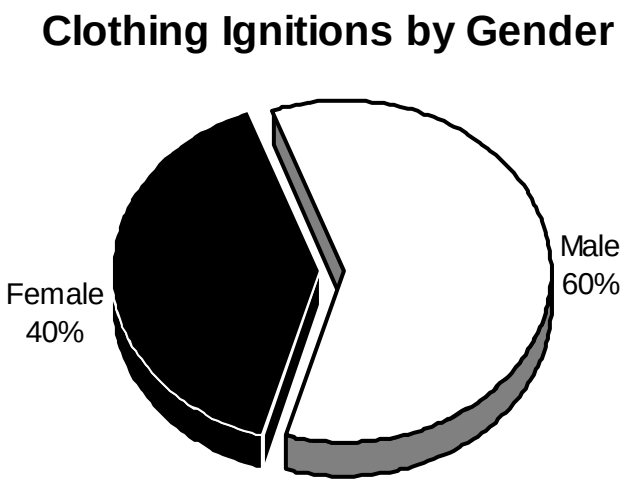
Explosives caused two, or 3%, of flame burn injuries. Fireworks and an unspecified explosive each caused one, or 1% of these injuries. An aerosol can, alcohol, flammables, and a spark from

a power tool igniting the tubing and mask of a home oxygen system, each accounted for one, or 1%, of these burns.

Clothing Ignitions

Clothing Ignitions Account for Almost 1/3 of Flame Burn Injuries
There were 25 clothing ignitions resulting in flame burn injuries accounting for 32% of all flame burn injuries. Clothing ignitions from candles and while cooking were each the cause of seven, or 9%, of these injuries. Three (3) victims' clothing ignited after coming into contact with smoking materials, accounting for 4% of all flame burn injuries in 2007. Another three victims, or 4%, had unspecified clothing flame burn injuries.

6 out of 10 Clothing Flame Burn Injuries Were Men
Fifteen (15), or 60%, of clothing ignition victims were men and 10, or 40% were women.



Almost 1/4 of Flame Burn Injury Victims Due to Clothing Ignitions Were Over 65
Six (6), or 24% of all the victims of flame burn injuries due to clothing ignitions were over 65-years old. Four (4) were clothing ignitions while cooking, one was from smoking and the other was from a candle.

One (1) child (4%) under the age of five received a flame burn due to a clothing ignition. Another five children (20%) between the ages of five and nine also received these burns. Two (2) more children between the ages of 10 and 14 received one of these injuries, accounting for another 8%. No one in the age group 15 to 24, received this type of burns. Four (4) victims, or 16%, were in the age group 25 to 34 years old. The age groups 35 to 44 and 45 to 54 each had three victims accounting for 12% of the clothing ignition flame burn injuries in 2007. One (1) victim, or 4%, of flame burn injuries due to clothing ignitions was between 55 and 64 years old. One (1) victim, or 4% was between 65 and 74 years old. Two (2) victims, or 8%, were between the ages of 65 and 84. There were three victims, or 12% of these types of burn injuries, in the age group over 85 years old. The youngest person to receive a flame burn injury from a clothing

ignition was a 4-month old girl whose clothes were ignited when she crawled too close to a candle; the oldest victim from a clothing ignition flame burn injury was a 90-year old woman who received her injuries when her clothes ignited while cooking.

45-Year Old Homeless Woman Assaulted
On March 16, 2007, a 45-year old homeless woman was assaulted and set on fire after an argument with another individual. She received burns to approximately 70% of her body.

89-Year Old Woman Ignites Clothing While Smoking
On May 7, 2007, an 89-year old woman was killed when her clothing was ignited while she was smoking. She received burns to approximately 20% of her body.

81-Year Old Woman Commits Suicide
On December 14, 2007, an 81-year old woman killed herself by dousing herself in bug spray and lighting herself on fire. She received third degree burns to approximately 60% of her body.

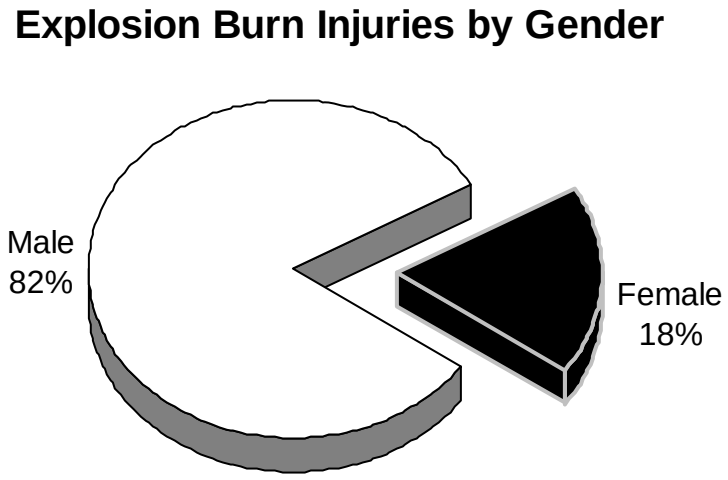
81-Year Old Man Killed While Smoking in Bed
On December 29, 2007, an 81-year old man was smoking in bed in his nursing home room. The victim and his bedding ignited causing him to burn approximately 90% of his body surface area.

ALWAYS REMEMBER TO:

STOP DROP & ROLL

Burn Injuries Caused by Explosions

Explosions Caused 9% of Reported Burn Injuries
Thirty-three (33), or 9%, of the 382 burn injuries reported in 2007 were caused by explosions. That is a 27% increase from the 26 reported in 2006. Eighty-two percent (82%) of the explosion burn victims were male and 18% were female.

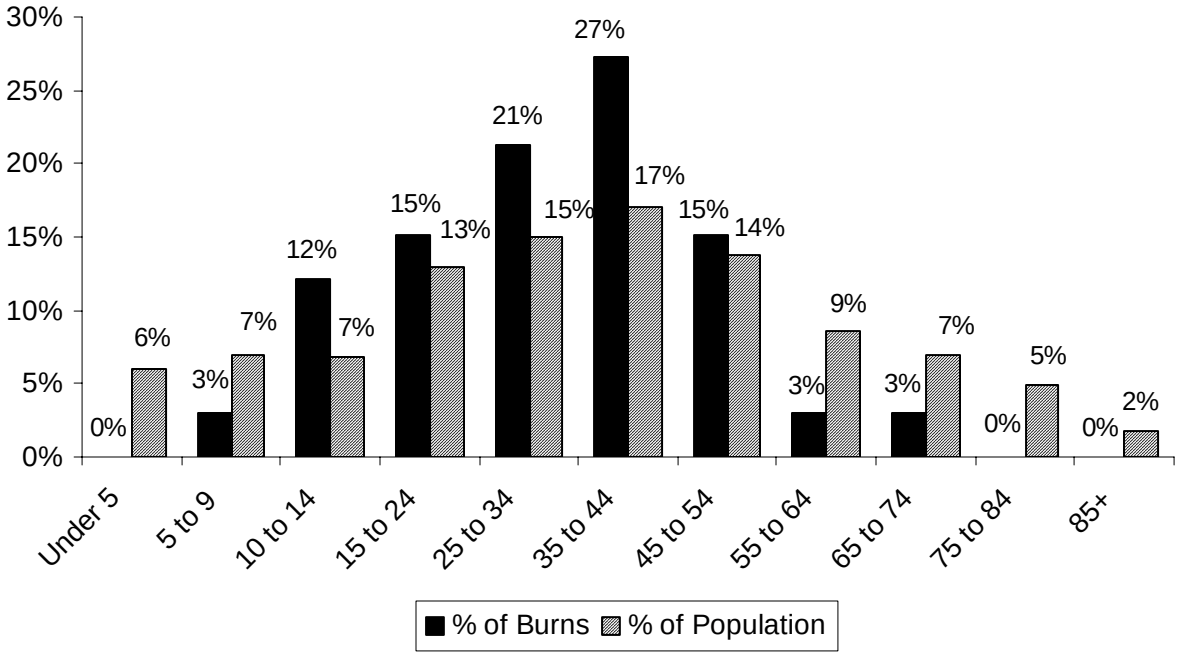


Eleven (11) burns, or 33%, occurred during work-related activities. Ten (10) of these work-related victims were male and one was a woman.

Out of these 33 injuries there was only one explosion with two or more injuries. All three of these victims were men. A 20-year old man, a 41-year old man and a 56-year old man all died from their injuries sustained in a steam pipe explosion at a power plant in Salem.

Young Adults Ages 10 to 14 Face Greatest Risk of Explosion Burns
There were no burns from explosions to children under the age of five in 2007; one victim, or 3%, belonged to the age group five to nine years old; children between the ages of 10 to 14 accounted for four, or 12%, of these injuries; five, or 15%, were between the ages of 15 to 24; adults between the ages of 25 and 34 received seven, or 21%, of the explosion related burns; nine, or 27%, were between 35 and 44; five or 15%, were between 45 and 54 years of age; one, or 3%, was between 55 and 64 years old; and one victim, or 3%, was between 65 and 74-years old. No one over the age of 67 received a burn injury due to an explosion. The youngest victim to receive a burn injury from an explosion in 2007 was a 9-year old girl; and the oldest person to receive one of these burns was a 67-year old man.

Explosion Burn Injuries by Age Group



Ignitable Gases Were the Leading Cause of Explosion Burn Injuries
Ignitable gases accounted for 10, or 30%, of the explosion-related burn injuries in 2007. Five (5), or 15%, were from propane, three, or 9%, were from natural gas, and two, or 6%, were from gas stoves.

Aerosol cans were involved in five, or 15%, of explosion burns. Steam was involved in four, or 12%, of these burns. Another four, or 12%, involved explosives; three, or 9% from fireworks, and one, or 3%, from an attempt to make a bomb.

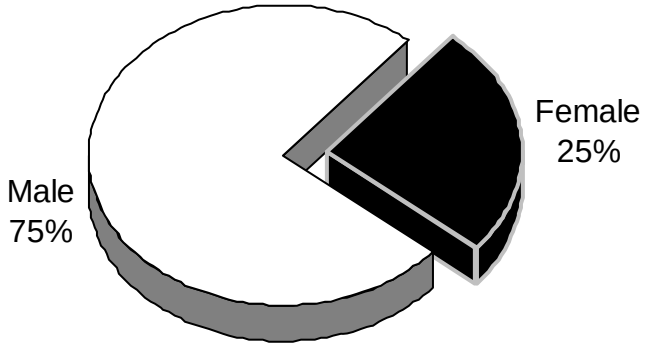
Ignitable liquids caused two, or 6%, of explosion burn injuries. A gas grill, a boat fire, chemicals, electrical problems, flammables and a pipe each accounted for one, or 3%, of the explosion-related burn injuries in 2007.

3 Men Killed in Steam Explosion at Powerplant
On November 6, 2007, three male employees at the Salem Harbor Power Plant were severely burned and eventually died from their burn injuries. They incurred their injuries when a high-pressure water pipe exploded sending scalding steam into the surrounding area. All three victims, a 20-year old man, a 41-year old man and a 56-year old man, received scald burns to over 85% of their body surface areas.

Contact Burn Injuries

Contact with Hot Objects Caused 3% of Reported Burn Injuries
Twelve (12), or 3%, of the 382 burn injuries reported in 2007 were caused by contact with hot objects. Seventy-five percent (75%) of the burn victims were male and 25% were female. One (1), or 8%, of contact burns occurred at work in 2007.

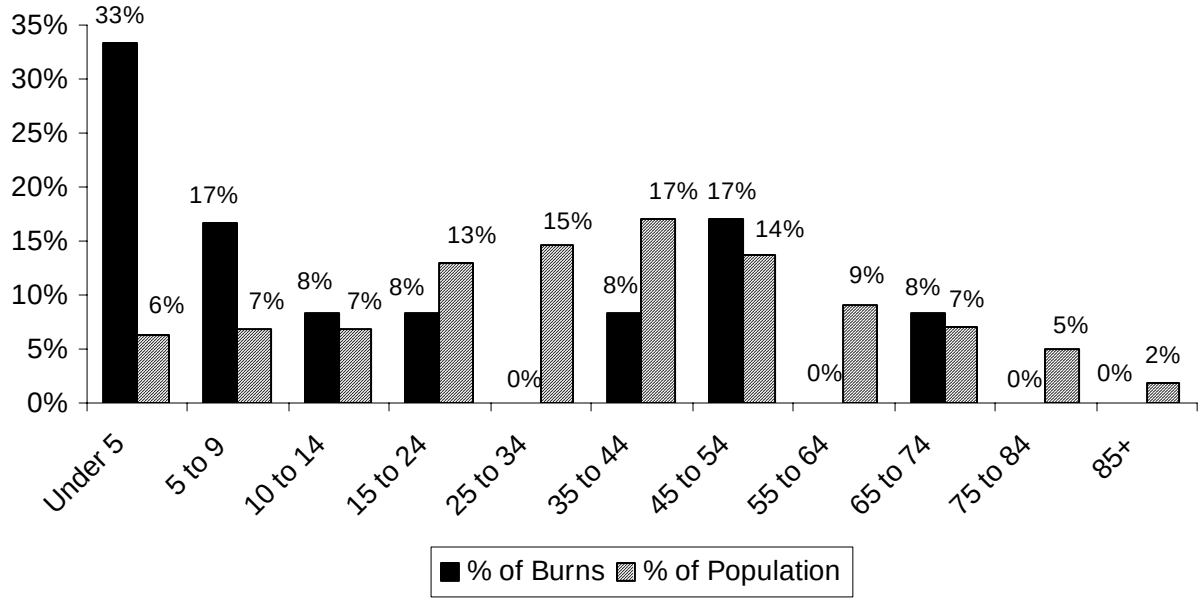
Contact Burn Injuries by Gender



1/3 of Contact Burns Were to Children Under 5
One-third of all the 12 contact burns reported in 2007 were to children under the age of five. This age group accounted for four, or 33%, of all contact burns. Pre-schoolers faced slightly greater than five times the risk of contact burns or were over five times as likely to receive a contact burn. This disproportionate risk could be the result of young children exploring their environment and underscores the need for constant supervision of toddlers.

Two (2), or 17%, of these burn victims were between the ages of 5 and 9; one adolescent in the age group between 10 and 14 received a contact burn injury accounting for 8%; one young adult, or 8%, was between the ages of 15 and 24; none of the victims were between 25 and 34; the age group 35 to 44 accounted for one victim, or 8%; two victims were in the age group 45 to 54, and accounted for 17% of these injuries; there were no victims between the ages of 55 and 64; one victim, or 8%, was between the ages of 65 and 74 was reported to have received a contact burn in 2007. In 2007, no one over the age of 70 received a burn from contact with a hot object. The youngest person to receive a contact burn in 2007 was a one-month old girl, and the oldest person was a 70-year old man.

Contact Burn Injuries by Age Group



Heating Equipment Was the Leading Cause of Contact Burns
Contact with heating equipment caused four, or 33%, of the contact burns in 2007. Contact with woodstoves caused three, or 25%, of all contact burns; and contact with a radiator caused one, or 8% of these types of burns. Contact with barbeques caused three, or 25% of these burns. Hot metal a pipe and hot wax each caused one, or 8%, of contact burns in 2007.

There was one work-related contact burn injury in Massachusetts in 2007. This work-related contact burn victim was a 49-year old man.

4-Year Old Boy Burns Self on BBQ
On August 4, 2007, a 4-year old boy sat on a hot hibachi style grill. He received burns to his buttocks, lower back and thighs.

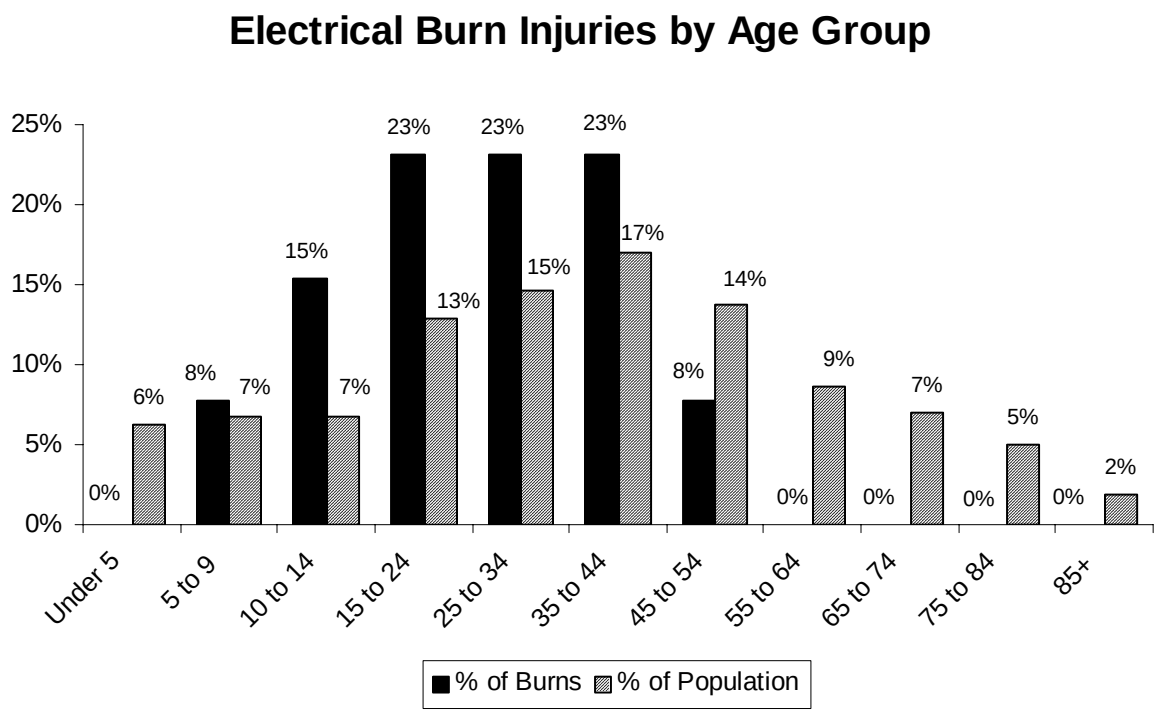
8-Year Old Boy Burned by Clothes Iron
On August 10, 2007, an 8-year old boy was burned when he touched a hot clothes iron. He received burns to his shoulder and back.

50-Year Old Man Burned by a Woodstove
On November 18, 2007, a 50-year old man received burns to his hands and abdomen when he was working on a woodstove that he didn't know was still actively burning.

Electrical Burn Injuries

Electrical Incidents Caused 4% of Burn Injuries
Thirteen (13), or 3%, of the 382 burn injuries reported in 2007 were caused by electrical accidents. All of the electrical burn victims were male. Five, or 38%, occurred during work-related activities.

All Electrical Burn Victims Were Between the Ages of 9 & 45
No one under the age of nine and no one over the age of 45 was reported to have received a burn from an electrical source. One (1), or 8%, of the victims who received electrical burns in 2007 was between five and nine years old; two victims, or 15%, were between 10 and 14; three of the victims, or 23%, were between 15 and 24; another three victims, or 23%, were between 25 and 34; three more victims, or 23%, were between the ages of 35 and 44; and one victim, or 8%, was between 45 and 54. The youngest person to receive an electrical burn injury was a 9-year old boy, and the oldest victim was a 45-year old man.



Over 1/2 of Electrical Burns Were Caused by Electrocutions
Seven (7), or 54%, of the electrical burn injuries in 2007 were from electrocutions. Undefined electrical accidents caused five, or 38%, of these burns. One victim was struck by lightning accounting for 8% of electrical burns in 2007.

29-Year Old Man Burned at Home
On May 13, 2007, a 29-year old man received electrical burns to approximately 30% of his body surface area when he was attempting to do some electrical work on his home.

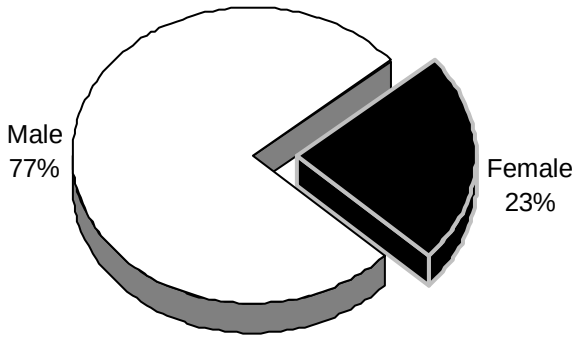
34-Year Old Electrician Electrocuted at Work
On June 21, 2007, a 34-year old male electrician was working when he was electrocuted. He had burns to approximately 20% of his body surface area.

17-Year Old Teenager Killed in Electrical Accident While Working
On July 25, 2007, a 17-year old male teenager was lowering scaffolding at a construction site, when it came into contact with electrical wires. He received electrical burns to his hands and arms and soon succumbed to his injuries.

Other Types of Burn Injuries

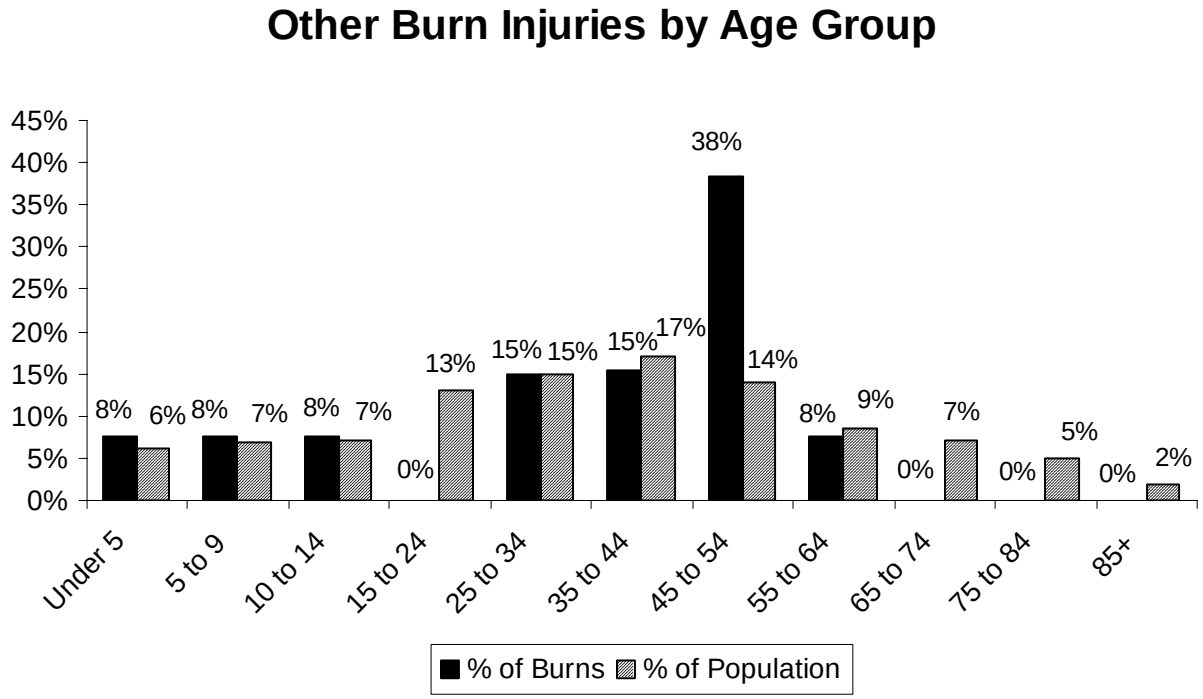
***Other* Type Burns Cause 13 Injuries**
In 2007, there were 13 burn injuries that were characterized as *Other*. These include seven burns, or 54%, caused by exposure to chemicals. Two (2) *Other* burns, or 15%, were attributed to severe sunburns. An assault, a flashburn, propane, and an unspecified burn injury each caused one or 8%, of the *Other* burn injuries in 2007. Seventy-seven percent (77%) of the 13 victims were male and 23% were female. Health care facilities reported that seven, or 54%, of the 13 *Other* burn victims were working when injured. Exposure to chemicals caused five of the work-related injuries; propane and a flashburn each caused one of the work-related burns.

Other Burn Injuries by Gender



38% of *Other* Burn Victims Were Between 35 to 44 Years Old
In 2007 one, or 8%, of the *Other* burn victims was under five-years old. One victim, or 8%, was between the ages of five and nine. One victim, or 8%, of the *Other* burn type victims was between the ages of 10 and 14; two victims, or 15%, were between the ages of 25 and 34; another two victims, or 15%, were between 35 and 44 years old; five victims, or 38%, were between 45 and 54; and one victim, or 8%, was between the ages of 55 and 64. No one over the

age of 58 suffered an *Other* type of burn injury. The youngest victim was a 3-month old boy and the oldest victim was a 58-year old man.



53-Year Old Man Received Chemical Burn
On January 8, 2007, a 53-year old man received burns to his abdomen and thighs when he was sprayed with liquid propane while at work. He was transported to a local hospital for treatment.

32-Year Old Woman Burned by Chemical
On July 27, 2007, a 32-year old woman received burns to approximately 15% of her body surface area from ethanol and another flammable chemical while she was at work in a laboratory.

35- Year Old Man Burned by Nitric Acid
On July 4, 2007 a 35-year old man received chemical burns from nitric acid to approximately 12% of his body. He received his burns while at work.

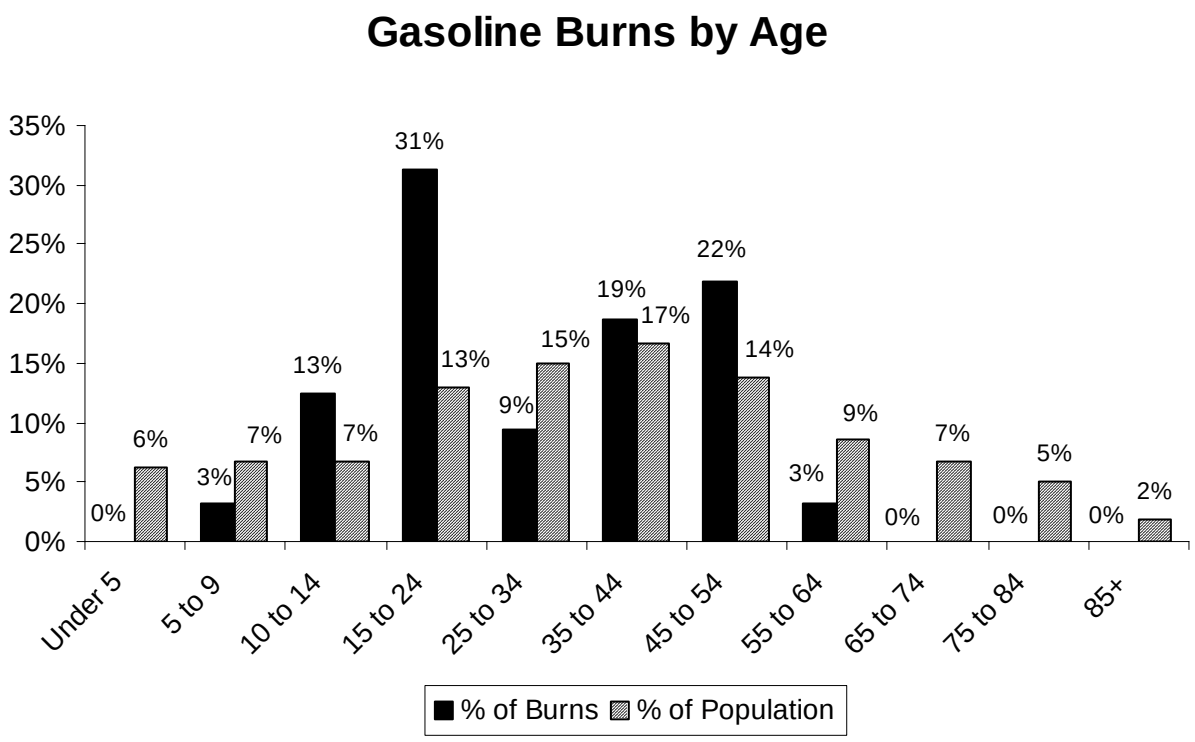
Gasoline Related Burn Injuries

Gasoline Involved in 8% of Reported Burn Injuries
Gasoline was involved in 32, or 8%, of the 382 burns reported to M-BIRS in 2007. Gasoline was the primary cause of the injury in 27, or 84%, of these injuries. Because of more detailed descriptions as to how burn injuries occurred, it was determined that gasoline was also involved

in five, or 16%, of other burn injuries that were coded with a different primary description such as an assault, a cigarette, or the use of a cutting torch.

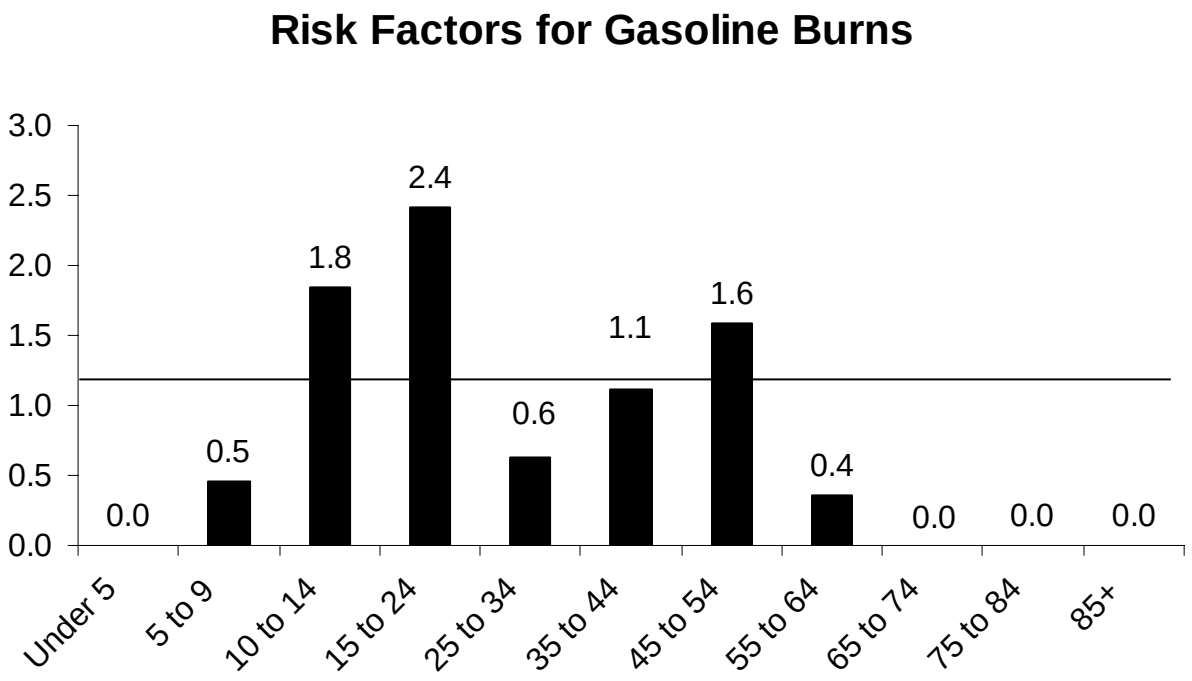
Twenty-one (21), or 66%, of the gasoline related burn injuries were caused by fires. Eleven (11), or 34%, of the burn injuries involving gasoline were flame burn injuries. Twenty-nine (29), or 91%, of the 32 gasoline related burn victims in 2007 were men, and three, or 9% were women. Three of the injuries occurred during work-related activities, accounting for 9% of all gasoline related burn injuries. Five (5), or 16%, of the gasoline burn injuries in 2007 were to children; 27, or 84% of these injuries occurred to adults.

Almost 1/3 of Gasoline-Related Burn Victims Were Between the Ages of 15 and 24
No one under the age of five received a gasoline-related burn injury in 2007. One (1) victim, or 3%, was between five and nine years of age. Four (4), or 13%, of the victims were between the ages of 10 and 14 years old. This age group has historically been the most at risk for these types of injuries, but this year this age group was only 1.8 times at a greater risk of gasoline burn injuries. Ten (10), or 31%, of the victims were between 15 and 24; young adults in this age group were the most at risk to be burned while handling gasoline, almost two and a half times more likely. Three (3), or 9%, were between 25 and 34; six, or 19% were between 35 and 44; seven victims, or 22%, were between the ages of 45 and 54; and one victim, or 3%, was in the age group 55 to 64 years old. The youngest victim was an eight-year old boy and the oldest victim was 61-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. Historically,

adolescents in the age group 10 to 14 had the greatest risk of getting a burn involving gasoline. However in 2007, that age group was the second most likely to be burned by gasoline. In 2007 young adults in the age group 15 to 24 had the greatest risk of getting a burn involving gasoline.



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. Gasoline is a tool, but a dangerous one, and it demands respect.

1-Year Old & 66-Year Old Burned in an Assault
On January 8, 2007, a 1-year old girl and her 66-year old babysitter were doused with gasoline and ignited by the toddler's father. The two victims received burns to over 20% of their bodies. The father received burns to approximately 21% of his body.

8-Year Old Boy Burned By Gasoline
On November 12, 2007, an 8-year old boy poured gasoline onto a brush fire causing burns to 7% of his body surface area.

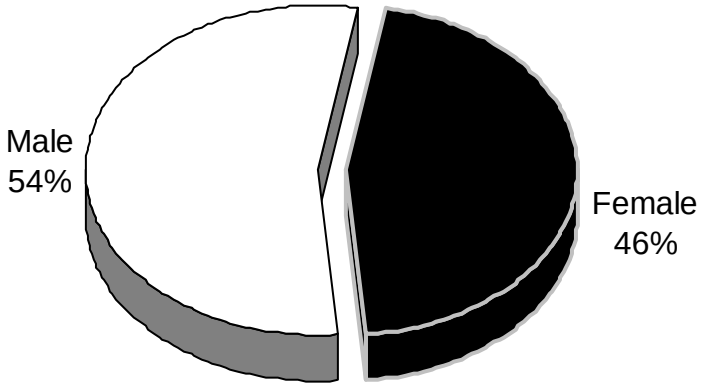
45-Year Old Man Burned by Gasoline at a Brush Fire
On April 21, 2007, a 45-year old man was burned when he added gasoline to a brush fire. He received burns to approximately 18% of his body surface area.

Some Safety Measures
- If you must store gasoline, store it outside the home in approved safety cans away from open flames (i.e. water heaters and pilot lights) 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.

Burns Caused by Cooking Activities

Cooking Activities Caused Over 1/4 of Reported Burn Injuries
Cooking activities caused 98, or 26%, of the 382 burn injuries reported to the Massachusetts Burn Injury Reporting System in 2007. Cooking activities were the primary cause of the injury in 95, or 97%, 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 3%, of other burn injuries that were coded with a different primary description such as 'steam'.
Fifty-three (53), or 54%, of the 98 victims were male and the other 45, or 46%, were female.
Thirteen (13), or 13%, of the 98 people burned by cooking activities were working when injured.

Cooking-Related Burns by Gender



Scalds Cause Almost 3/4 of Cooking-Related Burn Injuries
Seventy-two (72), or 73%, of the 97 burn injuries caused by cooking were scalds. Forty-six (46), or 64%, of these scald victims were injured by hot cooking liquids; hot food accounted for 24, or 33%, of these victims. Two (2) victims, or 3% were scalded when they were assaulted with cooking liquids.

Twenty (20), or 20%, of all cooking-related burns were flame burn injuries. Seven, or 35% of the cooking-related flame burn victims, were burned when their clothing ignited while cooking. Five (5), or 5%, were burned when cooking liquids started stovetop fires. Another five, or 25% involved barbeques; two, or 10%, were from gas grills; and one each, or 10%, involved a clothing ignition, ignitable liquids and an unspecified flame burn from a barbeque. An oven fire accounted for 1, or 5% of cooking-related flame burn injuries in 2007.

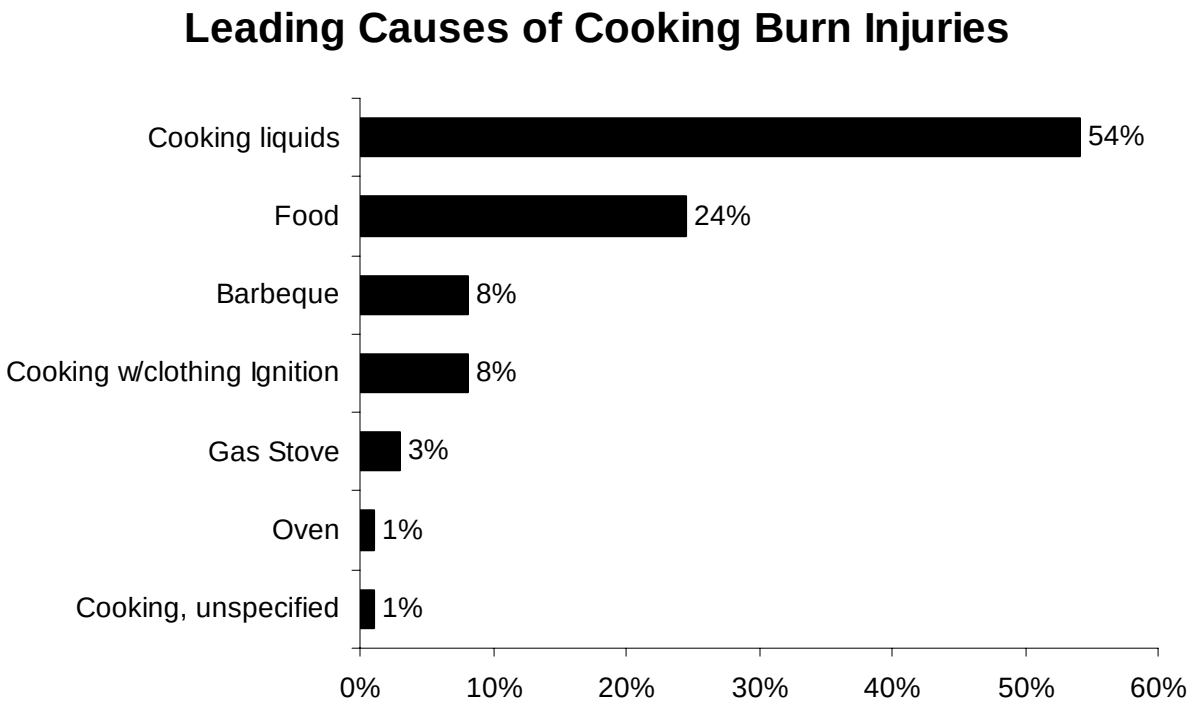
Three (3) victims received their burns from coming into contact with barbeques, causing 3% of cooking-related burns.

Three (3) victims received burn injuries in cooking-related explosions, accounting for 3% of cooking burn injuries in 2007. Two (2) injuries resulted when a gas stove exploded accounting for 67% of these injuries, and the other explosion victim was injured in a gas grill explosion, accounting for 33% of the cooking-related explosion burn victims.

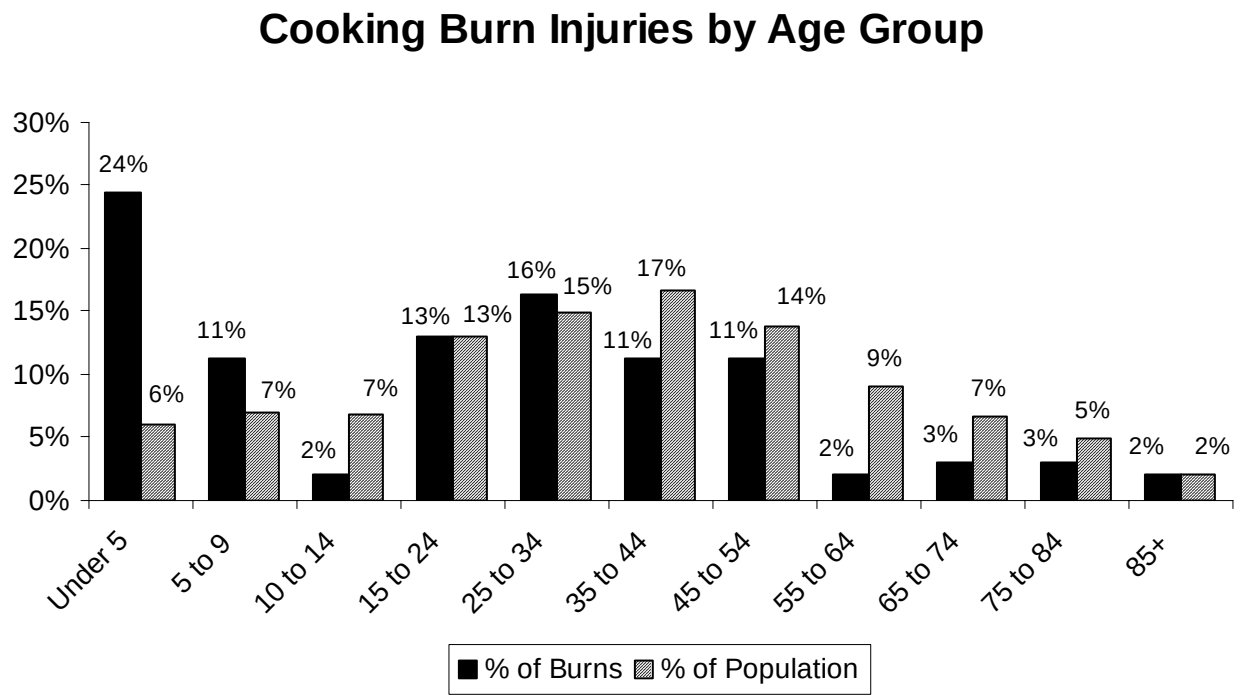
Cooking Liquids Were the Leading Cause of Cooking-Related Burns

Burns from cooking liquids were the leading cause of all cooking-related burns in Massachusetts in 2007. These burns accounted for 53, or 54%, of all cooking-related burn injuries. Scalds from hot food were the second leading cause of cooking-related injuries. They caused 24, or 24%, of these injuries. Burns received while barbequing accounted for eight, or 8%, of all cooking burn injuries. Clothing ignitions while cooking also caused eight, or 8%. Burn injuries from gas stoves in 2007 accounted for three, or 3%, of these injuries. Burns from conventional ovens caused one, or 1% of these burns; and unspecified cooking activities caused one, or 1%, of the cooking burns in the Commonwealth in 2007.

The following graph shows the leading causes of cooking related burn injuries in Massachusetts in 2007 regardless of the type of burn.



Children Under 5 Were More Than 4 Times as Likely to be Burned by Cooking Activities
Twenty-four (24), or 24%, of the cooking-related burn victims were under age five. This age group was slightly more than four times as likely to be burned by cooking related activities. Eleven (11), or 11%, were aged between five and nine years of age; two, or 2%, were between 10 and 14; 13, or 13%, were between 15 and 24 years old; 16, or 16%, were between 25 and 34; 11, or 11%, were between 35 and 44; another 11, or 11%, were between 45 and 54; two, or 2%, were between 55 and 64; three victims, or 3%, were between 65 and 74; another three victims, or 3%, of the victims belong to the age group between 75 and 84 years of age, and two, or 2%, of the victims were over the age of 85 in 2007. The youngest victim of a cooking-related burn was a four-month old girl, while the oldest victim was a 90-year old woman who received her 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. Parents should keep young children away from the stove and food preparation areas while adults are cooking.

Older Adults Not at a Higher Risk for Cooking-Related Burn Injuries
In the past, older adults over the age of 65 were usually more likely to be burned while cooking. However in 2007, eight older adults received burn injuries as a result of cooking in 2007. They represented 8% of the cooking burn injuries and 14% of the population and so were not injured by cooking at a disproportionate rate. Six (6), or 75%, of these victims were women and two, or 25%, were men. Four of these older adults, had their clothing ignite while cooking; three, were scalded by hot food and one was scalded by cooking liquids.

Clothing Ignitions while Cooking
In 2007, eight, or 8% of the victims with cooking-related burns, were injured when their clothing ignited while cooking. Four (4), or 50%, of the victims of clothing ignitions while cooking were women and the other four, or 50% were men. Four, or 50% of these clothing ignitions while cooking, were 65 years old or older. Loose-fitting sleeves can come into contact with burners and catch fire.

According to data collected by the Massachusetts Fire Incident Reporting System, unattended and other unsafe cooking practices caused 8,081 fires in 2006. These fires caused 56 civilian injuries, 40 fire service injuries along with $9.5 million in losses. Many of these people also suffered from smoke inhalation[8].

Serious Burns from Cooking

- On June 26, 2007 a 29-year old North Adams woman received flame burns to 13% of her body while barbequing.
- On July 1, 2007, a 38-year old Boston man received scald burn injuries to 22% of his body surface area when he spilled boiling water on himself that he was using for cooking.
- On July 9, 2007 a 51-year old Billerica man burned 32% of his body surface area when he fell into pasta water while at work.
- On August 7, 2007, a 28-year old Boston man received scald burns to 22% of his body surface area from cooking grease while at work.
- On August 25, 2007, a 24-year old Norton man received flame burns to the right side of his body surface area from a flashburn while barbequing on his gas grill.

Safety Measures

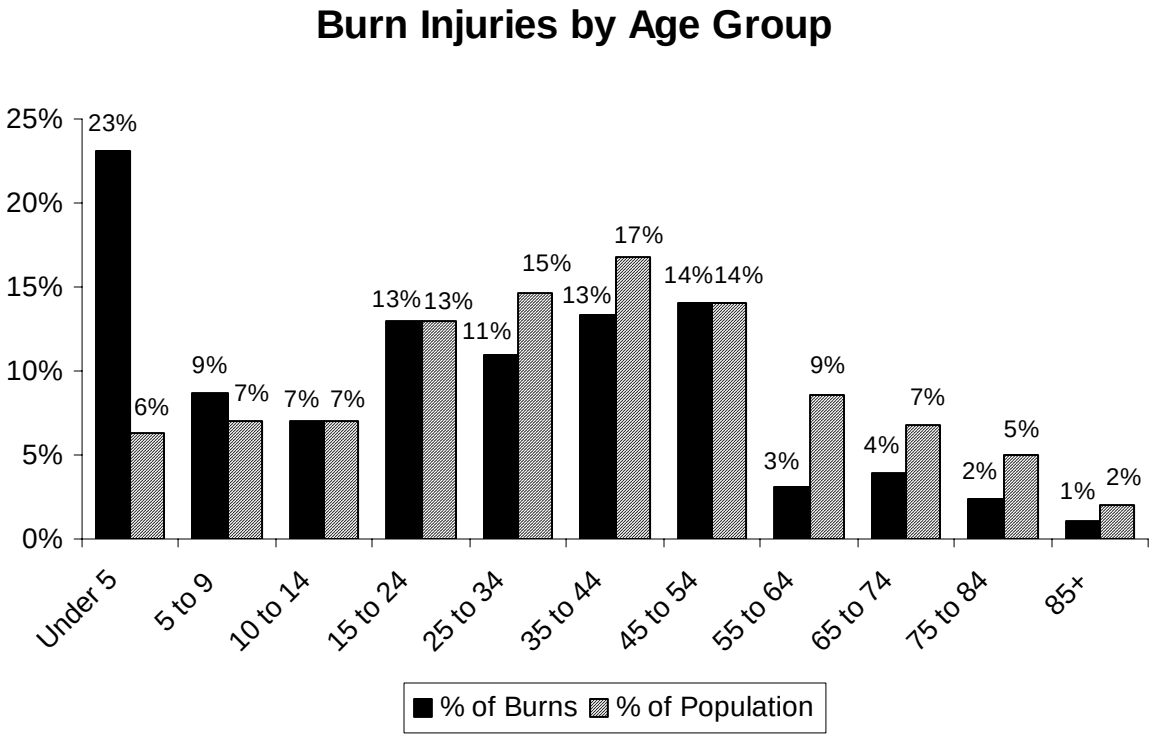
- ✓ Never leave cooking food unattended.
- ✓ Keep children at a safe distance from all hot items by using playpens, high chairs, etc.
- ✓ Create and enforce a **NO** zone around the stove. Do not let children play around the stove or barbeque.
- ✓ Test all heated food before giving it to young children.
- ✓ 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.
- ✓ Keep a large pot lid handy to put out stovetop fires.
- 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.
- ✓ Dispose of used coals in a proper metal container away from the house or porch.

[8] 2006 Annual Report of the Massachusetts Fire Incident Reporting System; MA Dept. of Fire Services; pg. 134.

Burn Injuries by Age Group

One age group, the extremely young, were the only part of our population that was at a greater than average risk of getting a burn injury. Although burn injuries were reported in all age groups, very young children suffer more than their share and are more than three times more likely to be burned. In 2007, older adults over the age of 65 were not burned at a disproportionate rate compared to their share of the total population; however their burns tended to be larger or more severe.

Twenty-three percent (23%) of all burn victims were children under the age of five. Eighty-eight (88) children under age five were seriously burned in 2007. Thirty-three (33), or 9% of the burn injuries, occurred to children aged five to nine; 26, or 7%, were youths aged 10 to 14. Forty-eight (48), or 13% of the burn victims, were young adults aged 15 to 24. Forty-two (42), or 11% of the 2007 burn victims were adults aged 25 to 34. Fifty-one (51), or 13%, were people aged 35 to 44. Fifty-four (54), or 14% of the burn injuries, occurred to adults aged 45 to 54; 12, or 3% of people who were reported to have incurred burns were between 55 and 64; 15, or 4% of all burn victims, were older adults in the 65 to 74 age group; nine, or 2% were in the 75 to 84 year old age group; and four adults over the age of 85, or 1% of all reported burn victims in 2007, received burns of more than 5% of their body surface area.



Children Under 5 At Highest Risk of Burn Injuries

The above graph 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: 2000 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 23% of the reported burn injuries in 2007, making them over three and a half 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. Fifty-four (54) babies and toddlers under the age of two, accounted for 14% of all burn victims, but all children under the age of five accounted for 6% of the Massachusetts population.

While scalds remain the leading cause of burn injuries overall, scalds are also the leading cause of burn injuries for five of the 11 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, adults between the ages of 25 and 34, adults between 35 and 44, and adults between 55 and 64. Burn injuries from fire were the leading cause for three age groups 15 to 24, 45 to 54, and 65 to 74. Flame burns were the leading cause of burn injuries for teens 10 to 14, older adults 75 to 84, and older adults over the age of 85.

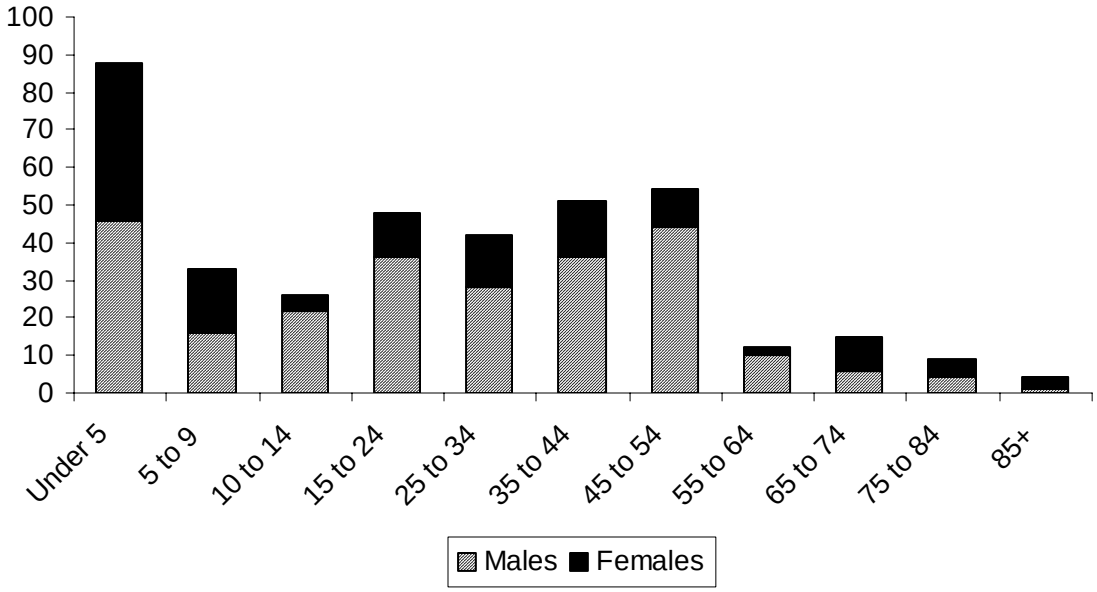
To learn more about the specific causes for each age group, please look at the age specific sections within *Burn Injuries by Age Group*.

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. Thirty-two percent (32%) of the burns incurred by these young children were scalds caused by hot beverages and 25% were caused by scalds from hot tap water. Cooking liquids scalds, gasoline and other ignitable liquids were frequent causes of burn injuries to older teens and young adults.

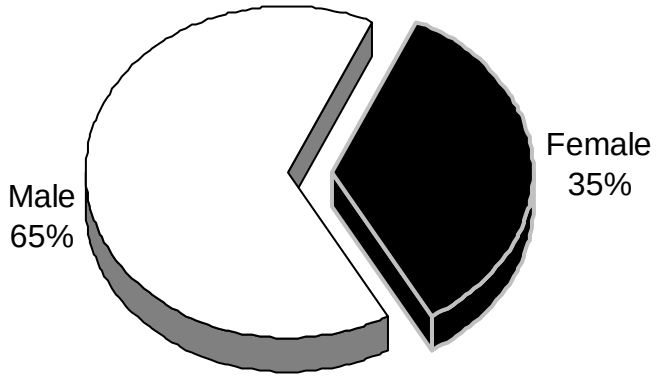
Parents of young children must be educated about the danger of scalds from hot beverages, cooking liquids and tap water. Teens and young adults need information about cooking safely, procedures to follow when a car overheats and the correct uses of gasoline. To be effective, burn prevention educators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

Burn Victims by Age and Gender



Except for the age group five to nine where 16 boys and 17 girls were burned, up until 65 years of age, males were burned more frequently than females. In the age groups 65 to 74, 74 to 85 and adults over 85, more women than men were burned. In 2007, 249, or 65%, of the 382 burn victims were male, and 133, or 35%, were female.

Burns by Gender



Children Under 5

Almost 1/4 of Reported Burns Incurred by Children Under 5
Eighty-eight (88), or 23%, of the burn injuries reported to M-BIRS in 2007 were incurred by children under five years old. According to the 2000 U.S. Census, only 6% of Massachusetts residents are under the age of five. Children under five were almost four times as likely to be burned, as were members of the general population. No other age group faced a risk this high. Fifty-two percent (52%) of burned pre-schoolers were male and 48% were female.

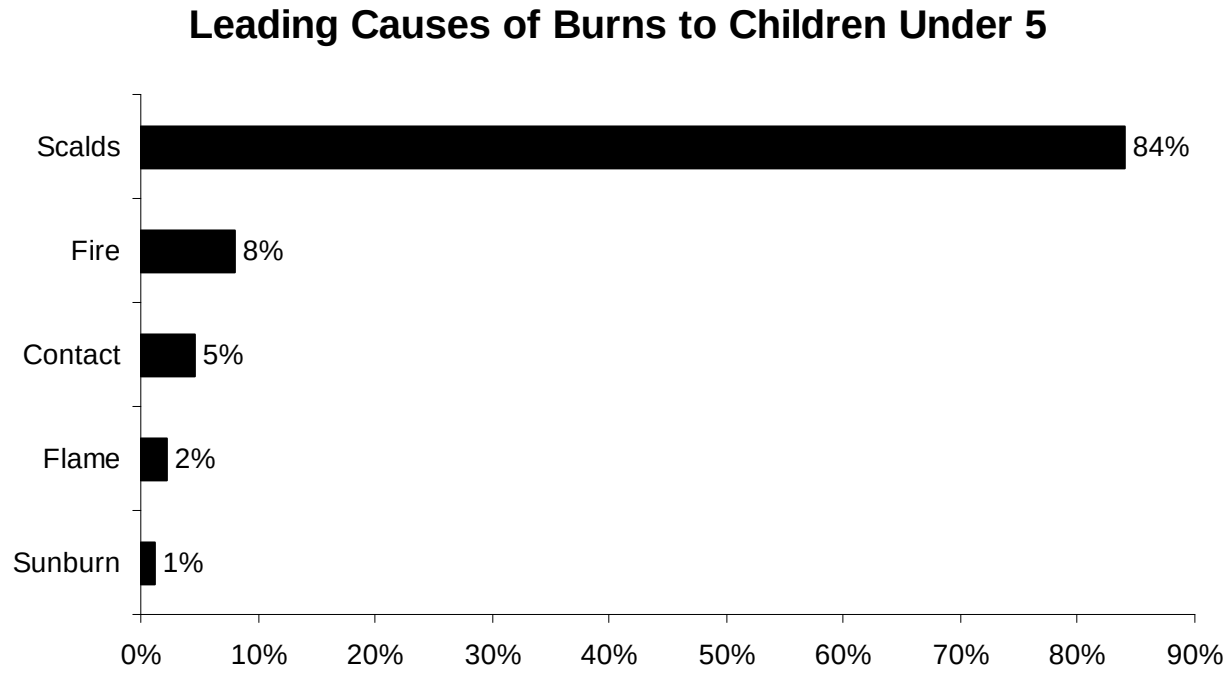
Scalds Caused Over 84% of Burns to Pre-Schoolers
Scalds caused 74, or 84%, of the burn injuries incurred by children under five. Twenty-eight (28) were from hot beverages; 22 were from hot tap water; 21 were from cooking activities; 11 burns were from hot food and 10 were from cooking liquids. An assault, a machine and an unspecified scald burn each accounted for one scald burn injury to a child under five.

Fires caused seven, or 8%, of the injuries to this age group. Five (5) children were burned in house fires; and two children were burned in camp fires.

Contact burns accounted for four, or 5%, of the injuries to children under the age of five. Two (2) children were burned by coming into contact with hot barbeques. Contact with a clothes iron and a radiator each caused one burn injury to this age group.

Flame burns caused two, or 2%, of burns to this age group. A candle ignited a child's clothes and a fire in a fireplace each caused one of these burn injuries.

One child under the age of five received a sunburn causing 1% of the burn injuries to children under five in 2007.



Children Ages 5 to 9

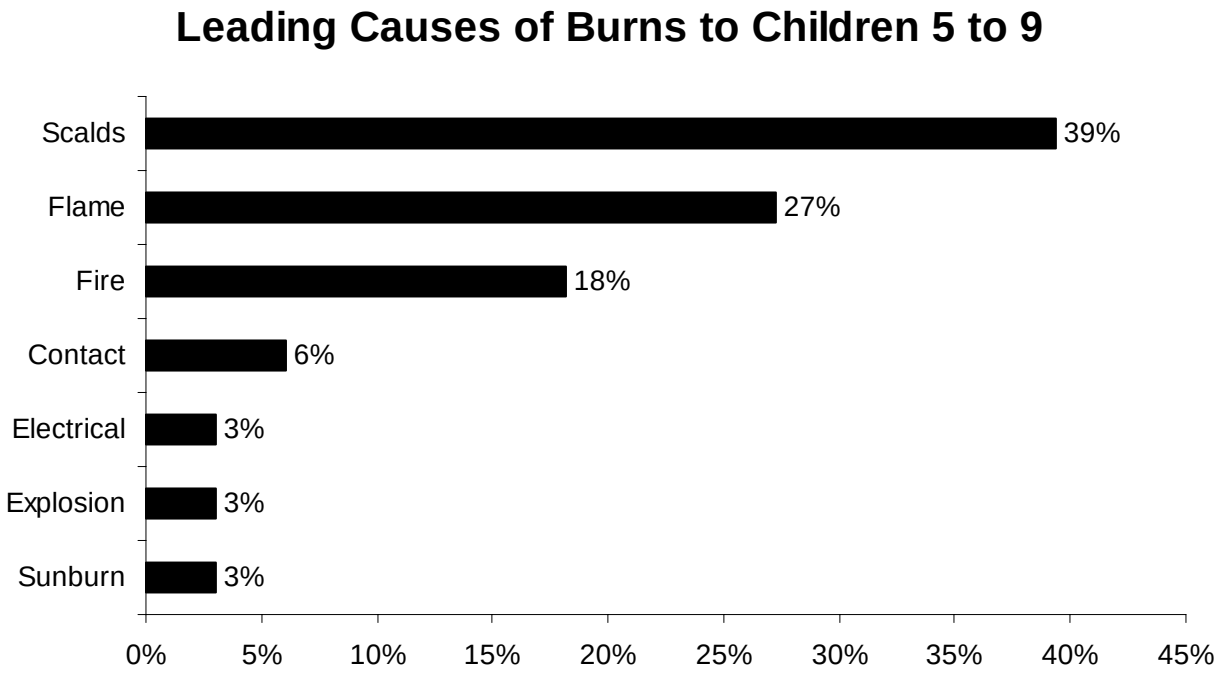
9% of Reported Burn Injuries Incurred by Children 5-9
Thirty-three (33), or 9%, of the burn injuries reported in 2007 were incurred by children between five and nine years of age. Seventeen (17), or 52%, of the burn victims were female, and 16, or 48%, were male. Children in this age bracket accounted for 7% of the population of Massachusetts and 9% of the burn injuries in 2007.

Burns From Scalds, Flames and Fires Were the Leading Causes to Children 5-9
The leading causes of burn injuries to children aged five to nine were scalds, flame burns, fires, contact burns, explosions, electrical burns and sunburn.

Scald Burns Caused 39% of All Burns to Children 5-9
Scalds caused 13, or 39%, of the burn injuries incurred by children aged five to nine in 2007. The scald burn injuries included nine from cooking activities; six from cooking liquids and three from hot food. Three of these burns were from hot tap beverages, and one was from hot tap water.

In 2007, flame burns accounted for nine, or 27%, of the burn injuries to this age group. Children playing with gasoline and lighters caused four flame burn injuries; three from playing with gasoline and one from playing with a lighter. There were three clothing ignitions from flames in this age group; two from candles and one from cooking. Two children received their flame burn injuries from heaters.

Fires accounted for six burn injuries to this age group. Five house fires and a camp fire accounted for six, or 18%, of the burn injuries to children between the ages of five and nine.



Contact with a clothes iron and a pipe each caused both contact burns, or 6% of the burns to this age group.

One child between the ages of five and nine received an unspecified electrical burn, another child was burned by an explosion of a gas stove, and another child in this age group received a sunburn. Each of these victims represented 3% of the burn injuries to this age group.

Children Ages 10 to 14

7% of Reported Burns Incurred by Children 10-14
Children between the ages of 10 and 14 suffered 26, or 7%, of the burn injuries reported in 2007. Twenty-two (22), or 85%, were male and four, or 15%, were female. Children in this age bracket accounted for 7% of the population in the Commonwealth of Massachusetts and 7% 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.

Flame Burns Were the Leading Cause of Burns to Children 10-14
Eleven (11) pre-teens, or 42%, were injured by flame burn injuries. Children playing with lighters and gasoline caused five of these injuries; three children were playing with a lighter and two were playing with gasoline. Clothing ignitions while cooking caused two of these injuries. Explosives also caused two of these injuries; one child with fireworks and the other with unspecified explosives. An aerosol can and ignitable liquids each caused one of these injuries. In 2006, flame burns were the fourth leading cause of burn injuries to this age group.

Explosions caused four, or 15%, of the 26 burn injuries to children ages 10 to 14. Two (2) children were burned when the fireworks they were playing with exploded. Another child was injured when an aerosol can exploded, and the fourth was injured when some ignitable liquids exploded.

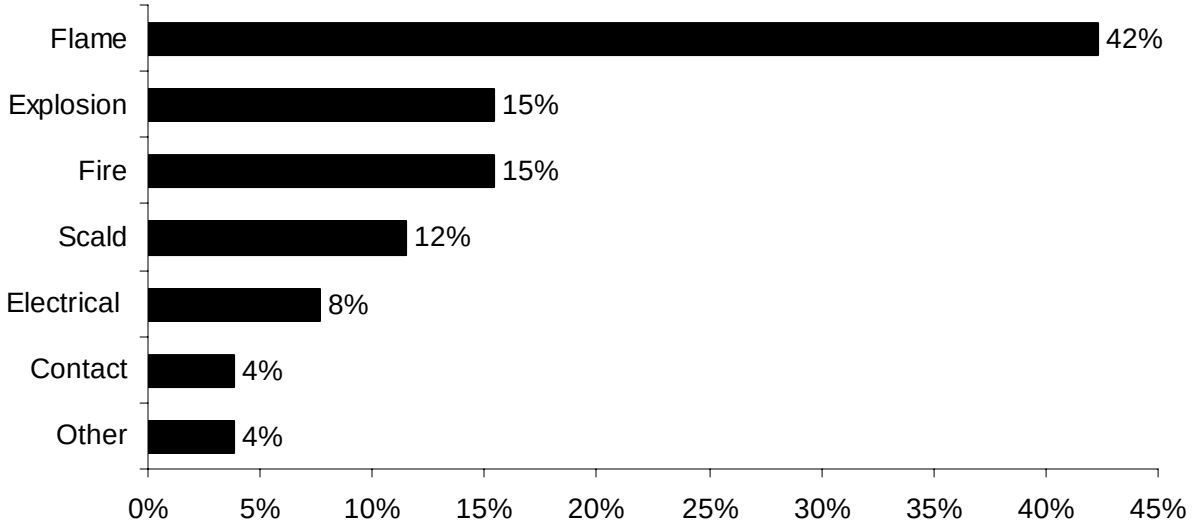
Another four, or 15%, of the burn injuries to this age group were due to fires; two pre-teens were injured in house fires. One child was burned in a bonfire involving gasoline and another was injured in a brush fire involving gasoline.

Scalds represented three, or 12%, of the burns incurred by children aged 10 to 14. Hot tap water, hot beverages and an unclassified scald each caused one scald burn to children 10 to 14.

Two unspecified electrical burns accounted for two, or 8%, of the burn injuries to this age group.

Contact with a woodstove and an unspecified burn each accounted for one, or 4%, of the burn injuries to this age group.

Leading Causes of Burns to Children Ages 10 to 14



Gasoline & Aerosol Cans Caused Almost 1/4 of Pre-teen Burns
Overall, gasoline and aerosol cans were a factor in six, or 23%, of the burn injuries to pre-teens; these included three flame burn injuries, one brush fire, one camp fire, and one explosion injury. Gasoline was involved in four, or 15%, of these injuries; and aerosol cans were a factor in two, or 8%, of these injuries.

Ages 15 to 24

13% of Reported Burn Victims Between 15-24
Teens and young adults between the ages of 15 and 24 incurred 48, or 13%, of the burn injuries reported in 2007. Thirty-six (36), or 75%, were male and 12, or 25%, were female. Young adults aged 15 to 24 account for 13% of the population of Massachusetts and 13% of the burn injuries in 2007. Six (6), or 13%, of the burn injuries incurred by this age group were work-related, four were male and two were female.

44% of Burns Were From Fires
Burns from fire were once again the leading cause of burn injuries to this age group.
Forty-four percent (44%), or 21, of the burn injuries incurred by people aged 15 to 24 were from fires. Sixteen (16) victims received burns from camp or bonfires, two from motor vehicle fires, two from house fires, and one young adult received a burn from an unspecified fire.

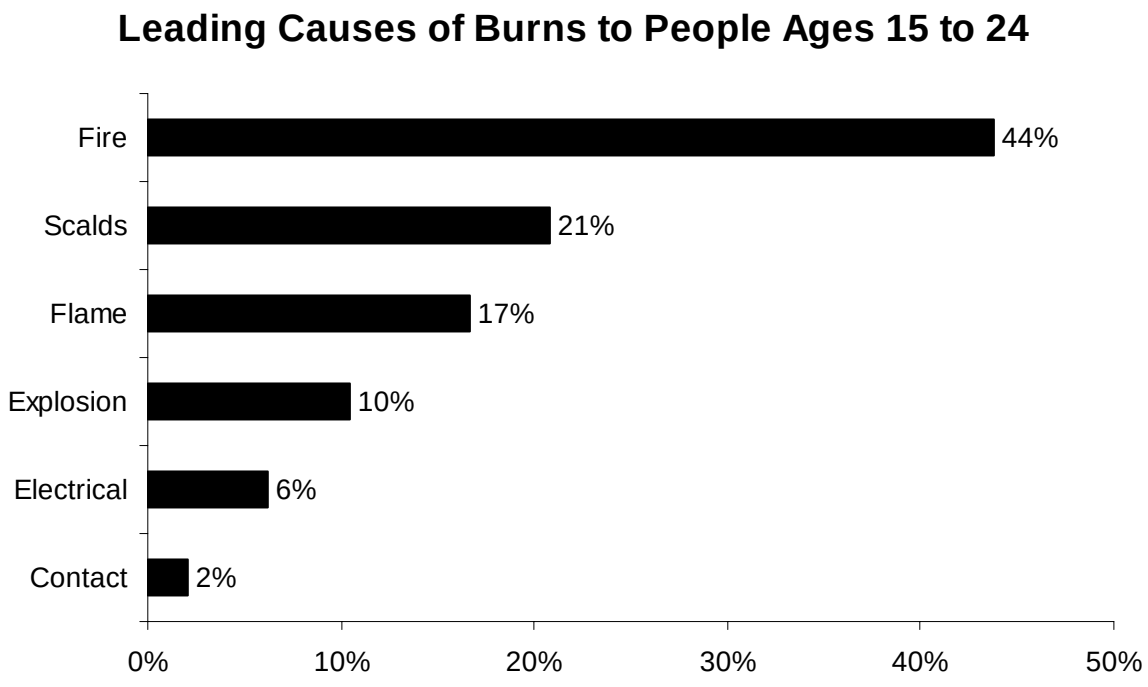
Ten (10), or 21%, of the burn injuries to people 15 to 24 years of age were caused by scalds. Seven (7) were caused by cooking activities; five from cooking liquids and two from hot food. A hot beverage, a car radiator and hot tap water each caused one of these burns.

Eight (8), or 17%, of the burn injuries to this age group were caused by flames. Flame burns from cooking caused five of these injuries; two from gas barbeque grills; two more from cooking liquids; and one unspecified cooking act. Ignitable liquids caused two burn injuries; gasoline and an ignitable liquid each caused one of these injuries. A candle accounted for one flame burn injury to this age group.

Explosions injured five, or 10%, of people in this age category. An aerosol can, fireworks, ignitable liquids, natural gas, and steam each caused one explosion burn injury.

There were three electrical burns to this age group, accounting for 6% of their injuries. Two burn injuries were caused by electrocutions, and one electrical burn injury was unspecified.

Contact with a barbeque caused one burn injury, or 2%, of the burns to this age group.



Ages 25 to 34

11% of Burn Victims Were Between 25 and 34
Forty-two (42), or 11%, of the burn injuries reported in 2007 were incurred by people between 25 and 34 years of age. Twenty-eight (28), or 67%, of the victims were male and 14, or 33%, were female. Eight (8), or 19%, of the burn injuries suffered by this age group were work-related; seven were men and one was a woman. People between the ages of 25 and 34 accounted for 15% of the population of Massachusetts while accounting for 11% of the total number of burn injuries reported in 2007.

Scalds Caused Over 38% of Burn Injuries
Scalds accounted for 16 burns, or 38% of the burn injuries for this age group. Eleven (11) of the scalds were from cooking: cooking liquids caused 10 and one was from hot food. An assault, a hot beverage, a car radiator, hot tap water and an unspecified scald were each responsible for one scald burn injury to this age group.

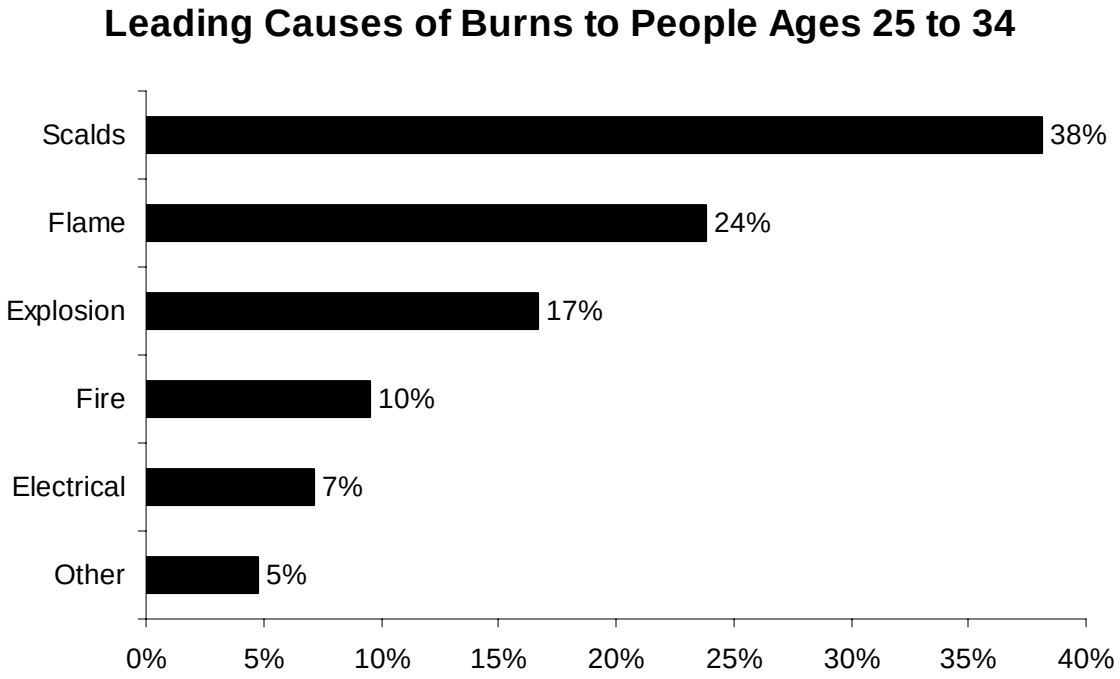
Flame burns caused 10, or 24%, of the injuries to 25-34 year olds. Three people were victims of clothing ignitions; two were from candles and one was from smoking. Barbeques and gasoline were each responsible for two flame burn injuries to members of this age group. A cutting torch and welding each caused one flame burn injury to someone in this age group.

Seven, or 17%, of the burns to 25 to 34 year olds were caused by explosions. Aerosol cans caused two of these burns. Cooking activities were also involved in two of these injuries; a gas barbeque and a gas stove each caused one injury. Propane and a cutting torch were each involved in one explosion.

Burns from fires caused four burns from and accounted for 10% of the burn injuries to this age group. These fire-related burns included three victims of house fires, and one victim of a camp fire. In 2006 burn injuries from fires tied as the leading cause of burn injuries to members of this age group.

Electrical burns caused three, or 7%, of the burn injuries to this age group. Two victims were electrocuted and the other burn injury was from an unspecified electrical incident.

Other type burns caused two, or 5%, of the burn injuries to this age group. Both of these injuries were chemical burns.



Ages 35 to 44

13% of Reported Burn Victims Were Between 35 and 44 Years of Age
Fifty-one (51), or 13%, of the burn injuries reported in 2007 occurred to people between the ages of 35 and 44. Thirty-six (36), or 71%, of the victims were men and 15, or 29%, of the victims were women. Adults between the ages of 35 and 44 accounted for 17% of the Massachusetts population but only 13% of the reported burns in 2007.

Over 1/4 of Burn Injuries Were Work-Related
Fourteen (14), or 27%, of the burn injuries incurred by this age group were work-related. Twelve (12) of these work-related burn victims were men, and two were women.

35% of Burn Injuries Were Caused by Scalds
In 2007, scalds were the leading cause of burn injuries to this age group. Last year, scalds were the third leading cause of burn injuries to individuals between the ages of 35 and 44. Scalds caused 18, or 35%, of the burn injuries to this age group. Ten (10) of these injuries were from cooking: seven were from cooking liquids and three were from hot food. Three injuries were from hot beverages, two were from boilers and one each from an assault, steam and hot tap water.

In 2006, burn injuries from fires were the leading cause of burns to people between 35 and 44 years of age. This year it was the second leading cause, accounting for 12, or 24%, of burn

injuries to this age group. Five were from house fires, four were from brush fires, one was from a bonfire, another one was from a motor vehicle fire, and one injury was from an unspecified fire.

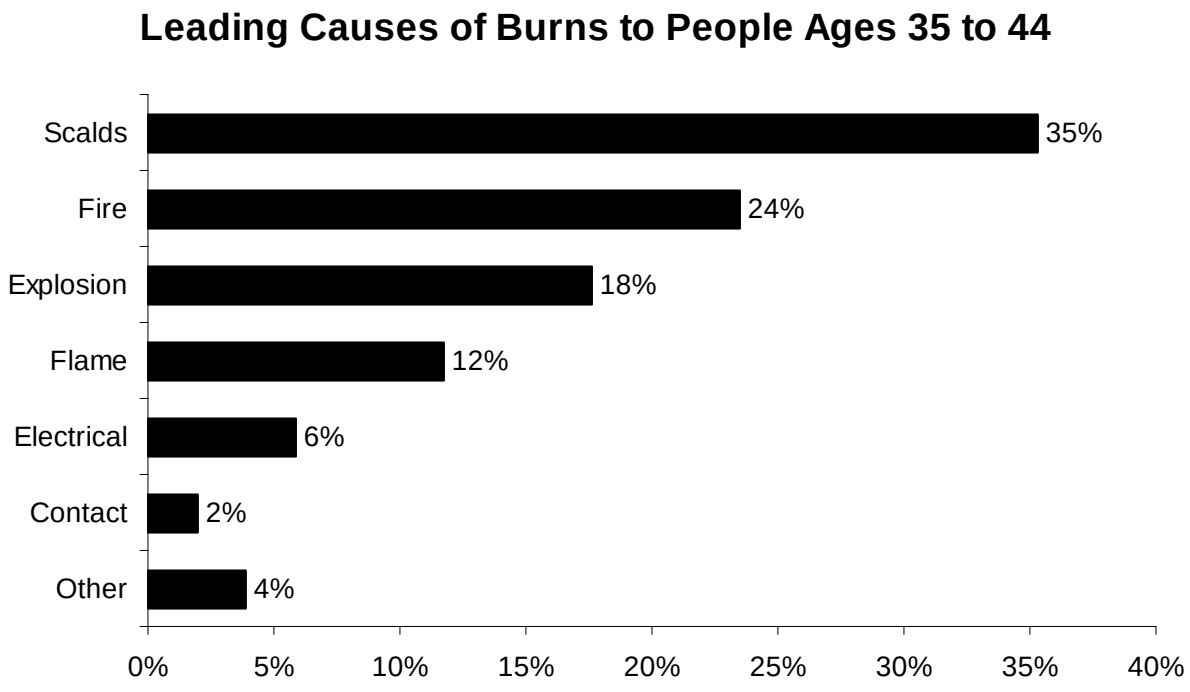
Explosions accounted for nine, or 18%, of the total burn injuries to this age group. Ignitable gases caused four of these injuries; propane and natural gas each caused two of these injuries. Cutting torches caused two burn injuries from explosions to this age group. An aerosol can, an attempt at making a bomb and steam were each responsible for one of these burns.

Flame burns caused six, or 12%, of burn injuries to adults between the ages of 35 and 44. Clothing ignitions caused two burns; one involved a candle, the other was an unspecified clothing ignition. An assault, gasoline, cooking liquids and welding each caused one flame burn injury in this age group.

Electrical burns also accounted for three, or 6%, of these burn injuries. One victim was struck by lightning, another from an electrocution and third person was the victim of an unspecified electrical accident.

Contact burns accounted for one, or 2%, of the burns to this group. Contact with a hot wax was the cause of this burn.

Other burns accounted for two, or 4% of the injuries to people between the ages of 35 to 44. An assault and a chemical burn each accounted for one of these burns.



Ages 45 to 54

14% of Reported Burn Injuries Were Between 45 and 54 Years of Age
People between the ages of 45 and 54 incurred 54, or 14%, of the reported burns in 2007. Forty-four (44) or 81%, of the victims were male, and 10, or 19%, were female. Seventeen (17) of the 54 burn victims aged 45 to 54, or 31%, were burned while at work; 16 of these were men and one was a woman. This age group represents 14% of the population of Massachusetts while it received 14% of the burn injuries in 2007.

Burns From Fires Caused 1/3 of the Burn Injuries
Burns from fires caused 18, or 33%, of the burn injuries to victims 45 to 54 years old. Nine (9) burns were caused by house fires, four injuries were caused by camp or bonfires, three burns were the result of brush fires, one was caused by a structure fire, and another burn injury to this age group was caused by an unspecified fire involving gasoline.

Flame burns were incurred by 14, or 26%, of the burn victims between the ages of 45 and 54. Cooking caused four of these flame burn injuries; two were from cooking liquids, one was from a barbeque, and another was from an oven. Smoking also caused four of these injuries; two were from smoking in bed and the other two were from unspecified smoking acts. Two flame burn injuries to this age group were caused by clothing ignitions. Alcohol, an assault, a candle, gasoline, and propane were each responsible for one flame burn injury to this age group.

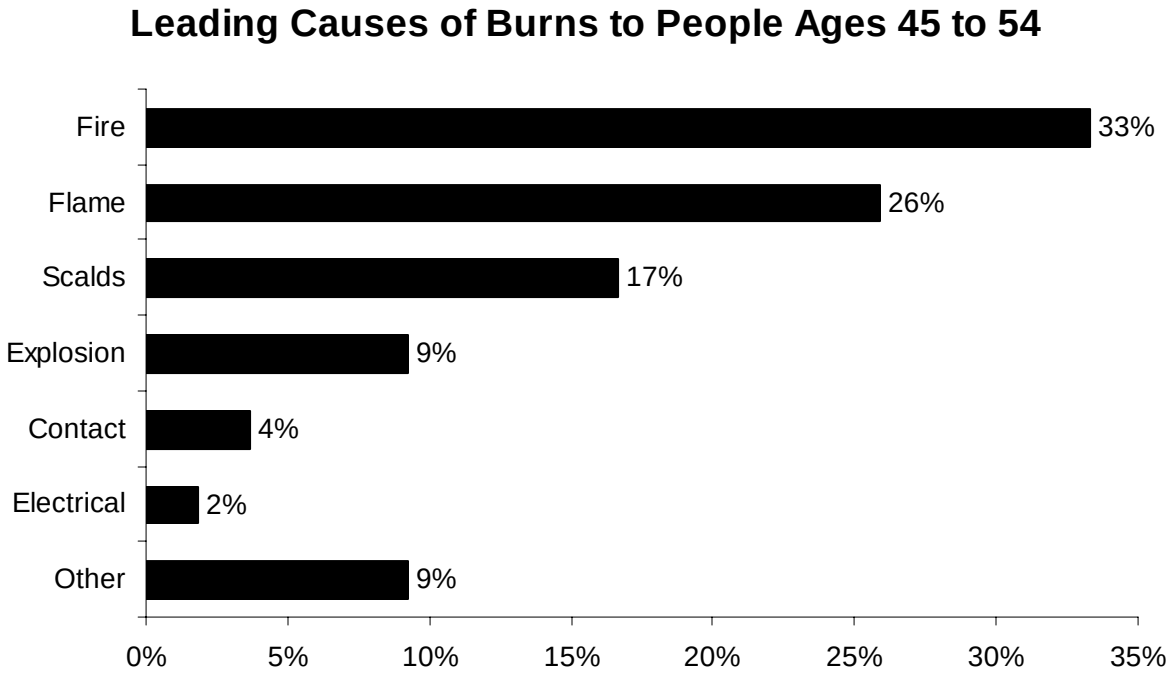
Scalds caused nine, or 17% of the burn injuries to this age group. Cooking liquids caused three of these injuries. A car radiator, hot tap water and steam each caused one of these burns.

Five (5) members of this age group were victims of explosions. They accounted for 9% of the burn injuries to this age group. Propane caused two of these explosion burn injuries. A chemical, a pipe and steam each caused one of these burn injuries.

Contact burns caused two, or 4%, of the burns to victims between the ages of 45 to 54. A hot piece of metal and a woodstove each caused one of these contact burns.

Electrical burns were responsible for one, or 2%, of the burns to this age group. This victim was burned in an unspecified electrical accident.

Five (5) burns were in the :*Other* category, accounting for 9% of burn injuries to this age group. Three (3) victims were burned by chemicals, one was the victim of an unspecified flashburn and another victim was burned by propane.



Ages 55 to 64

3% of Burn Victims Were Between 55 and 64 Years Old
Twelve (12), or 3%, of the burns reported in 2007 were incurred by people between the ages of 55 and 64. Ten (10), or 83%, of the victims were male, and two, or 17% were female. Three (3), or 25%, of the 12 burn injuries incurred by people between 55 and 64 years old were reported to be work-related, two of these victims were men and one was a woman. People of this age group represent 9% of the total population of Massachusetts but only received 3% of the burns in 2007.

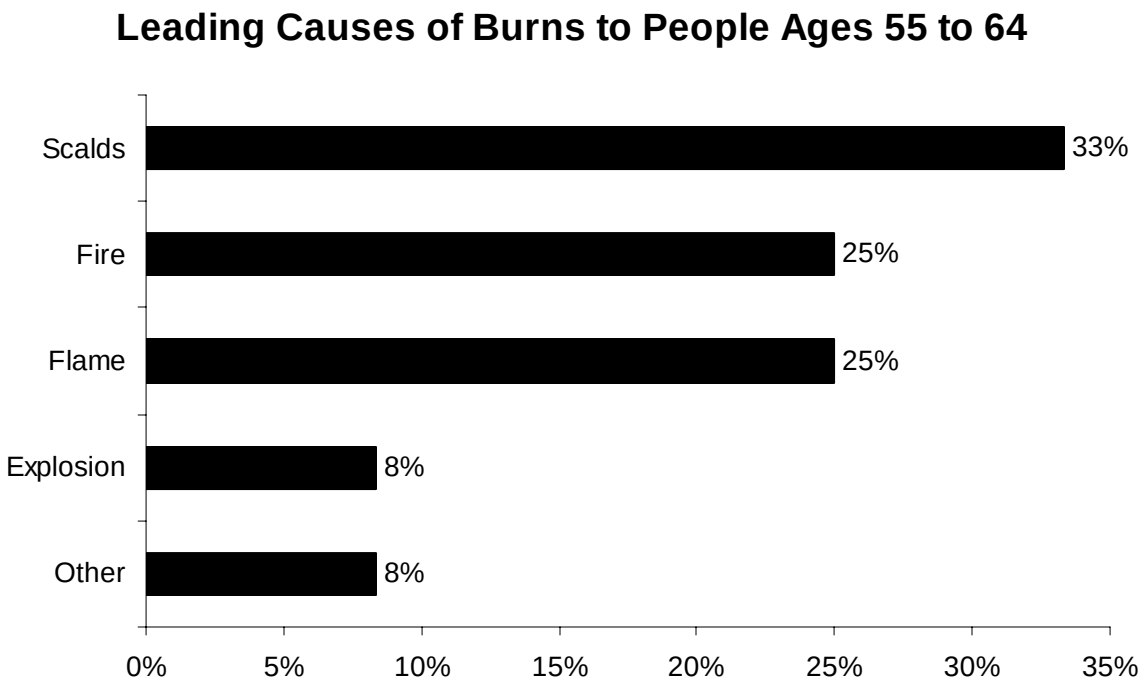
1/3 of Burn Injuries Were From Scalds
Scalds were the leading cause of burn injuries incurred by people between the ages of 55 and 64. Four (4), or 33%, of the burn injuries to this age group were scalds. These scald burns included two from hot tap water, two from cooking activities, one from cooking liquids and one from hot food.

Burns from fires tied as the second the leading cause of burn injuries to adults between the ages of 55 and 64 years of age in 2007. Fires caused three burn injuries, or 25% of all burn injuries to this age group. All three of these injuries were incurred in house fires.

Flame burns also accounted for three (3), or 25%, of the injuries to this age group. An assault, gasoline and a clothing ignition while smoking each caused one flame burn injury to someone in this age group.

One victim, or 8%, belonging to this age group received his burn injury due to a steam explosion.

In 2007, one chemical burn caused 8% of the injuries to older adults between the ages of 55 and 64.



Over 65

28 Burn Victims Over 65
Twenty-eight (28), or 7%, of the burn victims in 2007 were over 65 years old. Fifteen (15) were between 65 and 74; nine were between 75 and 84; and three were 85 years old or older. Eleven (11), or 39% of the victims were male, and 17, or 61%, were female. Older adults represent 14% of the total Massachusetts population but 7% of the burn injuries in 2007.

Historically older adults usually account for 7% of the total number of burn injuries during the year. Since 1984 there have been 11,773 reported burn injuries to M-BIRS, 825 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 1984. In 2006 older adults accounted for the smallest percentage of total burn injuries since 1984, 3%.

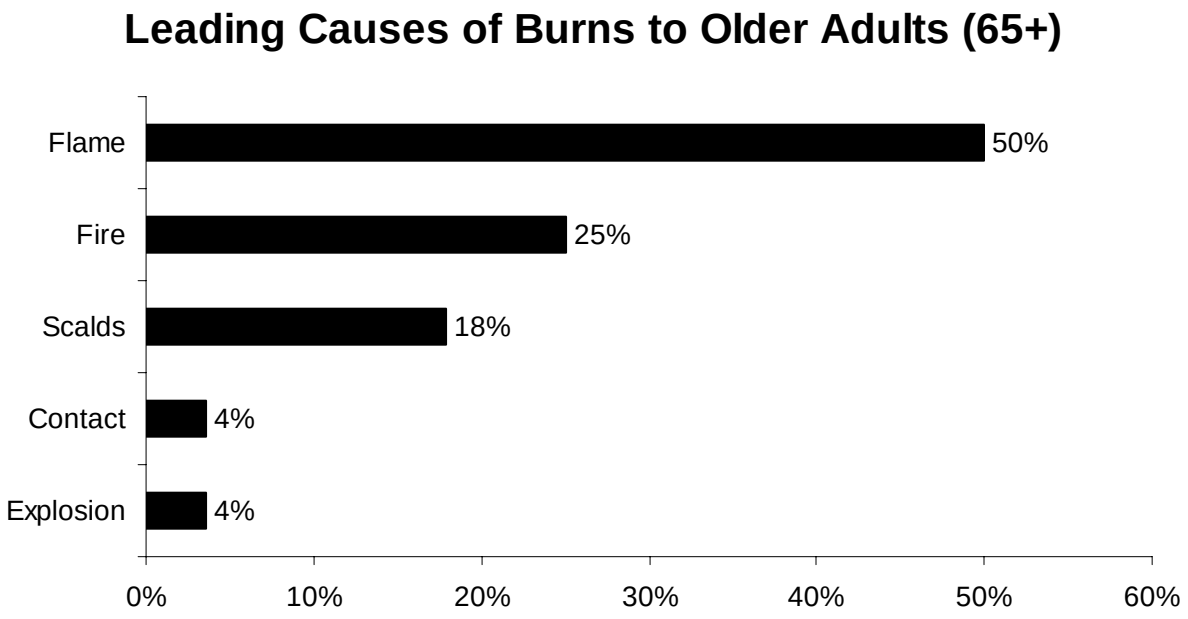
Flame Burns Caused Half of the Burns to Older Adults
In 2007, flame burn injuries were once again the leading cause of burns to older adults. In 2006, burns from scalds were the leading cause and in 2005 flame burns were the leading cause of burn injuries to this age group. Fourteen (14), or 50%, of the burn injuries to people over the age of 65

were attributed to flame burns. Smoking caused five of these injuries; three victims were injured while smoking in bed, one person ignited their clothing while smoking, and the last person received their burns from an unspecified smoking act. Clothing ignitions while cooking caused four of these burns. Two people attempted self-immolation, one of them was successful. Oxygen and a woodstove each caused one flame burn injury to this age group.

Burns from fires caused seven, or 25%, of burn injuries to adults over the age of 65. House fires caused six of these burn injuries; and a clothing ignition from a camp or bonfire caused the other injury.

Five, or 18%, of the burns to older adults were caused by scalds. Four (4) were from cooking activities; three were from hot food and one was from cooking liquids. Hot tap water caused the other burn injury to this age group.

Contact with a woodstove and a burn from a flammables explosion each caused one, or 4%, of the burn injuries to older adults in 2007.



According to the Burn Awareness Coalition, the following scenarios increase your chance of a burn injury; 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 are leading causes of burn injuries to older adults. During 2007, cooking accounted for five, or 18% of the reported burn injuries in Massachusetts incurred by older adults. Clothing ignitions caused 25% and smoking also accounted for 25% of the burn injuries to older adults.

Clothing Ignitions Cause 25% of Burns to Older Adults

Clothing ignitions to older adults has consistently been an issue. Since 2001, the least amount of burn injuries to older adults attributed to clothing ignitions was 17% of all older adult burns

which occurred in 2006. During 2007, seven, or 25%, of the burn injuries to those victims over the age of 65 were due to clothing ignitions. These types of injuries accounted for 8% of the total 382 burn injuries reported in Massachusetts in 2007.

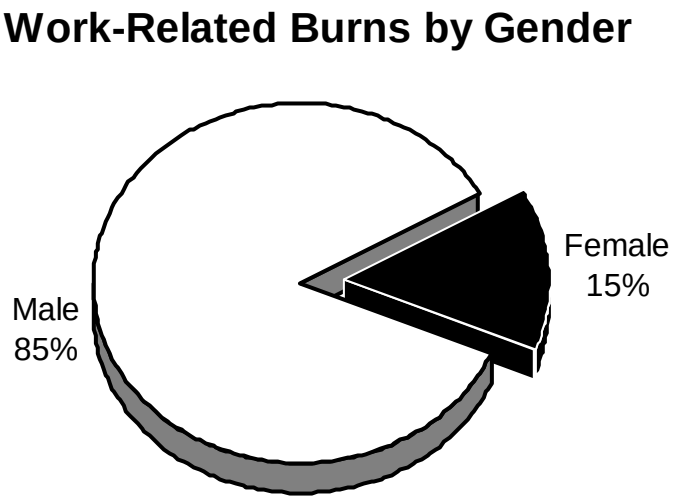
Safety Tips for Older Adults

- Do not smoke when you are tired, drinking alcohol or taking medications, which make you drowsy. If you must smoke, make sure there are working smoke detectors in the immediate vicinity.
- Wear clothes with tight fitting sleeves and watch for clothes touching elements on the stove.
- Do not use a cooking stove for heating purposes or for drying clothes.
- Never leave food that is cooking unattended. Set a kitchen timer to remind you to turn off the burners and/or the oven. If you must leave the kitchen, take a wooden spoon or potholder as a reminder that you have left something unattended on the stove.
- Keep stove surfaces clean of built up grease.
- Do not attempt to lift or carry heavy pots of hot liquid or food.
- Cook with the pot and pan handles turned in.
- Remember "Stop, Drop, & Roll" – It just may save your life.

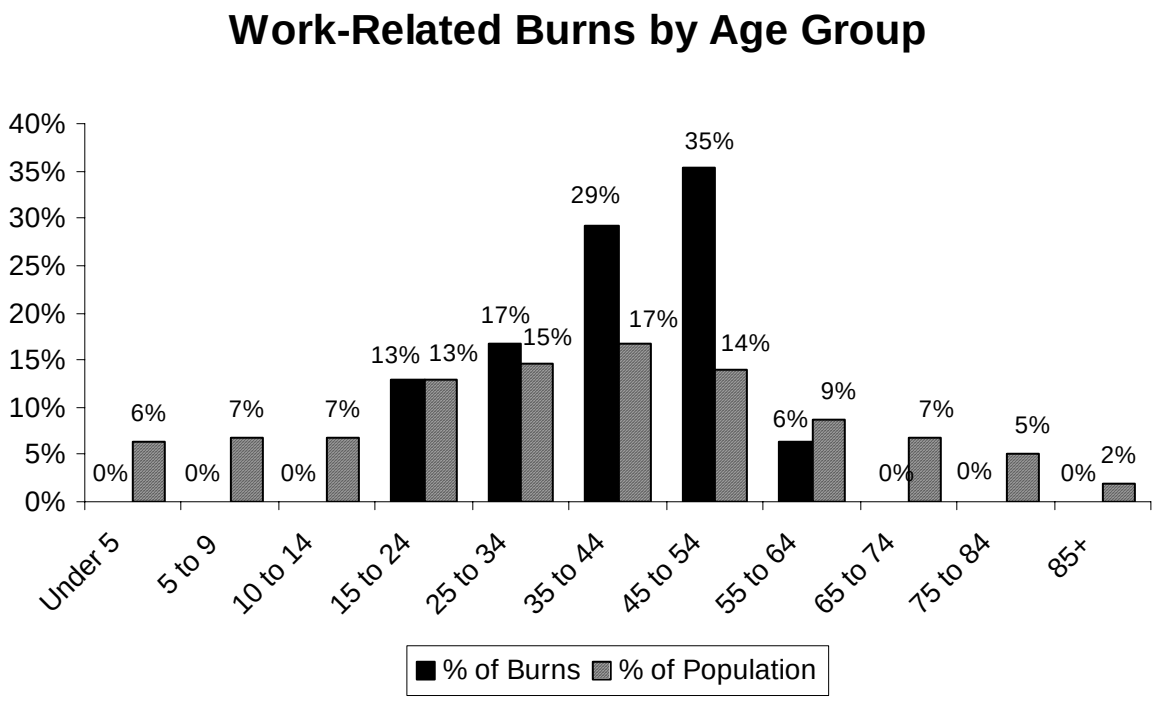
Work-Related Burn Injuries

13% of Reported Burns Occurred at Work

Massachusetts hospitals indicated that 48, or 13%, of the 382 burn injuries reported in 2007 occurred while the victim was at work. Men were much more likely to be burned while working than women. Forty-one (41) men, 85%, and seven women, 15%, were burned at work in 2007. Four (4) victims, or 8% of the reported work-related burns became fatalities.



94% of Work-Related Burns Incurred by People Between 15 and 54
No one under the age of 17 received a work-related burn in 2007. Six (6), or 13%, were between 15 and 24 years of age. Eight (8), or 17%, of the victims were between 25 and 34 years of age; 14, or 29%, belonged to the 35 to 44 age group. Seventeen (17), or 35%, of work-related burn injuries were victims 45 to 54 years old. Three (3), or 6% of work-related burns occurred in the 55 to 64 age group, which was the oldest age group to have a work-related burn injury. The youngest person to receive treatment for a work-related burn in Massachusetts in 2007 was a 17-year old boy who was electrocuted. The oldest victim to receive a work-related burn was a 61-year old man who received a scald burn from cooking liquids.



Over 1/4 of Work-Related Burns Were Scalds
Scalds were the leading cause of work-related burns in 2007. These 13 burn injuries accounted for 27% of work-related burns. Nine (9) involved cooking; eight of these burns were the result of cooking liquids and one was from hot food. Hot tap water, was responsible for four of these burns. Steam was the cause of two of these burns; and a boiler and a car radiator were each responsible for one of the work-related burns in 2007.

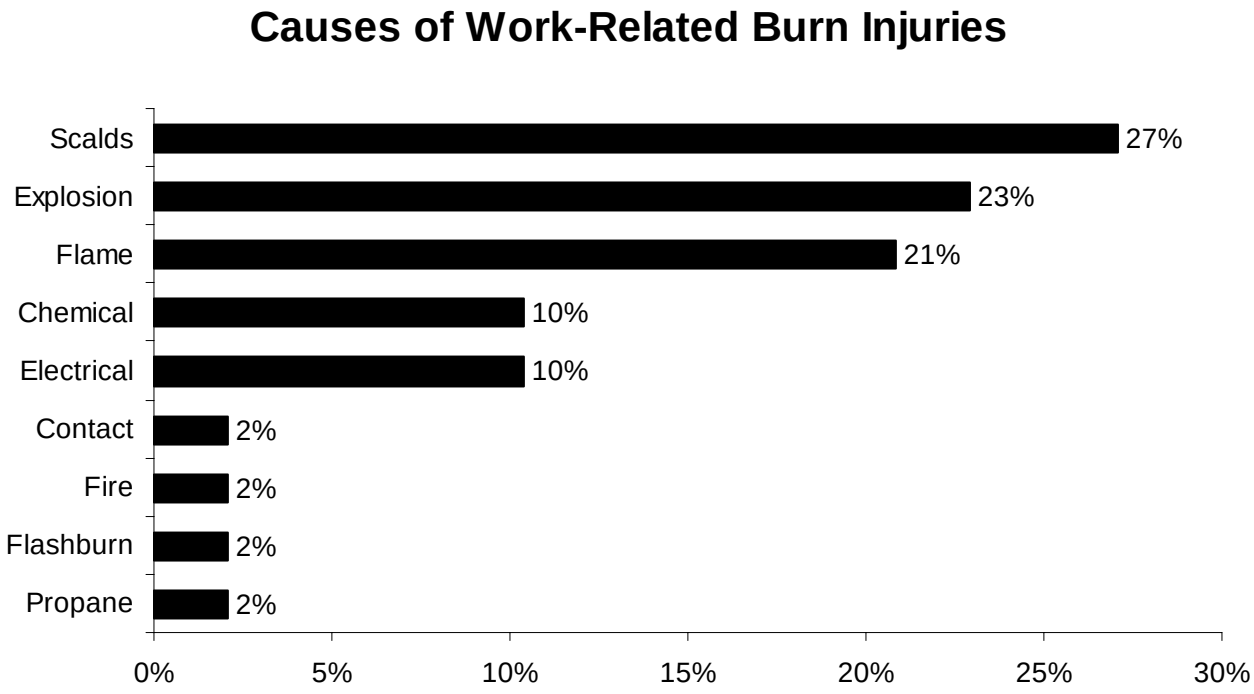
Eleven (11), or 23%, of the 48 work-related burns were from explosions in 2007. Four (4) of the work-related injuries caused by explosions involved ignitable gases; two were caused by natural gas and the other two by propane. Three (3) involved steam; all three died as a result of their injuries. An aerosol can, a chemical, a cutting torch and a pipe each caused one work-related explosion burn injury in 2007.

Flame burns accounted for 10, or 21%, of these work-related burns. Four (4) involved cooking; two of these burns were the result of gas powered barbeques, and an oven and an unspecified cooking incident each caused one of these burns. Clothing ignitions caused three work-related burns; two were unspecified and one was a candle igniting a worker's clothing. Gasoline, propane and welding each caused one of the work-related flame burn injuries in 2007.

Five (5), or 10%, of work-related burn injuries in 2007 were chemical burns.

Electrical burns accounted for another five, or 10% of work-related burns in 2007. Three (3) burns involved electrocutions and two were from unspecified electrical accidents.

Contact with hot metal caused one, or 2%, of these burn injuries. One (1), or 2%, of the work-related burn injuries was from a fire. That injury was caused by an unspecified electrical fire. A flashburn and propane each caused one, or 2%, of the 48 work-related burn injuries in 2007.



85% of Work-Related Burns Reported to M-BIRS Occurred in MA

Forty-one (41), or 85% of the 48 work-related burns reported to M-BIRS in 2007 occurred in Massachusetts. Scalds caused 11, or 27%, of the Massachusetts work-related burns. Explosions caused 10, 24% of these burns. Eight (8), or 20% of work-related burns in Massachusetts were flame burn injuries. Electrical burns accounted for five, or 12% of these burns; while chemical burns caused four, or 10%. An unspecified electrical fire, a flashburn and propane were each the cause of one, or 2% of the work-related burns that occurred in the Commonwealth in 2007.

Work-Related Injuries Resulted in 4 Deaths[9] & No Life-Threatening Injuries
In 2007, four burn victims who succumbed to the burn injuries they received while working were reported to M-BIRS. None of the other work-related burn victims' burn injuries were reported to be life-threatening injuries.

- On November 6, 2007, three male employees at the Salem Harbor Power Plant were severely burned and eventually died from their burn injuries. They incurred their injuries when a high-pressure water pipe exploded sending scalding steam into the surrounding area. All three victims, a 20-year old man, a 41-year old man and a 56-year old man, received scald burns to over 85% of their body surface areas.

- On July 25, 2007, a 17-year old male teenager was lowering scaffolding at a construction site, when it came into contact with electrical wires. He received electrical burns to his hands and arms and soon succumbed to his injuries.

Intervention and Prevention Efforts
In the past several years the Massachusetts Department of Public Health has disseminated Alerts that provide information about hazards associated with fatalities. Two recent Alerts addressed fire fatalities, associated with flammable floor finishes and overhead power lines. Copies are available on the Occupational Health Surveillance Program webpage http://www.mass.gov/Eeohhs2/docs/dph/occupational_health/overhead_line.pdf and http://www.mass.gov/Eeohhs2/docs/dph/occupational_health/wood_floor_sanders.pdf. The floor sanding information has been translated into Vietnamese, and the overhead power line fact sheet is available in Spanish and Portuguese.

In addition, the Massachusetts Department of Public Health has worked with the International Brotherhood of Electrical Workers (IBEW) Local 103 and physicians, with input from the public health committee of the Massachusetts College of Emergency Physicians (MACEP), to review the literature about medical care provided to workers who sustain electrical burn injuries and to encourage prevention efforts. A protocol to promote thorough treatment of electrical injuries is being prepared with the Massachusetts Medical Society. Electricians in IBEW 103 are redesigning their union cards to include information about the acute and chronic effects of electrical injuries.

MDPH Works With OSHA on Burn Injuries
In addition to the industry-wide efforts to prevent burn injuries, the Massachusetts Department of Public Health seeks to address hazardous conditions by referring select cases to OSHA for compliance inspections. MDPH notifies one of the three 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. Ten burn

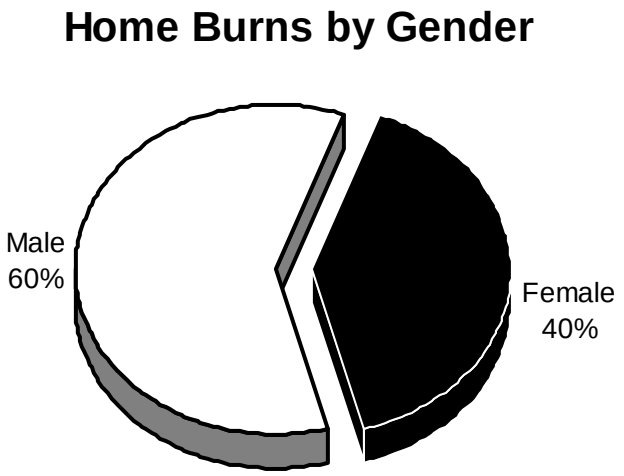
[9] Obvious fatalities from burns where the victim is dead on scene are usually not reported to M-BIRS because these victims are taken either to the Medical Examiner's office, funeral home or a morgue, and none of these institutions are mandated to report to M-BIRS. MDPH tracks these deaths separately. A work-related death was associated with an explosion that occurred in a domestic violence episode at work. A 53-year-old cable worker died when the uninsulated utility bucket he occupied came into contact with an overhead power line. A 58-year old electrician was killed while he was disconnecting wires from a light ballast. Two Boston firefighters suffered thermal burns and smoke inhalation when they were overcome by flames in a restaurant fire.

injuries were referred to OSHA in 2007 for cases that met the criteria. In three of the cases, OSHA was already conducting investigations. The remaining seven were referred for OSHA investigation, four of which were in the Springfield district. Citations for employers in 2007 were issued for a number of OSHA standards violations, including deficiencies in health and safety programming, flammable liquids improperly used in spraying and stored in portable containers, failure to provide personal protective equipment for employees engaged in chemical work, etc.

Burn Injuries in the Home

Over 2/3 of Burn Injuries Occur in the Home

The home is the most common place for burn injuries to occur. In 2007, 264 people, over two-thirds, or 69%, of all the reported burn injuries took place in the victim's home or surrounding yard. More men were burned in their homes than women. One hundred and fifty-eight (158) men, 60%, and 106 women, 40%, were burned in their homes in 2007.



47% of All Home Burns Are Scalds

One hundred and twenty-four (124), or 47%, of the burn injuries that occurred in the home in 2007 were scalds. Cooking caused 64, or 26%, of all 264 home burn injuries; cooking liquids caused 37 and hot foods caused 21. Hot beverages caused 31, or 13% of burns at home. Scalds from hot tap water accounted for 27, or 11%, of these burns. Assaults caused three burns and 1% of these injuries; and unspecified scalds each accounted for two, or 1%, of these burn injuries. A boiler, a car radiator, and a machine each accounted for one, or less than 1%, of the home burn injuries in 2007.

Flame Burns Account for 21% of All Burns at Home
Flame burns were the second leading cause of burn injuries in the home. Flame burns accounted for 56, or 21%, of all home-related burn injuries.

Cooking activities accounted for 12, or 5%, of all home flame burn injuries; clothing ignitions while cooking caused six, cooking liquids caused four injuries and barbeques caused two of these injuries.

Smoking caused 11, or 4%, of these flame burn injuries; five were caused by smoking in bed, three were clothing ignitions while smoking and three were caused by unspecified smoking activities.

Eight (8), or 3%, were caused by children *playing* with items; five children were burned at home playing with lighters and three children were burned playing with gasoline.

Seven (7), or 3%, of these burns were caused by candles; six by clothing ignitions and the other directly from a candle.

Ignitable liquids caused five, or 2%, of the flame burns sustained in the home; gasoline caused four burns and another ignitable liquid caused one.

Heating equipment was the cause for four, or 2%, of the home flame burns; two were caused by heaters, and one each involved a fireplace and a woodstove.

Two (2) of these flame burn injuries were caused by assaults, and another two were attempts at self-immolation, both accounting for 1% of home burns overall.

Alcohol, flammables, an unspecified clothing ignition, an unidentified spark in an oxygen enriched environment, and welding each caused one home-related flame burn injury, accounting for less than 1% of all home burn injuries in 2007.

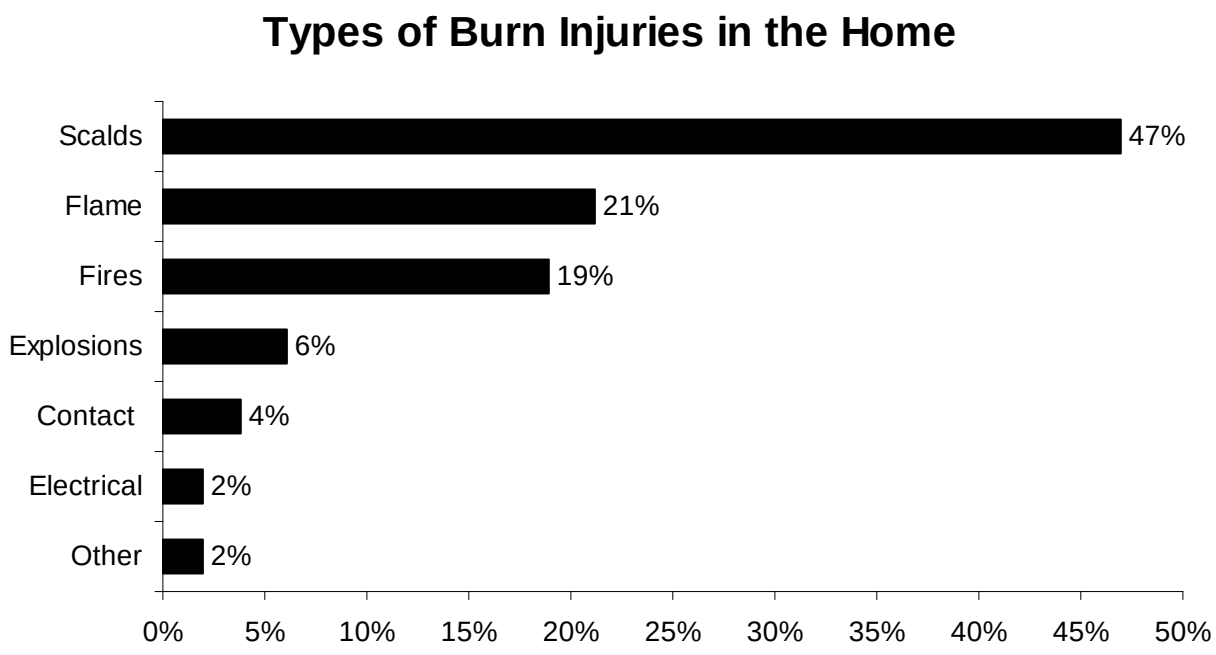
Burn injuries from fires accounted for 50, or 19% of all burn injuries in homes. Thirty-six (36) injuries were from house fires accounting for 14% of all home burn injuries. Many of these fires were caused by smoking and arson. Six (6), or 2%, of these injuries were caused by brush fires. There were six injuries, or 2%, caused by camp or bon fires in the victim's yards. One (1) injury from a motor vehicle fire, accounted for less than 1% of the at-home burn injuries. There was also a structure fire that accounted for less than 1% of all home fires.

Explosions caused 16, or 6%, of all reported burn injuries in homes in 2007. Aerosol cans caused three, or 1% of these injuries. Explosives caused three, or 1%; fireworks caused two and an attempt at making a bomb caused one injury. Cooking also caused three, or 1% of these injuries; two injuries involved gas stoves and one injury was caused by a gas powered barbeque. Ignitable gases caused three or 1%, of these injuries; two were caused by propane and one by natural gas. Ignitable liquids were responsible for two, or 1%, of home burn injuries. Flammables and a cutting torch were each involved in one, or less than 1%, of the 2007 home burn injuries.

Contact burn injuries accounted for 10, or 4%, of all the burn injuries that occurred in homes in 2007. Contact with heating equipment was the leading reason for contact burn injuries, causing four, or 2%, of all the at-home burn injuries in 2007. Contact with woodstoves caused three of these heating-related home burns, and contact with a radiator caused one of these burn injuries. Contact with a clothes iron and barbeques each caused two, or 1%, of these injuries. Contact with a hot pipe and wax each caused one, or less than 1%, of the reported contact burn injuries that occurred in homes in 2007.

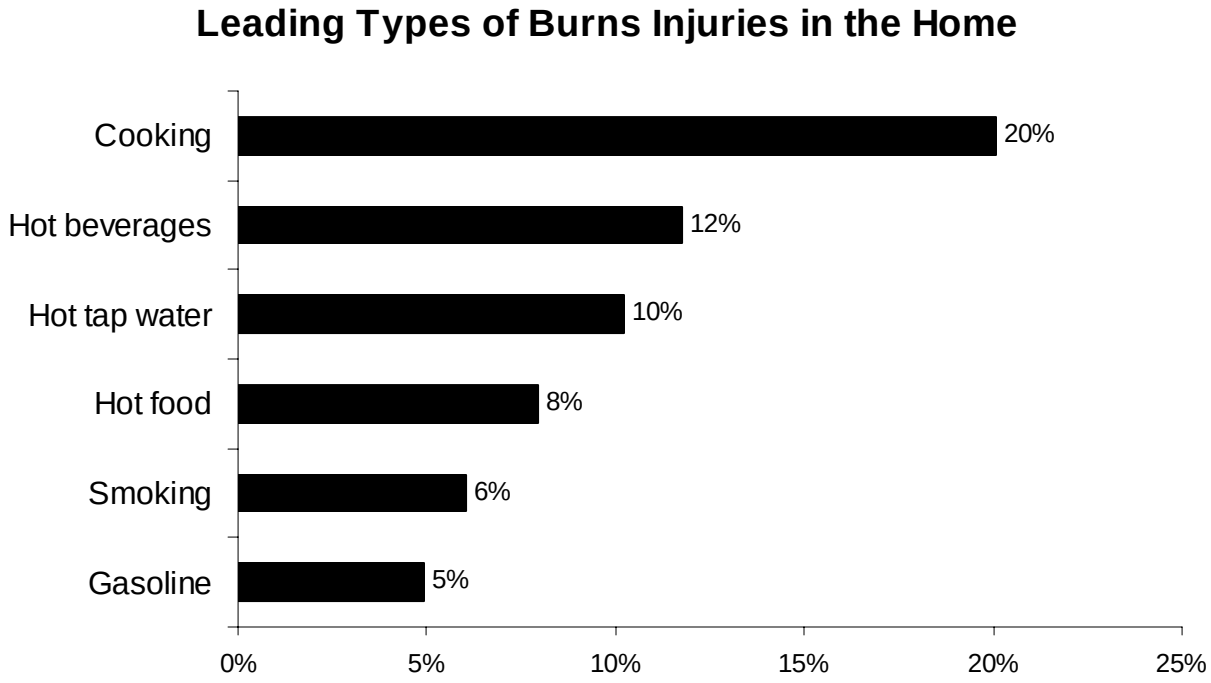
Four (4) people received electrical burns at home in 2007. These four electrical burns accounted for 2% of all home burns. One person was electrocuted, and another was struck by lightning each causing less than 1% of the home-related burn injuries in 2007. Two (2) victims, or 1%, received unspecified electrical burns at home in 2007.

There were four (4) *Other* type of burn injuries were reported occurring to victims in their homes in 2007. These four injuries accounted for 2% of the home burn injuries. Two (2) were chemical burns, one was an assault and one was unspecified.



Cooking Caused 1/5 of Burn in Homes

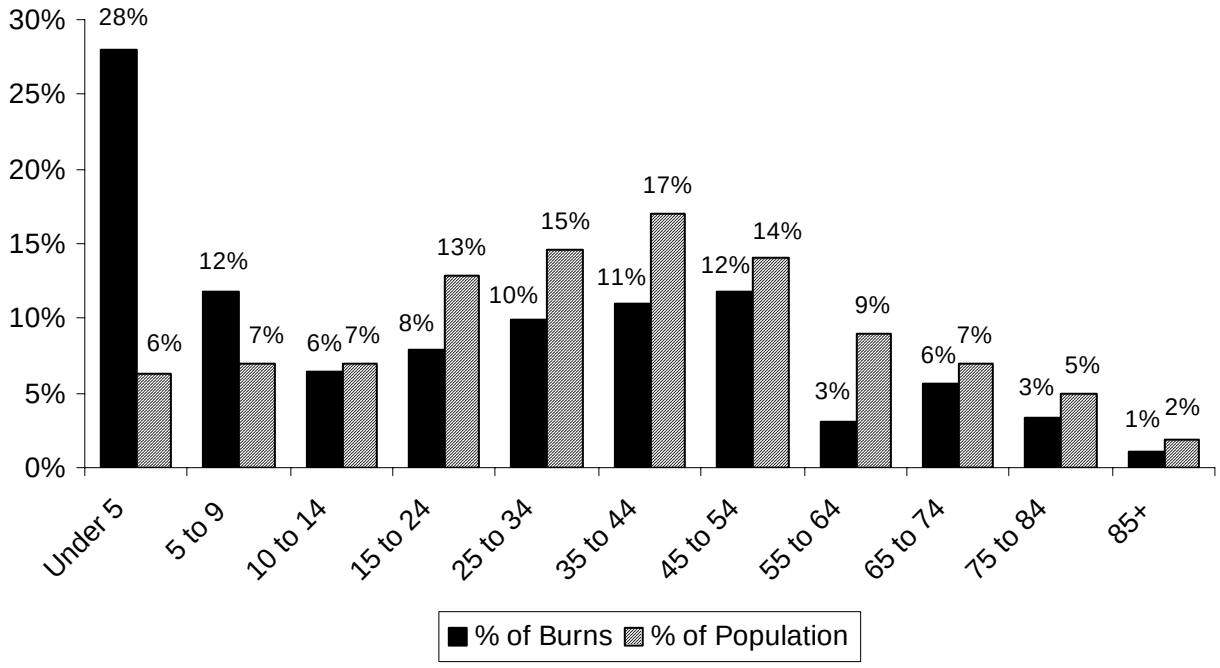
In 2007 cooking activities caused the most overall burns regardless of burn type. Burns from cooking caused 53, or 20%, of burns in Massachusetts' homes. Hot beverages were the cause of 31, or 12%, of home burns in 2007. Hot tap water accounted for 25, or 10%, of these burns. Hot food was the cause of 21, or 8%, of home burns in 2007. Smoking activities and paraphernalia caused 16, or 6%, of these burns. Gasoline, including children playing with gasoline, accounted for 20, or 8%, of the burn injuries that were reported to have occurred in homes in 2007.



28% of Home Burns Were to Children Under 5

Twenty-eight percent (28%) of the 264 victims that received their burns at home (of known age) were less than five years old. They were four and a half times more likely to be burned at home. Children between the ages of five and nine received 12% of the burn injuries that occurred in people's homes, while children aged 10 to 14 accounted for 6% of these injuries. Young adults between the ages of 15 and 24 accounted for 8% of these burns; 10% were between 25 and 34; 11% were between 35 and 44; 12% were between 45 and 54; 3% were between 55 and 64; 6% were between 65 and 74; 3% were between 75 and 84; and 1% were over the age of 85-years old.

Home Burn Injuries by Age Group



Hot Food Scalds Youngest Victim & Oldest Victim Burned by a Candle
A one-month old girl, who received scald burns to 6% of her body from hot food, was the youngest victim to receive an at-home burn injury. The oldest victim to receive a burn at home was a 91-year old woman who received a flame burn injury to 20% of her body surface area from when her clothing ignited when she got too close to a candle.

3% of Home Burns Resulted in Death
Nine (9), or 3%, of the 264 reported burn injuries that occurred in homes in 2007 resulted in death for the victim. Four (4), or 44% of these deaths, were men; and five, or 56%, were women. The youngest victim to die from burns at home was a 14-year old teenage girl who received burns to 40% of her body while she was bathing. The oldest victim to succumb to her injuries was an 89-year old woman who received burns to 20% of her body surface area when her clothing ignited while she was smoking. Four (4), or 44%, of the fatal burn victims received their injuries in house fires, another four, or 44%, received their burn injuries from flame burns, and the other victim, or 11%, succumbed to her scald burn injuries.

For more information on all residential fire deaths please refer to the annual reports of the Massachusetts Fire Incident Reporting System (MFIRS).

Burn Injury Reports by Hospital

Forty-six (46) out of the 97 acute care health care facilities in Massachusetts submitted a total of 425 burn injury reports for 382 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 now have a choice about how to report burn injuries. If they choose to do so, health care providers may now 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.

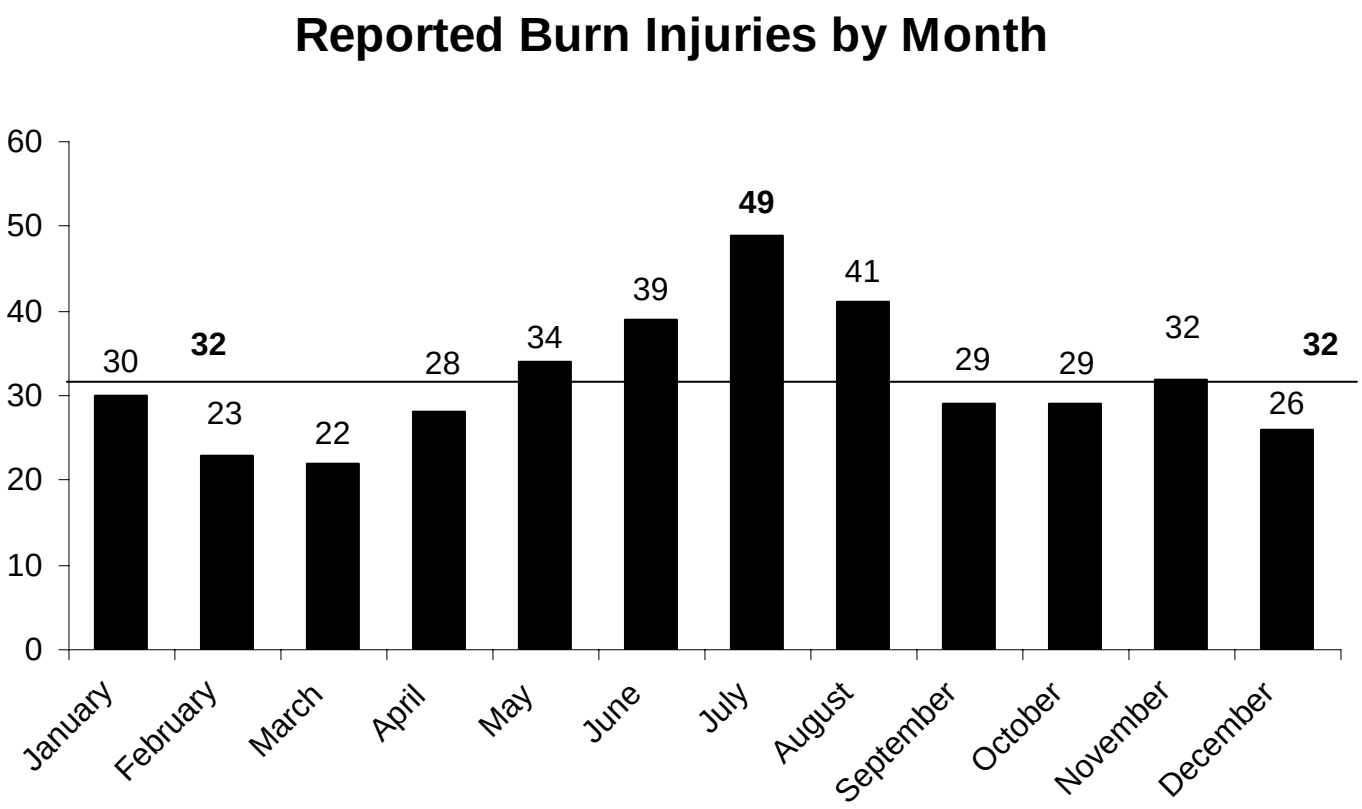
Although M-BIRS was instituted under the Department of Public Safety in June of 1984, Massachusetts hospitals have been required to report burn injuries to a government agency since 1973. M-BIRS, along with the Office of the State Fire Marshal, was carried over to the newly created Department of Fire Services in 1996. It remains a joint program of the 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. 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 or regulation and to develop appropriate strategies. We need to know what type of activity injures whom, if the injuries are seasonal, and how old the victims are 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.

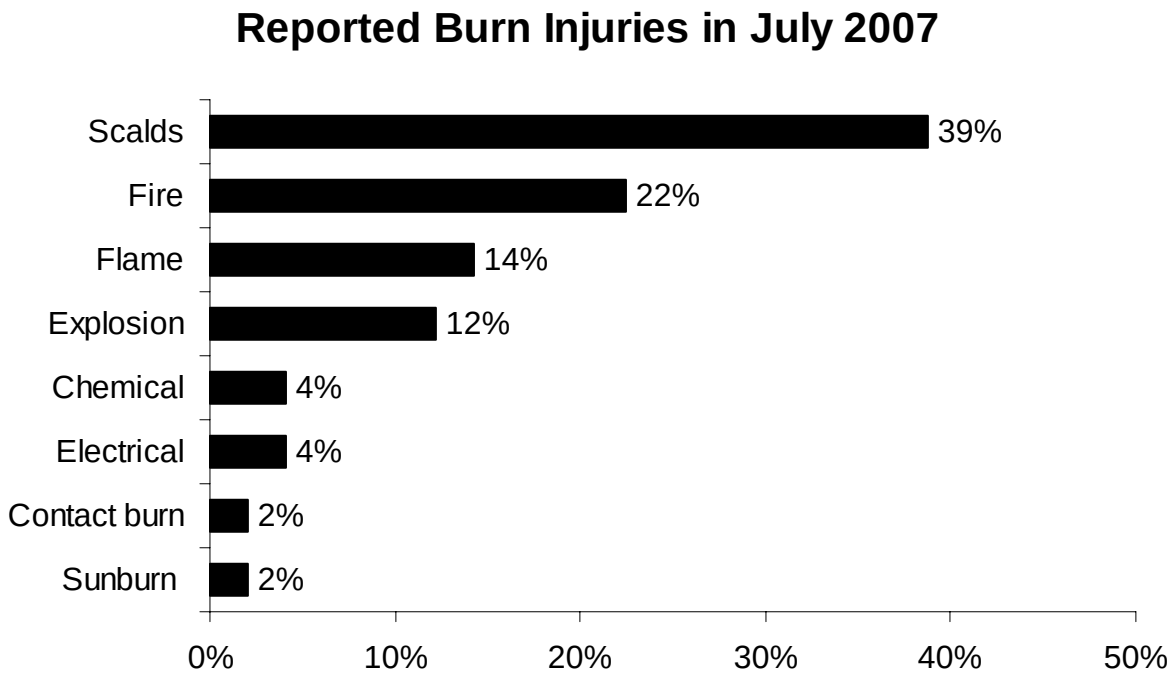
Burn Injuries by Month

Average of 32 Burns a Month
An average of 32 burns was reported during each month of 2007, from a low of 22 in March to a high of 49 in July. This average is the third lowest for any per month average since 1984, when the average per month was 28 burns. It is just above the 5-year (2003-2007) average of 31 burns per month and just below the 10-year (1997-2007) average of 33 burns per month.

Scalds caused the most burn injuries during 10 months of the year. In January burns from fires were the leading cause of reported burn injuries. In December flame burn injuries were the leading cause of burns injuries.



July Was the Peak Month for Burns
July was the peak month for burns in 2007. Forty-nine (49) burn injuries were reported to M-BIRS during July.



Scalds accounted for 19, or 39%, of these burns. Burns from fires accounted for 11, or 22% of July's burn injuries. Flame burn injuries caused seven, or 14%, of the burns in July of 2007. Six (6) burns from explosions caused 12% of these burns. Chemical burns caused two, or 4% of July's burn injuries. Electrical burns caused another two, or 4%, of these injuries. A contact burn and a sunburn each accounted for one, or 2% of these injuries in July 2007 in Massachusetts.

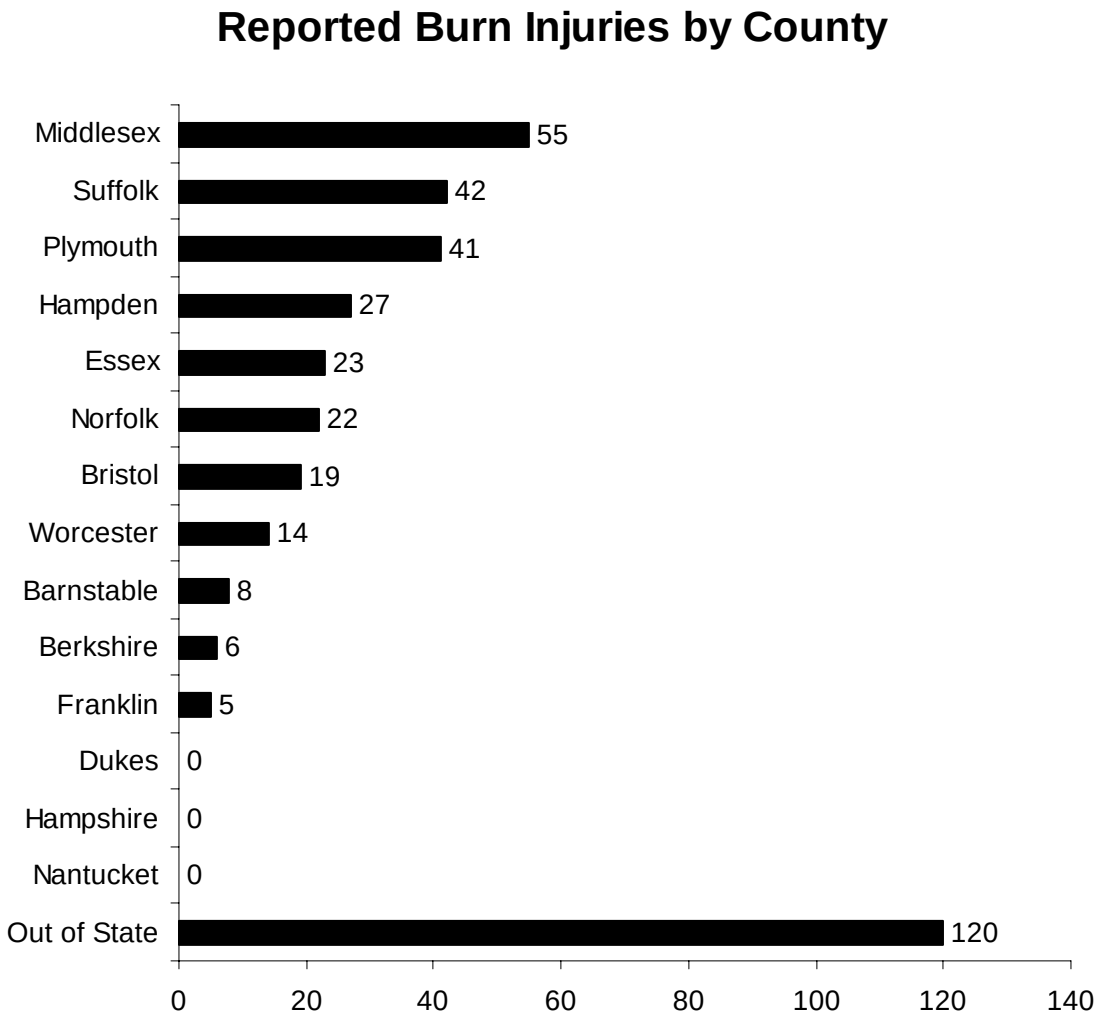
For more information, please refer to the table *Causes of Burn Injuries by Month* in the Appendix.

Geographical Demographics

Massachusetts Burn Victims from 116 Cities and Towns
Massachusetts medical facilities treated 262 residents of 118 Massachusetts cities and towns. Burn victims came from every county in the Commonwealth. The largest numbers of reported burn injuries were incurred by residents of Middlesex, Suffolk and Plymouth counties. It appears that some large Boston hospitals (Suffolk County) may have under reported the burns they treated.

One hundred and twenty (120) 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.



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 37 of its citizens reported to have a burn injury in 2007. Springfield had the second largest number of victims with 12. New Bedford had eight injury reports and seven citizens of Brockton and seven citizens of Lynn received burn injuries. Malden had six citizens burned and Cambridge, Wareham and West Springfield each had five reported burn injuries in 2007.

However the map on page 65, *2007 Burns by 10K Population*, displays the number of burns reported by community for every 10,000 of its citizens. The darker the community is shaded the

more burns per 10,000 citizens were reported from that municipality. Cities and towns that are white did not have a reported burn injury in 2007.

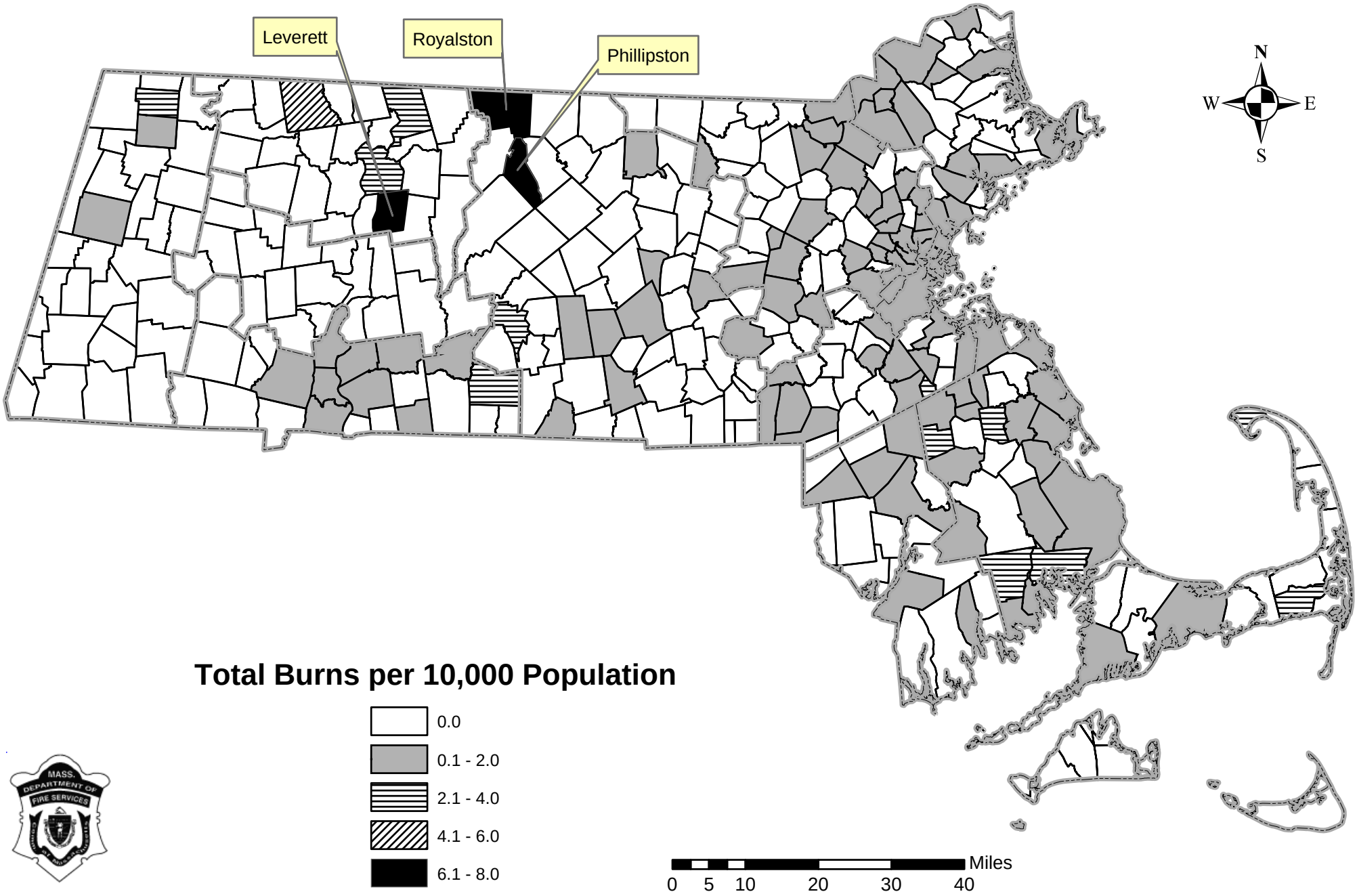
If we look at the number of burn injuries compared to the total population of the individual community we get a different picture. One would expect the bigger cities and towns to have more burn injuries because of their populations. When we calculate the rate of reported burn injuries for every 10,000 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.

Royalston had the highest rate of 8.0 burn injuries per 10,000 population. Next highest was Phillipston with 6.2 burn injuries per 10,000 population; Leverett had 6.0; Colrain had 5.5; Northfield had 3.4; and West Bridgewater had 3.0 burn injuries per 10,000 population.

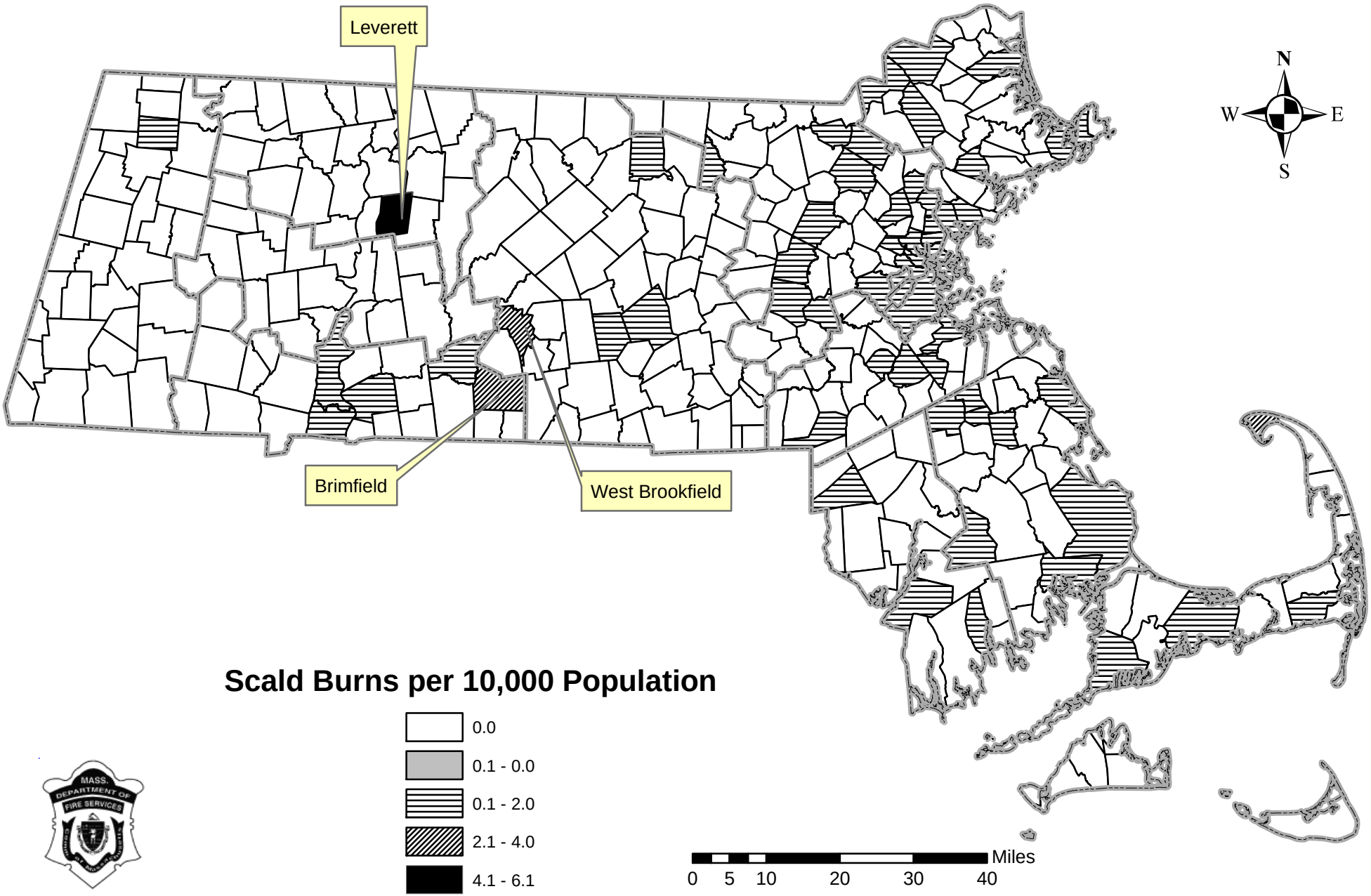
The map on page 66, *2007 Scalds per 10K Population,* displays the rate of reported scald burn injuries by the victim's home community for every 10,000 of that community's population. The darker the community is shaded the more burn injuries per 10,000 people were reported from that municipality. Cities and towns that are white did not have a reported burn injury in 2007.

Leverett had the highest rate of 6.0 scald burn injuries per 10,000 population. Next highest was Brimfield with 3.0 scald burn injuries per 10,000 population; Provincetown had 2.9; West Brookfield had 2.6; and Shirley had 1.6 scald burn injuries per 10,000 population.

2007 Burns Per 10K Population



2007 Scalds Per 10K Population



FP-84F

The Commonwealth of Massachusetts
Department of Fire Services
Office of the State Fire Marshal
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 ☐ Chemical
☐ Fire ☐ Electrical ☐ Sunburn
☐ Explosion ☐ Contact ☐ Other

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.

2007 Appendix

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

Specific Causes of Burn Injuries

Cause	# of Burns	% of Burns
Scalds	**152**	**39.8%**
Cooking	70	18.3%
Cooking Liquids	*46*	*12.0%*
Food	*24*	*6.3%*
Beverages	37	9.7%
Hot Tap Water	31	8.1%
Assault	3	0.8%
Car Radiator	3	0.8%
Boiler	2	0.5%
Steam	2	0.5%
Machine	1	0.3%
Unknown	3	0.8%
Fires	**82**	**21.5%**
House Fires	40	10.5%
House Fire (Unspec.)	*18*	*4.7%*
Domestic Violence	*4*	*1.0%*
Smoking (Unspec.)	*4*	*1.0%*
Arson	*3*	*0.8%*
Candle	*1*	*0.3%*
Electrical	*1*	*0.3%*
Fire Control	*1*	*0.3%*
Flammables	*1*	*0.3%*
Ignitable Liquids	*1*	*0.3%*
Mattress	*1*	*0.3%*
Natural Gas	*1*	*0.3%*
Propane	*1*	*0.3%*
Self-immolation	*1*	*0.3%*
Smoking in Bed	*1*	*0.3%*
Space Heater	*1*	*0.3%*
Camp or Bon Fires	27	7.1%
Gasoline	*10*	*2.6%*
Camp Fire	*6*	*1.6%*
Bon Fire	*4*	*1.0%*
Clothes	*3*	*0.8%*
Embers	*2*	*0.5%*
Assault	*1*	*0.3%*
Child w/Gasoline	*1*	*0.3%*
Brush Fires	8	2.1%
Gasoline	*6*	*1.7%*
Brush Fire	*2*	*0.5%*
Alcohol	*1*	*0.3%*
Clothes	*1*	*0.3%*

Cause	# of Burns	% of Burns
Fire (con't)		
Motor Vehicle Fires	3	0.8%
Boat Fire	*1*	*0.3%*
Car Part	*1*	*0.3%*
MV Crash	*1*	*0.3%*
Structure Fires	1	0.3%
Gasoline	*1*	*0.3%*
Fires, Unspecified	3	0.8%
Gasoline	*2*	*0.5%*
Fire (Unspecified)	*1*	*0.3%*
Flame Burns	**77**	**20.2%**
Cooking	19	5.0%
Cooking/Clothes	*7*	*1.8%*
Cooking Liquids	*5*	*1.3%*
Barbeque	*5*	*1.3%*
Cooking (Unspec.)	*1*	*0.3%*
Oven	*1*	*0.3%*
Smoking	11	2.9%
Smoking in Bed	*5*	*1.3%*
Smoking/Clothes	*3*	*0.8%*
Smoking (Unspec,)	*3*	*0.8%*
Child Playing	9	2.4%
Child w/Lighter	*6*	*1.6%*
Child w/Gasoline	*3*	*0.8%*
Candle	8	2.1%
Candle/Clothes	*7*	*1.8%*
Candle	*1*	*0.3%*
Ignitable Liquids	8	2.1%
Gasoline	*6*	*1.6%*
Ignitable Liquids	*2*	*0.5%*
Heating Equipment	4	1.0%
Heater (Unspec.)	*2*	*0.5%*
Fireplace	*1*	*0.3%*
Woodstove	*1*	*0.3%*
Welding & Cut. Torch	3	0.8%
Welding	*2*	*0.5%*
Cutting Torch	*1*	*0.3%*
Assault	3	0.8%
Explosives	2	0.5%
Explosives	*1*	*0.3%*
Fireworks	*1*	*0.3%*
Self-immolation	2	0.5%

Cause	# of Burns	% of Burns
Flame Burns (con't)		
Aerosol Can	1	0.3%
Alcohol	1	0.3%
Flammables	1	0.3%
Spark/Enrich. O_2 Atmos.	1	0.3%
Propane	1	0.3%
Explosions	**33**	**8.6%**
Ignitable Gases	10	2.6%
Propane	*5*	*1.3%*
Natural Gas	*3*	*0.8%*
Gas Stove	*2*	*0.5%*
Aerosol Can	5	1.3%
Steam	4	1.0%
Explosives	4	1.0%
Fireworks	*3*	*0.8%*
Bomb Making	*1*	*0.3%*
Ignitable Liquids	2	0.5%
BBQ (Gas)	1	0.3%
Boat Fire	1	0.3%
Chemical	1	0.3%
Electrical	1	0.3%
Flammables	1	0.3%
Pipe	1	0.3%

Cause	# of Burns	% of Burns
Electrical	**13**	**3.4%**
Electrical (Unspec.)	7	1.8%
Electrocution	5	1.3%
Lightning	1	0.3%
Contact Burns	**12**	**3.1%**
Heating Equipment	4	1.0%
Woodstove	*3*	*0.8%*
Radiator	*1*	*0.3%*
BBQ	3	0.8%
Clothes Iron	2	0.5%
Metal	1	0.3%
Pipe	1	0.3%
Wax	1	0.3%
Domestic Violence[1]	**4**	**1.0%**
House Fire	4	1.0%
Other Burn Injuries	**13**	**3.4%**
Chemical	7	1.8%
Sunburn	2	0.5%
Assault	1	0.3%
Flashburn	1	0.3%
Propane	1	0.3%
Unknown	1	0.3%

[1] These 4 burns are also counted under the Fire – House Fire Section of this report.

Causes of Burn Injuries by Age

UNDER 5	88	23.0%
Cause	# of Burns	% By Age
Scalds	**74**	**84.1%**
Beverages	28	31.8%
Hot Tap Water	22	25.0%
Cooking	21	23.1%
Food	*11*	*12.5%*
Cooking Liquids	*10*	*11.4%*
Assault	1	1.1%
Machine	1	1.1%
Unspecified	1	1.1%
Fire	**7**	**8.0%**
House Fires	5	5.7%
House Fire (Unspec.)	*3*	*3.4%*
Arson	*1*	*1.1%*
Domestic Violence	*1*	*1.1%*
Camp or Bon Fires	2	2.3%
Embers	*1*	*1.1%*
Camp Fire	*1*	*1.1%*
Contact	**4**	**4.5%**
Barbeque	2	2.3%
Clothes Iron	1	1.1%
Radiator	1	1.1%
Flame	**2**	**2.3%**
Candle/Clothes	1	1.1%
Fireplace	1	1.1%
Other	**1**	**1.1%**
Sunburn	1	1.1%

AGES 5 TO 9	33	8.6%
Cause	# of Burns	% By Age
Scalds	**13**	**39.4%**
Cooking	9	27.3%
Cooking Liquids	*6*	*18.2%*
Food	*3*	*9.1%*
Beverages	3	9.1%
Hot Tap Water	1	3.0%
Flame	**9**	**27.3%**
Child Playing	4	12.1%
Child/Lighter	*3*	*9.1%*
Child/Gasoline	*1*	*3.0%*
Clothing Ignitions	3	9.1%
Candle/Clothes	*2*	*6.1%*
Cooking/Clothes	*1*	*3.0%*
Heater	2	6.1%
Fires	**6**	**18.2%**
House Fires	5	15.2%
Gasoline	*3*	*9.1%*
Arson	*1*	*3.0%*
Candle	*1*	*3.0%*
Camp or Bon Fires	1	3.0%
Clothes	*1*	*3.0%*
Contact	**2**	**6.1%**
Clothes Iron	1	3.0%
Pipe	1	3.0%
Electrical	**1**	**3.0%**
Electrical	1	3.0%
Explosion	**1**	**3.0%**
Gas Stove	1	3.0%
Other	**1**	**1.1%**
Sunburn	1	1.1%

AGES 10 TO 14	**26**	**6.8%**
Cause	**# of Burns**	**% By Age**
Flame	**11**	**42.3%**
Child Playing	5	19.2%
Child/Lighter	*3*	*11.5%*
Child Gasoline	*2*	*7.7%*
Cooking/Clothes	2	7.7%
Explosives	2	7.7%
Explosives (Unspec.)	*1*	*3.8%*
Fireworks	*1*	*3.8%*
Aerosol Can	1	3.8%
Ignitable Liquids	1	3.8%
Explosion	**4**	**15.4%**
Aerosol Can	2	7.7%
Fireworks	1	3.8%
Ignitable Liquids	1	3.8%
Fire	**4**	**15.4%**
Brush Fires	1	3.8%
Gasoline	*1*	*3.8%*
Camp or Bon Fires	1	3.8%
Child/Gasoline	*1*	*3.8%*
House Fire	1	3.8%
House Fire (Unspec.)	*1*	*3.8%*
Scalds	**3**	**11.5%**
Beverages	1	3.8%
Hot Tap Water	1	3.8%
Unspecified	1	3.8%
Contact	**1**	**3.8%**
Woodstove	1	3.8%
Electrical	**1**	**3.8%**
Unspecified	1	3.8%
Other	**1**	**3.8%**
Unspecified	1	3.8%

AGES 15 TO 24	**48**	**12.6%**
Cause	**# of Burns**	**% By Age**
Fire	**21**	**43.8%**
Camp or Bon Fires	16	33.3%
Gasoline	*8*	*16.7%*
Bon Fire (Unspec.)	*3*	*6.3%*
Camp Fire (Unspec.)	*3*	*6.3%*
Assault	*1*	*2.1%*
Embers	*1*	*2.1%*
House Fires	2	4.2%
House Fire (Unspec.)	*2*	*4.2%*
Vehicle Fires	2	4.2%
Car Part	*1*	*2.1%*
MV Crash	*1*	*2.1%*
Fires, Other	1	2.1%
Child/Gasoline	*1*	*2.1%*
Scalds	**10**	**20.8%**
Cooking	7	14.6%
Cooking Liquids	*5*	*10.4%*
Food	*2*	*4.2%*
Beverages	1	2.1%
Car Radiator	1	2.1%
Hot Tap Water	1	2.1%
Flame	**8**	**16.7%**
Cooking	5	10.4%
Barbeque (Gas)	*2*	*4.2%*
Cooking Liquids	*2*	*4.2%*
Cooking (Unspec.)	*1*	*2.1%*
Ignitable Liquids	2	4.2%
Gasoline	*1*	*2.1%*
Ignitable Liquids	*1*	*2.1%*
Candle	1	2.1%
Explosion	**5**	**10.4%**
Aerosol Can	1	2.1%
Fireworks	1	2.1%
Ignitable Liquids	1	2.1%
Natural Gas	1	2.1%
Steam	1	2.1%
Electrical	**3**	**6.3%**
Electrocution	2	4.2%
Unspecified	1	2.1%
Contact	**1**	**2.1%**
Barbeque	1	2.1%

AGES 25 TO 34	**42**	**11.0%**
Cause	**# of Burns**	**% By Age**
Scalds	**16**	**38.1%**
Cooking	11	26.2%
Cooking Liquids	*10*	*23.8%*
Food	*1*	*2.4%*
Assault	1	2.4%
Beverages	1	2.4%
Car Radiator	1	2.4%
Hot Tap Water	1	2.4%
Unspecified	1	2.1%
Flame	**10**	**23.8%**
Clothing Ignitions	3	7.1%
Candle/Clothes	*2*	*4.8%*
Smoking/Clothes	*1*	*4.8%*
Barbeque	2	4.8%
Gasoline	2	4.8%
Cutting/Welding	2	4.8%
Cutting Torch	*1*	*2.4%*
Welding	*1*	*2.4%*
Explosions	**7**	**16.7%**
Aerosol Can	2	4.8%
Cooking	2	4.8%
Barbeque (Gas)	*1*	*2.1%*
Gas Stove	*1*	*2.4%*
Propane	1	2.4%
Cutting Torch	1	2.4%
Fire	**4**	**9.5%**
House Fires	3	7.1%
Domestic Violence	*1*	*2.4%*
Flammables	*1*	*2.4%*
Unspecified	*1*	*2.4%*
Camp or Bon Fire	1	2.4%
Camp Fire (Unspec.)	*1*	*2.4%*

Cause	**# of Burns**	**% By Age**
Electrical	**3**	**7.1%**
Electrocution	2	4.8%
Unspecified	1	2.4%
Other	**2**	**4.8%**
Chemical	2	4.8%

AGES 35 TO 44	**51**	**13.4%**
Cause	**# of Burns**	**% By Age**
Scalds	**18**	**35.3%**
Cooking	10	19.6%
Cooking Liquids	*7*	*13.7%*
Food	*3*	*5.9%*
Beverages	3	5.9%
Boiler	2	3.9%
Assault	1	2.0%
Hot Tap Water	1	2.0%
Steam	1	2.0%
Fire	**12**	**23.5%**
House Fires	5	9.8%
Arson	*1*	*2.0%*
Propane	*1*	*2.0%*
Ignitable Liquids	*1*	*2.0%*
Self-Immolation	*1*	*2.0%*
House Fire (Unspec.)	*1*	*2.0%*
Brush Fires	4	7.8%
Gasoline	*2*	*3.9%*
Clothing Ignition	*1*	*2.0%*
Brush Fire (Unspec.)	*1*	*2.0%*
Camp or Bon Fires	1	2.0%
Bon Fire (Unspec.)	*1*	*2.0%*
Motor Vehicle Fires	1	2.0%
Boat Fire	*1*	*2.0%*
Fires, Unspecified	1	2.0%
Unspecified	*1*	*2.0%*

Cause	**# of Burns**	**% By Age**
Explosions	**9**	**17.6%**
Ignitable Gases	4	7.8%
Propane	*2*	*3.9%*
Natural Gas	*2*	*3.9%*
Cutting Torch	2	3.9%
Aerosol Can	1	2.0%
Bomb Making	1	2.0%
Steam	1	2.0%
Flame	**6**	**11.8%**
Clothing Ignitions	2	3.9%
Candle/Clothes	*1*	*2.0%*
Clothes (Unspec.)	*1*	*2.0%*
Assault	1	2.0%
Gasoline	1	2.0%
Cooking Liquids	1	2.0%
Welding	1	2.0%
Electrical	**3**	**5.9%**
Electrocution	1	2.0%
Lightning	1	2.0%
Electrical (Unspec.)	1	2.0%
Contact	**1**	**2.0%**
Wax	1	2.0%
Other	**2**	**3.9%**
Chemical	1	2.0%
Assault	1	2.0%

AGES 45 TO 54	**54**	**14.1%**
Cause	**# of Burns**	**% By Age**
Fire	**18**	**33.3%**
House Fires	9	16.7%
Smoking	*3*	*5.6%*
House Fire (Unspec.)	*2*	*3.7%*
Domestic Violence	*1*	*1.9%*
Fire Control	*1*	*1.9%*
Mattress	*1*	*1.9%*
Natural Gas	*1*	*1.9%*
Camp or Bon Fires	4	7.4%
Gasoline	*2*	*3.7%*
Clothing Ignition	*1*	*1.9%*
Camp Fire (Unspec.)	*1*	*1.9%*
Brush Fires	3	5.6%
Alcohol	*1*	*1.9%*
Gasoline	*1*	*1.9%*
Brush Fire (Unspec.)	*1*	*1.9%*
Structure Fires	1	1.9%
Gasoline	*1*	*1.9%*
Fires, Other	1	1.9%
Gasoline	*1*	*1.9%*
Flame	**14**	**25.9%**
Cooking	4	7.4%
Cooking Liquids	*2*	*3.7%*
Barbeque	*1*	*1.9%*
Oven	*1*	*1.9%*
Smoking	4	7.4%
Smoking (Unspec.)	*2*	*3.7%*
Smoking in Bed	*2*	*3.7%*
Clothing Ignition	2	3.7%
Alcohol	1	1.9%
Assault	1	1.9%
Candle	1	1.9%
Gasoline	1	1.9%
Propane	1	1.9%

Cause	**# of Burns**	**% By Age**
Scalds	**9**	**16.7%**
Cooking Liquids	3	5.6%
Car Radiator	1	1.9%
Hot Tap Water	1	1.9%
Steam	1	1.9%
Explosions	**5**	**9.3%**
Propane	2	3.7%
Chemical	1	1.9%
Pipe	1	1.9%
Steam	1	1.9%
Contact	**2**	**3.7%**
Metal	1	1.9%
Woodstove	1	1.9%
Electrical	**1**	**1.9%**
Electrical (Unspec.)	1	1.9%
Other	**5**	**9.3%**
Chemical	3	5.6%
Flashburn	1	1.9%
Propane	1	1.9%

AGES 55 TO 64	**12**	**3.1%**
Cause	**# of Burns**	**% By Age**
Scalds	**4**	**33.3%**
Hot Tap Water	2	16.7%
Cooking	2	16.7%
Cooking Liquids	*1*	*8.3%*
Food	*1*	*8.3%*
Fire	**3**	**25.0%**
House Fires	3	25.0%
House Fire (Unspec.)	*2*	*16.7%*
Space Heater	*1*	*8.3%*
Flame	**3**	**25.0%**
Assault	1	8.3%%
Gasoline	1	8.3%
Smoking/Clothes	1	8.3%
Explosion	**1**	**8.3%**
Steam	1	8.3%
Other	**1**	**8.3%**
Chemical	1	8.3%

AGES 65+	**28**	**7.3%**
Cause	**# of Burns**	**% By Age**
Flame	**14**	**50.0%**
Smoking	5	17.9%
Smoking in Bed	*3*	*10.7%*
Smoking/Clothes	*1*	*3.6%*
Smoking (Unspec.)	*1*	*3.6%*
Cooking/Clothes	4	14.3%
Self-immolation	2	7.1%
Candle/Clothes	1	3.6%
Spark/Enr. O_2 Atmos.	1	3.6%
Woodstove	1	3.6%
Fire	**7**	**25.0%**
House Fires	6	21.4%
House Fires (Unspec.)	*2*	*7.1%*
Domestic Violence	*1*	*3.6%*
Electrical	*1*	*3.6%*
Smoking in Bed	*1*	*3.6%*
Smoking (Unspec.)	*1*	*3.6%*
Camp or Bon Fires	1	3.6%
Clothing Ignition	*1*	*3.6%*
Scalds	**5**	**17.9%**
Cooking	4	14.3%
Food	*3*	*10.7%*
Cooking Liquids	*1*	*3.6%*
Hot Tap Water	1	3.6%
Contact	**1**	**3.6%**
Woodstove	1	3.6%
Explosion	**1**	**3.6%**
Flammables	1	3.6%

Causes of Work-Related Burns

Cause	# of Burns	% of Total
Scalds	**13**	**27%**
Cooking	9	19%
Cooking Liquids	*8*	*17%*
Food	*1*	*2%*
Hot Tap Water	4	9%
Steam	2	4%
Boiler	1	2%
Car Radiator	1	2%
Explosion	**11**	**23%**
Ignitable Gases	4	8%
Natural Gas	*2*	*2%*
Propane	*2*	*2%*
Steam	3	6%
Aerosol Can	1	2%
Chemical	1	2%
Cutting Torch	1	2%
Pipe	1	2%
Flame	**6**	**13%**
Cooking	4	8%
Barbeque (Gas)	*2*	*4%*
Oven	*1*	*2%*
Cooking (Unspec.)	*1*	*2%*

Cause	# of Burns	% of Total
Flame (con't)		
Clothing Ignitions	3	6%
Clothing (Unspec.)	*2*	*4%*
Candle/Clothes	*1*	*2%*
Gasoline	1	2%
Propane	1	2%
Welding	1	2%
Electrical	**5**	**10%**
Electrocution	3	6%
Unspecified	2	6%
Other	**7**	**15%**
Chemical	5	15%
Flashburn	1	2%
Propane	1	2%
Contact	**1**	**2%**
Metal	1	2%
Fire	**1**	**2%**
Fires, Unspecified	1	2%
Electrical	*1*	*2%*
Total	**48**	**100%**

4 Deaths

Number of Reported Burns Per Hospital

Addison Gilbert Hospital	3
Baystate Medical Center	22
Berkshire Medical Center	1
Beverly Hospital	1
Boston Medical Center	1
Brockton Hospital	1
Brigham & Women's Hospital	41
Cape Cod Hospital	8
Charlton Memorial Hospital	4
Children's Hospital	13
Emerson Hospital	1
Fairhaven Hospital	2
Falmouth Hospital	2
Faulkner Hospital	2
Franklin Medical Center	2
Good Samaritan Medical Center	4
Hallmark Hospital	1
Harrington Memorial Hospital	3
Henry Heywood Hospital	2
Holyoke Hospital	1
Hubbard Regional Hospital	1
Jordan Hospital	3
Lowell General Hospital	2
Massachusetts General Hospital	122
Mary Lane Hospital	1
Melrose – Wakefield Hospital	1
Merrimack Valley Hospital	2
Metro West Medical Center	1
Milton Whitinsville Hospital	2
Morton Hospital	3
New England Medical Center	2
North Adams Regional Hospital	5
North Shore Medical Center	2
Norwood Hospital	3
St. Elizabeth's Hospital	1
St. Luke's Hospital	6
St. Vincent's Hospital	3
South Shore Hospital	13
Shriners Burns Hospital	112
Tobey Hospital	8
UMass Medical Center, University	8
UMass Medical Center, Leominster	1
Winchester Hospital	1

Causes of Burn Injuries by Month

JANUARY	30	7.9%
Cause	**# of Burns**	**% By Month**
Fire	**10**	**33.3%**
House Fires	7	23.3%
Domestic Violence	*4*	*13.3%*
Gasoline	*1*	*3.3%*
House Fire (Unspec.)	*1*	*3.3%*
Self-immolation	*1*	*3.3%*
Smoking (Unspec.)	*1*	*3.3%*
Brush Fires	1	3.3%
Brush Fire (Unpsec.)	*1*	*3.3%*
Camp or Bon Fires	1	3.3%
Clothes	*1*	*3.3%*
Scalds	**9**	**30.0%**
Cooking	6	20.0%
Cooking Liquids	*4*	*13.3%*
Food	*2*	*6.7%*
Assault	1	3.3%
Hot Tap Water	1	3.3%
Beverages	1	3.3%
Flame	**8**	**26.7%**
Candle/Clothes	3	10.0%
Child/Lighter	1	3.3%
Cooking Liquids	1	3.3%
Cutting Torch	1	3.3%
Ignitable Liquids	1	3.3%
Smoking (Unspec.)	1	3.3%
Explosion	**2**	**6.7%**
Ignitable Liquids	1	3.3%
Natural Gas	1	3.3%
Contact	**1**	**3.3%**
Woodstove	1	3.3%

2 Deaths

FEBRUARY	23	7.0%
Cause	**# of Burns**	**% By Month**
Scalds	**11**	**47.8%**
Hot Tap Water	3	13.0%
Beverages	3	13.0%
Cooking	3	13.0%
Cooking Liquids	*2*	*8.7%*
Food	*1*	*4.3%*
Boiler	1	3.6%
Unspecified	1	3.6%
Fire	**6**	**26.1%**
House Fires	4	17.4%
House Fire (Unspec.)	*2*	*8.7%*
Electrical	*1*	*4.3%*
Smoking (Unpsec.)	*1*	*4.3%*
Camp or Bon Fires	2	8.7%
Gasoline	*2*	*8.7%*
Flame	**3**	**13.0%**
Candle/Clothes	2	8.7%
Smoking/Clothes	1	4.3%
Explosion	**2**	**8.7%**
Gas Stove	1	4.3%
Propane	1	4.3%
Other	**1**	**4.3%**
Unspecified	1	4.3%

3 Deaths

MARCH	**22**	**5.8%**
Cause	**# of Burns**	**% By Month**
Scalds	**9**	**40.9%**
Cooking	5	22.7%
Cooking Liquids	*4*	*18.2%*
Food	*1*	*4.5%*
Hot Tap Water	3	13.6%
Beverages	1	4.5%
Fire	**6**	**27.3%**
House Fires	3	13.6%
House Fire (Unspec.)	*2*	*9.1%*
Natural Gas	*1*	*4.5%*
Camp or Bon Fires	3	13.6%
Gasoline	*2*	*9.1%*
Bon Fire (Unspec.)	*1*	*4.5%*
Flame	**5**	**22.7%**
Assault	2	3.3%
Cooking	2	9.1%
Cooking/Clothes	*1*	*4.5%*
Oven	*1*	*4.5%*
Child/Gasoline	1	4.5%
Explosion	**1**	**4.5%**
Fireworks	1	4.5%
Other	**1**	**4.5%**
Chemical	1	4.5%

APRIL	**28**	**7.3%**
Cause	**# of Burns**	**% By Month**
Scalds	**12**	**42.9%**
Cooking	6	21.4%
Cooking Liquids	*3*	*10.7%*
Food	*3*	*10.7%*
Beverages	3	10.7%
Hot Tap Water	2	7.1%
Boiler	1	3.6%
Fire	**8**	**21.1%**
Brush Fires	3	10.7%
Gasoline	*2*	*7.1%*
Alcohol	*1*	*3.6%*
House Fires	2	7.1%
Smoking (Unspec.)	*1*	*3.6%*
House Fire (Unspec.)	*1*	*3.6%*
MV Fires	1	3.6%
Car Part	*1*	*3.6%*
Flame	**8**	**21.4%**
Cooking	3	10.7%
Cooking/Clothes	*2*	*7.1%*
Barbeque	*1*	*3.6%*
Assault	1	3.6%
Explosives	1	3.6%
Self-immolation	1	3.6%
Explosion	**2**	**7.1%**
Aerosol Can	1	3.6%
Natural Gas	1	3.6%
Contact	**1**	**3.6%**
Pipe	1	3.6%
Electrical	**1**	**3.6%**
Electrical (Unspec.)	1	3.6%

MAY	**33**	**8.6%**
Cause	**# of Burns**	**% By Month**
Scalds	**11**	**33.3%**
Beverages	6	18.2%
Hot Tap Water	2	6.1%
Cooking	2	6.1%
Cooking Liquids	*1*	*3.0%*
Food	*1*	*3.0%*
Unspecified	1	3.0%
Flame	**8**	**24.2%**
Ignitable Liquids	4	12.1%
Gasoline	*2*	*6.1%*
Child/Gasoline	*1*	*3.0%*
Ignitable Liquids	*1*	*3.0%*
Smoking	2	6.1%
Smoking/Clothes	*1*	*3.0%*
Smoking in Bed	*1*	*3.0%*
Cooking	2	6.1%
Cooking/Clothes	*1*	*3.0%*
Cooking Liquids	*1*	*3.0%*
Fire	**6**	**18.2%**
Camp or Bon Fires	2	6.1%
Gasoline	*1*	*3.0%*
Camp Fire	*1*	*3.0%*
House Fires	2	6.1%
House Fire (Unspec.)	*2*	*6.1%*
Brush Fires	1	3.0%
Gasoline	*1*	*3.3%*
Structure Fires	1	3.0%
Gasoline	*1*	*3.0%*
Electrical	**4**	**12.1%**
Electrical (Unspec.)	3	9.1%
Electrocution	1	3.0%
Explosion	**4**	**12.1%**
Cutting Torch	2	6.1%
Ignitable Gases	2	6.1%
Natural Gas	*1*	*3.0%*
Propane	*1*	*3.0%*
Contact	**1**	**3.0%**
Wax	1	3.0%

1 Death

JUNE	**39**	**10.2%**
Cause	**# of Burns**	**% By Month**
Scalds	**18**	**46.2%**
Cooking	10	25.6%
Cooking Liquids	*7*	*17.9%*
Food	*3*	*7.7%*
Beverages	4	10.3%
Hot Tap Water	3	7.7%
Steam	1	2.6%
Fire	**6**	**15.4%**
Camp or Bon Fires	4	10.3%
Gasoline	*2*	*5.1%*
Bon Fire	*1*	*2.6%*
Camp Fire	*1*	*2.6%*
House Fires	1	2.6%
Arson	*1*	*2.6%*
Fires, Unspecified	1	2.6%
Child/Gasoline	*1*	*2.6%*
Explosion	**5**	**12.8%**
Aerosol Can	1	2.6%
Barbeque (Gas)	1	2.6%
Chemical	1	2.6%
Cutting Torch	1	2.6%
Flammables	1	2.6%
Electrical	**3**	**7.7%**
Electrocution	2	5.1%
Lightning	1	2.6%
Flame	**3**	**7.7%**
Barbeque	1	2.6%
Gasoline	1	2.6%
Smoking/Clothes	1	2.6%
Contact	**2**	**5.1%**
Barbeque	1	2.6%
Metal	1	2.6%
Other	**2**	**5.1%**
Assault	1	2.6%
Chemical	1	2.6%

JULY	**49**	**12.8%**
Cause	**# of Burns**	**% By Month**
Scalds	**19**	**38.8%**
Cooking	10	20.4%
Cooking Liquids	*8*	*16.3%*
Food	*2*	*4.1%*
Beverages	4	8.2%
Hot Tap Water	3	6.1%
Steam	1	2.0%
Unspecified	1	2.1%
Fire	**11**	**22.4%**
Camp or Bon Fires	6	12.2%
Gasoline	*3*	*6.1%*
Assault	*1*	*2.0%*
Child/Gasoline	*1*	*2.0%*
Camp Fire (Unspec,)	*1*	*2.0%*
House Fires	3	6.1%
Arson	*2*	*4.1%*
Smoking (Unspec.)	*1*	*2.0%*
Brush Fire	1	2.0%
Brush Fire (Unspec.)	*1*	*2.0%*
MV Fires	1	2.0%
Boat Fire	*1*	*2.0%*
Flame	**7**	**14.3%**
Smoking	2	4.1%
Smoking (Unspec.)	*1*	*2.0%*
Smoking in Bed	*1*	*2.0%*
Barbeque (Gas)	1	2.0%
Candle/Cloths	1	2.0%
Child/Lighter	1	2.0%
Fireworks	1	2.0%
Flammables	1	2.0%

Cause	**# of Burns**	**% By Month**
Explosion	**6**	**12.2%**
Aerosol Can	2	4.1%
Explosives	3	6.1%
Fireworks	*2*	*4.1%*
Bomb Making	*1*	*2.0%*
Propane	1	2.0%
Electrical	**2**	**4.1%**
Electrocution	1	2.0%
Electrical (Unspec.)	1	2.0%
Contact	**2**	**2.0%**
Barbeque	1	2.0%
Other	**3**	**6.1%**
Chemical	2	4.1%
Sunburn	1	2.0%

3 Deaths

AUGUST	**41**	**10.7%**
Cause	**# of Burns**	**% By Month**
Scalds	**14**	**34.1%**
Cooking	9	22.0%
Cooking Liquids	*5*	*12.2%*
Food	*4*	*9.8%*
Hot Tap Water	3	7.3%
Beverages	2	4.9%
Flame	**11**	**26.8%**
Gasoline	3	7.3%
Cooking	3	7.3%
Barbeque (Gas)	*1*	*2.4%*
Cooking Liquids	*1*	*2.4%*
Cooking (Unpsec.)	*1*	*2.4%*
Aerosol Can	1	2.4%
Candle/Clothes	1	2.4%
Spark/Enr. O_2 Atmos.	1	2.4%
Smoking in Bed	1	2.4%
Welding	1	2.4%
Fire	**7**	**17.1%**
Camp or Bonfires	3	7.3%
Embers	*1*	*2.4%*
Bon Fire (Unspec.)	*1*	*2.4%*
Camp Fire (Unspec.)	*1*	*2.4%*
Brush Fires	1	2.4%
Clothing	*1*	*2.4%*
House Fires	1	2.4%
Ignitable Liquids	*1*	*2.4%*
MV Fires	1	2.4%
MV Crash	*1*	*2.4%*
Fires, Unspecified	1	2.4%
Gasoline	*1*	*2.4%*

Cause	**# of Burns**	**% By Month**
Contact	**3**	**7.3%**
Clothes Iron	1	4.9%
Barbeque	1	2.4%
Explosion	**2**	**4.9%**
Propane	1	2.4%
Steam	1	2.4%
Electrical	**2**	**4.1%**
Electrocution	1	2.0%
Electrical (Unspec.)	1	2.0%
Other	**3**	**6.1%**
Chemical	2	4.1%
Sunburn	1	2.0%

SEPTEMBER	**18**	**4.7%**
Cause	**# of Burns**	**% By Month**
Scalds	**13**	**72.2%**
Cooking	9	50.0%
Cooking Liquids	*5*	*27.8%*
Food	*4*	*22.2%*
Beverages	4	22.2%
Hot Tap Water	3	16.7%
Car Radiator	2	11.1%
Flame	**4**	**22.2%**
Barbeque	1	5.6%
Child/Lighter	1	5.6%
Propane	1	5.6%
Smoking (Unpsec.)	1	5.6%
Fire	**3**	**16.7%**
House Fires	2	11.1%
House Fire (Unspec.)	*2*	*11.1%*
Camp or Bon Fires	1	5.6%
Camp Fires (Unspec.)	*2*	*5.6%*
Explosion	**3**	**16.7%**
Aerosol Can	1	5.6%
Gas Stove	1	5.6%
Pipe	1	5.6%
Contact	**1**	**5.6%**
Radiator	1	5.6%

OCTOBER	**29**	**7.6%**
Cause	**# of Burns**	**% By Month**
Scalds	**14**	**48.3%**
Beverages	5	17.2%
Cooking Liquids	3	10.3%
Assault	2	6.9%
Hot Tap Water	2	6.9%
Car Radiator	1	3.4%
Machine	1	3.4%
Flame	**6**	**20.7%**
Child/Lighter	3	10.3%
Clothes	1	3.4%
Smoking in Bed	1	3.4%
Welding	1	3.4%
Fire	**5**	**17.2%**
House Fires	3	10.3%
House Fire (Unspec.)	*2*	*6.9%*
Flammables	*1*	*3.4%*
Camp or Bon Fires	1	3.4%
Camp Fire	*1*	*3.4%*
Fire, other	1	3.4%
Unspecified	*1*	*3.4%*
Explosion	**2**	**6.9%**
Boat Fire	1	3.4%
Propane	1	3.4%
Electrical	**1**	**3.4%**
Electrical (Unspec.)	1	3.4%
Other	**1**	**3.4%**
Chemical	1	3.4%

NOVEMBER	**32**	**8.4%**
Cause	**# of Burns**	**% By Month**
Scalds	**10**	**31.3%**
Cooking	5	15.6%
Food	*3*	*9.4%*
Cooking Liquids	*2*	*6.3%*
Beverages	3	9.4%
Hot Tap Water	3	6.3%
Fire	**9**	**28.1%**
House Fires	7	21.9%
House Fires	*2*	*6.3%*
Candle	*1*	*3.1%*
Embers	*1*	*3.1%*
Mattress	*1*	*3.1%*
Propane	*1*	*3.1%*
Space Heater	*1*	*3.1%*
Camp or Bon Fires	2	6.3%
Clothing	*1*	*3.1%*
Camp Fire (Unspec.)	*1*	*3.1%*
Flame	**5**	**15.6%**
Clothing Ignitions	4	12.5%
Cooking/Clothes	*3*	*9.4%*
Clothing (Unpsec.)	*1*	*3.1%*
Child/Gasoline	1	3.1%
Explosion	**2**	**6.3%**
Ignitable Liquids	1	3.1%
Steam	1	3.1%
Contact	**1**	**3.1%**
Woodstove	1	3.1%
Other	**3**	**9.4%**
Chemical	1	3.1%
Flashburn	1	3.1%
Propane	1	3.1%

3 Deaths

DECEMBER	**26**	**6.8%**
Cause	**# of Burns**	**% By Month**
Flame	**11**	**42.3%**
Heating Equipment	4	15.4%
Heater (Unspec.)	*2*	*7.7%*
Fireplace	*1*	*3.8%*
Woodstove	*1*	*3.8%*
Cooking Liquids	2	7.7%
Alcohol	1	3.8%
Candle	1	3.8%
Clothing	1	3.8%
Self-immolation	1	3.8%
Smoking in Bed	1	3.8%
Fire	**7**	**26.9%**
House Fires	6	23.1%
House Fire (Unspec.)	*4*	*15.4%*
Fire Control	*1*	*3.8%*
Smoking in Bed	*1*	*3.8%*
Camp or Bon Fires	1	3.8%
Clothes	*1*	*3.8%*
Scalds	**7**	**26.9%**
Hot Tap Water	4	15.4%
Cooking Liquids	2	7.7%
Beverages	1	3.8%
Contact	**1**	**3.8%**
Woodstove	1	3.8%

3 Deaths

Burn Injuries by Victim's Community

County	# of Burns
Barnstable	**8**
Barnstable	1
Falmouth	3
Harwich	3
Provincetown	1
Berkshire	**6**
Adams	1
North Adams	4
Pittsfield	1
Bristol	**19**
Attleboro	2
Easton	1
Fall River	4
New Bedford	8
North Attleboro	1
Norton	1
Taunton	2
Dukes	**0**
Essex	**23**
Amesbury	1
Andover	1
Beverly	1
Danvers	1
Gloucester	2
Groveland	1
Haverhill	1
Lawrence	1
Lynn	7
Methuen	2
Newbury	1
North Andover	1
Peabody	2
Saugus	1
Franklin	**5**
Colrain	1
Leverett	1
Montague	2
Northfield	1

County	# of Burns
Hampden	**27**
Agawam	1
Brimfield	1
Chicopee	1
Hampden	1
Holyoke	2
Ludlow	1
Palmer	1
Springfield	12
West Springfield	5
Westfield	2
Hampshire	**0**
Middlesex	**55**
Arlington	2
Belmont	2
Billerica	1
Burlington	1
Cambridge	5
Chelmsford	1
Concord	1
Dracut	1
Everett	4
Framingham	4
Hopkinton	1
Lowell	2
Malden	5
Marlborough	1
Maynard	1
Medford	3
Melrose	1
Natick	2
Newton	1
Reading	2
Shirley	1
Somerville	3
Sudbury	1
Tewksbury	2
Wakefield	2
Waltham	1
Winchester	1
Woburn	2

County	# of Burns
Nantucket	**0**
Norfolk	**22**
Avon	1
Bellingham	1
Brookline	1
Canton	1
Dedham	2
Franklin	2
Medway	1
Norwood	3
Quincy	2
Randolph	4
Stoughton	1
Weymouth	1
Wrentham	2
Plymouth	**41**
Abington	2
Bridgewater	1
Brockton	7
Carver	1
Duxbury	2
Hanson	2
Hingham	1
Kingston	2
Lakeville	1
Marion	1
Marshfield	3
Mattapoisett	1
Pembroke	2
Plymouth	3
Rochester	1
Rockland	2
Scituate	1
Wareham	5
West Bridgewater	2
Whitman	1

County	# of Burns
Suffolk	**42**
Boston	37
Chelsea	2
Revere	2
Winthrop	1
Worcester	**14**
Fitchburg	2
Leicester	2
Northborough	1
Oxford	1
Phillipston	1
Millbury	1
Royalston	1
Southbridge	1
Spencer	1
West Boylston	1
West Brookfield	1
Worcester	2
Out of State	**120**