Massachusetts Burn Injury Reporting System

2020 Annual Report

Department of Fire Services
Division of Fire Safety

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Terrence M. Reidy, Secretary of Public Safety & Security
Peter J. Ostroskey, State Fire Marshal

Massachusetts Burn Injury Reporting System

2020 Annual Report

35 Years

Helping Prevent Burn Injuries

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Executive Summary

The Massachusetts Burn Injury Reporting System (MBIRS) was established in the Office of the State Fire Marshal in 1984 as a tool to help fire service and law enforcement personnel identify arsonists that may have been burned while setting fires. MBIRS, 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 (DFS) and the Department of Public Health (DPH). This burn registry also provides valuable data on the nature of the burn problem in the Commonwealth. In 2020, the 35th full year of the MBIRS, 39 acute care hospitals and other health care facilities reported 416 victims of burns, 47 of these victims received care at two Massachusetts hospitals and were reported to the system twice, for a true total of 369 victims.

Massachusetts is renowned for its medical institutions and in particular for the advanced treatment available for burn and trauma victims. Many advances in treatment, which have allowed 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 into the modern era following the 2003 nightclub fire at The Station in West Warwick, RI.

Statutory Authority for MBIRS in MGL Ch. 112, Sec. 12A
According to Massachusetts General Law (M.G.L.) 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.

MBIRS Has Two Main Purposes — Identifying Arsonists and Preventing Burns
As they have since the program started, investigators continue to use MBIRS data to identify arsonists who may have received treatment 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.

MBIRS is no longer solely an investigative tool, however. Its data is also used to identify problems that need to be addressed by public education, regulation, or the development of appropriate intervention strategies. Understanding the types of activities that contribute to burn injuries, whether these injuries are seasonal and how old the victims are all help to develop and implement effective prevention programs. We appreciate the efforts of the many dedicated doctors, nurses and administrative personnel who report the burn injuries promptly and completely. They make the program work.

DPH Alerts OSHA to Severe Burn Injuries in the Workplace
DPH notifies one of the three Occupational Safety and Health Administration (OSHA) area offices about those companies in which an employee was burned as a result of explosions, chemical exposures, electrocutions, or other incidents that appeared to indicate likely violations of OSHA standards. In 2020, six burn injuries were referred to OSHA.

76% of Burns Occurred in the Victim's Home
Of the 369 burn injuries reported to MBIRS in 2020, 281, or 76%, occurred in the victim's home or surrounding yard. Of this number, 51% were scalds. Eleven (11), or 5%, of the home-related burn injuries resulted in the victim succumbing to his or her injuries.

Scalds Caused 44% of Reported Burn Injuries
Scalds have been the leading cause of burn injuries for the past 35 years. In 2020, scalds caused 162, or 44%, of the total burn injuries reported to MBIRS. Cooking liquids were the leading cause of scald burns, causing 36% of all scalds and 18% of all burn injuries. Hot beverages, hot food, and hot tap water also caused significant numbers of scald burns.

Keep Hot Liquids Away from Babies and Preschoolers
In 2020, young children were the most frequent victims of scald burns. Though the comprise just 6% of the state's population, children under five years old accounted for 48% of the 162 scald victims reported in 2020.

Burns from Fires Cause the 2nd Most Burn Injuries
Burn injuries from fires were the second leading cause of burn injuries in 2020, accounting for 25% of the total number. Campfire or bonfires caused 52% of all burn injuries from fires. Flame burns caused 18% of the 2020 burn injuries. Cooking activities caused 32% of these flame burns in 2020.

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 Peter J. Ostroskey invites fire, health and medical professionals, classroom and community educators, day care teachers and elder service workers to join with him in making the citizens of the Commonwealth safer from burn injuries.

Burn Injury Reports by Hospital

Thirty-nine (39) of the acute care health care facilities in Massachusetts submitted a total of 416 burn injury reports for 369 victims to the Massachusetts Burn Injury Reporting System (MBIRS). 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 Submit Written Reports
Health care facilities have a choice about how to report burn injuries. Health care providers may fax their burn injury reports to the State Fire Marshal at the Department of Fire Services, (978) 567-3199. A completed fax transmission or written notification satisfy the provisions of the law.

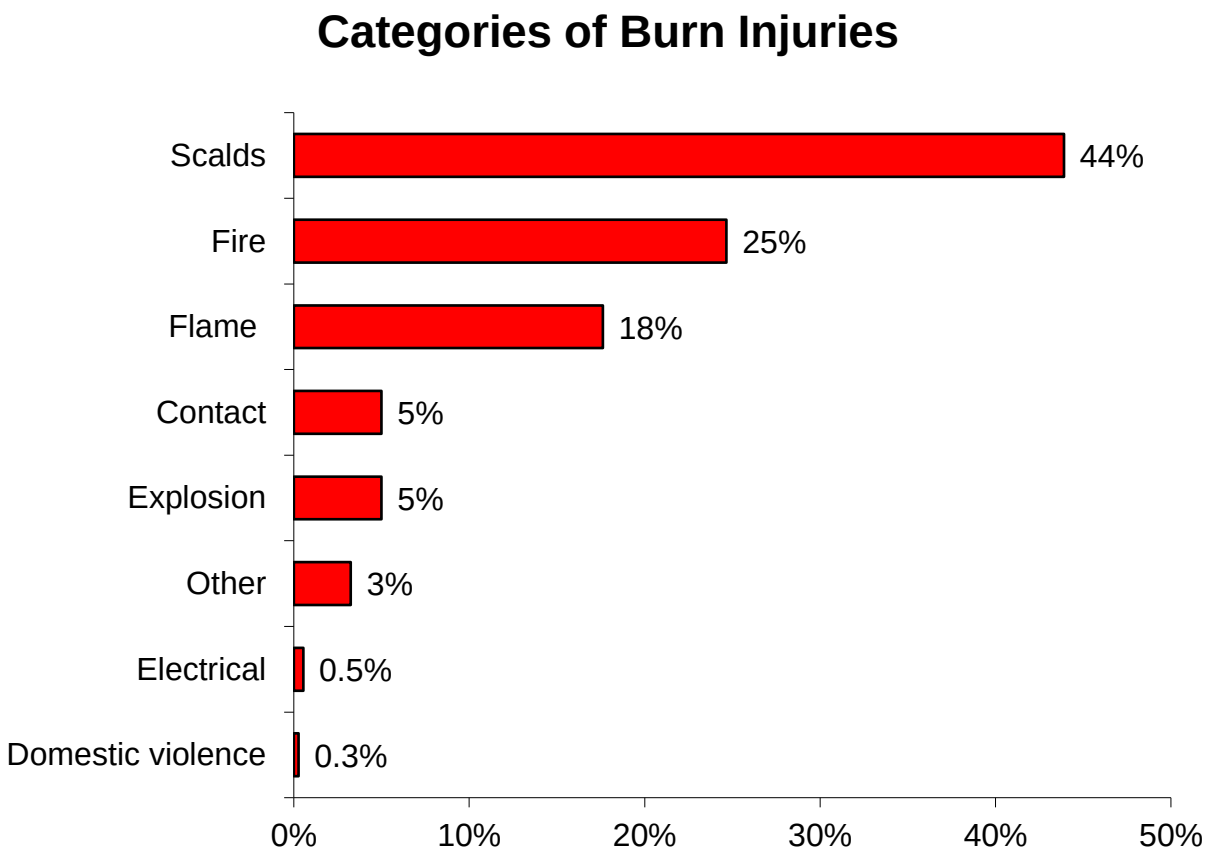
Although MBIRS was instituted under the Office of the State Fire Marshal in June of 1984, Massachusetts hospitals have been required to report burn injuries to a government agency since 1973. MBIRS, along with the Office of the State Fire Marshal, was carried over to the newly created Department of Fire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

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

Causes of Burn Injuries

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

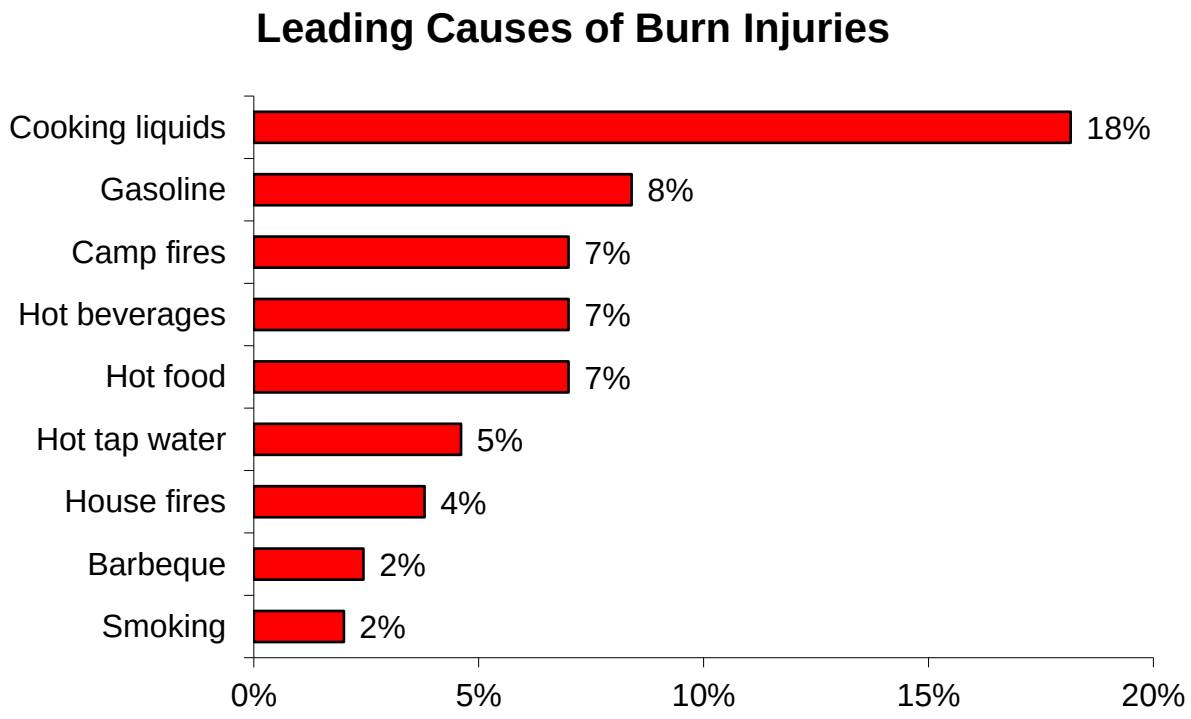
Half of All Burn Victims Never Come Near a Flame
Scalds from cooking liquids, hot liquids, tap water, food and steam caused 44% of the 369 burn injuries reported in 2020. Twenty-five percent (25%) were caused by burns from fires. Flame burns caused 18% of the burns.



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

Type of Incidents Causing Burn Injuries

Look at Specific Causes and Equipment to Develop Prevention Strategies
To develop effective burn prevention policies and programs, we must first look at the specific items or behaviors that caused the burns. Regardless of the type of burn, 18% of the 369 burn injuries reported in 2020, were from cooking liquids. Eight percent (8%) of the burns were caused by gasoline. Campfires, hot food and hot beverages each caused 7% of the total burns. For more information, please refer to the table *Specific Causes of Burn Injuries* in the Appendix.



Burn Injuries Caused by Scalds

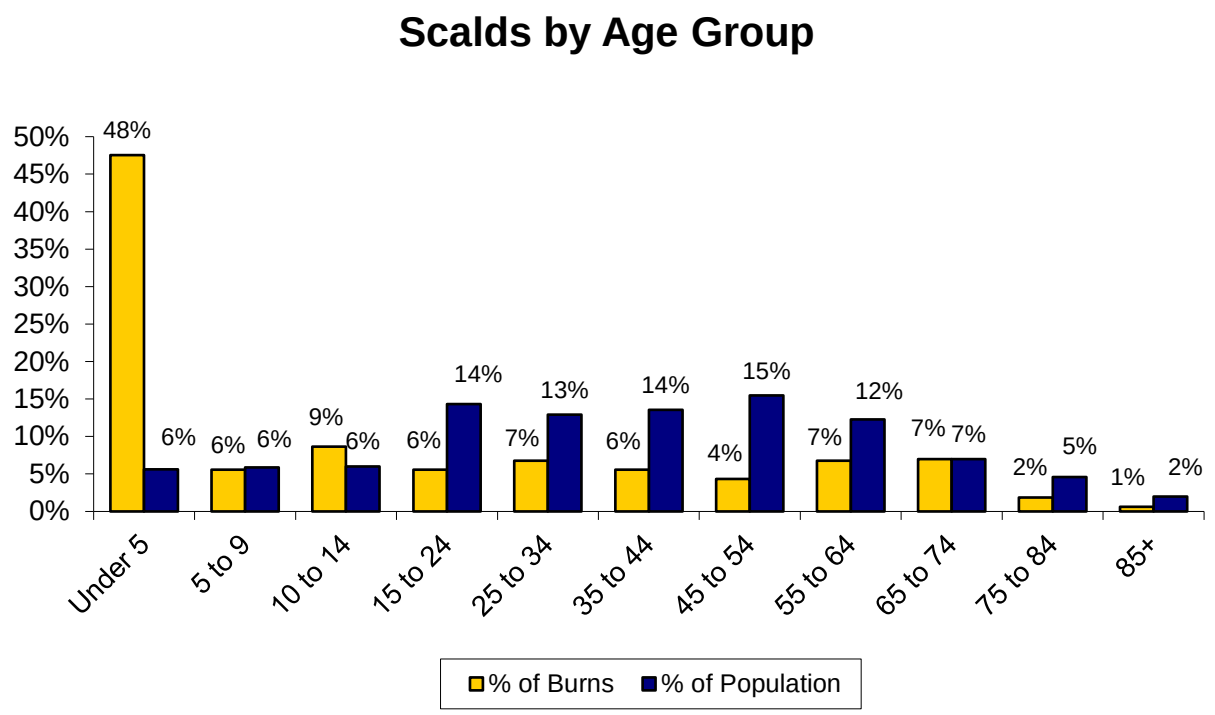
Scalds Are the Leading Cause of Burn Injuries Every Year
Scalds have been the leading cause of burn injuries every year since the inception of MBIRS. The percentage of total burns has ranged from a high of 50% in 2017 to a low of 35% in 2005. The 10-year average from 2011 through 2020 is 46% of total annual reported burns.

Scalds Caused 44% of All Burns in 2020
One hundred and sixty-two (162), or 44%, of the 369 burns reported in 2020 were scalds. Ten (10), or 6%, of the 162 scalds occurred while the victim was working. Ninety-eight (98), or 60%, of the 162 scald victims were male and 64, or 40%, were female.

Gender	# of Burns	% of Scalds
Female	64	40%
Male	98	60%
Total	162	100%

Children Under 5 Were Most at Risk for Scald Burns

Young children were the most frequent victims of scald burns. According to the 2010 U.S. Census, children under the age of five comprise 6% of the Massachusetts population. However, that same age group accounted for 48% of all scald burns in 2020. Fifty-six (56), or 35%, were infants one year old or younger. Children aged five to nine accounted for 6% of scald burn injuries.



When an age group's percentage of burns is higher than its percentage of the overall population, that age group is considered to be at a disproportionate risk of that type of injury. Pre-schoolers were at a greatly disproportionate scaled risk: they suffered scald burns at 8.5 times higher than their appearance in the overall population. The only other age groups at a disproportionate risk were children between the ages of 10 to 14 and older adults between 65 and 74.

Cooking Liquids Were the Leading Cause of All Scald Burns

For many years hot beverages were the leading cause of scald burns. Since 2010, however, cooking liquids have been the leading cause of scald burns. This continued in 2020 when cooking liquids accounted for 36% of all scald burns. Scalds from hot beverages caused 28% and hot food caused 15% of the 162 scald burns.

Description	# of Burns	% of Scald Burns	% of All Burns
Cooking	91	52%	22.8%
Cooking Liquids	59	36%	16.0%
Hot Food	24	15%	6.5%
Pressure Cooker	8	5%	2.2%
Hot Beverages	46	28%	12.5%
Hot Tap Water	17	10%	4.6%
Assault	1	1%	0.3%
Boiler	1	1%	0.3%
Car Radiator	1	1%	0.3%
Firefighter	1	1%	0.3%
Radiator	1	1%	0.3%
Steam	1	1%	0.3%
Not Reported	2	2%	0.3%
Total	162	100%	43.9%

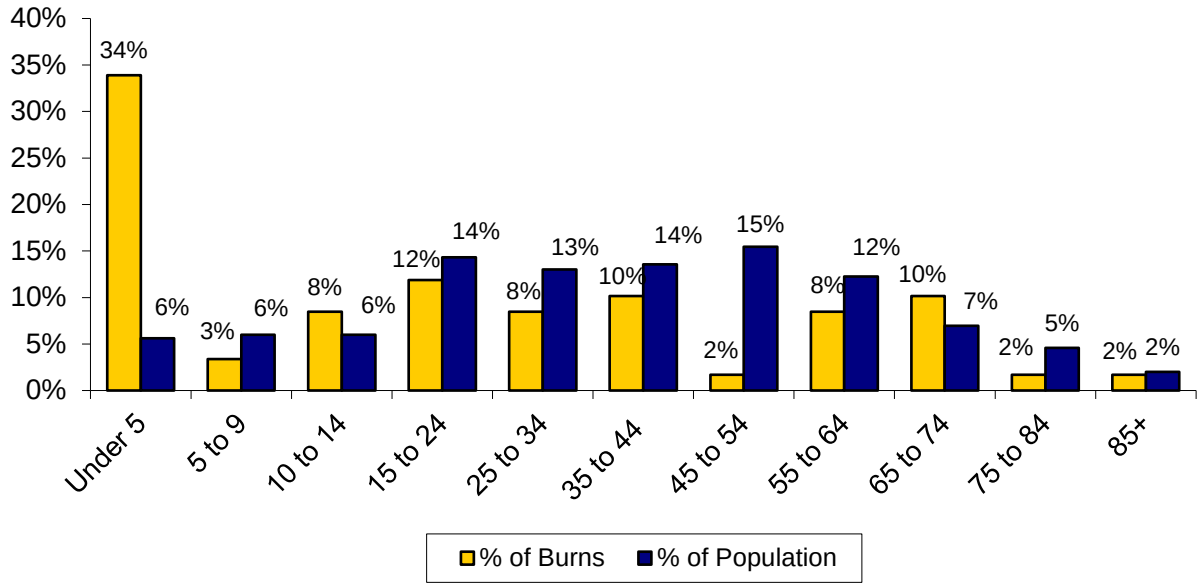
Hot Cooking Liquids

Hot Cooking Liquids Caused 36% of Scalds, 16% of All Burns
Scald burns from hot cooking liquids were the leading cause of all burn injuries. Hot cooking liquids, which includes boiling water, grease and oil, caused 59, or 36%, of the 162 scald burns and 16% of the 369 total burn injuries reported in 2020. Sixty-eight percent (68%) of the victims were female and 32% were male. Hot cooking liquids scalded six people while they were at work; all six were men.

34% of Cooking Liquid Scald Victims Were Under 5
Those most likely to be under foot in the kitchen were most at risk to be burned by hot liquids on the stovetop. In 2020, 34% of the cooking liquid scald victims were children under five years old. They were six times more likely to be victims of a hot cooking liquid scald because they are only 6% of the total population. This risk is most likely the result of children being too close to ovens and stoves as adults prepare meals. Establishing a three-foot “No Kid Zone” around stoves and putting toddlers safely in highchairs or playpens during meal preparation can reduce these injuries.

Children between 10 and 14 and older adults between the ages of 65 and 74 also faced elevated scald risks, though not nearly as high as that of young children.

Hot Cooking Liquid Scalds by Age Group

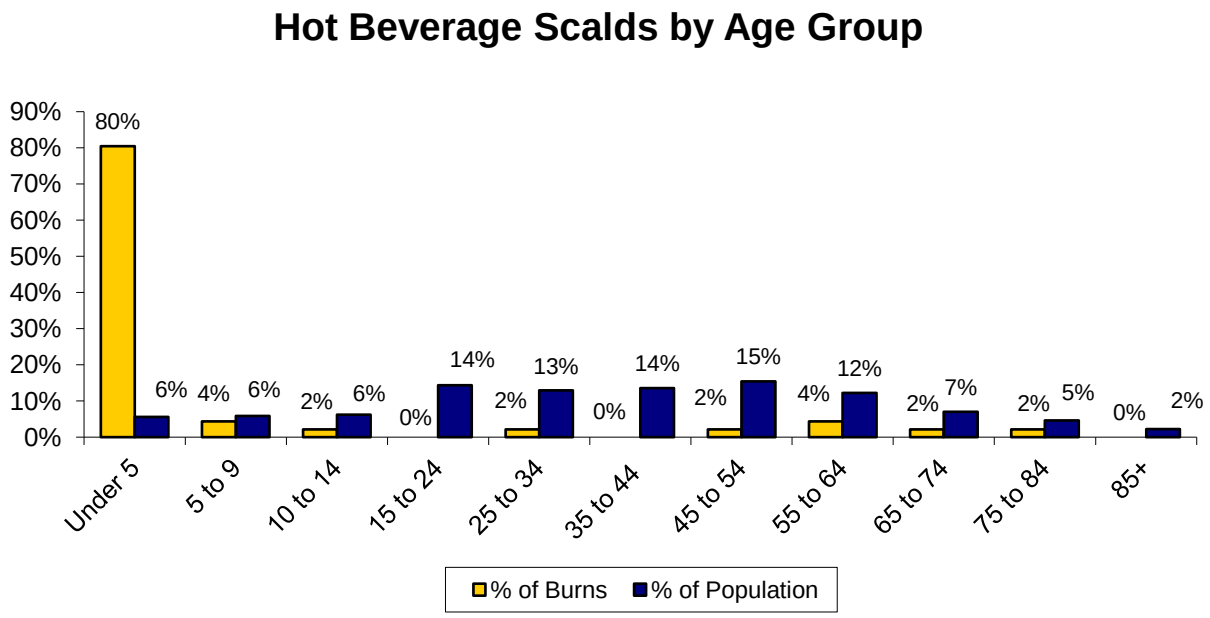


Hot Beverages

Hot Beverages Caused 28% of All Scalds
Forty-six (46), or 28%, of the 162 scald burns in 2020 were caused by hot beverages. They accounted for 12% of the 369 total burn injuries.

Sixty-three percent (63%) of the hot beverage scald victims were male and 37% were female. In 2020, there were no reported hot beverage scalds while working.

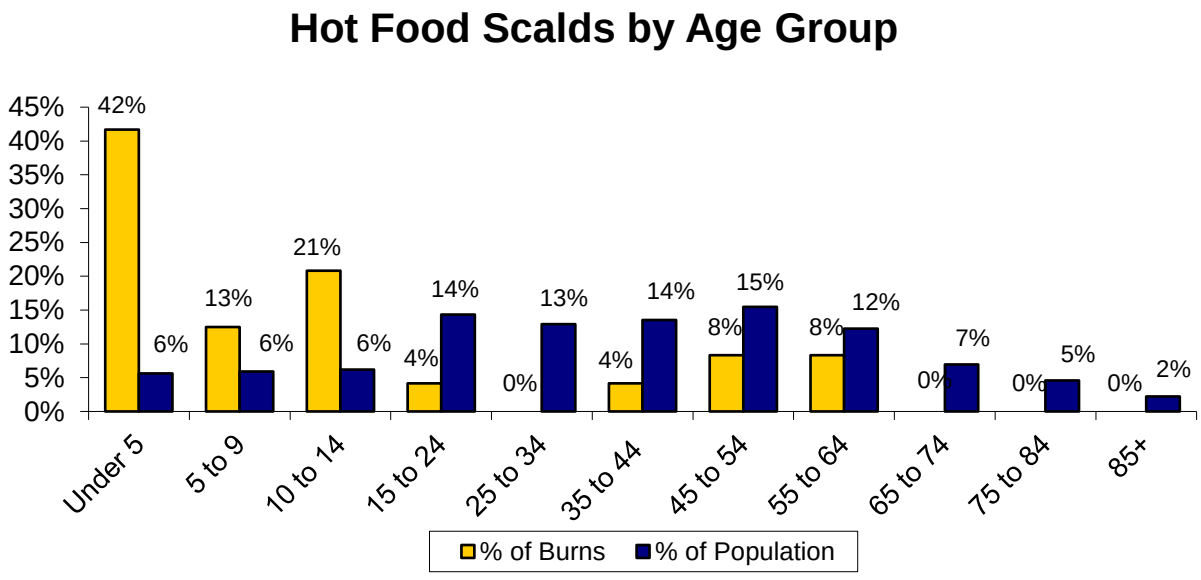
80% of the Hot Beverage Scald Victims Were Under 5
Thirty-seven (37), or 80%, of all hot beverage scald victims were under five years old.



Hot Food

Hot Food Caused 15% of Scalds, 7% of All Burns
Hot food caused 24, or 15%, of the 162 scald burns and 7% of the 369 total burn injuries reported in 2020. Fifty-four percent (54%) of the victims were female and 46% were male. There was one work-related hot food scald reported in 2020, the victim was male.

Over 1/2 of Hot Food Scald Victims Were Under 10
Of the 24 reported scald victims from hot food in 2020, 13, or 54%, were under the age of 10. Ten (10), or 42%, were under five years old and three victims were between five and nine.

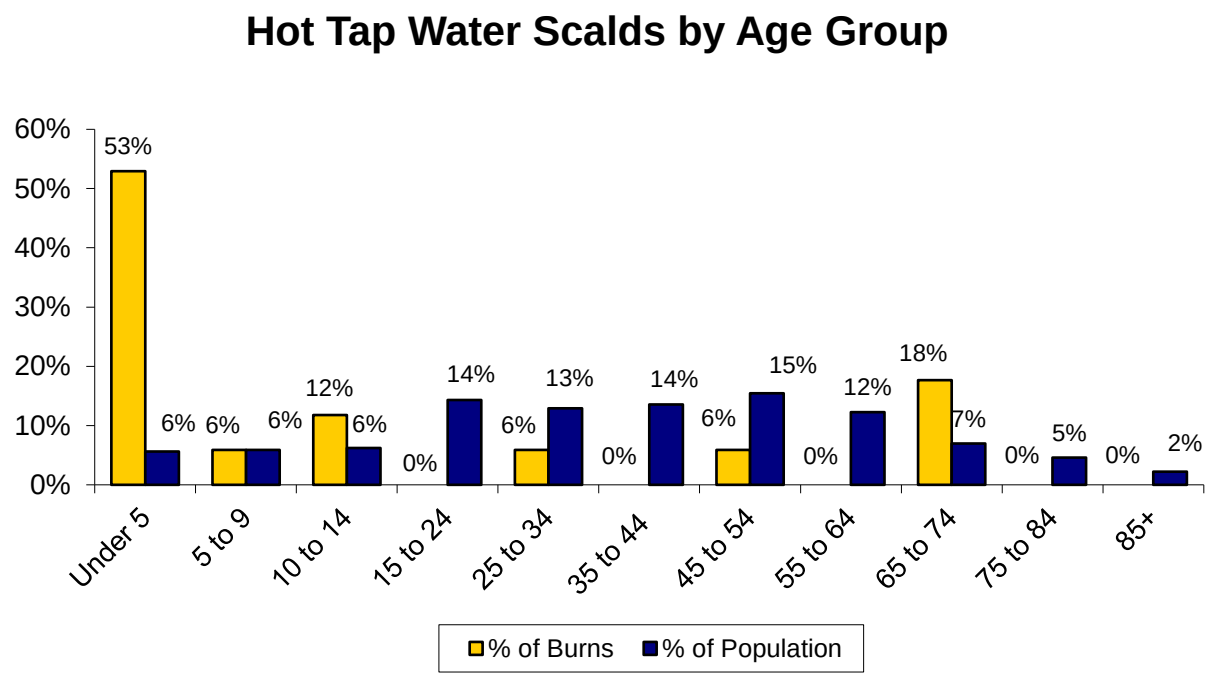


Hot Tap Water

Hot Tap Water Caused 10% of All Scalds & 5% of All Burns
Excessively hot tap water caused 17, or 10%, of the 162 scald burns and 5% of the 369 total burn injuries reported to MBIRS in 2020. Hot water heaters should be set to temperatures of 125º Fahrenheit or lower. Massachusetts law states that the temperature must be set between 110º and 130ºF 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 155ºF it takes only one second to sustain a third-degree burn. At 130ºF it takes thirty seconds. At 120ºF it can take a full five minutes to sustain a third-degree burn.[2].

In 2020, 53% of the hot tap water scald victims were male and 47% were female. There were no work-related hot tap water scald burns in 2020.

53% of Tap Water Scald Victims Were Under the Age of 5
Nine (9) of the 17 hot tap water scald victims, or 53%, 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.



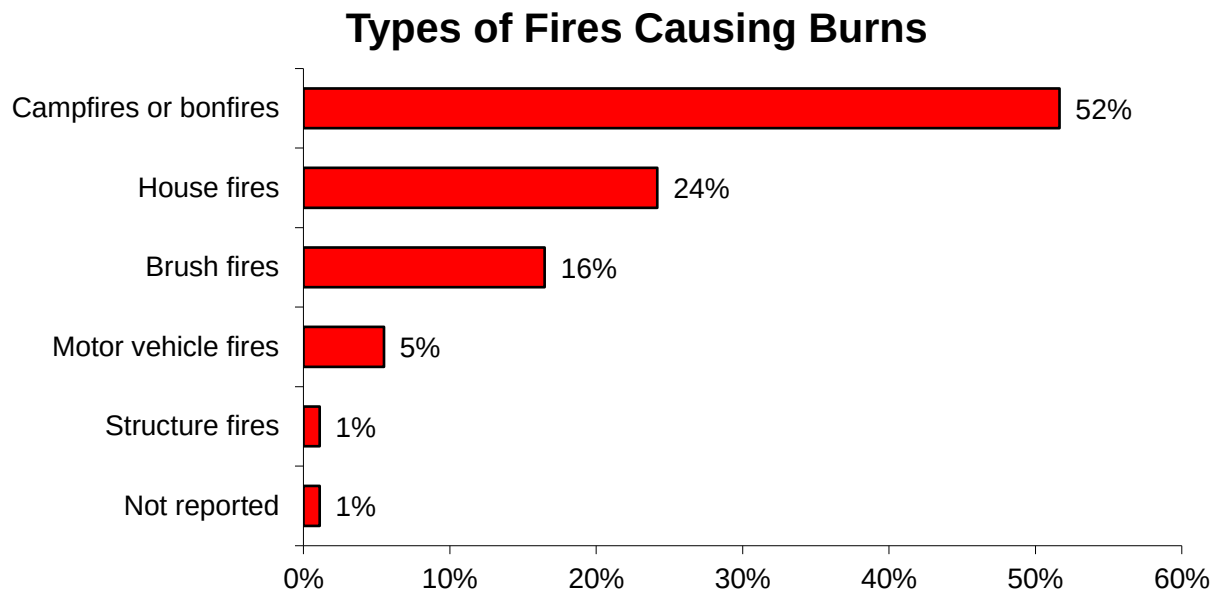
[2] Source: Knapp Burn Foundation

Burn Injuries Caused by Fires

Fires Caused 25% of All Burn Injuries
Ninety-one (91) of the 369 burn injuries reported in 2020, or 25%, were caused by fires. This is a 36% increase from the 67 fire burns reported the previous year. The highest annual number of burn injuries from a fire were the 96 reported in 2003, a figure that excludes the 26 burn victims from the fire at The Station nightclub who were treated in Massachusetts.

Seventy-four percent (74%) of the 91 victims were male and 26% were female. Analysis of data from the Massachusetts Fire Incident Reporting System (MFIRS) found that the majority of fire injuries occurred while victims were escaping or attempting to control the fire and that men were more likely than women to attempt to control the fire and become injured[3].

52% of Fire Burn Injuries Occurred at Campfires or Bonfires
Campfires or bonfires caused 47, or 52% of the 91 fire burn injuries reported in 2020. House fires caused 22, or 24%.



[3] 2020 Annual Report of the Massachusetts Fire Incident Reporting System, MA Dept. of Fire Services, pg. 111.

Fire Type	Description of Burn	# of Burns	% of Total
House Fire	House Fire	14	16%
House Fire	Smoking	3	3%
House Fire	Candle	1	1%
House Fire	Cigarette	1	1%
House Fire	Cooking	1	1%
House Fire	Incense	1	1%
House Fire	Space Heater	1	1%
House Fires		**22**	**24%**
Structure Fire	Woodstove	1	1%
Structure Fire		**1**	**1%**
MV Fire	Boat Fire	2	2%
MV Fire	MV, Other	1	1%
MV Fire	Propane	1	1%
MV Fire	Rescue Attempt	1	1%
MV Fires		**5**	**6%**

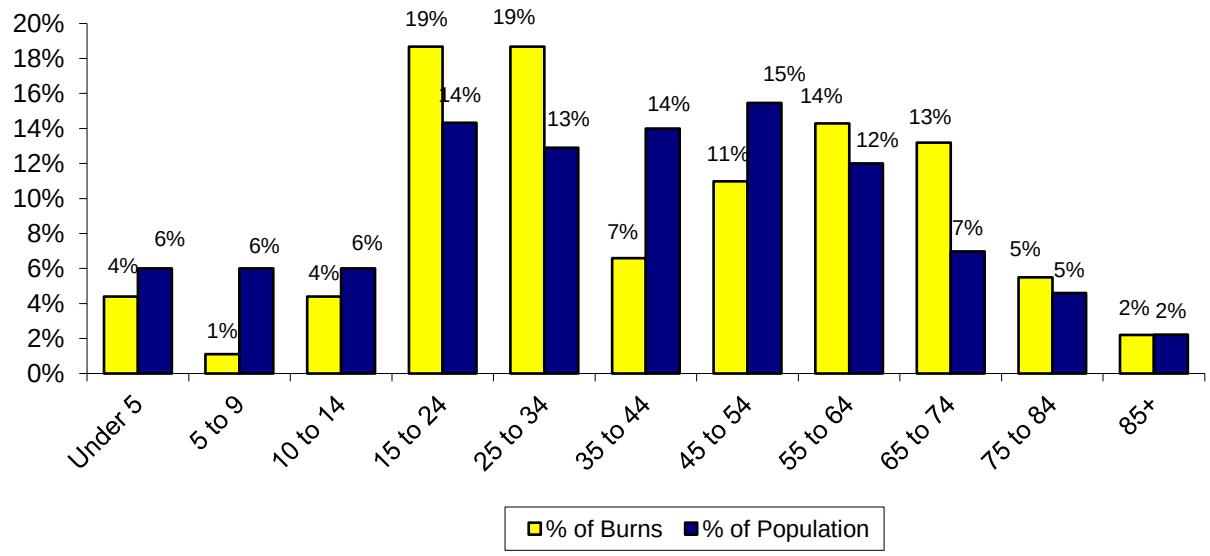
Fire Type	Description of Burn	# of Burns	% of Total
Brush Fire	Clothes	5	6%
Brush Fire	Gasoline	5	6%
Brush Fire	Brushfire	2	2%
Brush Fire	Brush/Clothes	1	1%
Brush Fire	Ignitable Liquids	1	1%
Brush Fire	Not Reported	1	1%
Brush Fires		**15**	**17%**
Campfires or Bonfire	Campfire	27	30%
Campfires or Bonfire	Gasoline	11	12%
Campfires or Bonfire	Bonfire	4	4%
Campfires or Bonfire	Ignitable Liquids	3	3%
Campfires or Bonfire	Embers	2	2%
Campfires or Bonfires		**47**	**52%**
Not Reported	Unknown	1	1%
Not Reported	**Unknown**	**1**	**1%**
Total Fires		**91**	**100%**

Young Adults 15-24 & Adults 25-34 Had Most Burns from Fires

Young adults between 15 and 24 years old and adults between the ages of 25 and 34 had the greatest number of reported burns from fires. These age groups each had 17 burns from fires, suffering these injuries at rates 1.3 and 1.4 times greater than their percentage of representation in the state's population.

Older adults between 65 and 74 had the most disproportionate risk of being burned in a fire: they represent 7% of the population but 13% of the fire burn injury victims in 2020.

Age	# of Burns	% of Burns	% of Population
Under 5	4	4%	6%
5 to 9	1	1%	6%
10 to 14	4	4%	6%
15 to 24	17	19%	14%
25 to 34	17	19%	13%
35 to 44	6	7%	14%
45 to 54	10	11%	15%
55 to 64	13	14%	12%
65 to 74	12	13%	7%
75 to 84	5	5%	5%
85+	2	2%	2%
Total	91	100%	100%



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 MBIRS. Consequently, the human cost of fires is under-reported in this analysis. Smoke inhalation, cuts, fractures and less severe burns incurred while fighting or fleeing the fire are not recorded here. Most fire deaths are not recorded in MBIRS; only the severely burned who survive for a period of time and die later in a hospital are reported. Properly maintained smoke alarms and residential sprinklers could prevent many of the injuries caused by fires. Alarms sound an early warning to leave the area and quick-response sprinklers can control or possibly extinguish a fire in its earliest stages, thus preventing injuries.

Refer to MFIRS Annual Report for More Information about Fires

For more information about the causes of fires and fire-related casualties, please refer to the MFIRS annual reports. 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.

10 Fire Deaths Recorded in MBIRS

Ten (10) of the victims that were reported to have received their burn injuries from fires died as a result of their injuries. Eight (8) of the victims were Massachusetts residents and died in residential fires. One (1) victim was a Massachusetts resident and died in a brush fire and the other person was a Vermont resident who died in a residential fire.

Flame Burn Injuries

Flames Caused 18% of Reported Burn Injuries
There were 65 reported flame burn injuries in 2020, accounting for 18% of the 369 burn injuries. A burn is said to result from flame when the fire is confined to the victim or the victim's clothing. When a wider area burns, the cause of the injury is considered a fire. Burns caused by self-immolation, smoking in bed, or burning clothing usually result from flames.

Seventy-two percent (72%) of the flame burn casualties were male and 28% were female. Two (2), or 3%, of the flame burns occurred during work-related activities; both victims were men.

Cooking & Ignitable Liquids Were the Leading Cause of Flame Burns
The 21 flame burn injuries caused by cooking represent 32% of all flame burns. Ignitable liquids were the second leading cause with 13 injuries, or 20%.

Description	# of Burns	% of Flame	% of All Burns
Cooking	21	32%	5.7%
Cooking Liquids	8	12%	2.2%
Barbeque	6	9%	1.6%
Cooking Unspecified	4	6%	0.5%
Stove	2	3%	0.5%
Gas Stove	1	2%	0.3%
Ignitable Liquids	13	20%	3.5%
Gasoline	10	15%	2.7%
Ignitable Liquids	3	5%	0.8%
Smoking	6	9%	1.6%
Smoking Unspecified	4	6%	1.1%
Pipe	1	2%	0.3%
Smoking in Bed	1	2%	0.3%
Propane	4	6%	1.1%
Child Play	3	5%	0.8%

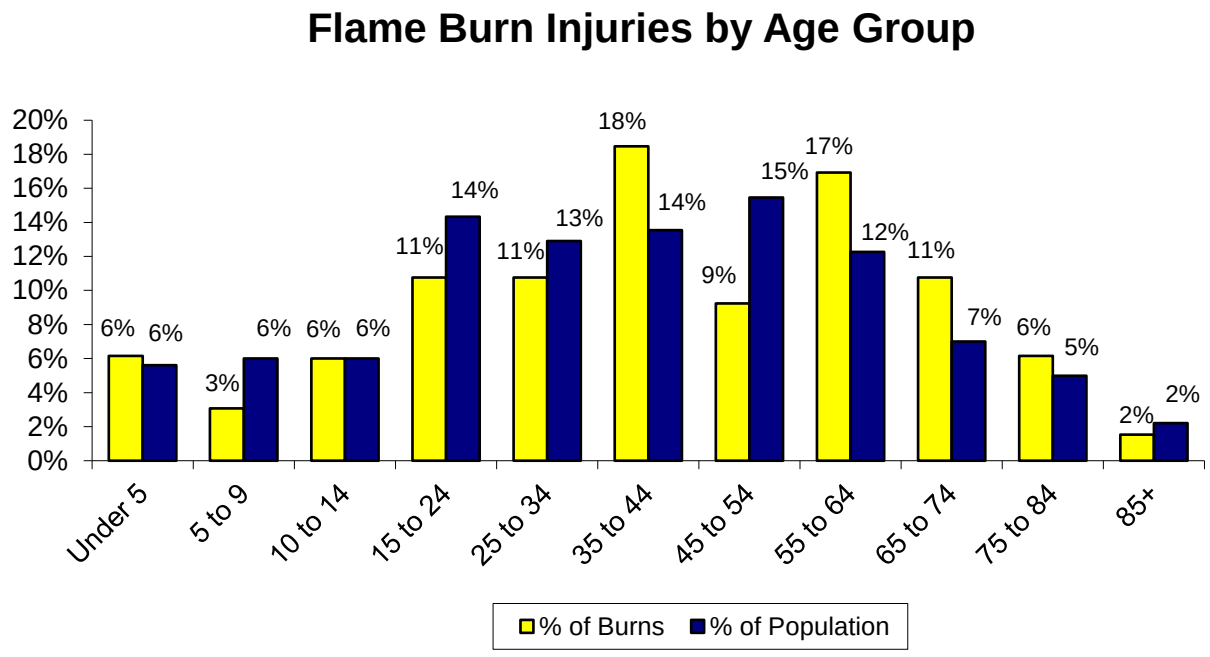
Description	# of Burns	% of Flame	% of All Burns
Candle	2	3%	0.5%
Clothes Unspecified	2	3%	0.5%
Engine	2	3%	0.5%
Heater	2	3%	0.5%
Self-Immolation	2	3%	0.5%
Hot Works	2	3%	0.5%
Cutting Torch	1	2%	0.3%
Welding	1	2%	0.3%
Car Part	1	2%	0.3%
Fire Cupping	1	2%	0.3%
Flashburn	1	2%	0.3%
Kiln	1	2%	0.3%
Lawnmower	1	2%	0.3%
Lighter	1	2%	0.3%
Total	63	100%	17.6%

Adults 35 to 44 Had Most Flame Burns
Adults between the ages of 35 and 44 had 12 reported flame burn injuries, the most of any age group.

Age	# of Burns	% of Burns	% of Population
Under 5	4	6%	6%
5 to 9	2	3%	6%
10 to 14	4	6%	6%
15 to 24	7	11%	14%
25 to 34	7	11%	13%
35 to 44	12	18%	14%
45 to 54	6	9%	15%
55 to 64	11	17%	12%
65 to 74	7	11%	7%
75 to 84	4	6%	5%
85+	1	2%	2%
Total	65	100%	100%

Older Adults 65 to 74 Faced Highest Disproportionate Risk of Flame Burns

Five (5) groups were at a higher risk for burns from flames. Older adults between the ages of 65 and 74 comprise just 7% of the state's population but 11% of flame burn injuries in 2020, putting them at the greatest risk for these injuries relative to their population numbers in the Commonwealth. Adults between the ages of 35 to 44 and 55 to 64 also faced elevated risk for flame burns. Older adults between 75 and 84 and children under five were at slightly elevated risk.



Clothing Ignitions

Clothing Ignitions Account for 17% of Flame Burn Injuries
There were 11 clothing ignitions resulting in flame burn injuries, accounting for 17% of all flame burn injuries. Cooking was the leading cause of clothing ignitions with six reported in 2020.

Clothing Ignitions	# of Flame Burns	% of All Flame Burns
Cooking	6	9%
Candle	2	3%
Welding	1	2%
Lighter	1	2%
Heater	1	2%
Total	11	17%

Burn Injuries Caused by Explosions

Explosions Caused 5% of Reported Burn Injuries
Seventeen (17), or 5%, of the 369 burn injuries reported in 2020 were caused by explosions. Eighty-eight percent (88%) of the victims were male and 12% were female.

Six (6) burns, or 35%, occurred during work-related activities. Five (5) victims were men and one was a woman.

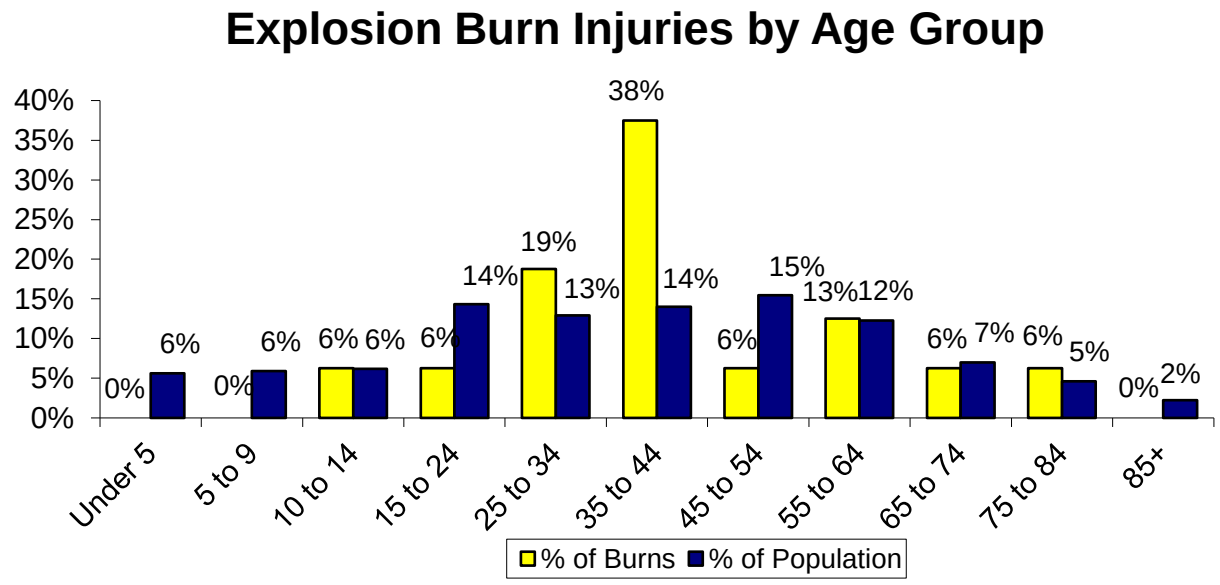
Gasoline Was the Leading Cause of Explosion Burn Injuries
Gasoline caused four explosion-related burn injuries and propane accounted for three in 2020.

Description	# of Burns	% of Explosion	% of All Burns
Gasoline	4	24%	1.1%
Propane	3	18%	0.8%
Aerosol	2	12%	0.5%
Flammables	2	12%	0.5%
Cooking	2	12%	0.5%
Barbeque	1	6%	0.3%
Barbeque Gas	1	6%	0.3%

Description	# of Burns	% of Explosion	% of All Burns
Heating	2	12%	0.5%
Gas Furnace	1	6%	0.3%
Heater	1	6%	0.3%
Drugs	1	6%	0.3%
Fireworks	1	6%	0.3%
Total	17	100%	4.6%

Adults Have Most Explosion Burns
Six (6) adults between the ages of 35 and 44 suffered explosion-related burn injuries, accounting for 38% of all these burns. Adults between the ages of 25 and 34 had the next most burn injuries from explosions with three, accounting for 19%.

Age	# of Burns	% of Burns	% of Population
Under 5	0	0%	6%
5 to 9	0	0%	6%
10 to 14	1	6%	6%
15 to 24	1	6%	14%
25 to 34	3	19%	13%
35 to 44	6	38%	14%
45 to 54	1	6%	15%
55 to 64	2	13%	12%
65 to 74	1	6%	7%
75 to 84	1	6%	5%
85+	0	0%	2%
Total Known	16	100%	100%
Not reported	1		
Total	17		



1 Dies from Injuries in Explosion
In 2020 one person died from burn injuries sustained in an explosion.

Contact Burn Injuries

Contact with Hot Objects Caused 5% of Reported Burn Injuries
Of the 369 burn injuries reported in 2020, 19, or 5%, were caused by contact with hot objects. Fifty-eight percent (58%) of these victims were male and 42% were female. There were three reports of contact burns that occurred at work in 2020. All three victims were male.

Cooking Was the Leading Cause of Contact Burns

Contact with cooking appliances caused five, or 26%, of the contact burns in 2020. Contact with hot wax caused three, or 16%, of these burns.

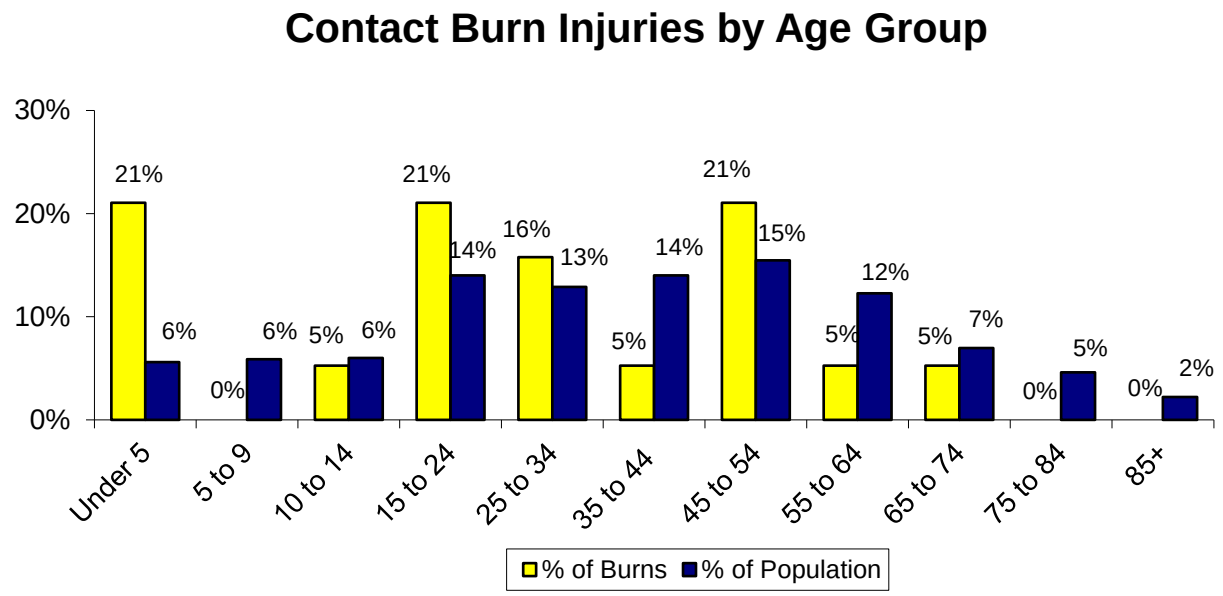
Description	# of Burns	% of Contact	% of All Burns
Cooking	5	26%	1.4%
Stove	2	11%	0.5%
Barbeque	1	5%	0.3%
Cooking	1	5%	0.3%
Oven	1	5%	0.3%
Wax	3	16%	0.8%
Heater	2	11%	0.5%

Description	# of Burns	% of Contact	% of All Burns
Heating Pad	2	11%	0.5%
Machine	2	11%	0.5%
Clothes Iron	1	5%	0.3%
Contact	1	5%	0.3%
Gasoline	1	5%	0.3%
Metal	1	5%	0.3%
Propane	1	5%	0.3%
Total	19	100%	5.1%

21% of Contact Burns Were to Children Under 5

Children under the age of five, young adults between the ages of 15 and 24 and adults aged 45 to 54 each accounted for four, or 21% of these burns. Children under the age of five represent just 6% of the population, however, and so faced a greatly disproportionate risk of a contact burn injury.

Age	# of Burns	% of Burns	% of Population
Under 5	4	21%	6%
5 to 9	0	0%	6%
10 to 14	1	5%	6%
15 to 24	4	21%	14%
25 to 34	3	16%	13%
35 to 44	1	5%	14%
45 to 54	4	21%	15%
55 to 64	1	5%	12%
65 to 74	1	5%	7%
75 to 84	0	0%	5%
85+	0	0%	2%
Total	19	100%	100%



Other Types of Burn Injuries

Other Burns Cause 12 Injuries

In 2020, there were 12 burn injuries that were characterized as *Other*. These 12 injuries caused 3% of all 2020 burn injuries. Chemicals caused six burns, or 50%, sunburns caused five, or 26%, and one, or 8%, was reported as Unknown.

Description	Total # of Burns	% of Other Burns
Chemical	6	50%
Sunburn	5	42%
Unknown	1	8%
Total Other Burns	12	100%

All but one of the 12 victims were men. Health care facilities reported that three, or 23%, were working when injured. Exposure to chemicals caused all three of these work-related injuries; and all three victims were men.

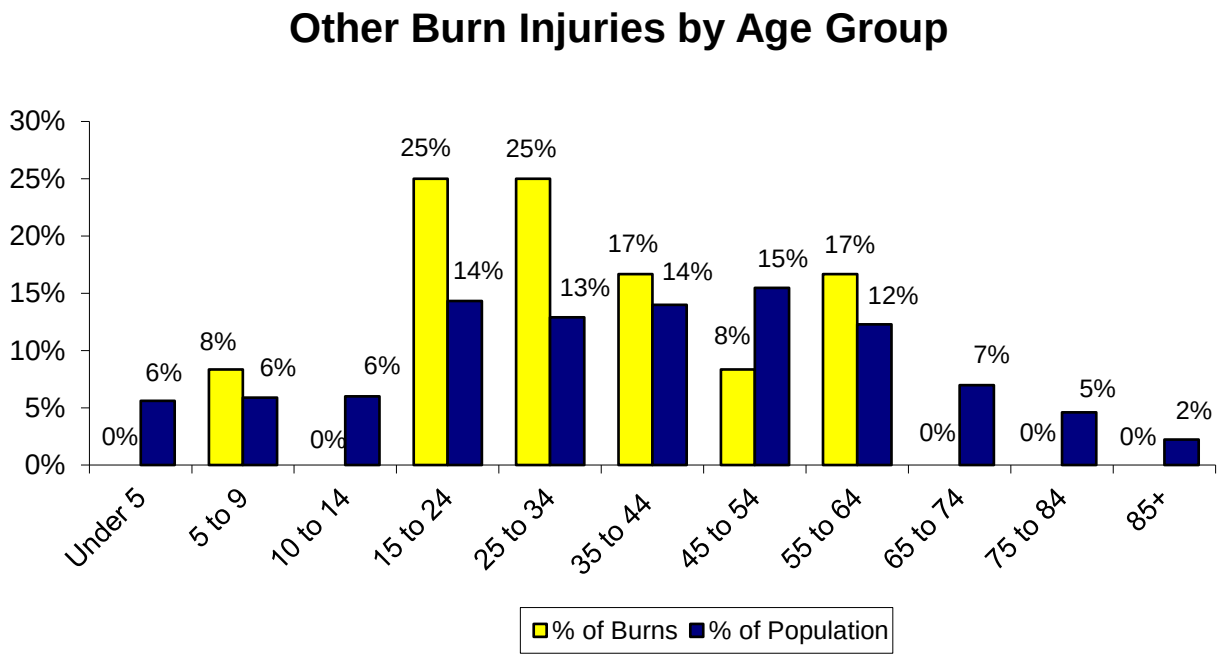
Adults Were the Majority of _Other_ Burn Victims

In 2020, 75% of the victims were between the ages of 15 and 54 years old.

Age	# of Burns	% of Burns	% of Population
Under 5	0	0%	6%
5 to 9	1	8%	6%
10 to 14	0	0%	6%
15 to 24	3	25%	14%
25 to 34	3	25%	13%
35 to 44	2	17%	14%
45 to 54	1	8%	15%
55 to 64	2	17%	12%
65 to 74	0	0%	7%
75 to 84	0	0%	5%
85+	0	0%	2%
Total	12	100%	100%

Young Children & Adults at Higher Risk

In 2020, there were six age groups that reported an *Other* type burn injury. Half of these injuries were suffered by people between the ages of 15 and 34, but who collectively comprise just 27% of the population making them a higher risk to receive an *Other* type burn. To a lesser extent, children age five to nine, adults 35 to 44, and adults 55 to 64 also faced elevated burn injury risk relative to their percentage of the population.

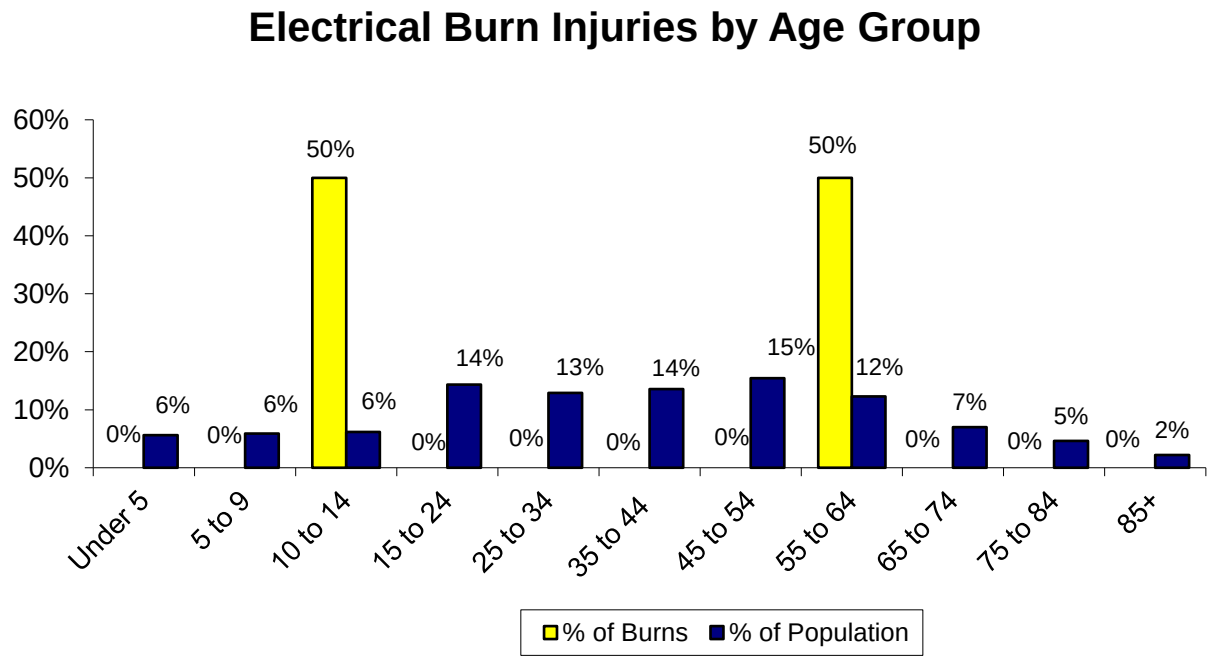


Electrical Burn Injuries

2 Electrical Incidents
Two (2), or 0.5%, of the 369 burn injuries reported in 2020 were caused by electrical accidents. Both electrical burn victims were men. One of the two occurred during work-related activities. One victim was 14-years old and the other was 59-years old.

Electrocutions Caused Both Burns
Both 2020 electrical burns were caused by electrocutions.

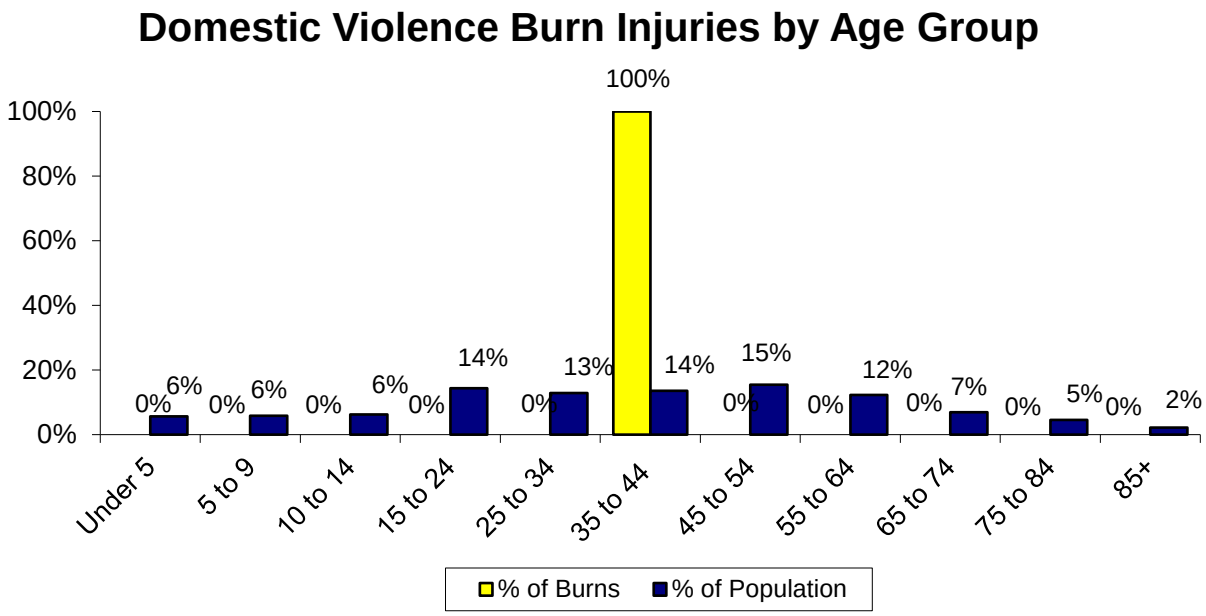
Description	# of Burns	% of Electrical Burns
Electrocution	2	100%
Total Electrical Burns	2	100%



Burn Injuries from Domestic Violence

1 Burn Injury from Domestic Violence Incidents

There was one reported burn injury in 2020 from a domestic violence incident. This incident, which involved a female victim, accounted for 0.3% of the 369 total burns in 2020.



Gasoline Related Burn Injuries

Gasoline Involved in 10% of Reported Burn Injuries
Gasoline was involved in 36, or 10%, of the 369 burns reported to MBIRS in 2020. Gasoline was the primary[4] cause in 27 of these injuries, and the secondary cause in five of the 36 injuries.

Of these 36 injuries, 18, or 50%, were caused by fires, 13, or 36%, were flame burn injuries; four, or 11%, was caused by explosions, and one, or 3%, was from contact with a hot object.

Burn Type	# of Burns	% of Gasoline Burns
Fires	18	50%
Flame	13	36%
Explosion	4	11%
Contact	1	3%
Total Gasoline	36	100%

47% of Gasoline-Related Burn Victims Were Between the Ages of 35 & 64
Young adults between 15 and 24, adults between 35 and 44, and adults between 55 and 64 each accounted for seven, or 19%, of the burns involving gasoline in 2020. Two (2), or 6%, of the injuries occurred during work-related activities. Thirty-three (33), or 92%, were men, and three,

[4] A burn injury can have a primary cause and a secondary cause. The primary cause is the most important or principal cause of the burn.

or 8% were women. The youngest victim was a two-year old boy and the oldest victim was an 82-year old man.

Age	# of Burns	% of Burns	% of Population	Risk Factor
Under 5	1	3%	6%	0.0
5 to 9	0	0%	6%	0.0
10 to 14	2	6%	6%	0.9
15 to 24	7	19%	14%	1.4
25 to 34	3	8%	13%	0.6
35 to 44	7	19%	14%	1.4
45 to 54	3	8%	15%	0.5
55 to 64	7	19%	12%	1.6
65 to 74	5	14%	7%	2.0
75 to 84	1	3%	5%	0.6
85+	0	0%	2%	0.0
Total	36	100%	100%	

Older Adults 65 to 74 Have Highest Risk for Gasoline Burns
Older adults between 65 and 75-years old had the highest risk of getting a gasoline burn. Adults between the ages of 55 to 64 had the second highest risk of getting a burn involving gasoline.

Burns Caused by Cooking Activities

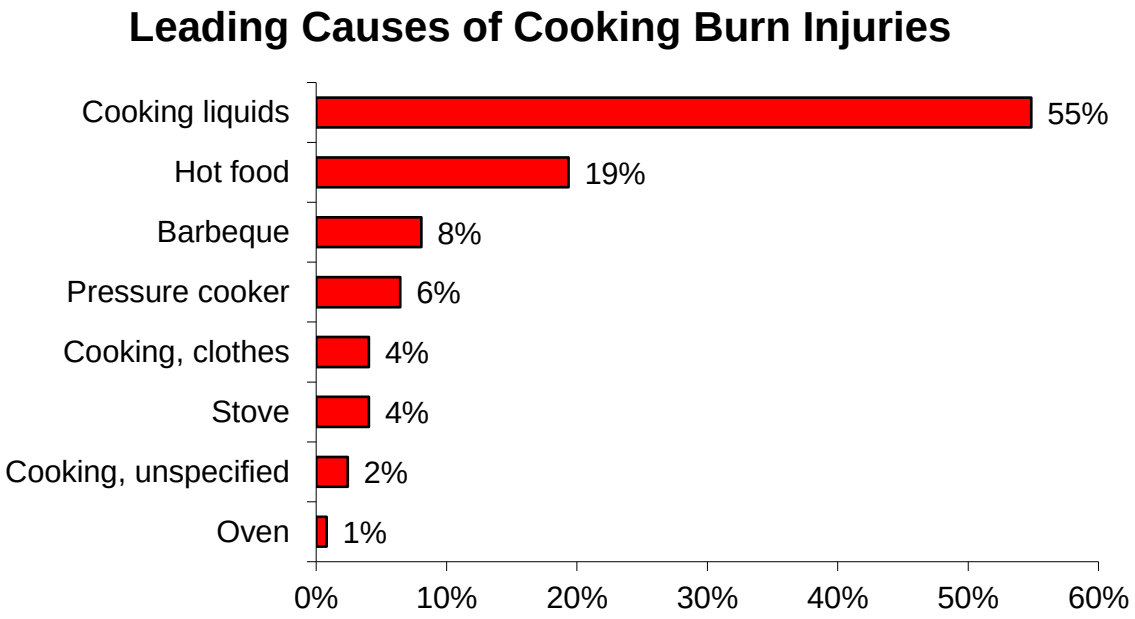
Cooking Activities Caused 34% of Reported Burn Injuries
Cooking activities caused 124, or 34% of the 369 total burn injuries reported to MBIRS in 2020. Cooking activities were the primary cause in 120 of these injuries.

Seventy-five (75), or 60%, of the 124 victims were male and 49, or 40%, were female. Seven (7), or 6%, of the people burned by cooking activities were working when injured. All seven were men.

Scalds Caused 74% of Cooking-Related Burn Injuries
Ninety-two (92), or 68%, of the 124 burn injuries caused by cooking were scalds. Twenty-four (24), or 19%, were flame burn injuries.

Burn Type	# of Burns	% of Cooking Burns
Scalds	92	74%
Flame	24	19%
Contact	5	4%
Explosion	2	2%
Fire	1	1%
Total	124	100%

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 2020. These burns accounted for 68, or 55% of all cooking-related burn injuries.



Children Under 5 Most Likely to be Burned by Cooking Activities
Children under five had the greatest risk of cooking-related burns, both in total numbers and as a percentage of the population. Children under five represent 6% of the state's residents but suffered 28% of the year's cooking-related burn injuries.

Age	# of Burns	% of Burns	% of Population	Risk
Under 5	35	28%	6%	5.0
5 to 9	5	4%	6%	0.7
10 to 14	11	9%	6%	1.5
15 to 24	11	9%	14%	0.6
25 to 34	10	8%	13%	0.6
35 to 44	16	13%	14%	1.0
45 to 54	9	7%	15%	0.5
55 to 64	12	10%	12%	0.8
65 to 74	10	8%	7%	1.2
75 to 84	3	2%	5%	0.5
85+	2	2%	2%	0.7
Total	124	100%	100%	

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

6 Clothing Ignitions while Cooking
Loose-fitting sleeves can catch fire if they come into contact with burners. In 2020 there were six reported clothing ignitions while cooking triple the number reported in 2019.

According to data collected by MFIRS, unattended and other unsafe cooking practices caused 10,913 fires in 2020. These fires caused three civilian deaths, 63 civilian injuries, 39 fire service injuries and $14.7 million in losses. Many of these people also suffered from smoke inhalation.[5]

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. Cooking liquids, gasoline and other ignitable liquids were frequent causes of burn injuries to older teens and young adults.

Age	Males	Females	Total	Difference
Under 5	57	32	89	25
5 to 9	11	2	13	9
10 to 14	14	11	25	3
15 to 24	28	13	41	15
25 to 34	34	10	44	24
35 to 44	25	12	37	13
45 to 54	17	12	29	5
55 to 64	30	11	41	19
65 to 74	23	9	32	14
75 to 84	8	5	13	3
85+	3	1	4	2
Total Known	250	118	368	132
Not reported	1	0	1	1
Total	251	118	369	133

In all age groups males were burned more frequently than females. In 2020, 250, or 68% of the 369 burn victims were male, and 118, or 32%, were female.

Burns from Fire Emerges as Leading Type of Burn to Most Age Groups
While scalds remain the leading cause of burn injuries overall, 2020 marks the first time ever that they were not the leading cause or tied for the leading cause of burn injuries to most age groups. Burns from fires were the leading cause of burns to adults between 15 and 24, 25 to 34, 45 to 54, 55 to 64 and to older adults between 65 and 74, 75 and 84, and those over 85-years old. Scalds were the leading cause of burn injuries to the three age groups between 0 and 14. Flame

[5] 2020 Annual Report of the Massachusetts Fire Incident Reporting System; MA Dept. of Fire Services; pg. 130.

burns were the leading cause of burns to adults between the ages of 35 and 44 and adults over the age of 75.

Age	Leading Cause of Burns
Under 5	Scald
5 to 9	Scald
10 to 14	Scald
15 to 24	Fire
25 to 34	Fire
35 to 44	Flame
45 to 54	Fire
55 to 64	Fire
65 to 74	Fire
75 to 84	Fire
85+	Fire

Burn Injuries by Age Group

Three (3) age groups of our population were at a greater than average risk of burn injuries in 2020. Although burn injuries were reported in all age groups, very young children suffer more than their share and are at a higher risk to be burned compared to their percentage of the state's population. Children under the age of five were 4.3 times more likely to suffer a burn injury in Massachusetts. Children 10 to 14 are 1.1 times more likely to be burned; and older adults between 65 and 74 years old are 1.2 times more likely to be burned.

Though children under five make up just 6% of the population they suffered 24% of all reported burns in 2020. Eighty-nine (89) children under age five were seriously burned in 2020, more than double the next highest age group.

Age	# of Burns	% of Burns	% of Population	Risk
Under 5	89	24%	6%	4.3
5 to 9	13	4%	6%	0.6
10 to 14	25	7%	6%	1.1
15 to 24	41	11%	14%	0.8
25 to 34	44	12%	13%	0.9
35 to 44	37	10%	14%	0.7
45 to 54	29	8%	15%	0.5
55 to 64	41	11%	12%	0.9
65 to 74	32	9%	7%	1.2
75 to 84	13	4%	5%	0.8
85+	4	1%	2%	0.5
Total Known	368	100%	100%	
Not reported	1	0.3%		
Total	369	100%		

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

Children Under 5

24% of Reported Burns Incurred by Children Under 5
Eighty-nine (89), or 24%, of the burn injuries reported to MBIRS in 2020 were incurred by children under five years old. According to the 2010 U.S. Census, only 6% of Massachusetts residents are under the age of five. Children under five were 4.3 times more likely to be burned than were members of the general population. No other age group faced a risk this high. Sixty-four percent (64%) of burned preschoolers were girls and 36% were boys.

Scalds Caused 87% of Burns to Pre-Schoolers
Scalds caused 77, or 87%, of the burn injuries incurred by children under five. Burns from fires, flame burns and contact burns each caused four burns to this age group.

Children Ages 5 to 9

4% of Reported Burn Injuries Incurred by Children 5-9 Years of Age
Thirteen (13), or 4%, of the burn injuries reported in 2020 were incurred by children between five and nine years of age. Eleven (11), or 85%, of the burn victims were boys, and two, or 15%, were girls. Children in this age bracket accounted for 6% of the population of Massachusetts and 4% of the burn injuries in 2020.

Burns from Scalds Were the Leading Cause to Children 5-9
The leading cause of burn injuries to children aged five to nine were scalds. Scalds caused nine, or 69%, of the burn injuries incurred by children aged five to nine in 2020. Flame burns caused two of these injuries; and burns from fires and *Other* burns each caused one burn injury to this age group.

Children Ages 10 to 14

7% of Reported Burns Incurred by Children 10-14 Years of Age
Children between the ages of 10 and 14 suffered 25, or 7% of the burn injuries reported in 2020. Fourteen (14), or 56%, were boys and 11, or 44%, were girls. Children in this age bracket accounted for 6% 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.

Scalds Were the Leading Cause of Burns to Children 10-14
Scalds caused 14, or 56% of the burns incurred by children aged 10 to 14. Burns from fires and flame burns each caused four injuries, burns from an explosion, a contact burn and an electrical burn each caused one injury.

Ages 15 to 24

11% of Reported Burn Victims Between 15-24 Years of Age
Teens and young adults between the ages of 15 and 24 incurred 41, or 11% of the burn injuries reported in 2020. Twenty-eight (28), or 68%, were male and 13, or 32%, were female. Young adults aged 15 to 24 accounted for 14% of the population of Massachusetts and 11% of the burn injuries in 2020. Three (3), or 9%, of the burn injuries incurred by this age group were work-related: and all were male.

41% of Burns Were from Fires
Burns from fires caused 17, or 41%, of the burn injuries to people 15 to 24 years of age. Scalds caused nine injuries. Flame burns caused seven injuries. Sunburns (*Other)* caused three injuries. One (1) injury to this age group was a burn from an explosion.

Ages 25 to 34

12% of Burns Were to Adults 25-34 Years of Age
This age group had the most reported burns in 2020. Forty-four (44), or 12% of the burn injuries reported in 2020 were incurred by people between 25 and 34 years of age. Thirty-four (34), or 77% of the victims were men and 10, or 23% were women. Five (5), or 11% of the burn injuries suffered by this age group were work-related; all six were men. People between the ages of 25 and 34 accounted for 13% of the population of Massachusetts while accounting for 12% of the total number of burn injuries reported in 2020.

Burns from Fires Caused 39% of Burn Injuries
Burns from fires accounted for 17 burns, or 39% of the burn injuries for this age group. Scalds caused 11 burns. Flame burns caused seven burns. Explosions, contact burns and *Other* type burns each caused three of the injuries to this age group.

Ages 35 to 44

10% of Reported Burn Victims Were Between 35-44 Years of Age
Thirty-seven (37), or 10%, of the burn injuries reported in 2020 occurred to people between the ages of 35 and 44. Twenty-five (25), or 68% of the victims were men and 12, or 32% of the victims were women. Adults between the ages of 35 and 44 accounted for 14% of the Massachusetts population but 10% of the reported burns in 2020. Seven (7), or 19%, of the burn injuries incurred by this age group were work-related. Three (3) of these victims were men and one was a woman.

Flame Burns Were the Leading Cause of Injuries to 35-44 Years of Age
Flame burns accounted for 12, or 32%, of the burn injuries to this age group. Scalds caused nine injuries; and explosions and burns from fires each caused six burn injuries. *Other* type burns caused two and domestic violence and contact burns each accounted for one burn injury to this age group.

Ages 45 to 54

8% of Reported Burn Injuries Were Between 45-54 Years of Age
People between the ages of 45 and 54 incurred 29, or 8%, of the reported burns in 2020. Seventeen (17) or 59% of the victims were male, and 12, or 41%, were female. Six (6) of the 29 burn victims aged 45 to 54, or 21%, were burned while at work; five of them were men and one was a woman. This age group represents 15% of the population of Massachusetts but only 8% of the burn injuries in 2020.

Burns from Fire Were the Leading Cause of Burns
Burns from fire were incurred by 10, or 34% of the burn victims between the ages of 45 and 54. Scalds caused seven of these injuries and flame burns caused six injuries. Contact burns caused four injuries. Burns from explosions and *Other* burns each caused one burn injury to this age group.

Ages 55 to 64

11% of Burn Victims Were Between 55-64 Years Old
Forty-one (41), or 11% of the burns reported in 2020 were incurred by people between the ages of 55 and 64. Thirty (30), or 73% of the victims were men, and 11, or 27% were women. Three (3), or 7%, of the 41 burn injuries incurred by people between 55 and 64 years old were work-related; all were men. People of this age group represent 12% of the total population of Massachusetts but only received 11% of the burns in 2020.

Burns from Fire Were the Leading Causes of Burns
Burns from fire caused 13 injuries to people between the ages of 55 and 64 in 2020, accounting for 32% of these injuries. Scalds and flame burns each caused 11 of these injuries. Explosion and *Other* type burns each caused two injuries. Contact with a hot object and electrical burns each caused one burn injury to members of this age group.

Over 65 – Older Adults

49 Burn Victims Over 65 Years Old
Forty-nine (49), or 9%, of the burn victims in 2020 were over 65 years old. Thirty-two (32) were between 65 and 74; 13 were between 75 and 84; and four were 85 years old or older. Thirty-four (34), or 69% of the victims were men, and 15, or 31%, were women. Older adults represent 14% of the total Massachusetts population but 13% of the burn injuries in 2020, which means that in 2020 they were proportionately less likely to receive a burn injury. No one in this age group received a work-related burn.

Burns from Fire Were Leading Cause of Burns to Older Adults
Burns from fire caused 19, or 39%, of the burn injuries to people over the age of 65. Scalds caused 15 burns. Flame burns caused 12 of these burns, and two were caused by explosions. Contact with a hot object caused one of these injuries to older adults.

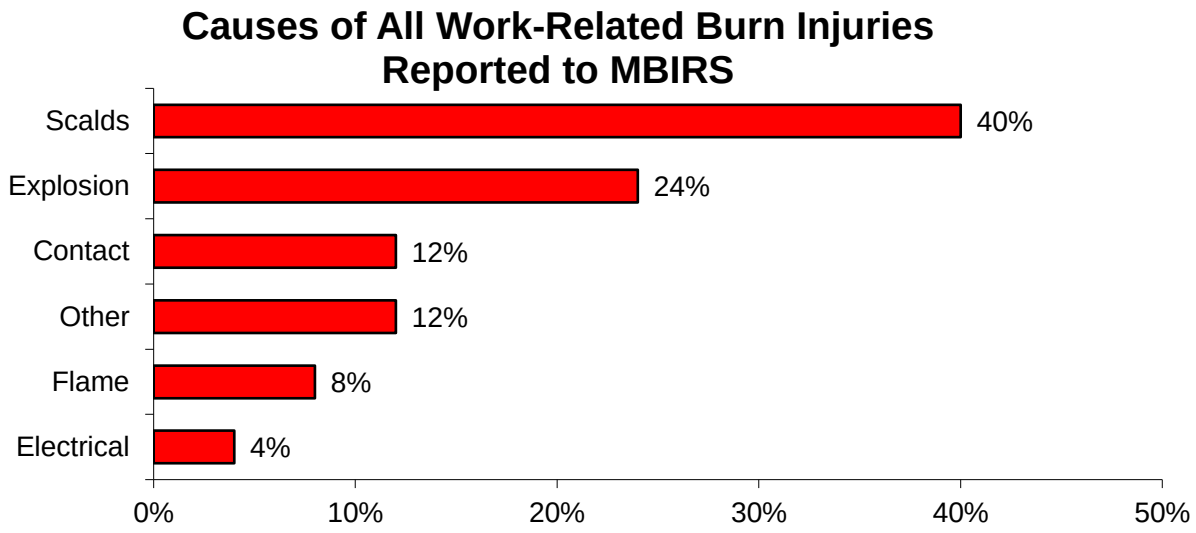
Work-Related Burn Injuries

7% of Reported Burns Occurred at Work
Massachusetts hospitals indicated that 25, or 7%, of the 369 burn injuries reported in 2020 occurred while the victim was at work. Of these victims, 23 were men and two were women. There were no fatal or life-threatening work-related burn injuries.

75% of Work-Related Burns Incurred by People Between 25 and 44
No one under the age of 17 received a work-related burn in 2020. The age groups 35 to 44 and 45 to 54 years had the highest number of reported work-related burns injuries with seven and six respectively. Overall, 75% of the work-related burns were to people between the ages of 25 and 54. The youngest person to receive treatment for a work-related burn in Massachusetts in 2020 was a 17-year old man who received a contact burn from a machine. The oldest victim to receive a work-related burn was a 63-year old man who received his burns from the explosion of a gas furnace.

Age	# of Burns	% of Burns	% of Population
Under 5	0	0%	6%
5 to 9	0	0%	6%
10 to 14	0	0%	6%
15 to 24	3	13%	14%
25 to 34	5	21%	13%
35 to 44	7	29%	14%
45 to 54	6	25%	15%
55 to 64	3	13%	12%
65 to 74	0	0%	7%
75 to 84	0	0%	5%
85+	0	0%	2%
Total Known	24	100%	100%
Not Reported	1		
Total	25		

Scalds Caused 40% of Work-Related Burns
Scalds were the leading cause of work-related burns in 2020. These 10 burn injuries accounted for 40% of work-related burns. Explosions caused six burn injuries. *Other* burns, all from chemicals, caused three injuries and contact burns also caused three injuries. Two (2) of these injuries were flame burns. Electrical burns caused one of these injuries.



72% of Work-Related Burns Reported to MBIRS Occurred in MA
Most, but not all, of the work-related burn injuries treated in Massachusetts occurred in Massachusetts. Eighteen (18), or 72%, of the 25 work-related burns reported to MBIRS in 2020 occurred in Massachusetts. Two (2) work-related burns reported to MBIRS occurred in New Hampshire. It was unknown where the other five burns occurred.

Intervention and Prevention Efforts
The Massachusetts Department of Public Health notifies one of the three Occupational Safety and Health Administration (OSHA) area offices about those companies in which an employee was burned as a result of explosions, chemical exposures, electrocutions, or those that appeared to indicate likely violations of OSHA standards. In 2020, six burn injuries were referred to OSHA.

Burn Injuries in the Home

Over 3/4 of Burn Injuries Occur in the Home
The home is the most common place for burn injuries to occur. In 2020, 281 reported burn injuries, or 76%, took place in the victim's home or surrounding yard. Of these victims, 178, or 63%, were men and 103, or 37% were women.

Over 1/2 of All Home Burns Are Scalds
Scalds accounted for more burn injuries at home than all other types combined in 2020.

Burn Type	# of Burns	% of Home Burns
Scalds	142	51%
Flame	50	18%
Fires	61	22%
Contact	14	5%
Explosions	10	4%
Other	3	1%
Electrical	1	0.4%
Total	281	100%

Cooking Caused 39% of Burns in Homes

More burns, regardless of type, were related to cooking activities than any other source in 2020. Cooking activities, including hot food, were the leading cause of all burns in Massachusetts homes, accounting for 109, or 39% of these injuries.

Burn	# of Burns	% of Burns
Cooking	109	39%
Hot Beverages	41	15%
Campfires or bonfires	29	10%
Gasoline	22	8%
House Fires	18	6%
Hot Tap Water	15	5%

Children Under 5 Are Most at Risk of Home Burns

Children under five were more likely than any other age group in Massachusetts to be burned at home. This age group comprise just 6% of the population but accounted for 30% of home burn victims in 2020.

Age	# of Home Burns	% of Home Burns	% of Population	Risk
Under 5	83	30%	6%	5.3
5 to 9	13	5%	6%	0.8
10 to 14	21	7%	6%	1.2
15 to 24	22	8%	14%	0.5
25 to 34	29	10%	13%	0.8
35 to 44	24	9%	14%	0.6
45 to 54	20	7%	15%	0.5
55 to 64	31	11%	12%	0.9
65 to 74	24	9%	7%	1.2
75 to 84	11	4%	5%	0.9
85+	3	2%	2%	1.0
Total	281	100%	100%	

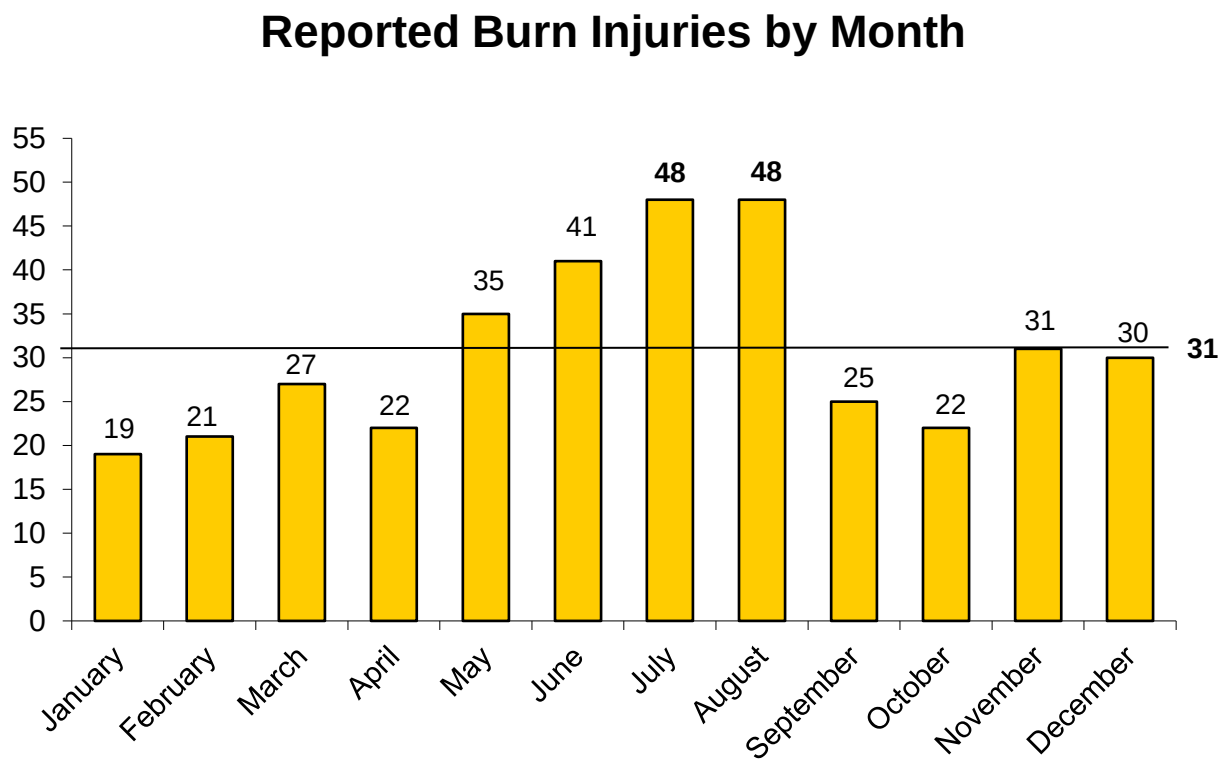
11 of the Home Burns Resulted in Death
There were 11 fatal burn injuries in Massachusetts home in 2020, reflecting 5% of the total home burns. Nine (9) died in house fires, one person died in a brush fire in his yard and another from an explosion. Nine (9) were men and two were women.

For more information on all residential fire deaths please refer to the MFIRS annual reports. Most victims of fatal fires die immediately and are not reported to or captured by MBIRS.

Burn Injuries by Month

Average of 31 Burns a Month
An average of 31 burns were reported during each month of 2020, from a low of 19 in January to a high of 48 in both July and August. It is slightly above the 5-year (2016-2020) average of 30 burns per month and is consistent with the 10-year (2011-2020) average of 31 burns per month.

Scalds caused the most burn injuries during all 12 months of the year except July and September. Scalds were tied with burns from fire and flame burns as the leading cause of burn injuries in February; and tied with burns from fires in June. Flame burns were the leading cause of burns in July and burns from fires were the leading cause of burns in September



July & August Were the Peak Months for Burns
July and August were tied as the peak months for burns in 2020. They each had 48 burn injuries reported to MBIRS. The leading types of burns were flame burns in July and scalds in August.

July		
Burn Type	# of Burns	% of July Burns
Flame	17	35%
Scalds	13	27%
Fire	11	23%
Explosion	3	6%
Other	3	6%
Contact	1	2%
Electrical	0	0%
Total	48	100%

August		
Burn Type	# of Burns	% of August Burns
Scalds	21	44%
Fire	12	25%
Flame	9	19%
Contact	3	6%
Explosion	2	4%
Other	1	2%
Electrical	0	0%
Total	48	100%

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

Geographical Demographics

Massachusetts Burn Victims from 125 Cities and Towns
Massachusetts medical facilities treated 283 residents of 125 Massachusetts cities and towns. Burn victims came from 13 of 14 counties in the Commonwealth in 2020. The largest numbers of reported burn injuries were incurred by residents of Middlesex, Suffolk and Essex counties.

Eighty-six (86) 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 availability of specialized treatment of burn injuries.

County	# of Burns
Middlesex	56
Suffolk	49
Essex	38
Plymouth	34
Hampden	28
Norfolk	18
Bristol	17
Worcester	15
Barnstable	8
Berkshire	8
Hampshire	5
Franklin	4
Nantucket	3
Dukes	0
Out of State	86
Total	369
Total MA	283

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 39 burn injuries in 2020. Springfield had the second most reported burns at 13 and Brockton and Lawrence each had 11 burn injury reports.

Burns per 10,000 Population
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 each 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.

The map on page 37, *2020 Burns by 10K Population*, displays the number of burns reported by community per 10,000 of its residents. The darker the community is shaded the more burns per 10,000 population were reported from that municipality. Cities and towns that are not shaded did not have a reported burn injury in 2020.

Worthington had the highest rate of burn injuries per 10,000 population at 8.65. Next highest was Shutesbury with 5.65 burn injuries per 10,000 population; Russell had 5.63; Erving had 5.56; Conway had 5.27; and Holland had 4.03 burn injuries per 10,000 population[6].

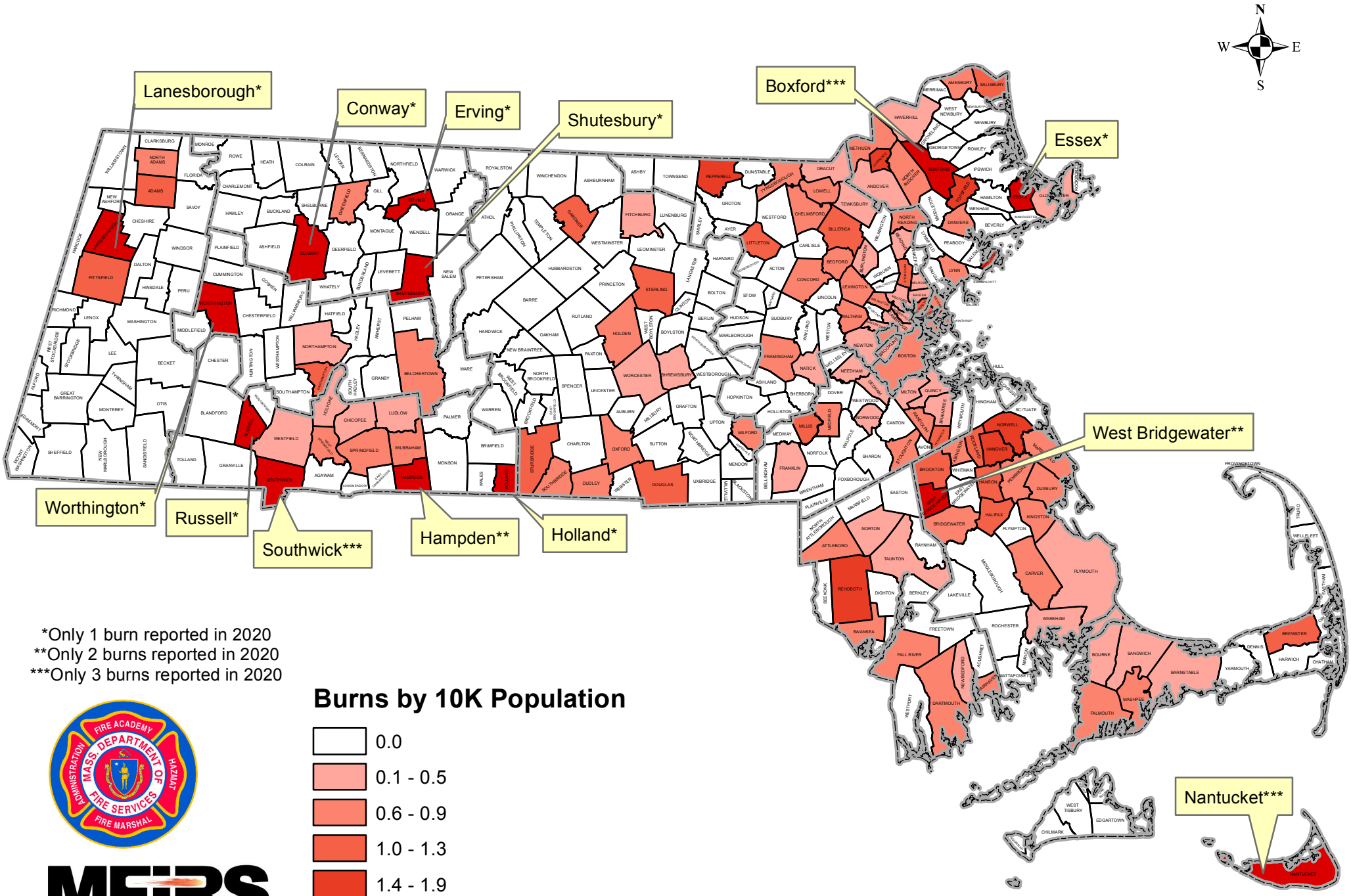
Scalds per 10,000 Population

The map on page 38, *2020 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 2020.

Erving had the highest rate of 5.56 scald burn injuries per 10,000 population. Next highest was Hampden with 1.95 scald burn injuries per 10,000 population; Norwell had 1.90; West Bridgewater had 1.45; and Boxford had 1.26 scald burn injuries per 10,000 population[7].

[6] All these towns only had 1 reported burn injury in 2020.
[7] All these towns except Norwell (2) had only 1 reported scald burn injury in 2020.

2020 MA Burns by 10K Population



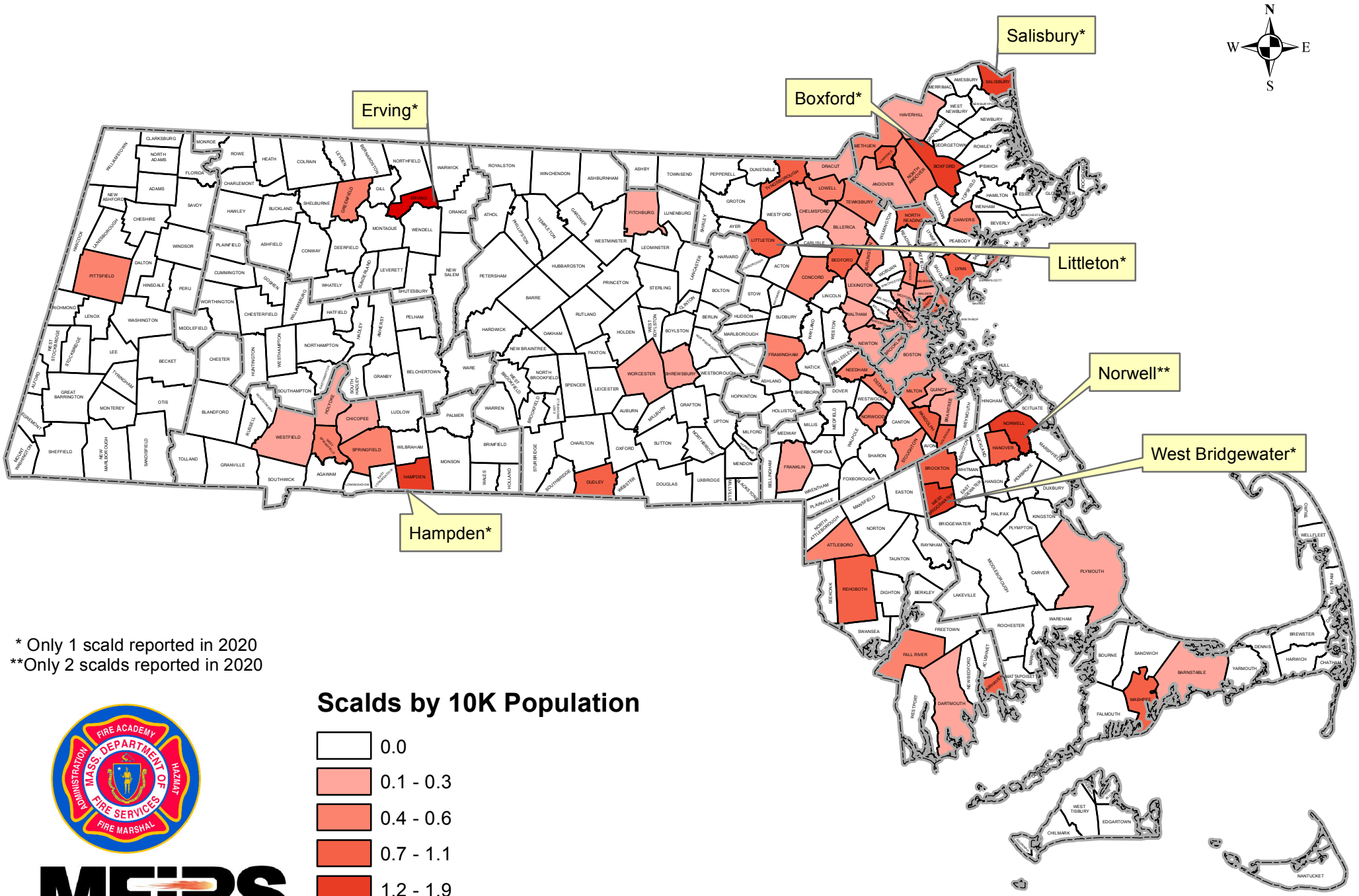
*Only 1 burn reported in 2020
**Only 2 burns reported in 2020
***Only 3 burns reported in 2020

Burns by 10K Population

- 0.0
- 0.1 - 0.5
- 0.6 - 0.9
- 1.0 - 1.3
- 1.4 - 1.9
- 2.0 - 8.7

MFIRS
Massachusetts Fire Incident Reporting System

2020 MA Scalds by 10K Population



* Only 1 scald reported in 2020
**Only 2 scalds reported in 2020

Scalds by 10K Population

- 0.0
- 0.1 - 0.3
- 0.4 - 0.6
- 0.7 - 1.1
- 1.2 - 1.9
- 2.0 - 5.6

Miles
0 5 10 20 30 40

MFIRS
Massachusetts Fire Incident Reporting System

2020 Appendix

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

Specific Causes of Burn Injuries

Cause	# of Burns	% of All Burns
Scalds	**162**	**43.9%**
Cooking	91	22.8%
Cooking Liquids	59	16.0%
Hot Food	24	6.5%
Pressure Cooker	8	2.2%
Hot Beverages	46	12.5%
Hot Tap Water	17	4.6%
Assault	1	0.3%
Boiler	1	0.3%
Car Radiator	1	0.3%
Firefighter	1	0.3%
Radiator	1	0.3%
Steam	1	0.3%
Not Reported	2	0.3%
Fires	**90**	**24.4%**
House Fire	22	6.0%
House Fire	*14*	*3.8%*
Smoking	*3*	*0.8%*
Candle	*1*	*0.3%*
Cigarette	*1*	*0.3%*
Cooking	*1*	*0.3%*
Incense	*1*	*0.3%*
Space Heater	*1*	*0.3%*
Structure Fire	1	0.3%
Woodstove	*1*	*0.3%*
MV Fire	5	1.4%
Boat Fire	*2*	*0.5%*
MV, Other	*1*	*0.3%*
Propane	*1*	*0.3%*
Rescue Attempt	*1*	*0.3%*
Brush Fire	15	4.1%
Clothes	*5*	*1.4%*
Gasoline	*5*	*1.4%*
Brushfire	*2*	*0.5%*
Brush/Clothes	*1*	*0.3%*
Ignitable Liquids	*1*	*0.3%*
Not Reported	*1*	*0.3%*

Cause	# of Burns	% of All Burns
FIRES (Con't)		
Campfire or Bonfire	47	12.7%
Campfire	*27*	*7.3%*
Gasoline	*11*	*3.0%*
Bonfire	*4*	*1.1%*
Ignitable Liquids	*3*	*0.8%*
Embers	*2*	*0.5%*
Not Reported		
Unknown	*1*	*0.3%*
Flame	**65**	**17.6%**
Cooking	21	5.7%
Cooking Liquids	*8*	*2.2%*
Barbeque	*6*	*1.6%*
Cooking Unspecified	*4*	*1.1%*
Stove	*2*	*0.5%*
Gas Stove	*1*	*0.3%*
Ignitable Liquids	13	3.5%
Gasoline	*10*	*2.7%*
Ignitable Liquids	*3*	*0.8%*
Smoking	6	1.6%
Smoking Unspecified	*4*	*1.1%*
Pipe	*1*	*0.3%*
Smoking In Bed	*1*	*0.3%*
Propane	4	1.1%
Childplay	3	0.8%
Candle	2	0.5%
Clothes Unspecified	2	0.5%
Engine	2	0.5%
Heater	2	0.5%
Self-Immolation	2	0.5%
Hot Works	2	0.5%
Cutting Torch	*1*	*0.3%*
Welding	*1*	*0.3%*
Car Part	1	0.3%
Fire Cupping	1	0.3%
Flashburn	1	0.3%
Kiln	1	0.3%
Lawnmower	1	0.3%
Lighter	1	0.3%

Cause	# of Burns	% of All Burns
Contact	**17**	**5.1%**
Cooking	5	1.4%
Stove	*2*	*0.5%*
Barbeque	*1*	*0.3%*
Cooking	*1*	*0.3%*
Oven	*1*	*0.3%*
Wax	3	0.8%
Heater	2	0.5%
Heating Pad	2	0.5%
Machine	2	0.5%
Clothes Iron	1	0.3%
Contact	1	0.3%
Gasoline	1	0.3%
Metal	1	0.3%
Propane	1	0.3%
Explosions	**17**	**4.6%**
Gasoline	4	1.1%
Propane	3	0.8%
Aerosol	2	0.5%
Flammables	2	0.5%

Cause	# of Burns	% of All Burns
Explosions (Con't)		
Cooking	2	0.5%
Barbeque	*1*	*0.3%*
Barbeque Gas	*1*	*0.3%*
Heating	2	0.5%
Gas Furnace	*1*	*0.3%*
Heater	*1*	*0.3%*
Drugs	1	0.3%
Fireworks	1	0.3%
Other Burns	**12**	**3.3%**
Chemical	6	1.4%
Sunburn	5	1.6%
Unknown	1	0.3%
Electrical	**2**	**0.5%**
Electrocution	2	0.5%
Domestic Violence	**1**	**0.3%**
Ignitable Liquids	1	0.3%

Causes of Burn Injuries by Age

Under 5	**89**	**24.2%**
Cause	**# of Burns**	**% by Age**
Scalds	**77**	**86.5%**
Hot Beverages	37	41.6%
Cooking	31	34.8%
Cooking Liquids	*20*	*22.5%*
Hot Food	*10*	*11.2%*
Pressure Cooker	*1*	*1.1%*
Hot Tap Water	9	10.1%
Fires	**4**	**4.5%**
Campfire	4	4.5%
Contact	**4**	**4.5%**
Cooking	3	3.4%
Stove	*2*	*2.2%*
Barbeque	*1*	*1.1%*
Clothes Iron	1	1.1%
Flame	**4**	**4.5%**
Candle	1	1.1%
Gasoline	1	1.1%
Lighter	1	1.1%
Stove	1	1.1%

Ages 5 to 9	**13**	**3.5%**
Cause	**# of Burns**	**% by Age**
Scalds	**9**	**69.2%**
Cooking	5	38.5%
Hot Food	*3*	*23.1%*
Cooking Liquids	*2*	*15.4%*
Hot Beverages	2	15.4%
Boiler	1	7.7%
Hot Tap Water	1	7.7%
Flame	**2**	**15.4%**
Candle	1	7.7%
Childplay	1	7.7%
Fires	**1**	**7.7%**
Campfire	1	7.7%
Other	**1**	**7.7%**
Heater	1	7.7%

Ages 10 To 14	**25**	**6.8%**
Cause	**# of Burns**	**% by Age**
Scalds	**14**	**56.0%**
Cooking	10	40.0%
Cooking Liquids	*5*	*20.0%*
Hot Food	*5*	*20.0%*
Hot Tap Water	2	8.0%
Hot Beverages	1	4.0%
Radiator	1	4.0%
Fires	**4**	**16.0%**
Gasoline	2	8.0%
Campfire	1	4.0%
Ignitable Liquids	1	4.0%
Flame	**4**	**16.0%**
Childplay	2	8.0%
Car Part	1	4.0%
Cooking Liquids	1	4.0%
Contact	**1**	**4.0%**
Machine	1	4.0%
Electrical	**1**	**4.0%**
Electrocution	1	4.0%
Explosions	**1**	**4.0%**
Fireworks	1	4.0%

Ages 15 to 24	**41**	**19.5%**
Cause	**# of Burns**	**% by Age**
Fires	**17**	**41.5%**
Campfire	8	19.5%
Gasoline	5	12.2%
Brushfire	1	2.4%
House fire	1	2.4%
MV, other	1	2.4%
Unknown	1	2.4%
Scalds	**9**	**22.0%**
Cooking	8	19.5%
Cooking liquids	*7*	*17.1%*
Hot food	*1*	*2.4%*
Assault	1	2.4%
Flame	**7**	**17.1%**
Cooking liquids	2	4.9%
Ignitable liquids	2	4.9%
Flashburn	1	2.4%
Propane	1	2.4%
Self-immolation	1	2.4%
Contact	**4**	**9.8%**
Contact unspecified	1	2.4%
Heater	1	2.4%
Machine	1	2.4%
Hot wax	1	2.4%
Other	**3**	**7.3%**
Sunburn	3	7.3%
Explosions	**1**	**2.4%**
Gasoline	1	2.4%

Ages 25 To 34	**44**	**12.0%**
Cause	**# of Burns**	**% by Age**
Fires	**17**	**38.6%**
Housefire	5	11.4%
Campfire	3	6.8%
Bonfire	2	4.5%
Embers	2	4.5%
Gasoline	2	4.5%
Boat Fire	1	2.3%
Brush/Clothes	1	2.3%
Rescue Attempt	1	2.3%
Scalds	**11**	**25.0%**
Cooking	7	15.9%
Cooking Liquids	*5*	*11.4%*
Pressure Cooker	*2*	*4.5%*
Hot Beverages	1	2.3%
Firefighter	1	2.3%
Hot Tap Water	1	2.3%
Not Reported	1	2.3%
Flame	**7**	**15.9%**
Engine	2	4.5%
Cooking	2	4.5%
Barbeque	*1*	*2.3%*
Cooking Liquids	*1*	*2.3%*
Gasoline	1	2.3%
Kiln	1	2.3%
Welding	1	2.3%
Contact	**3**	**6.8%**
Heating Pad	1	2.3%
Metal	1	2.3%
Hot Wax	1	2.3%
Explosions	**3**	**6.8%**
Ignitable Gases	2	4.5%
Barbeque Gas	*1*	*2.3%*
Propane	*1*	*2.3%*
Flammables	1	2.3%
Other	**3**	**6.8%**
Chemical	2	4.5%
Sunburn	1	2.3%

Ages 35 to 44	**37**	**10.1%**
Cause	**# of Burns**	**% by Age**
Flame	**12**	**32.4%**
Barbeque	3	8.1%
Ignitable Gases	3	8.1%
Propane	*2*	*5.4%*
Gas Stove	*1*	*2.7%*
Gasoline	2	5.4%
Cutting Torch	1	2.7%
Fire Cupping	1	2.7%
Lawnmower	1	2.7%
Smoking In Bed	1	2.7%
Scalds	**9**	**24.3%**
Cooking	9	24.3%
Cooking Liquids	*6*	*16.2%*
Pressure Cooker	*2*	*5.4%*
Hot Food	1	2.7%
Fires	**6**	**16.2%**
Campfire	2	5.4%
Gasoline	2	5.4%
Housefire	1	2.7%
Woodstove	1	2.7%
Explosions	**6**	**16.2%**
Aerosol	1	2.7%
Barbeque	1	2.7%
Drugs	1	2.7%
Flammables	1	2.7%
Gasoline	1	2.7%
Propane	1	2.7%
Other	**2**	**5.4%**
Chemical	1	2.7%
Sunburn	1	2.7%
Contact	**1**	**2.7%**
Oven	1	2.7%
Domestic Violence	**1**	**2.7%**
Ignitable Liquids	1	2.7%

Ages 45 To 54	**29**	**7.9%**
Cause	**# of Burns**	**% by Age**
Fires	**10**	**34.5%**
House fire	3	10.3%
Campfire	2	6.9%
Bonfire	2	6.9%
Clothes	1	3.4%
Gasoline	1	3.4%
Ignitable Liquids	1	3.4%
Scalds	**7**	**24.1%**
Cooking	4	13.8%
Hot Food	*2*	*6.9%*
Cooking Liquids	*1*	*3.4%*
Pressure Cooker	*1*	*3.4%*
Hot Beverages	1	3.4%
Steam	1	3.4%
Hot Tap Water	1	3.4%
Flame	**6**	**20.7%**
Cooking	4	13.8%
Cooking Liquids *3*		*10.3%*
Barbeque *1*		*3.4%*
Self-Immolation	1	3.4%
Gasoline	1	3.4%
Contact	**4**	**13.8%**
Gasoline	1	3.4%
Propane	1	3.4%
Hot Wax	1	3.4%
Cooking Unspecified	1	3.4%
Explosions	**1**	**3.4%**
Aerosol	1	3.4%
Other	**1**	**3.4%**
Chemical	1	3.4%

Ages 55 To 64	**41**	**11.1%**
Cause	**# of Burns**	**% by Age**
Fires	**13**	**31.7%**
Campfire	4	9.8%
Gasoline	2	4.9%
House fire	2	4.9%
Boat Fire	1	2.4%
Ignitable Liquids	1	2.4%
Propane	1	2.4%
Smoking	1	2.4%
Space Heater	1	2.4%
Flame	**11**	**26.8%**
Cooking	3	7.3%
Cooking Unspecified	*2*	*4.9%*
Barbeque	*1*	*2.4%*
Ignitable Liquids	**3**	7.3%
Gasoline	*2*	*4.9%*
Ignitable Liquids	*1*	*2.4%*
Smoking	3	7.3%
Smoking Unspecified	*2*	*4.9%*
Pipe *1*		*2.4%*
Clothes *1*		*2.4%*
Propane	1	2.4%
Scalds	**11**	**26.8%**
Cooking	8	19.5%
Cooking Liquids	*5*	*12.2%*
Hot Food	*2*	*4.9%*
Pressure Cooker	1	2.4%
Hot Beverages	2	4.9%
Car Radiator	1	2.4%
Explosions	**2**	**4.9%**
Gas Furnace	1	2.4%
Gasoline	1	2.4%
Other	**2**	**4.9%**
Chemical	1	2.4%
Unknown	1	2.4%
Contact	**1**	**2.4%**
Heating Pad	1	2.4%
Electrical	**1**	**2.4%**
Electrocution	1	2.4%

Ages 65+	**49**	**13.6%**
Cause	**# of Burns**	**% by Age**
Fires	**19**	**38.8%**
Clothes	4	8.2%
Campfire	2	4.1%
Gasoline	2	4.1%
House fire	2	4.1%
Smoking Unspecified	2	4.1%
Not Reported	1	2.0%
Brushfire	1	2.0%
Candle	1	2.0%
Cigarette	1	2.0%
Cooking	1	2.0%
Ignitable Liquids	1	2.0%
Incense	1	2.0%
Scalds	**15**	**30.6%**
Cooking	9	18.4%
Cooking Liquids	*8*	*16.3%*
Pressure Cooker	*1*	*2.0%*
Hot Tap Water	3	6.1%
Hot Beverages	2	4.1%
Unknown	1	2.0%
Flame	**12**	**24.5%**
Cooking	4	8.2%
Cooking Unspecified	*2*	*4.1%*
Cooking Liquids	*1*	*2.0%*
Stove	*1*	*2.0%*
Gasoline	3	6.1%
Heater	2	4.1%
Smoking Unspecified	2	4.1%
Clothes	1	2.0%
Explosion	**2**	**4.1%**
Gasoline	1	2.0%
Propane	1	2.0%
Contact	**1**	**2.0%**
Heater	1	2.0%

Causes of Work-Related Burns

Cause	# of Burns	% of Work-related
Scalds	**10**	**40%**
Cooking	7	28%
Cooking Liquids	6	24%
Hot Food	1	4%
Car Radiator	1	4%
Firefighter	1	4%
Steam	1	4%
Explosions	**6**	**24%**
Flammables	2	4%
Heating	2	8%
Gas Furnace	1	4%
Heater	1	4%
Aerosol	1	4%
Gasoline	1	4%

Cause	# of Burns	% of Work-related
Other	**3**	**12%**
Chemical	3	12%
Contact	**3**	**12%**
Gasoline	1	4%
Machine	1	4%
Propane	1	4%
Flame	**2**	**8%**
Cutting Torch	1	4%
Kiln	1	4%
Electrical	**1**	**4%**
Electrocution	1	4%
Total	**25**	**100%**

Number of Reported Burns per Hospital

Anna Jaques Hospital	1	Metro West Medical Center	1
Brigham & Women's Hospital	48	Massachusetts General Hospital	142
Baystate Medical Center	29	Milford Regional Medical Center	2
Berkshire Medical Center	2	Beth Deaconess Hospital - Milton	1
Cape Cod Hospital	5	Nantucket	2
Charlton Memorial Hospital	1	Nantucket Cottage Hospital	3
Children's Hospital	15	Baystate Noble Hospital	1
Cooley Dickinson Hospital	1	Norwood Hospital	1
Emerson Hospital	1	Shriners Hospital For Children	101
Falmouth Hospital	2	South Shore Medical Center	5
Framingham Union Hospital	1	St. Anne's Hospital	1
Good Samaritan Medical Center	1	St. Elizabeth's Hospital	2
Heywood Hospital	1	St. Luke's Hospital	3
Harrington Hospital	2	Sturdy Memorial Medical Center	6
Lawrence General Hospital	24	Tobey Hospital	2
Lowell General Hospital	2	Tufts Medical Center	1
Martha's Vineyard Hospital	1	Umass Medical Center - Clinton	1
Melrose Wakefield Hospital	1	Umass Medical Center - University	1
Mercy Medical Center	3	Winchester Hospital	1

Causes of Burn Injuries by Month

January	**19**	**5.1%**
Cause	**# of Burns**	**% by Month**
Scalds	**15**	**78.9%**
Hot Beverages	6	31.6%
Cooking	6	31.6%
Cooking Liquids	*4*	*21.1%*
Hot Food	*2*	*10.5%*
Hot Tap Water	2	10.5%
Steam	1	5.3%
Explosions	**3**	**15.8%**
Flammables	2	10.5%
Aerosol	1	5.3%
Fires	**1**	**5.3%**
Woodstove	1	5.3%

0 Deaths

February	**21**	**5.7%**
Cause	**# of Burns**	**% by Month**
Fires	**5**	**23.8%**
Candle	1	4.8%
Ignitable Liquids	2	9.5%
Gasoline	*1*	*4.8%*
Ignitable Liquids	*1*	*4.8%*
Space Heater	1	4.8%
Unknown	1	4.8%
Flame	**5**	**23.8%**
Cooking Liquids	3	14.3%
Fire Cupping	1	4.8%
Smoking		
Unspecified	1	4.8%
Scalds	**5**	**23.8%**
Cooking	3	14.3%
Cooking Liquids	*2*	*9.5%*
Hot Food	*1*	*4.8%*
Boiler	1	4.8%
Hot Tap Water	1	4.8%
Contact	**2**	**9.5%**
Heating Pad	2	9.5%
Explosions	**2**	**9.5%**
Aerosol	1	4.8%
Drugs	1	4.8%
Other	**2**	**9.5%**
Chemical	2	9.5%

2 Deaths

March	**27**	**7.3%**
Cause	**# of Burns**	**% by Month**
Scalds	**15**	**55.6%**
Cooking	7	25.9%
Cooking Liquids	*4*	*14.8%*
Hot Food	*2*	*7.4%*
Pressure Cooker	*1*	*3.7%*
Hot Beverages	4	14.8%
Hot Tap Water	3	11.1%
Not Reported	1	3.7%
Fires	**6**	**22.2%**
Clothes	3	11.1%
Gasoline	2	7.4%
Brushfire	1	3.7%
Flame	**5**	**18.5%**
Cooking	2	7.4%
Cooking Unspecified	*1*	*3.7%*
Cooking Liquids	*1*	*3.7%*
Gas Stove	1	3.7%
Lighter	1	3.7%
Pipe	1	3.7%
Other	**1**	**3.7%**
Unknown	1	3.7%

0 Deaths

April	**21**	**5.7%**
Cause	**# of Burns**	**% by Month**
Scalds	**11**	**52.4%**
Cooking	6	28.6%
Cooking Liquids	*5*	*23.8%*
Hot Food	*1*	*4.8%*
Hot Beverages	5	23.8%
Fires	**8**	**38.1%**
Campfire	2	9.5%
Clothes	2	9.5%
Smoking	2	9.5%
Cigarette	*1*	*4.8%*
Smoking Unspecified	*1*	*4.8%*
Gasoline	1	4.8%
Incense	1	4.8%
Flame	**2**	**9.5%**
Cooking Unspecified	1	4.8%
Welding	1	4.8%
Explosions	**1**	**4.8%**
Gasoline	1	4.8%

2 Deaths

May	**35**	**9.5%**
Cause	**# of Burns**	**% by Month**
Scalds	**18**	**51.4%**
Hot Beverages	7	20.0%
Cooking	7	20.0%
Hot Food	*4*	*11.4%*
Cooking Liquids	*3*	*8.6%*
Hot Tap Water	3	8.6%
Unknown	1	2.9%
Fires	**8**	**22.9%**
House Fire	4	11.4%
Campfire	2	5.7%
Gasoline	1	2.9%
MV, Other	1	2.9%
Contact	**3**	**8.6%**
Machine	1	2.9%
Propane	1	2.9%
Hot Wax	1	2.9%
Flame	**3**	**8.6%**
Cooking Liquids	1	2.9%
Gasoline	1	2.9%
Propane	1	2.9%
Explosions	**2**	**5.7%**
Gas Furnace	1	2.9%
Gasoline	1	2.9%
Other	**1**	**2.9%**
Sunburn	1	2.9%

0 Deaths

June	**41**	**11.1%**
Cause	**# of Burns**	**% by Month**
Fires	**15**	**36.6%**
Campfire	5	12.2%
Gasoline	3	7.3%
Boat Fire	2	4.9%
Brush/Clothes	1	2.4%
Brushfire	1	2.4%
Cooking Unspecified	1	2.4%
Ignitable Liquids	1	2.4%
Not Reported	1	2.4%
Scalds	**15**	**36.6%**
Cooking	10	24.4%
Cooking Liquids	*5*	*12.2%*
Hot Food	*5*	*12.2%*
Hot Beverages	2	4.9%
Hot Tap Water	2	4.9%
Car Radiator	1	2.4%
Flame	**5**	**12.2%**
Stove	2	4.9%
Cutting Torch	1	2.4%
Ignitable Liquids	1	2.4%
Propane	1	2.4%
Explosions	**2**	**4.9%**
Barbeque Gas	1	2.4%
Gasoline	1	2.4%
Other	**2**	**4.9%**
Sunburn	2	4.9%
Contact	**1**	**2.4%**
Clothes Iron	1	2.4%
Electrical	**1**	**2.4%**
Electrocution	1	2.4%

0 Deaths

July	**48**	**13.0%**
Cause	**# of Burns**	**% by Month**
Flame	**17**	**35.4%**
Ignitable Liquids	6	12.5%
Gasoline	5	10.4%
Ignitable Liquids	1	2.1%
Cooking	6	12.5%
Barbeque	*4*	*8.3%*
Cooking Liquids	*2*	*4.2%*
Engine	2	4.2%
Propane	1	2.1%
Self-Immolation	1	2.1%
Smoking In Bed	1	2.1%
Scalds	**13**	**27.1%**
Cooking	9	18.8%
Cooking Liquids	*7*	*14.6%*
Hot Food	*1*	*2.1%*
Pressure Cooker	*1*	*2.1%*
Hot Beverages	3	6.3%
Hot Tap Water	1	2.1%
Fires	**11**	**22.9%**
Campfire	6	12.5%
Gasoline	3	6.3%
Bonfire	1	2.1%
Ignitable Liquids	1	2.1%
Other	**3**	**6.3%**
Sunburn	2	4.2%
Chemical	1	2.1%
Explosions	**3**	**6.3%**
Fireworks	1	2.1%
Gasoline	1	2.1%
Propane	1	2.1%
Contact	**1**	**2.1%**
Barbeque	1	2.1%

0 Deaths

August	**48**	**13.0%**
Cause	**# of Burns**	**% by Month**
Scalds	**21**	**43.8%**
Cooking	10	20.8%
Cooking Liquids	*7*	*14.6%*
Hot Food	*2*	*4.2%*
Pressure Cooker	*1*	*2.1%*
Hot Beverages	8	16.7%
Hot Tap Water	2	4.2%
Assault	1	2.1%
Fires	**12**	**25.0%**
Campfire	7	14.6%
Embers	2	4.2%
Gasoline	1	2.1%
Propane	1	2.1%
Rescue Attempt	1	2.1%
Flame	**9**	**18.8%**
Cooking	3	6.3%
Barbeque	*2*	*4.2%*
Cooking Unspecified	*1*	*2.1%*
Candle	1	2.1%
Flashburn	1	2.1%
Gasoline	1	2.1%
Kiln	1	2.1%
Lawnmower	1	2.1%
Propane	1	2.1%
Contact	**3**	**6.3%**
Machine	1	2.1%
Metal	1	2.1%
Hot Wax	1	2.1%
Explosions	**2**	**4.2%**
Propane	2	4.2%
Other	**1**	**2.1%**
Chemical	1	2.1%

0 Deaths

September	**25**	**6.8%**
Cause	**# of Burns**	**% by Month**
Fires	**11**	**44.0%**
House Fire	4	16.0%
Campfire	3	12.0%
Bonfire	2	8.0%
Gasoline	2	8.0%
Scalds	**7**	**28.0%**
Cooking	5	20.0%
Cooking Liquids	*4*	*16.0%*
Hot Food	*1*	*4.0%*
Hot Beverages	1	4.0%
Hot Tap Water	1	4.0%
Flame	**3**	**12.0%**
Ignitable Liquids	2	8.0%
Gasoline	*1*	*4.0%*
Ignitable Liquids	*1*	*4.0%*
Heater	1	4.0%
Contact	**2**	**8.0%**
Contact Unspecified	1	4.0%
Oven	1	4.0%
Explosions	1	4.0%
Barbeque	1	4.0%
Other	**1**	**4.0%**
Chemical	1	4.0%

2 Deaths

October	**22**	**6.0%**
Cause	**# of Burns**	**% by Month**
Scalds	**12**	**54.5%**
Cooking	7	31.8%
Cooking Liquids	*5*	*22.7%*
Hot Food	*1*	*4.5%*
Hot Beverages	4	18.2%
Pressure Cooker	1	4.5%
Hot Tap Water	1	4.5%
Fires	**4**	**18.2%**
Ignitable Liquids	3	13.6%
Gasoline	*2*	*9.1%*
Ignitable Liquids	*1*	*4.5%*
Campfire	1	4.5%
Contact	**3**	**13.6%**
Heater	1	4.5%
Stove	1	4.5%
Hot Wax	1	4.5%
Flame	**3**	**13.6%**
Childplay	1	4.5%
Cooking Unspecified	1	4.5%
Gasoline	1	4.5%

0 Deaths

November	**31**	**4.3%**
Cause	**# of Burns**	**% by Month**
Scalds	**16**	**51.6%**
Cooking	9	29.0%
Cooking Liquids	*6*	*19.4%*
Hot Food	*3*	*9.7%*
Hot Beverages	4	12.9%
Pressure Cooker	3	9.7%
Fires	**7**	**22.6%**
House Fire	3	9.7%
Smoking	2	6.5%
Bonfire	1	3.2%
Campfire	1	3.2%
Flame	**4**	**12.9%**
Childplay	2	6.5%
Self-Immolation	1	3.2%
Smoking Unspecified	1	3.2%
Contact	**2**	**6.5%**
Cooking Unspecified	1	3.2%
Gasoline	1	3.2%
Electrical	**1**	**3.2%**
Electrocution	1	3.2%
Other	**1**	**3.2%**
Chemical	1	3.2%

3 Deaths

December	**30**	**8.1%**
Cause	**# of Burns**	**% by Month**
Scalds	**14**	**46.7%**
Cooking	9	30.0%
Cooking Liquids	*7*	*23.3%*
Hot Food	*1*	*3.3%*
Pressure Cooker	*1*	*3.3%*
Hot Beverages	2	6.7%
Firefighter	1	3.3%
Radiator	1	3.3%
Hot Tap Water	1	3.3%
Flame	**9**	**30.0%**
Clothes	2	6.7%
Smoking Unspecified	2	6.7%
Candle	1	3.3%
Car Part	1	3.3%
Cooking Liquids	1	3.3%
Gasoline	1	3.3%
Heater	1	3.3%
Fires	**3**	**10.0%**
House Fire	3	10.0%
Contact	**2**	**6.7%**
Heater	1	3.3%
Stove	1	3.3%
Domestic Violence	**1**	**3.3%**
Ignitable Liquids	1	3.3%
Explosions	**1**	**3.3%**
Heater	1	3.3%

2 Deaths

Burn Injuries by Victim's Community

County	# of Burns
BARNSTABLE	**8**
Barnstable	2
Bourne	1
Brewster	1
Falmouth	2
Mashpee	1
Sandwich	1
BERKSHIRE	**8**
Adams	1
Lanesborough	1
North Adams	1
Pittsfield	5
BRISTOL	**17**
Attleboro	3
Dartmouth	2
Fairhaven	1
Fall River	5
New Bedford	1
Norton	1
Rehoboth	2
Swansea	1
Taunton	1
ESSEX	**38**
Amesbury	1
Andover	1
Boxford	3
Danvers	2
Essex	1
Gloucester	1
Haverhill	1
Lawrence	11

County	# of Burns
ESSEX (con't)	
North Andover	2
Salisbury	1
Topsfield	1
FRANKLIN	**4**
Conway	1
Erving	1
Greenfield	1
Shutesbury	1
HAMPDEN	**28**
Chicopee	2
Hampden	2
Holland	1
Holyoke	1
Ludlow	1
Russell	1
Southwick	3
Springfield	13
West Springfield	2
Westfield	1
Wilbraham	1
HAMPSHIRE	**5**
Belchertown	1
Easthampton	2
Northampton	1
Worthington	1
MIDDLESEX	**56**
Arlington	3
Bedford	1
Billerica	5

County	# of Burns
MIDDLESEX (con't)	
Concord	1
Dracut	1
Everett	4
Framingham	5
Lexington	2
Littleton	1
Lowell	7
Malden	3
Medford	1
Melrose	1
Natick	1
Newton	1
North Reading	1
Pepperell	2
Reading	1
Somerville	1
Stoneham	2
Tewksbury	1
Tyngsborough	1
Waltham	4
Watertown	1
NANTUCKET	**3**
Nantucket	3
NORFOLK	**18**
Braintree	1
Brookline	1
Dedham	1
Franklin	1
Holbrook	1
Medfield	1
Millis	1
Milton	1
Needham	1
Norwood	1
Quincy	4
Randolph	2
Stoughton	2

County	# of Burns
PLYMOUTH	**34**
Abington	1
Bridgewater	2
Brockton	11
Carver	1
Duxbury	1
Halifax	1
Hanover	2
Hanson	1
Kingston	1
Marshfield	2
Norwell	2
Pembroke	1
Plymouth	3
Rockland	2
Wareham	1
West Bridgewater	2
SUFFOLK	**49**
Boston	39
Chelsea	4
Revere	4
Winthrop	2
WORCESTER	**15**
Douglas	1
Dudley	1
Fitchburg	1
Gardner	2
Holden	1
Milford	2
Oxford	1
Shrewsbury	1
Southbridge	1
Sterling	1
Sturbridge	1
Worcester	2

FP-84F
(Rev. 04-2010)

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

Post Office Box 1025 – Stow, Massachusetts 01775

TO: Massachusetts Burn Injury Reporting System

FROM: _____

Name of Hospital and Attending Physician

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

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

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

-OR-

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

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

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

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

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

Date of Burn _____ If Yes: Employer _____

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

Part of Body Injured or %BSA: _____

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

_____

Type of Burn: *(check one)*

☐ Flame ☐ Scald ☐ Domestic Violence

☐ Fire ☐ Electrical ☐ Other
☐ Sunburn
☐ Chemical

☐ Explosion ☐ Contact

Severity: *(check one)*

☐ Minor ☐ Life-threatening

☐ Moderate ☐ Dead

☐ Severe

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

NEW
Burn Hotline
1-800-475-3443

FAX Reporting Number
1-978-567-3199

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

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