## OSFM 2020 Seasonal Fireworks Injury Report

The OSFM Fire Prevention Division requested hospitals and emergency treatment centers in Illinois to provide information about injuries associated with fireworks starting in January and ending in December. The injury reporting form was updated to include the new reporting period along with adding the option transferred for advanced care.

During the season July seasonal reporting period, 89 hospitals and facilities reported a total of 163 injuries. There were no fatalities reported during the 2020 reporting period. Comparatively, 56 hospitals reported 126 injuries during the same period in 2019. The increase in reported injuries is most likely related to reaching out to facilities and the availability of online reporting. There is no requirement for healthcare providers to report fireworks injuries and we appreciate their efforts.

Healthcare facilities reported 163 persons having been injured by fireworks during the 2020 seasonal reporting period. Approximately half of all injured persons suffered multiple injuries. Of those injured, 120 are male. Over half of all injuries (59%) occurred to persons over 22 years of age. Children's injuries in the 11-16 age group almost doubled (23) from the previous year of 12.

The reported injuries were related to a wide variety of fireworks with "Mortars" (26%) and "Unknown Type" (20%) listed as the most frequent type of fireworks or pyrotechnic effect involved in injury. This was followed by Sparklers (19%), with Roman Candles (10%), Bottle Rockets (9%) and Salutes at 6%. It appears the COVID cancellations affected the fireworks season and increased the at home or do-it-yourself injuries. The balance of injuries reported were associated with various other effects including handheld (4%), firecrackers (4%) and homemade devices (4%). (The sale and use of Roman Candles, Firecrackers and salute devices are prohibited in Illinois.)

More than 50% of all injuries affected hands (27%), injuries to the head/face (13%) and legs (13%). Second degree burns were the leading type of injury at 27% followed by first degree burns at 20%. Abrasions and Lacerations combined for 22% of injuries. Dismemberment/amputation injuries increased to 19 as compared to 12 in 2019.

The OSFM Fire Prevention Division greatly appreciates the participation of all hospitals and reporting facilities who submit data. While the majority of injuries occur during the seasonal July reporting, hospitals and treating facilities are encouraged to report fireworks related injuries throughout the year. While a few reports were received in paper format, 94% of these were received electronically via:

https://www2.illinois.gov/sites/sfm/SFMDocuments/Documents/PyrotechnicHospitalFireworksSurvey.pdf

## Office of the Illinois State Fire Marshal

2020 Illinois Fireworks Injuries

| Type of Fireworks             | Number of Fireworks Causing Injuries | Percent |
|-------------------------------|--------------------------------------|---------|
| Cones, Fountains Handheld     | 6                                    | 4%      |
| Firecrackers/Lady Finger      | 6                                    | 4%      |
| Jumping/Crazy Jack            | 3                                    | 2%      |
| M-80/M-60/M-100/Silver Salute | 9                                    | 6%      |
| Missile Rocket                | 2                                    | 1%      |
| Mortar                        | 55                                   | 26%     |
| Other Fireworks               | 0                                    | 0%      |
| Roman Candles/Shots/Balls     | 16                                   | 10%     |
| Sky/Bottle Rockets            | 14                                   | 9%      |
| Smoke/Cherry Bomb             | 4                                    | 2%      |
| Sparklers Wire/Wood Core      | 19                                   | 12%     |
| Fireworks Display             | 3                                    | 2%      |
| Homemade                      | 6                                    | 4%      |
| Unknown                       | 32                                   | 20%     |
| Total                         | 163                                  | 100%    |

| Type of Injuries         | Table of Type of Injuries<br>Number of Injuries | Percent |
|--------------------------|---|---------|
| Abrasions                | 24  | 11%     |
| Burns 1st Degree         | 43  | 20%     |
| Burns 2nd Degree         | 57  | 27%     |
| Burns 3rd Degree         | 7   | 3%      |
| Dismemberment/Amputation | 19  | 9%      |
| Fatality                 | 0   | 0%      |
| Fracture                 | 9   | 4%      |
| Hearing Loss             | 6   | 3%      |
| Lacerations              | 23  | 11%     |
| Loss of Sight            | 2   | 1%      |
| Other                    | 24  | 11%     |
| Unknown                  | 1   | 0%      |
| Total                    | 215   | 100%    |

| Gender                    | Number of Injuries | Percent |
|---------------------------|--------------------|---------|
| Female                    | 42                 | 26%     |
| Male                      | 120                | 74%     |
| Unknown (did not specify) | 1                  | 1%      |
| Total                     | 163                | 100%    |

| Age       | Number of Injuries | Percent |
|-----------|--------------------|---------|
| 0-6       | 16                 | 10%     |
| 7-10      | 9                  | 6%      |
| 11-16     | 23                 | 14%     |
| 17-21     | 18                 | 11%     |
| 22 & Over | 96                 | 59%     |
| Unknown   | 1                  | 1%      |
| Total     | 163                | 100%    |

| Body Parts                | Table of Type of Injuries  Number of Injuries | Percent |
|---------------------------|---|---------|
| Arms                      | 24  | 10%     |
| Ears                      | 9   | 4%      |
| Eyes                      | 24  | 10%     |
| Feet                      | 7   | 3%      |
| Fingers                   | 21  | 9%      |
| Hands                     | 62  | 27%     |
| Head/Face                 | 30  | 13%     |
| Legs                      | 30  | 13%     |
| Neck                      | 6   | 3%      |
| Torso                     | 16  | 7%      |
| Unknown (did not specify) | 0   | 0%      |
| Total                     | 229   | 100%    |

|                                 | Number of Injuries | Percent |
|---------------------------------|--------------------|---------|
| Hospitalized Less than 24 Hours | 8                  | 5%      |
| Hospitalized More than 24 Hours | 24                 | 15%     |
| Treated and Released            | 114                | 70%     |
| Transferred for Higher Care     | 10                 | 6%      |
| Unknown (did not specify)       | 7                  | 4%      |
| Total                           | 163                | 100%    |

<sup>1</sup> Facility reported no injuries
\*Data is based on surveys received from 89 participating hospitals and emergency facilities.