



Reframing the 4th of July: Spokane's Fireworks Ban

Executive Summary

This case study summarizes a presentation at the National Symposium on Model Performance in Fire Prevention in May 2012.

The City of Spokane and surrounding areas partnered to detail and communicate to the public damaging losses in terms of fireworks-related fires and injuries, to legislate a ban on the *sale* and *use* of common fireworks, and to enforce the ban in unison. Collaborative efforts resulted in a fireworks ban and better communications and relations among partner groups; as a result fireworks-related fires, injuries and nuisance calls affecting the overall quality of life for Spokane's residents, visitors and pets have been *substantially* reduced.

Overview

Our goals were two-fold:

- To enhance quality of life for all (residents, visitors, and animals) during the 4th of July holiday by:
 - Reducing risk (fear and actual loss/damage/injury)
 - Reducing fireworks-related noise
 - Reducing debris in air and on the ground
- Change patterned behavior about fireworks use.

Our objectives were to:

- Significantly *reduce* if not eliminate fireworks-caused injuries
- Significantly *reduce* if not eliminate fireworks-caused fires
- Eliminate the need to stack fire/emergency 9-1-1 calls

- Reframe: Suggest Alternatives
- Coordinate a regional, united effort
- Educate by telling and showing the truth about fireworks
- Legislate: introduce and pass fireworks ban
- Support change by enforcing the ban and reporting results

Formative Evaluation (qualitative or quantitative risk assessment)

The City of Spokane (Washington), like many areas throughout the United States, had a high incidence of fires and injuries related to or caused by consumer use of common fireworks. Spokane Fire Department's raw data on the number of fireworks-caused fires indicated a 10-year (1983-1992) pre-ban average of 104 fires per year occurring between June 28 and July 6. Fireworks-caused injuries averaged 29 annually with patients treated at six regional hospitals. Volume/capacity indicators from 911 Dispatch demonstrated the need to "stack" incoming 911 calls during peak hours of fireworks activity, which essentially meant that emergency calls for service were being put on hold as complaints about fireworks use overwhelmed the 911 emergency call center.

Information useful in identifying the problem was the number of fireworks related fires and injuries and the number of 911 reports/calls that occurred around the 4th of July holiday. Time parameters used were June 28 through July 6 over a 10 year period. The local climate, topography, vegetation, wildland fire risk and fire incident patterns were also evaluated. Multiple residential and field/wildland fires have occurred and estimating even a minimum cost of \$500 per call, significant savings for the fire department were anticipated.

Process Evaluation (analysis of the program's development and early implementation)

We identified the target audience – people who engaged in the purchase, sale and use of common fireworks, legislators (City Council, Mayor) and the media. We evaluated the target geographical areas by mapping the past ten years' fires and fireworks incidents. We gathered area hospitals statistics on fireworks related injuries over the same ten-year period. We also looked at how best to reach the target audience based on past successes. Based on fire incidents and fireworks related reports, June 28 through July 6 was determined to be the "window" of concentrated fireworks use. Also, national data suggested a predictable number of July 4th fireworks-caused fires and injuries. Many of these fires and the injuries were preventable if consumer fireworks were removed from local markets and residents were educated on the *actual community cost* of "safe-and-sane" fireworks.

These analyses compelled us to institute a ban on consumer use of common fireworks, to reduce the incidence of fireworks related fires and injuries and to reduce the instance of "stacking" 911 calls to free up emergency dispatch centers for actual emergency calls. To complete the goals and objectives, we needed to coordinate local efforts and resources among city and county representatives and others concerned, educate politicians and decision-makers, pass the fireworks ban, educate the public on hazards

associated with use of common fireworks, and encourage as an alternative the attendance of outdoor public fireworks displays put on by the professionals. Enforcement teams also had to be organized and procedures established for handling fireworks infractions, which took an initial investment. We would measure results by assessing fireworks-related fires and injuries after implementing the ban. We would also measure call statistics to see if there was a noticeable reduction in 911 calls for fireworks use.

Impact Evaluation (identification of measurable changes that are cognitive gains or behavior changes that reduced risk)

All goals and objectives outlined in Overview were achieved. For example:

- The number of fire runs between June 28 and July 6 was reduced for each year
- The number of fire-works related trauma treated by local emergency rooms was reduced
- Noise and nuisance/trash in neighborhoods were reduced
- Awareness of hidden cost of fireworks use was increased
- Partnerships with collaborating agencies were strengthened

Outcome Evaluation (longer term documentation that supports reduction of injury, death or economic losses)

There are still individuals in the community who believe it is their patriotic right to light fireworks, build sparkler bombs, and create disturbances throughout their neighborhood as evidenced by calls received by Crime Check. In 2011, Crime Check processed 578 fireworks calls with 335 of those from the City of Spokane. However, there are *far fewer* fires, injuries and nuisance calls. Our 911 system no longer has to “stack” medical calls because fire and other personnel enforcement efforts of the fireworks ban have dramatically reduced the incidents.

Recommendations for Others

It was *critical* to gain support from community and department leadership and to coordinate with other agencies/jurisdictions to make full use of combined resources. Good visual representations and compelling facts give meaning and emphasis to the real “hidden” costs of fireworks use. Know and communicate the *facts*. Work/partner with others. Make a *difference*.

For More Information

Contact: Lisa Jones, Fire Marshal, Spokane Fire Department, 44 W. Riverside, Spokane, WA 99201, 509-625-7000, ljones@spokanefire.org

To see an expanded version of this case study that was presented at the 2012 National Symposium on Model Performance in Fire Prevention hosted by Vision 2020, click <http://strategicfire.org/page.cfm/go/2012-Model-Performance>.