

**Program Title:** Cooperation Brings Results: A Case Study Evaluating Joint Action by Fire Department and Nonprofit.

## **I. Formative Evaluation – Planning**

In 2014, the American Red Cross (ARC) launched a national preparedness program to reduce preventable deaths and injuries due to disasters. A 20-year study of trends across all disaster types identified home fires as the leading cause of preventable disaster-related deaths and injuries. As a result, the ARC's focus moved to reducing fire deaths and injuries and building more resilient communities through smoke alarm installations and one-on-one fire safety/disaster education in high-risk neighborhoods.

Influenced by a successful program in Merseyside, UK, research was conducted on fire safety education and smoke alarm installation content from trusted sources like Vision 20/20, the NFPA, and the USFA. As a result, we developed an in-home visit methodology that ties together education, testing of smoke alarms, installation of long-life, tamper-resistant smoke alarms, and home fire escape planning. The risk assessment analyzed national home fire death and injury statistics, fire department incidents, the US Census Bureau, and the University of South Carolina's Social Vulnerability Index. In addition, ARC worked closely with a data science group to develop risk models and launch a Home Fire Risk map that aids Red Cross and its partners in identifying high-risk areas for program service delivery.

A local ARC chapter identified Kankakee, Illinois, as a location of interest. The Red Cross contacted the Kankakee Fire Department (KFD) and quickly began supporting the fire department-led efforts to protect the community. The Kankakee community experienced a high-profile home fire fatality involving a child shortly before joining, which drove KFD's prevention efforts. Both KFD and ARC successfully applied for grant funds for smoke alarms and other materials to support these efforts. In addition, KFD led the door-to-door canvassing efforts throughout the city, knocking on almost every door to offer services. ARC helped promote the services in the community and tracked the service delivery.

## **II. Process Evaluation – Implementation**

Home visitors offered fire prevention and safety education, escape planning, smoke alarm testing, smoke alarm installation, and additional hazard education for other locally relevant disasters. Also provided was accessible fire safety equipment installation for people who are deaf or hard of hearing.

From 2015 to 2017, the ARC and KFD team canvassed 90% of homes and provided services to more than one-third of households across the city. Almost 10,000 smoke alarms were installed in more than 3,300 households participating in this program. After noticing the high volumes of service delivery occurring in Kankakee compared to the community's size, the ARC's program management team launched an evaluation to study program outcomes.

## **III. Impact Evaluation – Short-Term Results**

Measuring program impact using a survey-based controlled study helped demonstrate differences in fire safety behavior, presence of hazards, fire prevention and safety knowledge, and perceptions of preparedness. Households that participated were compared to a nationwide comparison group with a similar demographic profile.

#### Key short-term results:

- 59% of households targeted had home fire escape plans compared to 47% of households in the comparison group that did not participate in the program.
- 50% of the above households also reported having practiced their fire escape plan within the last six months compared to only 37% in the comparison group.
- Survey respondents were how prepared they currently felt to respond to a fire in their home. 78% percent of participating households reported that they felt prepared or somewhat prepared, compared to 63% in the comparison group.

One other benefit of conducting in-home visits is that it provided an opportunity to immediately correct other safety concerns that the program team identified in the home.

#### IV. Outcome Evaluation – Long-Term Results

The long-term analysis found that participants had fewer/less severe fire incidents than those households that did not participate. Success was driven by a proactive fire department-led approach and a community that was primed to hear this message and take action to prevent home fires. By analyzing NFIRS data between 2016-2019, ARC was able to document the following key findings:

- Households that did not participate experienced fires at a rate that was 73% higher than participating households.
- Households that did not receive an in-home visit had a severe fire rate that was 70% higher than that of participating households. Severe fire is defined as causing \$25K or more in damages or resulting in a civilian death or injury.
- When severe fires did occur, the average total amount of damage was over two times greater for households that did not receive an in-home visit before the fire.
  - Received an in-home visit prior to the fire: \$40,638.
  - Did not receive an in-home visit prior to the fire: \$94,323.
- Death and Injury:
  - Received an in-home visit prior to the fire: 0 deaths and 4 injuries.
    - Note: 3 of these injuries occurred in households that received the in-home visit four years prior to the fire.
  - Did not receive an in-home visit prior to the fire: 4 deaths and 15 injuries

The successes in this location would not have been possible without the leadership provided by the Kankakee Fire Department. Throughout the seven years that ARC has been operating the Home Fire Campaign, partnerships have proven critical to achieving success. Through strategic partnerships, ARC has made a tremendous impact in this community and others. So far, American Red Cross has documented more than 1,100 lives saved as of November 2021. Collaboration brings results!