ICMA 2013

Program Excellence Awards

Community Health and Safety Award

City of Surrey

*HomeSafe* Program

50,000 and Greater



# 2013 Annual Awards Program

## Program Excellence Awards Nomination Form

## Deadline for Nominations: March 8, 2013

Complete this form (sections 1 and 2) and submit with your descriptive narrative.

### SECTION 1: Information About the Nominated Program

Program Excellence Award Category *(select only one)*:

Community Health and Safety

Community Partnership

Community Sustainability

Strategic Leadership and Governance

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| --- | --- | --- | --- | --- | --- |
| Name of program being nominated: | Evidence-Based Fire Reduction Strategy | | | | |
| Jurisdiction(s) where program originated: | City of Surrey | | | | |
| Jurisdiction population(s): | 484,000 | | | | |
| Please indicate the month and year in which the program you are nominating was fully implemented. (Note: All Program Excellence Award nominations must have been fully implemented by or before January 31, 2011, to be eligible. The start date should not include the initial planning phase.) | | | | | |
| Month: | October | Year: | | | 2008 |
| Name(s) and title(s) of individual(s) who should receive recognition for this award at the ICMA Annual Conference in Phoenix, Arizona, October 2012. (Each individual listed MUST be an ICMA member to be recognized.): | | | | | |
| Name: | Murray Dinwoodie | | | | |
| Title: | City Manager | | Jurisdiction: | | City of Surrey, British Columbia |
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### SECTION 2: Information About the Nominator/Primary Contact

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of contact: | Michael McGreer | | | |
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### Submitting a Nomination

Forward the nomination form and descriptive narrative to be received at ICMA by close of business on **March 8, 2013**. Please email all submissions to: [awards@icma.org](mailto:awards@icma.org).

Questions should be addressed to ICMA’s Awards Program at [awards@icma.org](mailto:awards@icma.org) or 202/962-3656.

**Community Health and Safety nomination: *HomeSafe* Program**

**City of Surrey, British Columbia, Canada**

**OVERVIEW**

Launched by Surrey, British Columbia in October 2008, *HomeSafe* is a proactive, evidence-based fire prevention program that uses local fire and demographic data to target fire hotspots in the community for door-to-door firefighter visits and smoke alarm giveaways. The program is contributing to reduced fire losses, deaths and injuries in Surrey. Formal evaluation showed that in its first two years alone, *HomeSafe* reduced the annual fire rate in Surrey’s highest risk homes by 64% and prevented an estimated $1.26 million in fire losses. *HomeSafe* also increased smoke alarm activations and reduced fire size and spread. No equivalent program, based on this process or evaluated in the same manner, exists anywhere else in North America.

**Challenge and Need**

Research of nearly 5,000 structure fires in Surrey over a 20-year period demonstrated that certain people, properties and neighbourhoods have a greater fire risk than others. Conducted by the University of the Fraser Valley in B.C., the research revealed the following trends:

* Over 75% of Surrey’s structure fires involved residential properties.
* Fire incidence was not random. For example, it increased when occupants smoked, were elderly, had a disability or had mental health or substance use issues.
* Residential structure fires tended to be clustered geographically, based on dwelling use, sources of ignition (e.g., cooking, open flames), and the presence of functioning smoke alarms.

Research into international fire education best practices pointed Surrey towards developing a custom home visitation program to address these trends. Since the 1990s, international research has shown that public education programs are an effective way to reduce residential fires. For example, *Proving Fire Education Works*, written by Philip Schaenman, Charles Jennings and colleagues for the TriData Corporation in 1990, highlighted the positive impact of 77 public education strategies including school-based programs, community-wide programs, programs targeting a specific cause of fire or audience, juvenile firesetter programs, smoke detector programs, and national strategies. All 77 initiatives demonstrated positive impact in some form.

More recent research points to home visitation programs as being particularly effective when delivering fire education. A 2009 TriData study highlighted the impact of home visitation programs in the United Kingdom that targeted fire safety inspections and risk reduction, and emphasized the importance of working smoke alarms. Similar home visitation initiatives in Canada have focused on issues including the presence of working smoke alarms, development of fire escape plans, and public education on common causes of preventable house fires. The typical result is reduced fire rates and increased presence of working smoke alarms.

Building on these lessons, Surrey focused its *HomeSafe* program on reducing the frequency and severity of residential fires in neighbourhoods that posed the greatest risk.

**Program Implementation and Costs**

Neighbourhoods with the greatest fire risk were identified from the distribution of recent fires across Surrey, combined with concentrations of high-risk residents (as a consequence of factors such as age, family structure, and lifestyle, as determined based on Census data).

Each of Surrey’s 17 fire halls received an equal number of information packages to distribute and a list of addresses to target. Scheduled firefighter training was suspended for a two-week period, during which crews delivered an average of 2,620 information packages.

Uniformedfirefighters went door-to-door to educate residents about fire safety, provide an information package, and offer to install a free smoke alarm on the spot (a signed waiver is required). The information package covered a range of prevention topics, including:

* Smoke alarms – purpose, types, locations, strategies and maintenance;
* Home fire escape plans – need and purpose, the realities of fire, what to do in case of fire, individuals and locations with the greatest fire risks;
* Children and fire – curiosity about fire, parenting strategies, safe use of fire;
* Senior fire safety – survival and prevention strategies, home fire escape plans; and
* Kitchen fire safety – prevention strategies, what to do in case of a kitchen fire, ignition sources, how to respond to burns and burning clothing, and children in the kitchen.

A letter from the Surrey Fire Chief, included with the package, outlined the purpose of the initiative and reinforced the offer of a free home safety inspection and smoke alarm installation. If residents were not home, the package was left on their doorknob.

More than 37,500 homes had been visited as of the end of 2012.

Hard costs have been limited to the development of the public education materials; there are no wage costs because the fire prevention information is delivered by on-duty career firefighters, and administrative costs are absorbed by the organization.

After the initial cost of $4,900 for information materials, the program’s total annual cost has ranged from $2.54-$2.96 per home visited. Implementation costs for the first two years of the program came to less than $63,000. Sponsorship from the Surrey Fire Fighters’ Charitable Association and a local shopping mall has funded the cost of the smoke detectors, and media coverage and free public announcements have been utilized to advertize the program. Further, by reducing fire-response costs, the program has freed up resources to direct to other priorities.

**Tangible Results / Measurable Outcomes**

In combination with other evidence-based fire prevention programs in Surrey, *HomeSafe* has contributed to:

* A 42.3% reduction in the rate of death/injury from 2006 to the end of 2012, despite a 14.8% increase in population over this period.
* A 35.5% reduction in the rate of fires per 1,000 dwellings from 2006 and 2012, despite a 15.2% increase in the number of dwellings over this period.

A formal evaluation was conducted after *HomeSafe* had been in effect for two years and had reached 18,473 addresses, representing about 14% of all Surrey homes (excluding apartments). High-risk control groups (composed of addresses scheduled to be visited post-evaluation) were used to evaluate the impact. Based on data from two years prior to the first wave of delivery, the annual rates of fires per 1,000 dwellings in each group were calculated and compared.

This process revealed a 64% reduction in the annual rate of fires for *HomeSafe* houses – approximately 4.4 times greater than the reduction (15%) observed in the high-risk controls over the same period. This translated to a reduction in the frequency of house fires in the *HomeSafe* areas from once in every 97 days before the intervention to once in every 193 days afterwards. The control groups, in comparison, observed a frequency decrease of only 3.7 days per fire.

The results are also encouraging when examining the 13 fires in the visited houses:

* Smoke alarms were activated in 46.2% of cases, compared to 17.2% pre-intervention – a 169% increase.
* 38.6% of fires were confined to the object of origin, compared to 11% pre-intervention – a 251% increase.
* Average loss of $33,486, compared to $66,707 pre-intervention – a 50% decrease, despite a growth in average property values in the target areas from $380,000 to $405,000.

**Lessons Learned**

In researching other international best practices while developing *HomeSafe*, Surrey found that other visitation programs lacked conclusive, formal evaluation and often became victims of their own success, with funding and focus redirected after the problems were perceived to have been resolved. Surrey was determined to avoid these pitfalls and further develop the concept.

*HomeSafe* was the first program of its kind in North America to be subjected to a formal evaluation, published in the March 2012 edition of the *Journal of Safety Research* under the title “Reduced Frequency and Severity of Residential Fires Following Delivery of Fire Prevention Education by On-duty Fire Fighters” as well as other publications.

*HomeSafe* also built on the concept developed in the UK by employing local fire and demographic data to target neighbourhoods historically associated with fire risk, as well as emerging fire hotspots. The program continues to rely heavily on ongoing analysis of fire data, to enable Surrey to continually target new neighbourhoods with the highest incidence of fire.

As the program has evolved, Surrey continues to learn from the results and seek out opportunities for improvement, including:

* Identification of Surrey’s highest risk members through closer examination of the links between fire and the age of individuals, cognitive/physical disability, drug-induced impairment and socio-economic factors,
* Identification of risks based on dwelling types,
* Continued monitoring to ensure the program continues to target the highest risk areas, and
* Additional research of applicable best practices to enhance the program’s process, content and delivery, including the use of telemarketing to distribute safety information.

*HomeSafe* was undertaken through analysis of local data and the targeted application of existing prevention methodologies, with minimal additional cost to the fire service. The logic of this approach can be replicated and applied everywhere. Focusing on the highest-risk members of the community will produce the biggest return on investment.