

Expanding the Role of the Eden Prairie Fire Department in
Reducing Unintentional Injuries for its Children

Leading Community Risk Reduction

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Abstract

Today's expanding mission of the fire service is challenging us to ensure we are allocating our limited resources to address the greatest risks within our community. The hallmark of a successful future of the fire service will be our ability to identify our risks and create an environment that promotes multi-hazard community risk reduction programs that are cost effective for the citizens we serve. The cost of prevention is inconsequential to the devastation and burdens that fires and injuries place on our communities. The fire service has seen great success from their efforts in fire prevention, but the time has come to expand that expertise into the number one preventable killer of children—unintentional fatal injuries. The problem that prompted this research was that the Eden Prairie Fire Department does not have a comprehensive multi-hazard community risk reduction program targeting the children of the community, resulting in missed opportunities to deliver progressive risk reduction services in an effective and efficient manner.

The purpose of this research was to identify current child fire and injury prevention activities being offered by the Eden Prairie Fire Department and describe the differences between our current programs and that of fire service risk reduction programs being offered by other departments. This research project was accomplished utilizing the descriptive research methodology to answer the following research questions:

1. What are the current programs being offered by the fire department?
2. What are the risks our children face within our community?
3. What programs or services already exist within the community that can benefit our young population?

4. What are other departments doing to address their community risk reduction effort for their children?
5. What other programs or services exist for the community, but outside the city limits?

A survey instrument was sent to 66 fire departments in the Minneapolis-St. Paul metropolitan area to ascertain their level of commitment in injury prevention education. Additionally, interviews were conducted with individuals considered experts in injury prevention education to gain a better understanding of what other departments and organizations were doing to address this problem.

The literature review showed that death by fire was not the leading cause of unintentional fatal injuries facing our children. Fires were the fifth leading cause of death for ages 14 and under. The number one killer of children in this age group is motor vehicle crashes. However, the survey results showed only 25% of the departments provided any type of injury prevention education other than fire prevention education. Moreover, the survey results revealed that half of the departments believed that this age group was most at-risk. Only three departments (15%) provided a dedicated person for injury prevention education. The research showed several programs that are available to deliver injury prevention education. In addition, there are several local organizations that can assist in developing, implementing and delivering injury prevention programs.

The three-prong final recommendation was to educate and gain support of the fire department leadership and membership that promoting injury prevention was just as vital as promoting fire prevention; to promote the fact that the fire service is in the best position to carry this message forward with its strong track record in fire prevention; and finally, to advocate for the development of a formal program within the department that is supported with the resources

necessary to carry the program well into the future. The foundation laid today will place the department in a leadership role within the community as strong advocates for community risk reduction.

Table of Contents

Abstract..... 2

Table of Contents..... 5

Introduction..... 6

Background and Significance..... 9

Literature Review..... 12

Procedures..... 21

Results.....22

Discussion..... 30

Recommendations..... 33

Reference List.....36

Appendix A: Cover Letter and Survey with Results Add..... 38

Appendix B: Departments That Received Surveys.....42

Appendix C: Departments That Returned Surveys..... 44

Introduction

One of the great turning points in our nation's fire service was the publication of *America Burning* in 1973 (*America Burning*, 1973). The document identified the fire problems in the United States not only for fire service personnel but also the people they serve. It gave guidance through the publication of the *Recommendations of the National Commission on Fire Prevention and Control*. The fire service embraced these recommendations and over time has made great strides in addressing the fire problems of the nation through new regulations and standards, education and training, equipment, construction practices, life safety codes, enforcement activities and public education programs like *Exit Drills In The Home (E.D.I.T.H.)* and *Learn Not to Burn*. There has been a steady decline in firefighter and civilian deaths since that time and the overall safety of our nation has benefited from these efforts. This is evident by the fact that in 1973 there were approximately 12,000 civilian fire deaths and today the annual civilian deaths are down to approximately 4,000 (United States Fire Administration [USFA], 2005). However, Oster (1999) states "the U.S. still suffers one of the highest per-capita fire-related death rates of industrial nations." The progresses we have made will need to continue to keep this trend on its downward path.

With the many changes came new opportunities to expand services and during the past 32 years the roles and responsibilities have significantly changed the face of the fire service. During this same period and while addressing the recommendations set forth in *America Burning* the fire service has also taken on many other responsibilities not identified in the report, such as emergency medical response, hazardous materials response, technical rescue response and more recently weapons of mass destruction preparation and response. The combination of all these responsibilities has put quite a strain on most departments resulting in the elimination or

reduction of what is now considered traditional fire prevention programs in an effort to make room for other programs, be they prevention or response activities. The successes over the past 32 years in addressing the fire problems have laid a solid foundation in sound prevention practices and procedures and should be a model for the future. Chief Paulsgrove (1998) echoed this concept:

With a proven track record in teaching the public how to prevent and respond effectively to fires, the fire service has the credibility and expertise to organize our communities around broad safety issues and serve a vital role in reducing injuries. (p. 32)

According to the report *It's Never Too Late To Educate About Fire* (2004) published by the National SAFE KIDS Campaign fires and burns are the fifth leading cause of unintentional injury-related death among children ages 14 and under. Moreover, the same organization released a report a year earlier ("Report to the Nation," 2003) stating that deaths relating to fire and burns made up only 10% of the overall causes of fatal unintentional injury in this age group. The leading cause of fatal unintentional injury is motor vehicle crashes. Kiurski (1999, p. 136) stated "our scope has recently switched from fire safety to fire and life safety, taking into account the many aspects of accident prevention." The speed at which the fire service is changing today can cause confusion at times when trying to determine the services it should deliver. This can challenge the mission of most departments to ensure that the services being delivered are the services that should be delivered.

During a weekend leadership retreat held in October 2004 at the Eden Prairie Fire Department Dr. Larry Ritcey stated that the successful future of the fire service will be based on its ability to embrace and promote within the community a comprehensive multi-hazard risk

reduction program lead by fire service organizations. Dedicating time and resources to this effort is the key to creating a progressive, innovative and successful fire department.

The research problem is that the Eden Prairie Fire Department does not have a comprehensive multi-hazard community risk reduction program for its children, resulting in missed opportunities to deliver progressive risk reduction services in an effective and efficient manner.

The purpose of this research was to identify current child fire and injury prevention activities being offered by the Eden Prairie Fire Department and describe the differences between our current programs and that of fire service risk reduction programs being offered by other departments. This research project was accomplished utilizing the descriptive research methodology to answer the following research questions:

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This project will provide the fire chief with a set of recommendations to ensure our community risk reduction efforts are targeted at our current most at-risk population—children—and help our department establish a solid foundation in best practices so that we can capitalize on future opportunities in providing focused prevention efforts.

Background and Significance

The City of Eden Prairie is a suburb in Hennepin County located approximately 20 miles southwest of Minneapolis, Minnesota, with an approximate population of 60,000. Eden Prairie is predominately a bedroom community with several office and warehouse businesses, moderate industrial and manufacturing businesses, and a strong shopping and restaurant market. There is one major interstate system running through the city and two additional highway systems intersect the city. There is a railway system running through the west side of the city and the Minnesota River defines the city's southern border. The Flying Cloud Airport is located in the southern part of the city and is home to many small- to medium-size aircraft. The Eden Prairie Fire Department was established in 1967 and covers the 36 square miles of the city daily from three fire stations with 75 paid-on-call members. The overall workforce consists of seven full-time staff and 75 paid-on-call staff. The full-time staff consists of the fire chief, administrative secretary, communications specialist, fire marshal and three inspectors. There are four primary services provided by the department: fire suppression; medical first response for the third party advanced life support ambulance service; fire inspections and code enforcement (along with limited fire and injury prevention education); and finally, operation of the Life Safety Unit which is one of seven units in Hennepin County equipped to respond to weapons of mass destruction and hazardous materials incidents for the purposes of air monitoring and decontamination operations.

Prior to 1960 Eden Prairie was predominately rural with a population of approximately 2,000 residents; however, in the past forty years the population has soared to nearly 60,000 with over 2,200 businesses and over 21,000 households in 2000 of which 71% were occupied by a family. Seventy-two percent of the population is under the age of 45 (U.S. Census, 2000). Eden

Prairie is considered a young community with only one nursing home and few senior housing units. However, this trend will certainly shift as the demographics of our nation become a more aging population. The 2000 Census reports nearly 26% of our population is 14 years and younger.

The fire department provides traditional fire prevention education through three primary approaches. First, it delivers its message to all kindergarten students in the public school system through a show and tell approach. This is intended to get the children familiar with the apparatus, equipment and fire department staff. The next group of children is the third-grade classes and a 25-minute lecture is presented focusing on home fire prevention activities. The first and second grade classes can request a visit from the fire department. However, this is typically a fire truck demonstration or a station tour at one of the stations. This is provided during the month of October to help promote and take advantage of national fire safety week. Second, it delivers the annual two-day safety camp in July of each year to children entering third grade. The topics covered in the safety camp are water safety, animal safety, stranger danger, bike safety, poison control, home safety, roller blade safety, weather safety, electrical safety and the traditional home fire safety utilizing the safe escape house. The program is a collaborative effort between the fire department, police department, parks department and several local organizations such as utility companies, news station and poison control center. Unfortunately, this program is limited to 180 participants and does not reach a large percentage of the population in this age group. Finally, the annual open house activities are done on the Saturday during national fire safety week; however, the open house is primarily intended to show the community what the fire department does and is not necessarily focused on comprehensive fire prevention education.

In addition to the above activities the fire department utilizes a fire prevention coordinator who is selected from the volunteer ranks of the firefighters. This person's primary responsibilities are to assist with the planning and implementation of the open house and safety camp and to coordinate all the other requests that come into the department such as station tours, block parties, and presentations to local organizations.

The fire department primarily engages in prevention activities that are fire related; however, when I asked our senior firefighters and officers if they could remember the last fatal fire involving a child or the last seriously injured child as a result of fire not one of them was able to recall an incident. When asked if they could remember the last time a child was injured or killed in a motor vehicle crash, drowning, bicycle or pedestrian incident they could easily recall an incident. This signifies two points: our fire prevention education is working and we need to continue with those efforts, and second, we are not doing enough prevention education in other non-fire related areas.

The significance of this research paper will identify the different types of risks our children face within our community and describe the areas where our prevention efforts are strong and the areas where we could channel more energy. The process of assessing community risk—by looking within our own department and community using the community risk reduction process as outlined in the student manual for the Leading Community Risk Reduction course in July 2004, at the National Fire Academy, Executive Fire Officer Program (United States Fire Administration [USFA], 2004)—will provide the department with a proactive approach to community risk reduction resulting in more efficient and effective prevention efforts for everyone involved.

Literature Review

A literature review was conducted utilizing the National Fire Academy Learning Resource Center, Minnesota Fire/EMS/Safety Center Library and a search of the internet. The purpose of the literature review was to help provide answers to the questions that were posed for this research project. Some of the research questions were augmented with interviews to help expand my understanding of local efforts.

There has been much written on the topic of fire prevention—home fire escape planning, stop, drop and roll, safety in the kitchen, and fire hazard recognition within the home to name a few. It is not the intent of this project to take away from the efforts we are already doing but to see where other opportunities exist and to find an efficient and effective way to provide these services to our community. There was a strong indication in the literature that fire departments were aware of the deficiencies in providing other prevention education programs by the many Executive Fire Officer papers relating to this topic area.

(1) What are the current programs being offered by the fire department? A significant portion of this question was answered in the previous section of this paper. In summary, the department provides traditional fire prevention education utilizing volunteer and full time staff. It does not use formal education programs. In an interview with C. Schaitberger (personal communication, March 21, 2005), Fire Inspector, Eden Prairie Fire Department, he stated that approximately 10% of his duties are spent on prevention education, all of which are focused on fire related concerns and almost all of that time is spent during fire prevention week in October. During that time his inspection duties are put on hold or performed earlier or later in the day. He went on to say that the biggest hurdles to expanding the prevention efforts are twofold: not enough available time for additional prevention activities and not enough resources to deliver or

advocate for additional prevention programs within the schools. He added that the schools are facing ever greater challenges with budget cuts and the need to increase mandated programs.

A. Nelson (personal communication, March 18, 2005), Fire Marshal, Eden Prairie Fire Department, stated the city is rapidly growing which is putting a greater workload on the inspections department. He believes some of the factors which impede the members of the volunteer ranks from getting involved are lack of prevention and education training, minimal pay, and no clear message or program to deliver. W. Peterson (2001, p. 103), states “the fire department needs to increase public awareness of the threat fire poses and focus on a community plan to protect residents.” M. Marchone (1997) agrees the fire service has made great strides in reducing the number of fire deaths and related injuries and he advocates a continued commitment in fire prevention, but he also challenges fire departments to reassess their prevention role. Expanding fire prevention to include injury prevention is a natural evolution for the service; however, the department has to be smart by ensuring we take nothing away from our current fire prevention efforts.

(2) What are the risks our children face within our community? The first source I tried to evaluate was our past response records in our own city. However, neither the fire department nor the police department keeps detailed records that could provide me with the specifics for breaking down the type of injuries our children face. The third-party ambulance service would not provide information specifically for our community. Finally, the county health department does not keep city-specific data except for Minneapolis. In the State Injury Profile for Minnesota 1989-1998 report (Center for Disease Control [CDC], 2001) it stated that unintentional injuries are the leading cause of death for people less than 34 years old. Moreover, the same report further breaks down the causes into categories. The number one leading cause of unintentional

fatal injuries is motor vehicle crashes. The remaining causes in order of ranking are falls, suffocation, poisoning, drowning and other causes. This accounted for a total of 5,074 deaths. In a report published by the National SAFE KIDS Campaign (May, 2003) M.R. Eichelberger, M.D., President and Founder of the National SAFE KIDS Campaign reaffirmed that unintentional injury remains the number one killer of children ages 14 and under. Like the previous report from the CDC motor vehicle crashes were the number one killer of children 14 and under for the year 2000 (28%). The second leading cause was drowning (16%), followed by airway obstruction (14%). Airway obstruction occurred in 60% of the children less than 1 year old. A category labeled as Other was the fourth leading cause (14%); however, the causes which make up this category could not be ascertained. The fifth leading cause was fire and burns (10%). A. Wolf cautioned that “pedestrian deaths constitute a major problem in urban areas” (1997, p.61). This statement is confirmed in the SAFE KIDS study by the fact that in 2000 pedestrian injury deaths were the second leading cause of unintentional deaths for children ages 5 to 14.

M. Kinde, MPH (personal communication, April 14, 2005), Injury and Violence Prevention Unit, Minnesota Department of Health, said injury data is generally gathered through zip code boundaries and since Eden Prairie has several zip codes which overlap into other cities the results would not truly reflect the city. J. Roesler (personal communication, April 15, 2005), Senior Epidemiologist, Minnesota Center for Health Promotion, Minnesota Department of Health stated that they generally discourage analysis at the city level—the numbers are too small to analyze accurately. Mr. Roesler directed me to the online Minnesota Injury Data Access System (MIDAS) which allowed for the generation of mortality rates at the county level (MIDAS, 2005). This query data system allows a person to input a number of variables relating

to injuries both fatal and non-fatal. The 2003 MIDAS data for Hennepin County produced a very small number of deaths in the 14 and under age group. However, even these small numbers were consistent with the top three national causes: motor vehicle (1 death), drowning (1 death), and suffocation (1 death). I queried the same data except I replaced fatal with non-fatal injuries in the same categories with these results: 1 – motor vehicle (514), 2 – pedal cyclist (74), 3 – pedestrian (69), 4 – suffocation (28), and 5 – fire/flame (24). These results tend to parallel the National SAFE KIDS data (May 2003) except in Hennepin County where drowning was the sixth (11) most common non-fatal injury. Nonetheless, a fact sheet obtained from the Minnesota Safety Council (2005) web site showed that for the time period 1998 – 2002, drowning was the second leading cause of death in Minnesota for the age group 1 – 14 which is consistent with national data.

(3) What programs or services already exist within the community that can benefit our young population? J. Schlossmacker, (personal communication, April 25, 2005), Officer, Eden Prairie Police Department, stated the department dedicates four officers for the eight schools. The primary focus in kindergarten to sixth grade is educational in nature. Each officer is in the elementary classroom (Kindergarten – grade four) once a month delivering different topics such as bike safety, choices and consequences, bullying, Character Counts, and K-9 demonstrations. He went on to say that education is their sole focus in the elementary schools and in the intermediate school (grades five and six) it is a combination of 80% education and 20% enforcement. The biggest outcome from this interaction is building trust with the children. The fifth and sixth grade students receive education in alcohol and drug abuse prevention through Counter Act and Project Northland programs. The officers at the high school are primarily in place for enforcement, counseling, and as advisors for the teaching staff. Educational programs

are limited in the high school, but one program that has seen great success is the Mock Crash—a presentation given to the students involving a staged fatal car crash. The panel of presenters recounts the events during and following the crash. The panel consists of a police officer, paramedic, emergency room physician, medical examiner, family member of the victim, and drunk driver that killed a dad. (During this part of our interview he commented and wondered why the fire department was not involved in this presentation.) Historically, the police department provided car seat inspections but over time has gotten away from that due to time commitment and ongoing training. The only involvement specific to injury prevention is the annual spring bike safety classes held in the kindergarten through fourth grade and their participation in the annual safety camp. Even with the successes the police department has seen it has not been without some challenges. The schools are constantly being hit with budget cuts, state mandated programs and testing requirements which leave the teachers reluctant to bring more programs into the classroom. Creativity will need to be a high priority if new programs are going to be implemented.

R. Wade (personal communication, April 25, 2005), Office Assistant, FamiLink Resource Center, which serves the City of Eden Prairie stated their primary focus is a resource and referral center and not a provider of specific prevention programs. They help families find specific resources they need and make the appropriate referrals. She referred me to the Minnesota Safety Council for further information about injury prevention education.

K. Williams (personal communication, April 25, 2005), Youth Family Coordinator for Eden Prairie Parks and Recreation Department said along with the partnership during the annual city safety camp they are very involved in water safety, offering several swimming class, water safety instructor training and lifeguard training.

(4) What are other departments doing to address their community risk reduction efforts for their children? As stated in an article in NFPA Journal, Chief Peterson (2001, p105), Plano, Texas, Fire Department has collaborated with the local school district to incorporate the National Fire Protection Association's (NFPA) Risk Watch program which is an injury prevention program targeting children from preschool through eighth grade. The curriculum delivers prevention education in the following eight areas: motor vehicle safety; fire and burn prevention; choking, suffocation and strangulation prevention; poison prevention; fall prevention; firearms injury prevention; bike and pedestrian safety; and water safety. The Risk Watch modules were creatively delivered in Rockbridge County, Virginia's "Rescue Camp 2003" by the efforts of J. Blankenship (2004) and a group of local public safety agencies and businesses in a one day safety camp targeting the third and fourth grade students. In Columbia Missouri, the Boone County Fire District (Hines, 1997) created the Survival Kids program which puts a firefighter in the fourth grade classroom every month of the school year delivering an educational survival message. The lessons are not all fire topics but address many of the issues facing children such as shootings, vehicle accidents and drowning. Assistant Chief Hines states their program has not received any state or federal funding which has been a part of its success. Saunders (2003) says fire prevention cannot be static and fire prevention along with other programs covering a broader range of seasonal public safety topics needs to be a year round approach. His department has created a program that utilizes the months of the year to address safety concerns that are common to that month or season. Examples are January – home heating safety, carbon monoxide poisoning, ice safety, and winter survival kits; and July – firework safety, drinking and driving, barbecue safety, and water safety. The results of my survey instrument will add local information relating to this question.

A phone interview with S. Cwayna (personal communications, April 25, 2005), Public Safety Education Specialist, Plymouth Fire Department, Plymouth, Minnesota, says her job position in the injury prevention program came about 12 years ago when the department underwent restructuring. Two fire inspectors would now focus on inspection duties and Ms. Cwayna was hired to deliver the prevention message. Her original job responsibilities included crime prevention however, over time this position has grown and has since moved towards primary fire and injury prevention activities. Crime prevention is now the sole responsibility of the police department. The primary benefits to their community through her position are a committed resource that brings a strong fire department presence in injury prevention education and other associated programs. She also stated that over the 12 years there has been a cultural shift within the organization that the primary role of the firefighter is not only to respond to emergencies but also to deliver prevention education. A committed staff position in public safety education combined with the cultural shift has resulted in numerous programs for their community such as car seat inspections and low cost car seat program, Smokebusters for seniors and Smokebuster for families, adopt-a-fire hydrant program, and a ski and snowboarding helmet sale to name a few. Finally, the cost benefit of utilizing their paid-on-call and daytime duty crews has proved to be a very efficient way to deliver several programs throughout their community.

(5) What other programs or services exist for the community, but outside the city limits?

In an Executive Fire Officer Project, Captain Mosack (2001) avers that the fire service and public health system need to approach injury prevention together. However, this type of education is new for many fire departments and the dedication of people that are trained in injury prevention will be necessary. He goes on to state that “a public health approach to injury prevention should be a collaborative effort involving the entire health care community.” Even

though the Hennepin County Health Department does not provide injury prevention programs, there are still organizations available to assist us. The Minnesota Safety Council is the lead sponsor of the Minnesota State SAFE KIDS Coalition. This coalition has several chapters throughout Minnesota working as strong resources in their communities providing prevention education and low cost safety products for children ages 14 and under. There is one local SAFE KIDS coalition—Northwest Metro Minneapolis—in Minnesota, sponsored by North Memorial Medical Center. They deliver numerous programs in the northwest quadrant of Hennepin County and have been known to assist communities outside of their geographic boundaries including the southwestern quadrant of Hennepin County. A. Pence (personal communication April 26, 2005), Injury Prevention Specialist and Co-Coordinator for the Northwest Metro Minneapolis SAFE KIDS Coalition, North Memorial Trauma Services, Robbinsdale, Minnesota, states their coalition is very active in providing several programs that target the 1 to 14 age groups. Their most successful program is the car seat inspection program. They work closely with local car dealerships, fire and police departments, community service groups, and social service agencies to offer inspections along with low-cost or free car seats. She says one of the biggest advantages in working with a local SAFE KIDS coalition is the coalition's access to the National Campaign's programs and grant dollars which allow them to offer their programs at low cost or free of charge in some situations. Many of the National Campaign's programs, and coalitions in turn, have lead corporate sponsors who can provide products or services at wholesale prices. For example, Bell Sports, Inc. is the lead sponsor of Ready to Roll, the wheeled sports safety program. Bell provides bicycle helmets at cost for coalitions to use in their programs at the local level. General Motors/Chevrolet has provided millions of dollars over the years to support SAFE KIDS Buckle Up, the child passenger safety program. Other corporate sponsors include FedEx

Express and Johnson & Johnson. Ms. Pence stated that working with fire departments has been both a success and a challenge. The advantages of working with the fire departments are the fire stations are very conducive to these types of events, along with the fact that many cities have multiple locations to utilize. Additionally, they have staff available to assist with events, especially the volunteer or paid-on-call departments, and finally, the mission of both organizations are very similar in that they want to reduce the multiple risks our communities face. However, the biggest challenge they have experienced has been that several departments, especially police departments and career fire departments, have stopped providing or greatly reduced their efforts because public demand has been overwhelming and the time and resources commitment have forced them away from offering these events. These departments then refer their citizens to the Northwest Metro Minneapolis Coalition which is putting even greater demands on their personnel and resources. Ms. Pence commented that this is a good challenge to have because it shows a desire on the part of parents that they want their children to be safe and they are seeking out opportunities to do what is best for their children. She stressed that a collaborative effort is the key to the success of everyone involved—public safety, SAFE KIDS Coalitions, parents and children.

Griffiths (2002) promotes emergency medical providers reaching into the community as leaders or supporters of prevention programs. Eden Prairie is served by a third party, county hospital-based ambulance service. Annual bike safety rodeos, safety camps, and child passenger protection programs and car seats clinics are some of the service they could provide.

The Minneapolis Area Chapter of the American Red Cross is also active in child safety. A fun approach to delivering the safety message is with their Safety Mobile and B. Safe Bear (2005, ¶ 2). The Safety Mobile is a special vehicle that travels to schools and community centers

teaching safety lessons. The 20-minute topics can include fire safety, emergencies and 911, weather safety, water safety, wheel safety, chemical safety, and preventing common injuries.

Procedures

The procedure used in preparing this paper began with a review of industry journals, periodicals, standards, and Internet websites. A literature search at the Learning Resource Center at the National Emergency Training Center was done in July 2004. The literature review was continued over the winter months at the Minnesota Fire/EMS/Safety Center Library. The information gathering process continued with interviews with local individuals thought to be experts in the field of injury prevention and education.

A survey instrument was sent to local fire department within the metropolitan area (Appendix A). The survey began with several questions addressing the general demographics of each department's city. The survey continued with questions about the department's current prevention activities. The first question asked specifically if the department had a multi-hazard community risk reduction plan followed by which age group was their most at-risk population. The next several questions related to fire deaths within their community and how they were addressing their fire prevention challenges. Lastly, the survey asked a set of similar questions but inquired about non-fire related injury prevention education challenges.

The surveys were sent to the fire chief of 66 departments via e-mail on March 21, 2005, and were asked to respond within ten days (Appendix B). A cover letter was attached to the survey explaining the intent of the survey. Each respondent was asked to complete the survey and return it via e-mail or fax. The primary focus of the study was to describe the efforts between fire prevention activities and non-fire injury prevention activities. The purpose was to provide

the Eden Prairie Fire Department with an understanding and possible benchmark for future non-fire injury prevention programs.

The limitations to the research are three-fold. First, the response to the survey was low even with a second request. Of the 66 surveys sent only twenty were returned (Appendix C). However, these twenty surveys provided valuable information. Second, the surveys were distributed to the local area only. Given more time the surveys could have been distributed to a wider area, yet the literature review provided enough evidence that many departments throughout the nation have implemented successful injury prevention programs. Lastly, the lack of local data collection made it difficult to determine the true injury hazards to our children. This appears to be a common problem especially at the local level, but I would suspect that our community is not too different than most when it comes to primary causes of death to our children.

Results

A combination of literature review, interviews and a survey provided answers to the research questions identified in this project. The results of the survey are presented first.

Surveys were sent to the member fire departments of the Hennepin County Fire Chiefs Association and departments which are members of the Metro Fire Chiefs organization. Some departments are members of both. A total of 66 surveys were sent out with a return of twenty (30.3%) (Appendix C). A second request was made to the member departments but no additional surveys were received. Some of the surveys received indicated an aggressive effort on a department's part in the area of non-fire related injury prevention programs. This allowed for further follow-up discussion with these departments. The results were broken down into two

categories, fire related and non-fire related injury prevention activities. The overall survey results can be found in (Appendix A).

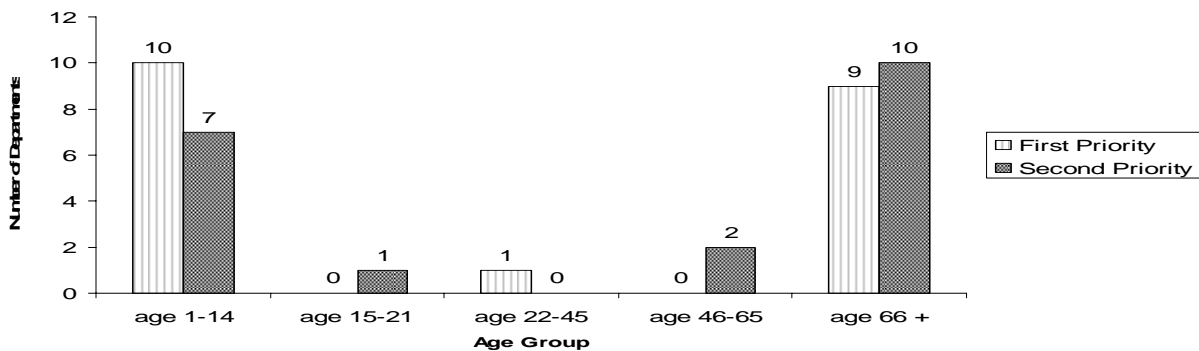
The aggregate results of the demographic data for the twenty respondents are as follows: population – 1,226,428; career departments – 2; volunteer departments – 5; combination departments – 13; career firefighters – 948; volunteer firefighters – 731.

The first question was intended to see how many departments have a community risk reduction plan. Eight of the twenty departments (40%) stated they have plans in place. This survey did not intend to get specific as to what kind of community risk reduction plan was in place or how they developed their plan. I was more interested in how common these plans are in today’s fire service.

The next question was trying to determine which age group the departments felt were their most at-risk population. Figure 1 displays the two presumed most at-risk vulnerable age groups.

Figure 1

Departments’ Prioritization of Vulnerability by Age Group



The extremes of age (1 to 14 and 66 +) were nearly equal. Ten departments indicated that the 1 to 14 age group was their highest risk population. Only three of these ten departments provided any injury prevention education, while all ten provided fire prevention education. Interestingly,

of the departments that indicated the 66-plus age group was being the highest risk only three departments provided any type of senior or elderly injury prevention programs. The NFPA program Remember When was the most common senior program utilized in these departments.

Questions 3 and 4 asked what data the departments were collecting as it related to fire and non-fire deaths and injuries. Almost all of the departments (95%) collected fire data, however, only seven departments (35%) collected statistics for non-fire deaths and injuries. Only seven of the twenty departments collected both fire and non-fire deaths and injury data.

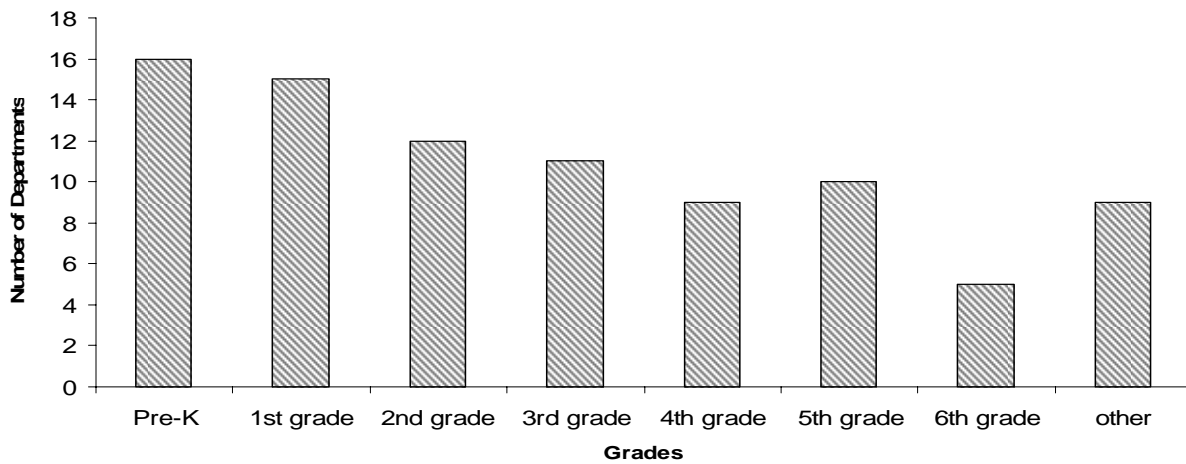
Questions 5 through 11 addressed the department's current fire prevention efforts. All departments provided fire prevention education to their children except one. The one department that did not provide this education is a small town, all-volunteer department on the outskirts of the metropolitan area. This department indicated on their survey that the children are enrolled in another school district outside of the city limits. This fact along with department size may indicate that access to the children may be limited and they may not have the resources to provide this education at other times.

Question 6 attempted to see what age groups were the focuses of the departments' fire prevention efforts. The data reflected a sequential downward trend beginning with Pre-K until 5th grade that fire prevention education was being delivered. The 5th grade students received slightly more fire education than the 4th grade but the difference was minimal. The "other" category was the next most common. In the category of "other," four departments indicated they provide fire prevention education to seniors and one indicated they provided fire education to local businesses and colleges. Only three departments (15%) provided fire prevention education to all the age groups that were listed on the survey. Interestingly, these departments utilized either the NFPA's Risk Watch or the Learn Not to Burn programs. The Risk Watch program is designed to

provide prevention education until the 8th grade which would indicate why these departments selected all available choices. Figure 2 represents the distribution of age groups that the departments are focusing on. Only nineteen of the twenty surveys are reflected in this figure because one of the departments did not provide fire prevention education.

Figure 2

Number of Departments Providing Fire Prevention Education by Grade



Seventy-five percent of the departments do not use any formalized fire prevention program. Learn Not to Burn, Remember When, and Risk Watch were the most common (25%) formal programs utilized by the other departments.

Questions 8 through 10 were intended to determine the level of organizational commitment toward fire prevention education. Twelve out of the twenty departments (60%) have a dedicated person responsible for fire prevention education. However, some comments were made on the surveys that fire marshal staff took on these responsibilities in addition to their regular duties. Only two departments provided personnel that spend 100% of their time on fire prevention activities. One of these departments was a career department and the other was a combination department. A plurality of the departments (35%) spends less than 10% of their

time on fire prevention activities. Five departments spend 25% of their time in fire prevention education. By excluding staff from the two career departments, there are only 96 full time staff members distributed between the thirteen combination departments. This explains why the most common approach to delivering the fire prevention education is utilizing volunteers within the organization (88.4%.) Of the two career departments responding to the survey only one utilized shift personnel to deliver the education and the other had two dedicated staff members assigned to prevention activities. One department uses all four options of shift personnel, volunteer staff, light duty personnel and others to deliver fire prevention activities.

Question 11 showed how some departments were working with outside resources to assist in delivering the fire prevention message. The following is a list of organizations listed on the survey: schools, businesses, health systems, Red Cross, public health department, SAFE KIDS Coalition, community education programs, police departments, park and recreation departments, and insurance agencies.

Similar to questions 8 through 10, questions 12 through 18 were intended to determine the level of organizational commitment towards prevention education, but these questions were targeted at non-fire, injury prevention programs. Ten of the twenty departments indicated that the 1 to 14 age group was their highest at-risk population but only five departments (25%) stated they had non-fire injury prevention programs. Of these five departments, four of them provided senior or elderly injury prevention programs and four provided child injury prevention programs. The two most common programs listed were the NFPA's Risk Watch program and SAFE KIDS programs. The following is a list of programs provided by the five departments: safety camps, SAFE KIDS programs, senior safety camps/seminars, fall prevention for the elderly, and NFPA's Risk Watch and Remember When. Only three departments stated they had personnel

dedicated to non-fire injury prevention programs. One department had two personnel dedicated to prevention activities. Of the three departments which had dedicated personnel two committed 100% of their time and the third dedicated 10% of their time towards these efforts. Two other departments stated they committed staff less than 10% of their time towards non-fire prevention activities. Question 17 was not answered by thirteen of the respondents (65%). This may be reflective of the fact that question 12 showed that 75% of the departments did not provide non-fire related injury prevention programs. Just like question 9, only two departments (10%) had dedicated personnel responsible for non-fire related injury prevention programs. In addition, four other departments utilized other staff within the organization to assist in delivering the programs. The responses to question 18 were very similar to that of question 11. The following is a list of the organizations listed on the survey: schools, businesses, health systems, Red Cross, public health department, SAFE KIDS Coalition, community education programs, police departments, and park and recreation departments.

The final assessment in determining the level of organizational commitment towards prevention education was asking how much of the annual budget went toward prevention activities. Sixty percent of the departments spend less than 1% of their annual budget on prevention activities. Three departments allocated 5-9% of their budget towards prevention, one department, 10%; and a final department 15%.

The following results are based on literature, interview and survey findings.

(1) What are the current programs being offered by the fire department? C. Schaitberger and A. Nelson, Eden Prairie Fire Department, Inspection Division, provided clear findings of a program that is targeted towards children but focused on fire prevention. This is similar to the survey results which reflected 95% of departments provide fire prevention education while only

25% of the respondents provided any type of additional non-fire related injury prevention programs. Eden Prairie is in the majority (75%) when it comes to departments that do not provide non-fire related injury prevention programs. The survey indicated that a plurality of the departments (35%) spend less than 10% of their time on fire prevention education and only 25% utilize any type of formalized program. C. Schaitberger (personal communications, March 21, 2005) estimated the same amount of time is spent on these efforts and the department does not use any formal programs to deliver its fire prevention message. He went on to say that the lack of a dedicated prevention person has placed primary prevention responsibilities on current inspection staff and members of the volunteer rank.

(2) What are the risks our children face within our community? The literature and data were clear that fire deaths and injuries are not the primary injury risk for our children, albeit fire prevention education still warrants our time and energy to ensure that the downward trend continues. National, state and county statistics all revealed that motor vehicle crashes are the leading cause of death and injuries for the age group 1 to 14 years old. SAFE KIDS data for 2000 showed that fire is the fifth leading cause of death for this age group. The top three causes of unintentional fatal injuries in Hennepin County (motor vehicle, drowning and suffocation) for 2003 were consistent with the national statistics. Fifty percent of the responding departments also were in agreement with Eden Prairie that children ages 1 to 14 were the most at-risk group. The department provides fire statistics to the Minnesota Fire Incident Reporting System which subsequently provides this information to the national level. This is no different than most departments in Minnesota and the survey represented this by over 95% of the responding departments stating they keep fire related death and injury statistics. Unfortunately, only 35% of the responding departments stated they keep additional statistics relating to non-fire related

injury and death statistics for their community. The survey did not specifically ask how a department was tracking this data but considering 65% of the departments do not track this data it could be postulated that some of the departments are gathering this data by extrapolating it from county or state data bases.

(3) What programs or services already exist within the community that can benefit our young population? Interviews with fire department staff revealed a homegrown approach to fire prevention education targeting our kindergarten to fourth grade students.

(4) What are other departments doing to address their community risk reduction efforts for their children? The literature review along with the survey revealed that fire departments were taking many approaches to address both fire and non-fire related unintentional deaths and injuries for their children. Not including Eden Prairie, only four departments (20%) use formal educational programs and like Eden Prairie, 90% of the responding departments did not use any formal programs for non-fire relating prevention education. Of the departments utilizing formal educational programs, Risk Watch and Learn Not to Burn were the most common (80%).

(5) What other programs or services exist for the community, but outside the city limits? As previously stated Eden Prairie receives ambulance service from Hennepin County Medical Center. The hospital provides injury prevention programs free of charge to schools and community groups in the county. Some of the programs they provide are bike safety rodeos, community-based safety camps and child passenger protection programs and car seat clinics. The survey showed creative approaches by some departments to engage other services such as American Red Cross, local businesses and insurance agencies. The literature review and survey showed clearly that the National SAFE KIDS Campaign is established in Minnesota with two coalitions and many chapters.

Discussion

General C. Everett Koop, Former U.S. Surgeon and past Board Chairman for the National SAFE KIDS Campaign (2004, History section, para. 1) said it quite succinctly: “If a disease were killing our young people in the proportion that injuries are, the public would be outraged and demand that this killer be stopped.” The obligations of the fire service are expanding everyday and the people we serve have come to expect that we will provide those services in a cost effective and efficient manner. The City of Eden Prairie is a young growing community with 72% of its population less than 45 years old, 92% under age 56 and almost half of the more than 21,000 households having children.

The results of the literature review, interviews, and survey provided valuable information in this research project. The combination is evidence that the fire department should expand its fire prevention programs to include primary injury prevention.

(1) What are the current programs being offered by the fire department? Something positive has to be said about the current fire prevention programs provided by the department when senior fire department personnel cannot recall the last fire death or even a serious injury to a child. Interviews with department inspection staff revealed a focused fire prevention program geared towards the kindergarten through fifth grade students.

The annual fire department open house and safety camp are typical approaches departments make to deliver the fire prevention message. Eden Prairie is no different in this regard. “Effective fire safety education is still greatly needed (Oster, 1999, p. 74). He goes on to say that education is the most cost effective way to fire safety. The literature review showed many departments creatively providing not only fire safety education but also injury prevention education. The survey responses showed 95% of the departments were providing fire prevention

education but only one fourth were providing injury prevention programs. Of the departments that provided fire and injury prevention education, three, (15%) had dedicated personnel and two of the three spent 100% of their time delivering these programs. All three departments utilized formal programs such as Risk Watch, Learn Not to Burn, Remember When, and SAFE KIDS programs.

(2) What are the risks our children face within our community? The literature was clear in defining unintentional fatal injury as the leading cause of death for children less than 14 years old. Across the board, motor vehicle related incidents were the number one killer in this age group, while fire and burn related deaths was the fifth most common nationally. The survey showed that of the 20 departments that responded 50% felt children under age 14 were their greatest at-risk population, however only 25% provide any type of injury prevention program. Paulsgrove (1998) says it is obvious, the fire service needs to not only promote the stop, drop and roll but also needs to emphasize buckling up. The survey results showed 95% of fire departments collected data on fire deaths and injuries but only 35% of them collect any data associated with non-fire related deaths or injuries. Epidemiologist Roesler said this may not be a critical factor because at the local level the numbers can be so small that it can be difficult to see what the true problem is, however at the state and national level the statistics revealed the true hazards facing our children. The reasons most departments collect fire data is both a past practice that has evolved over many years and reporting into the Minnesota Fire Incident Reporting System has made this data easily retrievable.

Expanding our mission to include not only fire prevention but also injury prevention was strongly endorsed throughout the literature. The literature and survey results both showed that children are at great risk for unintentional fatal and non-fatal injuries.

(3) What programs or services already exist within the community that can benefit our young people? Phone interviews with key individuals within the city showed existing programs and services that are currently being used by the fire department. The collaborative efforts during the annual safety camp are a good example of organizations coming together to provide safety education in several focused areas affecting the children of the community. The parks and recreation department is a strong leader in water safety which is a necessary service especially when drowning is still a common killer of children ages 14 and under. The interview with Officer J. Schlossmacker provided a view of the future for the fire department. The involvement and dedication of resources the police department has put towards the school has paid huge dividends for the community by fostering smart decision making behaviors on the part of the children. This approach needs to be taken by the fire department. Becoming leaders in our community's safety education and strong advocates of community risk issues will be vital to our future. The survey and interviews show that it is possible to dedicate staff to prevention education, and in the case of fire departments, focus not only on fire but also injury prevention. Ms. Cwayna said the benefit to the City of Plymouth is not only financial, but through constant community involvement it has gained the reputation as a leader in injury prevention.

(4) What are other departments doing to address their community risk reduction efforts for their children? The survey showed that Eden Prairie Fire Department was typical of most (95%) when it came to fire prevention education and it was consistent with the survey that showed the majority (75%) of fire departments do not provide injury prevention education. Despite this, there are departments locally providing innovative injury prevention programs and the literature review showed many other departments throughout the nation are delivering injury prevention educational programs. Again, the research showed that departments that deliver

formal programs (Risk Watch, SAFE KIDS) also are the departments that commit staff with 100% responsibility for prevention education. As the roles and responsibilities of the department continue to grow the awareness that the best use of personnel and the most cost effective way to become a multi-hazard community risk reduction department is to commit the appropriate resources and personnel to the task of injury prevention education.

(5) What other programs or services exist for the community, but outside the city limits?

The research showed that there are several opportunities available to assist with injury prevention education. Creating partnerships with organizations like the Northwest Metro Minneapolis SAFE KIDS Coalition and the Minneapolis Chapter of the American Red Cross can ensure a program that is focused on efficiency and promotes community involvement throughout the area.

Recommendations

The purpose for the project was to describe the current prevention programs being offered by the fire department and to ascertain if these programs were meeting the needs for our at-risk population, children. The survey instrument along with the literature review and interviews provided valuable information that was used to describe the current situation within our fire department in regards to injury prevention education and gave some insight into what other departments are doing to meet their injury prevention needs. The research was clear that unintentional fatal and non-fatal injuries are the leading cause of death for our children ages 14 and under. The research showed many successful programs both locally and nationally that target this age group. Resources are available within the city as well as the metropolitan area that can provide assistance and guidance in the development and implementation of a program geared to injury prevention.

My short-term recommendation is to have the leadership within the organization recognize and understand that fire deaths are not the leading cause of death amongst our children and that other hazards are more prevalent. By first understanding the risks our children face and building support from both department officials and city officials the process of community risk reduction begins. The following are some other short-term goals:

1. Build organizational support through education of department members on risks our children are facing.
2. Build and foster an organizational culture that promotes community risk reduction.
3. Develop a relationship and partnership with the Northwest Metro Minneapolis SAFE KIDS Coalition.
4. Seek opportunities to incorporate injury prevention educational programs such as car seat inspections, helmet sales, and pedestrian safety programs.
5. Continue to provide fire prevention education within the schools.
6. Evaluate formal programs such as Risk Watch and seek opportunities to incorporate the valuable messages they contain.
7. Promote injury prevention education through the media.

A long-term recommendation would be to seek approval for the position of public safety educator. The surveys and interviews strongly showed departments with dedicated staff put them in a better position within their community to implement a strong multi-hazard community risk reduction program. Additional long-term goals would be:

1. Work with the school district and other community stakeholders to seek opportunities to promote and educate our children in injury prevention.

2. Enhance the relationship with the police department and take lessons learned from their experiences working in the schools.
3. Promote the visibility of the fire department by engaging the community and its leadership through the delivery of programs that meet the needs of the citizens.
4. Seek out grant opportunities that are available to injury prevention programs.
5. Develop a process for data collection and incorporate evaluation systems to ensure the programs being delivered are the programs that need to be delivered.

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APPENDIX A

Cover Letter and Survey with Results Added

Tom M. Schmitz
Assistant Chief
Eden Prairie Fire Department
14800 Scenic Heights Road
Eden Prairie, MN 55344

March 21, 2005

Dear Colleague:

I am asking for your assistance in completing a short survey to gain information for a research project for the Executive Fire Officer Program of the National Fire Academy. I am gathering information to assess current fire and injury prevention activities being conducted by your department. This information will be utilized to assist in describing the differences between our current community risk reduction programs and what other departments are doing to meet their reduction concerns. This will enable me to provide recommendations for future community risk reduction programs.

I would like to thank you for your assistance in providing me with this information. If you would like a copy of the final paper, please indicate on the survey and include a mailing address or e-mail address.

Please return the survey by March 31st via e-mail or fax to 952-826-0393.

Sincerely,

Tom M. Schmitz

Tom M. Schmitz
Assistant Chief
Eden Prairie Fire Department
tschmitz@ci.edina.mn.us

Fire and Injury Prevention Survey

Name of Department: **[20 Responses (30.3%)]**

Population Served: **[1,226,428]**

Type of Department: Career **[2 (10%)]** Volunteer **[5 (25%)]** Combination **[13 (65%)]**

Number of Personnel: Full-time **[948]** POC/Vol. **[731]**

1. Does your department have a multi-hazard community risk reduction plan?
Yes **[8 (40%)]** No **[12 (60%)]**
2. Prioritize your most at risk vulnerable age group to your least vulnerable. (1 is most, 5 is least)
Age 1-14: **[1st: 10 (50%); 2nd: 7 (35%); 3rd: 2 (10%); 4th: 1 (5%); 5th: 0 (0%)]**
Age 15-21: **[1st: 0 (0%); 2nd: 1 (5%); 3rd: 11 (55%); 4th: 6 (30%); 5th: 2 (10%)]**
Age 22-45: **[1st: 1 (5%); 2nd: 0 (0%); 3rd: 1 (5%); 4th: 4 (20%); 5th: 14 (70%)]**
Age 46-65: **[1st: 0 (0%); 2nd: 2 (10%); 3rd: 6 (30%); 4th: 8 (40%); 5th: 4 (20%)]**
Age 66 +: **[1st: 9 (45%); 2nd: 10 (50%); 3rd: 0 (0%); 4th: 1 (5%); 5th: 0 (0%)]**
3. Does your department keep statistics on the number of fire deaths and injuries in your community?
Yes **[19 (95%)]** No **[1 (5%)]**
4. Does your department keep statistics on the number of non-fire related deaths and injuries in your community?
Yes **[7 (35%)]** No **[13 (65%)]**
5. Does your department provide fire prevention education to your community?
Yes **[19 (95%)]** No **[1 (5%)]**
6. What age groups do you provide fire prevention education?
Pre-K **[16 (80%)]** 1st grade **[15 (75%)]** 2nd grade **[12 (60%)]** 3rd grade **[11 (55%)]**
4th grade **[9 (45%)]** 5th grade **[10 (50%)]** 6th grade **[5 (25%)]** other **[9 (45%) – seniors, business and colleges]**
7. Does your department use formal educational programs like Risk Watch or Learn Not to Burn?
Yes **[5 (25%)]** No **[15 (75%)]**
List the programs you utilize: **[Learn Not to Burn, Remember When, Risk Watch, school developed programs, other NFPA programs]**
8. Does your department provide a dedicated person for fire prevention education?
Yes **[12 (60%)]** No **[8 (40%)]**
9. What percentage of their time is spent on these activities?
100% **[2 (10%)]** 75% **[0 (0%)]** 50% **[0 (0%)]** 25% **[5 (25%)]** 10% **[1 (5%)]** <10% **[7 (35%)]**

10. If you do not have a dedicated person assigned to these efforts, who provides the education?
Shift personnel [4 (20%)] Volunteers [12 (60%)] Light duty personnel [2 (10%)]
other [4 (20%) – **fire inspectors and fire marshals**]
11. Does your department utilize other organizations to assist in your fire prevention efforts?
Yes [7 (35%)] No [11 (55%)]
List the organizations: [**schools, local business, health care system, Red Cross, public health department, Minnesota SAFE KIDS Coalition, park & rec. department, police department, and insurance agencies**]
12. Does your department provide injury prevention education to your community?
Yes [5 (25%)] No [15 (75%)]
List the programs you provide: [**CPR, open house, youth/senior safety camps, fall prevention for elderly, Risk Watch, SAFE KIDS programs**]
13. What age groups do you provide injury prevention education?
Pre-K [4 (20%)] 1st grade [3 (15%)] 2nd grade [3 (15%)] 3rd grade [3 (15%)]
4th grade [3 (15%)] 5th grade [3 (15%)] 6th grade [3 (15%)] other [4 (20%) – **All four respondents stated they provided senior education**]
14. Does your department use formal educational programs like SAFE KIDS Walk This Way or SAFE KIDS Buckle Up?
Yes [2 (10%)] No [18 (90%)]
List the programs you utilize: [**Car Seat Check Ups, Risk Watch, Remember When**]
15. Does your department provide a dedicated person for injury prevention education?
Yes [3 (15%)] No [17 (85%)]
16. What percentage of their time is spent on these activities?
100% [2 (10%)] 75% [0 (0%)] 50% [0 (0%)] 25% [0 (0%)] 10% [1 (5%)]
<10% [2 (10%)]
17. If you do not have a dedicated person assigned to these efforts, who provides the education?
Shift personnel [2 (10%)] Volunteers [0 (0%)] Light duty personnel [0 (0%)] other [4 (20%) – **fire marshal, training chief, other chief officers as requested, and dedicated prevention staff**]
18. Does your department utilize other organizations to assist in your injury prevention efforts?
Yes [5 (25%)] No [15 (75%)]
List the organizations: [**SAFE KIDS Coalition, Health Care System, Red Cross, Public Health Department, Park & Rec., Police Department, Community Education Programs, and Schools**]
19. What percentage of your annual budget is allocated for prevention activities?
25% [0 (0%)] 15% [2 (10%)] 10% [1 (5%)] 5-9% [3 (15%)] 4% [0 (0%)]
3% [0 (0%)] 2% [2 (10%)] 1% [6 (30%)] < 1% [6 (30%)]
20. Do you want a copy of the final research project?
Yes [1 (80%)] No [4 (20%)]

Name of person completing survey: _____
May I contact you if I have further questions? Yes [**19 (95%)**] No [**1 (5%)**]
Contact e-mail information _____

Thank you for taking the time to complete this survey.

Please return to:
Tom M. Schmitz
Assistant Chief
Eden Prairie Fire Department
Preferred method: tschmitz@ci.edina.mn.us
Fax. 952-826-0329

APPENDIX B

Fire Departments that Received the Fire and Injury Prevention Survey

1. Airport Fire Department ***
2. Andover Fire Department **
3. Anoka/Champlin Fire Department ***
4. Apply Valley Fire Department **
5. Bloomington Fire Department ***
6. Brainerd Fire Department **
7. Brooklyn Center Fire Department ***
8. Brooklyn Park Fire Department ***
9. Burnsville Fire Department **
10. Centennial Fire District **
11. Chanhassen Fire Department **
12. Columbia Heights Fire Department **
13. Coon Rapids Fire Department **
14. Cottage Grove Fire Department **
15. Dayton Fire Department *
16. Eden Prairie Fire Department ***
17. Edina Fire Department ***
18. Elk River Fire Department **
19. Excelsior Fire District ***
20. Faribault Fire Department **
21. Forest Lake Fire Department **
22. Fridley Fire Department **
23. Golden Valley Fire Department ***
24. Hamel Fire Department *
25. Hanover Fire Department *
26. Hopkins Fire Department *
27. Hutchinson Fire Department **
28. Lake Johanna Fire Department **
29. Lexington Fire Department **
30. Long Lake Fire Department *
31. Loretto Fire Department *
32. Mankato Fire Department **
33. Maple Grove Fire Department ***
34. Maple Plain Fire Department *
35. Maplewood Fire Department **
36. Medicine Lake Fire Department *
37. Minneapolis Fire Department ***
38. Minnetonka Fire Department ***
39. Mound Fire Department ***
40. New Brighton Fire Department **

(Continued on next page)

41. Oakdale Fire Department **
42. Osseo Fire Department *
43. Owatonna Fire Department **
44. Plato Fire Department **
45. Plymouth Fire Department ***
46. Ramsey Fire Department **
47. Richfield Fire Department ***
48. Robbinsdale Fire Department *
49. Rockford Fire Department *
50. Rogers Fire Department ***
51. Roseville Fire Department **
52. St. Anthony Fire Department ***
53. St. Bonifacius Fire Department *
54. St. Cloud Fire Department **
55. St. Louis Park Fire Department ***
56. St. Paul Fire Department **
57. Savage Fire Department **
58. South St. Paul Fire Department **
59. Spring Lake Park Fire Department **
60. Stillwater Fire Department **
61. Wayzata Fire Department ***
62. West Metro Fire-Rescue District ***
63. West St. Paul Fire Department **
64. White Bear Lake Fire Department **
65. Willmar Fire Department **
66. Woodbury Fire Department **

* Indicates Hennepin County Fire Chiefs Association (HCFCA) members only

** Indicates Metro Fire Chiefs members only

*** Indicates membership in both HCFCA and Metro Fire Chiefs

APPENDIX C

Fire Departments that Returned the Fire and Injury Prevention Survey

1. Brooklyn Center Fire Department
2. Brooklyn Park Fire Department
3. Cottage Grove Fire Department
4. Edina Fire Department
5. Hamel Fire Department
6. Hopkins Fire Department
7. Lexington Fire Department
8. Mankato Fire Department
9. Maplewood Fire Department
10. Medicine Lake Fire Department
11. Minneapolis Fire Department
12. Ramsey Fire Department
13. Rockford Fire Department
14. Roseville Fire Department
15. St. Bonifacius Fire Department
16. St. Cloud Fire Department
17. St. Paul Fire Department
18. Spring Lake Park Fire Department
19. Stillwater Fire Department
20. West Metro Fire-Rescue District