

April 5, 2001

Joe Albaugh, Director  
Federal Emergency Management Agency  
USFA Grant Program Technical Assistance Center  
16825 South Seton Avenue  
Emmitsburg, MD 21727-8898

On behalf of the Carmel Valley Fire Protection District, I would like to thank you for the opportunity to apply for funds to insure the wellness of our firefighters and increase the effectiveness of our personnel serving the community of Carmel Valley.

Along with your organization, we are passionately concerned with the health and welfare of our communities. The quality of service and fitness of our firefighters would be a fitting tribute to the memory of Lieutenant Steve Harris, a young member of the fire community whose life was cut short by a heart attack. The funds from your organization would help us achieve our goal.

Our goal is to develop and implement a mandatory wellness and fitness program. With this program, we would increase the level of efficiency and stamina within our department, thus warding off potential injuries, decreasing the number of disability and sick days within our department and increasing the overall fitness of our fire department.

We are confident that after reading the attached proposal, it will be evident that a partnership between FEMA and the Carmel Valley Fire Protection District would be beneficial to the citizens of our community.

Thank you for your consideration. Please feel free to contact me with any concerns.

Sincerely,

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Geoff Maloon  
Carmel Valley Fire Protection District

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Chief Sidney Reade  
Carmel Valley Fire Protection District

# **Lowering the Devastating Costs of Firefighters with Poor Health**

***“There are strings in the human heart that better not be vibrated”***  
(Charles Dickens 1812-1870)

Carmel Valley Fire Protection District  
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Grant Proposal

To

Federal Emergency Management Agency  
USFA Grant Program Technical Assistance Center  
16825 South Seton Avenue  
Emmitsburg, MD 21727-8898

April 2001

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# **Executive Summary**

Wellness and fitness programs are a basic requirement to proactively comply with any injury and illness prevention program. The costs of firefighters with poor health and fitness levels is not only monetary, it is also represented in the emotional devastation of the firefighters, their families, and the citizens that the firefighters are unable to help.

The Carmel Valley Fire Protection District has instituted some of the basic components of a wellness and fitness program by implementing pre-placement medical evaluations. It is our goal to expand this program to be more comprehensive so as to comply with NFPA 1582 Standard on Medical Requirements for Firefighters and NFPA 1583 Standard on Health Related Fitness Programs for Firefighters. The Departments expenditures already exceed its revenues, which makes the funding of a comprehensive wellness and fitness program impossible at this time. A partnership between FEMA and the Carmel Valley Fire District is necessary to implement this valuable program.

## **Introduction**

The Carmel Valley Fire Production District (CVFPD) consists of 110 members committed to life safety and property preservation. Our dedicated members pride themselves on “as good as most, better than some!”

Founded in 1948, CVFPD started as a volunteer only department. The need for paid full time personnel became obvious as the community grew. With three stations staffed full-time and four firefighters per apparatus, CVFPD considers itself a leader in the region in response and readiness for any emergency.

The overall mission of CVFPD is to provide its’ residents with the most able bodied, trained personnel so that, met with any challenge, we will be able to mitigate and exceed any and all “calls for need.”

# **Problem Statement**

September 19, 2000 began as a normal day for the Harris family of Chicago, IL; the typical morning routine for a young family with two young children in school and both parents working. Steve Harris, a 39-year-old lieutenant with the Chicago, IL Fire Department kissed his wife and two daughters goodbye as he left for work that morning. It was the last time his family would ever see him. Just over seven hours later Steve Harris died in the line of duty while fighting a “routine, run of the mill” fire. It was not a flashover, backdraft or building collapse that killed Lt. Harris, but rather poor fitness and undiagnosed heart disease. Steve Harris, dedicated husband and father, died of the largest single contributor to firefighter line-of-duty deaths in the country.

Firefighting has historically been a dangerous profession. With the many inherent dangers of the job, accidents, injuries and deaths will inevitably occur. Throughout the years the fire service and various regulatory agencies at all levels of government have regulated, restricted and legislated many new standards on firefighter safety with a modicum of success. According to the tenth edition of the United States Fire Administration journal “Fire In The United States,” beginning in 1978 the United States Fire Service saw a steady decline in on-duty fatalities due to fire or accident related causes for nearly fifteen years. Despite these efforts and a host of others, one cause of on-duty firefighter deaths has remained consistently and ominously stable; poor fitness and undiagnosed health problems!

Along with the general population in the United States, poor nutrition and an unhealthy lifestyle are impacting the Fire Service. According to “Fire in the United States”, 48 of the 96 firefighter line-of-duty deaths in 1995 were caused by cardiac arrest secondary to poor fitness and undiagnosed health problems.

Finally, something is being done. The National Fire Protection Association (NFPA) issued Standard 1582 on medical requirements for firefighters and information for fire department physicians in February 2000 and NFPA 1583 Standard on Health Related Fitness Programs for Firefighters. Additionally the International Association of Fire Fighters (I.A.F.F.) and the International Association of Fire Chiefs (I.A.F.C.) recently published a landmark Wellness/Fitness Initiative aimed at increasing overall fitness and health awareness in the Fire Service. This comprehensive initiative addresses every aspect of health including; injury prevention, fitness, nutrition, immunization, mental health and regular thorough health screenings.

The Carmel Valley Fire Protection District (CVFPD) has, over the years introduced various programs in an attempt to improve safety and comply with various standards and rules with some success. Unfortunately, these programs have been haphazardly and ineffectively administered due to a lack of organization and guiding standards. Now that there is an all encompassing and comprehensive standard, we are attempting to implement a program that will mirror the I.A.F.F. & I.A.F.C. Wellness/Fitness Initiative that meets the requirements of NFPA Standard 1582. Typically, we have encountered many obstacles, not the least of which is a funding shortfall.

After many months of diligent and tireless work, the department's Wellness Committee has devised a program that meets all of our department and community goals and needs and fulfills the requirements and objectives of all NFPA and I.A.F.F. & I.A.F.C. Wellness/Fitness standards. Implementation of this program will address all aspects of the health of every member of the department. Participation in the program will be mandatory for all department personnel and will be incentivized rather than punitive. This program will allow the Carmel Valley Fire Protection District to proactively and effectively address the most dangerous aspect of our job and improve the well-being and fitness level of each member.

## **Objectives**

Firefighters must respond to emergencies throughout careers averaging 25 to 30 years in length. Years of rigorous physical and strenuous, often dangerous, physical activity and the stressful psychological demand characteristic of emergency conditions affect the physical and mental well being of firefighters. Likewise such impacts reduce firefighter efficiency and effectiveness and increase the risks for injuries. The physical and psychological demands, associated with accidents and emergency scenes, collectively, year after year, has defined firefighting as one of the nations most dangerous professions. While law enforcement and the mining industry share the unenviable distinction of being in the category of dangerous professions, firefighters continue to lead the list in on-the-job deaths, too often the result of heart failure or heart related disease. Given the expanding function of firefighting into the "all hazard" mitigation role, one can appreciate the rising risks to firefighter health and safety.

In addition to effecting firefighters and their families, fire agencies and their communities suffer too. When a firefighter dies, is seriously injured, or is diagnosed with a life threatening disease, everyone is affected. Like any close-knit organization which views its self as an extended family, fire departments are set back and morale is affected when "one of its own" is in peril.

Along with morale, illness, injuries and other health related issues can reduce the size of the workforce, its capacity to perform work and increase the agency's costs. Loss of work time results in higher sick leave use and workers compensation claims, which leads to higher overtime costs and increased insurance rates and rehabilitation costs. Should early retirement or premature death result, additional retirement benefits costs must be paid. Regardless, the most significant factor resulting from firefighter illness, injury, disability and premature death is that of lost potential, by the inability to complete a full career and a normal, healthy and long retirement.

Tomorrow's fire service requires we face our destiny, keeping our firefighters fit today.

The new wellness and fitness program will adopt a holistic approach to wellness and will meet the following objectives:

- Focus on medical issues and appropriate confidentiality regarding medicine illness screening, immunizations, nutrition and medical examinations
- Behavioral health, including: employee assistance (EAP) and critical incident debriefing (CSID)
- Address occupational fitness needs, including: cardiovascular fitness and capacity as well as muscular strength, body flexibility and joint skeletal health
- Training and educational components associated with improved mental and physical health and quality of life
- Provide program flexibility with regard to age, gender and classification
- Provide for remedial/rehabilitation needs

### **The objectives will be met and/or measured as follows:**

All employees will be given a complete baseline list of medical tests and screenings:

1. Provide full blood laboratory screening.
2. Provide full medical physical examinations to include chest x-ray, stress test, EKG, blood pressure, vision and hearing tests and testing for high-risk cancers by gender.
3. Determine vaccination history of all employees and insure immunizations for Hepatitis B and Tetanus and provide annual flu shots.
4. Provide an on-site fitness program at each station (with emphasis on cardiovascular health, muscular and skeletal strength and flexibility) utilizing the following industrial grade equipment: treadmills, cross-training items, and multi-station Universal weight machine.
5. Test percent of body fat and establish a reduction plan through nutrition and fitness.
6. Contract for the institution and performance of both an EAP and CISD program. (both EAP and CSID programs are currently in place)
7. Contract with a licensed industrial hygienist to address specific injury risks associated with typical firefighter injuries and fashion appropriate fitness program remedies.
8. Select and train a Battalion instructor on each of the three shifts to provide individualized employee training and guidance.
9. Obtain the service of a licensed occupational therapist to provide remedial and rehabilitation guidance to those in need.
10. Provide annual fitness test comparison screening.
11. Provide full employee medical examinations annually.
12. Analyze injury reports for evidence of prevention potential through wellness and fitness.
13. Analyze and compare sick leave usage, injury and accident reports regularly. Provide quarterly and annual results and comparisons.

## Time Table

ITEM	1 <sup>st</sup> QUARTER	2 <sup>nd</sup> QUARTER	3 <sup>rd</sup> QUARTER	4 <sup>th</sup> QUARTER
Coordinator Selection	*			
Baseline Evaluations		*		
Immunizations		*		
Train-the-Trainer Course	*			
Distribute Equipment RFP		*		
Purchase/Install Equipment			*	
Train Personnel/Program Start			*	

## Evaluation

When this program is funded we will meet the following measurable objectives.

1. Schedule an initial baseline physical for all members of the department.
2. Provide immunization
3. Develop and deliver a physical fitness program.
4. Provide Physical Fitness equipment.
5. Require an annual test of physical abilities.

# Budget

Program Budget (revenue and expenses)

## Wellness/Fitness Program Budget Summary

<b>Item</b>	<b>Cost Share</b>	<b>Grant</b>	<b>Second Source</b>	<b>Total</b>
<b>Training</b>		<b>10,000</b>		<b>10,000</b>
<b>Incentives</b>	<b>5,000</b>			<b>5,000</b>
<b>Exercise Equipment</b>		<b>60,000</b>		<b>60,000</b>
<b>Medical Services</b>	<b>60,000</b>		<b>37,500</b>	<b>97,500</b>
<b>Virtual Wellness Center</b>		<b>3,500</b>		<b>3,500</b>
<b>Books &amp; Training Aids</b>		<b>2,000</b>		<b>2,000</b>
<b>Administrative Costs</b>	<b>10,000</b>			<b>10,000</b>
	<b>75,000</b>	<b>75,500</b>	<b>37,500</b>	<b>188,000</b>

# **Budget Detail**

## **1. Training**

This includes the train-the-trainer course associated with the implementation of the Certified Physical Ability Test detailed in the Wellness/Fitness Initiative commissioned by the I.A.F.F. and the I.A.F.C. Also included is a nutrition class for all personnel and a Certified Personal Trainer course for six staff firefighters allowing the department to implement the injury prevention and fitness programs for individual members in house.

## **2. Incentives**

This cost will be absorbed by the department and will include cash rewards and a department sponsored dinner for all personnel meeting standards for their age group as specified in the I.A.F.F. & I.A.F.C. Wellness/Fitness Initiative and NFPA Standard 1582.

## **3. Exercise Equipment**

The cost of fitness equipment is the bulk of the grant request and includes three treadmills, three cross-training machines and three multi-stations “Universal” type machines. This will allow for effective, usable fitness equipment in each of the departments’ three stations.

## **4. Medical Services**

The department and a second funding source will provide medical costs. These costs will include the departments’ past practice of pre-employment and annual or bi-annual baseline physicals for all personnel. These physicals and the intervals are determined according to a member’s age and physical well being and are conducted in accordance with the standards of NFPA 1582 and the I.A.F.F./I.A.F.C. Wellness/Fitness Initiative.

Medical Costs will also include the departments’ existing vaccination program and will also incorporate vaccinations against Hepatitis-A and existing Hepatitis-B vaccine titre tests. The department will also be testing all members for the effectiveness of their MMR childhood vaccinations. This vaccination program will meet NFPA 1582 standards and the parameters of the objectives of the I.A.F.F./I.A.F.C. Wellness/Fitness Initiative.

**5. Virtual Wellness Center**

The cost of the virtual wellness center includes all expenses associated with the creation of a web page to be added to the departments' existing web site and incorporating this page into the network and will be paid for with grant funds. The web page will include various exercise and nutrition facts, ideas and programs as well as the details of all aspects of the Wellness/Fitness program.

**6. Books and Training Aids**

The cost of books and training aids will be paid for with grant funds and will include a training log for each member that will allow everyone to track their individual progress and allow for a more accurate evaluation of progress and deficiencies. Also included will be costs for nutrition books, fitness books and training posters.

**7. Administrative Costs**

Administrative costs will be covered by the department and will include the tracking the progress of the program and the individual members, scheduling physicals and physical ability tests, filing results and ensuring compliance with the program rules and procedures.

**8. Sources and Amounts Being Solicited and/or Pledged**

The total budget for this project is \$188,000. Of that amount, the department will cover \$75,000. We are requesting \$75,500 in this proposal to FEMA. A proposal is being submitted to The Nora Eccles Treadwell Foundation for \$37,500 to cover the remaining costs of the program.

**9. Future Funding Plan**

At this time the department already covers the cost of pre-employment and annual and bi-annual physicals for members. Administrative costs and education costs are also already built into the fire department budget. Future equipment costs will include maintenance and should be covered with warranties that are awarded with purchase. Vaccination costs are already budgeted and the one-time costs associated with the Hepatitis vaccines and titres will be covered by a secondary funding source.

# **Appendix**

NFPA 1582  
NFPA 1583  
FA-183/August 1998