



**Messaging for Cardiac Health in the Fire Service
Strategic Planning Meeting
September 26-27, 2016
Baltimore, MD**

Meeting Report

The National Fallen Firefighters Foundation published the most recent iteration of the National Fire Service Research Agenda in 2015. A “research agenda” is mandated by Firefighter Life Safety Initiative 7 (Create a national research agenda and data collection system that relates to the Initiatives). The 2015 Agenda put forth 16 recommendations regarding the occupational diseases associated with firefighting, and an additional 14 regarding messaging wellness programs to the fire service. Recommendation #34 (Conduct research on the translation, dissemination and messaging of current knowledge and best practices related to health and wellness programs, including physical fitness, health maintenance, nutrition and annual medical evaluations) reinforces the need for specific, data-driven and targeted marketing. Recommendation #36 (Determine the most effective implementation methods to institute occupational health programs) recognized that there are myriad ways to construct successful occupational health programs, but they all share one common component—they must utilize a multitude of marketing strategies to reach the diversity of the fire service audience.

Note: The 2015 Fire Service Research Agenda Recommendations Report can be found at www.everyonegoeshome.com

The NFFF has a long history and deep support of research concerning the preponderance of occupationally-acquired cardiac-related diseases and associated firefighter line-of-duty deaths. Throughout 2014 and 2015, the Foundation held a series of meetings for fire service-specific cardiac researchers, culminating with the Heart to Heart symposium held in Washington, DC on December 2-4, 2015. This was a roll-out to the fire service at large, introducing the research and providing recommendations for implementing risk controls. Proceeding from the 2015 Heart to Heart Symposium were published in early 2016.

Note: The *Heart to Heart: Strategizing an Evidence-Based Approach to Reduce Cardiac Disease and Death in the Fire Service* white paper can be found at www.everyonegoeshome.com

In support of the Heart to Heart recommendations, a group of 30 fire service and marketing experts were invited by the NFFF to meet in Baltimore on Sept 27-28, 2016 to discuss the development of training and educational material the NFFF could promulgate in support of the Heart to Heart recommendations. The goal of this meeting was to germinate ideas regarding how this material could be successfully messaged into the fire service. The development of specific marketing campaigns was outside the scope of the participants' assignment.

Attachment 1: Heart to Heart marketing meeting attendees

Over the course of two days, the attendees received presentations from the CVD researchers, observed two panel discussions, and received advice from marketing experts from within and external to the fire service. The bulk of the attendees input happened via their breakout groups which were given design challenges via workbook exercises to complete. **For points of discussion and development, marketing was generally considered to be the promulgation of collections of messages regarding the topic at hand.**

At the conclusion of the meeting, after report from the breakout groups and general discussion, the attendees reached consensus that integrated public health campaigns concerning heart disease (or other occupationally-influenced illnesses) can most effectively be delivered to the fire service audience utilizing five general principles. Specifically, regarding the Heart to Heart white paper, they agreed;

1. Material which seeks to educate the fire service should mirror the Heart to Heart white paper in terms of how risks are presented to three distinct stakeholder groups—firefighters, fire departments, and fire service national groups;
2. Diversity must be recognized within these groups, especially firefighters and fire departments, as important identity drivers, including age, race, gender and ethnicity;
3. Messaging must be delivered primarily through social media and new media and be accessible across all available platforms—secondary marketing should be supported through traditional print media outlets;
4. Messaging and marketing must be “constant” and grow with the firefighter from Day 1 in recruit school through Day of Retirement;
5. Messaging must be built on a foundation of evidence-based science, but should also be presented in a way that is accessible all fire service audiences, including the powerful medium of personal/experiential narratives.

Presentations

The meeting charge was delivered by Chief Ron Siarnicki, Executive Director of the National Fallen Firefighters Foundation. He urged the participants to begin the process of developing marketing and messaging which supported the recommendations in the Heart-to-Heart report. He reminded all those present that the work they were doing supported the Firefighter Life Safety Initiatives 2, 6, 7.

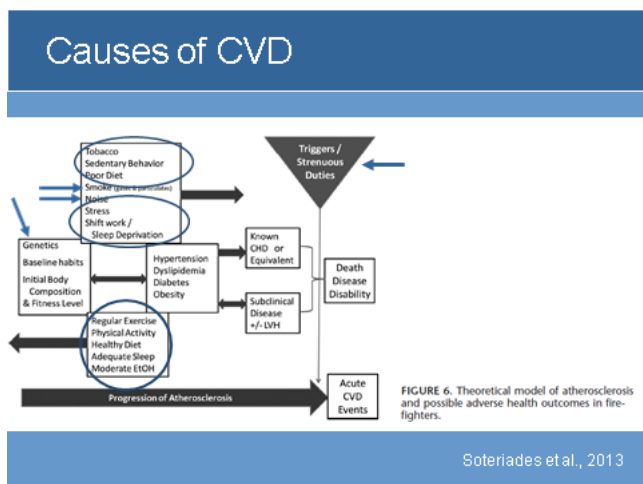
Note: Extensive discussions and training material for each of the 16 Firefighter Life Safety Initiatives can be found at www.everyonegoeshome.com

The meeting was facilitated by Denise Smith, Ph.D., who has been the chief cardiac researcher on behalf of the NFFFF; she was the Primary Investigator (PI) on the NFFF grant funding in support of Heart to Heart.

Presentation – Keynote Address

Denise Smith, PhD
 Skidmore College
 Illinois Fire Service Institute

Dr. Smith delivered the first presentation, *Cardiovascular Disease (CVD) in the Fire Service: Need for Clarity, Decisiveness, Action*, which was an overview of the Heart to Heart report findings. During the course of her presentation, she reviewed the causes of CVD among firefighters, as outlined in the following slide:



Dr. Smith also discussed the continued likely path of the impact of CVD if successful health and wellness interventions are not developed and marketed successfully into the fire service. The current status is:

- More firefighters suffer duty-related deaths from cardiovascular diseases (CVD) than any other identifiable cause;
- Over the past decade, nearly half (48%) of the nation’s line-of-duty deaths (LODDs) are attributed to a heart attacks and the second leading cause is trauma (25%);
- In addition to the CVD-related fatalities, there are approximately 17-25 non-fatal duty related CVD events per every fatality;
- These non-fatal events can disrupt emergency operations, lead to early retirements, and inflict an enormous economic hardship on the department.

The Heart to Heart white paper, she notes, includes three sets of recommendations for preventing and improving cardiac outcomes—what firefighters can do, what fire departments (stressing the company officer/crew boss) can achieve and, finally, what fire service leadership at the national level can contribute to this effort. Nearly all of the identified risk factors are

modifiable and thus subject to the influence of messaging and marketing. As Dr. Smith argued in her overview, *“many duty-related CVD deaths can be prevented if firefighters have (a) proper screening; (b) the information they need to make life style changes provided in appropriate ways; and (c) medical evaluations performed by physicians who are knowledgeable about how firefighting impacts the development of cardiovascular conditions, and how it can serve as a triggering event in individuals with underlying cardiovascular disease (page 6, Heart to Heart white paper).* These three actions—screening, life-style changes and medical evaluations—provide the foundational arguments for messaging to the three groups Dr. Smith and her fellow researches present as the most critical.

Firefighters

Firefighters, like all others, have CVD risks they can modify or even eliminate through behavioral changes, but they also have other heritable or environmental factors which may be beyond their range. During her presentation, Dr. Smith argued that a concentrated effort targeted at behavioral changes will yield the greatest immediate and long-term successes. When identifiable and controllable risks are identified, they can be controlled through preventative measures. Without a doubt, firefighters themselves will determine the extent to which they are susceptible to developing CVD. The research conducted by the NFFF research team concluded that there are ten actions a firefighter can do to reduce their risk for Cardio Vascular Disease (CVD).

1. Maintain a high level of physical fitness;
2. Obtain an annual physical, even if it is not provided by the department;
3. Routinely monitor blood pressure and control hypertension (if present);
4. Maintain or take action to reach a healthy weight;
5. Avoid tobacco use;
6. Eat a healthy diet;
7. Avoid excessive use of alcohol;
8. Maintain normal lipid levels;
9. Wear SCBA from initial attack to completion of overhaul;
10. Get adequate sleep.

Fire Departments—Company Officers/Crew Bosses

As the white paper notes “Company officers/crew bosses have a position of great influence and should act as intermediaries to reinforcing existing policies and facilitate policy change when needed.” The white paper encourages them to talk with their companies and crews about cardiac risks, and strongly suggests they should act as role models for positive change and risk modification. The research indicates, in addition, that these mid-level officers can have a great impact on the course of firefighters developing CVD if they are in partnership with their teams and crews and set a good example:

1. Encourage high levels of fitness;
2. Promote good nutrition;

3. Reinforce the importance of firefighters knowing their CVD risk factor profiles and the value of working to improve the profile;
4. Promote a tobacco-free lifestyle;
5. Encourage a supportive environment for meeting health and fitness goals;
6. Ensuring the wearing of SCBA from initial attack to completion of overhaul duties.

The notion of role modeling, as the research suggests, cannot be overstated in terms of the company officer-firefighter relationship.

Fire Service Leadership—National Organizations

The white paper notes that national constituency organizations play a “key role in promoting health and wellness in the fire service.” National-level organizations influence legislation at the state and federal levels and establish national priorities for the fire service. They are also important in determining precious grant funding for CVD research. The Heart to Heart white paper developed seven supportive actions these organizations should strongly support and immediately recommend on behalf of their members:

1. Require pre-employment medical evaluations;
2. Require annual medical evaluations;
3. Require return-to-work evaluations;
4. Implement physical fitness programs;
5. Implement comprehensive wellness programs;
6. Promote a tobacco-free workplace;
7. Ensure that incident scene rehabilitation is established for emergency incidents and training drills.

The actions suggested for these three stake-holder groups reinforce the most important actions the NFF Cardiac Research Team identified at the 2015 Heart to Heart roll-out to the fire service, and in the subsequent white paper, with proper screening, life-style changes, and medical evaluations having the greatest potential to save lives.

Note: Dr. Smith’s presentation may be found at ... link needs to be created.

Presentation

**Sara Jahnke, Ph.D., Chief Researcher
Center for Fire, Rescue and EMS Health Research
Institute for Biobehavioral Research, National Development Research Institute**

The first “messaging” presentation was by Dr. Sara Jahnke, an expert in the field of firefighter behavior, especially focusing on health and wellness issues. Her presentation, “Why Arent’ We There Yet? Barriers to Health and Wellness in the Fire Service,” presented compelling evidence as to the reasons why some firefighters make bad choices even when they are aware they are doing so. Dr. Jahnke was careful to note that there is significant overlap between occupational-acquired and behavioral risk factors when it comes to firefighters that are not present in the

general population, such as the presence of fireground toxins and repeated physical and emotional trauma.

Dr. Jahnke's presentation explained the corresponding data for each modifiable risk identified by Denise Smith, including the rates of being overweight or obese among firefighters, the nutritional environment, lack of support for physical activity, time constraints for healthy behaviors, alcohol and tobacco, stress and trauma, sleep disorders and the prevalence of carcinogens on the fireground during salvage and overhaul.

The remainder of Dr. Jahnke's presentation focused on the individual and organizational barriers to change and suggested important interventions which can be adopted in to messaging and marketing campaigns:

- Appropriate medical surveillance and intervention;
- Focus on obesity intervention by the individual and the department;
- Understanding of the role of fitness – across the domains of firefighters and based on job functions;
- Managing substance use/abuse regarding alcohol consumption;
- The importance of the complete elimination of all forms of tobacco usage;
- Limiting chemical exposures (e.g. clean gear, wear SCBAs during overhaul);
- Understanding how stress management can help control both behavioral and physical impacts;
- Regular, relevant, physical ability testing (as a variable to fitness).

When discussing barriers to making changes at the individual level, Dr. Jahnke pointed out that many of these barriers were rooted in fire service social norms and traditions, individual perceptions of self, the desire to “fit” within the group, and the persistent fire service culture norm of resisting to ask for help. These are tremendously difficult barriers and, as we shall see, need to be addressed within a variety of marketing and messaging modalities.

Note: Dr. Jahnke's presentation may be found at ... link needs to be created

Presentation

Sara C. Folta, PhD

Assistant Professor, Friedman School of Nutrition Science and Policy
Adjunct Scientist, Jean Mayer USDA Human Nutrition Center on Aging Nutrition, Exercise Physiology, and Sarcopenia Laboratory
Assistant Professor, Tufts Clinical and Translational Science Institute

Professor Folta is an expert at the intersection of science, health and messaging. As a full-time university professor, she is interested primarily in the careful messaging that must occur on the topic of making changes regarding food and nutrition.

Dr Folta began her presentation with dismissing the often-held belief that if you give someone knowledge and awareness this will be sufficient motivation for change. It is a shame, she

posited, that so many health and wellness programs fail because, knowledge is not sufficiently motivational. Rather, she suggests the use of a *transformational model* for encompassing the stages of change has a much greater chance of inducing behavioral change. The transformational model she presented is based on six steps:

1. Pre-Contemplation – generally a state of denial
2. Contemplation—maybe I do need to make some changes/ambivalence self-dialog starts to decrease
3. Determination and Preparation—excited about change/Let's GoO!!!!/motivated
4. Action—Doing it, living the new behavior
5. Reaching Maintenance—all important shift from new behavior to habitual behavior
6. Relapse/Recycle—Start over!

Dr. Folta acknowledged that getting people to make sustained personal changes regarding their health is a herculean task under the best of circumstances. This model is based on a cognitive approach that all health messaging should do three things: increase knowledge, raise awareness of risk to self, and raise awareness about consequences to others. The last point regarding consequences to others immediately resonated with those present. It echoed a slide Dr. Smith shared: *Your health problems become my health problems on the fireground.*

In regards to the first and maybe most critical attribute, Dr Folta suggested that the best way to start of process of weaning a person from a state of denial is to, in fact, increase knowledge by sending messages which immediately catch the attention of the audience—that are simple, jargon-free, and easy to remember.

Dr. Folta moved through the rest of the model in preparation for the afternoon design exercises which would be conducted in breakout group sessions. She attempted to prepare the groups by asking them to consider the following messaging issues:

1. How will your programs and products deal with the barriers to change (constraints on time, constraints on possibilities of success), while at the same time get people prepared for the benefits of health and wellness changes?
2. How do you build intrinsic motivation based on autonomy and confidence? Almost undoubtedly, asking people to make changes in exercise and diet will not be new to them. Many will have the cycle of success and failure. The more failures could make intrinsic motivation difficult to achieve, yet it is mandatory once the first euphoria occurs.
3. How do you get this audience to strive for and accept short and long-term progress—losing weight (short term) vs. increasing health (long term).
4. Try to get individuals to adopt the SMART goal-setting model—Specific, Measurable, Attainable, Realistic and Time-bound. For instance, losing 100 lbs. in 6 months might not be attainable or realistic (although it is specific, measurable and time-bound).
5. Encourage positive achievements and provide monitors (such as pedometers) and point to helpful phone-based APPS!

All of these recommendations will promote self-efficacy, confidence, and belief firefighters are doing the right things for themselves, their colleagues, and their families.

Note: Dr. Folta's presentation may be found at ...link needs to be created

Panel Discussions

Immediately following Dr. Jahnke's and Dr. Folta's presentations, two panels were convened to discuss aspects of marketing to the fire service by those who had past success in doing so. They were both facilitated by Tim Sendelbach of Firehouse Magazine and Firehouse.com. The goal of both panels was to help stimulate work in the breakout groups..

Panel 1: Attributes of a Successful Marketing/Messaging Program (Panel members: Tara Cardoso, Skye Thompson, Dan Kerrigan). The group focused on their personal experiences of each having developed health and wellness programs for firefighters. This panel was asked to focus on the following areas:

1. When should a marketing campaign begin? When do most begin?
2. In the fire service we have internally developed programs and others which we receive from external sources. What is leadership's responsibility for each type of program? Should an external program be accompanied by messaging advice? Would this be helpful?
3. Do you agree that marketing strategy is really more about "why" than "how"?
4. Should marketing plans be data-driven? Where can we enough find data about our targeted audiences? Should we know more about firefighters as media consumers? What are some of the segments in the fire service we need to take into account when planning messages?
5. How can development teams and marketing teams work together? Suppose you don't have a marketing team? What can be built in by developers to make the roll-out easier?
6. What about built-in review cycles? How do we responsibly sunset programs that don't catch on or that have outlived their usefulness?
7. Have we routinely missed "markets" in the past where supports or program funding may have existed?

Panel 2: Elements of a Successful Marketing/Messaging Program in the Fire Service (Panel Members: Rhett Fleitz, Jeanne Barnhill, Derek Alkonis)

The goal of this panel was to address the elements or building blocks of a health & wellness marketing campaign in the fire service. Discussion questions included:

1. Elements, for this purpose, will mean advising on all tangible aspects of the plan—from development to "things produced" to the review cycle. For instance, should the marketing "team" of a department or organization advise the developers as to what is selling in this audience? Can they act as consultants over time, and should they participate in AAR when a program is deemed ready for sunset?
2. What are the elements of marketing plans we have depended on in the past? Referring to published articles in the fire press, posters, flyers, presentations at fire-centric conferences (nationwide or state, local)? Are these elements still a **must**?
3. It is taken for granted that "this new generation" gets all its information from the internet? What are the implications of this migration?

4. If this is true, how do we modify our messages for this group without alienating colleagues who resist this trend?
5. What is the role of new and emerging media—the blogs, Twitter, Periscope, etc.
6. Role of the graphic artist in conveying messaging? Suppose you don't have one?
7. What elements are just peeking over the horizon we should be aware of?

Note: Jeanne Barnhill, a marketing professional, prepared a presentation on this topic. It proved to be very influential in the breakout groups and may be found at ..link needs to be created.

Breakout Groups—Three Design Challenges

All those in attendance were assigned to three facilitated breakout groups. Each of the three morning speakers (Smith, Jahnke, Folta) were assigned to be coaches. The coaches were instructed to rotate between groups as they moved through the challenges. Jeanne Barnhill also rotated between the groups to offer technical assistance. All the breakouts worked on each challenge for approximately 90 minutes, including a 30 minute report out presentation.

Design Challenge # 1 Parameters/Components to a CVD Fire Service Messaging and Marketing Campaign that will take into account the 10 recommendations in the Heart to Heart white paper for firefighters.

1. Maintaining a high level of physical fitness
2. Obtain an annual physical, even if it is not provided by the department
3. Routinely monitor blood pressure and control hypertension (if present)
4. Maintain or take actions to reach a healthy weight
5. Avoid tobacco use
6. Eat a healthy diet
7. Avoid excessive use of alcohol
8. Maintain normal lipid levels
9. Wear SCBA from initial attack to completion of overhaul
10. Get adequate sleep

Design Challenge # 2 Messaging to Fire Service Leadership

This challenge was charged with developing messages for both formal and informal fire department leaders—focusing on company officers/crew boses.

1. Encourage and model high levels of fitness;
2. Promote and model good nutrition;
3. Reinforce the importance of knowing your CVD modifiable risk factor profile;
4. Promote and model a tobacco-free lifestyle;
5. Encourage a supporting environment for marking health and fitness goals;
6. Ensure the wearing of SCBA from initial attack to overhaul.

Design Challenge #3 CVD Messaging by Fire Service Constituent groups, political leadership, etc.

1. Require pre-employment medical evaluations;
2. Require annual medical evaluations;
3. Require return-to-work evaluations;
4. Implement physical fitness programs;
5. Implement comprehensive wellness programs;
6. Promote a tobacco-free workplace;
7. Ensure that incident scene rehab is established for emergency incidents & training drills.

Recommendations from the Breakout Groups

There were 24 recommendations regarding the content of messages that should be addressed in CVD prevention marketing materials:

Messaging to Firefighters

There was consensus among the breakout groups on several issues:

1. Firefighters must have information regarding CVD across the span of their fire service careers which reflect added information as they age and circumstances change. In addition to the influence of diet and exercise, every firefighter should know the root causes of CVD, including: physiological stress related to performing the duties of a firefighter, sleep deprivation, the presence of environmental toxins, dehydration, issues related to shift schedules and behavioral health trauma.
2. All firefighters must have an annual firefighter physical preferably performed by physicians who have knowledge of the diseases associated with firefighting. Career firefighters must have base-line physicals as part of the hiring process and every year thereafter. Volunteer structural firefighters and season wildland firefighters should have access to no-cost or low-cost physicals via private insurance or have access to firefighter physicals via community resources (such as a local hospital);
3. CVD results gained through physicals must be aggressively managed by doctors, firefighters themselves, and departments;
4. Firefighters will not be motivated through scientific/medical jargon, but will respond well to narrative-driven and results-driven motivational material;
5. Health ads and health and wellness campaigns must be coordinated across social media platforms;
6. All CVD material distributed must be holistic and address the physical work environment, the mental/behavioral/cultural health environments, employee relationships and family dynamics;
7. Firefighters will be more motivated to change if they are made aware that their status as overweight or physically out of shape will have consequences on themselves, their families BUT MORE IMPORTANTLY citizens and fellow crew members;
8. Infographics are a great way to get firefighters to be aware of CVD threats to themselves via the work environment, including carcinogens;
9. Tobacco cessation and alcohol control campaigns should be part of the CVD coordination;

10. Firefighters react well to local champions among their core group, rather than “famous people” champions;
11. Firefighters must have documentation about what constitutes a firefighter physical at the ready to bring to their health-care provider.

Messaging to Fire Departments

12. Fire service local leadership has a responsibility to model and promote CVD awareness and to be good role-models;
13. Chiefs must have a vision and plan for how they will develop a CVD awareness campaign and promote it in their departments;
14. Chiefs must be champions for physicals and provide resources for those in their command to begin change processes;
15. Chiefs must learn how to leverage local resources, if needed, to provide physicals for their employees and/or volunteer members;
16. Chiefs should encourage through SOPs SCBA usage across the span of an emergency response—from arrival through overhaul;
17. Chiefs should realize that the controls they put into place regarding CVD will also cross-walk with cancer prevention strategies;
18. Chiefs must be defenders of time for PT if this is not built-in to a labor negotiation;
19. Chiefs must reckon that there is a value added provided by CVD fitness and this is sometimes more important than funding new equipment and apparatus;
20. Chiefs should model problem-solving strategies with personal discipline, organizational commitment, and pride.

Messaging to Fire Service Leadership—Local and National Organizations and political leaders

21. Promote legislation to support firefighter physicals—pre-employment, during employment, return to duty;
22. Vigorously support a coordinated CVD health campaign with leadership modeling positive changes and behaviors;
23. Help develop funding pathways for CVD initiatives—GRANTS, GRANTS, GRANTS;
24. Each local and national organization can use their new social media platforms to spread the word and proscriptions regarding CVC health including modifiable risk factors.

In addition to the 24 recommendations, the breakout groups went further into messaging and marketing. Here are some of their ideas.

Consensus on CVD Prevention Program Content

When the breakout groups convened, several themes emerged during open, non-directed discussions.

1. The migration from traditional printed media to network engagement via social media and other forms of new media is imperative;

2. However, this shift in format has to be strategic and conceptual—using new media requires planning;
3. Whatever health and wellness campaigning that occurs because of this effort, it must be customer-focused—firefighters and fire service leaders have differing needs as they progress through their careers and material must take into account the diversity of the fire service, including race, gender and language if necessary;
4. Persuasive and motivational messaging regarding CVD prevention should also leverage other relevant efforts in the fire service (such as cancer prevention) and fit conceptually within the broader category of *the occupational diseases of firefighter*.

Day 2

The brainstorming which took place on the second day was more conceptual and thematic in nature, aimed at an eventual strategic plan. These discussions were based on 4 conceptual areas with some preliminary action steps.

Education

Resources

Supporting Research

Promotion (Marketing the Message)

Education

Action Step 1: Develop a coordinated theme that can begin the motivational phase of change (Folta)

Themes for a coordinated national CVD awareness/prevention campaign:

Fit Your ♥ Health into your life!

Be Screened!

My Heart, My Job!

You are Fire STRONG, are you ♥ Strong?

Duty to Self, Team and Family (Don't be the weak link)

Stay Safe out There, and Heart Healthy in here (schematic of a firefighter)

Survive the Job

My Heart, My Job, My Life

Call to ACTION—be screened!

#Always on Duty

#GettingHeartHealthy

Do You Know Your Numbers?

I ♥ My ♥

Action Step 2: Message Content by Focusing on Modifiable Risks

Broad consensus on *Know Your Numbers*: blood pressure (hypertension), cholesterol (lipid levels), weight, waist circumference (BMI), diabetes, daily calorie intake, stress

Know modifiable risks vs. genetic vs. occupational (environmental) risks and the difference between them.

Modifiable Risks: Measurable risk factors have been associated with increased risk of sudden cardiovascular events (heart injuries and deaths). Strategies including addressing thermodynamic heat stress, emotional stress, diet, exercise, sleep, tobacco, alcohol, and physical barrier protections regarding carcinogen/toxin exposures.

Genetic Risks: Genes can put us at greater risk for CVD, but they are not a death sentence. Put controls into place to counter-balance some of these risks. Such as don't smoke, eat a healthy-heart diet, control alcohol, GET SCREENED for the types of CVD heritable traits in your family.

Occupational/Environmental Risks: Environmental toxins, hazards of transporting toxins on gear, etc. **Cross-walk with cancer prevention material where germane.**

NOTE: Consult the Fire Service Occupational Cancer Alliance for research and supporting recommendations regarding modifiable, genetic and occupational-related cancers at www.FSOCA.org

Action Step 3: Seek assistance.

Ask local resources for assistance. Many local institutions have marketing employees who may be able/willing/eager to assist a department develop marketing material.

Resources

Action Step 4: Provide Tools

A national-level CVC prevention program should provide a CVD prevention toolkit for departments. The most helpful elements in the toolkit were determined to be infographics, short videos, personal narratives of living with and overcoming heart disease. A series of booklets, including titles such as: *Your Survival Guild to Modifiable CVD Risk Factors*; *CVD Medications and Firefighting*; *How to Obtain a FF Physical (if One is Not Provided)*.

Action Step 5: Support Research

Fire Departments should step up when national wellness-focused organizations ask for data or human subjects to answer surveys, or participate in physiological research, for example.

Action Step 6: Material beyond structural firefighting

Attendees stressed that it was important to include the demands of wildland firefighting in research projects. Similarly, volunteer members should be included in any studies affecting the health outcomes of firefighting.

Attachment 2: Here are some marketing and messaging resources which can be consulted to adapt material or develop material for local circumstances.

Promotion: Marketing the Messages

Once marketing material is available, it is the time to market the messages.

Action Step 7: Rely on Technology

Research indicates that 47% of Americans use Digital health Apps (<http://blog.wellable.co/2016/09/19/survey-47-of-americans-use-digital-health-apps/>). With this in mind, it is imperative that fire service health and wellness developers migrate from printed media to network engagement, keeping in mind that important health issues will, for the time being, need to be addressed through traditional print and video media as well.

Action Step 8: Become producers of technology

Identify the most useful social media channels and tools and applications for health communication; learn how content (blogs, news and press releases) can be leveraged to interact with other relevant efforts. Develop blogs and channels for providing material.

Action Step 9: Evaluation

Recognize that evaluation is the key to long-term effectiveness; customer-focused approach to marketing using the 4 P strategies of promotion, product, price and place;

Action Step 10: Know your customer

Utilize, to the greatest extent possible, first-hand personalized narratives, including recovery stories, successful action steps taken by individuals, motivational material for family members to assist the firefighter in making health and wellness changes,

Conclusion

The Heart to Heart white paper is a complete exploration of the modifiable CVD risks to firefighters. Beginning on page 33 of that report is a section to encourage adoption of the recommendations that were offered at the Heart to Heart symposium in December 2015. It is remarkable that many of these recommendations are very close in spirit to those developed by this marketing group.

There was an *esprit de corps* which emerged among those in attendance that the Heart to Heart recommendations must reach the greatest audience possible. It was deemed imperative that this material do not fall prey to many research reports. Especially with this report, sitting back and hoping the word will spread, is not acceptable. The partnership between the researchers and the fire service must be compelling and permanent.

The *Heart to Heart* white paper begins the process of passing the information about reducing CVD in the fire service to the fire service. But, we know that the fire service in the United States is not a monolithic entity where information can be delivered in one manner to all those who may need it. Especially when this comes to issues regarding health and wellness. Rather, we have learned that often-times excellent life-saving information gets lost. It doesn't reach targets (for many reasons), or is put on the back burner.

With this meeting in Baltimore, the NFFF began to look at the deep and complex roots of messaging, understanding and changing behavior. We were strategic when inviting the researchers who wrote *Heart to Heart*, representatives from fire departments who embrace and support CVD research, and representatives from the fire service constituent organizations who have a galvanizing influence throughout our industry. And importantly, we asked experts in the field of health and wellness messaging to spend time with us—to educate us on the best and most effective practices regarding how to reach our segmented audiences.

By the end of this meeting on Sept 28th, the group had worked hard to produce commentary, recommendations, and action steps that future marketing teams can use to fill their plans with well-thought-out, common-sense CVD prevention messages.

(9/13/17)

Attachment 1 : Heart to Heart Messaging Participants and their Organizations

Presenters and Leadership

Sara Folta, Ph.D.	Tufts University
Sara Jahnke, Ph.D.	Center for Fire, Rescue & EMS Health
Denise Smith, Ph.D.	Skidmore College, Illinois Fire Service Institute
Chief Ron Siarnicki	National Fallen Firefighters Foundation
Chief Victor Stagnaro	National Fallen Firefighters Foundation

Attendees

Derek Alkonis	Los Angeles County Fire Department
Michael Anderson	Pflugerville (TX) Fire Department
Dominique Ashen, Ph.D.	Johns Hopkins University
Jeanne Barnhill	Amgrafx
James Brinkley	International Association of Fire Fighters
Jill Captain, M.D.	Montgomery County (MD) Fire/Rescue
Tara Cardoso	Firefighters/Paramedics of Palm Beach County (FL)
Jennifer Chadwick	San Antonio (TX) Fire Department
Tony Colman	Montgomery County (MD) Fire/Rescue
Craig Haigh	Hanover Park (IL) Fire Department
Michael Hamrock, M.D.	Boston Fire Department
Stefanos Kales, M.D.	Harvard University
Dan Kerrigan	East Whiteland (PA) Fire Department
Todd LeDuc	Broward County (FL) Fire Rescue, IAFC
Tiffany Lipsey	Colorado State University
Richard Miller	International Association of Fire Chiefs
Lance Routson	Urbandale (IA) Fire Department
Tim Sendelbach	Firehouse Magazine/Firehouse.com
Tracy Thomas	Richmond (VA) Fire and Emergency Services
Skye Thompson	Tablet Command

NFFF Staff

Rhett Fleitz
Molly Natchipolsky
Susan Proels
Tricia Sanborn
JoEllen Kelly, Ph.D.

Attachment 2: Marketing and Messaging Resources

Here are a few articles and other resources on Health and Wellness Messaging:

Text Messaging is an Effective Engagement Strategy

http://healthadvocate.com/downloads/stories/2013/8-13_HIU.pdf

Trade Your Wellness Program for a Wellness Culture

https://www.totalwellnesshealth.com/wp-content/uploads/2015/03/Wellness_Culture_Guide.pdf?submissionGuid=53050183-347e-4065-b7e7-b4bf5044ac22

Here are a few suggestions for websites and blogs that could be curated and packaged for a fire service audience:

Wellable blog (<http://blog.wellable.co/>)

<https://www.wellable.co/textmessaging>

Total Wellness Blog

<http://info.totalwellnesshealth.com/blog/in-case-you-missed-it-positivity-in-corporate-wellness-programs>

MedicineNet.com

Harvard Medical School blog www.health.harvard.edu

New York Times' WELL blog well.blogs.NYTimes.com

Other Resources

Magazine of Corporate Health & Wellness Association

<http://www.corporatewellnessmagazine.com/selling-marketing/marketing-corporate-wellness-programs/>

How to Market Corporate Wellness & Prepare Your Program for Success

<http://www.outlier.com/blog/how-market-corporate-wellness-and-prepare-your-program-success#.V9xXVfkrLIU>

Fire Service Specific Health and Wellness Program Marketing

USFA has a range of programs you can look at for messaging value on the topics of cancer, sleep deprivation, obesity, and cardiac among others

https://www.usfa.fema.gov/operations/ops_wellness_fitness.html

The IAFC/IAFF Fire Service Joint Labor Management Wellness & Fitness Initiative

<https://www.iaff.org/hs/wfiresource/default.html>;

http://www.iafc.org/files/healthwell_wfi3rdedition.pdf.pdf

National Volunteer Fire Council

Heart Healthy Firefighter Program http://www.iafc.org/files/healthwell_wfi3rdedition.pdf.pdf

Firefighter Nation: *Developing a Wellness Program*

<http://www.firefighternation.com/article/firefighter-fitness-health/developing-wellness-program>

Factors in Adoption of a Fire Department Wellness Program: Champ and Chief Model

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3622825/>

eatrightPRO: Academy of Nutrition and Dietetics

Fanning the Flames of Food and Fitness <http://www.eatrightpro.org/resource/news-center/in-practice/dietetics-in-action/fanning-the-flames-of-food-and-fitness>

FIREHOUSE Firefighter Health and Wellness: *More Departments Promote Wellness Initiatives*

<http://www.firehouse.com/article/10595547/firefighter-health-wellness-more-departments-promote-wellness-initiatives>

As reviewed in Fire Engineering, Beyond the Turnouts: A Comprehensive Guide to Firefighter Health & Wellness Programs by John Hoffman

<https://www.amazon.com/BEYOND-THE-TURNOUTS-Comprehensive->

Firefighter/dp/1478178965?SubscriptionId=0D2DHPR4QZK90GRWYP02&tag=porfessionalp7
- 20&linkCode=xm2&camp=2025&creative=165953&creativeASIN=1478178965