

Fit to Fight: Evaluating the Firefighter Wellness Program of Avondale Fire-Medical

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotations marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed: _____ 

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Abstract

Avondale Fire & Medical (AFM) recognized that not enough was being done to protect the health and welfare of its members. The problem was that the AFM wellness program had not been evaluated to ensure that it meets industry best practice standards. The purpose of this research was to evaluate AFM's current wellness program and to identify needed improvements. The evaluative research method was used to answer three research questions; those questions were (a) What are the specific components of the current AFM wellness program? (b) How does the current wellness program compare to wellness program models and standards? and (c) Are AFM personnel effectively utilizing the existing wellness program? Research was conducted by reviewing all available department documents regarding wellness program components, surveying line personnel, interviewing subject matter experts within the department as well as externally, and performing a comparison study between AFM's wellness program and established industry guidelines. The results showed that AFM's wellness program was deficient in several areas, particularly mental wellness programs, and that some program components that were in place were under-utilized by personnel or the components were insufficient. In addition, personnel were not effectively utilizing program components that were available. Recommendations were to establish a robust behavioral health component, to offer enhanced cancer screening, to re-establish the peer fitness trainer program, and to follow several strategies for improving the program; such as developing program guidelines, establishing a program budget, and promoting program components to personnel. Recommendations for future research included focusing on program costs and returns on investment and researching possible cancer screening options for firefighters.

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Introduction

Due to the demands of the job, firefighters face unique occupational health risks: firefighters must operate in extreme environments with punishing physical exertion, they must work with toxic chemicals or in dense smoke, and they must often confront highly emotional situations. As a result of these stresses, firefighters are at greater risk for a variety of physical and mental health issues. For example, the leading cause of firefighter fatalities are cardiovascular events, firefighters suffer more than 71,000 injuries per year, and nearly 47% of firefighters admit to having considered suicide during the course of their career.

According to the U.S. Department of Health and Human Services, over 78 million U.S. adults (approximately 30% of the adult population) are obese, and it is projected that by the year 2030 half of all adults will be obese. Obesity-related illness; including chronic disease, disability, and death; is estimated to carry an annual cost of \$190.2 billion nationally (President's Council on Fitness, Sports, & Nutrition, n.d.). In comparison to the general population, Poston, Haddock, Janke, Jitnarin, and Day (2013) estimate that firefighters have an even higher obesity rate than the general population, as high as 40% (Poston, Haddock, Jahnke, Jitnarin, & Day, 2013, p. 2). An analysis of data collected by the U.S. Fire Administration from 2002 to 2012 showed that 47% of firefighter fatalities in this time period were caused by cardiac events, and of these, 98% were caused by stress or overexertion, which can be exacerbated by obesity (Sen, Palmieri, & Greenhalgh, 2016).

Another risk to firefighters is the risk of mental health issues related to the job. Firefighters are at risk for post-traumatic stress, depression, anxiety, acute stress reactions, and suicidal ideations. A national survey of firefighters found that over 15% of firefighters have had

a suicide attempt in the course of their career. This is more than three times the national average of 4.5% of people who will attempt suicide in their lifetime (American Foundation for Suicide Prevention website, 2016).

Studies have shown that a well-designed wellness and fitness program for firefighters can enhance overall mental and physical health (Smith, 2011, p. 1). Avondale Fire-Medical (AFM) currently offers annual physicals for firefighters, and there are resources available for mental health concerns; however, the entire wellness program has not been reviewed. The problem is that the AFM wellness program has not been evaluated to ensure that it meets industry best practice standards. The purpose of this research is to evaluate AFM's current wellness program and to identify needed improvements. The evaluative research method will be used to answer three research questions; those questions are (a) What are the specific components of the current AFM wellness program? (b) How does the current wellness program compare to wellness program models and standards? and (c) Are AFM personnel effectively utilizing the existing wellness program?

Background and Significance

The city of Avondale, Arizona is part of the Phoenix metropolitan area, and covers 45 square miles with a population of 82,875 as of 2016 (City-Data website, 2016). Avondale is located directly west of Phoenix, and is bordered by the cities of Goodyear, Tolleson, and Glendale. AFM staffs four fire engines, and co-staffs a ladder truck and a heavy rescue squad. All companies are staffed with at least four personnel, at least two of which are paramedics. The department also deploys a battalion truck staffed with two personnel and a support unit staffed by one person. AFM is a career department with 69 personnel, including two administrative captains and five administrative chiefs. AFM provides fire protection, emergency medical

services (EMS) including advanced life support (ALS), and technical rescue services. AFM participates in automatic aid agreements with 25 other surrounding departments belonging to the Phoenix Regional Dispatch Consortium which allows resource sharing throughout the region. AFM responded to about 12,000 calls for service in 2017, which continues a trend of an approximately 10% increase in call volume annually for the past five years (*Emergency Reporting records, 2017*).

Although AFM has seen a trend of increasing calls for service, the department has not grown in size. As a result, line personnel at AFM are working harder, with a correlating escalation in the extreme physical, mental, and environmental stresses intrinsic to fire and EMS service. AFM has seen a rise in the number of firefighters missing work due to illness/injury; and although confidentiality prohibits divulging statistics for this research regarding work lost due to mental health issues, it can be inferred that these numbers are rising as well.

Cardiac issues and heart disease have been recognized as serious health issues for the fire service for many years; sudden cardiac death has consistently accounted for the largest percentage of on-duty firefighter deaths since the National Fire Protection Association (NFPA) began studying firefighter fatalities in 1977 (Fahy, LeBlanc, & Molis, 2017, p. 4). However, there needs to be more focus on adverse health effects of long-term exposures, both physical and emotional. For example, although cancer deaths are not included in firefighter fatality statistics, the International Association of Firefighters lists more than 80 firefighter cancer deaths that were reported to them in 2016 (IAFF Firefighters website, 2017). Also not included in firefighter fatality statistics, unless it occurs on-duty, is suicide; however, 99 firefighters and 36 EMTs died by suicide in 2016. Based on these statistics, a successful health and wellness program must include diagnostics and preventive measures for the hazards of long-term exposures to

occupation-related toxins and a strong mental health component in addition to the more traditional focus on cardiac health. Is the firefighter wellness program for AFM sufficient to meet these needs, plus the physical fitness, nutrition, and physical rehabilitation needs of its firefighters?

This applied research project is a requirement of the fourth-year Executive Fire Officer Program Course, Executive Leadership; this course focuses on change management, organizational culture, and scholarly research (U.S. Fire Administration website, n.d.). Evaluating the wellness program of AFM will likely identify necessary program modifications. Changes involving firefighter health, fitness, and lifestyles will be an adaptive challenge for the organization and will involve a cultural shift in order to be successful long-term.

The United States Fire Administration's strategic plan for 2014-2018 lists five operational goals; the third goal is to "enhance the fire and emergency services' capability for response to and recovery from all hazards" (*Strategic plan*, n.d., p. 12). The third initiative of this goal is to "promote a culture of health, wellness and behavior that enhances emergency responder safety and survival" (*Strategic plan*, n.d., p. 12). Evaluating AFM's wellness program and identifying improvements can have a direct positive impact on the wellness and behavior culture of AFM, and provide a model for other departments looking to improve as well.

Literature Review

Traditionally, the U.S. fire service has concentrated more of its efforts on ensuring the readiness of equipment than on the health and wellness of its personnel; only recently has there been a comprehensive approach to firefighter wellness. Nationwide, the fire service faces several formidable health issues including high cancer rates, obesity rates higher than the general public, and daunting behavior health issues. Firefighters also suffer high rates of lost work time

due to workplace injuries, overexertion, and stress. Poston et al. (2013) found that departments with well-developed health promotion and wellness programs had healthier firefighters than members of departments without a structured wellness program (Poston et al., 2013).

Wellness Program Benefits

The epidemic of low fitness and obesity are critical issues facing the fire service because of their association with injury risk and low operational readiness. Poston et al. (2013) found that firefighters who exercised regularly had half the risk for non-exercise injuries, which typically represent approximately 60% of all injuries (Poston et al., 2013, p. 2). Regular exercise can also help reduce the risk of cardiovascular disease in firefighters, which is the leading cause of line-of-duty-deaths, comprising nearly half of all deaths. This proportion is higher than for police (22%), other emergency service providers (11%), and all other occupations (15%) (Poston et al., 2013, p. 2). Despite the high incidence of workplace injuries for firefighters, there have been comparatively few studies of the impact of wellness programs; however, one study funded by the National Institutes of Health examined how comprehensive medical testing, individualized counseling, and health promotion impacted overall firefighter health. The study, *Promoting Healthy Lifestyles: Alternative Models' Effects (PHLAME)*, demonstrated the benefits of workplace programs for nutrition and exercise behaviors. Kuehl, Elliot, Goldberg, Moe, Kraemer, McGinnis, and Breger (2013) found that there was a statistically significant reduction (35%) in days off due to injury among groups that participated in the wellness program (Kuehl et al., 2013, p. 203). Poston et al. (2013) found that firefighters who participate in wellness programs are leaner, less likely to develop cardiovascular disease, have greater endurance and operational readiness, and have better morale and job satisfaction (Poston et al., 2013).

Another benefit of a wellness program is a potential cost savings due to reduced workers' compensation claims. According to Kuehl et al. (2013), there was an 8% reduction in the total number of claims among fire departments in the PHLAME program, versus a 13% increase in total claims among the comparison fire departments (Kuehl et al., 2013, p. 205). Additionally, there was a 7% increase in medical costs over a 5-year period for the PHLAME departments as compared to a 24% increase in the comparison departments (Kuehl et al., 2013, p. 206). Medical cost increase per firefighter was less than one third of those in comparison departments during the study period.

Although not related to the fire service, in a case study of Capital Metropolitan Transportation Authority in Austin, Texas; Davis, Loyo, Glowka, Schwertfeger, Danielson, Brea, Easton, and Griffin-Blake (2015) found that participants in the wellness program were more physically active, made healthier food choices, experienced weight loss, and had lower blood pressure (Davis et al., 2015, p. 1). Davis et al. (2015) also found that absenteeism decreased by approximately 25% since the implementation of the program, and that participants lost an average of ten pounds and 3% body fat (Davis et al., 2015, p. 4). Another study by the RAND Corporation, however, implied that workplace wellness programs designed to promote employee health and fitness seem to have, at best, a modest effect. This study found that participants in corporate wellness programs lost on average only one pound per year for three years, and saw no statistically significant reduction in health care costs due to a decrease in emergency room visits or hospital care (McCarthy, 2013).

One issue with evaluating wellness programs is that most programs do not track long-term effectiveness, or do not use statistical approaches that capture useful data. According to McCarthy (2013), "employers told RAND they were confident that workplace wellness reduces

medical costs; yet only 44% have evaluated their efforts” (McCarthy, 2013, p. 1). Poston et al. (2013) stated that data regarding the benefits of firefighter wellness programs is incomplete due to inadequate sample sizes and limited department participation (Poston et al., 2013, p. 3).

Wellness Program Models and Standards

Several agencies, including the National Fire Protection Association (NFPA), have addressed the issue of firefighter health and wellness. NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments (2013) states:

The purpose of this standard is to outline an occupational medical program that, when implemented in a fire department, will reduce the risk and burden of fire service occupational morbidity and mortality while improving the health, and thus the safety and effectiveness, of firefighters operating to protect civilian life and property. (NFPA 1582, 2013, p. 9)

NFPA 1582 outlines a medical evaluation program that establishes a baseline for new-hires, then continues with annual evaluations thereafter. The program addresses identifying conditions that interfere with a member’s physical or mental ability to perform essential job tasks, monitoring the effects of exposure to specific harmful agents, detecting patterns of disease or injury, and detecting changes in a member’s health (NFPA 1582, 2013). In the 2013 edition of NFPA 1582, Annex C was added, which addresses annual fitness evaluations for line personnel. The annual fitness assessment consists of evaluations for aerobic capacity, body composition, muscular strength, muscular endurance, and flexibility (NFPA 1582, 2013, p. 62).

A more comprehensive wellness program was developed by the International Association of Fire Chiefs, in conjunction with the International Association of Fire Fighters called the Fire Service Joint Labor Management Wellness-Fitness Initiative (WFI). The latest edition of the

WFI breaks down the wellness program into five main categories: medical, fitness, rehabilitation, behavioral health, and data collection (International Association of Fire Fighters [IAFF], 2008). The WFI expands on the standards for medical evaluation described by NFPA 1582, with detailed models for each phase of the medical evaluation. In addition, the WFI (2008) expands on the annual fitness evaluation to include highlights such as on-duty exercise time, exercise equipment and facilities, peer-fitness trainers, and nutrition (IAFF, 2008, p. 25).

One area of specific concern for the fire service, which is not addressed in NFPA 1582, is the issue of behavioral health. The WFI (2008) highlights the need for a behavioral health plan; which includes periodic evaluations, comprehensive counseling services, behavioral modifications, attention to substance abuse and stress management, and incentives for members to access behavioral health services (IAFF, 2008, p. 39). Regarding the importance of including behavioral health in a wellness program, the WFI (2008) states:

Without attention to and an investment in programs that address the mental and emotional health of our uniformed personnel, the reality is a workplace where individuals are absent more often, involved in more accidents, receive more injuries, utilize more sickness benefits, and poorly perform required duties. (IAFF, 2008, p. 40)

In 2017, the International Association of Fire Chiefs produced a document to assist the health care provider in the evaluation and treatment of firefighters. This document recommends an even more stringent cardiovascular screening than outlined in the WFI. The Healthcare Provider's Guide to Firefighter Physicals recommends at least one baseline echocardiography in addition to annual treadmill stress tests (International Association of Fire Chiefs [IAFC], 2017, p. 2). Another recommendation is that any firefighter over the age of 40 is evaluated using a nuclear or echocardiography exercise stress test; the IAFC states that exercise testing without

imaging is not recommended as it may fail to identify one-third of those who may need cardiac intervention (IAFC, 2017, p. 2). The IAFC (2017) also recommends cancer screenings that exceed established guidelines for the general public. These screenings should include colonoscopies beginning at age 40, annual prostate screenings, annual pap smears and mammograms for females, annual testicular exams for males, head-to-toe skin examinations, and annual urinalysis for microscopic hematuria (IAFC, 2017, p. 2).

Utilizing the Wellness Program

Even the most comprehensive and well-designed wellness program is ineffective if the members do not utilize what the program offers. Traditionally, fire service members are reluctant to seek help; particularly regarding mental health issues. Dill and Loew (2012) stated that, when it comes to behavioral health, “the fire service needs to begin to understand, train, and help firefighters... to be mentally prepared for the duties they perform” (Dill & Loew, 2012, p. 6). Dill and Loew (2012) recommend a “triangle of hope” approach for a behavioral health support system:

- The first point of the triangle represents clinicians who should be educated on the unique lifestyle and emotions of firefighters and their families;
- the second point represents senior fire officers who should be trained to recognize the warning signs of a firefighter in distress and how to assist them;
- and the third point represents designated non-officers who should be educated to watch for signs of turmoil and to offer an in-house support system (Dill & Loew, 2012, p. 14).

Behavioral health is not the only area of a wellness program where cultural change is necessary in the fire service; all areas need to be accepted and policies followed. For example, a

voluntary fitness program is generally ignored by the firefighters who need it the most – the overweight or physically unfit personnel. In a policy brief, the Los Angeles County Fire Department stated that non-compliance at any level of the organization is counterproductive to their fitness program goals, and that participation is expected at all levels of the organization, including all chief officers (Los Angeles County Fire Department, n.d., p. 4). Another area where cultural change is necessary is in fire service efforts to prevent cancer. Fahy et al. (2017) recommend education, behavioral changes, and a variety of controls to minimize exposure to contaminants and to raise awareness of the heightened risk of cancer in the fire service (Fahy et al., 2017, p. 3-4). While the positive effects of wellness programs have been clearly validated, the lack of participation in voluntary programs continues to be an issue. Poston et al. (2013) stated that the majority of firefighters, even in departments with wellness programs, do not meet health and fitness standards; therefore, “a culture shift amongst both management and labor is needed, and action, not just studies, reports, and ‘initiatives’ is necessary” (Poston et al., 2013, p. 3).

For cultural change to take place, it is crucial to educate all parties involved regarding all aspects of the wellness program. Poston et al. (2013) demonstrated that participation in a wellness program fosters greater optimism and job satisfaction, a positive culture in the department regarding health and wellness, and a proven reduction in illness-related issues (Poston et al., 2013, p. 3). The WFI (2008) recommends that information needs to emphasize the benefits of a program for personnel and explain how the program will ensure compliance with fire service standards (IAFF, 2008, p. 64). A general theme throughout the literature reviewed is that in order to be successful a wellness program must be actively promoted, fully supported, and whenever possible peer-led (IAFF, 2008; Poston et al., 2013; Smith, 2011). According to the

AFM Health, Safety, and Wellness Committee (2017) a major obstacle to success of the Peer Fitness Trainer program has been a lack of support at the line level and a lack of dedicated budget for the program (See Appendix A).

Influence on Research

Research was influenced by the literature review in several ways. First, the literature review showed that although AFM has a wellness program, it is likely that there are several areas that the program can be improved; specifically, the literature indicated that most wellness programs do not sufficiently address cancer prevention and detection in firefighters, and that most programs do not sufficiently address firefighter behavior health (Dill & Loew, 2012; Fahy et al., 2017; IAFF, 2008). The literature review also revealed that there are standards and models available to compare AFM's current program, and that the Wellness Fitness Initiative provides a proven implementation guide for use as a comparison tool (IAFF, 2008; "NFPA 1582," 2013). The literature review also helped to define the questions asked in the survey distributed to AFM members regarding program additions or deletions which would be perceived as most beneficial to department membership.

Procedures

This applied research project began with the identification of a relevant research problem: the problem is that the AFM wellness program has not been evaluated to ensure that it meets industry best practice standards. The purpose of this research is to evaluate AFM's current wellness program and to identify needed improvements.

A review of all internal department documents and policies was conducted in order to identify the specific components of AFM's current wellness program. AFM does not have any formal policies relating to the wellness program; however, a wellness committee made up of line

personnel and administrative staff is tasked with developing, implementing, and revising firefighter wellness-related programs. Committee meeting notes are available for review as internal departmental documents (See Appendix A). In addition, Article 9 of the Memorandum of Understanding (MOU) between the City of Avondale and the Avondale Professional Firefighters Association defines the requirements of annual physicals for its members (See Appendix B). No other AFM documents were discovered regarding the wellness program.

A survey was distributed to 60 personnel at AFM, and the target population was line personnel who had been employed for greater than one year. The survey instrument was assembled using Survey Gizmo, a free online survey software program available at www.surveygizmo.com, and was distributed by posting a link using interdepartmental email at AFM. The survey was available from February 15, 2018 to March 15, 2018, and 43 responses were received. The survey instrument consisted of 17 questions designed to determine how personnel felt about current wellness efforts, and what could be added, improved, or eliminated in the current wellness program. In addition, the survey included five sections where respondents could comment on the existing annual physical process, fitness and nutrition, cancer detection and prevention, behavioral health, and on the overall wellness program (See Appendix C).

I conducted three personal interviews as part of this research. The first person interviewed was Linda Filion, Occupational Health Nurse with STI Occupational Health. Filion is the program coordinator for the firefighter annual physical program that serves personnel from various local departments and performs over 800 firefighter health physicals per year. The interview was conducted via email, with correspondence beginning on April 9, 2018 and ending on April 12, 2018. I presented a series of questions to Filion, which she responded to via email.

Filion also asked for input from STI clinical director Mark Hyland (See Appendix D). The intent of the interview was to determine any areas for improvement in AFM's annual health physical program. Questions were designed to identify potential additions to the annual physical, recommendations for improved cancer screening and detection, and recommendations for improving the behavioral health component of the wellness program. I also interviewed Avondale Professional Firefighters Association (Local 3924) member Cassandra Kalayasilpin (See Appendix E). Kalayasilpin acts as the liaison between Local 3924 and the City of Avondale for all matters concerning employee benefits. Kalayasilpin was interviewed to determine what additional wellness program components are offered through L3924 benefits, and what employee assistance programs are available as City of Avondale employees. The third interview was with AFM Division Chief Aaron Glass. Glass is the chairperson of the AFM Health, Safety, and Wellness committee. Glass was interviewed to determine the progress on several wellness program components that were mentioned in the committee meeting minutes as being in development (See Appendix F).

The final research technique consisted of utilizing the Wellness/Fitness Program Implementation Checklist (See Appendix G) to compare the existing AFM wellness program to the standard outlined by the Wellness Fitness Initiative (WFI) (IAFF, 2008). AFM program specifics were identified through the research methods listed previously. Each component of AFM's wellness program was compared to those components detailed in the WFI and evaluated for compliance. Program components were identified as fully compliant, partially compliant, or not compliant. Specific areas needing attention were noted.

Several limitations in the research were identified. The first limitation identified was that although many wellness program components are addressed by AFM, there are few official

policies or procedures related to a wellness program. As a result, a significant portion of the research relied upon interviews with AFM staff who possess knowledge of various program components. Another limitation was an inability to interview subject matter experts in person; due to schedule conflicts it was necessary to complete the interview with occupational health staff via email. A final limitation identified in this research was the inability to interview department members who have utilized the behavioral health components of the wellness program due to confidentiality issues. Although some members were willing to be interviewed, the subject matter and details of the questions would have created potential confidentiality breaches.

Results

The purpose of this research was to evaluate AFM's current wellness program and to identify needed improvements. By utilizing interviews, distributing a survey instrument, reviewing departmental documents, and comparing wellness program components to the WFI standards; data was collected to answer three questions: (a) What are the specific components of the current AFM wellness program? (b) How does the current wellness program compare to wellness program models and standards? and (c) Are AFM personnel effectively utilizing the existing wellness program?

A predominant theme in the literature reviewed was that a well-structured and well-supported firefighter wellness program can reduce injuries, improve firefighter health and fitness, and even boost firefighter job satisfaction and morale (IAFF Firefighters website, 2017); Kuehl et al., 2013; Poston et al., 2013). My research revealed that, although AFM does participate in some components of a wellness program, there is no structured program that encompasses all major areas as defined by the WFI (2008): firefighter health physicals, fitness

and nutrition, cancer prevention, and behavioral health (IAFF, 2008). AFM does conduct annual physicals for line personnel as outlined in the Avondale Professional Firefighters Association Memorandum of Understanding (See Appendix B). According to Filion and Hyland, these physicals meet the requirements of NFPA 1582 and are considered to be the most comprehensive occupational health physical across all industries (See Appendix D). Questions one, two, and three of the survey asked respondents how well they felt the annual physical identified working ability, health and fitness trends, and potential health issues. On average, only 15% of respondents felt that the annual physical was not effective in these areas (See Appendix C); however, many respondents felt there was room for improvement in the health physical process. When asked what changes or additions should be made to the physical process in questions four and five of the survey, the most predominant responses were for additional cancer screening in the form of PET scans or MRIs, and for a greater emphasis on cardiac screening (See Appendix C). Filion and Hyland agree that there is better cardiac testing available by using Cardiopulmonary Exercise Testing instead of a treadmill test.

When asked if AFM is taking adequate precautions to prevent cancer in line personnel, 80% of respondents stated that more could be done, and 85% of respondents stated that more could be done for early detection of cancer (See Appendix C). Filion and Hyland disagree that more cancer screening would be beneficial, stating that the cost/benefit ratio and current screenings do not warrant their addition, and that the risks outweigh the benefits (See Appendix D). Filion and Hyland do emphasize that all firefighters over age 40 should be receiving colonoscopies; however, this is not included in the annual physical (See Appendix D).

Although AFM has a strong culture of physical fitness, no formal fitness program or policies related to firefighter fitness exist. Over 74% of survey respondents felt that a session

with a Peer Fitness Trainer (PFT) would be somewhat or very beneficial, and over 83% of respondents support mandatory fitness training on shift (See Appendix C). AFM does have two members who are certified as PFTs; according to Kalayasilpin, however, the PFT program has not had full support of senior-level staff nor has the program had proper funding (See Appendix E). AFM also does not have an annual fitness test for line personnel, which is another wellness program component suggested by the WFI (IAFF, 2008). Nearly 86% of survey respondents were supportive of a mandatory, non-punitive, annual fitness test (See Appendix C). AFM also does not provide any nutrition education or guidance, although over 93% of survey respondents state that peer-led crew meetings regarding nutrition and good eating habits would be somewhat or very beneficial (See Appendix C). One respondent suggested that education emphasizing cooking with whole foods and an education on the negative aspects of processed foods would be very beneficial to the long-term health of firefighters (See Appendix C).

A priority for any wellness program should include a firefighter behavioral health component. Although AFM has access to the City of Avondale employee assistance program (EAP), and Local 3924 pays dues to a firefighter-specific assistance organization called Fire Strong, the research indicates that these programs are inadequate to meet the behavioral health needs of AFM members. Kalayasilpin described the City of Avondale's EAP as "a really weak set of online resources and articles to help employees" (See Appendix E). Employee sessions with a counselor scheduled through the EAP have recently been reduced from ten visits to three (See Appendix A). Survey respondents indicated a distrust of the EAP as well; over 57% stated that they were not very likely or not at all likely to seek help through the EAP, and over 74% stated that they did not feel confident that the city of Avondale would protect their privacy (See Appendix C). In contrast, 80% of survey respondents stated that they would be somewhat or

very likely to seek help through an EAP offered by Local 3924 or AFM, and nearly two-thirds of respondents felt that the fire department and Local 3924 would maintain confidentiality (See Appendix C). Kalayasilpin stated that it has been discovered that Fire Strong can be difficult to navigate during times of stress, and that accessing counselors and mental health benefits can be daunting as well (See Appendix E).

Glass stated that AFM is making progress in addressing the behavioral health needs of its members: a volunteer fire chaplain has begun working with members, and progress is being made on developing a peer support group in conjunction with the neighboring fire department (See Appendix F). In addition, a counselor specializing in post-traumatic stress has been contacted, with the intent of contracting her for counseling services (See Appendix F). At the time of this research, although several behavioral health programs were in development or being discussed by the committee, no formal programs were in place other than access to Fire Strong and the EAP.

In order to evaluate AFM's wellness program, I compared program components to the WFI wellness/fitness program implementation checklist (See Appendix G). The first section of the implementation checklist is the medical component. Per the Local 3924 memorandum of understanding, AFM provides an annual physical to members that is equivalent to the guidelines of NFPA 1582 (See Appendix B). Two areas of non-compliance were noted in this section: laboratory testing does not include heavy metal screening as recommended in the WFI, and cancer screenings do not include colonoscopies, mammograms, or pap smears (IAFF, 2008, p. 21). According to the WFI, all personnel over age 40 shall receive a colonoscopy, repeated every 5 years, all women shall receive an annual pap smear, and all women over age 40 shall receive annual mammography screening (IAFF, 2008, p. 21, 22). Filion and Hyland agreed that

all firefighters should receive these tests as indicated; however, it is not within their scope to provide them (See Appendix D).

The second component of the implementation checklist addresses the wellness program fitness component. Only three areas of full compliance were noted in this section: all firefighters receive medical clearance at time of hire, post-injury, or after an extended absence; the annual physical includes flexibility testing; and AFM provides equipment and facilities for physical fitness (See Appendix G). The wellness program is partially compliant in providing exercise specialists and peer training; Kalayasilpin stated that AFM has two certified PFTs, which is insufficient, and that the program is not funded (See Appendix E). AFM is partially compliant by allowing members to work out on-duty; however, a specific time of the shift is not dedicated to firefighter fitness. AFM is non-compliant in all other aspects of the fitness component because no annual fitness evaluation is conducted; however, PFTs are capable of administering annual fitness evaluations and creating personalized exercise prescriptions (See Appendix E).

The next component of the checklist addresses injury rehabilitation. AFM is almost entirely non-compliant with WFI recommendations (See Appendix G). Research revealed no injury prevention committee, no injury prevention program, no clinical pathway rehabilitation, and no medical liaison. The AFM Health, Safety, and Wellness Committee minutes indicate that there was discussion to partner with a local rehabilitation clinic to provide a medical liaison and injury follow-up; however, no program was developed (See Appendix A).

The final component of the WFI implementation checklist is the behavioral health component. AFM's wellness program is not fully compliant in any segment of this component (See Appendix G). Although the City of Avondale has an employee assistance program, it is not sufficient. Glass stated that the EAP is "useless" and that the Fire Strong program is proving to

be inadequate as well (See Appendix F). AFM does have a volunteer fire chaplain, but the chaplain program is under development and no policies or procedures have been established (See Appendix F).

A major issue identified in the research is the low utilization of existing wellness program components. The most utilized wellness program component is the annual health physical. The annual physical is completed by personnel on-duty, as a complete crew; and appointments are scheduled several months in advance. Although 80% of survey respondents indicated that the physicals are beneficial, one respondent's comment summarizes the deficiencies of the wellness program:

While it could be more robust, the annual physical does meet NFPA 1451 (sic). AFM tries to supplement with certain tests, such as organ ultrasound screenings, skin cancer screenings, but signing up for these tests has been voluntary... The onus also lies on the members to sign up for these optional screenings. I would estimate that participation is at about 35% for these extra tests (See Appendix C).

Glass supported this statement as well, stating that a cultural change is necessary, but that personnel are beginning to recognize the importance of wellness programs. Glass also indicated that programs must be formalized, and preferably offered to personnel on-duty (See Appendix F). The annual physical is the only wellness program component that is mandatory for line personnel.

Due to the nature of behavioral health issues, no data exists regarding the number of personnel who utilize the EAP or Fire Strong; however, survey respondents indicated that only 42% were somewhat likely or very likely to seek help through city-sponsored programs such as the EAP (See Appendix C). Personnel are more supportive of the Fire Strong program; 80% of

respondents indicated that they would be somewhat likely or very likely to seek help through fire department or Local 3924 programs (See Appendix C). Survey respondents indicated a mistrust of EAP confidentiality, with nearly 75% of respondents indicating that they did not feel confident that the city human resources department would maintain confidentiality and protect the person's privacy (See Appendix C).

Discussion

The purpose of this research was to evaluate AFM's current wellness program and to identify needed improvements. The research focused on determining specific components of AFM's existing wellness program, comparing the program to industry models and standards, and determining if personnel are effectively utilizing the wellness program. After reviewing pertinent literature, surveying AFM personnel, interviewing subject matter experts and department representatives, and comparing current AFM program components to industry recommendations, I have determined that a comprehensive wellness program does not exist at AFM. Although there are some components and partial programs available, several vital components are missing, and the program lacks a formalized structure which encourages participation and maximizes the benefits for personnel.

The research showed that AFM has some components of a wellness program, such as annual medical physicals for line personnel, cancer screening components, and access to the city's EAP; however, several deficiencies exist as well. The annual medical evaluation meets the standards established by NFPA 1582 in 2013; yet many survey respondents felt that the medical evaluation should focus on more robust cardiac screening, and cancer screenings such as PET scans, CT scans, and organ ultrasounds (See Appendix C). The WFI guidelines also indicate that more extensive cardiac and cancer screenings should be included in the medical evaluation

(IAFF, 2008). Filion and Hyland agreed that, although the evaluation used by AFM is one of the most comprehensive screenings in any industry, there is better cardiac testing available by using cardiopulmonary exercise testing (CPET) in place of the EKG treadmill stress test (See Appendix D). Filion and Hyland also support the WFI guideline of colonoscopies for all firefighters over the age of 40, and pap smears for all females; however, they do not support cancer screenings such as CT scans or PET scans, citing that the potential benefits are outweighed by the cost and the possible harmful effects of increased radiation exposure (See Appendix D).

At the time of this research, AFM's only behavioral health component of a wellness program is access to the city of Avondale EAP and membership in Fire Strong. The WFI states that an effective EAP can "restore the uniformed personnel to a healthy and fully productive life, improve employee morale, and increase the productivity of the entire department (IAFF, 2008, p. 43). Unfortunately, survey respondents indicated a lack of trust with the city EAP program, citing confidentiality issues (See Appendix C). In addition, Glass stated that the EAP "is useless, and Fire Strong... is almost equally as useless (See Appendix F). Glass stated that AFM has a volunteer chaplain, but that there is not yet an established protocol for his services; in addition, AFM is working to hire a contract counselor for traumatic counseling and post-traumatic stress treatment (See Appendix D). In addition to the EAP and a department chaplain, the WFI recommends that a behavioral health component should include a hired or contracted behavioral health specialist, periodic evaluations, comprehensive counseling services, and several components (CITE). Although AFM is working on a contract counselor, AFM does not currently offer any of these components (See Appendix G).

Although AFM conducts annual medical physicals per Local 3924 contract that meet the NFPA standard (See Appendix B), AFM does not perform annual physical fitness testing that is compliant with Appendix C of NFPA 1582 ("NFPA 1582," 2013). Appendix C of NFPA 1582 established recommendations for aerobic endurance, body composition, flexibility, muscular strength, and muscular endurance ("NFPA 1582," 2013). AFM's annual medical evaluation only includes flexibility testing and body composition (See Appendix G). Kuehl, et al. stated that fire departments with an established fitness and nutrition program showed an 8% reduction in injury claims per total firefighters versus a 13% increase in injury claims in comparison departments (Kuehl et al., 2013, p. 205). Although AFM has a strong philosophy of fitness among line personnel, AFM does not have an established fitness program or annual fitness evaluation; AFM does, however, provide fitness equipment and allows personnel to work out while on duty (See Appendix G).

In addition to improved fitness, proper nutrition and eating habits can reduce obesity rates and positively impact firefighter health. The PHLAME study indicated that a program designed to improve fitness and nutrition habits had a significant impact on lowering injury rates and medical costs associated with obesity (Kuehl et al., 2013, p. 207). AFM does not have a nutrition education program although, according to Kalayasilpin, the Peer Fitness Trainers did attempt to provide healthy eating tips (See Appendix E).

Another important factor affecting the success of any wellness program is how effectively personnel are using it. According to Poston et al. (2013), firefighters who participate in wellness programs are leaner, less likely to develop health problems, have better morale, and demonstrate greater endurance; however, there is a lack of personnel embracing these programs and a "culture shift amongst both management and labor is needed" (Poston et al., 2013, p. 3).

Fahy et al. stated that, for a culture shift to occur, there must be education regarding wellness program benefits, a behavior change regarding utilization, and workplace controls to enhance health and safety (Fahy et al., 2017). Survey respondents indicated that AFM personnel are supportive of a comprehensive wellness program and recognize the benefits of fitness testing, medical and behavioral health screenings, and nutritional education (See Appendix C); however, except for annual health screenings, utilization of in-house programs at AFM is low. Regarding the city EAP program and the Fire Strong program, Glass stated that the programs are ineffective and insufficient (See Appendix F), which corresponds with survey respondents, who indicated a lack of confidence in the EAP (See Appendix C).

The AFM wellness program lacks structure, which may be another factor affecting utilization. Poston et al. (2013) stated that a well-developed and structured program will show better results than an unstructured program (Poston et al., 2013, p. 10). At AFM, the only scheduled on-duty wellness component is the annual health screening. Other program components are available but are not mandatory or are not offered while personnel are on duty. Glass admitted that a lack of structure is a problem with AFM's wellness program; he stated that "we need to write down the programs, to formalize them and design the appropriate steps" (See Appendix F).

In conclusion, the research shows that AFM does not have a comprehensive wellness program. Although there are some components that meet standards and recommendations, such as the annual health screening, most components are insufficient or non-existent. Although AFM promotes fitness, there are no specific fitness program components or fitness evaluations. Nutrition education and healthy eating habits promotion does not exist at AFM, and the behavioral health component is not effective. Personnel utilization of existing programs is low,

except for the annual health screening, although survey respondents indicated that members are supportive of a comprehensive wellness program and understand the importance.

Recommendations

The intent of this research was to evaluate AFM's wellness program, and the results demonstrated that AFM does not have a comprehensive wellness program. Although some components exist, there are many changes that must be made to meet program recommendations as set forth by the Wellness Fitness Initiative. I have identified three components that should be added or enhanced in the AFM wellness program; in addition, I have identified three strategies that should be implemented to make the wellness program successful.

The first recommendation, which should be the highest priority, is to establish a robust behavioral health component. This component should include contracting with a behavioral health specialist to act as a single point of contact for any behavioral health issues that arise with personnel. In addition, this component should include periodic evaluations of all personnel, and a focus on post-traumatic stress, alcohol and substance abuse, and post-critical incident stress management. Also, more effective alternatives to the existing EAP should be identified and vetted to provide comprehensive counseling services.

The next recommendation is to offer colonoscopies to all firefighters over the age of 40, and every five years after. Evidence shows that firefighters are at a much greater risk of colon cancer than the general public; however, most insurance will not cover preventative colonoscopies until the age of 50. STI, the organization that provides the annual medical screening, does not have the capacity to perform colonoscopies; therefore, I recommend adding covered colonoscopies to the Local 3924 Memorandum of Understanding, and negotiating a contract with the City of Avondale insurance provider.

The final recommendation is to re-establish the Peer Fitness Trainer (PFT) program at AFM and to establish annual mandatory, non-punitive, fitness testing for all line personnel. The PFT program is a cost-effective and accepted method for encouraging firefighter fitness and designing individualized programs, and the program can even coordinate the annual fitness testing. All fitness testing recommended by the WFI can be performed in-house by the specially trained peer fitness trainers. By establishing annual fitness testing and utilizing the PFT program, AFM could be compliant in all segments of the WFI fitness component. The PFT program should also include a nutrition and healthy eating education component that is peer-led and delivered at the crew level.

Three strategies that should be implemented to enhance the success of AFM's wellness program are to formalize the wellness program structure, to establish a wellness program budget, and to begin promotion and education on the various components and what the program has to offer. While conducting this research, I found that there are no standard operating guidelines for any component of AFM's wellness program. Establishing guidelines and formalizing the wellness program structure will help to identify components and establish a method for effectively utilizing all wellness program components. Many components of an effective wellness program incur a significant cost. By establishing a dedicated budget, the wellness program can be supported and enhanced as needed to be effective. Finally, a strategy should be developed to promote the program and encourage personnel to use offered programs and components. Personnel cannot use a program if they are not aware of what is offered and the benefits they may incur.

For future research on this subject, I recommend a focus on the costs associated with an effective wellness program. As mentioned above, many components come at substantial cost,

which may cause pushback from city administrators; however, research may show that there is a substantial return on investment from a successful wellness program by reducing time lost to injuries and illness, and reducing injury claims.

Another recommendation for future research is to explore enhanced cancer prevention methods, and cancer screening for firefighters. It is well-known that firefighters are at increased risk for many different types of cancer. Research should focus on controls to reduce this risk, and to identify additional cancer screenings that are cost-effective and beneficial to firefighters.

As a profession, the fire service should put an emphasis on protecting the health and welfare of its members, not only for the benefit of the individual, but for the safety and benefit of others as well. “In a profession that requires the utmost skill and reliability, an emotionally, physically, or medically unfit member may jeopardize not only the safety of themselves, but that of their co-workers” (IAFF, 2008, p. 40).

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Appendix A

AFM Health, Safety, and Wellness Committee Meeting Minutes

Meeting Minutes for AFM Health & Safety Committee Meeting

12/14/16

In Attendance: Aaron Glass, Jesse Martinie, Bryan Depauw, Billy Wagner, Freddy Cruz

- **Call to order 0900**
- Glass reviews the Purpose of Committee: To tackle a wide array of health, safety, and wellness needs for AFM members. After going through the Health & Safety Officer training at State Fire Academy, it became apparent that AFM had a lot of work to do to catch up with current trends and department needs. Best way will be to divide and conquer. Meeting will begin with review of preliminary priority issues that the committee will need to address. Following discussion, committee will choose priority for different areas of need and members will volunteer to begin work on them:
- AFM Mental and Behavioral Health & Wellness Program
 - Discuss probability of Rich Demante joining as Volunteer Fire Department Chaplain
 - CISD
 - Peer support
 - Pre-retirement counseling
 - Suicide recognition and prevention
 - Need somebody research existing programs as a model
 - **Priority: 2** ○ Bryan Depauw will begin work on this
 - Reach out to contacts at PFD
 - Glass to forward info to Bryan for direction
- Infection Control Program
 - Aimed at preventing infectious disease exposures
 - Already have a lot of procedures in place
 - Just need to compile everything into a written plan/document
 - Glass will work on this since he redid the Infectious Disease Exposure process in May 2016
- Exposure Protection Program
 - Will address mainly cancer prevention
 - Personnel and PPE decontamination
 - PPE inspection
 - Medical monitoring
 - Fire apparatus and fire station engineering controls, decontamination
 - Education and training
 - Research existing data, programs, and models
 - **Priority: 1** ○ Jesse Martinie and Fred Cruz will begin work on this
 - Cruz says that Nate Franco has implemented a lot of procedures on A shift aimed at cancer prevention
- Respiratory Protection Program
 - Glass has been working on a document
 - Covers SCBA, Fit testing, health monitoring, training
 - **Priority: 3** ○ Glass will continue work on this
 - Waiting for some information from Josh Cameron in regards to Fit Testing equipment
- Near Miss reporting
 - Need to have mechanism to anonymously share Near Miss info
 - Include training component for lessons learned
 - Review through H&S Committee
 - Members should have ability to review Near Miss reports prior to meetings so better discussion can be had
 - **Priority: 5** ○ Billy Wagner agreed to start work on this
 - Will review Near Miss reporting procedures for other fire departments and FF Close Calls
- AFM NFPA 1500 Compliance
 - Need to review NFPA 1500 recommendations
 - Internal station audits to find areas where improvement is needed
 - Committee felt that handling the higher priority items first would assist in more complete NFPA 1500 audits
 - Agreed to make this item a lower priority until other work could be completed first
 - **Priority: 6** ○ No assignment made yet – will wait for other priorities to be addressed first
- Injury/Illness Prevention and Education
 - PEER Fitness involvement?
 - Have several PEER fitness personnel that may need to be recertified if possible
 - Money in budget for ongoing certification
 - Cassie may be only person with current PEER fitness cert
 - Need more PEER instructors?
 - Need to define the role of the PEER instructor
 - Nutrition

- Reducing over-exertion during on duty exercise/reducing on duty PT related injuries ○
Priority: 4 ○ Committee believes Cassie would be best suited for this item since she is still PEER fitness certified
- Liaison with City of Avondale Health & Safety Representatives ○ Participate in City H&S Committee meetings
 - Share H&S information and concerns ○ **Priority: 7** ○ This will be addressed as on going item
- Community Involvement
- Participate in Valley Safety Officers Committee
- Committee information on ACES ○ Jesse mentions need for Committee information to be available on ACES ○ Currently kept on I drive but feels that some might find it easier to access on ACES ○ Glass will create folders on I drive for Committee documents. Will also be stored on I drive.
- Meeting Frequency ○ Suggested to meet monthly and change accordingly ○ Glass will check to see which day of the week/month will make the most sense for repeating date and announce. Will aim for a Monday.
 - Next meeting will be mostly round table and Committee update on progress towards priority items.
- **Adjourned 10:30**

AFM Health, Safety & Wellness Committee Meeting Minutes

1/9/2017

In attendance: Glass, Martinie, Ernst, Depauw, and Kalayasilpin

0900: Call to order

Old Business:

- Review areas of focus and the prioritization that they were given

New Business

- Focus areas updates
 - Exposure Protection (Martinie and Cruz)
 - Still compiling some information
 - They have been reaching out to different departments and Nate Franco who has been actively addressing exposure protection measures on A shift
 - While talking to other departments, it was learned that time of exposure is also a concern
 - Releasing the first due engine first
 - Question came up of how we can protect the Fire Prevention (CRR) folks
 - Fit tests? SCBAs/ Respirators?
 - Jesse would like to find some information that shows the efficiency of the extractor's ability to remove contamination.
 - Mental Health and Wellness (Depauw)
 - Has contacted six departments thus far
 - Most say that their mental and behavioral health program is based on Fire Strong
 - Wants to focus on substance abuse and suicide prevention
 - Cassie mentioned that Fire Strong will do peer training
 - For members and their families
 - IAFF is opening an inpatient treatment center for firefighters
 - Located in Virginia
 - Possibility of looking into some of the mental and behavioral health facilities in Avondale for having fire fighter's specific programs and offerings
 - Cassie also noted that 10 free sessions available in EAP were cut down to 3
 - We should also look into possible peer volunteer opportunities for retirees so they stay connected
 - Injury and Illness Prevention (Kalayasilpin)

- PEER Fitness is being under utilized
 - PEER should be liaising with STI following physicals
 - Help members with recommendations and follow up
 - Will look into finding out what resources we need to use PEER as it was intended
- Glass needs somebody from Committee to sit in on City Health & Safety Committee meeting on Tuesday of next week. Cassie volunteered.
- Rich Damante is now on as Fire Department Chaplain
- Round table
 - No comments
- Next meeting is Monday, February 13, 0900 at 173.
- Meeting adjourned 1020

AFM Health, Safety, and Wellness Committee Meeting Minutes

2/13/17

In attendance: A. Glass, J. Martinie, B. Wagner, F. Cruz

0900: Call to order

Old Business:

- Review minutes from 1/9/2017

New Business

- Respiratory Program Update (Glass) ○ In I drive: **Fire Department/Health, Safety, and Wellness/Respiratory Protection** for review and waiting for comments
- Need to get with Jason Napier regarding the respiratory protection CRR folks will use and ensure they are covered in our program
- Please take time to read and offer any input
- Exposure Protection Program (Martinie, Cruz) ○ Could not find any more information on the potential of off gassing/contamination that remains on turnout following washing in an extractor
 - Probably assume there is none ○ Found two companies that provide turnout cleaning and NFPA 1851 compliant inspection
 - Mesa and Tempe contract with them
 - Send to them twice a year for “advanced cleaning and inspection”
 - Price list is attached ○ Probably will have to identify a need when turnouts should be cleaned by extractor
 - Hot Zone entry requires extractor
 - Warm Zone (On deck, etc.) may just require gross decon
 - Cold Zone might require no decon ○ Contacted by Chief Bryan Duell of Goodyear Fire
 - Wants to have representatives from each department on each other’s Health and Safety Committee meetings
 - Members present see some merit to suggestion but also feel that we have too much work to do first
 - **Action Item: Aaron will contact Chief Duell and offer to represent AFM on their committee and discuss further**
 - Aaron presented propose outline for Exposure Protection Program
 - Based mostly on *Healthy In, Healthy Out - Best Practices for Reducing Fire Fighter Risk of Exposures to Carcinogens*, by the Washington State Council of Fire Fighters

- The idea is that committee members provide ideas and procedures to protect our personnel. Aaron will write, edit, and format the document. Working document is available on **I drive: Fire Department/Health, Safety, & Wellness/Exposure Protection**
 - The proposed chapters were divided up for each member to research and provide procedures by next meeting
 - *Reducing Exposures During Routine Operations – Cruz*
 - *Reducing Exposures During Emergency Operations – Glass*
 - *PPE Decontamination – Martinie*
 - *Personal Decontamination – Martinie*
 - *Apparatus and Equipment Decontamination – Wagner*
 - *Fire Station Safety – Wagner/Cruz*
 - *AFM Personnel Health Screening – Glass*
 - *Documentation & Record Keeping – Glass*
 - By next meeting, members assigned a chapter will bring their proposed procedures for review.
 - Can we implement some immediate measures to reduce risk to exposure?
 - Cleaning wipes for neck, hands, face, etc.
 - **Action Item: Aaron will purchase wipes for distribution on trucks**
 - **Included will be procedures for use and disposal**
- Mental Health & Wellness Update (Depauw/Glass)
 - Depauw working on this
 - Rich Damante (Chaplain) has been riding with crews as his personal time permits
 - He is enjoying meeting everyone
 - Suggested that he might get an AFM Car #
 - Gives us and Alarm paging ability from scene • **Action Item: Glass will discuss this with Senior Staff**
- Injury and Illness Prevention (Kalayasilpin/Glass)
 - Met with JP Harrison (COA Safety) and Pablo from White Tanks Rehab
 - Pablo interested in using PEER Fitness Trainers as a point of continuity of care for AFM personnel who have completed rehab
 - PEER Fitness Trainers will ensure rehab of AFM personnel continues after they are released back to duty
 - WTR might also provide CE's for PEER Fitness personnel ▪ PEER Fitness update
 - Cassie working on her CEs for recertification
 - Will start now for her update in April
- AFM Near Miss/Close Calls Reporting (Wagner)
 - Proposed to create a JotForm for AFM internal reporting
 - Form will be distributed to HSW Committee members for review at following meeting
 - Health, Safety, and Wellness newsletter will be put together monthly and placed in bathrooms for reading (Potty Training?)
 - Placed on bulletin boards
 - **Action Item: Glass will contact Chris Spire about creating JotForm**
 - Use NationalNearMiss.org template for the form ○ Roundtable

- Fred Cruz: possibility for auxiliary steps for KMEs?
 - Last step is large and risks knee/back injuries
 - **Action Item: Martinie to look into feasibility of retrofitting KMEs with a cable step placed under the truck, adjacent to the doors.**
 - Wagner: Situational awareness training?
- May be part of Near Miss reporting
- Future Health, Safety, and Wellness Committee meetings
 - EIP moved to third Monday of every month
 - Need to move HSW meetings
 - Move to 4th Monday of the month
 - **Action Item: Glass will update calendar and announce to members in an email.**

Meeting Adjourned 10:25

**Health, Safety and Wellness Committee Meeting
3/28/17**

In attendance: Kelayasilpin, Depauw, F Cruz, Glass, Lutrick, Martinie, Ernst

Old Business

- Steps for KMEs
 - Jesse will make a lightweight prototype
 - The existing steps are modular and bolted on
 - May be able to come up with cost effective way to add a step

New Business

STI update

- NFPA 1582 compliance
 - Strength training done by PEER fitness in house
 - **Glass - Purchase NFPA 1582 document**
- VO2max
 - Ours is correlated using heart rate
 - Heart fit for duty may have more accurate test
 - Portable unit
 - Utilizes face mask
- Diabetes markers
 - If fasting glucose is above 100, H A1C will be tested
 - FF will be placed in one of four classes based on A1C results
- Tier system - update
 - Now have Tier 4 - medical and Tier 4 - fitness designations
 - Derived from PFD system but with BP ranges
- Cancer screening
 - Mammograms left up to the female firefighters
 - Prostate options
 - DRE
 - Test for blood in stool
 - ColoCare home test system available
- Need to have improved TB test result feedback
 - Only 75% compliance for most departments HSW Priorities
- Reducing Exposure During Routine Operations
 - Fred has list of items
 - Cleanable apparatus seats
 - Work boots out of station
 - Station shoes
 - Wipe down headsets and radios

- Turn off apparatus when not in use
 - Station security
 - BBP Infectious disease protection? (Infection control?)
 - Reducing Exposures during Emergency Operations
 - Rehab comments - remove turnout gear prior to entering U172? ○ Footwear provided?
 - PPE Maintenance and Decontamination
 - PPE decon
 - In email
 - Basic procedures done as process from finishing fire
 - Most contaminants removed during initial decon with water
 - A lot of new procedures
 - Keeping duty shoes on truck to wear at scene
 - Procedures for cleaning helmets, boots, shroud, gloves
 - Cleaning tools on apparatus? (Brush, soap)
 - Hood exchange - Glass to look into purchasing extra hoods ● NFPA 1851 - hood life?
 - 40 to 50 hoods
 - Procedure for multiple AFM units cleaning gear and persons following fire
 - PPE cleaning
 - Glass to purchase NFPA 1851 copy - 2014 version
 - Personal decon
 - Wipes
 - Station shoes
 - Launder duty uniform on return to station
 - Showers
 - Hot water
 - Out of service time to shower and prepare PPE
 - Apparatus and Equipment Decontamination (Wagner)
 - Washable seat covers vs upholstery
 - Glass to look into feasibility of seat covers
 - Fire Station Safety
 - Clean stations
 - Plymo-vent systems for stations is gold standard we should be aiming for \$10,000 per station
 - AFM Personnel Health Screening
 - Include PEER Fitness component
 - Compliant with NFPA 1582
 - Bring back Safety Stand Down
 - AFM to work with AZMT services to visit entire fire department
 - Glass to look into scheduling additional health screenings for members
 - Documentation & Record Keeping
 - MCTs and exposure documentation
 - Available to AFM?
 - PPE Inspection and Repair
 - Recommend turnouts be sent out for advanced inspection - Long term goal
 - Estimated to be about \$20,000 per year based on quote provided by Jesse during last meeting
 - For current staffing
 - Will do in house for near term ●
- Round Table
 - Cassie working on CE for PEER fitness
 - No budget for PEER right now
 - \$2000 per year
 - Cassie to identify certification elements for future PEER folks
 - Expired PEER fitness take week long training

- PFFA training coming up
 - Cassie, Bryan, Freddy going
 - Behavioral health, cancer awareness, staffing
- Bryan Depauw and CISD
 - Talked to Rich Damante regarding CISD
 - Firestrong refers users somewhere else
 - Union needs to pick peer CISD people
 - FireStrong fees include training one or two peers in department
 - Going to meet with Ray Mahone
 - Works for PFD
 - Their member services guy
 - Try to come up with CISD program for AFM
 - Wants to do presentation for each crew on AFM CISD steps
 - Identify what resources are available
- Depauw - Will make CIAD presentation to HSW committee next meeting and meet with Ray Mahone

Meeting Adjourned 11:17

Next Meeting: April 25, 2017

**Health, Safety, & Wellness Committee Meeting
4-25-17**

In Attendance: B Wagner, F Cruz, Depauw, Lutrick, Glass, King, Kalayasilpin 0900: Call to order:

- Old business
 - NFPA 1582 (Standard on Comprehensive Occupational Medical Program for Fire Departments) and NFPA 1851 (Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting) copies purchased
 - Hood exchange – Glass was supposed to look into feasibility of purchasing extra hoods
- Talked to Logistics (Avitia)
- Trying to identify funds to purchase 40 to 50 extra hoods
- Still need to look at hood service life
 - Seat covers for apparatus
 - Glass still needs to talk to Chief Avitia about this
 - Change seats during Pierce refurb should be requested
 - Plymo-vents
 - This will be a long term goal and may require grant funding
 - Scheduling additional health screenings for members
 - Glass looked into possibility of scheduling special screenings for AFM members
 - Both City and vendors were enthusiastic about idea
 - Need to write it into contract for next fiscal year
 - Glass to work with HR on this
 - Looking to have skin cancer screenings for all three shifts at station 172
 - Looking to have organ screenings done also
 - Not much we can do this fiscal year
 - PEER
- Talked with program coordinator at GCC, Lisa Lewis
- No package PEER program anymore
- Willing to try to recommend class curriculum
- Looking to create our own using classes
 - A la carte which classes we think are pertinent
 - Diversify classes as "specialties"
- Cassie working on recent still
- Needs to know what the budget is for training

- Cassie to look into which GCC courses would be required for AFM's PEER certification
- Lutrick recommends to consider sustainability of program
 - OT for PEER Trainers
 - HIPPA considerations ■ CISD/Mental Wellness
- Talked with Ray Maione
 - Not available for meeting
 - Will visit him tomorrow at Station 30 ● Runs Fire Strong
- Will go to City to ask about our EAP program
 - King stated that our EAP will talk with caller and guide them to appropriate resource
 - One issue: somewhat limited
 - Need to know how many sessions are available and how much they cost
 - Need to possibly vet counselors that are provided
 - We need to explore EAP resources and incorporate it into Fire Strong
- Lutrick recommends that Labor take lead and work CISD/Mental Wellness into negotiations
- Crisis hotline information above urinals?
- Refrigerator magnets for members?
- Depauw presents list of contact info for CISD/Mental Wellness (see attached) ● New Business
- Near Miss update
- Wagner - Apparatus and Station Safety
 - Plymouth-vent
 - Pumice cleaner for stations to remove soot
- Wipes of apparatus
 - Need to police ourselves in establishing new culture and habit
 - Wipes working well on scene
 - Print out wipe down procedure and laminate with kit - Glass
- Valley Safety Officer's update
- Safety Stand Down 2017
 - EAP/Mental Wellness
 - Cancer Prevention measures
 - HSW Committee members to deliver training to their respective shifts
 - June 18 through 24
 - Glass to develop Safety Stand Down curriculum for next meeting
- PPE Inspection

- RAD-57 monitor
 - Should be on U172 for rehab
 - Lutrick suggests mandatory use by U172 Engineer
 - Should include as part of rehab
 - Suggestions for field use
 - Ultimate goal is for one on each apparatus
 - Should be for FF rehab
 - Know that U172 can be special called for monitor if needed
 - U172 Engineer to log CO readings of FF on calls
 - Include vitals on documentation
 - Use assigned ambulance as rehab
 - **Glass to create policy for deployment and use in field**
- Respiratory protection document
 - Final comments
 - Submit to Labor ■ Round Table
 - Ballistic vest shelf life?
 - Glass to check with Chief Avitia
 - 5 years per Chief Avitia
 - Concern with using #1388
 - Some training is required for pumping
 - CAFS
 - Communication with PD on radio ○ How is communication?
 - Overall feedback is good

Next Meeting May 22, 2017

11:00: Adjourn

Health, Safety & Wellness Meeting

5-23-17

In Attendance: Fred Cruz, Cassie Kalayasilpin, Steve King, Aaron Glass

0900 Call to order

Old business

- GCC and PEER Fitness Training
 - Cassie talked with the coordinator at GCC
 - She is willing to a la carte educational component for AFM PEER
 - Cassie's CE submitted for recent
 - Cameron submitted his CEs also
- Wipe down procedures - in progress
 - Watch for drying out this summer and report
 - Reports are that crews are using the wipes more
 - Users surprised how much soot is removed
 - **Glass to laminate procedures to be placed in kits**
- Safety Stand Down Curriculum - in progress
 - Use IAFF model
 - **Glass to make flyer to put up at station**
 - **Glass to forward Safety Stand Down topics to crews**

New Business

- RAD 57 delivered
 - Automatic cuff available at drug store is suggested for ease of use
 - Attach normal vitals in laminated sheet to RAD57
 - Members recommend to create rehab kit with RAD57, blood pressure cuff, and recording sheet
 - **Steve will train AFM members on use during EMS Thursdays**

- Copper Springs
 - EMDR - Eye Movement Desensitization and Reprocessing
 - Treatment used at Copper Springs to treat PTSD
 - Has shown to be successful
 - Substance dependencies can also be addressed
 - Special program for First Responders and veterans
 - Includes exclusive area of facility for public safety/veterans
 - Special entrance upon arrival
 - Inpatient and outpatient available
 - They are working on contract with BCBS
 - Glass to schedule visit and extend invite to neighboring departments
- Toronto O'dham grant update
 - Submitted for \$32,100 for three extractors
 - Grant complete and waiting for signature from Fitzhugh
 - Should hear back in September
- Looking to apply for AFG grant in September for plymovents in each station ● AFM health screening
 - Non AZMT insurance holders included but will likely have to fill out different paperwork - we will make sure non-AZMT insured personnel can attend also
 - Working with Kathy Reyes on writing extra visits for AFM personnel
 - Invite other City employees and AZMT members
 - Done at Station 172
- New Inspection forms
 - Annual PPE Inspection Forms
 - Annual Station Inspection Form
 - Suggestion to perform station inspections on Safety Stand Down Week ○ Near Miss Form
 - Steve to review use during upcoming EMS training

Round table

- Gym equipment at Station 173 and gym floor need to be repaired/replaced
 - Cut out bubbled flooring and overlay with matted floor
- Replace equipment as needed
 - Dumbbells
 - Smith machine
 - Lat pull down
- Review budget for new equipment
- Glass to address with Ben Avitia and FY17/18

Next Meeting: June 27, 2017
Adjourn 1007

Health, Safety, and Wellness Meeting 6-27-17

In attendance: Glass, Kalayasilpin, Martinie, Ernst

0920 Call to Order Old Business

- RAD 57
 - Training done during EMS Thursdays
 - Need to place on U172 as part of rehab
 - Glass to compile vitals sheets, RAD 57 and kit with cuffs and stethoscopes to be included
- Copper Springs
 - Glass to schedule visit with representatives in July
 - Work with streamlining possible procedures for contacting

- Toronto O'dham Grant
 - Grant submitted, should hear back in September
 - Bags sufficient for cleaning? Indications that items need to tumble freely and against other items for maximum efficiency
 - Extractors still work with gear in bags?
 - Glass to get with Ben about bag efficacy
- AFM Health Screening
 - Kathy Reyes supposed to be working on including FF in 2017/18 contract
- Inspection Forms
 - Completed in JotForm

New Business

- Rehab in U172
 - C-shift had 1st Alarm in Buckeye Valley this month
 - Need to consider how to have FF take off PPE when entering U172
 - Flip Flops would be helpful so FF can enter U172 A/C area without structure pants/boots
 - A/C on U172 worked well rehab and was very effective
 - Glass to work on decon and rehab procedures
 - If PPE is being fully removed to enter U172 A/C compartment then a holder for Jackets and PPE might be necessary to keep it off the ground
 - Tarp?
 - Rack?
 - Use slide out racks on U172?
 - Glass to work with U172 Engineers on solution

Round Table

- Firestrong Training (Martinie)
 - Trying to generate traffic
 - Some departments link to city benefits
 - Firestrong tailored based on hits and website stats
 - Cassie to manage AFM Firestrong site along with Evan
- Discussion about helping AFM members on FMLA

1016 Meeting Adjourned

Next Meeting 7/25/17

Health, Safety, & Wellness Committee Meeting

8-22-2017

In attendance: Glass, Depauw, and Martinie

0915 Call to Order

Old Business

- Copper Springs visit to AFM last meeting on July 25th
- Rehab sheets, RAD57 on U172 for field use
- Decontamination and rehab procedures in Exposure Control Program

New Business

- Update on Health, Safety & Wellness Program documents
 - Three documents completed and awaiting review by EIP members
 - Infection Control
 - Exposure Control
 - Respiratory Protection
 - All located in I Drive
 - Will be discussed at Labor/Management retreat in September
 - Looking to make them policy

- U172 PPE hangers
 - Martinie working on hangers for PPE when U172 is being used as rehab
 - Was waiting for member buy-in but it appears to be acceptable
 - **Martinie will go ahead with process of purchasing more hooks and hardware to complete install on U172**
 - BC Ernst to purchase. Glass will purchase if needed.

- Exposure Reporting
 - Martinie asks about the possibility of entering exposure info on ER for non-incident related calls such as training
 - Also asks if possible to create Biohazard field in ER for exposures
 - **Glass will look into both of these issues in ER**

- Roundtable
 - Depauw looked into possible Union-based EAP
 - Local 493 has set one up
 - Peoria and Tempe also participate along with Phoenix
 - Costs would include PEER training for creation of member based crisis team - \$8000
 - Ongoing subscription costs
 - **Depauw said he will talk to Executive Board about feasibility of subscribing.**
 - Change of meeting frequency
 - Glass proposed changing the frequency the Health, Safety & Wellness committee meets to once every two months
 - Same as EMS committee but will meet different months
 - Martinie and Depauw agreed



Meeting Adjourned 10:30

Next Meeting will be October 24, 2017

Appendix B

Memorandum of Understanding -July 2016 through June 2018

City of Avondale and Avondale Professional Firefighters Association

Article 9

MEDICAL AND PHYSICAL FITNESS EXAMINATIONS

Section 9.1 Fitness Examinations

- A. During the term of this Memorandum of Understanding the Fire Department will provide members a medical and physical fitness evaluation yearly. The medical and physical fitness evaluation will be of the same design and quality as the product which is in place through the Phoenix Fire Department's Health Center in June 2010 and in keeping with the intent of the National Fire Protection Association 1582. Disputes as to the equivalency will be determined by the Fire Chief.
- B. If during the mandatory annual physical exam and testing, a unit member is restricted from full duty for further evaluation, the unit member will be offered the option of working light duty or using sick leave until returned to full duty. The unit member must be cleared for the light duty assignment by the physician. The Chief shall consult with Human Resources to determine the applicability of the light duty assignment. If the assessment concludes that the unit member is not qualified to perform the essential functions of his/her job, the Chief shall consult with Human Resources to determine the applicability of the Family Medical Leave Act and/or American with Disabilities Act.

Section 9.2 Records Storage

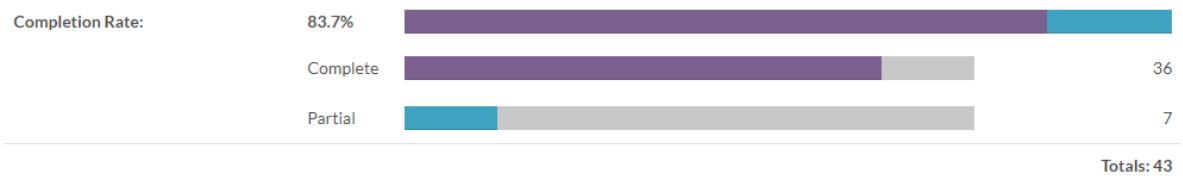
The tiered health assessment results are for the unit members' benefit and cannot be used for any other purposes. The Employee Involvement Process may continue to discuss this tool. Details of the medical examination will be considered confidential and will not be released to the Fire Department without the express written approval of the patient. The Fire Department will not intimidate, threaten, or take any disciplinary action against a unit member who refuses to release his medical records. This prohibition does not apply to the Medical Physical Fitness Examination summary report or the information required by the Retirement Board.

Appendix C

Survey Report for Evaluating AFM’s Wellness Program

Apr 5, 2018

Response Counts







1. How well do you feel the annual physical measures your working ability?

Value	Percent	Responses
Very well	17.1%	6
Pretty well, but could use improvement	62.9%	22
Not well	20.0%	7
		Totals: 35

2. How well do you feel the annual physical identifies personal health and fitness trends?

Value		Percent	Responses
Measures my health and fitness trends very well		28.6%	10
Somewhat measures my health and fitness trends		60.0%	21
Does not measure my health and fitness trends at all		11.4%	4
			Totals: 35

3. How well do you feel the annual physical detects potential health issues?

Value		Percent	Responses
Is useful for detecting potential health issues		20.0%	7
Somewhat useful for detecting potential health issues		65.7%	23
Not very useful for detecting potential health issues		11.4%	4
Does not detect potential health issues at all		2.9%	1
			Totals: 35

4. What, if any, changes or additions would you like to see to the annual physical process?

[Hide Responses](#) ▼

ResponseID	Response
3	Calcium scoring Inflammatory markers 5 year pet scan
8	More job specific test for work exertion as opposed to the typical treadmill test. Tier rating based on endurance, ability, and health as opposed to mainly on blood pressure
10	Would like to go back to Phoenix FD health and Wellness. I feel they do a better job and are more aware of firefighter-related issues
11	Cancer Screening
12	More cancer screening for firefighter related cancers.
13	Monitoring gh and test levels would be nice since this job affects both a lot and has a lot to do with our General well being.
14	more in depth blood work
15	Cancer screening included in the annual physical.
21	Additional disease screening More frequent X-rays More frequent stress tests
22	Incorporate more cancer detection tests such as body scans, skin cancer screenings, mammograms.
25	i would like to see more emphasis on cardiac related testing.
33	I like the current change that is being considered which involves using a stationary bike which will better evaluate VO2 max and detect early onset of various cardiac disease.
38	Detailed cancer screening.
40	Cardiac screenings
41	I would like to see LDL particle test included
42	PET scan for cancer
43	Pet scans every 2 to 3 years.
44	Cancer screening and MRIs

5. Do you have any other comments regarding annual physicals?

[Hide Responses](#) ▾

ResponseID	Response
42	No
10	Flexibility test is dumb
44	None
14	they are a good tool
22	While it could be more robust, the annual physical does meet NFPA 1451. AFM tries to supplement with certain tests that are not actually part of the annual physical (organ ultrasound screenings, skin cancer screenings) but signing up for these tests has been voluntary to this point. The onus also lies on the members to sign up for these optional screenings. I would estimate that participation is at about 35% for these extra tests.
33	I would prefer the tiers that our members are placed in hold weight, taking them off the truck for safety of themselves and others on the apparatus that they work on until they prove to progress into a competent tier for the demands of the job.
41	I think the doctor has gotten lazy in his checking for testicular cancer, prostate exam, and hernia check. Further, he is quick to make judgment or recommendations based on one's age, single test result, etc. Basically quick to get a turd off of his plate without a commonsense evaluation overall of the individual.


6. How beneficial do you feel a one-on-one session with a fitness trainer would be to you?

Value	Percent	Responses
Very beneficial	34.3%	12
Somewhat beneficial	40.0%	14
Not very beneficial	22.9%	8
Not at all beneficial	2.9%	1
		Totals: 35


7. How beneficial would peer-led crew meetings regarding nutrition and eating habits be to you?

Value	Percent	Responses
Very beneficial	34.3%	12
Somewhat beneficial	57.1%	20
Not very beneficial	8.6%	3
		Totals: 35

8. Studies have shown that mandatory fitness programs have much higher success rates. Would you be supportive of one hour, mandatory, non-punitive, physical fitness training per shift?

Value	Percent	Responses
Yes. I would support mandatory fitness training.	 83.3%	30
No. I would not support mandatory fitness training.	 16.7%	6
		Totals: 36

9. Would you support a mandatory, non-punitive, annual fitness test such as a standardized skills course or CPAT?




Value	Percent	Responses
Yes. I would support an annual fitness test.	 85.7%	30
No. I would not support an annual fitness test.	 14.3%	5
		Totals: 35

10. Do you have any comments regarding a fitness/nutrition program for Avondale Fire & Medical?




[Hide Responses](#) ▼

ResponseID	Response
21	No
10	Totally onboard with a fitness/Nutritional specialist to meet with us
13	We should set aside more funds for equipment upgrades and or new improved fitness equipment
14	on going fitness and nutrition coaching could be helpful
42	No
22	I would love to see a nutritionist visit with each crew and offer instruction and guidance in preparing healthy meals.
29	Emphasis on whole foods and an education on what cheap/easy to make processed foods do to the body over the course of a career. More emphasis on high intensity workouts and mobility/recover.
33	I was at one time a Peer Fitness Trainer for our department and it wasn't very well respected or held in high regard; not as smooth of a program as I thought it would be, nor was the help accepted by any of the members on our department that needed it the most. It was offensive to them.
39	I believe the opportunity to see a professional regarding eating tips, workout routines targeted to ones personal body type and fitness goals, and lifestyle tips would greatly benefit those who were willing to take advantage of the opportunity.
44	Annual CPATs are an excellent idea

11. Do you feel that the department is taking adequate precautions to prevent cancer in line personnel?

Value	Percent	Responses
The department is doing everything possible to prevent cancer in line personnel.	 20.0%	7
The department is trying, but more can be done to prevent cancer in line personnel.	 77.1%	27
Nothing is being done to prevent cancer in line personnel.	 2.9%	1
		Totals: 35

12. Do you feel that the department is taking adequate measures for early cancer detection in line personnel?

Value	Percent	Responses
The department is doing everything possible for early cancer detection in line personnel.	 14.3%	5
The department is trying, but more can be done for early cancer detection in line personnel.	 62.9%	22
Nothing is being done for early cancer detection in line personnel.	 22.9%	8
		Totals: 35

13. What additions would you like to see for cancer prevention/detection?

[Hide Responses](#) ▼

ResponseID	Response
3	More specific blood work and pet scans
4	Biennial scans for cancer detection.
5	Not for sure what's out there.
10	Would like a skin doctor to come to the stations to evaluate us
11	More Screenings
13	Canada is using saunas to sweat harmful toxins out of bodies after fires
14	i like where its going, maybe an extractor at every station
15	Part of our annual physical.
16	Even if you get work related cancer, they are going to deny it as being work related. Now the burden of proof is on you and it's very difficult to get records of all the calls we run and the exposures we have. As a firefighter, if we get certain camera it should be covered as work related.
19	Cancer screenings
21	Serious turnout washing or exchange program OOS time for personal decon
22	See annual physical for comments. Several cancer prevention measures have been implemented over the last year but it is clearly a cultural change that is most challenging. Providing the tools and training is half the battle. If crews are not being diligent about personal and PPE decontamination on scene or rehabbing like our policies call for, then we are not making any progress. I think new habits are being formed but at a slow pace.
24	We should have exhaust vents at all of our stations.
29	Extractors and industrial dryers at every station. Also saunas in aiding the removal of toxins after fires. Instead of a "vigorous workout" followed by a tolerated hot shower. Steam cleaners to decon the inside of the apparatus. Automatic nomex hood replacement after every fire (training or the real deal)
30	replacement hoods on scene for crews in the event of reentry needed
31	Extractors in every station
33	I believe our department does a pretty good job of taking cancer prevention precautions. theres always more that can be done like more involved blood work, apparatus exhaust systems, and enforcing the tobacco free policy, but there is also a certain point where personal accountability should be considered. I have my own labs drawn annually to detect cancer; I don't expect or rely on the city or our department to do that for me.
37	I would like to see more clean or replaceable gear provided to members. Hoods, gloves a clean pair of turnouts on stand by.
38	More detailed cancer screening during annual physicals.
39	Instead of looking to buy expensive extractors and keeping our turnouts outside of the cab, steps such as a box of newly washed hoods at the utility truck that we can get changed out with our old one, or a mandatory out of service time of 30-40 minutes for each member to take a hot shower or do high intensity cardio for 20 minutes would be beneficial and much cheaper than the aforementioned options. These have been proven through countless studies to lower the risk of cancer and are much easier and cheaper for our members and department. The measures such as extractors and turnouts on the outside of the cab will help us greatly, but these other options seem to be a great start for a cultural change.

40	ct scans
41	Annual screening for cancers common to firefighters
42	PET scans and maybe more extensive blood work?
43	Pet scans
44	Cancer screenings and extractors in all stations

14. Do you have any comments regarding cancer prevention/detection at Avondale Fire & Medical?

[Hide Responses](#) ▼

ResponseID	Response
21	No
5	I think the department is trying, we are, are onw worse enemy.
8	We are very fortunate to have two sets of gear. If we made it a protocol or s o p to wash gear after a fire and switch into your clean set, putting gear in an outside compartment would be unnecessary.
10	NA
13	Exhaust systems in bays are needed
14	no
33	see above. lol
41	I think a lot of the cancer prevention measures are a cultural shift and should primarily be peer driven. It used to be a badge of honor to have blood all over you, but universal precautions was a culture shift. Cancer prevention is no different. Additionally, Captains need to be positive role models and take proper measures. It is not acceptable for a company officer to have black turnouts in the truck, exposing himself and crew.
42	No



15. How knowledgeable are you of the behavioral health programs available to you through the city and the department or the Union?

Value	Percent	Responses
I am very aware of the behavioral health programs available	8.6%	3
I have some knowledge of the behavioral health programs available	54.3%	19
I know very little about the available behavioral health programs	34.3%	12
I know nothing about the available behavioral health programs	2.9%	1
Totals: 35		





16. If you were having mental/behavioral health issues, how likely would you be to seek help through human resources-offered programs?

Value	Percent	Responses
Very likely	17.1%	6
Somewhat likely	25.7%	9
Not very likely	37.1%	13
Not at all likely	20.0%	7
Totals: 35		



17. Do you feel confident that the human resources department would maintain confidentiality and protect your privacy?

Value		Percent	Responses
Yes. I feel confident that they would protect my privacy.		25.7%	9
No. I do not feel confident that they would protect my privacy.		74.3%	26
			Totals: 35



18. If you were having behavioral/mental health issues, how likely would you be to seek help through fire department or Union-offered behavioral health programs?

Value		Percent	Responses
Very likely		34.3%	12
Somewhat likely		45.7%	16
Not very likely		11.4%	4
Not at all likely		8.6%	3
			Totals: 35

19. Do you feel confident that the fire department or Union would maintain confidentiality and protect your privacy?

Value	Percent	Responses
Yes. I am confident that the department or Union would protect my privacy.	 65.7%	23
No. I am not confident that the department or Union would protect my privacy.	 34.3%	12
		Totals: 35

20. Would you support a program that required one annual, mandatory, individual counseling session for all line personnel?

Value	Percent	Responses
Yes. I would support a mandatory counseling session.	 65.7%	23
No. I would not support a mandatory counseling session.	 34.3%	12
		Totals: 35

21. Do you have any comments concerning behavioral health programs at Avondale Fire & Medical?

[Hide Responses](#) ▼

ResponseID	Response
21	No
10	Not happy with the current program at GRPSC and would like to see a change
13	I think we need to do a better job of helping our members especially those who need help and the department just chooses to monitor and not resolve the issue
14	the information is out there but hard to reach out unless your forced or at rock bottom
42	No
16	There should be programs to help all people. But you can not trust those you work with. They value gossip over helping people.
19	More affordable options need to be available. Mandatory counseling isn't appropriate but the resources should be easily accessible and affordable.
22	We have a lot of work to do on this topic.
31	As far as the question about would the fire dept keep your confidentiality to protect your privacy. I think they would try but we are too small of a dept and too many people talk to actually keep it private. Too many rumors get spread
33	I believe a better pre-hire screening to determine if a person has a predisposition to mental illness due to the nature of our job and what we have to experience would better prevent such instances from occurring. (Screening candidates before hire, to determine if an individual is cut out witness the tragedy that we are guaranteed to see)
37	I have been told if you use the EAP for any reason they will notify the city .I am not sure if this is true or not.
44	I do not trust human resources with my confidential information.

22. Do you have any comments or suggestions you would like to add regarding Avondale Fire & Medical's wellness program?

[Hide Responses](#) ▼

ResponseID	Response
21	No
5	Not at this time.
8	I agree with the annual physical ability test. We are considered professionals, and the most professionals are expected to perform their job duties to a certain standard.
13	None
14	its headed it a great direction
19	We have one?
33	This is Erickson if you haven't already figured out...lol. If you want anymore of my \$.02 I am willing to share it.
41	http://ktar.com/story/1962476/arizona-bill-helps-first-responders-get-compensation-therapy-for-ptsd/
42	No

Appendix D

Interview with Linda Filion and Mark Hyland

What departments does the STI facility at GRPSTC serve? Approximately how many fire personnel (an educated guess is fine)?

Filion: We are proud to serve Glendale Fire, Avondale Fire, El Mirage Fire, Daisy Mountain Fire District, Buckeye Valley Fire, Rural Metro Fire, Harquahala Fire, Williamson Valley Fire... And more to come.

Approximately 800 physicals per year.

Do you feel the annual physical process is adequate for identifying health issues in firefighters?

Filion: Overall it is a very comprehensive physical. One of the best occupational health physicals in the industry (across all industries).

Is there anything you feel should be added or removed from the annual physical?

Hyland: Cardiopulmonary Exercise Testing (CPET) should ultimately become the cardiac and pulmonary screening tool.

Hyland: Remove digital rectal exam, not of value

Do you feel that we are doing enough for cancer detection/prevention?

Hyland: Yes. I feel the NFPA 1582 exam and standards provide for a very comprehensive exam. When administered carefully and competently it can work very well with early detection. We try and stay current on all the latest science to be sure we are doing all we can do to detect and prevent cancer. For example, we have added a COLOCARE screening for FFs to do at home to detect blood in stools (which can be a first sign of Colon Cancer).

Filion: One of the more comprehensive exams offered anywhere in the public.

Would you recommend any program changes to improve cancer detection/prevention?

Filion: Not for cost/benefit ratio. There are other tests but they are pretty expensive with low yield.

Hyland: Though the full NFPA professional firefighter physical is very comprehensive and provides a lot of bang for its buck there can always be improvement. One may want to consider ultrasound scans or similar for high risk / targeted firefighters every 3-5 years.

There is a lot of talk about full-body scans. Do you feel these would be beneficial in early detection of cancers or cardiac issues?

Hyland: No. The medical literature and current science does not support this. The risks outweigh the benefits so this is never a good scenario. Do no harm.

Filion: Absolutely not. Lots of radiation exposure and not recommended by any recognized medical society or associations. We do refer for cardiac calcium scans when appropriate.

The IAFC is recommending echocardiographs with contrast as a baseline test for all new hires, and for all firefighters over 40. Do you feel this would be beneficial?

Filion: Possibly but would be quite costly. It may come with a low cost to benefit ratio.

Hyland: Potentially of minor value but very expensive and potential for allergic reaction for the actual benefit.

We discussed colonoscopies for all firefighters over age 40. Can I assume that you would recommend a department program that offered them free of charge every five years to all firefighters, starting at age 40?

Hyland: We firmly believe in the recommendation that a firefighter over 40 should have a colonoscopy screening before. We have 3 real life cases to prove it and that is 2 more than I need.

It would be a nice benefit for sure but it is not within our scope to comment as to whose responsibility for financing such an endeavor would be. It can become very complicated. However, screening could be instituted at 40 to establish a baseline then again depending upon results of the first screening.

Filion: Yes, and we have run into problems with firefighters health insurance not covering this until age 50 which is not appropriate for the increased risk and literature showing value in this population starting at age 40. Perhaps a benefit your HR department could negotiate with your health insurance carrier.

Given the emphasis being placed on FF behavioral health, do you have any suggestions for identifying issues that could be included in a wellness program?

Filion: We do our best to screen for it but Mental Health issues are easy to hide in a 2-3 hour exam. We ask questions in our survey and again at discharge. We let members know we are always here for them. We promote causes and display literature of organizations like Fire Strong, etc

Hyland: We have behavioral health questions in our intake form. Providing a formal program is not recommended without firefighter bringing this up as an issue or by supervisor. Trying to screen for something which the firefighter may want to hide is not beneficial. It is useful to offer a behavioral health benefit for the firefighter on a confidential basis.

In the past, very little emphasis has been placed on behavioral health; do you have any suggestions/recommendations on how a behavioral health component could be added to a wellness program?

Filion: There are many good ways to add behavioral health issues to a department's wellness program. Likely best not to make it part of the annual physical process, however. There are some good public safety specific EAP's available and those would be a good option for a member in need.

Hyland: Should be part of an EAP program as done by other industries.

Do you have any other comments/suggestions/critiques?

Filion: No, only to say the annual physical is only as good as you make it. Having careful, caring and competent providers who provide follow-up and case management is also key. The NFPA Standards offer a very good framework but it is people who make the difference.

Appendix E

Interview with Cassandra Kalayasilpin

April 17, 2018

- What is your role Union and City role in firefighter/employee wellness?
I'm Vice President of Avondale Professional Firefighter's Association, L3924, and the appointed HR liaison between the local union members and HR. I have been an ACE certified Firefighter Peer Fitness training for over 12 years and sit as the labor rep on the AFM Health and Wellness Committee.
- What can you tell me about the city Employee Assistance Program?

The City of Avondale uses SupportLinc that is a company-sponsored resource that helps employees "deal with life's challenges and the demands that come with balancing home and work." It's a really weak set of on-line resources and articles to "help" employees. It's more of a website to help you go completely insane. It's a site where you go round in circles trying to figure out how to navigate and find the help you're looking for. Then, they insult you by offering a "discounted" gym membership for a gym that person off the street can walk in and negotiate at a better rate on any give day.
- What services are offered to employees who access the EAP?
The program claims to provide confidential services for a wide array of personal and work-related concerns, such as:
 - Anxiety
 - Anger Management
 - Depression
 - Family Counseling
 - Grief
 - Job Stress
 - Marital Concerns
 - Stress Management
 - Substance Abuse
 - Work-Life Balance
- Are there programs available specifically for firefighters?
No, there are none at this time that the city offers.
- How is employee confidentiality maintained?
I believe that the confidentiality is maintained because it's near impossible to talk to a real person and everyone on the AZMT insurance plan has the same generic user name and password for the website. As far as if you were lucky to schedule an appointment with a live person, I'm not sure what keeps it confidential.

- Can you give me an overview of the Peer Fitness Trainer program, and what it can offer to our members?
The Peer Fitness Trainer program was established by The International Association of Fire Fighters (IAFF) and International Association of Fire Chiefs (IAFC). They have come together to partner with The American Council on Exercise (ACE) to develop the ACE Peer Fitness Trainer (PFT) certification program used give on the job firefighters training, knowledge and skills required to:
(A) design and implement fitness programs
(B) improve the wellness and fitness of their departments
(C) assist in the physical training of recruits
(D) assist the broader community in achieving wellness and fitness.
- Why do you think the Peer Fitness program has not been successful in our department?
We have never had the proper cultural buy-in (starting from the chief's level) or funding for this program to be successful.
- What steps could we take to improve the program and its utilization?
We need a budget and support from the administration to make it work. The first thing we need is more PFTs. Currently, there are only two of us in the department that hold a current certification. Then, we need the backing of admin to be able to make a program successful. This means a strong budget and solid SOPs to make whatever the plan is sustainable. Consistency in member health/fitness evaluations with goals and rechecks is key.
- What is Fire Strong?
Fire Strong is a website designed to be a point of reference for fire service members and their families. The idea is to have a webpage that you can direct all your members to go to when they need to find resources dedicated to helping members with mental wellness. We have found that it can be difficult during times of stress for members to find the right resources such as counselors through your department's EAP (Employee Assistance Program), mental health benefits through your medical insurance, or peer support. Having access to a confidential webpage that isn't connected to a department intranet or city website can give a member peace of mind. Once you join you can personalize the page and add additional resources that are unique to your own organization.
- How do members access services/support through Fire Strong?
They go to www.firestrong.org and there are peer support counselors and publications available.
- How does our department support FS? Annual fee? Who pays?
The \$1500 annual fee has been split by the local union and fire department. We are entering our 2nd year as members to this site.
- Are you aware of any other programs that are available to AFM members?
There are other programs, but none that are currently available or utilized by AFM members.

Appendix F

Interview with Division Chief Aaron Glass

April 17, 2018

- So I understand that we have brought Rich Damante on as a volunteer Chaplain; do we have an established chaplain program, or is it just that we have a chaplain available?

Glass: We do not have an established protocol for using him. So far, he has just been meeting with crews and letting them know he is available to talk and as a resource to help out. He is not a licensed therapist, but he has extensive experience working with firefighters.

- There is mention in the meeting minutes of a peer CISD team. Are we moving forward with that?

Glass: So, it's called a peer support group, and Goodyear already has one in place. We are looking to form our own, then we can share resources with them. Our guys may not be comfortable talking to their own, but maybe they would be willing to talk to someone we don't know as well.

Glass: Tania Glenn was in yesterday and her focus is PTSD and the treatment of it. We are trying to figure out a way to incorporate her fee into this year's budget. For 19/20 we will definitely ask for inclusion.

- So what does she have to offer? What are her services?

Glass: She offers traumatic counseling and she specializes in PTSD. She knows first responders really well, and has been very successful in therapy. Goodyear had her come in to treat some of their folks, and 40% of their department reached out to her, so she is really successful.

Glass: I have suggested to the Chief that next fiscal year we need to identify a budget line item specifically for health and wellness, so we can include all of these wellness initiatives under one umbrella.

- One of the other things is that, in order to comply with NFPA 1582 we need to establish an annual fitness evaluation, other than the flexibility test at STI. Is there any talk of doing that in house?

Glass: One of the challenges is our own Union. People are so worried about it being punitive; we have to be careful that we do it carefully. I'd like to see us do that, but there will always be the complainers.

- One thing I discussed with Linda at STI is the possibility of organ screenings. Is there any possibility we will be pursuing that?

Glass: Yes! We just secured three days- one for each shift- to provide organ screenings using ultrasound. I cannot make it mandatory, but each on duty crew will have the option to attend. We have a great opportunity to add on to what we do in our annual physicals. There has been success in detecting things that have not been picked up in our annual physicals. They give you a nice report when you are done.

Glass: We need to have a cultural change (regarding attending available programs), it's a habit. I think people are becoming a lot more aware of how serious the health threat is and the cancer threat, and I think people are a lot more open to these programs – especially if it's offered on-duty. We need to formalize the programs a lot more, and frankly advertising it and doing internal marketing. I hope that our health and wellness committee members are acting as ambassadors and doing their part to educate the membership.

Glass: Looking down the road, we need to write down the programs; to formalize it and design the steps. A big portion that's missing, and that needs to be a priority is the behavioral health program. What happens when you recognize that someone is having a problem? What do you do? What are the steps? We are finding out, with some of the things our members are going through, is that the EAP is useless, and Firestrong, alarmingly, is almost equally as useless. We need to go out there and find the resources that work, then put together a recipe that will work for us.

Appendix G

IAFC/IAFF WELLNESS/FITNESS INITIATIVE - WELLNESS/FITNESS PROGRAM IMPLEMENTATION CHECKLIST

PROGRAM COMPONENT	CURRENT COMPLIANCE	SPECIFIC AREAS IN NEED OF ATTENTION
I. MEDICAL COMPONENT		
A. Fire Department Physician	PARTIAL	Physician for annual physical only
B. Annual Medical Evaluation	FULL	
1. MEDICAL HISTORY	FULL	
2. PHYSICAL EXAMINATION	FULL	
a. vital signs	FULL	
b. head, eyes, ears, nose, throat	FULL	
c. neck	FULL	
d. cardiovascular	FULL	
e. pulmonary	FULL	
f. gastrointestinal	FULL	
g. genitourinary	FULL	
h. rectal	FULL	
i. lymph nodes	FULL	
j. neurological	FULL	
k. musculoskeletal	FULL	
l. body composition	FULL	
3. TESTING	FULL	
a. laboratory tests	FULL	
b. heavy metal screening	NO	Recommend screen for lead, mercury, arsenic, cadmium, chromium
c. urinalysis	FULL	
d. vision	FULL	
e. hearing	FULL	
f. pulmonary function	FULL	
g. chest x-ray	FULL	
h. EKG	FULL	
i. cancer screening	PARTIAL	No colonoscopies, mammograms, or pap smears

C. IMMUNIZATIONS AND INFECTIOUS DISEASE SCREENING	FULL	Tuberculin test at annual physical; infectious disease screen post-exposure. Immunization records are kept
D. INDIVIDUAL HEALTH RISK APPRAISAL	FULL	
E. OCCUPATIONAL EXPOSURES	FULL	Exposure protocol for blood/body fluid. Partial tracking of fire/other incident - related exposures through incident records

II. FITNESS COMPONENT

A. Medical Clearance	FULL	Members are cleared at time of hire and post-injury for return to duty
B. Time for Exercise	PARTIAL	Members are allowed to work out, but are still available for calls or other duties; time is not set aside for fitness
C. Equipment and Facilities	FULL	
D. Philosophy of Fitness	PARTIAL	Department culture is pro-fitness at the line-level only
E. Exercise Specialists and Peer Trainers	PARTIAL	Two PFTs; however, not utilized
F. Fitness Evaluation	NO	CPAT test at time of hire; not repeated
1. Aerobic Capacity	NO	
2. Flexibility	YES	
3. Muscular Strength	NO	
4. Muscular Endurance	NO	
G. Self-Assessment	NO	
H. Personalized Exercise Prescription	NO	

III. REHABILITATION COMPONENT

A. Medical Liaison	NO	
B. Physical Therapy Services	PARTIAL	No designated departmental PT; assigned by clinic at injury follow-up
C. Clinical Pathway Rehab	NO	In discussion with White Tanks Rehab
D. Alternate Duty Program	PARTIAL	Alternate duty only if injured while working
E. Injury Prevention Program	NO	
F. Injury Prevention Committee	NO	

IV. BEHAVIORAL HEALTH COMPONENT

A. Behavioral Health Specialist	NO	In development
B. Periodic Evaluation	NO	
C. Employee Awareness	NO	
D. Service Access Policy	NO	
E. Nutritional Program	NO	
F. Tobacco Use Policy	NO	
G. Tobacco Cessation Program	NO	
H. Employee Assistance Program	PARTIAL	EAP available through the city; no fire-specific programs
1. Substance Abuse	PARTIAL	EAP available through the city; no fire-specific programs
2. Stress Management	PARTIAL	EAP available through the city; no fire-specific programs
3. Family Relations	PARTIAL	EAP available through the city; no fire-specific programs
I. Infectious Disease Issues	NO	
J. Critical Incident Stress Management	NO	In development
K. Chaplain Program	PARTIAL	Volunteer chaplain, but no SOGs for use

V. DATA COLLECTION

A. Data Collection System	PARTIAL	Annual physical results tracked by STI only
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