

AN EXAMINATION OF THE BENEFITS OF HEALTH PROMOTION FOR THE NATIONAL FIRE SERVICE

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■ **PARTICIPANTS:**

The 20 departments represented organizations of varying size and number of personnel from 14 US states, commonwealths, and/or territories with at least one department in each of the four major US Census Bureau Regions. Ten “Wellness Approach” (WA) departments were selected that had annual medical and fitness programs which had been in place for at least four years. Ten “Standard” departments were identified that closely matched each of the WA departments and were screened to ensure they did not meet the WA inclusion criteria.

■ **TOTAL NUMBER OF PARTICIPANTS:**

1,002 male firefighters (WA n = 522; Standard n = 480)

■ **SYNOPSIS:**

The United States Fire Service is facing critical healthcare issues in its workforce, issues primarily driven by the high prevalence of obesity, substandard fitness, cardiovascular related death, culture and behavioral health issues.

While previous studies, such as the 1998 National Institutes of Health (NIH) funded PHLAME (Promoting Healthy Living: Assessing More Effects) Study, have looked at the importance of nutrition, exercise and maintaining a healthy body weight, the overall effectiveness of firefighter fitness, health and wellness programs lacks broad empirical testing.

The most prevalent Wellness Approach (WA) program in place today is the Joint Labor-Management Wellness-Fitness Initiative (WFI), which was introduced in 1999. This study focuses on purposively selected US fire departments that have implemented WA programs consistent with the WFI, and compared them with selected departments who have no formal WA program.

A number of research strategies were considered but were rejected due to the lack of a comprehensive listing of fire departments participating in WFI, as well as time and funding constraints. Therefore, the method chosen for the study was a sampling of heterogeneous instances evaluating 10 fire departments with WA in place, which were then compared with 10 fire departments that have no WA program in place. The participants in the study were male and all were evaluated for body composition, fitness, and general and behavioral health.

The study found that firefighters in fire departments with a WA program were healthier than their counterparts in fire departments without WA programs. Firefighters in fire departments with WA demonstrated superior body composition and were less likely to be obese. Additionally, firefighters who participated in WA programs reported significantly higher physical activity, lower expectations for future illness, and were significantly less likely to experience behavioral health issues. However, firefighters in fire departments with WA programs did report a higher prevalence of on-duty injury – mostly likely attributed to increased physical activity and strength training.



While this study gives strength to the body of evidence showing firefighters participating in a WA program are healthier and have higher operational readiness, it also identifies a need for further study regarding injury prevalence amongst firefighters participating in WA programs.

Additionally, findings in this study indicate that the majority of the firefighters, even in fire departments with WA programs, did not meet the NFPA minimum post-cardiac event exercise tolerance threshold. Of interest is the finding from both groups showing both were found to have a high prevalence of smokeless tobacco use and binge or heavy drinking.

■ FINDINGS:

Firefighters at risk. The epidemic of substandard fitness and obesity among firefighters in the US is a critical issue facing the fire service, one that brings higher risk for illness and lowers operational readiness.

A costly problem. Low fitness, obesity and behavioral health issues amongst firefighters is a significant issue for US fire departments, and contribute to lost productivity, dramatically increased healthcare costs, disability, early retirements and even death. Cardiovascular disease (CVD) related issues among firefighters currently cause half of all line-of-duty related deaths.

WA programs still not a priority. Despite the fact that WFI was implemented in 1999, less than 30% of US fire departments today appear to engage in any regular fitness programming or testing.

Positive culture change. Participation in WA was shown to foster greater firefighter optimism, job satisfaction, satisfaction with the department and their colleagues, and a greater sense of accomplishment.

The right thing to do. Regular participation in a WA program pays dividends in the form of healthier firefighters across a number of health dimensions, a positive culture within the fire department and a proven reduction in illness related issues.

Behavioral health is an issue. While firefighters who participated in a WA program were found to be less likely to be diagnosed with an anxiety disorder or smoke tobacco, WA programs had no appreciable effect on the use of smokeless tobacco and alcohol abuse.

More needed. While the positive effects of WA programs are clearly validated in this study, more is needed to define and prevent the issue of increased prevalence of injury amongst firefighters participating in WA programs. Also, further study and action is needed regarding behavioral health issues that plague the fire service regardless of the implementation of a WA program

■ TAKEAWAYS:

While this study and others like it demonstrate the importance of a comprehensive WA program in the fire department, the lack of fire departments embracing these programs is troubling. A culture shift amongst both management and labor is needed, and action, not just studies, reports and “initiatives”, is needed.

An epidemic of substandard fitness, obesity and behavioral health issues plague the US fire service.

Firefighters who participate in WA programs were leaner, less likely to develop hypertension and other CVD illnesses, and they demonstrated greater endurance, improved operational readiness and greater morale and job satisfaction.

While WA programs have a positive effect on the culture of the fire service, certain behavioral health issues appear to be endemic, regardless of WA programs. Department and municipal leadership, in partnership with labor, must collaborate on further study and action.