



RESEARCH FOUNDATION

RESEARCH FOR THE NFPA MISSION

BETTER HEART: Building Evaluations That Translate Evidence and Research to Heart Evaluations and Related Training

(Short Title: **BETTER HEART**)

PROJECT SUMMARY

Last Updated: 14 February 2020

Background:

Despite all the dangers on the fireground, it is the pathophysiological response to firefighting that kills or injures most fire fighters. It is noted that more than half of deaths in the line-of-duty occur from cardiovascular reactions to the physical stress of the job. This is an alarming fact, especially since high levels of cardiovascular strain can trigger a cardiovascular event in individuals with cardiovascular disease. A previous study indicated that a majority of the firefighters who had died from cardiac incidents showed signs of both enlarged heart and coronary heart disease. Although current screening done is for coronary heart disease, screening for enlarged hearts should not be ignored, as the combination of multiple types of cardiovascular disease greatly increase the risk of a sudden cardiac event for first responders.

Project Goal and Aims:

The goal of this two-year effort is to translate current medical understanding and recent research into more effective screening recommendations and training and educational material.

Consider new screening approaches based on: Updated understanding of cardiovascular disease; Technology advances for detecting heart disease; Fire service research that identifies specific vulnerabilities.

Implementation and Schedule:

This research project is led by Skidmore College with collaborative support from multiple other research partners, including Harvard University, National Institute for Occupational Safety and Health (NIOSH), National Institute for Public Safety Health (NIPSH), and Dr. Saeed Khaja. Funding for this project is through a two-year DHS/FEMA Assistance to Firefighters Grant (AFG) with a targeted completion date of February 2020. The Principal Investigator (PI) for this project is: Dr. Denise Smith of Skidmore College, email: DSmith@Skidmore.edu.



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BETTER HEART (Building Evaluations That Translate Evidence and Research to Heart Evaluations and Related Training) – AFG FS&P

Project summary chart

