

IMPACT OF THE PUBLIC SAFETY MEDICAL SERVICES WELLNESS PROGRAM ON THE HEALTH RISK FACTORS OF THE INDIANAPOLIS METROPOLITAN POLICE DEPARTMENT 2008-2010

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Objective: Policing is recognized as dangerous, demanding and stressful occupation. Besides the traditional cardiovascular risk factors faced by the general population, the police officers face additional occupation specific risks like intense physical and mental stress, life-threatening encounters leading to fatal bodily injuries preceded by stressful bursts of unpredictable emergencies. Previous studies have shown that the overall health of the police officers is worse as compared to the general US population which necessitates a focused clinical intervention and follow up program designed for this particular public safety population. One such wellness fitness initiative is Public Safety Medical (PSM) services. The aim of this study is to examine the impact of Public Safety Medical on the health of a cohort of police officers from the Indianapolis Metropolitan Police department (IMPD).

Methods: IMPD officers who were clinically evaluated by PSM in 2008 and followed up subsequently in 2009 and 2010 were included in this retrospective cohort study (N=382). Clinical variables from the PSM database were used to measure the prevalence of obesity, hypertension, dyslipidemia, diabetes mellitus and smoking status in the IMPD population from 2008-2010. Statistical analysis was performed using SASv9.2 to assess statistically significant changes ($p < 0.05$) in the health risk factors of this population over two years in order to evaluate the impact of the PSM wellness program.

Results: After two years of intervention by the PSM wellness program on the IMPD officers, there was a statistically significant improvement observed in hypertension ($\downarrow 69\%$), borderline risk cholesterol ($\downarrow 50\%$), high risk total cholesterol ($\downarrow 37\%$), borderline risk HDL ($\downarrow 23\%$), high risk HDL ($\downarrow 30\%$), borderline risk LDL ($\downarrow 58\%$), high risk LDL ($\downarrow 64\%$), borderline risk triglycerides ($\downarrow 68\%$), high risk triglycerides ($\downarrow 51\%$), borderline risk blood glucose ($\downarrow 57\%$), and smoking status ($\downarrow 38\%$). Obesity and high risk blood glucose variables did not show statistically significant reduction.

Conclusion: Baseline clinical profile of the IMPD police officers (2008 data) is suggestive of increased cardiovascular risk even greater than the general US population. The Public Safety Medical wellness program has brought about significant improvement in health of the police officers following two years of intervention. Prospectively improving trends of the PSM wellness initiative are suggestive of long term gain in health, quality of life and work efficiency of the IMPD. The study supports the idea of a wellness program like PSM to be accepted on a wider scale by other public safety departments that have job-specific health risk factors.

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