**NIOSH Vanguard Center**

*Located in the Biostatistics and Epidemiology Branch (BEB), Health Effects Laboratory Division (HELD), National Institute for Occupational Safety and Health (NIOSH), U.S. Centers for Disease Control and Prevention (CDC) in Morgantown, West Virginia.*

Investigators

* Tara Hartley, PhD, Principal Investigator and Epidemiologist
* Desta Fekedulegn, PhD, Data Curator and Statistician
* Cecil Burchfiel, PhD, BEB Chief and Epidemiologist
* Michael Andrew, PhD, Statistician
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* Anna Mnatsakanova, MS, Statistician

Our Mission

The mission of the Biostatistics and Epidemiology Branch, HELD, NIOSH is to conduct collaborative population-based research in occupational health. Our strong research interest in cardiovascular disease (CVD) and cardiometabolic health outcomes aligns well with the Jackson Heart Study, and our research team has interest in examining prospective associations between occupational exposure and development of CVD. The Branch has a team of epidemiologists and statisticians with experience to conduct the proposed research, including expertise in cardiovascular epidemiology, particularly subclinical CVD, and statistical analysis including analysis of large datasets. Currently, we are conducting collaborative research with several large epidemiologic studies including the Jackson Heart Study, MESA Study, REGARDS Study, Honolulu Heart Project, the Women’s Health Initiative and the ARIC Study. We are also co-investigators on the Buffalo Cardio-metabolic Occupational Police Study (BCOPS) Study, a longitudinal study of police officers from Buffalo NY. In the BCOPS Study, we are assessing the association between workplace stressors (i.e. psychological stress, shift work) and subclinical CVD.

2014 BEB Publications

1. Wirth M, Shivappa N, Burch J, Violanti JM, **Burchfiel CM**, **Fekedulegn D**, **Andrew ME**, **Hartley TA**, Miller DB, Mnatsakanova A, **Charles LE**, Steck SE, Hurley TG, Vena Je, Hebert JR. Association of a dietary inflammatory index with inflammatory indices and the metabolic syndrome among police officers. *J Occup Environ Med* 2014;56(9)986-989.
2. **Charles LE**, **Andrew ME**, Sarkisian K, Li S, **Mntaskanova A**, Violanti JM, Wilson M, Gu JK, Miller DB, **Burchfiel CM**. Associations between insulin and heart rate variability in police officers. *Am J Hum Biol* 2014;26(1):56-63.
3. Alshaaraway O, Zhu M, Ducatman AM, Conway B, **Andrew ME**. Urinary polycyclic aromatic hydrocarbon biomarkers and diabetes mellitus. *Occup Environ Med* 2014;71(6):437-441.
4. Kershaw KN, Brenes G, **Charles LE**, Coday MC, Daviglus ML, Denberg N, Kroenke CH, Safforc MM, Savla T, Tindle HA, Tinker LF, Van Horn L. Associations of stressful life events and social strain with incident cardiovascular disease in the Women’s Health Initiative. *J Am Heart Assoc* 2014;3:e000687.
5. Gu JK, **Charles LE**, Bang KM, Ma CC, **Andrew ME**, Violanti JM, **Burchfiel CM**. Prevalence of obesity by occupation among U.S. workers: The National Health Interview Survey 2004-2011. *J Occup Environ Med* 2014;56:516-528.
6. Campbell Jenkins BW, Sarpon DF, Addision C, White MS, Hickson DA, White W, **Burchfiel CM**. Joint effects of smoking and sedentary lifestyle on lung function in African Americans: The Jackson Heart Study cohort. *Int J Environ Res Public Health* 2014;11:1500-1519.

*Inaugural issue of the Journal of Law Enforcement Leadership and Ethics*

1. Vena JE, **Charles LE**, Gu JK, **Burchfiel CM**, **Andrew ME**, **Fekedulegn D**, Violanti JM. Mortality of a police cohort: 1950-2005. *J Law Enforcement Leadership Ethics* 2014;1(1):7-30.
2. **Hartley TA**, Violanti JM, Sarkisian K, **Fekedulegn D**, **Mnatsakanova A**, **Andrew ME**, **Burchfiel CM**. Association between police-specific stressors and sleep quality: Influence of coping and depressive symptoms. *J Law Enforcement Leadership Ethics* 2014;1(1):31-48.
3. Violanti JM, **Fekedulegn D**, **Hartley TA**, **Andrew ME**, **Charles LE**, Tinney-Zara CA, **Burchfiel CM**. Police work absence: An analysis of stress and resiliency. *J Law Enforcement Leadership Ethics* 2014;1(1):49-67.

*Special issue of the International Journal of Emergency Mental Health and Human Resilience*

1. Violanti JM, **Fekedulegn D**, **Hartley TA**, **Andrew ME**, Gu JK, **Burchfiel CM**. Life expectancy in police officers: A comparison with the U.S. general population. *Int J Emerg Ment Health Hum Resil* 2015;15(4):217-228.
2. **Hartley TA**, Violanti JM, **Mnatsakanova A**, **Andrew ME**, **Burchfiel CM**. Military experience and levels of stress and coping in police officers. *Int J Emerg Ment Health Hum Resil* 2015;15(4):229-240.
3. **Hartley TA**, Violanti JM, Sarkisian K, **Andrew ME**, **Burchfiel CM**. PTSD symptoms among police officers: Associations with frequency, recency and types of traumatic events. *Int J Emerg Ment Health Hum Resil* 2015;15(4):241-254.
4. Bond J, **Hartley TA**, Sarkisian K, **Andrew ME**, **Charles LE**, Violanti JM, **Burchfiel CM**. Association of traumatic police event exposure with sleep quality and quantity in the BCOPS Study cohort. *Int J Emerg Ment Health Hum Resil* 2015;15(4):255-266.
5. **Fekedulegn D**, **Burchfiel CM**, **Hartley TA**, Baughman P, **Charles LE**, **Andrew ME**, Violanti JM. Work hours and absenteeism among police officers. *Int J Emerg Ment Health Hum Resil* 2015;15(4):267-276.
6. **Andrew ME**, **Mnatsakanova A**, Howsare JL, **Charles LE**, **Burchfiel CM**, McCanlies EC, **Hartley TA**, Violanti JM. Associations between protective factors and psychological distress vary by gender: The Buffalo Cardio-metabolic Occupational Police Stress Study. *Int J Emerg Ment Health Hum Resil* 2015;15(4):277-288.

\*Bold denotes a Vanguard Center Co-Investigator