

## Mental and Physical Health in 9-1-1

*Information Compiled by Dr. Michelle Lilly – Northern Illinois University. From 2014-2018, Dr. Lilly was a co-investigator on a federally funded grant examining the impact of NG9-1-1 on telecommunicators and their mental and physical health.*

*Presented to the Senate Committee on Health and Welfare by Barbara Neal, Executive Director, Vermont Enhanced 911 Board. 1/28/2021.*

### **Mental Health**

- Research has shown that 9-1-1 telecommunicators are at heightened risk for conditions such as depression and PTSD.
- In a sample of over 800 telecommunicators from across the US, Lilly and Allen (2015) found that 17.6% to 24.6% of 9-1-1 telecommunicators met cut-off for probable PTSD. This number is:
  - Five to six times greater than in the general population
  - Two to four times greater than a recent sample of firefighters
  - An elevated but overlapping rate compared to a more recent sample of police officers (7% - 19%).
- Additionally, 23.9% of the same nationwide sample met cut-off for probable major depression compared to 7.1% in the general population.

### **Physical Health**

- Research has shown that law enforcement and firefighters are at elevated risk for impairments in physical health.
- Research on physical health in 9-1-1 is limited. However, the large nationwide sample found that 53.4% reported a body mass index (BMI) in the obese range compared to 39.8% in the US general population ([www.cdc.gov/obesity/data/adult.html](http://www.cdc.gov/obesity/data/adult.html)).
- Telecommunicators in the sample also reported an average of 17 different physical health complaints in the month before data collection in the nationwide sample.

### **Why the Enhanced Risk for 9-1-1 Industry?**

- The 9-1-1 work environment is marked by a high degree of novelty, lack of control, unpredictability, and social evaluation. These factors are some of the strongest predictors of stress. High levels of stress impact mental health over time, and are linked to greater risk for poor physical health and disease.
- 9-1-1 telecommunicators, like other public safety personnel, are recurrently exposed to duty-related distressing events. Research has shown that trauma exposure has cumulative effects over time; that is, individuals who have more exposure are at heightened risk for poor mental and physical health compared to individuals with limited trauma exposure.
- Work as a 9-1-1 telecommunicator is a sedentary job. Telecommunicators remain seated for the majority of their shifts, which provides limited opportunity for physical movement and enhances risk for poor physical health.
- Sleep-related issues are common in the industry, resulting from duty-related stress, shiftwork scheduling, and mandatory overtime. Research is expanding every day to demonstrate the profound negative impact of poor sleep on mental and physical health.

### **Future Impacts of NG911 Technology on 9-1-1 Industry Health**

- As these data were collected prior to NG911-related technological shifts, future research will be able to investigate, at least on a broad scale, whether psychological and physical health is altered by adoption of NG911 technology.