INTRODUCTION

Opioid abuse and overdose rates in the United States have increased tremendously over the past decades (Ghertner and Groves 2018; Mair, Sumetsky, Burke, & Gaidus, 2018; Warner et al, 2011). According to the Centers for Disease Control and Prevention (CDC), "over 60,000 drug overdoses occurred in 2016, with overdose death rates three times the rate of 1999" (Ghertner & Groves, 2018, p.1). Many researchers claim that the growth behind opioid disorder often stems from the usage of opioids. Data has shown a massive increase by more than 150% between 1993 and 2012 (Owens el al.2014; Mair, Sumetsky, Burke, & Gaidus, 2018). For example, in 2018 there were more than 1,116 drug-related overdose deaths in Philadelphia; 939 of those deaths involved the use of opioids among 45-54-year olds (Department of Public Health, Department of Behavioral Health and Intellectual disability Service). Several variables which have fueled the increase of opioid abuse and overdose across communities in the United States, including poverty, unemployment, over-prescription of drugs, and easier access to treatment facilities (Santos, Vittinghoff, Wheeler, Davidson, & Coffin, 2016; Ghertner & Groves 2018; Dasgupta, Beletsky & Ciccarone, 2018; Sumetsky, Burke & Gaidus, 2018). Those variables all contributed to the increase of epidemic crisis over the past two decades (Rudd et al., 2016; Mair, Sumetsky, Burke, & Gaidus, 2018). The purpose of the current study is to examine the correlates of fatal opioid overdoses across neighborhoods in the city of Philadelphia. This research brief summarizes findings from a literature review conducted to inform the analyses of this study.

ROOT CAUSES BEHIND THE EPIDEMIC CRISIS

SOCIOECONOMIC FACTORS

Multiple studies have shown that poverty and a lack of job opportunities are related to opioid overdose and abuse. Ghertner & Groves (2018) found that the national trend in unemployment, poverty, and measures of substance use and opioid prevalence varied throughout the span of 15 years across the country. Their analysis found a higher poverty rate and a higher per capita retail opioid sales in Northern California and Southwest Oregon, as well as higher overdose death rates in the Midwest and Southern regions (Ghertner & Groves, 2018). There was also a relatively strong statistical correlation between the measures of the opioid crisis, county

poverty, and unemployment rates. Overdose prescriptions and overdose deaths are also a product of the treatment of workplace injuries and serious accidents (Monnat, 2019; Dasgupta, Beletsky & Ciccarone, 2018) Additionally, counties with worst economic conditions are likely to have a higher prevalence of substance usage. Lately, more attention has been given towards increasing access to treatment services; specifically, among the more vulnerable population (Ghertner & Groves, 2018; Beletsky & Ciccarone, 2018; Monnat, 2019).

REGIONAL AND GROUP DIFFERENCES IN OPIOID ABUSE

Data comparisons across regions show that adolescents in rural areas have a lower perception of substance use risk compared to adolescents in urban areas (Monnat, 2019). Many researchers pointed out in their studies that the root causes behind overdose deaths and heroin misuse was not only due to over-prescription but also to structural factors present (Santos, Vittinghoff, Wheeler, Davidson, & Coffin, 2016; Ghertner & Groves 2018; Dasgupta, Beletsky & Ciccarone, 2018; Sumetsky, Burke & Gaidus, 2018). Deaths involving the usage of opioid and heroin were more likely to occur in low-income communities among 18 through 24-year-olds compared to wealthier communities (Visconti, Adam, Santos, Lemos, Burke & Coffin, 2015). The majority of those deaths took place in rural and urban neighborhoods, where there was a high population of residents living in single room hotels, in poverty, with multiple opioid use-related arrests (Visconti, Adam, Santos, Lemos, Burke & Coffin, 2015). They also found that 41% of deaths related to opioid overdose occurred in urban regions, 26% occurred in suburban regions, while 18% occurred in metropolitan regions (Visconti, Adam, Santos, Lemos, Burke & Coffin, 2015).

DATA COLLECTION AND FUTURE STEPS

Background information for this research study was drawn from over 30 scholarly articles which addressed opioid overdose, opioid misuse, and over-prescription. Relevant points uncovered from scholarly articles were organized into a literature review matrix. Data were collected from the City of Philadelphia website, and the U.S Census American Community Surveys. Data from 2011-2017 at the zip code level was downloaded from the U.S Census American Community Surveys and catalogued. In the future, that data will be used to see if there

is any statistical effect of social and economic factors on opioid overdose over time. In conclusion, developing a better understanding of how opioid use, overdose, and over-prescription are associated with socioeconomic factors at a community level will better inform our understanding of the opioid crisis.

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