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Work-related Injuries and the Spread of the Opioid Epidemic

Julien Maarek - John Mercaldo – Alex Szczepanski

INTRODUCTION

Our study aims to examine and understand the impact that the opioid crisis has had on the United States, with a specific focus on working-class Americans and veterans. While there was no need to look at any specific region in America, we noticed a particular 2 regions were being affected. The Midwest, and the appalachian area are two areas in which this crisis seems to have had a devastating effect on communities.

Our narrow focus on work-related injuries has led us to a correlation between workers getting injured on the job, and opioid abuse.

The steady availability of opioids has made it easy for working class Americans to turn to them when in need of a method of compensation for their injuries and lack of ability to work.

People who have damaged their bodies due to tasks required for certain employments are more likely to rely on substances that can help them get back to work sooner but may only make it harder for them after they become addicted.

METHODS

Numerous studies have been done by the CDC and other organizations on the opioid epidemic that this country is facing.

We looked through the Annual Surveillance Report of Drug-Related Risks and Outcomes, which was prepared by staff from the National Center for Injury Prevention and Control, the CDC, and the U.S. Department of Health and Human Services.

A majority of the data collected was from 2017 or earlier, so we were getting an accurate snapshot of the situation in recent numbers.

Literary analysis was done in order to collect information about how veterans and coal miners, high risk physical labor workers, are affected by opioids and allowed us to connect this information to the over prescription of opioids.

RESEARCH

A total of 70,237 drug overdose deaths occurred in 2017⁽¹⁾:

- An age-adjusted rate of 21.7 per 100,000 persons.
- Prescription and/or illicit opioids were involved in 67.8% (47,600) of these deaths.⁽¹⁾

It was seen that for coal miners in the Appalachian region, there is a .345% chance of mortality for these miners stemming from opioid abuse⁽²⁾.

It was also found that if that a worker was laid off, their chances of mortality increased to the range of .518% - 1.035%.

These numbers are staggering because without these factors, the chance of mortality is only around .162%. That means the death rates are anywhere from two to six times as much as the uninfluenced rates⁽²⁾.

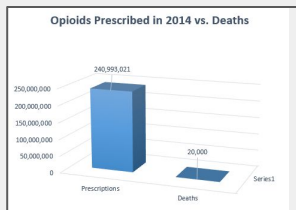


Fig. 1: (IQVIA survey done by the CDC & National Center for health statistic)

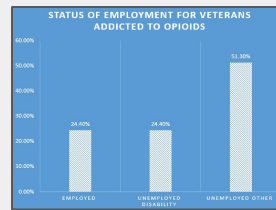


Fig. 2: (Study done by Pouget et al, 2017)

SELECT SOURCES

- ⁽¹⁾Bishop, Bill, "We've Got the Connection Between Coal and Addiction Backwards, Researchers Say." 100 Days in Appalachia, 14 Jan. 2020
- ⁽²⁾Wang, Qitong et al. "The Relationship Between Coal Mining Activity and Opioid Mortality." ProQuest Dissertations Publishing, 2019. Web.
- ⁽³⁾Pouget, Enrique R., et al. "Recent Overdose Experiences in a Community Sample of Military Veterans Who use Opioids." *Journal of Drug Issues*, vol. 47, no. 3, 2017, pp. 479-491. ProQuest,

ANALYSIS

There were approximately 250,000,000 separate opioid prescriptions given in the US in 2014, next to how many deaths were caused from these opioids being prescribed. With there approximately being 20,000 deaths from these prescriptions there is a clear over prescription of this medication (1).

We can see that about 75% of this population is addicted to opioids and do not have a job at all and 37.2% of the total population is receiving disability benefits. 12.8% of these veterans are getting the benefit of disability while they could be working, thus allowing their abuse of opioids to continue (2).

There is a greater number of opioid deaths to these coal miners than there was to other situation related deaths. The number of opioid related deaths reach nearly 15 per 100,000 people where non-opioid related deaths are only around 6. This shows the severity of opioids abuse in these coal miners in specific and the labor industry in general (3).

A seismic shock was felt in the 2000s when Purdue Pharma's aggressive marketing of its controlled-release opioid Oxycontin – described as "safe" for chronic pain – intersected with the trafficking of cheap, pure heroin in smaller cities across the West, Midwest and Appalachia⁽²⁾

CONCLUSION AND FURTHER RESEARCH

A high number of opioids prescribed and how many deaths occur because of it is what caught our attention at first, and further research lead to us finding that up to 2014 there was a serious amount of opioids in the country proportionally to how many are believed to have truly needed it.

Through a narrowed scope of veterans, people who are put through mental and physical anguish for their line of work, they show that opioids will only make it more difficult for a person to get back to work if over prescribed.

It has become obvious that there is a strong connection to the type of work being done and the prescription/abuse of opioids. This epidemic is very focused on a set group of people that we have been discussing and it shows throughout this data collected.

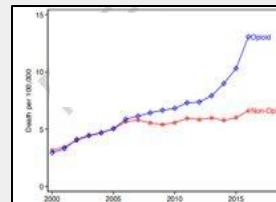


Fig. 3: (Deaths in the Appalachian Region of the United States, as found in Dr. Wang's dissertation⁽²⁾)