Public interest in Supervised Injection Sites in the US following the opening of two clinics.

An infodemiological study and time-series analysis of Google Trends.

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INTRODUCTION

Nearly 841,000 individuals died of drug overdoses between 1999-2019, with 70% of those deaths attributed to opioids.[1]

Misconceptions about persons who use injection drugs have created barriers to seek ways to minimize risks associated with IV drug use.

The creation of supervised injection sites (SIS)—where individuals may inject drugs under medical supervision[2] —may be a critical component in ending the opioid epidemic in the United States.

OBJECTIVES

Our objective for this study was to analyze the public interest in supervised injection sites, and dispel misconceptions by revealing benefits of such sites.

METHODS

Using Google trends, we searched for the topic "supervised injection sites" from 2019-2021 to collect relative search interest (0-100).

An autoregressive integrated moving average model (ARIMA) was used to forecast the values of search interest if the court decision to legalize SIS in Philadelphia in February through June of 2020 did not occur.

We then calculated the percent increase in search interest immediately (1 week) following the ruling.

RESULTS

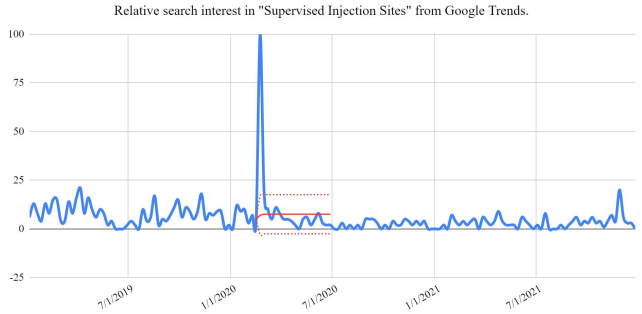

Figure 1. Relative search interest in Supervised Injection Sites and the forecasted value following a February, 2020 court ruling allowing them to legally operate in Philadelphia.

- The largest peak occurred in February 2020 when a US district judge declared that the SIS could be legally opened in Philadelphia.[9]
- The forecasted value the week after this ruling was 6.95 (95%CI: -2.86 - 16.76), compared to the peak (100) RSI. The difference in these values was 93.04 (83.24-102.86) representing a percent change of 1338.85%.
- A second peak occurred in November 2021, when New York City opened their first legal SIS. Given current interest in such programs, future peaks are likely as more SIS sites open in the United States. [10]

RECOMMENDATIONS

In Oklahoma, over 3,000 individuals died of overdose from 2014-2017.[13] SIS reduce overdose deaths by 35% in surrounding neighborhoods, as well as increase the participation in substance use treatment programs by more than 30%.[5] The use of clean needles lowers the risk of HIV and hepatitis C transmission.[12] As future practitioners of osteopathic medicine, it is paramount that we confront and alleviate barriers faced by our patients seeking the care they need. Approaching substance use in a holistic manner and considering disease prevention strategies currently outside of the norm in the United States, it is our hope to improve the lives of persons using IV drugs and to improve outcomes in this underserved population.

CONCLUSION

With increased interest in SIS, it is important to promote the benefits associated with such programs.

During the first 10 months of Canada's initial SIS in Ottawa , 283 overdose cases were prevented with oxygen and another 294 overdose cases with Naloxone; potentially saving almost 600 lives.[7]

Besides decreasing overdoses, SIS helps persons using IV drugs improve their quality of life and in many instances reduce in the surrounding area.[8]

CLINICAL IMPLICATIONS

Creating SIS where individuals may inject drugs under medical supervision may improve access to healthcare services among this population. [3]

SIS are a potential strategy to decrease overdose deaths by providing persons who use IV drugs with a hygienic environment, under the supervision of a licensed healthcare professional.[4]

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