

# Trends in Opioid Overdose Deaths and Naloxone Distribution from 2019-2022 in Lucas County, Ohio: A Retrospective Study

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**Introduction:** The COVID-19 pandemic hindered efforts to prevent fatal opioid overdoses. In a survey conducted by the Addiction Policy Forum, 34% of the people experiencing substance use disorder who responded between April 27 and May 8, 2020, reported that there had been changes to their treatment or recovery services (Vieson et al., 2022). Ohio has been especially ravaged by the opioid epidemic, at one time claiming the second highest overdose rate in the United States (Vieson et al., 2022). The number of overdose mortalities in Ohio was further exacerbated by the COVID-19 pandemic. From the week after a national emergency was declared to the week of May 31st, fatal overdoses in Ohio rose by 70.6% (Currie et al., 2021). The decrease in the overdose death trend in Ohio since 2017 reverted in Q2 of 2020 with an opioid overdose death rate equivalent to Q1 of 2017 (Vieson et al., 2022). Following this spike in 2020, the importance of overdose prevention efforts cannot be overstated. One important intervention for overdose prevention is naloxone distribution. There has been found to be a significant increase in odds of recovery when naloxone is administered by bystanders as opposed to no naloxone administration. (Giglio et al., 2015). This finding highlights the importance of bystanders as a key component in combating the opioid epidemic in Lucas County, Ohio.

**Objectives:** The objects of this study are to examine the trends in opioid-related deaths in Lucas County, Ohio, from 2019 to 2022, to investigate the distribution of naloxone kits in Lucas County from 2019 to 2022, and to assess the change in opioid overdose death rates in relation to the impacts of COVID-19 isolation.

**Methods:** Opioid overdose related death rates were collected from the Toledo Lucas County coroner's office. This data was analyzed, and cases that involved opioids as an incidental finding were removed. Naloxone distribution data was collected by Project Dawn. Community members documented the number of naloxone kits distributed into a survey, and the data is aggregated by the health department.

**Results:** The overall opioid overdose death toll in Lucas County from 2019, 2020, 2021, and 2022 was 265, 296, 276, and 222 deaths respectively. During 2020, 31.8% of the total opioid overdose deaths were in Q2. The number of naloxone kits distributed in Lucas County from 2019, 2020, 2021, and 2022 were 3460, 4150, 7367, and 11530

respectively. In 2020, the number of naloxone distributed per quarter were 558 in Q1, 1167 in Q2, 1323 in Q3, and 1102 in Q4.

**Conclusion:** The findings of this study underscore the alarming rise in opioid-related deaths in Lucas County, Ohio, over the period from 2019 to 2022. The total opioid overdose death toll showed a fluctuating pattern, with a peak in Q2 of 2020, reaching 94 deaths. The distribution of naloxone kits increased substantially after 2020, reflecting ongoing efforts to combat the opioid crisis. This emphasizes the critical need for comprehensive strategies and resources to address the escalating opioid epidemic in the region.