

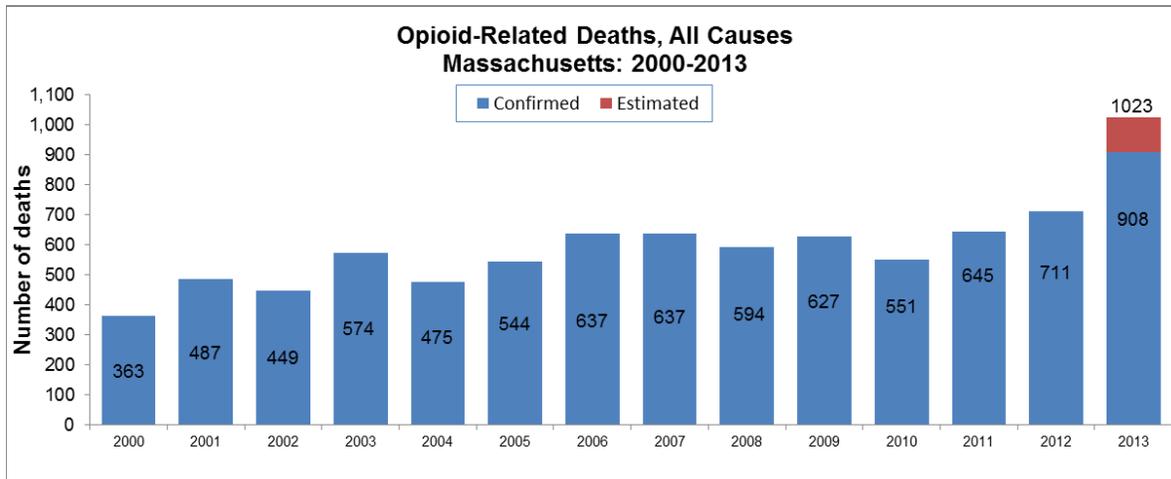


# Data Brief: Fatal Opioid-related Overdoses among MA Residents

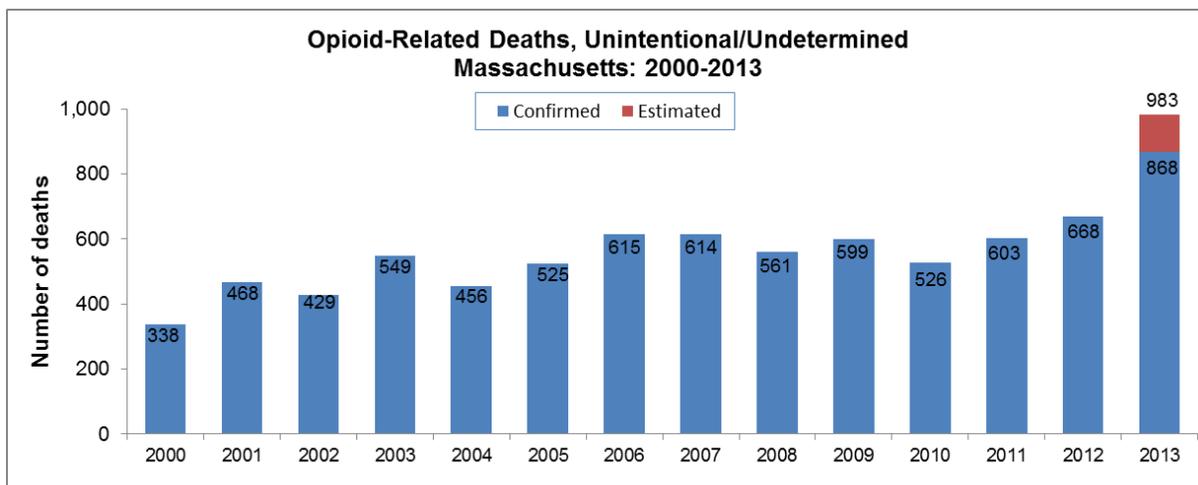
Massachusetts Department of Public Health

December 2014

As of December 18th, 2014 there were 908 confirmed fatal opioid-related overdoses among Massachusetts residents in 2013. This includes 868 that are considered unintentional<sup>1</sup>. At this time, there are still 456 deaths for which a final cause of death has not yet been assigned; therefore, the number of fatal overdoses will likely rise.

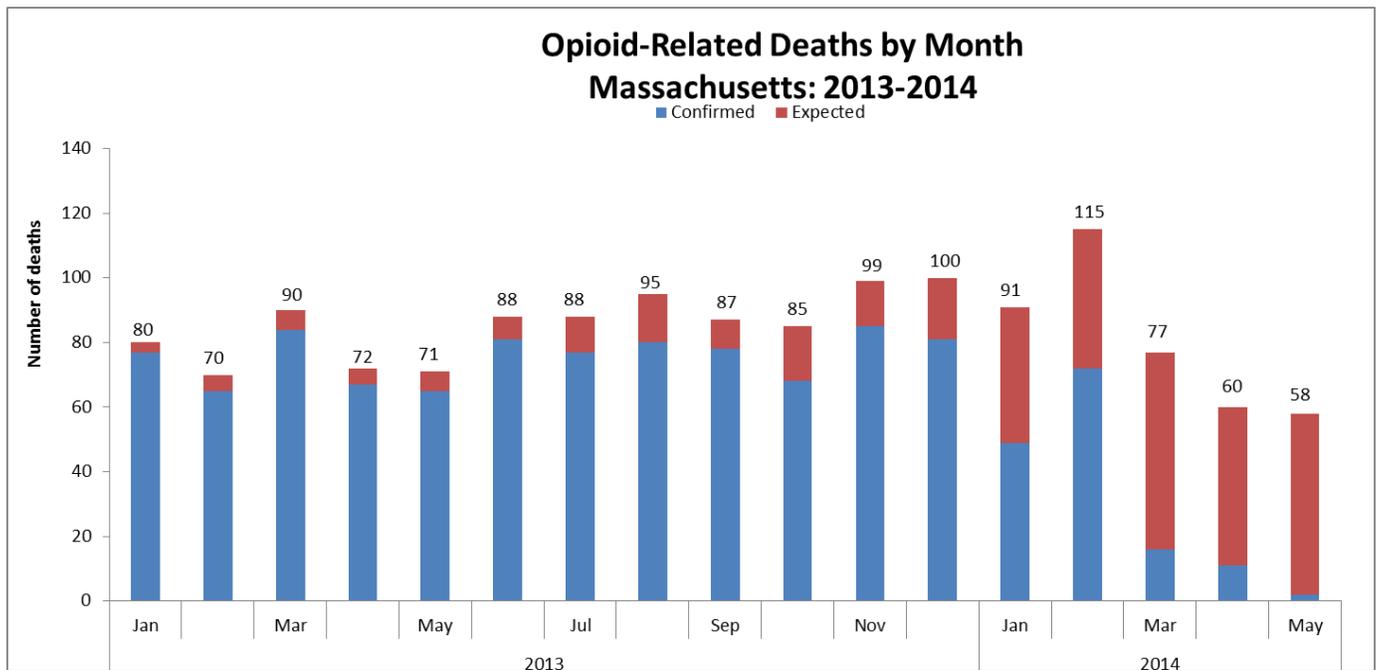


Despite incomplete data, the number of confirmed cases of unintentional overdose already represents a 30% increase over 2012 (n=668). In order to obtain a more timely estimate of the total number of opioid overdose deaths in Massachusetts for 2013, DPH analysts used predictive modeling techniques to estimate the cause of death for all cases not yet certified by the Office of the Medical Examiner. These estimates were tracked through the end of the year in 2014 to confirm their reliability. Based on these modeled estimates and the data available as of 12/18/2014, DPH expects that there will be an additional 115 (95% CI: 101 to 131) unintentional opioid-related fatal overdoses in 2013 making a total of 983 deaths in 2013 (95% CI: 1,009 to 1,039).



<sup>1</sup> Unintentional includes unintentional *and undetermined* intents to account for a change in death coding that occurred in 2005. Opioids include heroin, opioid-based prescription painkillers, and other unspecified opioids. This report tracks opioid-related overdoses due to difficulties in identifying heroin separately. Many deaths related to heroin cannot be specifically coded as such due to the fast metabolism of heroin into morphine and the possible interaction of multiple drugs. To avoid underrepresenting the magnitude of the problem, all unintentional and undetermined opioid-related deaths are tracked.

DPH analysts have also made month-by-month estimates for all of 2013 and the first five months of 2014. In order to stabilize the monthly estimates, we only report data for those months in which at least 80% of deaths have a recorded final cause of death. As this fact is updated, more months will become available.



**Notes:**

The figures cited here are estimates. As estimates, the Department will regularly review the projections as more information becomes available. Should the estimates change to any significant degree, updates will be posted. We used the closed analytic files for the years 2008 – 2012 to create and then refine a model to predict the likelihood that the cause of death for any person will be an opioid-related overdose. We then applied the final model to the 2013 open file to estimate the number of pending cases in 2013 and 2014 that will be an opioid-related overdose. Included in the final model are: age, race, education, gender, year of death, place of death, autopsy status, and latent class geography. We added this estimate to the number of confirmed cases in order to estimate the total number of opioid-related overdoses. In order to ensure stability in the estimates, 2014 numbers are only included for months where at least 80% of records have a final cause of death.