

# LOCAL RESEARCH: Drug-Related Deaths in Ventura County 2008–2014

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## OVERVIEW

According to data from the Centers for Disease Control and Prevention (CDC), drug overdoses have surpassed motor vehicle and firearm fatalities as the leading cause of injury deaths in America. Spurring this trend is the sharp rise in the prescribing, abuse and illegal diversion of prescription opioids. In fact, unintentional overdose deaths involving opioid pain relievers nearly tripled between 1999 and 2014, while our country continues to lose thousands of people to this epidemic.

Ventura County has not been immune. In response to the local upsurge in prescription drug abuse and an associated increase in heroin addiction over the past several years, comprehensive data from the Office of the Medical Examiner are crucial to gain a better understanding of the circumstances and contributing factors surrounding fatal overdoses. Determinations surrounding the cause of death are essential to informing our understanding of the prescription drug abuse and heroin epidemic — not only to understand the scale of the problem, but to develop strategies to systematically mitigate the devastating impacts on our individuals, families and communities.

— PATRICK ZARATE, CHIEF OPERATIONS OFFICER, VCBH

## I. BACKGROUND

Due to growing concern over substance-related overdose deaths, particularly with opioid-based substances and prescription medication, stakeholders in Ventura County sought to explore the extent to which these concerns were an issue within their locale. The Ventura County Behavioral Health Department worked closely with the Ventura County Medical Examiner Office in order to investigate this issue. The intention was to quantify overdose deaths within the community by way of examining the number of annual substance-related overdose deaths reported by the Medical Examiner Office. Over time, the report has evolved to include more nuanced examinations of available variables, and has become part of broader discussions about prevention and intervention efforts within Ventura County to address factors related to overdose fatalities.

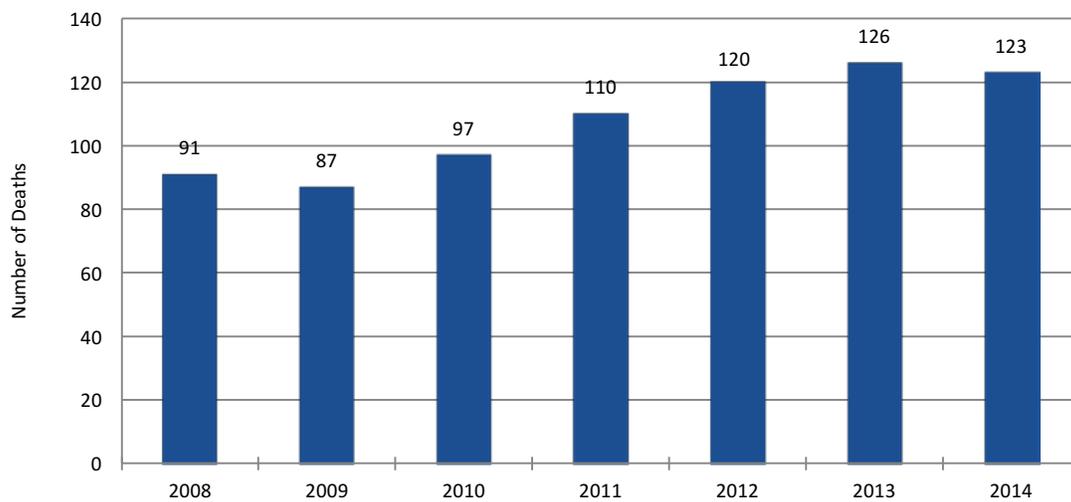
The present briefing attempts to provide an objective look at the annual overdose deaths reported by the Medical Examiner Office between 2008–2014.<sup>1</sup> All data are presented as available at the time of reporting, and correspond to annual data points using consistent search terms and methods. Cases of overdose death in which “intoxication” was listed in the primary cause of death (versus secondary or contributing causes) were included for analysis in this briefing. Unless a death was classified as primarily due to intoxication, it would be difficult to determine whether or not that fatality would otherwise have occurred without the presence of a substance, and thus such cases were not included.<sup>2</sup>

## II. SUMMARY OF FINDINGS

A review of the data presented in the report gave way to **ten overall summary points**:

1. **The overall number of overdose deaths slightly decreased in 2014**, after a progressive increase since 2009 (see *Figure 1*).

*Figure 1*: Total number of overdose deaths by year (N=754).



2. **Prescription drugs account for the majority of the overdose deaths.** The aggregate data from 2008-2014 suggest that prescription drug-related overdose deaths account for the vast majority of the overdose deaths observed (63%), far above and beyond other substance categories (25% alcohol-related, 24% heroin-related, and 18% illicit drug-related). In addition, prescription drug-related overdose deaths consistently are attributed to the majority of overdose deaths each year (see *Figure 2*). All other substance categories have seen fluctuating patterns over time, but have hovered within a much lower range than prescription medications. This pattern remains consistent even when the prescription drug category is separated into opioid and non-opioid prescription drug sub-categories (see *Figure 3*).

Figure 2: Annual number of overdose deaths from 2008-2014, by broad categorizations (N=754).

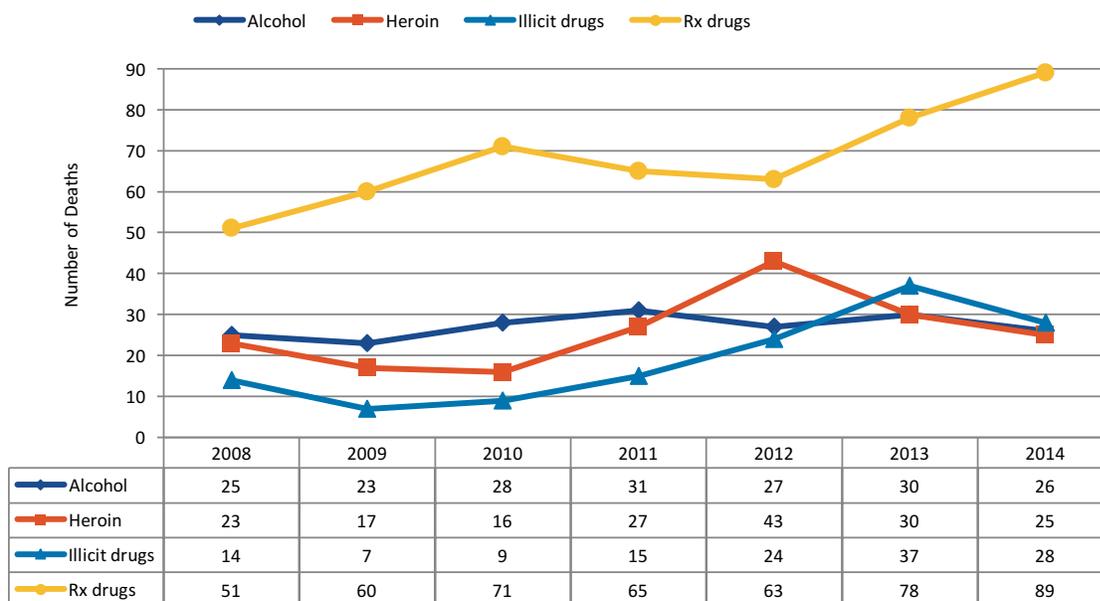
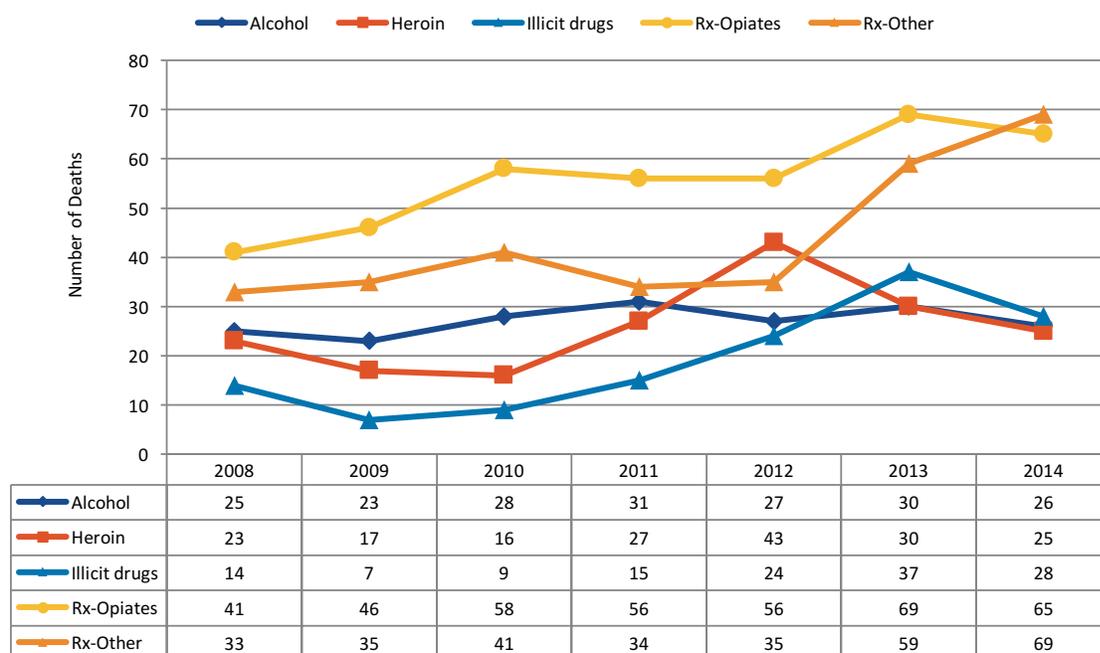


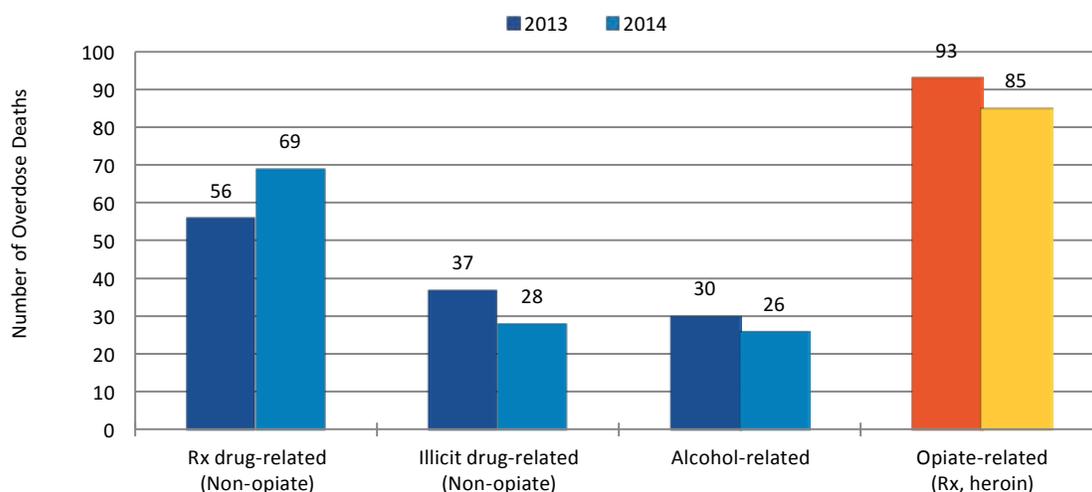
Figure 3: Yearly overdose deaths from 2008-2014, with prescription drug breakouts (N=754).



**3. Prescription drug-related overdose deaths have increased** since the beginning of the data reporting period in 2008. Opioid prescription drugs were the main contributor to overdose deaths in Ventura County from 2008-2013. However, two recent trends appeared: (1) the number of overdoses related to opioid prescription drugs saw a slight dip from 2013-2014, and (2) non-opioid prescription drugs have sharply increased since 2012, surpassing the number of overdoses related to opioid prescription drugs for the first time in 2014 (see *Figure 3*). This suggests that, while the prescription drug overdose problem may have locally been driven by opioid medications, a universal prescription medication issue may be emerging.

**4. The majority of overdose deaths are opioid-related.** This data point was only tracked from 2013-2014; however, the majority of overdose deaths were attributed to opioids (either heroin or opioid prescription drugs) in both years. Notably, a decrease was seen from 2013 to 2014 in the number of these opioid-related overdose deaths. This may coincide with the slight decrease in opioid-related prescription medication overdose deaths noted in Summary #3 above and also reflected in *Figure 4*.

*Figure 4: Total number of opioid and non-opioid overdose deaths from 2013-2014 (N=249).*



**5. Most of the overdose deaths are due to the concurrent use of multiple substances.** 68% of overdose deaths in 2014 were attributed to the use of two or more different substances.<sup>3</sup> This means that only a small percentage (32%) of overdose deaths were related to the consumption of one single substance, while the vast majority consumed more than one. In particular, 26% of overdose deaths were attributed to two substances, 19% were attributed to three substances, and 23% were attributed to four or more substances.

Additionally, there were differences observed in patterns of these rates separately for heroin, prescription medication, and alcohol and illicit drug overdose-related deaths in 2014. These patterns

included: (A) almost half (48%) of the heroin overdose deaths were attributed to heroin taken by itself, and similarly almost half (43%) of illicit drug-related overdose deaths were related to consuming illicit substances only; (B) more than half (58%) of the prescription drug-related overdoses were the result of one Rx drug alone or with additional prescription drugs; and (C) alcohol was more likely to be combined with other categories of substances that led to a fatal overdose (i.e., just 20% of alcohol-related overdose deaths were due to only consuming alcohol).

These data suggest that overdose deaths are often related to the consumption of more than one substance; thus, the challenge of combatting overdose deaths is likely to be multifaceted and not compartmentalized to one type of substance. The findings also suggest that potentially impactful prevention and intervention methods may not be limited to a particular service type or service provider; both medication prescribers and treatment providers alike may benefit from providing information to patients/clients on the risks associated with taking multiple substances, and the potentially lethal interactions between substances. Additionally, the findings suggest that prescribers may benefit from continual monitoring of the number of substances they and other health professionals are prescribing, interactions among prescribed substances, and the number of prescriptions that may be obtained from providers elsewhere.

6. **The majority of the overdose deaths are accidental in nature** (82.5%), as compared to intentional (i.e., suicide) overdose deaths (17.5%). While the number of suicide overdose deaths fluctuates year-to-year (between 14% to 24%), the number hovers within a much lower range than accidental overdose deaths (between 76% to 86%).
7. **There are different and notable patterns in suicide versus accidental deaths.** While the pattern of substances attributed to accidental overdose deaths was similar to that of the overall overdose deaths (see *Figure 2* and *Figure 3*), nearly all of the suicide overdose deaths (96%) were related to prescription drugs. The majority of accidental overdose deaths were also attributed to prescription drugs (56%), but to a much lesser extent. In addition, heroin has never been attributed to a suicide related overdose death in Ventura County. This is interesting to note, given that opioids contribute to the majority of overall overdose deaths. This finding further supports efforts to increase provider monitoring of patient prescriptions and providing overdose prevention education to patients who are opiate-involved.
8. **There are fluctuating patterns of overdose deaths by geographic region; however, West County areas show the highest numbers.** There are fluctuating patterns of overdose deaths by geographic region over the last three years data have been monitored, with Ventura and Oxnard and their surrounding areas consistently contributing more than half of all overdose deaths in Ventura County, based upon where they occurred (59% in 2012, 67% in 2013, and 59% in 2014; see *Figure 5*).

This point is further demonstrated by examining statistics specific to the Oxnard, Ventura and Santa Clara Valley catchment areas in 2014. In 2014, the highest number of illicit drug-related overdose deaths were located in Ventura (46% of all illicit drug-related overdose deaths), as were the highest number of prescription drug-related overdoses (34%). The highest number of heroin-related overdose deaths (40%) was Oxnard. Finally, the catchment areas with the highest number of opioid-related overdose deaths (either heroin or prescription drug-related) were Ventura (31% of all opioid-related overdose deaths) and Oxnard (29% of all opioid-related overdose deaths), and the area with the highest percentage of opioid-related overdose deaths

Figure 5: Overall overdose deaths by year and region.

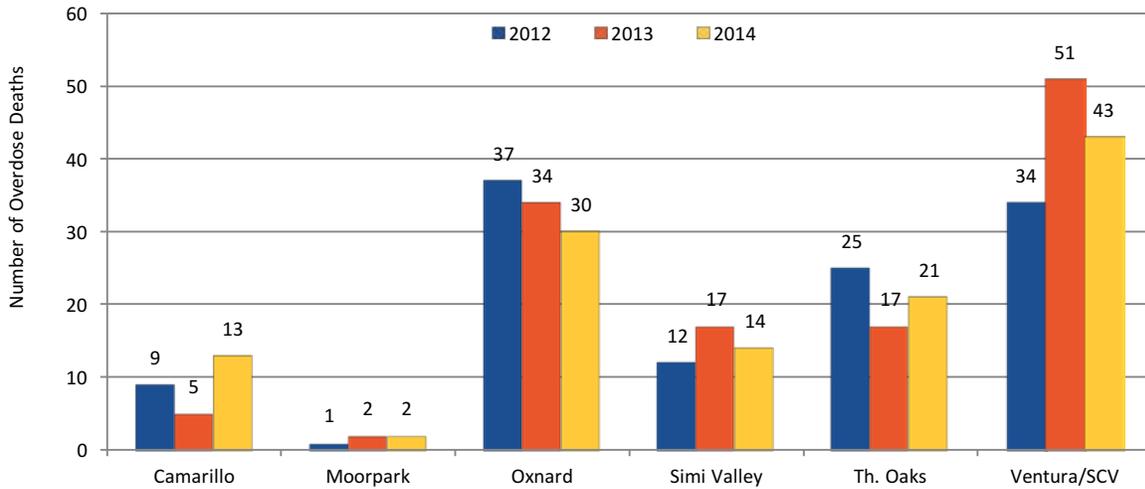
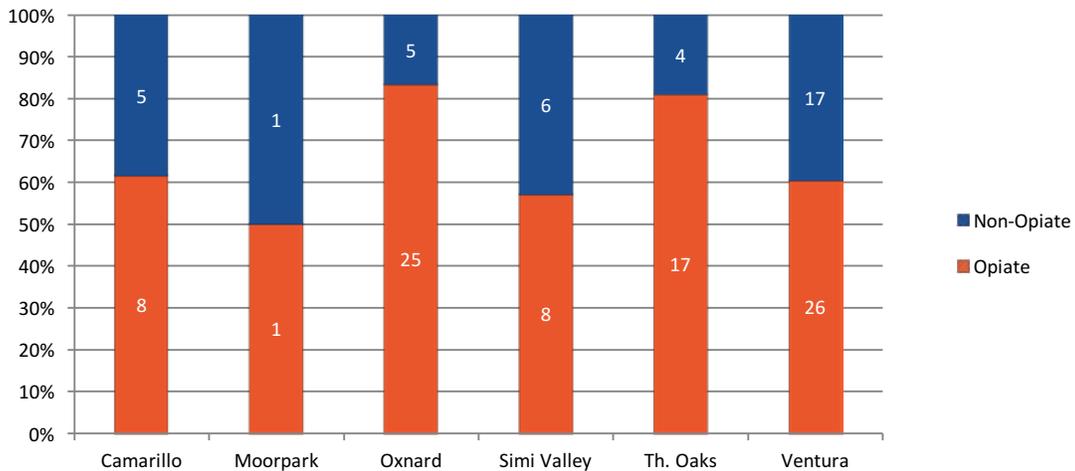


Figure 6: Opioid and non-opioid related overdose deaths in Ventura County in 2014.



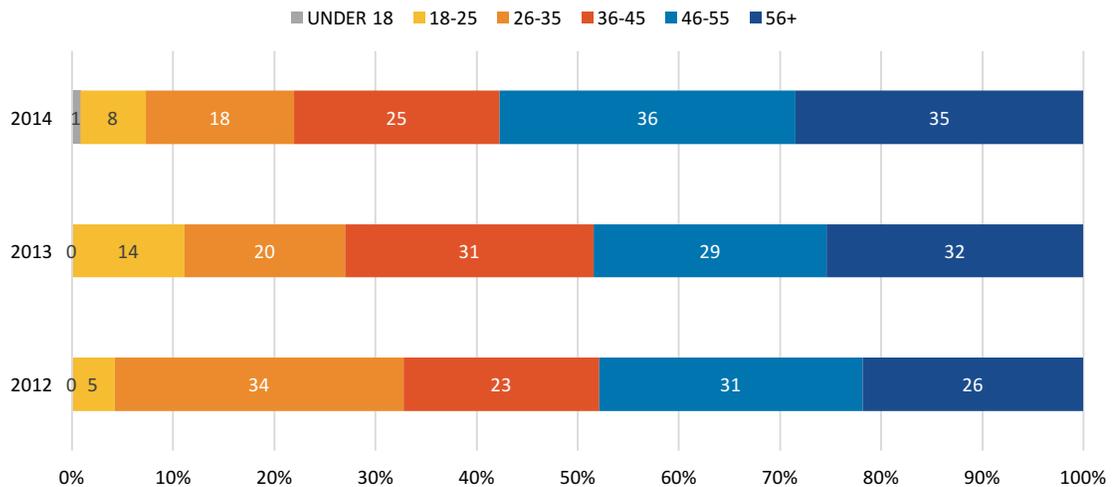
within that specific catchment area was Oxnard (i.e., 83% of all overdose deaths in Oxnard were opioid-related; see Figure 6). The concentration of these overdose deaths in the Ventura and Oxnard areas may be due to high density population areas, or a combination of various other social and ecological factors.

**9. Patterns of overdose death by gender and by age have fluctuated.** There have been several different patterns emerging in the data based on gender and age.

First, the data indicated increasing numbers of females being represented among the deceased (35% in 2012, 36% in 2013, and 44% in 2014), with males tending to be of younger age than females (e.g., the average age of males was 44.8 years old, and the average age of females was 50.1 years old in 2014.).

Second, the average age of individuals in the overdose database has been increasing (average age of 44.4 years old in 2012, 45.1 years old in 2013, and 47.1 years old in 2014; see *Figure 7*).

*Figure 7: Age breakouts of drug overdose deaths, from 2012-2014.*



Third, the following patterns emerged in examining age breakout categories by substance type:

- (A) alcohol related overdose deaths were more frequently represented among 45+ year old populations;
- (B) heroin related overdose deaths were consistently more frequently represented among individuals 35 years old and younger;
- (C) illicit drug-related overdose deaths were consistently trending older from 2012 to 2014;
- (D) the vast majority of prescription drug-related overdose deaths from 2012-2013 were attributed to individuals 35 years old and older, with similar percentages found within the 36-45, 46-55, and 56+ age groups (indicating that this issue is not specific to any one of those age groups); and
- (E) over half (58%) of the opioid-related overdose deaths in 2014 were represented among individuals 46 and older.

Fourth, suicide overdose deaths tended to represent an older demographic than the accidental overdose deaths; the average age for accidental overdose deaths was 45.7 years, while the average age for suicide overdose deaths was 54.6 years in 2014.

These data points suggest that, while the overdose death rates may be driven by opioid misuse, there may be differential demographics on the type of opioid substance that is utilized; heroin tends to be found as a contributor to overdose deaths more often for younger people, while prescription drugs (including opioid medications) contribute more often to the overdose deaths of older populations. Additionally, the data suggest that individuals who use substances to cause intentional overdoses (i.e., suicides) represent older populations, while accidental deaths represent younger populations. Lastly, the data suggest that the overall demographic of overdose deaths is trending toward an increase in females, and a gradually older population.

### III. LOCAL EFFORTS AND PRIORITIES

A wide variety of local efforts have been employed that have specifically targeted the prescription medication and opioid misuse problem locally in Ventura County. The efforts span a wide variety of agencies, stakeholders, types of efforts, and partnerships that have formed in order to raise awareness, disseminate information and resources, and inform prevention, intervention and treatment efforts. There has also been a strong countywide effort to increase the care with which controlled medications are prescribed, monitored and collected for disposal.

Future directions for analysis of countywide overdose data include the gathering of more extensive variables about the individuals who died due to accidental overdose, refinements of data analysis approaches, and continued collaboration with other agencies, to obtain more data in additional contexts that would improve local information about the number and nature of prescription drug and opioid problems – including overdose deaths – in Ventura County annually.

PREPARED FOR:



VENTURA COUNTY  
BEHAVIORAL HEALTH  
ALCOHOL & DRUG PROGRAMS

*Drug-Related Deaths in Ventura County 2008–2014* confirms the urgent need for an ongoing countywide, collaborative approach to protecting and saving lives from the damage of prescription opioid and heroin abuse. As Medical Examiner data from subsequent years are gathered, analyzed and compared with other metrics, we will continue to develop responsive strategies and build resources to drive down the damaging impacts of fatal and nonfatal drug overdoses.

### ACKNOWLEDGMENTS

This report could not have been possible without Ventura County Health Care Agency support of the valuable partnership between Ventura County Behavioral Health and the Ventura County Medical Examiner Office. We would especially like to thank Renee Higgins, MD, Interim Deputy Medical Examiner Director, and Zeb Dunn, Deputy Medical Examiner, for their valuable participation, data sharing, and research exchange.

We also acknowledge the Ventura County Rx Abuse & Heroin Workgroup, and Patrick Zarate, Chair, for continuing dedication to reducing overdose deaths.

### YOU MIGHT ALSO LIKE:

#### ***Rx & Heroin Abuse: Ventura County Responds***

[www.venturacountylimits.org/resource\\_documents/VC\\_RxReport\\_FNL\\_Feb0714.pdf](http://www.venturacountylimits.org/resource_documents/VC_RxReport_FNL_Feb0714.pdf)

#### ***Rx RISK Prescribers Portal & Community Resources***

[www.venturacountylimits.org/prescribers](http://www.venturacountylimits.org/prescribers)

<sup>1</sup> Note that overdose deaths could occur locally but not pass through the Medical Examiner Office. Data derived from the Medical Examiner Office represent a fraction of the overall deaths reported to Vital Records within Ventura County every calendar year. Deaths that are reported to the Medical Examiner Office include: (a) deaths suspected of being related to a homicide, suicide, accidental death, or death due to overdose/drug poisoning; (b) deaths that occurred within 24 hours of admissions to emergency rooms; (c) deaths that are suspected of being related to a public health threat; and (d) deaths where the individual coming into contact with the deceased is unsure of what further actions to take. All deaths are documented by Public Health, including those subsumed under reporting of the Medical Examiner Office. Deaths documented by Public Health also include individuals who die at hospitals, nursing homes, and hospice, or that otherwise are not subsumed under the Medical Examiner criteria and are able to be reported in another manner.

<sup>2</sup> Several additional data nuances exist within overdose death reporting in general, but are beyond the scope of the present research brief.

<sup>3</sup> These data points were analyzed for 2014 data only.