Riverside County

# **HEALTH MATTERS**

### **RIVERSIDE UNIVERSITY HEALTH SYSTEM — PUBLIC HEALTH**

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## **Overdose Incidence Among Youth, Riverside County, 2008-2014**

rust for America's Health (TAH), a national nonprofit group, studied overdose deaths among youth in America for the time period 1999-2013.

Overdose deaths refer to unintentional drug poisoning cases derived from death certificates and include deaths from both illicit and licit drugs consumed for non-medical reasons.

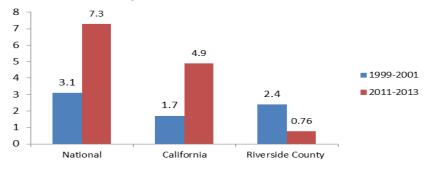
The results of the report published in 2015 showed that overdose deaths among those 12 - 25 doubled in the U.S. and in California over the 15-year period, prompting this review of overdose deaths among youth for Riverside County.

We have chosen the time period from 2008-2014 for this review as it is the most reliable data available for overdose deaths in this age group. From 1999 - 2013, overdose death rates increased from 3.1 to 7.3 deaths per 100,000 for the U.S. and from 1.7 to 4.9 per 100,000 for California.

Another study by the National Injury and Violence Resource Center<sup>1</sup> reported that poisoning is the third leading cause of injury-related deaths in the U.S. among young adults between 20 - 24 and the fifth leading cause of injury-related deaths among those 15 - 19. Although overdose rates among youth between 12 - 25 more than doubled in California from 1999 to 2013, the state still remained among the lowest in the country.

This report seeks to determine how Riverside County compares to the state as it relates to fatal and non-fatal overdose among those 12 - 25.

#### Fig.1 A comparison of Youth Drug Related Overdose Death Rates, 1999-2001 and 2011 - 2013 in the US., California and Riverside County.



### **Key Findings**

In Riverside County...

- Overdose death rates among youth between 12 - 25 were significantly lower for Riverside County compared to the U.S. and the state for the time period 1999-2013.
- Overall death rates decreased in Riverside County by 36% over a seven-year period (2008-2014).
- Between 2008 and 2014, prescription drugs comprised half (50%) of all overdose deaths among youth 12 25 in Riverside County.
- Approximately one-third (30%) of the prescription-related overdose deaths from 2008 2014 involved an opioid, which included oxycodone, methadone and morphine.
- During the time period observed (2008 - 2014), over one-quarter (27%) of all overdose deaths among youth between 12-25 in Riverside County occurred among those younger than 20 and consisted mainly of males (73%) and whites (65.4%).
- Rates of ER visits involving drug overdose among Riverside County youth ages 12 – 25 tripled (from 6.5 to 19.3 per 100,000 youth population) between 2008 - 2014.

### Overdose Death Rates Among Youth (12– 25) in U.S., California and Riverside County<sup>2</sup> 1999—2014

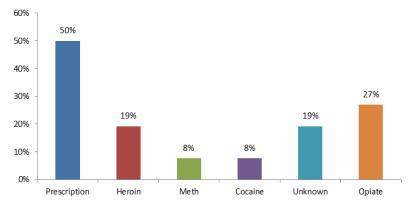
According to the TAH report, referenced earlier, overdose death rates have more than doubled nationally and statewide among youth between 12 - 25 over a 15-year period from 1999 - 2013, while a marked decrease was observed in Riverside County during the same time period (Fig. 1).

A review of mortality data from 2008 - 2014 for Riverside County confirms this report, showing an overall decrease in overdose deaths for this same age group.

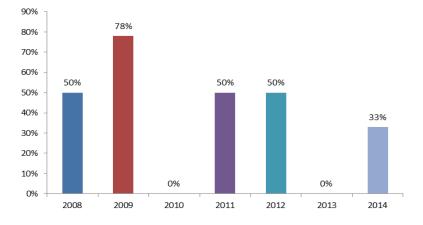
Youth overdose death rates decreased from 1.1 per 100,000 population in 2008 to 0.7 per 100,000 population in 2014 (Fig. 2).

The average number of deaths per year over the seven-year period was 3.7 with an overall decrease by 36% from 2008 to 2014.

### Fig. 3. Percentage of overdose deaths among youth (12–25) by drug type, Riverside County, 2008–2014.



### Fig.4. Percentage of overdose deaths among youth (12 -25) that were prescription-related, Riverside County, 2008 - 2014.

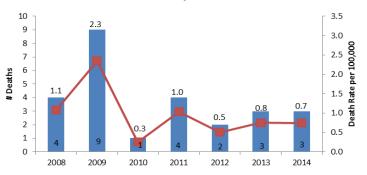


### Demographics

Over one-quarter (27%) of all overdose deaths among those 12-25 in Riverside County occurred among those under age 20 between 2008 and 2014.

In the same age range and within the same time period, whites and males (65.4% and 73% respectively) featured prominently in overdose deaths in Riverside County and over two-thirds of these deaths occurred in the western region.

Fig. 2. Overdose death rates among youth (12-25) Riverside County, 2008–2014<sup>3</sup>



### Prescription Drug-Related Overdose

Further analysis showed that prescription drugs comprised half (50%) of all overdose deaths among youth 12 - 25 in Riverside County from 2008 -2014 (Fig.3). During this time period, over three-quarters (78%) of prescription drug-related overdose occurred in 2009, accounting for the highest percentage within the seven year period (2008-2014).

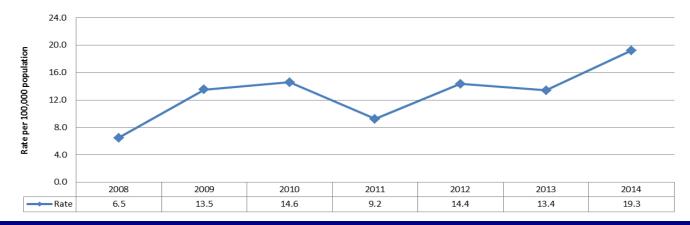
Prescription drug-related overdose comprised half of all overdose deaths in 2008, 2011-2012 and one-third of all overdose deaths in 2014 (Fig.4). Almost one-third (30%) of prescription-related overdose deaths from 2008 - 2014 were reported to involve an opioid, which included oxycodone, methadone and morphine. Oxycodone and methadone are two of the most common drugs involved in prescription opioid deaths<sup>6</sup>. Studies have shown that people who abuse or misuse prescription drugs often obtain them from friends and family who may have not discarded old or used drugs. To address this rise in prescription drug abuse and misuse, the Riverside County Sheriff's Department partners with the U.S. Drug Enforcement Administration (DEA) in a national "Drug Takeback" day initiative, a program that allows anyone to drop off prescription drugs to be appropriately discarded. The first event occurred in 2010 and has continued each year since.

It is interesting to note that the percentage of overdose deaths among youth as a result of prescription drug use also decreased from 2010 - 2014 (Fig.4), with no prescription-related overdose deaths reported in 2010 and again in 2013.

### Emergency Room Visits Attributed to Drug Overdose Among Youth 12 – 25<sup>4</sup>

As noted, death rates for overdose among youth between 12 - 25 were significantly lower for Riverside County compared to the U.S. and the state for the time period 1999 - 2013. To further investigate this, emergency room (ER) visits related to drug overdose among youth between 12 - 25 in Riverside County were reviewed for the period 2008 - 2014. During this time period, the rates of ER visits involving drug overdose among Riverside County youth ages 12 – 25 tripled (from 6.5 to 19.3 per 100,000 youth population). However, a decrease in ER rates was observed in 2011 and 2013 (Fig.5). A likely explanation for the decrease in 2011 and 2013 may be that during this time period, rates of ER visits involving drug overdose for all ages also decreased.

While it is difficult to isolate the specific drug (s) that caused the overdose resulting in the ER visit, one possible reason for the overall increase from 2008 to 2014 could be an increase in prescription drug use and abuse. Rates of ER visits associated with pharmaceutical misuse or abuse increased 117 percent between 2005 and 2011 nationwide.<sup>5</sup> For Riverside County, prescription misuse and/or abuse comprised half of the overdose deaths among youth between 2008 –2014 (Fig.4).



### Fig.5. Rates of emergency room visits involving drug overdose among youth (12-25), Riverside County 2008-2014

### From the Desk of William W. Harris, MPS

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The Riverside University Health System - Behavioral Health Substance Use Prevention Ser-vices focuses on developing and implementing the Strategic Prevention Framework (SPF) plan for reducing alcohol and drug abuse among youth in Riverside County. As indicated in the data above, ER visits involving drug overdose among young people in Riverside County are on the rise. This is one area that our program is focusing on with our current SPF plan. One of the mechanisms of intervention that Riverside County currently uses is the Friday Night Live (FNL) Program.

FNL is a statewide youth development program that is currently active in 50 out of the 58 counties in California. Riverside County has the largest FNL program in the state with over 120 chapters located primarily in school settings. The Standards of Practice for FNL include providing a safe environment, opportunities for community engagement, building meaningful relation-ships, leadership advocacy and skill building. Through these standards of practice, youth can become advocates for change in their communities, and can focus on such things as reducing the access and availability of alcohol and other drugs in their neighborhoods.

Suggested Citation: Napier, Rachaline (2016). Overdose Incidence Among Youth, Riverside County, 2008-2014. Riverside University Health System – Public Health, Epidemiology Program Evaluation. Acknowledgements: Wendy Hetherington, Michael Osur, William Harris.

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