



SOLANO COUNTY GRAND JURY
2016-2017

Opioid Risks in Solano County

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I. SUMMARY

The 2016-2017 Solano County Grand Jury researched health risks and deaths involving opioid pain medications. The protection of the health and safety of our citizens is a prime responsibility of county government.

The pattern of risk factors in Solano County's communities is high according to California's prescription drug monitoring databases [the Controlled substance Utilization Review and Evaluation System (CURES) and the California Department of Public Health Opioid Overdose Surveillance Dashboard]. The number of patients at risk of death from high dose narcotic pain medications or from risky combinations of medications involving opioids is large. Medical providers within the county are not utilizing available safeguards against patient misuse or abuse.

The 2016-2017 Solano County Grand Jury found no evidence of a coordinated local response to the evolving opioid epidemic by Solano County health and public safety agencies.

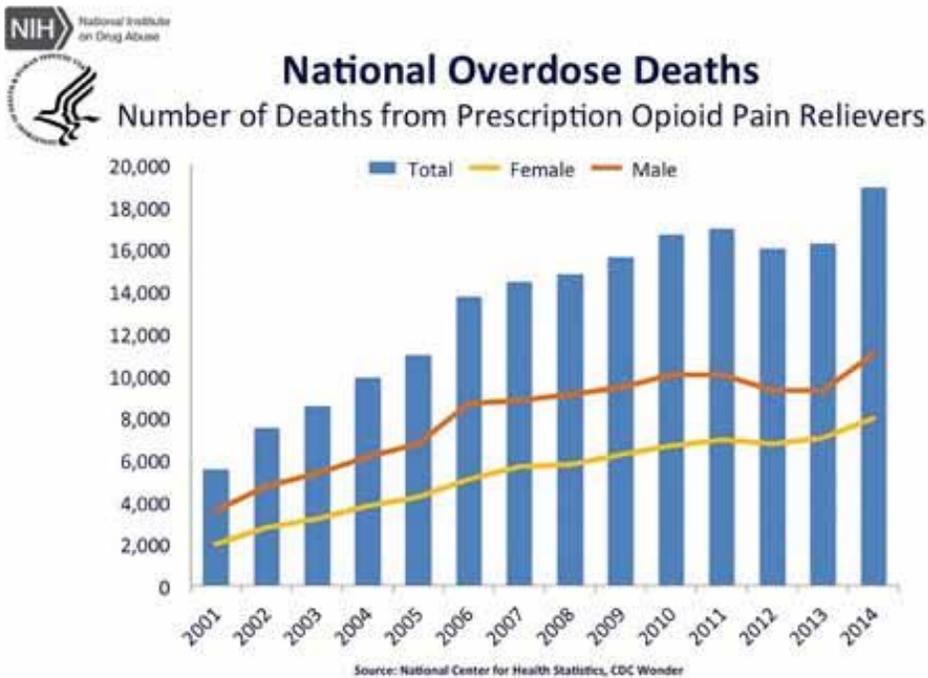
Several California counties have established multi-agency community task forces to combine local efforts to produce measurable reductions in risk factors and a lessening of the adverse health impact of an opioid epidemic. These programs provide a model for a more effective detection, investigation and mitigation of opioid abuse, misuse and death.

II. INTRODUCTION

The 2016-2017 Solano County Grand Jury examined the problems associated with opioid pharmaceuticals within the county. The problem has received wide press coverage and is the subject of increasing public concern.

The National Institute for Drug Abuse defines opioids as a class of drugs that are powerful pain relievers. Originally derived from the opium poppy, this class includes the illegal drugs opium and heroin, as well as a host of newer semi-synthetic and synthetic medications available legally such as oxycodone (Oxycontin ®), hydrocodone (Vicodin ®), codeine, morphine, fentanyl and many others. The Drug Enforcement Administration (DEA) classifies opioids and other drugs into three schedules (II, III, and IV) related to their abuse potential and relative risks. These drugs are chemically related and interact with opioid receptors in the brain and body. Opioid pain relievers are generally safe when prescribed as part of a medically supervised treatment plan and taken for a short time, but they are frequently misused (taken in a different way or in a greater quantity than prescribed, or taken without a prescription) because they produce euphoria in addition to pain relief. Regular use – even as prescribed– can produce dependence and when misused or abused, opioid pain relievers can lead to fatal overdose.

The epidemic of drug overdose (poisoning) deaths across the United States is growing. In 2014, 47,055 drug overdose deaths occurred nationally, 28,647 (60.9%) involved an opioid, a one-year increase of 6.5%. Opioids, predominantly the prescription pain relievers and heroin, are the main drugs associated with these deaths. The death rate from the most commonly prescribed opioid pain relievers increased 9%, the death rate from heroin increased 26%, and the death rate from synthetic opioids, a category that includes illicitly manufactured fentanyl and synthetic opioid pain relievers other than methadone, increased 80%. Nearly every aspect of the deadly opioid overdose epidemic worsened in 2014 as shown in the chart below from the National Center for Health Statistics.



The CDC reported that between 2009 and 2014, there were 50 opioid deaths in Solano County. Of these, 48 resulted from the misuse of prescription narcotic pain medications.

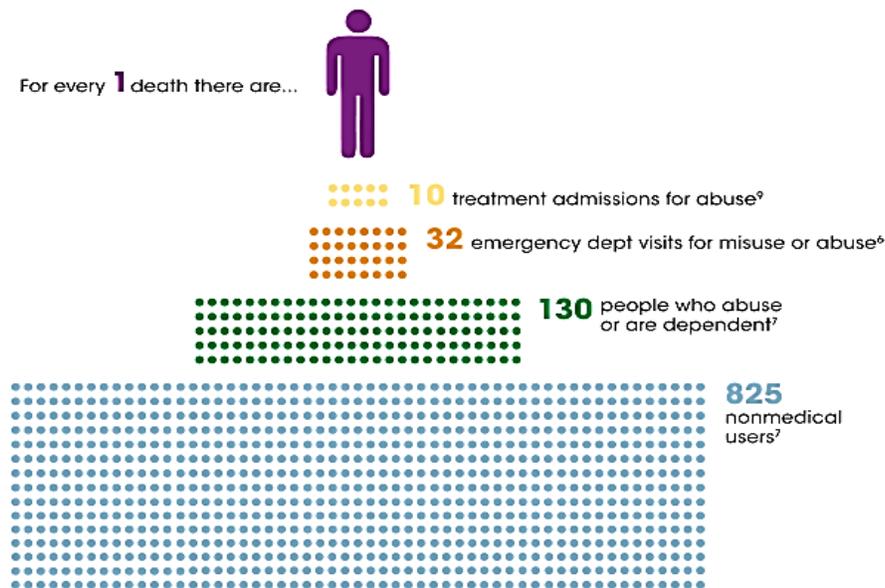
The California Department of Public Health recorded 56 deaths of Solano County residents due to opioid poisoning or suicide during 2013, the most recent year for which data is available. An additional indicator of the magnitude of the health impact is that, during 2013 and 2014, there were 275 non-fatal Emergency Department visits and 101 non-fatal hospitalizations due to opioids in Solano County. California Health Rankings reports that, on an annual basis, Solano County experienced 12 to 14 opioid deaths, 10 motor-vehicle crash deaths and 9 homicides per year.

Drug overdoses nationally involving opioids are the most frequent cause of death and kill more people than motor vehicles, breast cancer or firearms according to the Centers for Disease Control and Prevention (CDC). Preliminary data from the CDC and National Institutes of Health indicate that more people died from drug overdoses in 2015 than any previous year on record.

As noted above, data collected on the opioid problem in Solano County from the various agencies tracking the issue is not consistent. As an example, the Sheriff-Coroner's Office has only recently added Fentanyl to its data base as an additional cause of death.

Studying deaths due to opioid poisoning provides an indicator of the magnitude of the more serious, overlying local problem of prescription pain medication abuse and diversion within our community.

The following graphic from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, illustrates the scope of the problem.



Graphic: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

The opioid problem in California is not new. In 1939, the California Attorney General's office established a prescription drug-monitoring program to track the sources and recipients of prescription narcotics. For each prescription for a controlled substance, the patient name, the prescribing provider and dispensing pharmacy are recorded in CURES. In the early 2000's this was expanded to include Schedule III and IV controlled substances and access was made available on-line. The CURES database is intended to be used by providers and dispensers at the point of service to screen for indications of opioid abuse or misuse by a patient requesting a prescription for a controlled substance. California Health and Safety Code §11165(d) requires all prescribers, dispensing pharmacies, clinics, or other dispensers to report prescriptions dispensed for Schedule II, Schedule III, or Schedule IV controlled substances to the United States Department of Justice (DOJ).

Currently, the use of the patient search function of CURES prescription database by California opioid prescribers and dispensers is not mandatory as it is in Massachusetts.

San Diego and Marin Counties have established effective opioid harm reduction programs. The SanDiegoSafePrescribing.org prescription drug abuse task force and the RxSafeMarin.org task force have produced measurable decreases in the opioid-related burden of healthcare.

Marin County has combined the resources of the Public Defender's office, the District Attorney's office, the Office of Education and the Department of Health and Environmental Services with the Marin Medical Society to create an opioid task force. Since its program began several years ago, Marin County has realized a reduced total amount of opioids prescribed by providers, fewer opioid related hospitalizations and, significantly, a measurable decrease in the local death rate due to opioid poisoning.

Marin County's Environmental Health Services year-round drug take-back program collected 7,073 pounds of unused prescriptions during 2015. Solano County's drug take-back events collected 4,214 pounds of prescription medications at eleven events during 2015.

III. METHODOLOGY

In order to understand the nature and extent of the opioid epidemic, the 2016-2017 Solano County Grand Jury conducted the following:

Reviewed and Researched:

- California codes regulating the investigation, reporting and analysis of the manner of death
- California and Federal resources reporting on the opioid epidemic, actions taken to control the problem
- Investigative journalism about the opioid epidemic
- California Department of Public Health Vital Statistics Query System
- Public portal of the Attorney General's CURES (Controlled substance Utilization Review and Evaluation System) prescription drug monitoring database
- California Department of Education, California Healthy Kids and California Student Survey
- California Opioid Surveillance Dashboard created by the California Department of Public Health (CDPH), Office of Statewide Health Planning and Development (OSHPD), Department of Justice, and the California Health Care Foundation
- RxSafeMarin.org and SanDiegoSafePrescribing.org websites

Interviewed:

- Solano County Department of Health and Social Services subject matter experts
- Personnel of the Solano County office of Vital Statistics
- Personnel of the office of the Solano County Sheriff-Coroner

IV. STATEMENT OF FACTS

The 2016-2017 Grand Jury examined the Solano County Sheriff-Coroner's role in identifying and reporting deaths involving opioids. The Grand Jury investigated the Sheriff-Coroner's office and its relationship with the Solano County Department of Health and Social Services and found:

- The Solano County Sheriff-Coroner's office performs toxicology screens on most of the reportable cases investigated. Drugs present on the toxicology screen are recorded in the case file. Only the presence of a single opioid, Fentanyl, is currently recorded in the Coroner's database.
- The Sheriff-Coroner's office is not informed of many of the opioid-related deaths occurring in the county because they occur in community medical facilities. California's Government Code Section § 27491 states that, "It shall be the duty of the coroner to inquire into and determine the circumstances, manner and cause of all violent, sudden or unusual deaths; ... (including) suicide, or accidental poisoning; drug addiction, strangulation, aspiration... or deaths known or suspected as due to contagious disease and constituting a public hazard..." all of which apply to the epidemic of deaths involving opioids. Despite the regular provider telephone reporting process for attended or unattended deaths, there are failures of notification and there is no routine consultation between the Sheriff- Coroner's office and local pathologists concerning cause of death.
- Currently there is no way to search the Coroner's automated database for the presence of specific opioids identified on a toxicology screen, other than Fentanyl, as an additional underlying cause of death. Retrieval of this information requires a hand search of records. There is no tracking or analysis of the identity or source of opioids found as an additional cause of death.
- Sheriff-Coroner's office investigators at the scene of an apparent suicide collect drugs and prescription bottles. Their procedures do not include a query of the California Attorney General's CURES prescription drug monitoring database for data on the decedent or to investigate for possible causative factors in common with other deaths.
- The Grand Jury interview with the Solano County Department of Health and Social Services subject matter experts revealed discrepancies between the data produced by their department and the Sheriff-Coroner's Office.

California Attorney General’s prescription drug monitoring data for Solano County:

Data from the public portal of the California Attorney General’s CURES prescription database provides an insight into the magnitude of the problem in our county. In 2015, there were more than 843 opioid prescriptions provided per 1,000 Solano residents. The combined total of opioid prescriptions written in 2015 amounted to over 28 million opioid pills dispensed within Solano County.

Closer analysis of the Attorney General’s 2015 CURES data on opioid prescriptions in Solano County provides an indication of the magnitude of local risk of death from opioid poisoning:

- **168** Solano County residents obtained six prescriptions from six or more dispensers during the prior six months, a number that increased by 17.4% between 2012-2015. The CDC defines this pattern as an indicator of ‘doctor shopping’, or seeking multiple sources to avoid physician supervision and detection of abuse or diversion.
- **619** Solano County providers prescribed both opioids and sedatives of the benzodiazepine class, such as Valium, concurrently. Respiratory depression is a common effect of the benzodiazepines as well as opioids, increasing the risk of death.
- **3,108** Solano County patients received controlled drug prescriptions from their providers for all three schedules of controlled substances (Schedule II, III, and IV), increasing the risk of multiple drug toxicity.

Solano County Opioid Overdose Death Risk: 2013

Solano County ZIP code	City	Overdose Deaths/100,000
94591	Vallejo	6.77
California	(overall)	4.79
94510	Benicia	4.61
94533	Fairfield	4.44
94590	Vallejo	4.38
95687	Vacaville	3.19
Solano County (Dixon, Rio Vista and City of Suisun City recorded no overdose deaths during 2013)	(overall)	2.67

Source: Calif. Dept. of Public Health: Vital Statistics Multiple Cause of Death Files and California Opioid Overdose Surveillance Dashboard. https://pdop.shinyapps.io/Oddash_v1/

Locations of the primary sources of controlled substances in Solano County and the prevalence of prescription opioid risk factors within those areas during 2015.

Solano County medical facility locations by zip code	Patients with Rx for same opioid from >3 providers (see note 1)	Prescribers of more than 580 opioid Rx's per year (see note 2)	Prescribers of both Opioids and sedatives concurrently (see note 3)	Patient Rx's for schedule II, III, AND IV controlled drugs concurrently (see note 4)	Patients given 6 Rx's from 6+ providers in prior 6 months (see note 5)
94533 Fairfield	2487	28	119	4285	18
94535 Travis AFB	11	0	10	40	0
94589 N. Vallejo	964	44	204	5478	10
94590 S. Vallejo	1630	3	25	614	26
94591 E. Vallejo	1511	3	16	1228	18
95687 S. Vacaville	2347	5	40	1816	16
95688 N. Vacaville	1217	39	116	5009	15

Chart represents 2015 data taken from the California Attorney General's CURES database public portal.

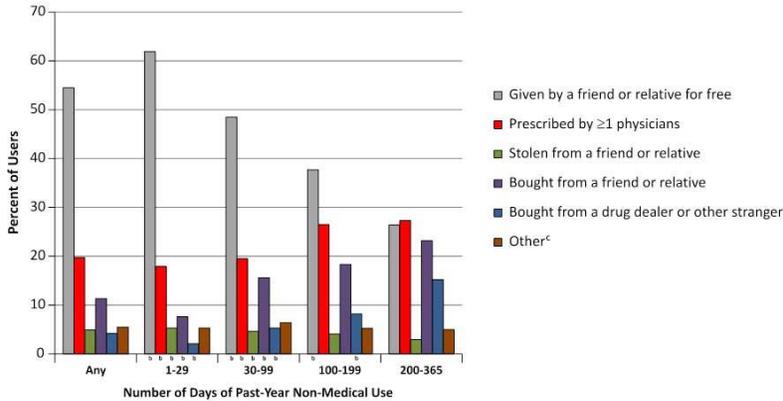
Notes--Explanation of Risk factors:

- 1.) Patients receiving prescriptions the same controlled substance from more than three providers have an increased potential that their opioid treatment program is not being monitored for effectiveness nor actively managed to progress toward treatment conclusion.
- 2.) Controlled substance prescriber frequency is rated as Rare (1-7 Rx/Yr.), Occasional (8-48 Rx/Yr.), Frequent (50-579 Rx/Yr.), and Very Frequent Prescribers (580+ Rx/Yr.). Very high volume prescribers are less likely to be able to monitor individual patient opioid treatment plans effectively.
- 3.) Studies of opioid deaths show that the combination of opioids and sedatives of the benzodiazepine class, both of which produce respiratory depression, can increase the risk of death significantly.
- 4.) Patients being prescribed multiple controlled substances simultaneously are at increased risk for adverse drug interactions and unintended side effects.
- 5.) Patients seeking multiple prescriptions for controlled substances from multiple providers are considered to demonstrate the high-risk behavior of 'doctor shopping'. Since no single provider is monitoring a coherent treatment program for the patient, there is significant risk of diversion, abuse and complications arising from uncontrolled use.

Opioid pill availability within our communities:

Unused prescription medications add significantly to the risk of abuse or diversion. The following illustration shows a study of common source factors in opioid misuse. The street value of the most commonly prescribed opioids is \$10-15 per pill providing a strong incentive for diversion.

Sources of Prescription Opioids Among Past-Year Non-Medical Users^a



^a Obtained from the US National Survey on Drug Use and Health, 2008 through 2011.⁵

^b Estimate is statistically significantly different from that for highest-frequency users (200-365 days) ($P < .05$).

^c Includes written fake prescriptions and those opioids stolen from a physician's office, clinic, hospital, or pharmacy; purchases on the internet; and obtained some other way.

SOURCE: Jones C, Paulozzi L, Mack K. Sources of prescription opioid pain relievers by frequency of past-year nonmedical use: United States, 2008–2011. *JAMA Int Med* 2014; 174(5):802-803.

The 2016-2017 Solano County Grand Jury examined the risk of death as an indicator of the broader problem of opioids in our communities. The problem of health-risk behaviors among adolescents is a significant public health concern. Prescription medication misuse in high school students has been shown to lead to impaired learning and poor health outcomes including addiction and overdoses. The following indicator, self-reported drug use in Solano schools, is from a statewide survey administered by the California Department of Education.

**Recreational Use of Prescription Drugs in Lifetime
(Student Reported) : 2011-2013**

Solano County School District	Recreational use of Rx drugs by 11 th Grade	None
Solano County Overall	23.8%	76.2%
Benicia Unified	18.8%	81.2%
Dixon Unified	(<25 responses)	(<25 responses)
Fairfield-Suisun Unified	24.7%	75.3%
Travis Unified	20.0%	80.0%
Vacaville Unified	19.1%	80.9%
Vallejo City Unified	18.9%	81.1%

Definition: Percentage of public school students in grades 9, 11, and non-traditional students reporting whether they have ever used prescription drugs recreationally. Data source: kidsdata.org, California Department of Education, California Healthy Kids Survey and California Student Survey (WestEd)

Opioid provider professional responsibility and due diligence:

The California Attorney General’s CURES database is available on-line and is intended to be searched by medical providers, veterinarians, pharmacists, law enforcement and licensing boards to protect the integrity of the process of prescribing and dispensing controlled substances. A CURES query is intended to bring to the prescriber’s attention patients seeking drugs from multiple providers, receiving excessive amounts of controlled substances, or exhibiting indicators of abuse, misuse or diversion. The total number of CURES database inquiries by the **786** prescribers and **302** dispensing pharmacies registered in Solano County during 2015 was: **0 (zero)**.

V. FINDINGS AND RECOMMENDATIONS:

Finding 1 – The Sheriff-Coroner’s office is not using available resources to identify and investigate opioid deaths within Solano County.

Recommendation 1 a. - The Sheriff-Coroner’s office expand their identification and investigation of deaths involving opioids using the Attorney General’s prescription drug monitoring CURES database.

Recommendation 1 b. - The Sheriff-Coroner’s office expand its database in order to track and analyze local trends in the presence of all opioids as an additional cause of death.

Recommendation 1 c. - The Sheriff-Coroner’s office expand investigation of opioid-related deaths within the county and provide information to the appropriate state agencies.

Finding 2 - Solano County Health and Social Service department lacks a coordinated response to the problem of opioid- related deaths.

Recommendation 2 - Solano County Department of Health and Social Services perform a collaborative inter-agency review of deaths involving opioids.

Finding 3 – Solano County Department of Health and Social Services and the Solano County Sheriff-Coroner’s office failure to collaborate and utilize accurate and timely data on opioid deaths precludes these agencies from taking coordinated actions to control and mitigate the harm caused by opioids in our community.

Recommendation 3a – Involve all public health resources in the investigation of Solano County opioid- related health risks. The Sheriff-Coroner’s office provide these data to other county agencies on a regular basis.

Recommendation 3b- Solano County Department of Health and Social Services and the Solano County Sheriff-Coroner’s office collaboratively engage the Solano County Board of Supervisors to consider the establishment of a task force that will combine the expertise of the District Attorney, the Coroner, the Public Health Officer and the Office of Education to establish a program to monitor and investigate deaths, identify recurring risk factors and take positive steps to address the harm caused by opioids within our community.

Finding 4 - The Solano County Department of Health and Social Services does not use the CURES database to detect, dissuade and deter high-risk opioid prescribing patterns or identify drug-seeking behavior.

Recommendation 4 - The Solano County Department of Health and Social Services monitor Solano County providers and dispensers use of the CURES database.

Finding 5 – The 2016-2017 Solano County Grand Jury has found that Solano County lacks a continuous year-round program to recover unused prescription medications from the more than 28,000,000 pills of Schedule II opioids dispensed within our communities during 2015.

Recommendation 5- Solano County Department of Health and Social Services establish an effective year-round prescription drug take-back program.

COMMENTS

Each death or opioid related event should be tracked by the Sheriff-Coroner's office through the CURES database which tracks all prescription drugs by patient, pharmacy and provider. The investigation results should be analyzed for recurrent factors and shared with relevant county agencies.

If investigation of the circumstances warrants, the Public Health Officer may use his or her statutory enforcement powers in order to protect the health, safety and welfare of all persons in the county under California Health and Safety Code § 101070.

A secure, year-round prescription drug collection program in each community will lessen the opportunity for diversion and misuse of medications that are no longer medically necessary.

REQUIRED RESPONSES:

SOLANO COUNTY BOARD OF SUPERVISORS:	3B
SOLANO COUNTY SHERIFF-CORONER:	1A, B, C, 3A, B
DIRECTOR --HEALTH AND SOCIAL SERVICES:	2, 3 B, 4, 5

COURTESY COPIES

Kaiser Permanente Hospitals

North Bay Health Care

Sutter Solano Medical Center

Napa-Solano Medical Society

David Grant Medical Center

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“Legal Drugs, Deadly Outcomes”, S. Glover, L. Girion, et al; (4-part series) November 11, 2012, Los Angeles Times.

“An Analysis of the Root Causes for Opioid-Related Overdose Deaths in the United States”, L. Webster et al, Pain Medicine 2011; 12: S26-S35.

“State of California Strategies to Address Prescription Drug (Opioid) Misuse, Abuse, and Overdose Epidemic in California”, California Department of Public Health, June 2016.

“Increasing Trends in Schedule II Opioid Use and Doctor Shopping during 1999-2007 in California”, H. Han et al; Pharmacoepidemiol Drug Saf. 2014 January; 23(1): 26-35.

RxSafeMarin.org

California Department of Public Health database for hospitalizations:
<http://epicenter.cdph.ca.gov>

California Department of Education, California Healthy Kids Survey and California Student Survey: www.chks.wested.org

www.SanDiegoSafePrescribing.org

Office of the Attorney General, California Schedule II-IV Drug Acquisition, Prescription and Dispensation Public Statistics: <https://oag.ca.gov/curer/statistics>

California Department of Public Health Opioid Overdose Surveillance Dashboard:
https://pdop.shinyapps.io/ODdash_v1/

Massachusetts Prescription Awareness Tool (MassPAT): Subsection (c) of Section 24A of the General Laws, as amended by Section 27 of Chapter 52 of the Acts of 2016