UNINTENTIONAL DEATHS DUE TO MEDICATIONS, ALCOHOL, AND ILLICIT DRUGS

The following graphs represent medications, alcohol, and prescription drugs that were either alone or in combination responsible for being the primary cause of death or contributing to the death. In other words, these substances were on the death certificate as having played a role in the death. In this publication, the word "drug" refers to illicit drugs and the word "medication" refers to medications.

In some cases, the intoxication contributed to the circumstances of the death and were required for an explanation of those circumstances, such as drowning in a bathtub while intoxicated (neurologically intact, sober adults should not drown in a bathtub unless they are unwilling or unable to sit up). However, in other cases – such as motor vehicle fatalities – although the crash may have been made more likely to occur because of the intoxication, by convention we do not include intoxications as part of the cause of death in these circumstances. The deaths were due to the physical injuries.

Where numbers of deaths related to a particular drug or medication are provided, one should not add the different values to reach a total. This is because several medications may be involved in one case. In other words, the same case may be represented multiple times by different drugs or medications.

Unless otherwise specified, this data is based on occurrence of the drug or medication on the death certificate. In other words, this represents substances that were the primary cause of death or contributed to the death.

Some notable trends:

1. 2010 continued the steady increase in drug/medication related deaths seen over the last 5 or 6 years, the main drivers being narcotics (opiates and their derivatives) and hypnotic and sedatives.

2. Heroin continued its third year of playing an increasing role in deaths – particularly those under 25, including 6 in their teens in 2010.

3. Heroin was the number one cause of drug/medication related deaths for those under 30 years of age. This included 6 teenagers in 2010 (there was one other

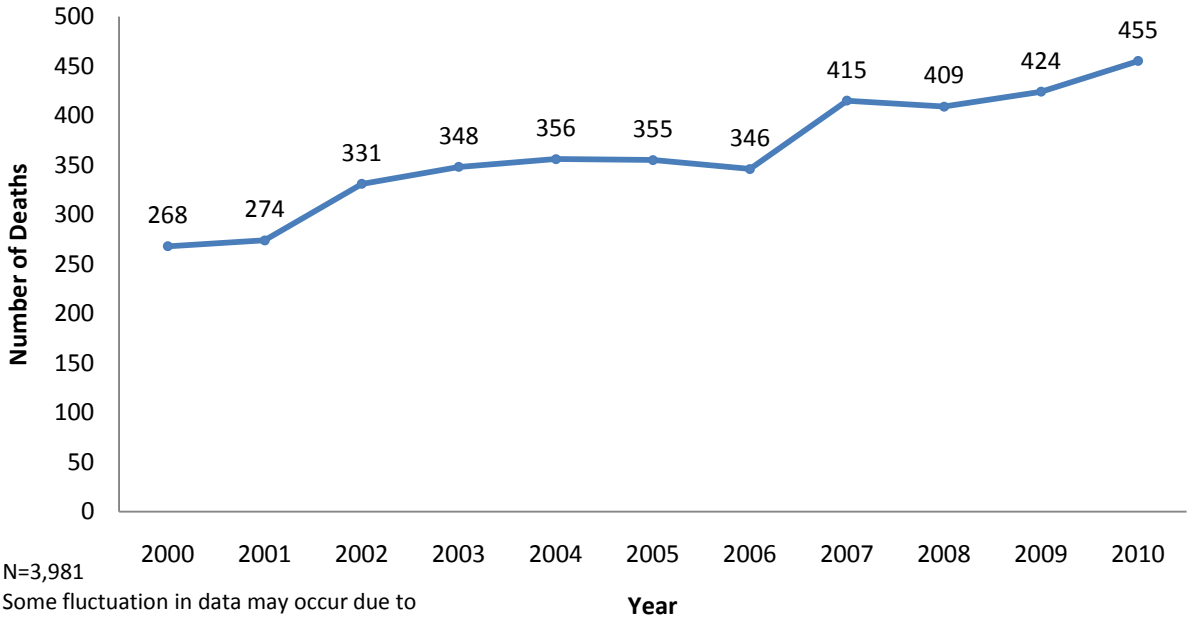
that died of heroin withdrawals). 2010 saw as many teenage heroin deaths as the last 10 years combined.

4. Methamphetamine was still the number one cause of drug/medication related deaths for the population as a whole, saw a spike back up to 2005 levels this year, and is the number one cause in those between 40 and 60 years of age.

5. Since the sharp increase in deaths related to oxycodone in 2008, the number of deaths has remained relatively stable and was surpassed by the number of methadone deaths in 2010.

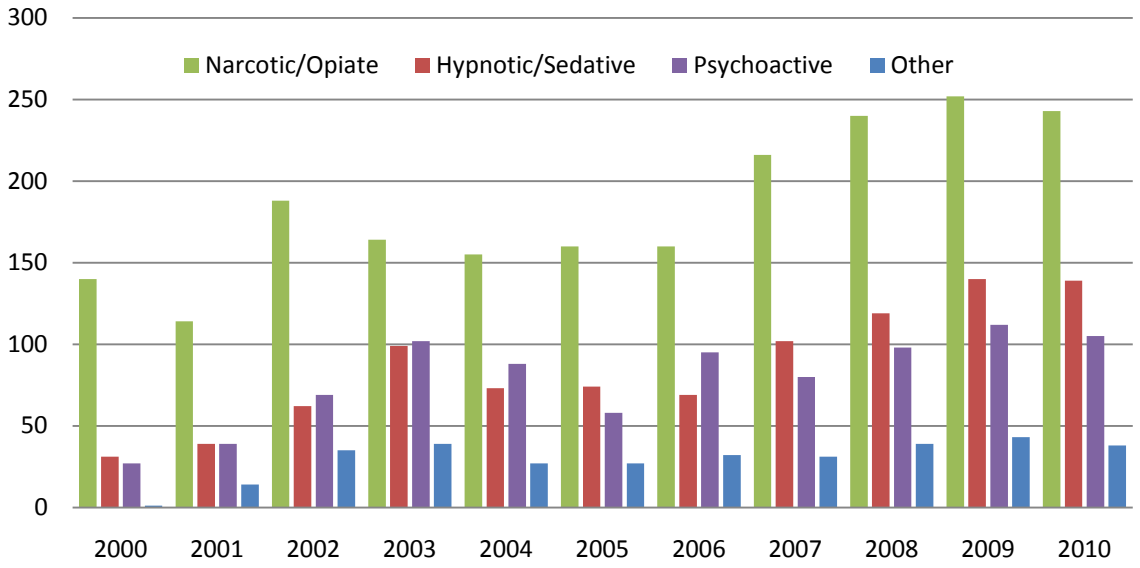
6. Cocaine remains low in frequency since its drop in 2008 compared to methamphetamine and heroin deaths.

UNINTENTIONAL DEATHS DUE TO DRUGS, MEDICATIONS, AND ALCOHOL, 2000 – 2010



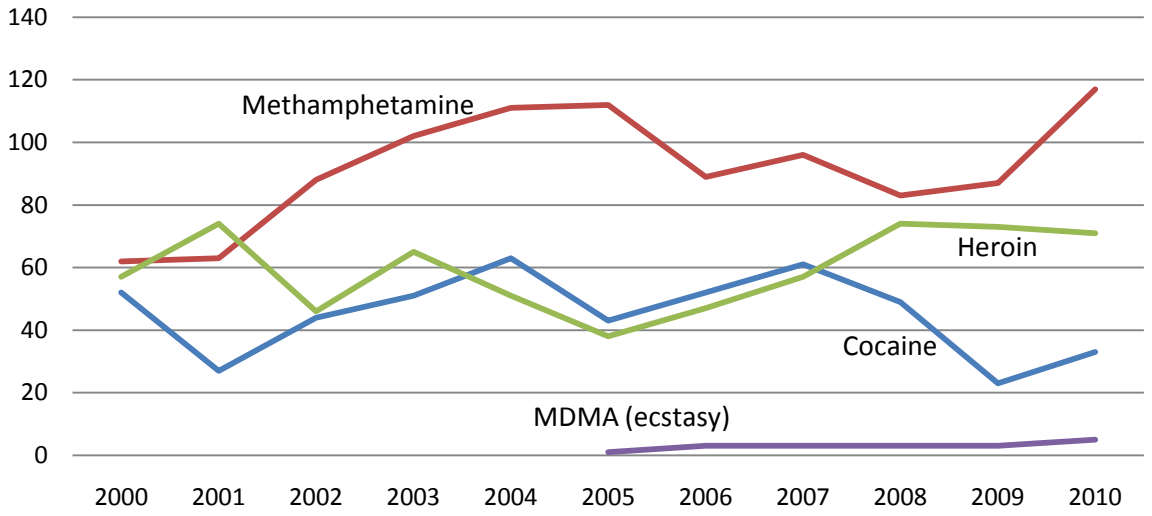
N=3,981
Some fluctuation in data may occur due to variations in death certification practices.

UNINTENTIONAL DEATHS DUE TO PRESCRIPTION MEDICATIONS, 2000 – 2010



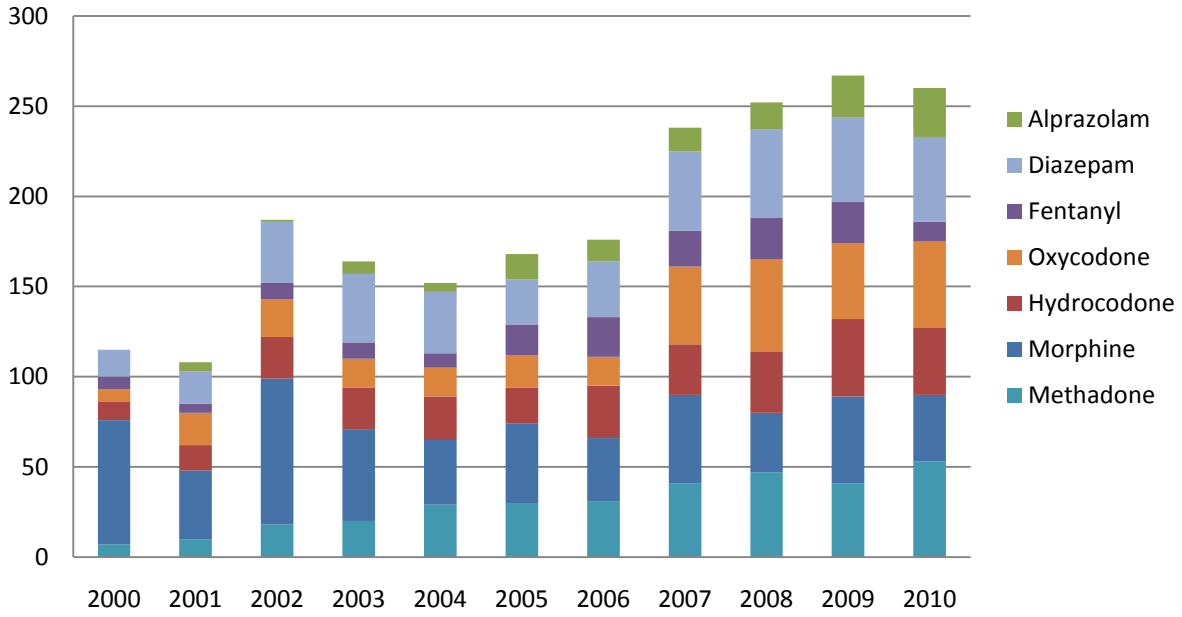
Note: Because an individual case may be due to a combination of medications, the medications are not mutually exclusive.

UNINTENTIONAL DEATHS RELATED TO ILLICIT DRUGS, 2000 – 2010



Note: Because an individual case may be due to a combination of medications, the medications are not mutually exclusive.

UNINTENTIONAL DEATHS RELATED TO SELECTED MEDICATIONS, 2000 – 2010

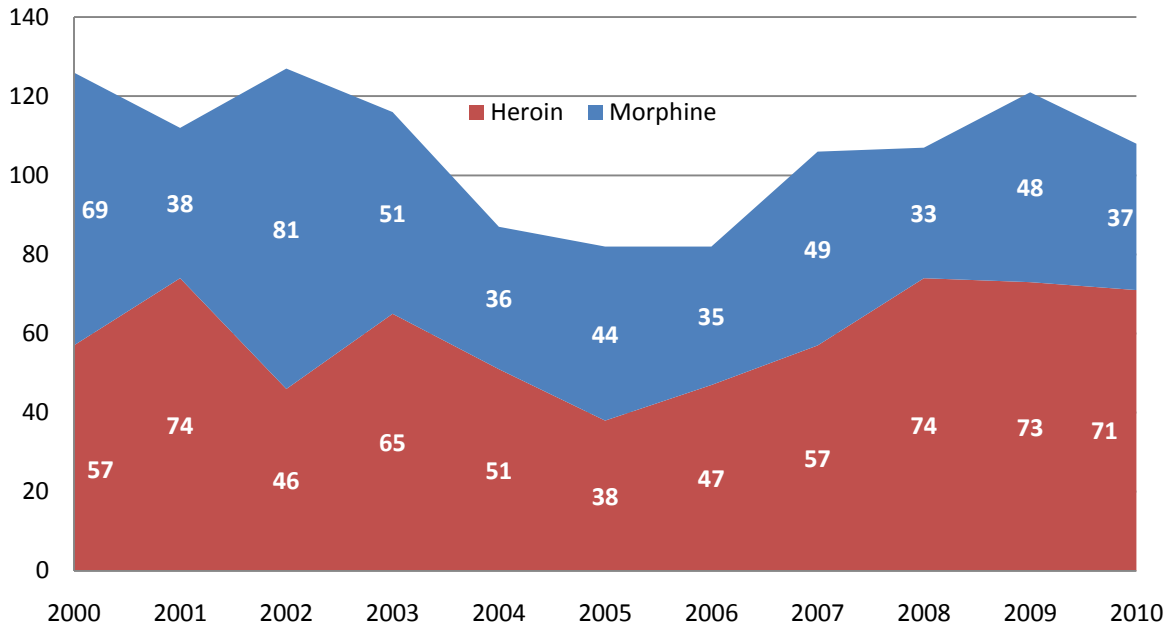


Note: Because an individual case may be due to a combination of medications, the medications are not mutually exclusive.

UNINTENTIONAL DEATHS RELATED TO SELECTED DRUGS & MEDICATIONS, 2000 – 2010

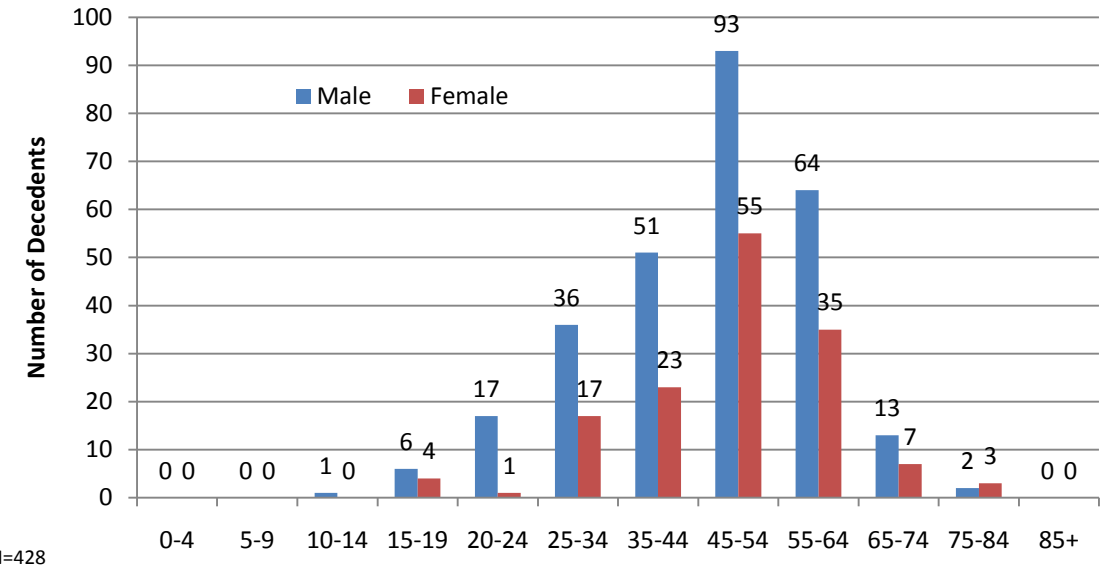
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alcohol	**64**	**80**	**62**	**45**	**58**	**64**	**78**	**83**	**95**	**127**	**132**
Morphine	**69**	**38**	**81**	**51**	**36**	**44**	**35**	**49**	**33**	**48**	**37**
Hydrocodone	**10**	**14**	**23**	**23**	**24**	**20**	**29**	**28**	**34**	**43**	**37**
Alprazolam		**5**	**1**	**7**	**5**	**14**	**12**	**13**	**15**	**23**	**27**
Fentanyl	**7**	**5**	**9**	**9**	**8**	**17**	**22**	**20**	**23**	**23**	**11**
Methadone	**7**	**10**	**18**	**20**	**29**	**30**	**31**	**41**	**47**	**41**	**53**
Oxycodone	**7**	**18**	**21**	**16**	**16**	**18**	**16**	**43**	**51**	**42**	**48**
Diazepam	**15**	**18**	**34**	**38**	**34**	**25**	**31**	**44**	**49**	**47**	**47**
Cocaine	**52**	**27**	**44**	**51**	**63**	**43**	**52**	**61**	**49**	**23**	**33**
Methamphetamine	**62**	**63**	**88**	**102**	**111**	**112**	**89**	**96**	**83**	**87**	**117**
Heroin	**57**	**74**	**46**	**65**	**51**	**38**	**47**	**57**	**74**	**73**	**71**
MDMA (ecstasy)	**1**			**1**		**1**	**3**	**3**	**3**	**3**	**5**

UNINTENTIONAL DEATHS RELATED TO HEROIN OR MORPINE, 2000 – 2010



Heroin and morphine are reported here exclusively, without overlap. Because heroin is rapidly metabolized to morphine, when morphine alone is detected, its source – whether from the medication morphine or from the breakdown of heroin – cannot be distinguished. Cases in which heroin (or 6-monoacetylemorphine) was detected or the circumstances strongly suggest heroin was used are included in the heroin numbers.

NUMBER OF DRUG/ALCOHOL OVERDOSE DEATHS BY AGE AND SEX, 2010



N=428
Source: county of San Diego Medical Examiner's Database
Data reported to Emergency Medical Services

2010 UNINTENTIONAL DRUG/MED/ALCOHOL DEATHS BY COMBINATION

Prescription	141
Illicit	140
Alcohol	69
Prescription and Alcohol	34
Prescription and Illicit	30
Illicit and Alcohol	19
Prescription, Illicit and alcohol	9
Prescription and OTC	9
Other	3
Prescription, alcohol and OTC	1

Note: includes all medication/alcohol/drug-related deaths whether the substance(s) were the primary cause of death or contributory to the death. Numbers may differ from online stats. Illicit – heroin, cocaine, ecstasy, methamphetamine. Prescription – medications normally obtained by prescription. OTC – over the counter medications.

RELATIVE FREQUENCY OF DRUG/MEDICATIONS IN CAUSE OF DEATH BY AGE, 2010

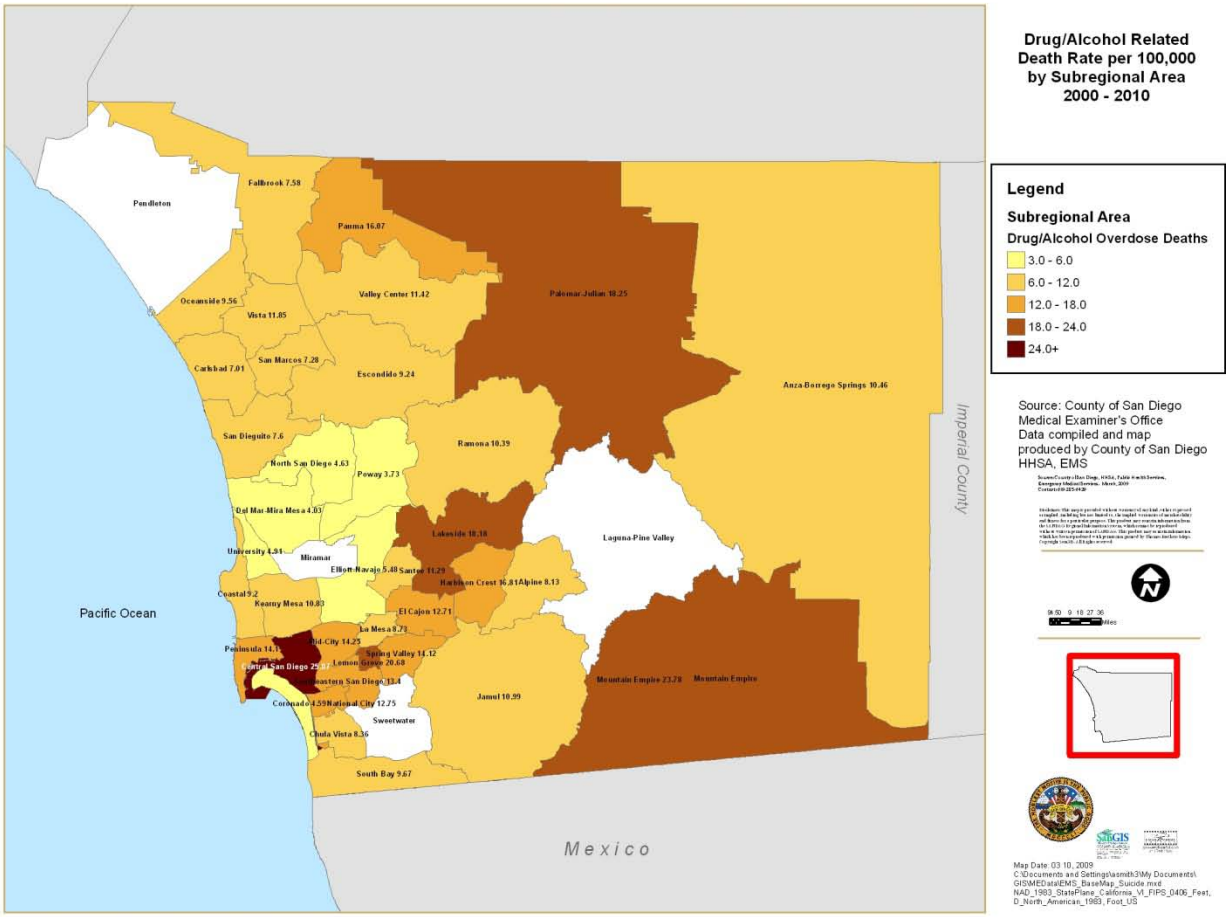
Rank	10-19	20-29	30-39	40-49	50-59	60-69
1	Heroin	Heroin	Methadone	Metham-phetamine	Metham-phetamine	Oxycodone
2	Metham-phetamine*	Metham-phetamine	Heroin	Heroin	Methadone	Metham-phetamine
3	Alprazolam*	Oxycodone Methadone	Diazepam	Diazepam Morphine	Diazepam	Temazepam* Zolpidem*
4		Cocaine* Morphine*	Cocaine Hydrocodone	Methadone	Hydrocodone	Methadone* Morphine*
5			Metham-phetamine	Oxycodone	Oxycodone	
6			Oxycodone	Diphen-hydramine	Heroin	

*Five or fewer cases

SELECTED DRUG/MEDICATION UNINTENTIONAL DEATHS BY AGE, 2010

	10-19	20-29	30-39	40-49	50-59	60-69	70-79	Total
Morphine		**5**	**3**	**15**	**10**	**4**		**37**
Alprazolam	**2**	**4**	**4**	**7**	**6**	**4**		**27**
Cocaine	**1**	**5**	**9**	**6**	**10**	**2**		**33**
Diphenhydramine			**2**	**8**	**10**			**20**
Fentanyl		**1**	**2**	**2**	**2**	**3**	**1**	**11**
Heroin	**6**	**17**	**16**	**18**	**11**	**3**		**71**
Hydrocodone	**1**	**1**	**9**	**7**	**16**	**3**		**37**
Methadone	**1**	**8**	**8**	**13**	**18**	**4**	**1**	**53**
Methamphetamine	**3**	**11**	**18**	**40**	**38**	**6**	**1**	**117**
Oxycodone	**1**	**8**	**7**	**9**	**14**	**8**	**1**	**48**

Note: Because an individual case may be due to a combination of medications, the medications are not mutually exclusive.


Drug/Alcohol Related
Death Rate per 100,000
by Subregional Area
2000 - 2010
Legend
Subregional Area
Drug/Alcohol Overdose Deaths
3.0 - 6.0
6.0 - 12.0
12.0 - 18.0
18.0 - 24.0
24.0+
Source: County of San Diego
Medical Examiner's Office
Data compiled and map
produced by County of San Diego
HHSA, EMS
Pacific Ocean
Mexico
Imperial County
Pendleton
Fallbrook 7.58
Pauma 16.07
Valley Center 11.42
Palomar-Julian 18.25
Oceanside 9.56
Vista 11.85
San Marcos 7.28
Carlsbad 7.01
Escondido 9.24
Anza-Borrego Springs 10.46
San Dieguito 7.6
Ramona 10.39
North San Diego 4.63
Poway 3.73
Del Mar-Mira Mesa 4.03
Lakeside 18.18
Laguna-Pine Valley
University 4.34
Miramar
Elliott-Navajo 5.48
Santee 11.29
Harbison Crest 16.81
Alpine 8.13
Coastal 9.2
Kearny Mesa 10.83
El Cajon 12.71
La Mesa 8.73
Peninsula 14.1
Mid-City 14.25
Spring Valley 11.12
Lemon Grove 20.68
Central San Diego 25.3
Southeastern San Diego 13.4
Coronado 4.59
National City 12.75
Jamul 10.99
Mountain Empire 23.78
Mountain Empire
Sweetwater
Chula Vista 8.36
South Bay 9.67