

March 7, 2016

To: Janet Mills, Attorney General  
Fr: Marcella Sorg, PhD  
Cc: Mark Flomenbaum, MD  
Margaret Greenwald, MD  
Clare Bryce, MD

Re: Drug deaths January-December 2015 statewide brief update

A “drug death” is identified when one or more drugs are mentioned on the death certificate as a cause or contributing factor. Most drug deaths in Maine during the last decade are caused by two or more drugs. In this analysis, deaths known to be due to pharmaceutical fentanyl and pharmaceutical morphine have been excluded from totals for illicit fentanyl and heroin. Heroin very often cannot be discriminated from morphine in toxicology, so many death certificates mention heroin/morphine as the cause, although we know most of these are probably heroin deaths, based on other evidence. In this analysis, after known pharmaceutical morphine deaths were removed, “heroin” and “heroin/morphine” deaths were combined in one “heroin” total.

- In 2015 there were 272 drug-induced deaths statewide, 31% more than in 2014, which had 208. The increase in drug deaths during 2015 continues a multi-year rise in deaths due to heroin and non-pharmaceutical fentanyl, sometimes in combination with each other. During the second half of the year there were 20% more deaths due to non-pharmaceutical fentanyl and acetyl fentanyl than in the first half of the year, and 5% more deaths due to heroin in the second half compared to the first half.
- 157 (58%) of the 272 total drug deaths were due either to heroin (107 deaths, 39% of all drug deaths) and/or non-pharmaceutical fentanyl or acetyl fentanyl (87 deaths, 32% of all drug deaths) with a wide variety of co-intoxicant combinations with other drugs or alcohol. Of the 87 deaths due to fentanyl and/or acetyl fentanyl, 74 were due to fentanyl and 32 to acetyl fentanyl (19 of these deaths were due to a combination of fentanyl and acetyl fentanyl).
- 111 (41%) of the 272 deaths were due to pharmaceutical opioids (drugs used medically for pain control), usually in combination with other drugs. The number of these deaths is up slightly from 101 in 2014.

## **DEMOGRAPHICS**

- Of the 272 deaths, 182 (67%) were male, and 33% female, continuing the same pattern as previous years.
- The ages of the decedents ranged from 18-89, mostly under 60. The average age was 42, slightly older than in previous years. Of the 272 decedents, 5% were 18-24, 13% 25-29, 15% 30-34, 14% 35-39, 10% 40-44, 11% 45-49, 14% 50-54, 9% 55-59, and 6% 60 and over.

## **GEOGRAPHIC DISTRIBUTION**

- Counties with 10 or more deaths
  - Androscoggin, 27 deaths, 10% of statewide deaths)
  - Cumberland, 86 deaths, 32% of statewide deaths
  - Kennebec, 33 deaths, 12% of statewide deaths
  - Penobscot, 26 deaths, 10% of statewide deaths
  - York, 38 deaths, 14% of statewide deaths
  - All other counties had between 1 and 9 deaths in 2015.
- Towns/Cities with 10 or more deaths
  - Bangor: 13 deaths (5%)
  - Lewiston: 15 deaths (6%)
  - Portland 46 deaths (17%)

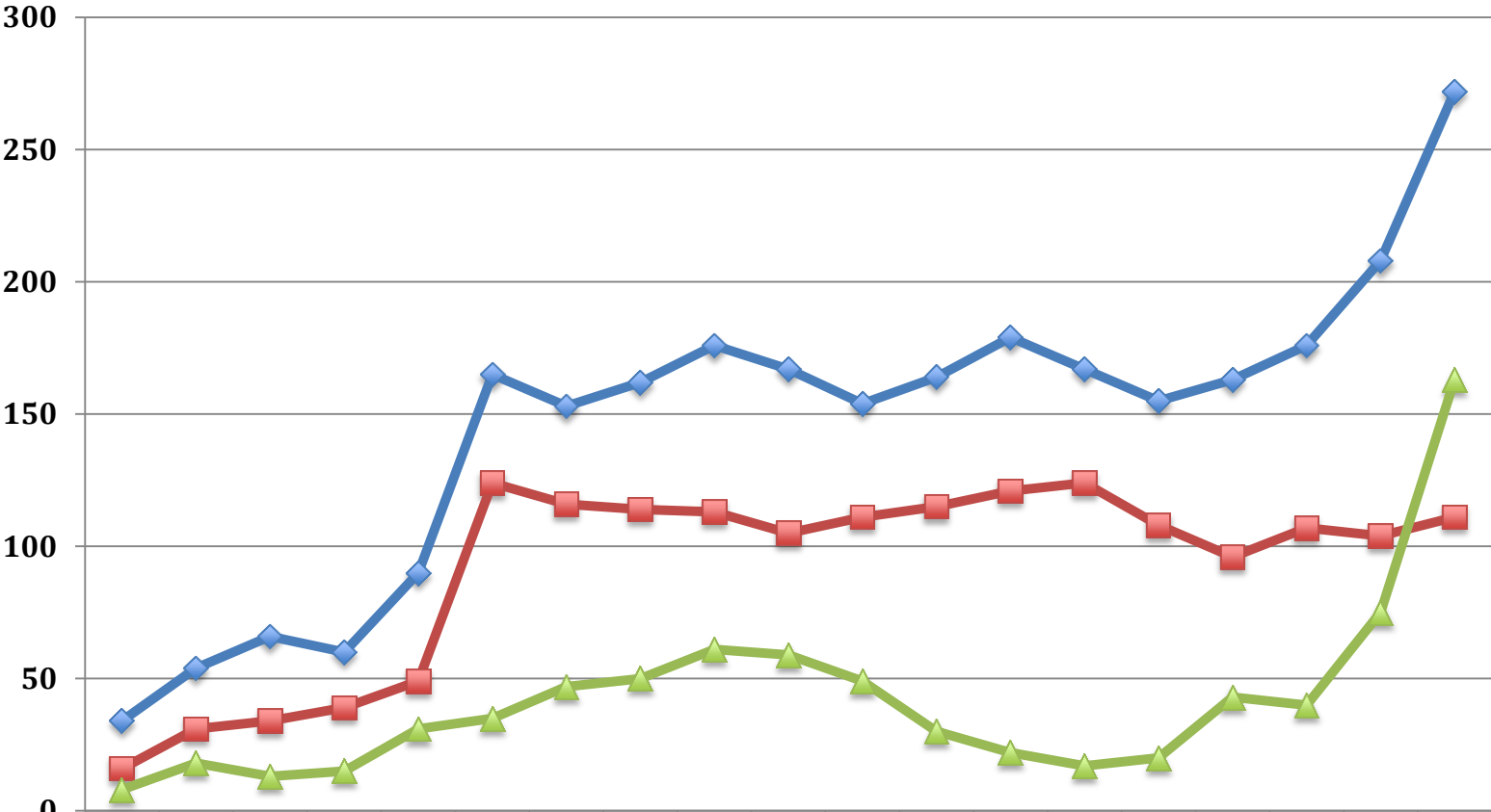
## **HEROIN DEATHS (N=107)**

- 94 (88%) of the 107 deaths due to heroin included at least one other drug or alcohol mentioned on the death certificate as a cause
  - 24 (22%) included a pharmaceutical opiate
  - 36 (34%) included non-pharmaceutical fentanyl or acetyl fentanyl
  - 30 (28%) included alcohol
  - 28 (26%) included a benzodiazepine
  - 23 (22%) included cocaine

## **NON-PHARMACEUTICAL FENTANYL AND ACETYL FENTANYL DEATHS (N=87)**

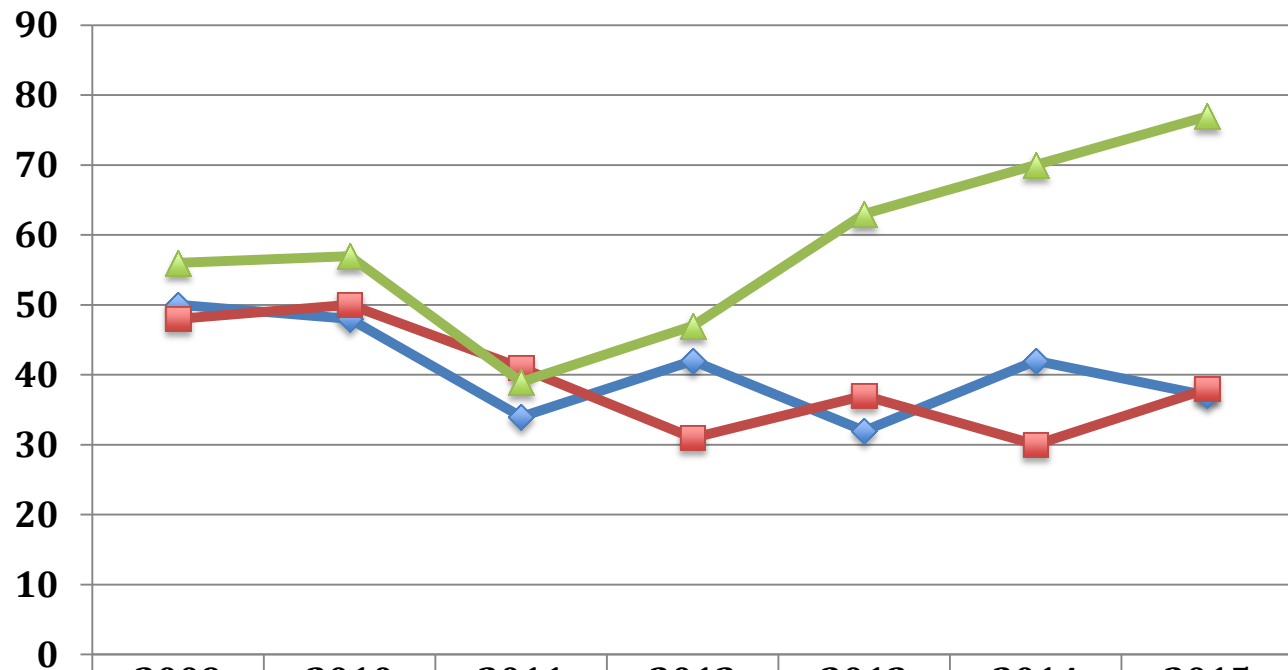
- Of the 87 deaths due to either non-pharmaceutical fentanyl or acetyl fentanyl,
  - 78% of fentanyl/acetyl fentanyl deaths included at least one other drug or alcohol
    - 36 (42%) included heroin
    - 19 (22%) included both fentanyl and acetyl fentanyl
    - 11 (13%) included a pharmaceutical opiate
    - 17 (20%) included a benzodiazepine
    - 20 (23%) included alcohol
    - 13 (15%) included cocaine

# Total Number of Maine Deaths due to Pharmaceutical Opioids, Illicit Drugs, and Total Drug Deaths, Alone or in Combination



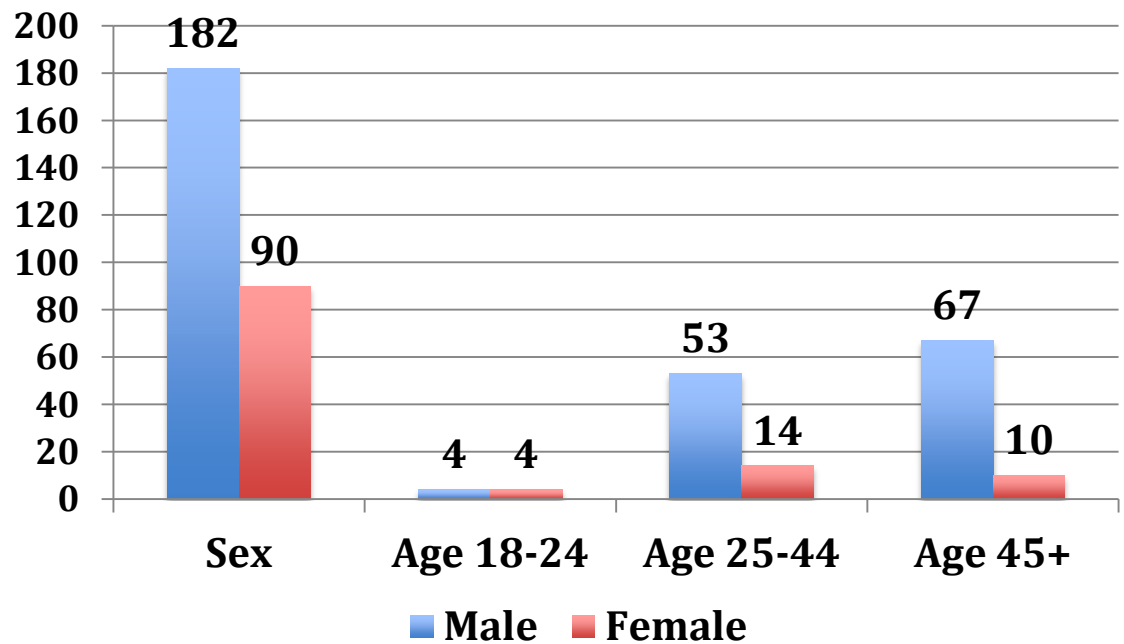
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Total</b>	34	54	66	60	90	165	153	162	176	167	154	164	179	167	155	163	176	208	272
<b>Pharm Opioid</b>	16	31	34	39	49	124	116	114	113	105	111	115	121	124	108	96	107	104	111
<b>Illicit</b>	8	18	13	15	31	35	47	50	61	59	49	30	22	17	20	43	40	75	163

## Number of Deaths due to Key Pharmaceuticals Alone or in Combination

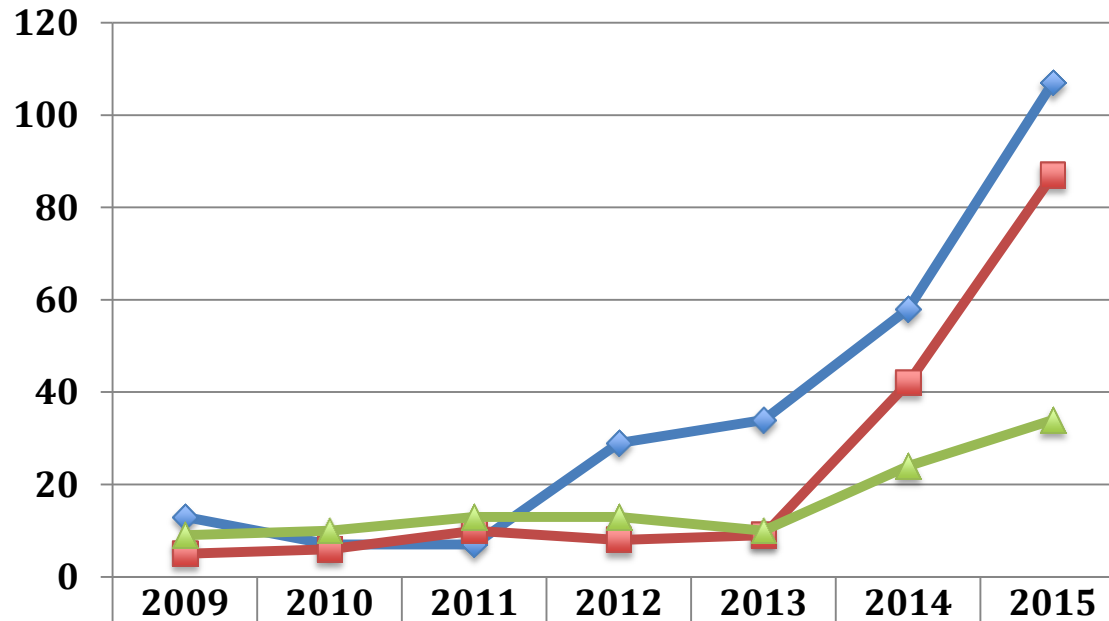


	2009	2010	2011	2012	2013	2014	2015
<span style="color: blue;">◆</span> Oxycodone	50	48	34	42	32	42	37
<span style="color: red;">■</span> Methadone	48	50	41	31	37	30	38
<span style="color: green;">▲</span> Benzodiazepines	56	57	39	47	63	70	77

### Number of Heroin & Non-Pharmaceutical Fentanyl Deaths 2015 by Age and Sex



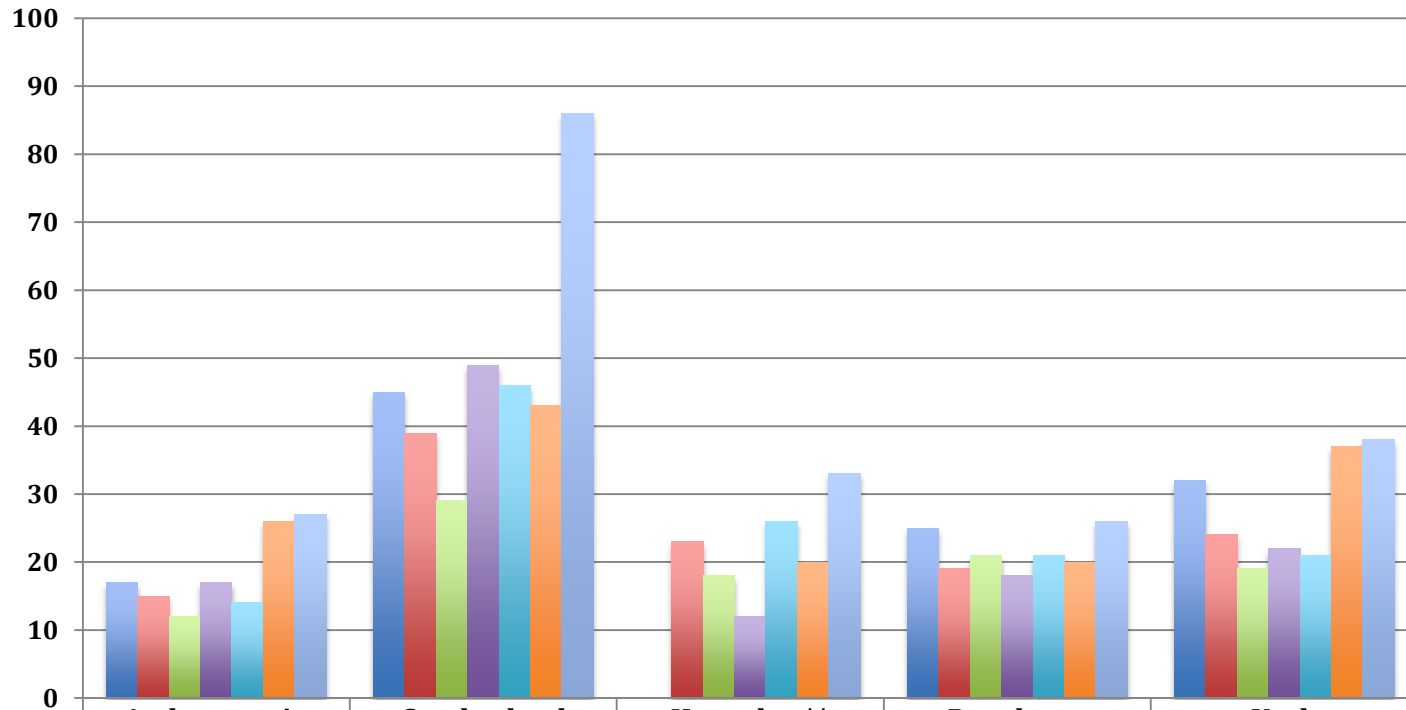
## Number of Deaths due to Key Illicit Drugs Alone or in Combination



◆ Heroin **	13	7	7	29	34	58	107
■ Non-Pharm. Fentanyl, Acetyl Fentanyl	5	6	10	8	9	42	87
▲ Cocaine	9	10	13	13	10	24	34

\*\* Heroin very often cannot be discriminated from morphine by toxicology, so many death certificates mention heroin/morphine as the cause, although most are probably heroin deaths, based on other evidence. In this analysis, after known pharmaceutical morphine deaths were removed, “heroin” and “heroin/morphine” deaths were combined in one “heroin” total.

## Number of Drug Deaths in Five Largest Counties



	Androscoggin	Cumberland	Kennebec**	Penobscot	York
■ 2009	17	45	0	25	32
■ 2010	15	39	23	19	24
■ 2011	12	29	18	21	19
■ 2012	17	49	12	18	22
■ 2013	14	46	26	21	21
■ 2014	26	43	20	20	37
■ 2015	27	86	33	26	38

\*\*Kennebec had fewer than 10 deaths in 2009.

# Heroin and Non-Pharmaceutical Fentanyl County Death Rates for 2013-2015 Age-Adjusted Rate per 100,000

