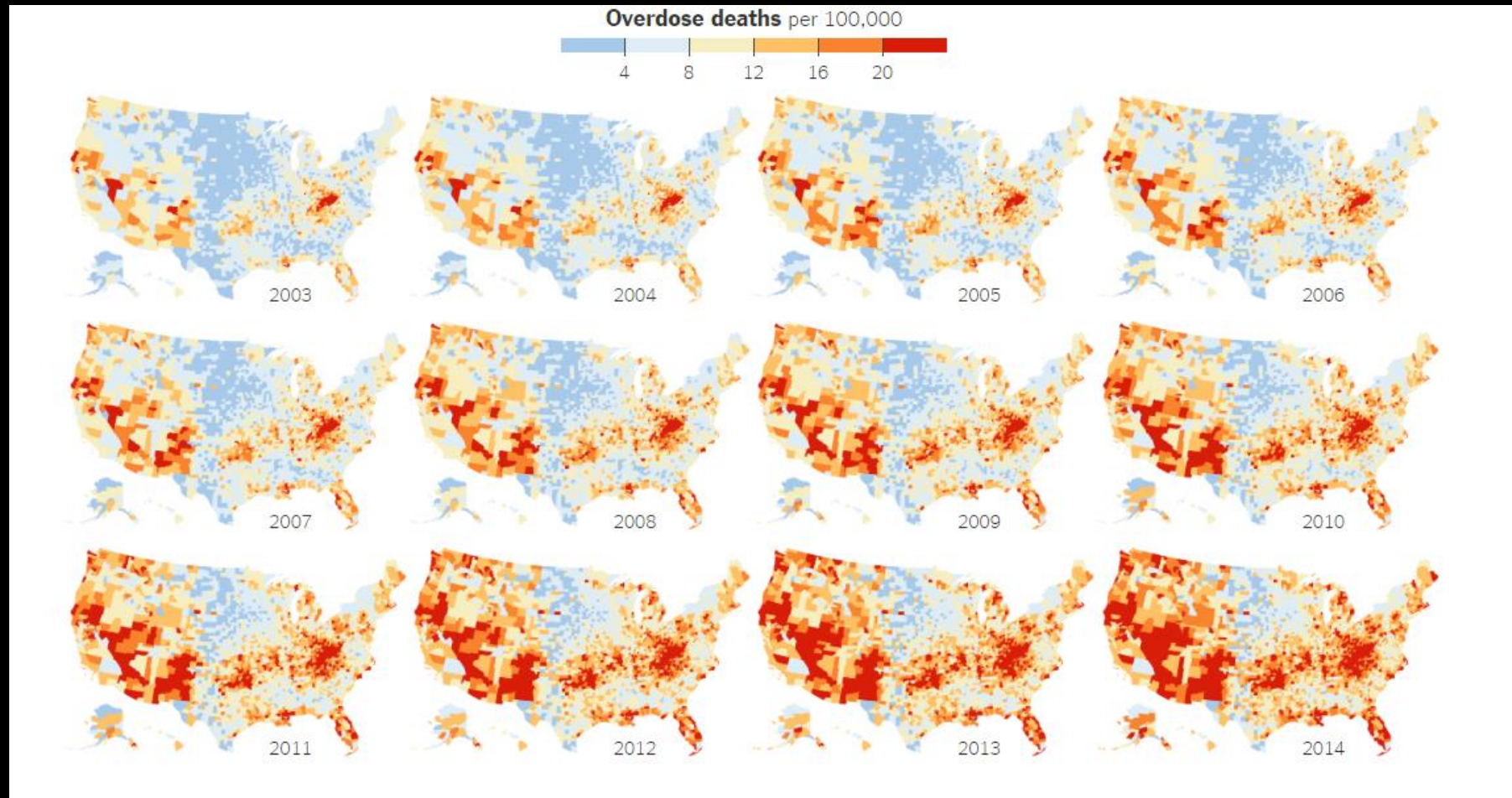


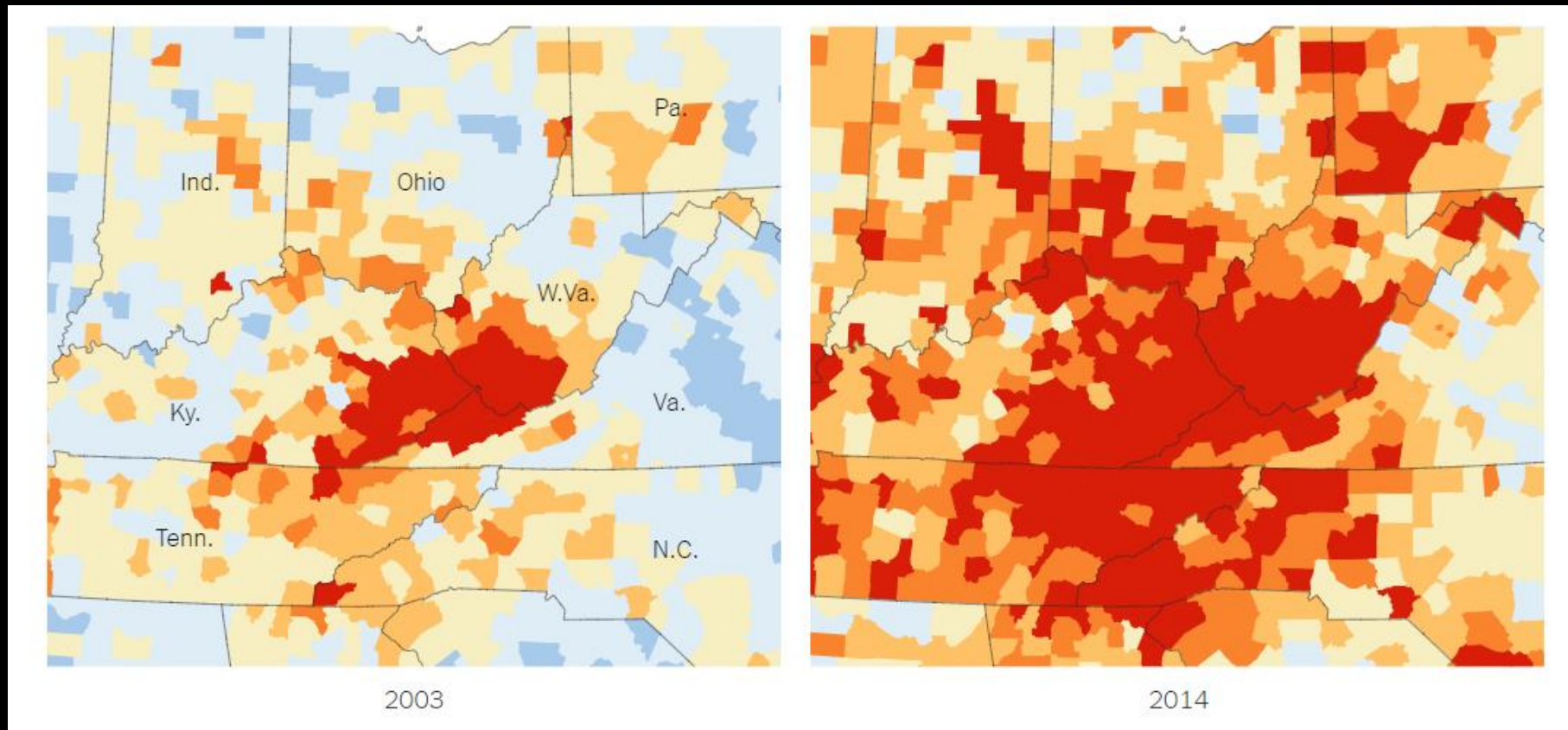
NARCAN

Aaron Jennings EMT-P, FP-C, EMS-I
Administrative Captain
Delaware County EMS

THE HEROIN EPIDEMIC



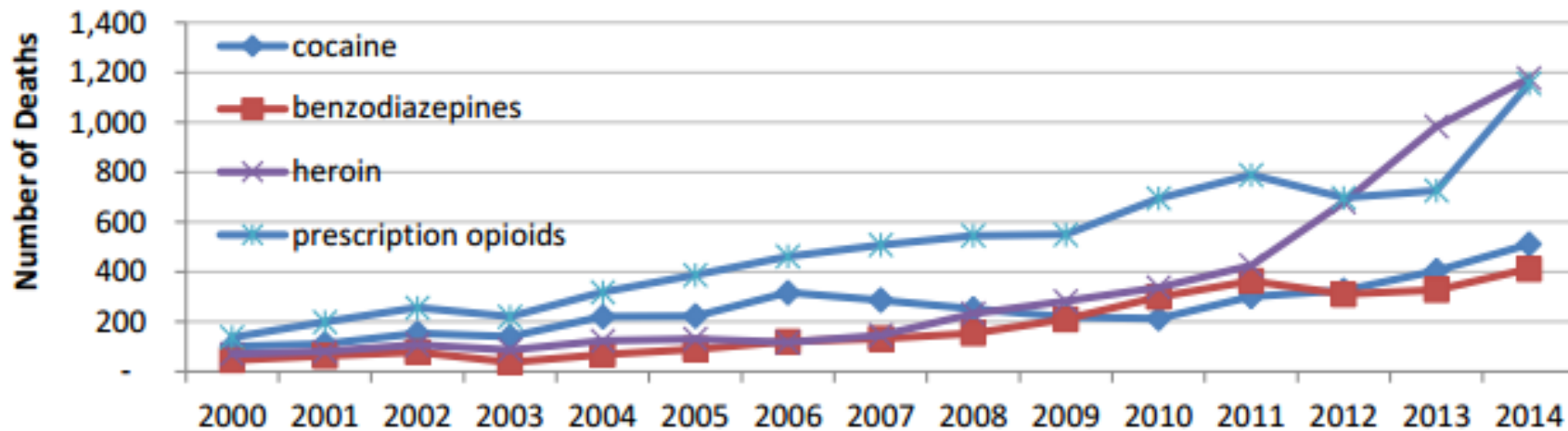
THE HEROIN EPIDEMIC



Source: The New York Times

HEROIN IS NOT THE ONLY PROBLEM

Figure 4. Number of Unintentional Overdoses Involving Selected Drugs, by year, Ohio, 2000-2014



Source: Ohio Department of Health

HEROIN IS NOT THE ONLY PROBLEM

Drug Category ⁴	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	% of 2014 deaths	
all opioids*	296	429	489	551	631	735	783	979	1,154	1,272	1,539	1,988	80.1%	
prescription opioids**	221	319	388	462	508	546	550	694	789	697	726	1,155	46.5%	
heroin	87	124	131	117	146	233	283	338	426	680	983	1,177	47.4%	
benzodiazepines	38	69	90	121	133	154	211	300	364	311	328	412	16.6%	
cocaine	140	221	223	317	287	252	220	213	302	326	405	511	20.6%	
alcohol	40	38	58	89	135	181	173	195	221	282	304	376	15.1%	
methadone	55	116	144	161	176	170	169	155	157	123	112	101	4.1%	
hallucinogens	7	8	8	10	13	14	9	26	30	31	43	49	2.0%	
barbiturates	5	3	5	3	7	3	5	13	11	6	10	6	0.2%	
other/unspecified drugs only***	154	256	289	378	453	475	396	343	376	389	319	260	10.5%	
Multiple Drug Involvement									888 ⁵	980 ⁵	1,016 ⁷	1,014 ⁸	1,316 ⁹	
Total unintentional poisoning deaths	658	904	1,020	1,261	1,351	1,475	1,423	1,544	1,765	1,914	2,110	2,482		
Crude annual death rate per 100,000	5.7	7.9	8.9	11.0	11.7	12.8	12.3	13.4	15.3	16.6	18.2	21.4		

NATIONAL EPIDEMIC

- Nationally 125 people die every day from drug overdoses
 - 78 of them from heroin and painkillers
- City of Cambridge, MA
 - Christ Church Cambridge closed public access to bathrooms in 2012
 - \$400,000 to install Harvard Square's first free standing public toilet

NATIONAL EPIDEMIC



WHAT ARE NARCOTICS?

- Narcotic
 - Greek narko – “to make numb”
 - In United States it has since become associated with opiates or opioids
 - Act on the opioid receptors (4 major subtypes)
 - Analgesia
 - Antidepressant
 - Euphoria
 - Respiratory depression
 - Physical dependence

HEROIN

- Opioid painkiller
 - Cousin to Morphine
- Originally synthesized by C.R. Alder Wright in 1874 by adding two acetyl groups (Chemistry...yuck!) to the molecule morphine.
- 2-4 times more potent than Morphine.



FENTANYL

- Synthetic opioid rapid onset and short duration
 - Sublimaze, Actiq, Duragesic, Lazanda
- Drum Roll.....
 - 80-100 times more potent than Morphine
 - 40-50 times more potent than 100% pure heroin
- Being mixed with low grade heroin
 - “Magic”
 - “The Bomb”

COST ON THE “STREET”

- Fentanyl = \$20 Patch
- Morphine = \$15/60 mg pill
- Heroin = \$5/Bag

WHAT DOES AN OVERDOSE LOOK LIKE?

- <https://www.youtube.com/watch?v=cqg0tl0ypyM>

NARCAN

- Naloxone
- Extreme
- Extremely high affinity for opioid receptors
- Can cause withdrawal symptoms
- Little to no effects if opioids are not present
- Patent is expired and now available in a generic form.

NARCAN

- \$20-\$40 dollars for full kit
- Can be administered IN, IV, IM, IO





Questions?