

The Growth in Media Coverage, Pertaining to Deaths of Despair, in States Hit Hardest by the Opioid Crisis

Tim Waterman

Why so serious?

The American Life Expectancy has fallen for the past 2 years

Much of this decrease is attributed to overdoses and suicide, which some have dubbed: “Deaths of Despair” (DOD)

Opioids in particular have taken a central role in this unsettling trend

Issue seems more societal than physiological, and presents a prominent, multi-dimensional public health crisis

Public awareness is the first step

Approach

Identify online newspapers for scraping

Selected a prominent publications from 3 states with some of the highest increase in opioid overdoses in recent years *Delaware, Wisconsin, Pennsylvania*)

Render the search-result web pages necessary for scraping, by submitting select keywords into respective search fields

Total of 15 search-result scrapes, representing 3 states and 5 search terms (*Opioid, Overdose, Suicide, Naloxone, Alcoholism*)

Commence Selenium scrapes and troublesome troubleshooting

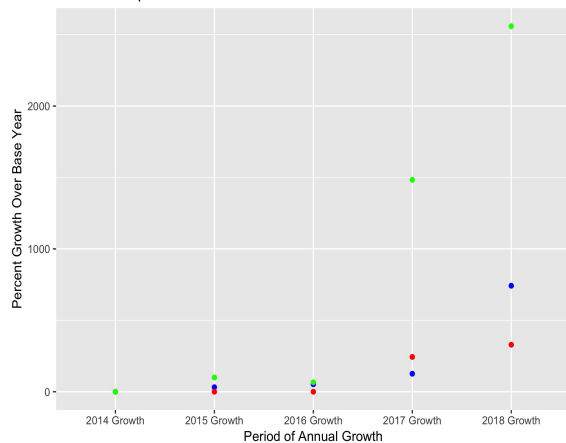
Had to troubleshoot results-pages that required scrolling, pop-up ads, mysterious disappearing text, and inconsistent article urls

Calculate the rate of base-year-change, at which different topics were discussed over time, and across states

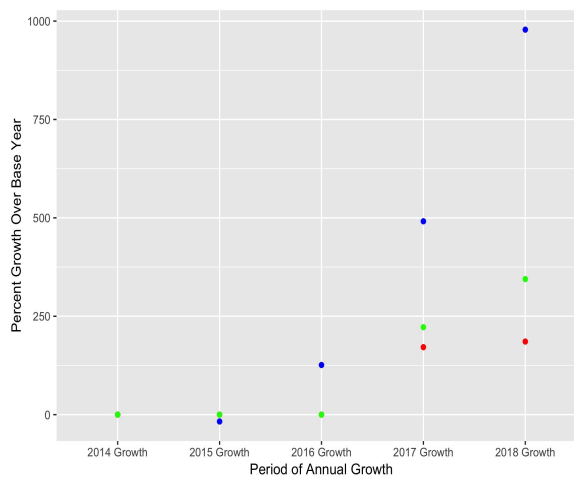
Cobble together series of minimally coded, inadequately pixelated, unaesthetic graphs

Growth in DOD Coverage by Topic

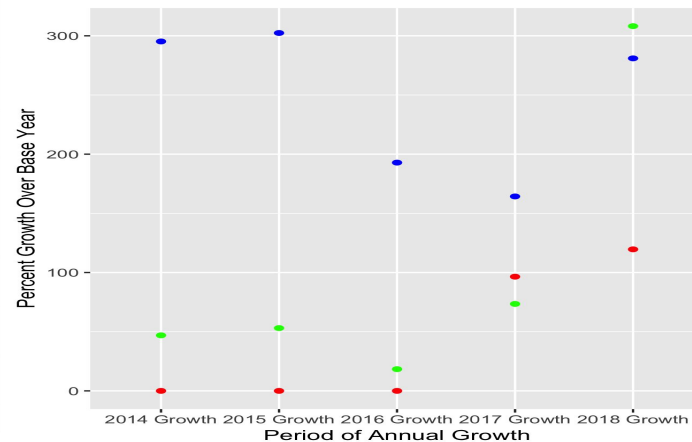
Growth in Opioid Conversation



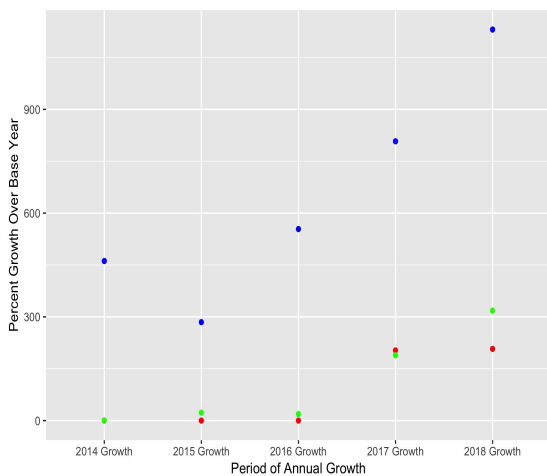
Growth in Naloxone Conversation



Growth in Suicide Conversation



Growth in Overdose Conversation



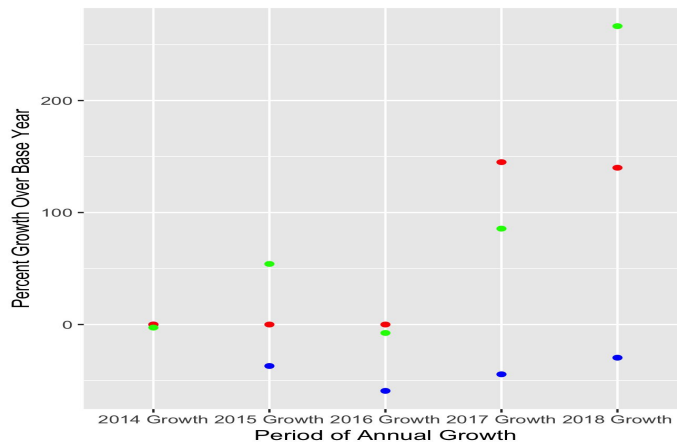
Pa = Green DE = Blue WI = Red

1000% - 2000+% growth over base-year media coverage in certain instances

Opioid conversation shows particular growth

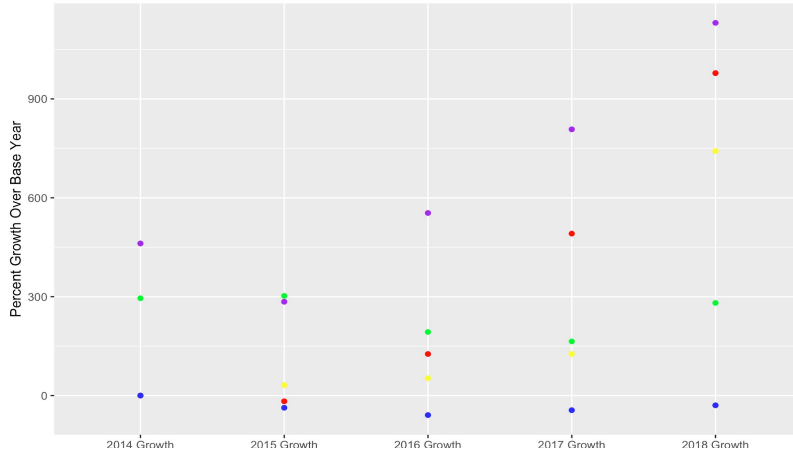
General growth across the board

Growth in Alcoholism Conversation

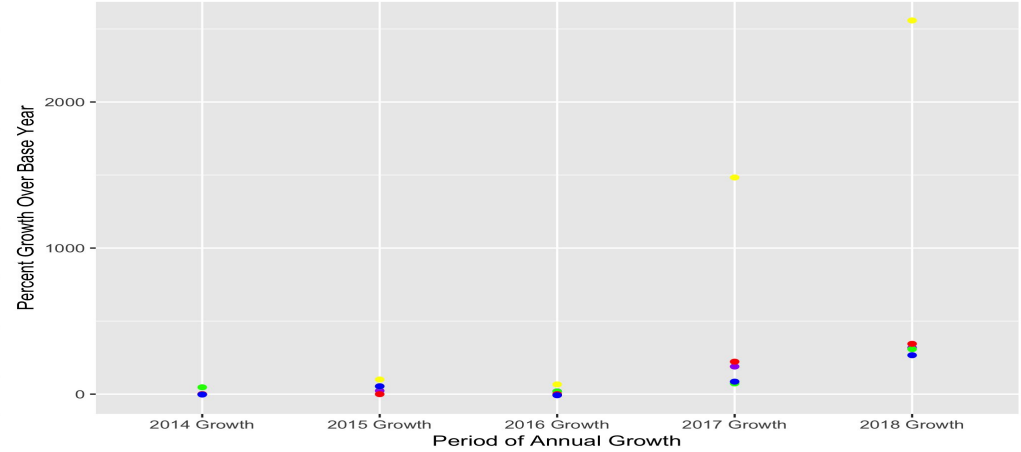


Growth in DOD Coverage by State

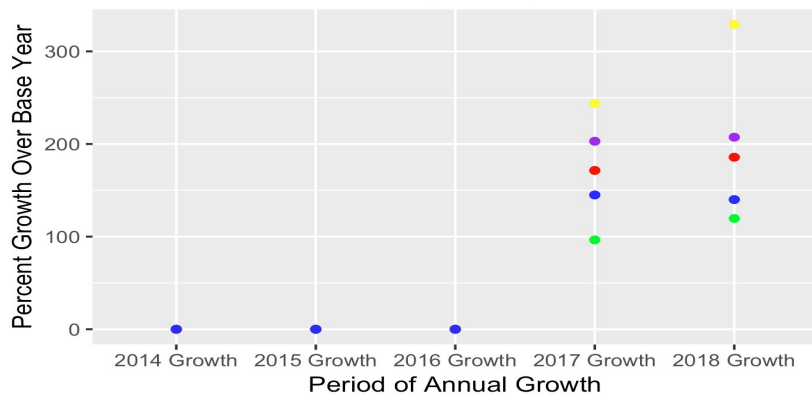
Growth in Death of Despair Topics: Delaware



Growth in Death of Despair Topics: Pennsylvania



Growth in Death of Despair Topics: Wisconsin



Opioid = Yellow Overdose = Purple Suicide = Green
Naloxone = Red Alcoholism = Blue

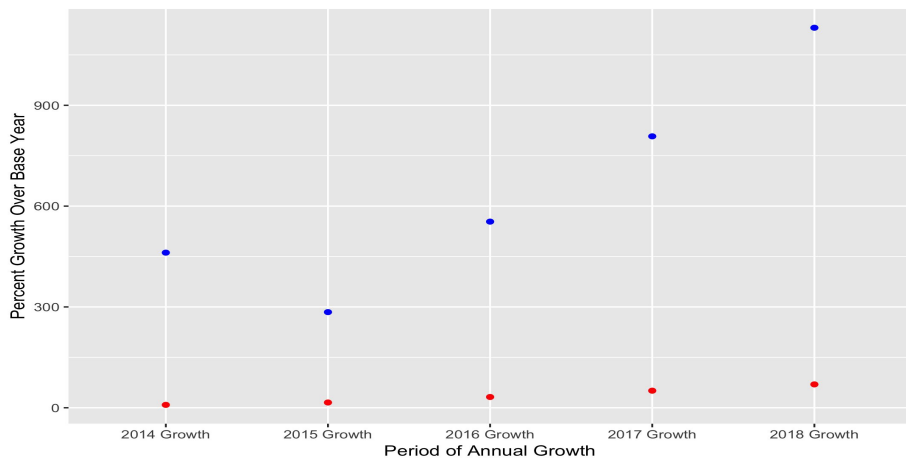
Opioid Pennsylvania

Overdose Opioid Naloxone Delaware

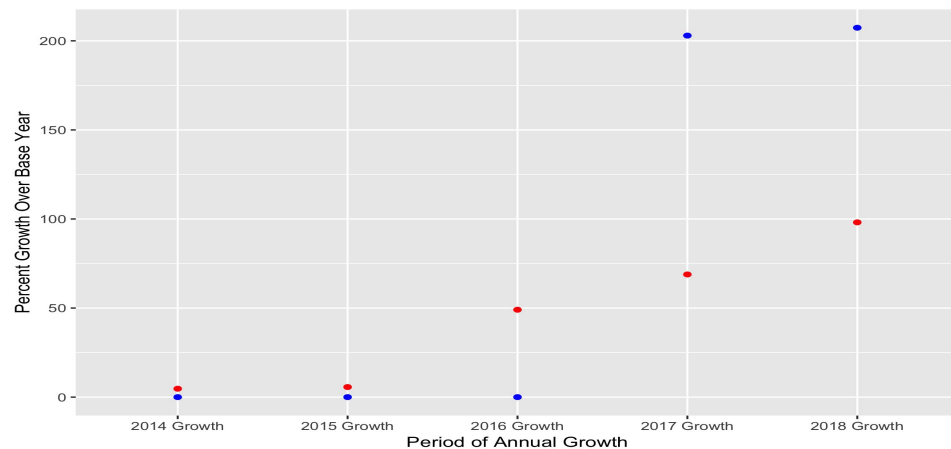
Wisconsin across the board

Overdose Coverage v Actual Overdose Rate Increase

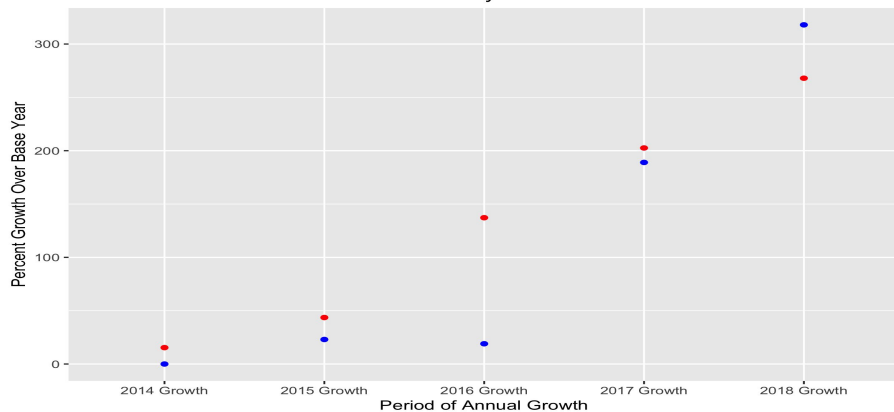
Overdose Deaths v Conversation: Delaware



Overdose Deaths v Conversation: Wisconsin



Overdose Deaths v Conversation: Pennsylvania



Overdose Coverage = Blue Overdose Rate = Red

Pennsylvania close correlation, slight lag

Wisconsin coverage exceeds overdose increase

Delaware coverage exceeds overdose increase

Double or triple the deaths across the board

Pennsylvania Overdose Discussion



Potential Next Steps:

Apply web-scraping techniques to RSS platforms

Analyze additional newspapers from different states, and different newspapers within the states already analyzed

Apply web-scraping techniques to social media platforms

Expand the body of key search terms

Improve graph aesthetics