



DRUG RELATED DEATHS IN CONNECTICUT- A DATA DRIVEN APPROACH

2017, DEMOGRAPHICS

FILTERS

MONTHS-2017

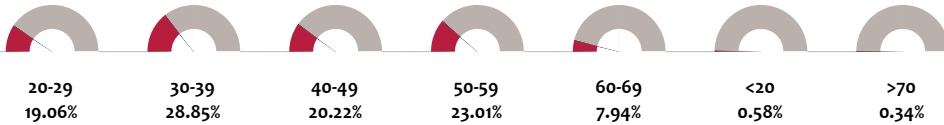
BY AGE GROUPS

BY GENDER

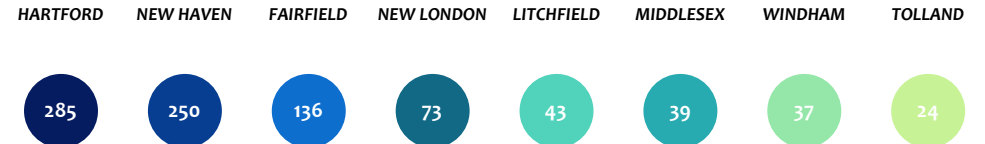
BY RACE

BY TYPE OF ABUSE

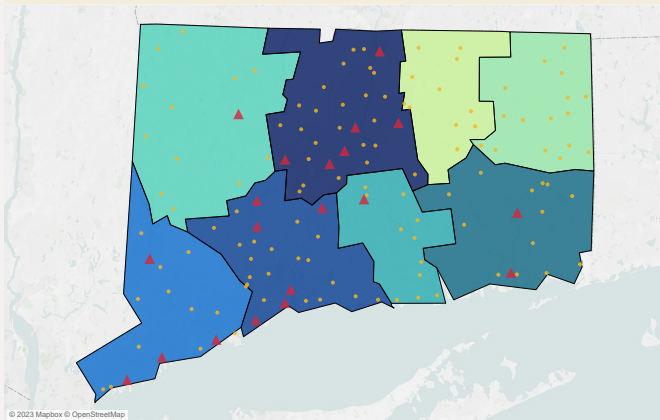
AGE DYNAMICS- DEATH COUNT IN DIFFERENT AGE GROUPS



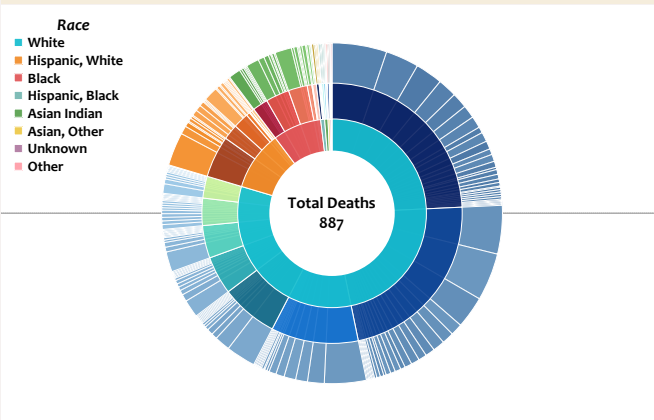
DEATH COUNT IN COUNTIES



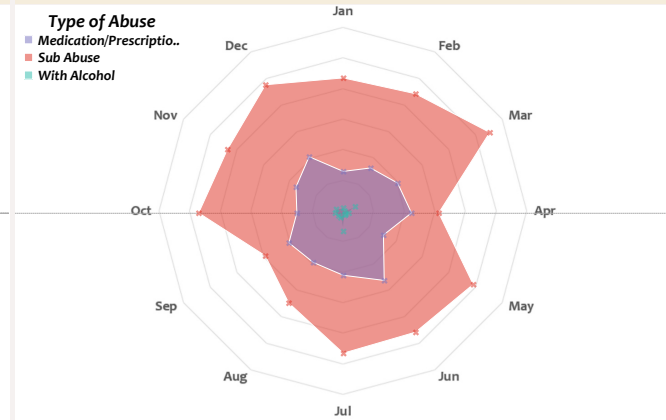
DRUG DEATHS ACROSS THE STATE-COUNTIES AND CITIES



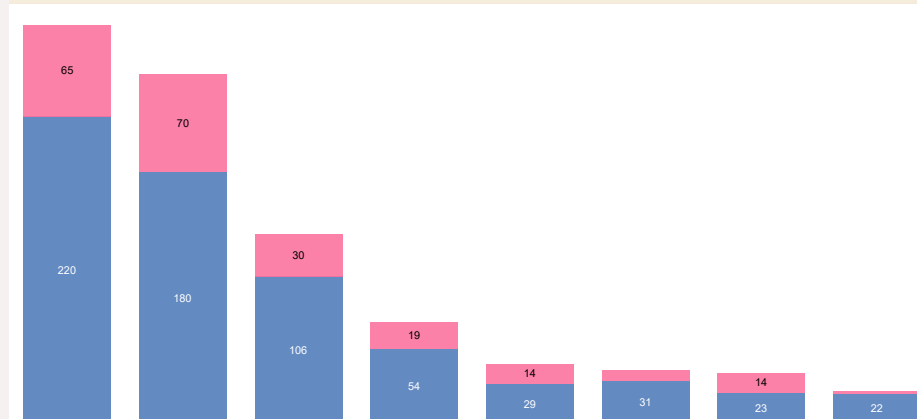
RACE DISTRIBUTION IN COUNTIES AND AFFECTED CITIES



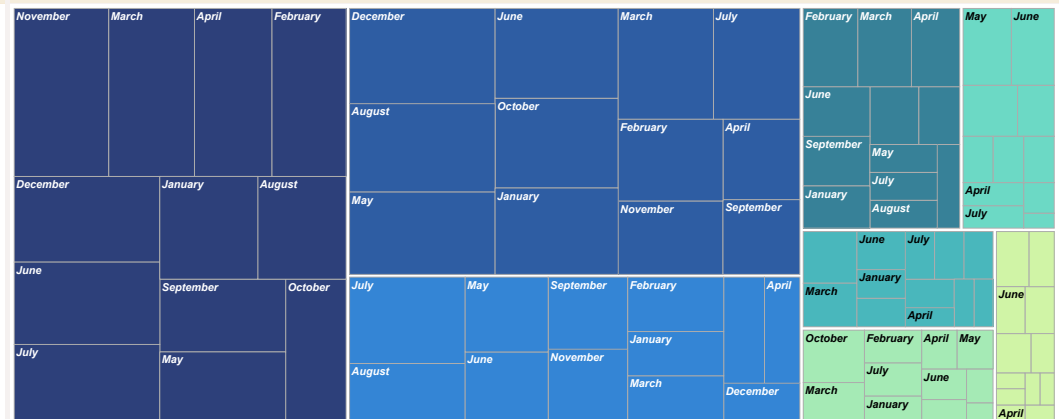
COMMON TYPES OF ABUSE



DEATH COUNT DISTRIBUTION BY GENDER



MONTHLY DEATH COUNT ACROSS THE COUNTIES

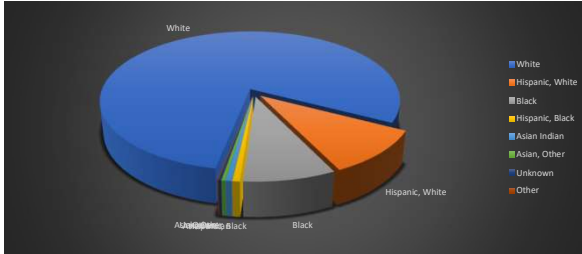


DRUG RELATED DEATHS IN CONNECTICUT

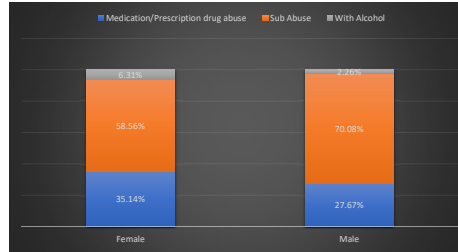
DeathCounty

FAIRFIELD HARTFORD LITCHFIELD MIDDLESEX NEW HAVEN NEW LONDON TOLLAND WINDHAM

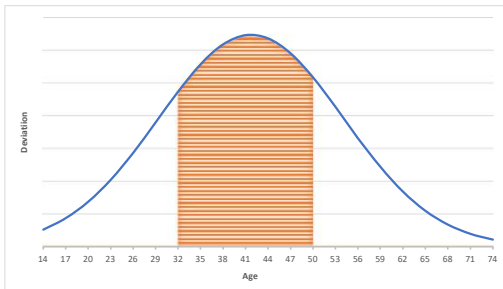
DRUG RELATED DEATHS BY RACE



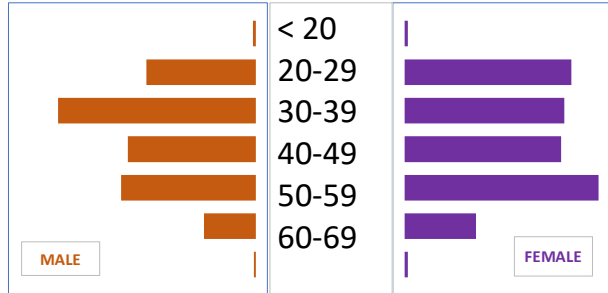
DRUG RELATED DEATHS BY INJURY



STANDARD DEVIATION CURVE



DEATH COUNT BY BY GENDER IN DIFFERENT AGE GROUPS



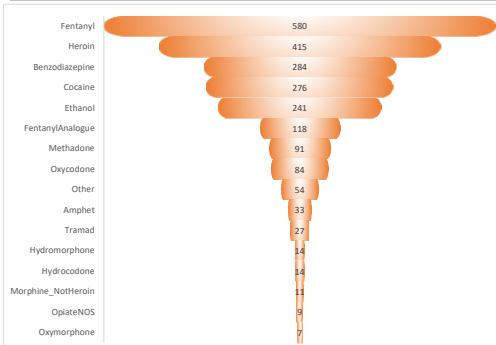
DOI- Code

Medication/Prescription drug ab... Sub Abuse With Alcohol

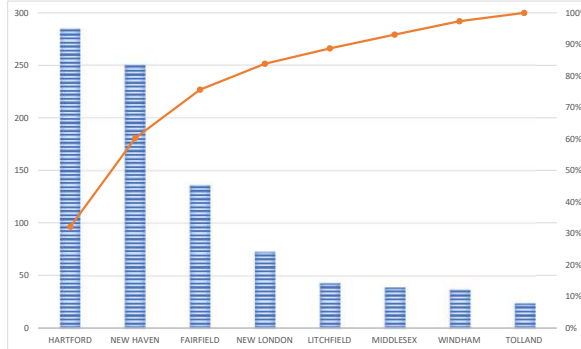
Quarters (Date)

Qtr1 Qtr2 Qtr3 Qtr4

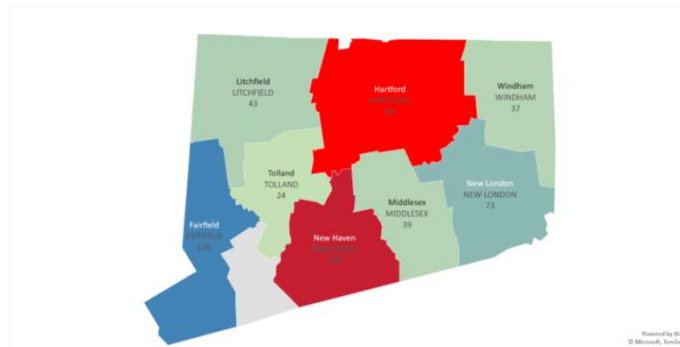
CAUSE OF DEATH BY SUBSTANCES



DRUG DEATH IN COUNTY'S



COUNTY DEATH'S- HEAT MAP



PIVOT TABLES

The Below Pivot table is based on ethnicity and sex as the filter

Sex	(Multiple Items)	
Row Labels	Count of ID	% distribution
White	706	79.59%
Hispanic, White	90	10.15%
Black	74	8.34%
Hispanic, Black	6	0.68%
Asian Indian	5	0.56%
Asian, Other	3	0.34%
Unknown	2	0.23%
Other	1	0.11%
Grand Total	887	100.00%

The Below Pivot table are based on Age groups. The filters are Sex and Death county. Also gives the percentage of distribution

Sex	(Multiple Items)	
DeathCounty	(Multiple Items)	
Age groups	Count of ID	% of Distribution
<20	4	0%
20-29	165	19%
30-39	257	29%
40-49	182	21%
50-59	200	23%
60-69	76	9%
>70	3	0%
Grand Total	887	100%

Sex	Female
DeathCounty	(Multiple Items)
Age-F	Count
<20	1
20-29	49
30-39	47
40-49	46
50-59	57
60-69	21
>70	1
Grand Total	222

Sex	Male
DeathCounty	(Multiple Items)
Age- M	Count of ID
<20	3
20-29	116
30-39	210
40-49	136
50-59	143
60-69	55
>70	2
Grand Total	665

The Below Pivot table is based on Death by county. The filters are description of injury. Used this to calculate the cumulative frequency and percentage for the pareto chart.

DOI- Code	(Multiple Items)	
death By Count	Count of ID	Cummulative percentage
HARTFORD	285	32%
NEW HAVEN	250	60%
FAIRFIELD	136	76%
NEW LONDON	73	84%
LITCHFIELD	43	89%
MIDDLESEX	39	93%
WINDHAM	37	97%
TOLLAND	24	100%
Grand Total	887	

Cummulative	Cummulative percentage- formula
285	32.13%
535	60.32%
671	75.65%
744	83.88%
787	88.73%
826	93.12%
863	97.29%
887	100.00%

The Below Pivot table is based on Death by county. The filters are description of injury and residence state. This gives us the heat map.

DOI- Code	(Multiple Items)	
ResidenceState	CT	
death By Count	Count of ID	
HARTFORD	285	
NEW HAVEN	250	
FAIRFIELD	136	
NEW LONDON	73	
LITCHFIELD	43	
MIDDLESEX	39	
WINDHAM	37	
TOLLAND	24	
Grand Total	887	

State	County	Number of deaths
Connecticut	HARTFORD	285
Connecticut	NEW HAVEN	250
Connecticut	FAIRFIELD	136
Connecticut	NEW LONDON	73
Connecticut	LITCHFIELD	43
Connecticut	WINDHAM	37
Connecticut	TOLLAND	24
Connecticut	MIDDLESEX	39

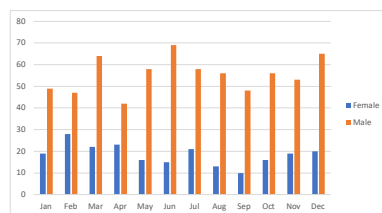
The Below Pivot table is based on Substance used. The filters are description of injury and residence state. This gives us the heat map.

DeathCounty	(Multiple Items)	
Quarters (Date)	(Multiple Items)	
Values	Substance	Count
Fentanyl	Fentanyl	580
Heroin	Heroin	415
Benzodiazepine	Benzodiazepi	284
Cocaine	Cocaine	276
Ethanol	Ethanol	241
FentanylAnalog	FentanylAnali	118
Methadone	Methadone	91
Oxycodone	Oxycodone	84
Other	Other	54
Amphet	Amphet	33
Tramad	Tramad	27
Hydromorphon	Hydromorph	14
Hydrocodone	Hydrocodone	14
Morphine_Not	Morphine_Nr	11
OpiateNOS	OpiateNOS	9
Oxymorphone	Oxymorphone	7



This Pivot table gives the percentage of male vs female using different substances. Quarters as the filter

Quarters (Date)	(Multiple Items)	
Count of ID	Column Labels	
Row Labels	Medication/Prescri	Sub Abuse
Female	35.14%	58.56%
Male	27.67%	70.08%
Grand Total	29.54%	67.19%



Count of ID	Column Labels	
Row Labels	Female	Male
Jan	19	49
Feb	28	47
Mar	22	64
Apr	23	42
May	16	58
Jun	15	69
Jul	21	58
Aug	13	56
Sep	10	48
Oct	16	56
Nov	19	53
Dec	20	65
Grand Total	222	665

FORMULAS USED

Statistical Summary	
AGE of the SAMPLE	
Mean	41.74520857
Standard Error	0.414097399
Median	40
Mode	33
Standard Deviation	12.33287451
Sample Variance	152.0997936
Kurtosis	-1.034003165
Skewness	0.174596433
Range	56
Minimum	17
Maximum	73
Count	887

Quartile function- Age

Age Quartiles	Values
Minimum	17
Quartile 1	31.5
Quartile 2	40
Quartile 3	52
Maximum	73

Age groups by frequency function and countis function

Age groups	Intervals	frequency	Count IF
>20	19	4	4
20-29	29	165	165
30-39	39	257	257
40-49	49	182	182
50-59	59	200	200
60-69	69	76	76
>70	73	3	3

Count IF function for

Race	Values
White	706
Hispanic, White	90
Black	74
Hispanic, Black	6
Asian Indian	5
Asian, Other	3
Unknown	2
Other	1

Used the "if" "and" function and normal distribution for the calculating Cumulative probability and Probability density for the bell curve

Age ranges	Probability Density	Cummulative probability
14	0.002575346	-100
17	0.004321669	-100
20	0.006835487	-100
23	0.010190359	-100
26	0.014318963	-100
29	0.018964251	-100
32	0.023673469	0.023673469
35	0.027854167	0.027854167
38	0.030890185	0.030890185
41	0.032288876	0.032288876
44	0.031811738	0.031811738
47	0.029540914	0.029540914
50	0.025856072	0.025856072
53	0.021330607	-100
56	0.016586164	-100
59	0.012156002	-100
62	0.008397261	-100
65	0.005467472	-100
68	0.003355348	-100
71	0.001940844	-100
74	0.001058147	-100

Substance	FAIRFIELD	HARTFORD	LITCHFIELD	MIDDLESEX	NEW HAVEN	NEW LONDON	TOLLAND	WINDHAM	Grand Total
Fentanyl	95	194	24	27	145	47	21	27	580
Heroin	78	114	25	9	128	35	7	19	415
Benzodiazepine	55	74	15	10	89	24	6	11	284
Cocaine	44	88	12	13	82	18	6	13	276
Ethanol	34	91	13	15	54	23	2	9	241
FentanylAnalogue	30	33	3	4	33	7	3	5	118
Methadone	17	18	3	2	43	5		3	91
Oxycodone	9	19	6	7	25	12	1	5	84
Other	12	14	3	3	12	5	2	3	54
Amphet	8	7	4	1	10	2	1		33
Tramad	3	7	2		11	3		1	27
Hydromorphone	2	3			6	2	1		14
Hydrocodone	2	3	2	1	3	2	1		14
Morphine_NotHeroin	1	1	1	2	5		1		11
OpiateNOS	1	5			2	1			9
Oxymorphone	3			1	1	2			7
Average	25	45	9	7	41	13	4	10	141
Standard Deviation	29	56	8	8	47	14	6	8	171
Variance	869	3159	70	58	2177	198	33	68	29301