

AUGUST 31, 2017

KASPER QUARTERLY THRESHOLD ANALYSIS REPORT

SECOND QUARTER 2017

Prepared by
Dana Quesinberry, JD



KASPER Quarterly Threshold Analysis Report, Second Quarter 2017

The Kentucky Injury Prevention Center, as bona fide agent for the Kentucky Department for Public Health, prepares this report to provide information on rates of controlled substance dispensing (number of prescriptions dispensed per 1,000 Kentucky residents) by age group and gender. The analysis includes dispensing rates of 1) total Schedule II through V controlled substances; 2) alprazolam; 3) buprenorphine/naloxone; 4) hydrocodone; 5) methadone; 6) opioids; 7) oxycodone; and 8) total Schedule II stimulants.

Additionally, trend graphs for the First Quarter 2015 to Second Quarter 2017 are presented for each dispensed controlled substance class or specific controlled substance.

Your feedback is important to us. After you review the report, please click on this link to complete the evaluation survey:

<https://www.surveymonkey.com/r/KASPER2ndQTR2017ThresholdReportFeedback>

Prior threshold analysis reports are available on the KASPER website at <http://www.chfs.ky.gov/os/oig/kasptrendreports> and on KIPRC's website at <http://www.mc.uky.edu/kiprc/>.

Suggested citation:

Quesinberry, D. *KASPER Quarterly Threshold Analysis Report, Second Quarter 2017*. Kentucky Injury Prevention and Research Center, 2017.

This report was supported by Cooperative Agreement Number 1U17CE002732-01, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Executive Summary

1. *All Controlled Substance Dispensing:* Females over the age of 17 were dispensed Schedule II-V Controlled Substance prescriptions at higher rates than males. The highest controlled substance prescription dispensing rates were for females 55 to 64 years of age at 1,050 prescriptions dispensed per 1,000 females and for females 45 to 54 years of age at 965 prescriptions dispensed per 1,000. The overall dispensing rate for all controlled substances declined for the sixth consecutive quarter.
2. *Alprazolam Dispensing:* Females over 17 years of age were dispensed alprazolam prescriptions at higher rates than males. Females over 25 years of age were dispensed alprazolam at rates 2 times higher than males over 25 years of age. The highest rate of dispensed alprazolam prescriptions was for females 55 years of age and older at 101 prescriptions dispensed per 1,000 females. The overall dispensing rate for alprazolam declined for the seventh consecutive quarter.
3. *Buprenorphine-Naloxone Dispensing:* Dispensing rates for buprenorphine-naloxone prescriptions were highest for both males and females 25 to 44 years of age. Males 35 to 44 years of age had the highest dispensing rates of buprenorphine-naloxone prescriptions at 141 prescriptions per 1,000 males. The buprenorphine-naloxone dispensing rate increased for nine consecutive quarters.
4. *Hydrocodone Dispensing:* Females of all ages were dispensed hydrocodone at higher rates than males. The highest hydrocodone dispensing rates were for females and males 55 to 64 years of age at 257 prescriptions dispensed per 1,000 females and 245 prescriptions per 1,000 males. The dispensing rates for hydrocodone declined for the seventh consecutive quarter.
5. *Methadone Dispensing:* Males had a higher methadone dispensing rate compared to females. The highest dispensing rate was for males 55 to 64 years of age at a rate of 8 prescriptions per 1,000 males. Methadone dispensing rates declined for the seventh consecutive quarter.
6. *All Opioids:* Females aged 17 years and older had higher opioid dispensing rates than males; the highest rates were for females and males aged 55 to 64 years at 524 prescriptions per 1,000 and 503 per 1,000 for females and males, respectively. Opioid prescription dispensing rates declined for the third consecutive quarter.
7. *Opioids, excluding Buprenorphine-Naloxone:* By excluding buprenorphine-naloxone dispensing, the dispensing rates better represent opioid use for pain control. Females aged 17 years and older had higher dispensing rates than males. The highest rates were for females and males aged 55 to 64 years at 507 prescriptions per 1,000 and 482 prescriptions per 1,000 for females and males, respectively. Trend comparisons for opioids, excluding buprenorphine-naloxone, are not yet available. Dispensing rates for opioids, excluding buprenorphine-naloxone, decreased from 253 prescriptions per 1,000 persons to 246 per 1000 persons (not shown).

8. *Oxycodone Dispensing:* Females under the age of 55 years had higher oxycodone dispensing rates compared to males. After 55 years of age, males were dispensed higher rates than females. The highest dispensing rates were for males and females aged 55 to 64 years at 127 prescriptions dispensed per 1,000 for males and 119 per 1,000 for females. The overall dispensing rate declined for the second consecutive quarter.
9. *Schedule II Stimulant Dispensing:* Schedule II stimulants include amphetamine (e.g. Adderall) and methylphenidate (e.g. Concerta, Ritalin). The Schedule II stimulant dispensing rates were highest for males and females aged 0 to 16 years at 165 prescriptions dispensed per 1,000 for males and 71 per 1,000 for females. Dispensing rates for Schedule II stimulants decreased in 2nd Quarter 2017 from 1st Quarter 2017.
10. *County-level Dispensing Rates:* Dispensing rates vary widely by both county and substance.
 - a. Alprazolam dispensing rates were highest in Bell (105 prescriptions per 1,000 persons), Powell (94 per 1,000), and Magoffin (87 per 1,000) counties. The lowest alprazolam dispensing rates were in Russell (14 per 1,000), Kenton (18 per 1,000), and Grant (19 per 1,000) counties.
 - b. Buprenorphine-naloxone dispensing rates were highest in Owsley (321 per 1,000), Magoffin (296 per 1,000), and Perry (244 per 1,000) counties. The lowest buprenorphine-naloxone dispensing rates were in Union (2 per 1,000), Todd (5 per 1000), and Breckinridge (6 per 1,000) counties.
 - c. Opioid, excluding buprenorphine-naloxone, dispensing rates were highest in Floyd (550 per 1,000), Clay (548 per 1,000), and Owsley (544 per 1,000) counties. The lowest opioid, excluding buprenorphine-naloxone, dispensing rates are in Russell (90 per 1,000), Oldham (128 per 1,000), and Boyd (130 per 1,000) counties.
 - d. Hydrocodone dispensing rates were highest in Clay (364 per 1,000), Floyd (327 per 1,000), and Bell (326 per 1,000) counties. The lowest hydrocodone dispensing rates were in Kenton (45 per 1,000), Russell (52 per 1,000), and Boone (55 per 1,000) counties.
 - e. Oxycodone dispensing rates were highest in Powell (121 per 1,000), Clinton (114 per 1,000), and Estill (113 per 1,000) counties. The lowest oxycodone dispensing rates are in Russell (14 per 1,000), Davies and Oldham (30 per 1,000), and Adair (32 per 1,000) counties.
 - f. Schedule II Stimulant dispensing rates were highest in Henderson (137 per 1,000), Union (115 per 1,000), and McCracken (105 per 1,000) counties. The lowest Schedule II Stimulant dispensing rates are in Russell (7 per 1,000), Clay (13 per 1,000), and Cumberland (14 per 1,000) counties.

Schedule II-V Controlled Substances

Figure 1:

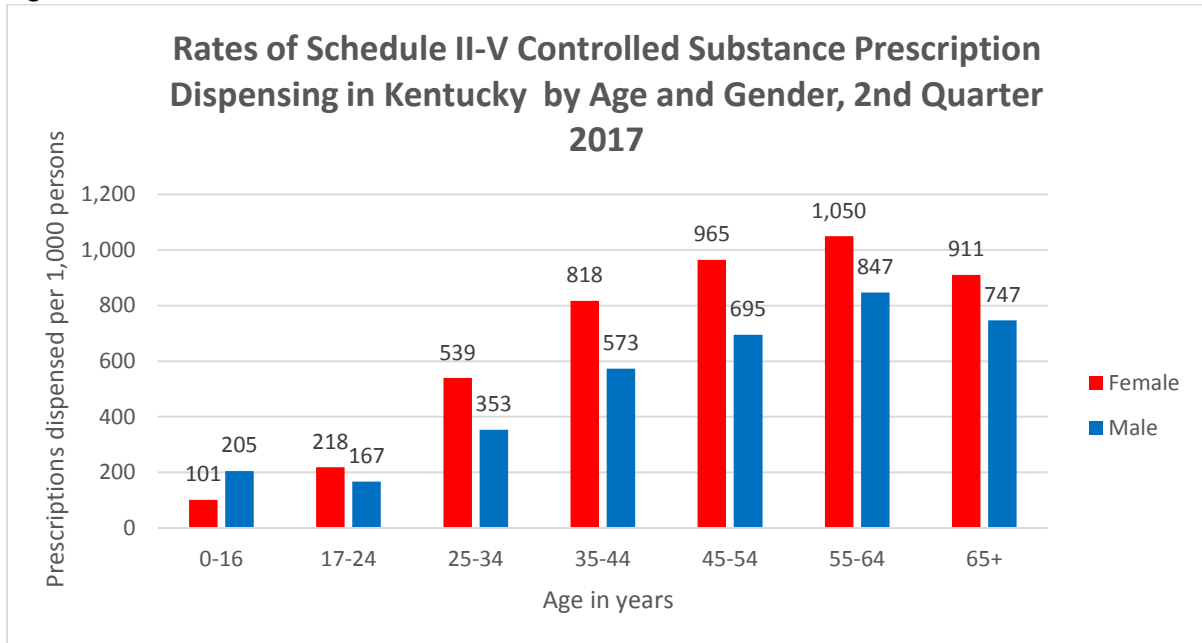
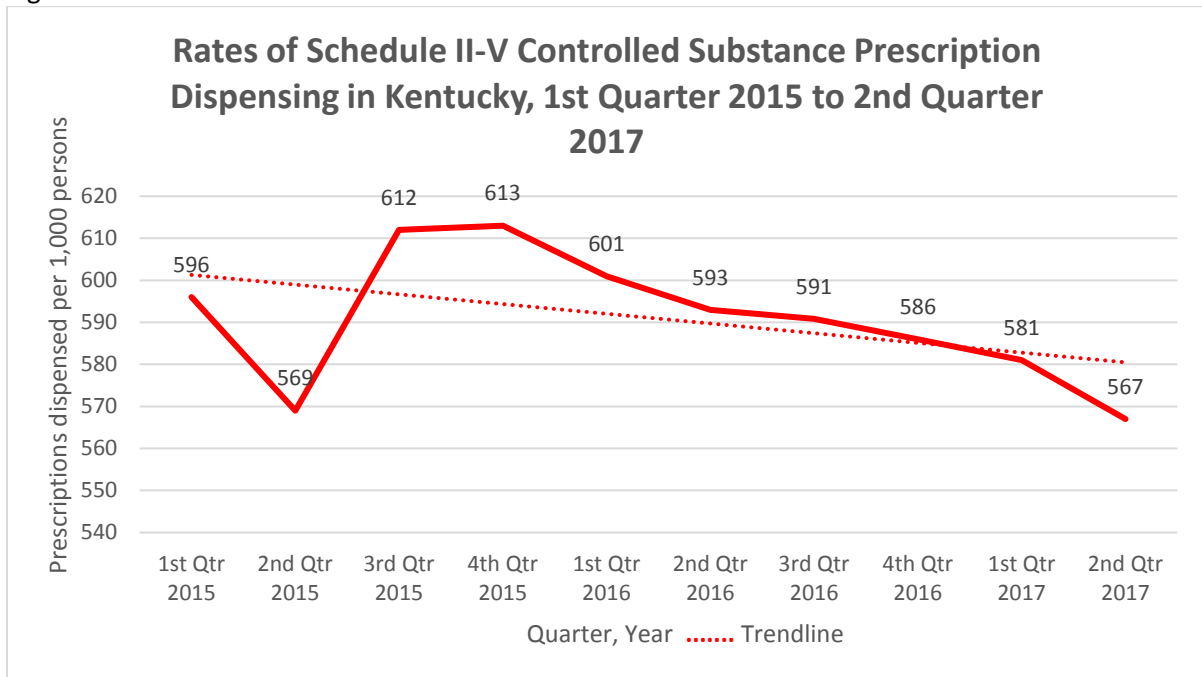


Figure 2:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Alprazolam

Figure 3:

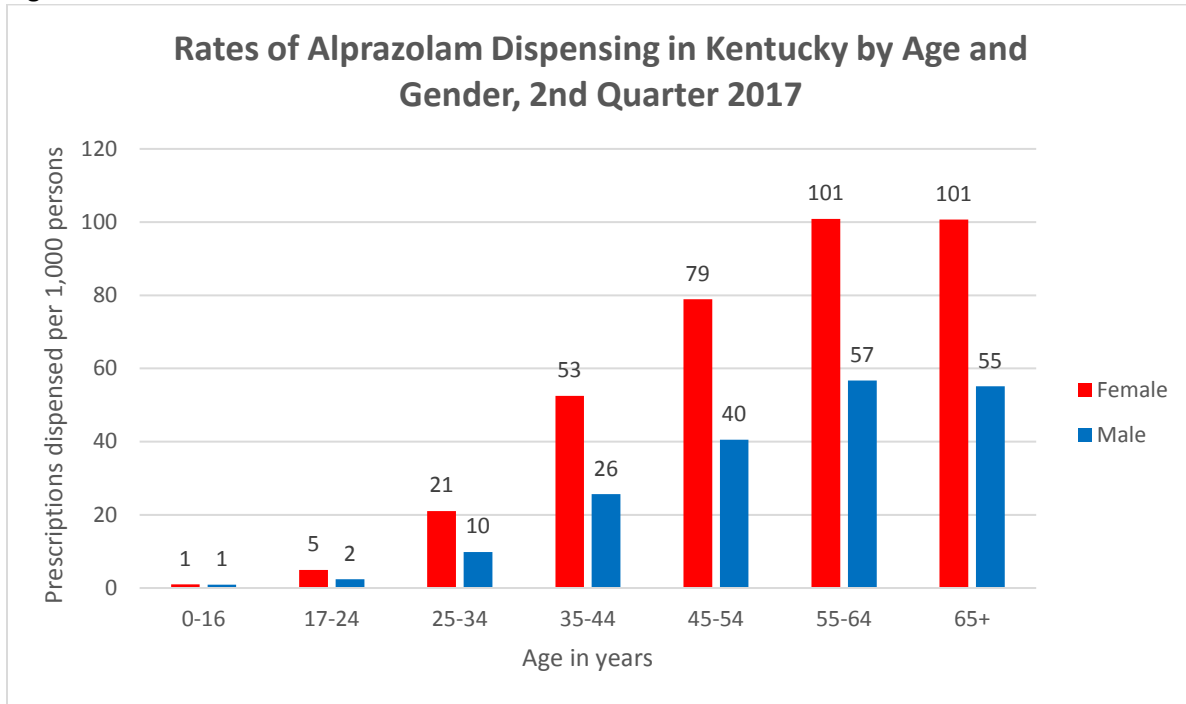
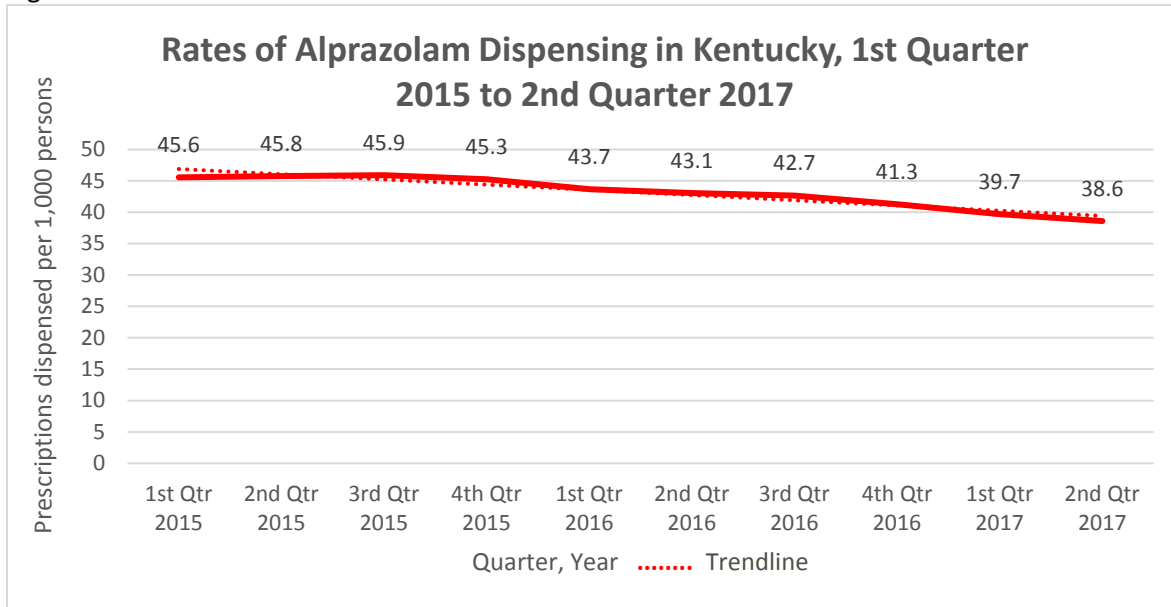


Figure 4:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Buprenorphine-Naloxone

Figure 5:

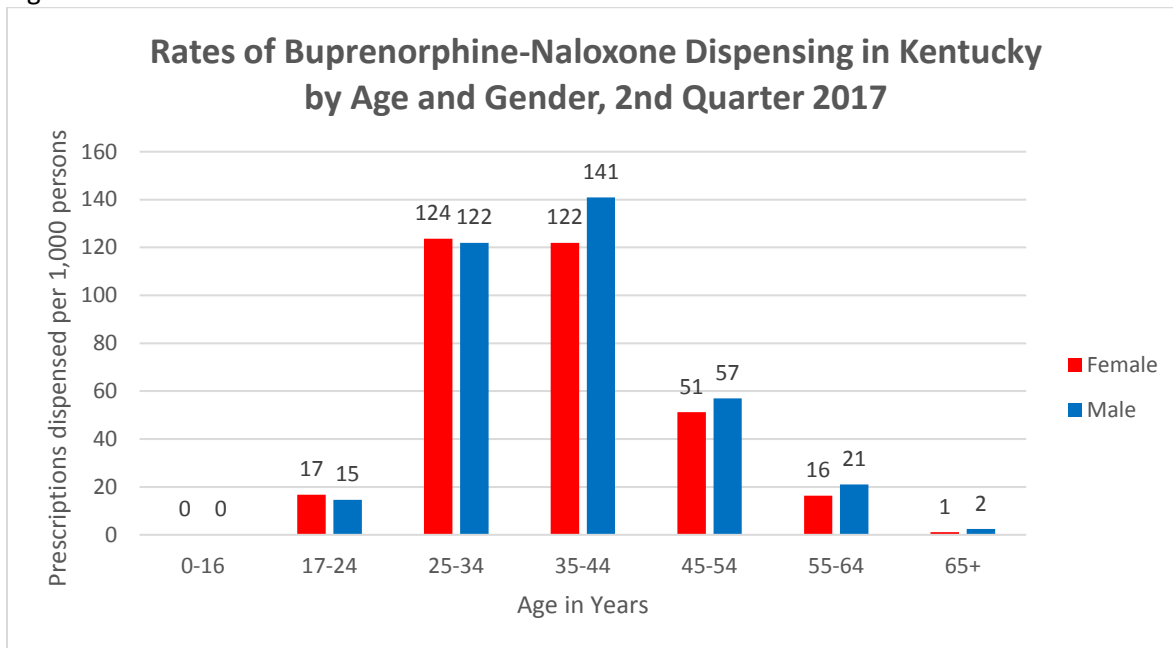
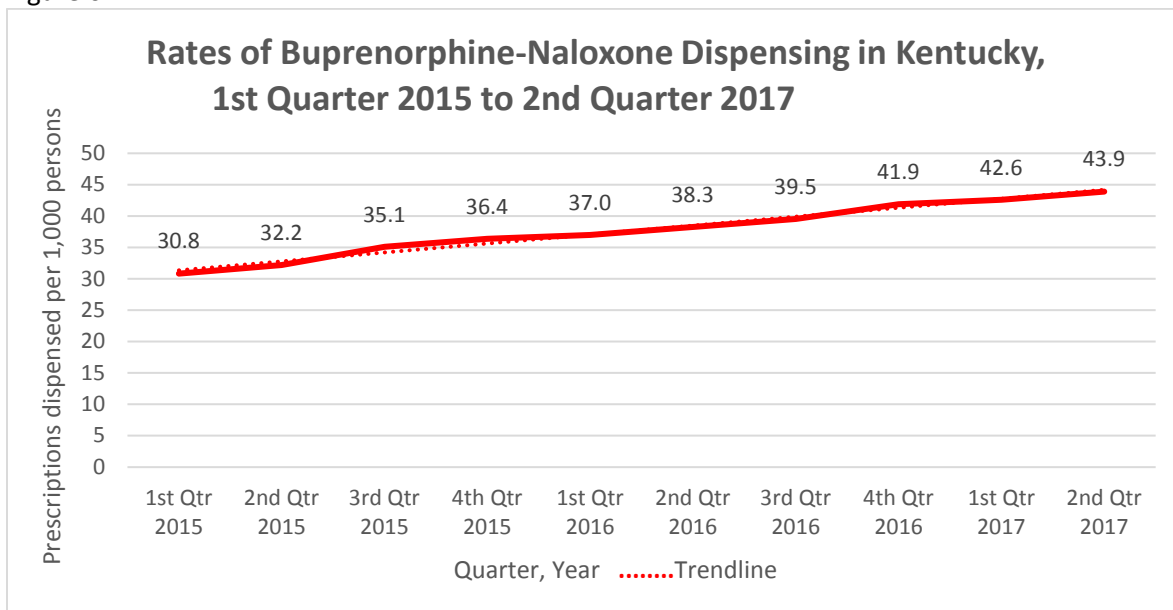


Figure 6:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Hydrocodone

Figure 7:

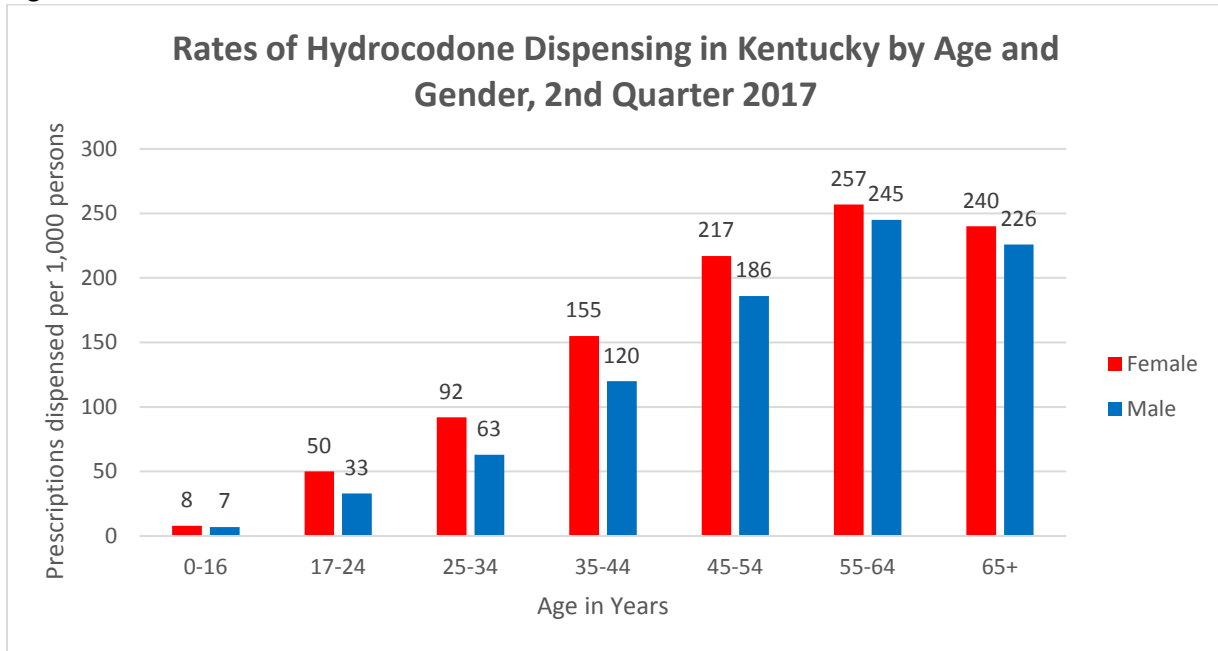
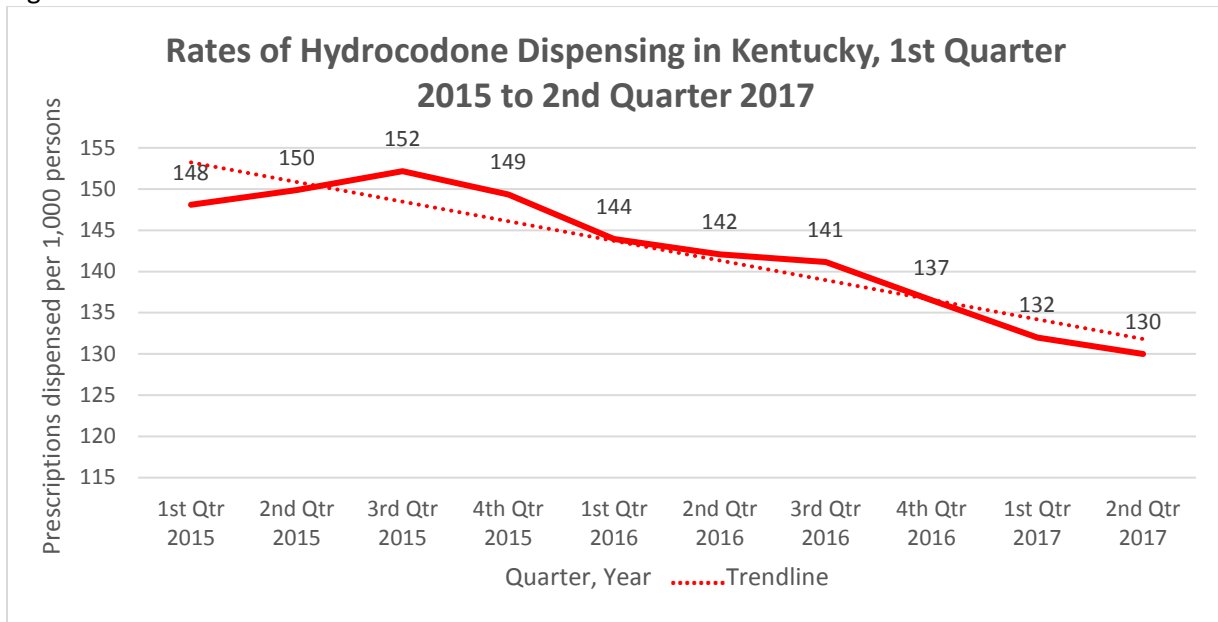


Figure 8:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Methadone

Figure 9:

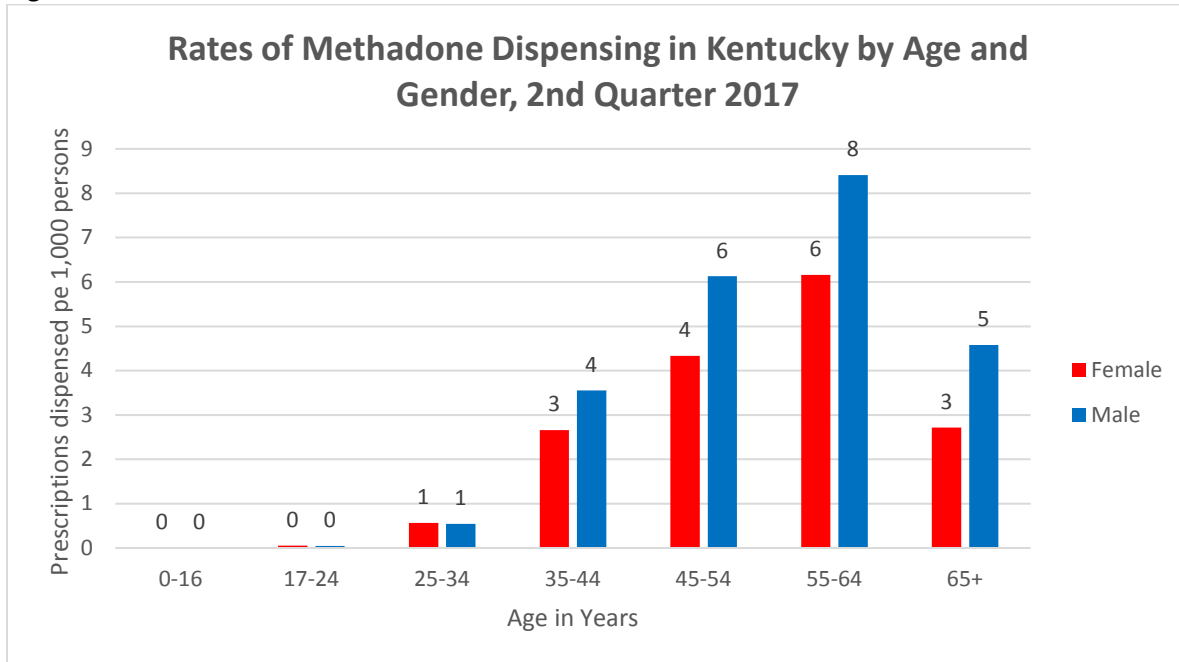
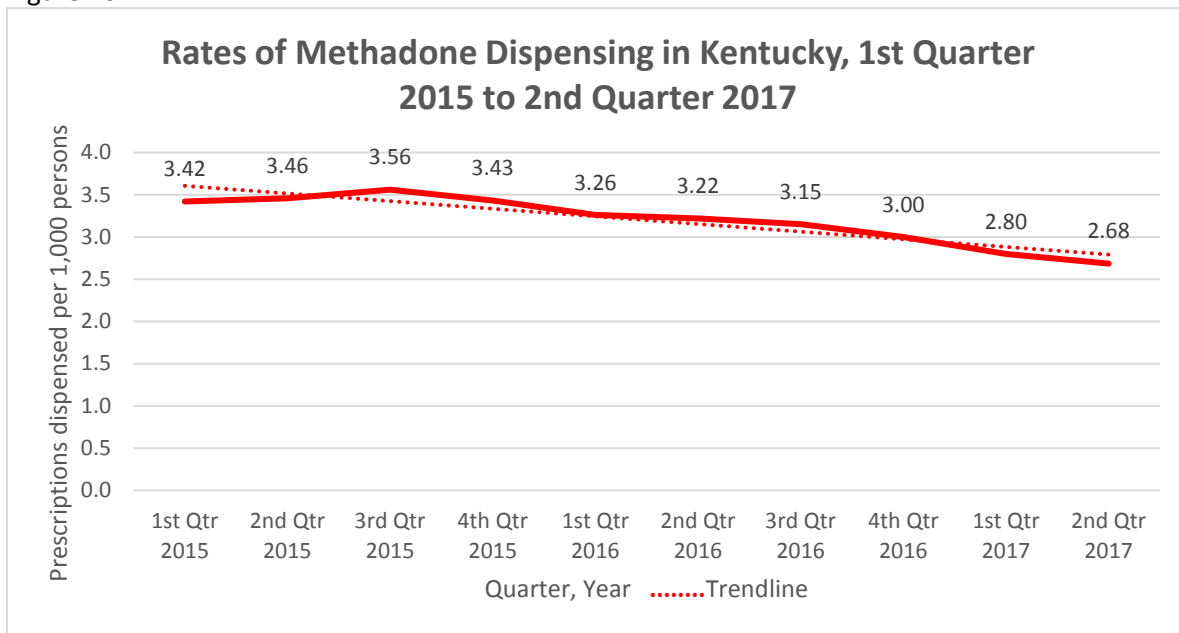


Figure 10:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Opioids

Figure 11:

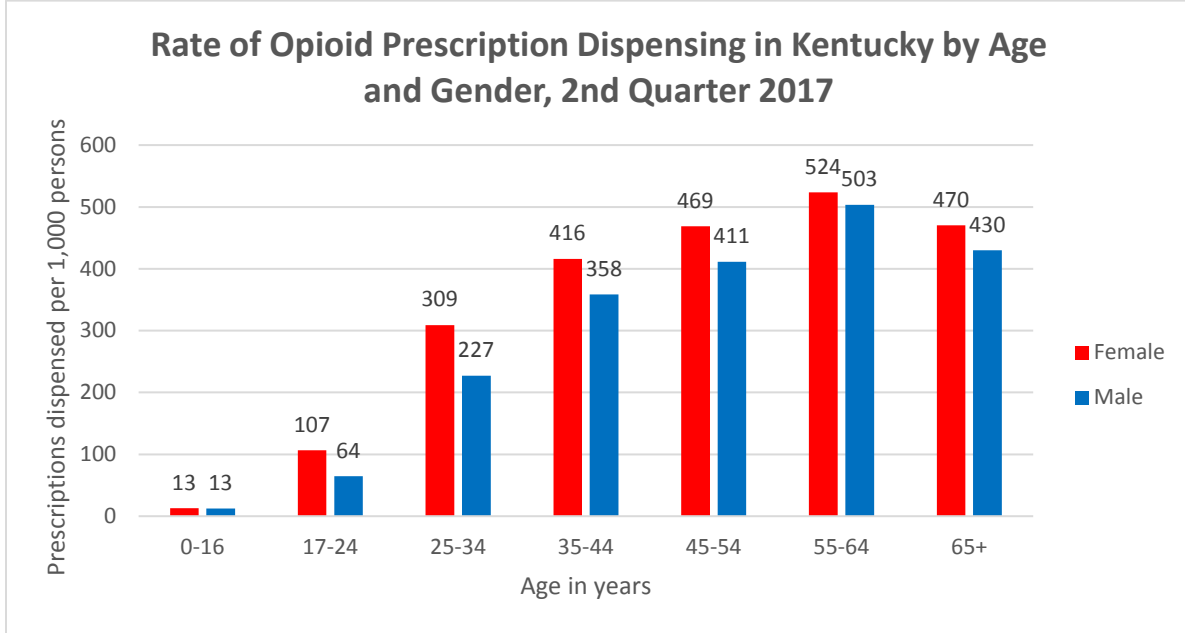
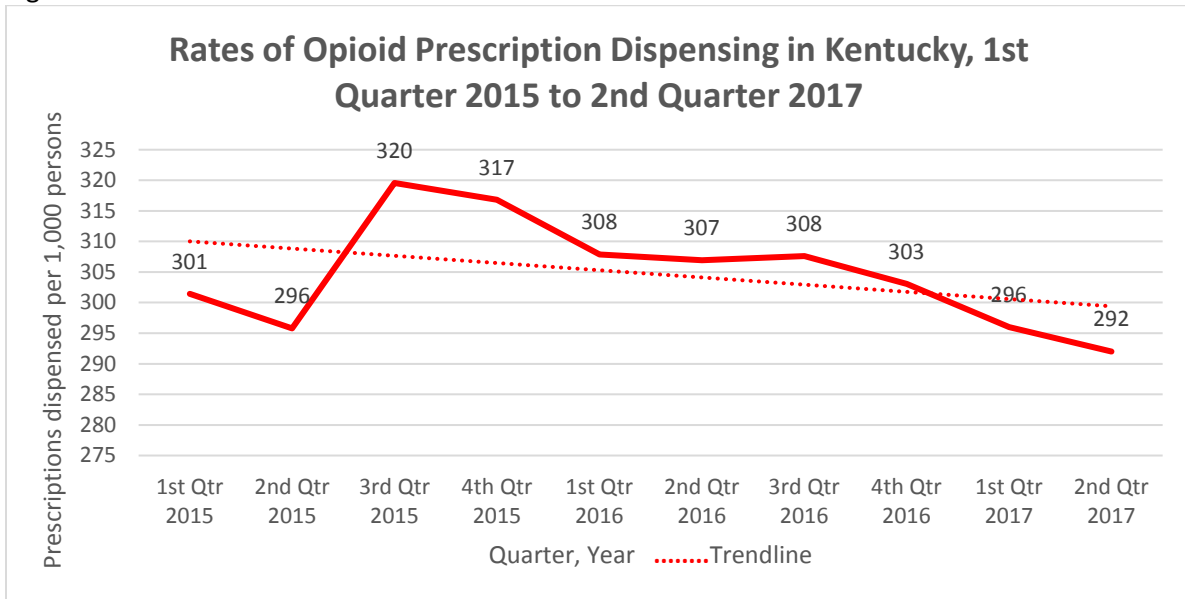


Figure 12:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Opioids, Excluding Buprenorphine-Naloxone

Figure 13:

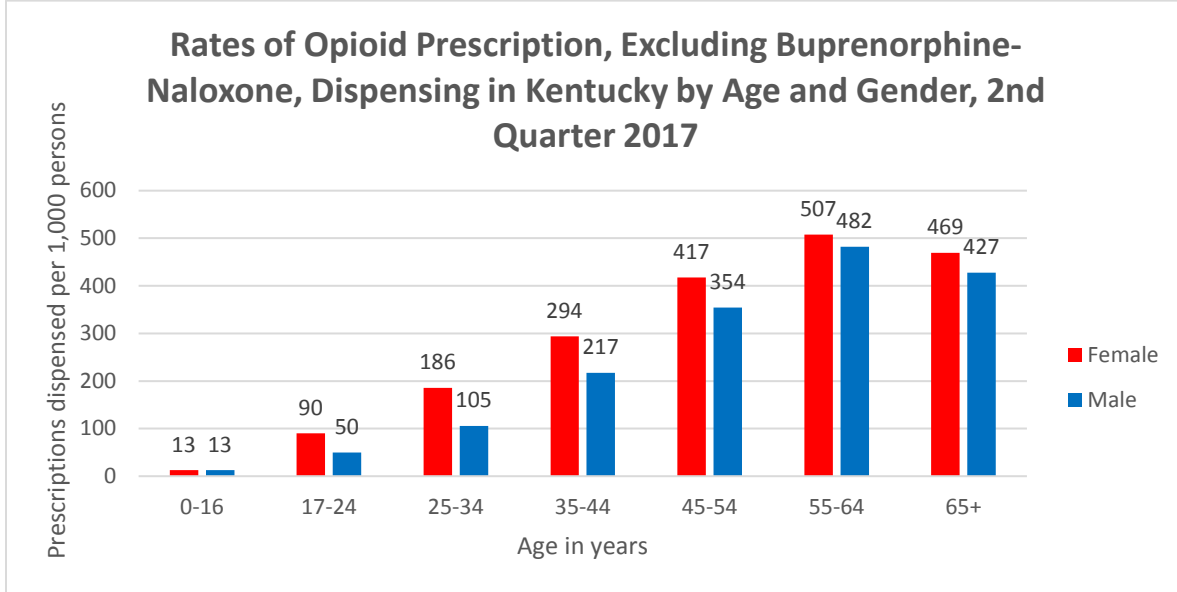


Figure 14:

This figure is intentionally left out. Dispensing rate trend is not available yet.

Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Oxycodone

Figure 15:

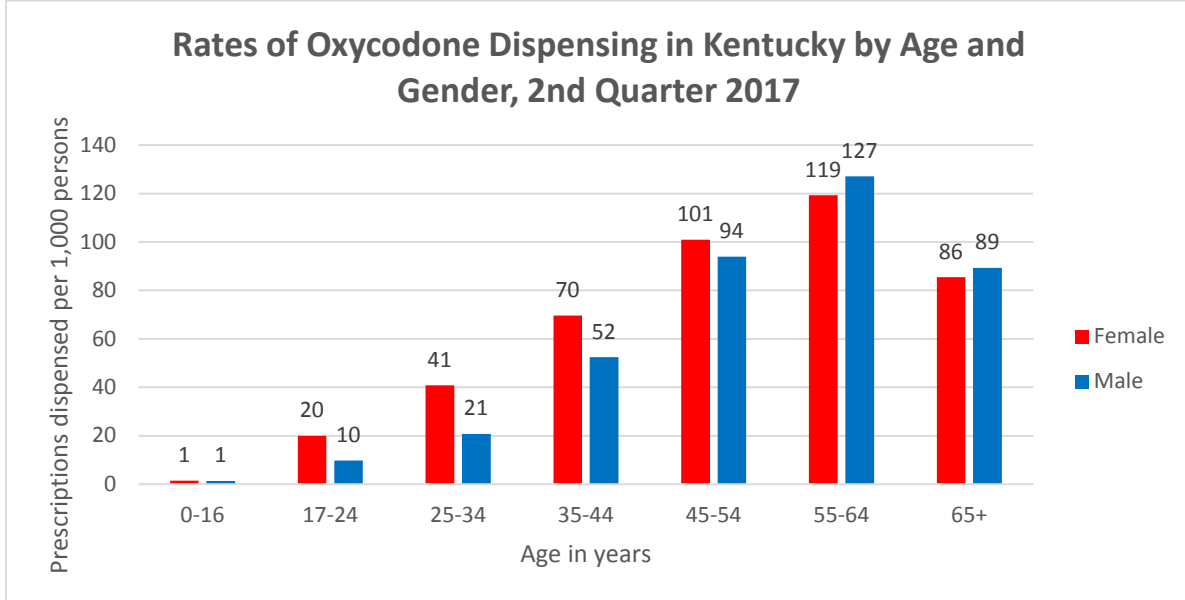
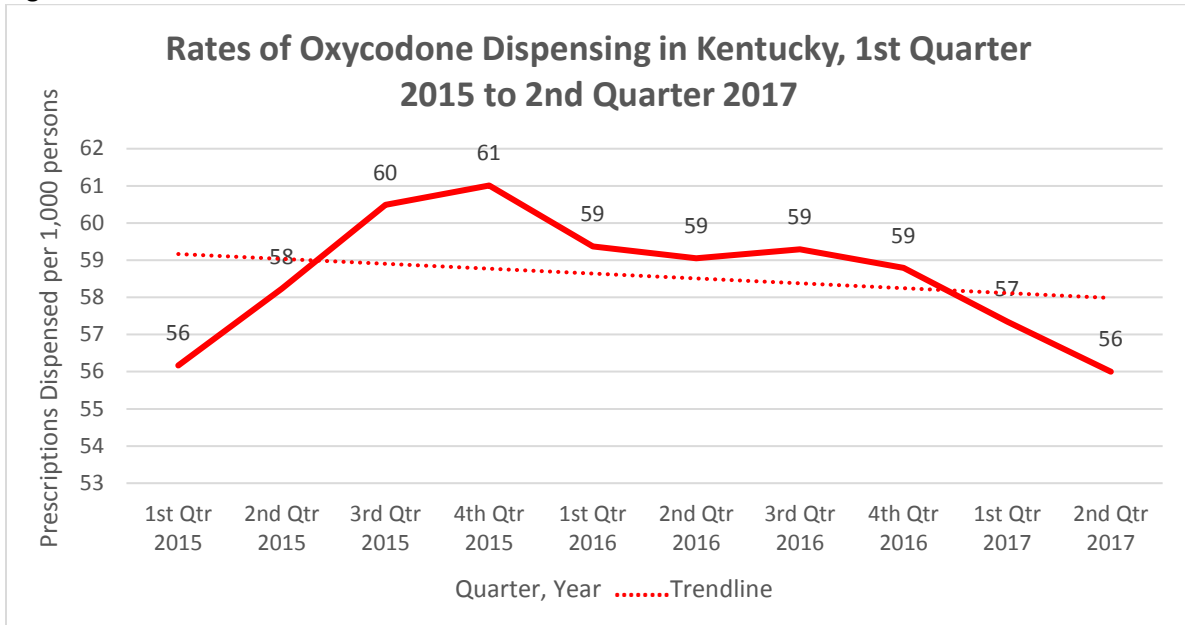


Figure 16:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Schedule II Stimulants

Figure 17:

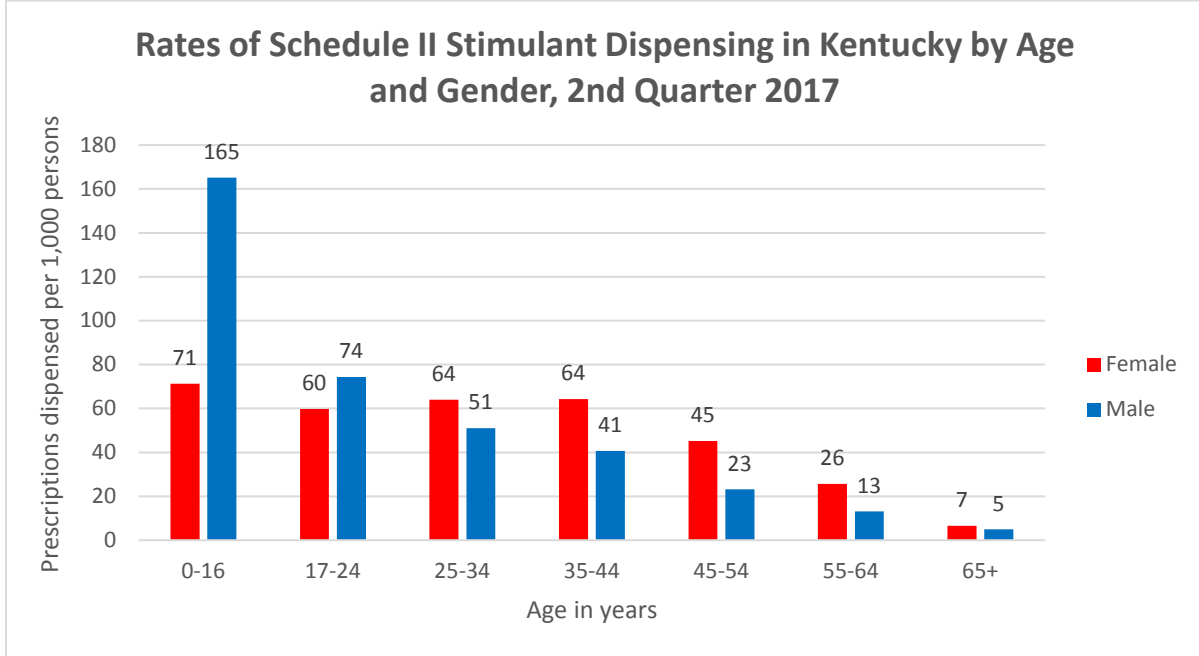
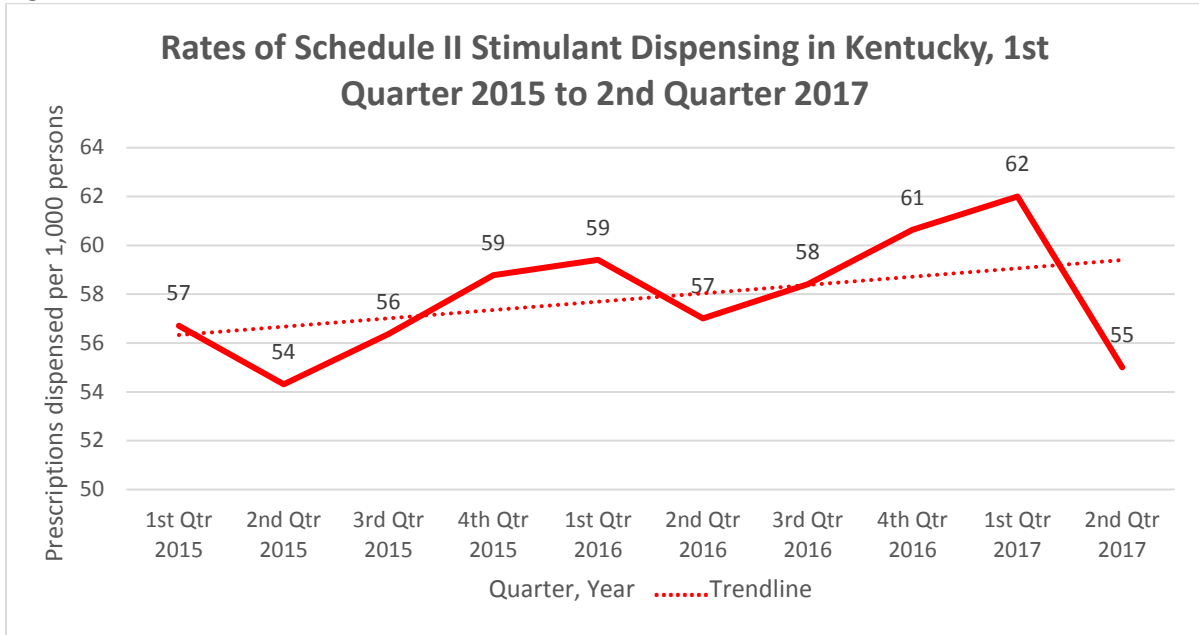


Figure 18:



Produced by the Kentucky Injury Prevention and Research Center, July 2017. Data source: Kentucky All Schedule Prescription Electronic Reporting, Kentucky Office of Inspector General, Cabinet for Health and Family Services.

Figure 19:

Rates of Dispensing by Drug Class or Type by Kentucky County, 2nd Quarter 2017*							
County	Alprazolam	All Opioids	Opioids-BN	Hydro-codone	Oxy-codone	Bup-renorphine / Naloxone	Stimulants
Adair	35	327	263	165	32	64	20
Allen	37	264	248	150	46	16	27
Anderson	34	290	238	128	49	53	47
Ballard	41	288	274	164	62	14	59
Barren	29	273	237	142	42	36	35
Bath	38	395	268	109	76	127	33
Bell	105	630	511	326	40	119	20
Boone	21	182	171	55	70	11	70
Bourbon	35	334	233	105	60	102	47
Boyd	22	183	130	57	34	53	38
Boyle	36	262	217	123	41	45	42
Bracken	56	276	254	93	88	22	38
Breathitt	75	669	450	254	80	219	31
Breckinridge	42	225	219	123	39	7	36
Bullitt	33	207	194	105	47	13	48
Butler	24	274	259	162	46	15	32
Caldwell	51	303	280	147	63	22	46
Calloway	56	230	222	123	42	9	55
Campbell	25	196	181	60	77	15	64
Carlisle	51	337	324	185	75	13	67
Carroll	49	343	309	155	84	33	54
Carter	35	299	196	84	46	103	27
Casey	56	306	253	149	35	53	18
Christian	30	172	165	91	33	6	40
Clark	36	326	240	102	77	86	52
Clay	71	691	548	364	80	143	13
Clinton	76	430	394	206	114	36	17
Crittenden	42	374	353	195	82	21	51
Cumberland	62	443	374	224	67	69	14
Daviess	29	146	139	75	30	7	42
Edmonson	28	246	234	130	50	12	32
Elliott	42	250	154	77	37	95	15
Estill	58	595	430	226	113	165	38
Fayette	27	167	139	64	35	28	60
Fleming	53	267	229	101	64	38	32

County	Alprazolam	All Opioids	Opioids-BN	Hydro-codone	Oxy-codone	Bup-renorphine / Naloxone	Stimulants
Floyd	55	728	550	327	92	178	46
Franklin	33	258	205	109	43	52	58
Fulton	46	324	311	186	61	13	51
Gallatin	22	261	239	89	95	22	51
Garrard	34	275	231	109	61	43	37
Grant	19	249	226	73	101	23	45
Graves	66	304	288	163	62	16	72
Grayson	41	393	379	219	60	14	46
Green	21	266	237	114	38	29	22
Greenup	45	373	288	128	71	85	73
Hancock	30	219	188	98	35	8	46
Hardin	20	221	214	115	45	7	58
Harlan	51	518	408	213	68	110	37
Harrison	39	289	227	101	55	61	35
Hart	23	231	216	117	41	16	35
Henderson	50	330	322	161	80	8	137
Henry	32	285	256	142	54	29	58
Hickman	30	196	189	116	36	7	31
Hopkins	34	325	297	165	63	28	69
Jackson	27	412	314	159	74	98	20
Jefferson	37	206	195	112	42	11	61
Jessamine	27	271	211	94	54	61	65
Johnson	51	586	440	253	73	146	45
Kenton	18	162	149	45	66	13	65
Knott	66	594	438	248	97	156	29
Knox	58	412	346	203	49	66	19
Larue	27	285	274	145	61	11	56
Laurel	40	358	267	146	45	91	27
Lawrence	33	468	303	155	60	170	36
Lee	64	749	511	303	87	239	23
Leslie	40	590	419	251	90	171	20
Letcher	25	542	400	229	72	142	25
Lewis	38	298	237	117	52	61	34
Lincoln	46	330	274	145	59	56	31
Livingston	69	433	415	228	97	18	66
Logan	30	271	259	141	54	12	24
Lyon	71	285	270	147	66	15	45
Madison	24	280	206	97	53	74	44

County	Alprazolam	All Opioids	Opioids-BN	Hydro-codone	Oxy-codone	Bup-renorphine / Naloxone	Stimulants
Magoffin	87	807	511	298	85	296	53
Marshall	55	333	308	162	83	25	68
Martin	59	563	386	198	53	176	34
Mason	47	192	177	71	51	14	41
McCracken	58	344	318	176	78	25	105
McCreary	37	468	351	159	90	116	19
McLean	48	301	287	172	57	14	55
Meade	20	165	158	88	33	7	32
Menifee	44	441	306	154	72	134	37
Mercer	29	314	256	129	50	59	48
Metcalfe	38	365	328	207	51	37	34
Monroe	37	356	308	181	52	48	22
Montgomery	53	399	270	111	77	129	34
Morgan	60	424	321	157	57	103	25
Muhlenberg	63	396	348	200	77	47	60
Nelson	30	270	250	130	60	20	62
Nicholas	42	398	267	112	67	131	37
Ohio	41	308	290	171	47	19	38
Oldham	26	135	128	67	30	7	74
Owen	23	221	193	81	59	28	30
Owsley	43	865	544	316	82	321	36
Pendleton	23	235	218	76	88	17	49
Perry	81	786	542	283	111	244	51
Pike	30	366	273	166	34	92	21
Powell	94	607	433	217	121	174	44
Pulaski	58	321	253	125	56	69	33
Robertson	50	244	211	93	64	33	45
Rockcastle	30	388	310	165	68	79	21
Rowan	30	262	187	83	42	75	39
Russell	14	117	90	52	14	27	7
Scott	27	263	196	90	53	67	59
Shelby	27	207	192	107	42	15	53
Simpson	32	216	206	112	44	10	25
Spencer	31	236	219	114	52	17	51
Taylor	40	306	267	134	44	39	33
Todd	34	222	217	125	38	5	35
Trigg	42	258	248	127	56	9	40
Trimble	30	237	222	122	48	15	36

County	Alprazolam	All Opioids	Opioids-BN	Hydro-codone	Oxy-codone	Bup-renorphine / Naloxone	Stimulants
Union	42	318	316	175	71	2	115
Washington	25	215	189	95	40	25	40
Wayne	50	354	297	165	54	57	20
Webster	47	371	357	183	88	14	90
Whitley	74	655	500	266	97	156	43
Wolfe	64	523	419	236	84	104	35
Woodford	30	221	189	89	42	32	65

All rates are based on prescriptions dispensed per 1000 persons