

MED 2017 Annual Update

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May 17, 2018

Licensing Data

New Business Licensing

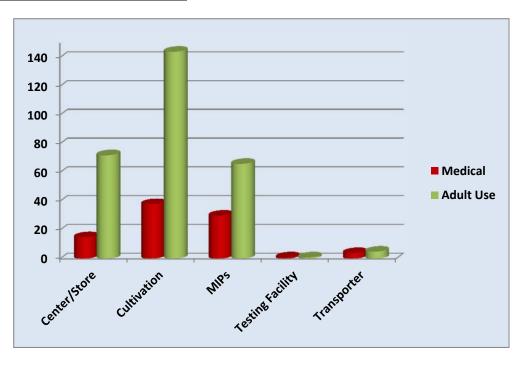
 Adult Use* licenses accounted for 77% of the new business licenses issued in 2017. Adult Use Cultivations alone accounted for 38% of the new business licenses issued in 2017.

Occupational Licenses

 An average of 1,440 new occupational licenses were issued per month. In 2017, the number of active occupational licenses increased by 20%. On average only 32% of occupational licenses are renewed.

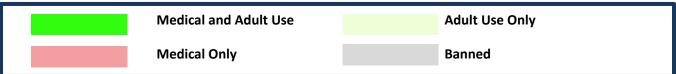
2017 New Business Licenses Issued (Table 1)

Table 1: New Business Licenses Issued in 2017	
Medical Center	15
Medical Cultivation	38
Medical Infused-Product Manufacturer (MIPs)	30
Medical Testing Facility	1
Medical Transporter	4
Total Medical	88
Adult Use Store	72
Adult Use Cultivation	144
Adult Use Infused-Product Manufacturer (MIPs)	66
Adult Use Testing Facility	1
Adult Use Transporter	5
Total Adult Use	288
Total All	376



^{*}The Division has adopted the term "Adult Use" in place of using "Retail" to describe the over 21 year old commercial marijuana market authorized by the voters approved Amendment 64 initiative in 2012.

2017 Local Jurisdictions Reporting Marijuana Licensing Status as of December 31, 2017



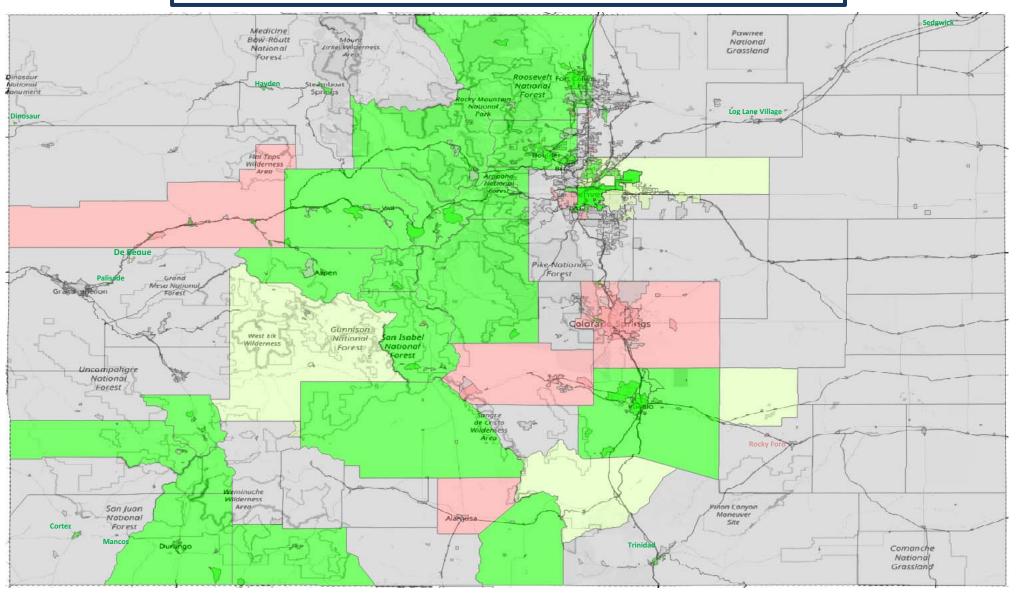
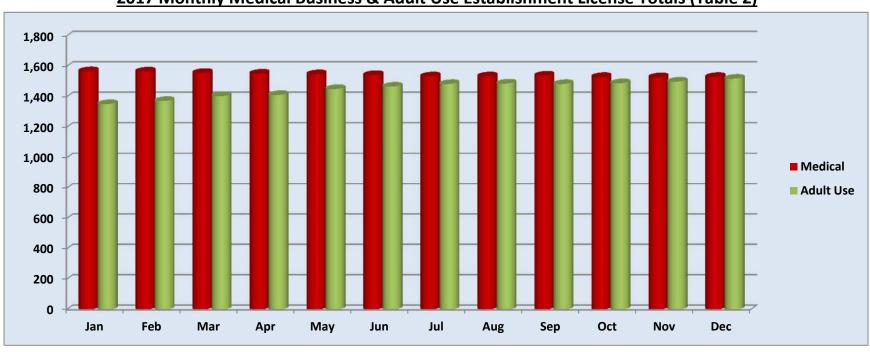


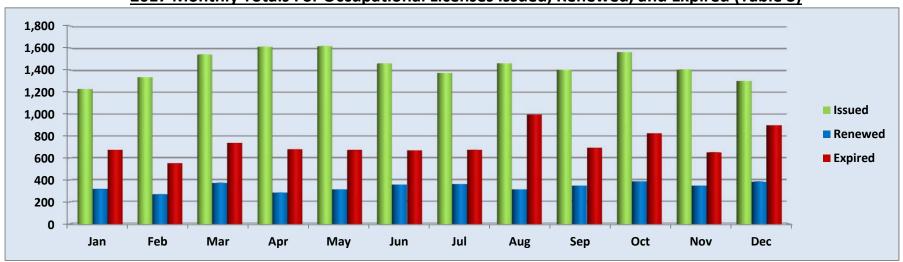
Table 2: Month-End Business	able 2: Month-End Business and Establishment License Totals by Type													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Medical Marijuana Businesses	s													
Centers 524 523 519 518 513 509 507 508 509 507 506														
Cultivation Operations	782	781	775	772	770	765	759	759	763	759	759	759		
Infused Product	249	249	250	249	251	256	255	255	255	253	251	254		
Testing Facilities	14	14	14	14	15	14	14	13	13	12	12	12		
Total Medical Licenses	1,569	1,567	1,558	1,553	1,549	1,544	1,535	1,535	1,540	1,531	1,529	1,531		
Adult Use Marijuana Establish	ments													
Stores	463	473	480	478	491	492	498	501	501	504	506	509		
Cultivation Facilities	631	641	659	665	684	692	701	700	700	703	707	720		
Product Manufacturing	246	247	254	257	263	271	273	274	271	270	276	279		
Testing Facilities	13	13	13	13	14	13	13	13	13	13	12	12		
Total Adult Use Licenses	1,353	1,374	1,406	1,413	1,452	1,468	1,485	1,488	1,485	1,490	1,501	1,520		
Total Medical and Adult Use	2,922	2,941	2,964	2,966	3,001	3,012	3,020	3,023	3,025	3,021	3,030	3,051		

2017 Monthly Medical Business & Adult Use Establishment License Totals (Table 2)



*All Occupational Licenses are issued and renewed for a two year period.													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Key Licenses Issued	355	305	401	439	422	316	326	333	337	447	347	338	4,366
Support Licenses Issued	870	1,030	1,139	1,173	1,195	1,142	1,047	1,127	1,066	1,114	1,057	963	12,923
Total New Occupational Licenses Issued	1,225	1,335	1,540	1,612	1,617	1,458	1,373	1,460	1,403	1,561	1,404	1,301	17,289
Key Licenses Renewed	124	133	168	118	146	167	185	156	174	202	192	213	1,978
Support Licenses Renewed	193	136	205	167	167	190	177	158	173	184	155	170	2,075
Total Occupational Licenses Renewed	317	269	373	285	313	357	362	314	347	386	347	383	4,053
											1-0		
Key Licenses Expired	125	112	163	141	135	142	137	195	139	168	179	213	1,849
Support Licenses Expired	548	438	573	539	536	528	538	801	553	658	472	686	6,870
Total Occupational Licenses Expired	673	550	736	680	671	670	675	996	692	826	651	899	8,719
Percentage of Occupational Licenses Renewed	32.02%	32.84%	33.63%	29.53%	31.81%	34.76%	34.91%	23.97%	33.40%	31.85%	34.77%	29.88%	31.73%
Total Active Occupational Licenses (On the last day)	31,256	31,856	32,417	33,121	33,664	34,459	34,963	35,427	35,940	36,463	37,758	37,580	

2017 Monthly Totals For Occupational Licenses Issued, Renewed, and Expired (Table 3)



Cultivated Plants

2016 vs 2017 Monthly Average

 On average, there were an additional 121,197 plants cultivated per month in 2017 compared to 2016. This calculates to a 14.6% annual growth rate in the number of plants being cultivated.

Plants by County

- Denver County's share of the total plants in the state has fallen from 62% in January, 2017 to 57% in December, 2017.
- Pueblo County; known to have many outdoor cultivations, saw a 154% increase in cultivated plants from January, 2017 to August, 2017.

Average Life Cycle of a Marijuana Plant Harvested in 2017 was 132 Days

Immature 24 Days Vegetative 55 Days Flowering 53 Days

Table 4: Monthly Ave	able 4: Monthly Average of Marijuana Plants Cultivated													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Average Medical Cultivated Plants	328,711	317,237	310,306	299,324	299,250	301,787	305,930	308,368	311,011	306,748	305,713	305,063		
Average Adult Use Cultivated Plants	519,589	545,033	566,958	585,927	617,215	667,296	705,867	725,945	732,202	696,170	670,058	669,044		
Combined Average Cultivated Plants	848,300	862,270	877,264	885,251	916,465	969,083	1,011,797	1,034,313	1,043,213	1,002,918	975,771	974,107		

Tab	ole 5: Month-End To	otal Plant	Count by	County (or Group	of Counti	es)						
		<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
<u>A</u>	Denver	532,696	532,184	527,656	531,491	536,438	541,551	543,098	542,360	552,897	552,645	547,704	555,465
<u>B</u>	Pueblo	61,788	64,735	72,153	82,314	115,046	140,031	152,387	156,763	152,178	101,776	92,678	93,403
<u>C</u>	El Paso	66,446	67,820	67,625	66,559	68,613	70,158	71,997	73,790	75,529	76,693	77,247	77,667
<u>D</u>	Boulder	65,513	66,080	67,766	68,336	66,660	66,595	67,621	69,395	70,707	70,312	68,205	67,085
<u>E</u>	Conejos, Costilla, Crowley, Huerfano, Las Animas, Saguache	13,697	15,678	17,357	17,505	25,892	31,565	33,460	36,914	36,595	24,971	27,934	28,525
<u>F</u>	Garfield, Mesa, Routt	26,311	27,604	28,890	31,564	30,425	30,375	32,082	32,216	33,419	35,608	35,230	36,327
<u>G</u>	Eagle, Grand, Pitkin, Summit	12,906	12,910	13,189	13,817	13,182	22,414	22,035	22,931	21,842	17,238	17,806	17,919
<u>H</u>	Chaffee, Fremont, Lake	15,603	16,533	14,745	15,705	18,565	22,344	23,879	24,994	24,067	20,984	21,994	21,222
I	Adams, Arapahoe	15,627	17,198	20,059	19,016	19,174	18,711	21,822	20,516	21,391	20,561	21,695	21,952
I	Larimer	13,119	13,470	13,667	13,843	13,654	14,382	13,878	13,855	13,176	12,928	12,730	12,387
<u>K</u>	Clear Creek, Gilpin, Jefferson	10,579	10,062	9,847	9,825	9,949	9,549	9,658	9,749	7,563	8,426	8,085	8,491
<u>L</u>	Archuleta, La Plata, Montezuma, San Juan	10,026	9,466	8,778	8,292	9,135	8,332	9,251	10,550	11,450	13,359	13,071	11,804
<u>M</u>	Morgan, Sedgwick, Weld	8,304	8,493	8,447	7,667	8,286	7,803	9,231	9,222	8,565	8,445	9,386	11,025
N	Gunnison, Montrose, Ouray, San Miguel	4,919	4,847	5,668	6,411	6,899	6,770	6,215	6,328	5,517	4,193	4,957	5,549
<u>0</u>	Park, Teller	4,887	5,105	4,700	4,440	4,024	4,876	4,896	6,541	6,519	5,200	5,228	5,217
	<u>Total Plants</u>	862,421	872,185	880,547	896,785	945,942	995,456	1,021,510	1,036,124	1,041,415	973,339	963,950	974,038
	% Change inTotal Plants PerMonth	N/A	1.13%	0.96%	1.84%	5.48%	5.23%	2.62%	1.43%	0.51%	(6.54%)	(0.96%)	1.05%

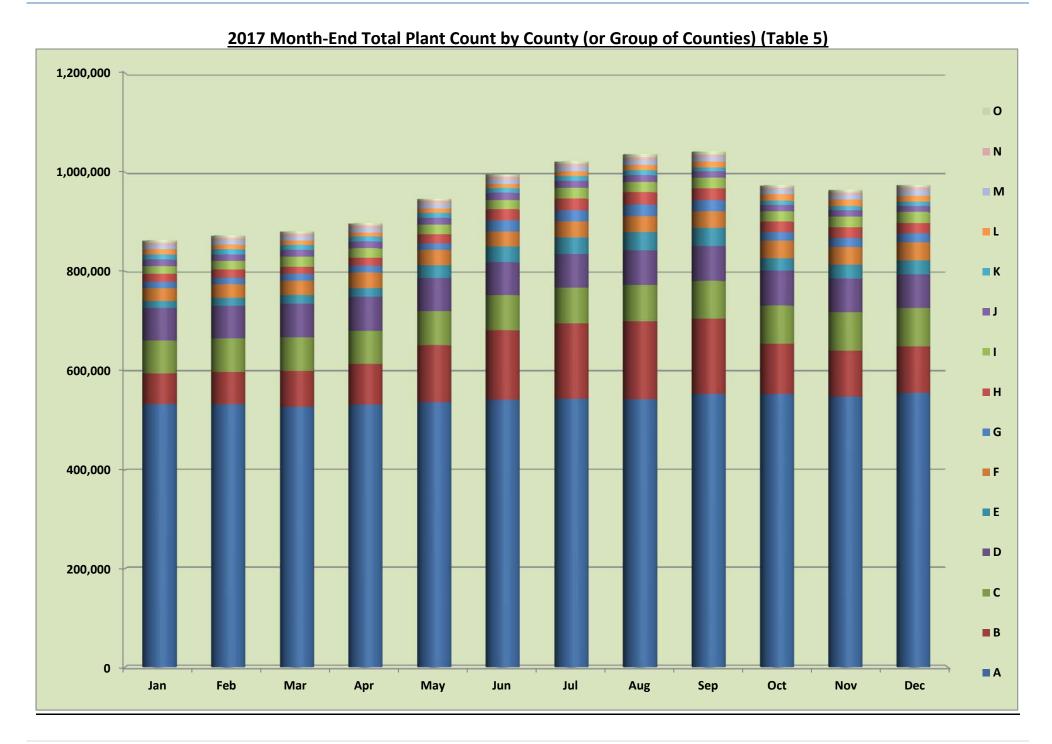
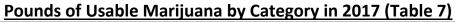
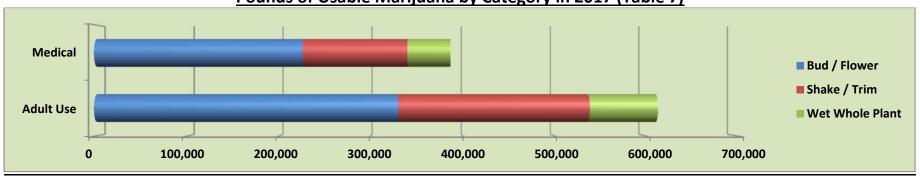


Table 6: Pounds of Usable Marijua	na by Category in 2017												
<u>Category</u> <u>Adult Use (lbs.)</u> <u>Medical (lbs.)</u> <u>Total (lbs.)</u>													
Bud / Flower													
Shake / Trim	208,070	113,912	321,982										
Wet Whole Plant	74,393	46,639	121,031										
Total	612,333	386,689	999,022										





		Total	Harvested Plants
<u>A</u>	Denver	590,790	1,552,598
<u>B</u>	Pueblo	125,970	207,884
<u>C</u>	El Paso	75,208	169,858
<u>D</u>	Boulder	66,321	182,453
<u>E</u>	Garfield, Mesa, Routt	30,460	77,733
<u>F</u>	Adams, Arapahoe	22,487	53,401
<u>G</u>	Eagle, Grand, Pitkin, Summit	19,469	43,172
<u>H</u>	Conejos, Costilla, Huerfano, Las Animas, Saguache	14,291	52,445
<u>I</u>	Chaffee, Crowley, Fremont, Lake	15,838	42,724
I	Larimer	11,065	35,660
<u>K</u>	Morgan, Sedgwick, Weld	6,381	19,779
<u>L</u>	Archuleta, La Plata, Montezuma, San Juan	5,863	21,194
<u>M</u>	Clear Creek, Gilpin, Jefferson	6,091	20,159
<u>N</u>	Park, Teller	4,760	10,152
<u>0</u>	Gunnison, Montrose, Ouray, San Miguel	4,028	11,380
	TOTAL	<u>999,022</u>	<u>2,500,592</u>

Volume Sold to Consumers

Flower Sales

• The margin between Adult Use flower sales and Medical • Units sold of Medical edibles dropped 14%, while units sold flower sales increased from 24% in January, 2017 to 44% in December, 2017.

Edible and Concentrates

- of Adult Use edibles increased 29% from 2016 to 2017.
- 477% more concentrate units were sold in the Adult Use market compared to Medical in 2017.

Table 8: Pounds of Flower/Bud Sold Monthly in 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Medical	12,628	12,356	15,837	16,994	15,229	14,843	16,224	15,672	15,169	13,701	12,293	12,048	172,994
Adult Use	16,611	16,648	19,890	19,475	19,089	19,725	20,998	21,509	21,847	20,780	20,015	21,562	238,149
Total	29,239	29,004	35,727	36,469	34,318	34,568	37,222	37,181	37,016	34,481	32,308	33,610	411,143

2017 Monthly Totals for Pounds of Flower/Bud Sold to Consumers (Table 8)

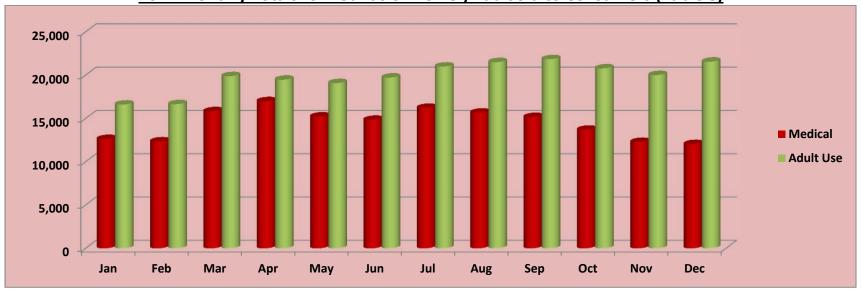


Table 9: Uni	ts of Edible	es Sold Mo	onthly in 20	017										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
Medical	134,660	134,892	164,571	168,169	160,252	154,130	156,275	149,656	146,528	155,772	155,045	171,148	1,851,098	
Adult Use	632,212	635,771	814,593	716,336	724,069	806,701	918,464	882,136	834,703	766,020	707,064	857,260	9,295,329	
Total	Total 766,872 770,663 979,164 884,505 884,321 960,831 1,074,739 1,031,792 981,231 921,792 862,109 1,028,408 11,146,427													

2017 Monthly Total Units of Edibles Sold to Consumers (Table 9)

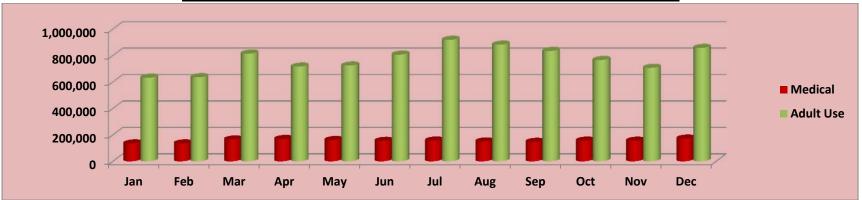


Table 10: Units of Non-Edible Infused Products Sold Monthly in 2017 Jan Feb Mar Apr Jul Aug Sep Oct Nov Total May Jun Dec Medical 16,488 17,583 19,122 25,645 16,961 15,842 16,755 16,988 16,583 16,263 15,639 16,954 210,823 **Adult Use** 53,606 83,098 80,598 73,894 69,024 79,664 54,075 68,499 60,703 64,714 72,648 83,123 843,646 **Total** 70,094 71,658 87,621 86,348 81,675 88,490 99,878 100,086 97,181 90,157 84,663 96,618 1,054,469

2017 Monthly Total Units of Non-Edibles Sold to Consumers (Table 10)

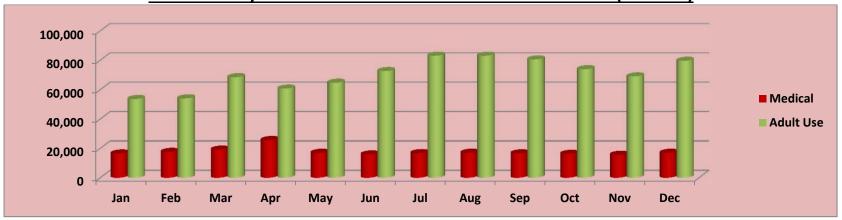


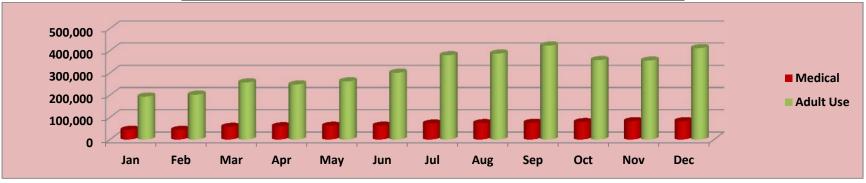
Table 11: Pou	Table 11: Pounds of Concentrate Sold Monthly in 2017														
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Total														
Medical	966	1,024	1,155	1,151	1,200	1,073	1,259	1,249	1,266	1,309	1,206	1,234	14,092		
Adult Use	851	880	1,069	1,083	1,058	1,090	1,223	1,267	1,289	1,297	1,293	1,398	13,798		
Total	1,817	1,904	2,224	2,234	2,258	2,163	2,482	2,516	2,555	2,606	2,499	2,632	27,890		





Table 12: U	Table 12: Units of Concentrates Sold Monthly in 2017														
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Total														
Medical	43,175	42,804	56,616	59,199	61,307	61,810	71,474	73,265	74,770	77,950	82,145	81,935	786,450		
Adult Use	192,984	201,952	256,870	247,581	261,476	300,363	379,087	386,669	422,580	357,510	355,002	411,073	3,773,147		
Total	236,159	244,756	313,486	306,780	322,783	362,173	450,561	459,934	497,350	435,460	437,147	493,008	4,559,597		

2017 Monthly Units of Concentrate Sold to Consumers (Table 12)



Testing Data

Flower and Trim Microbial Contaminant Testing

• 42,140 individual packages of retail marijuana flower/trim were submitted for microbial contaminant testing.

All Other Tests

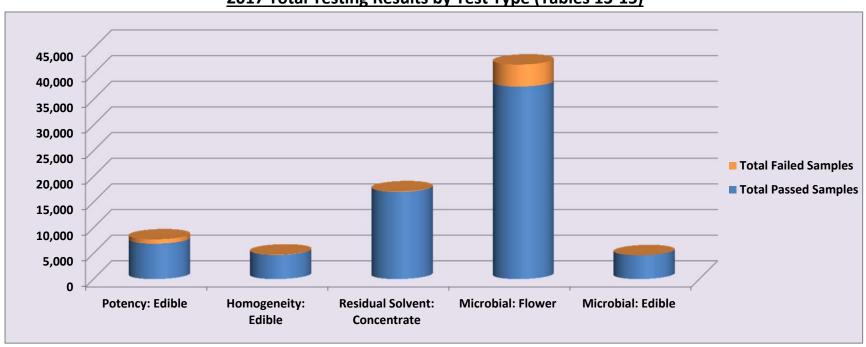
• Total number of individual packages submitted for all other mandatory retail tests were 104,879 packages.

Table 13: Retail Marijuana Potency and Homogeneity Testing in 2017 (The term "package" refers to a single test batch submitted to a Testing Facility)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Flower and Shake/Trim Packages Tested (Potency)	3,825	3,495	4,564	3,928	4,571	4,277	3,745	4,500	3,979	4,886	4,293	4,333	50,396
Infused Edible Packages Tested (Potency)	590	531	559	520	599	784	574	760	768	892	541	626	7,744
Infused Edible Packages Tested (Homogeneity)	317	350	327	269	375	534	434	488	465	522	312	387	4,780
Infused Non-edible Packages Tested (Potency)	173	179	206	189	162	198	203	235	230	227	214	186	2,402
Concentrate Packages Tested (Potency)	4,593	4,463	5,517	5,105	5,020	5,316	4,902	5,739	5,183	5,781	5,739	5,361	62,719

Table 14: Retail Marijuana Contaminant Testing in 2017 (The term "package" refers to a single test batch submitted to a Testing Facility)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Flower and Shake/Trim Packages Tested (Microbial Contaminants)	3,236	3,193	3,854	3,336	3,746	3,483	3,470	3,440	3,526	3,915	3,488	3,453	42,140
Infused Edible Packages Tested (Microbial Contaminants)	408	331	374	333	380	419	398	431	418	518	307	334	4,651
Infused Non-edible Packages Tested (Microbial Contaminants)	73	89	61	62	67	77	82	78	78	102	72	54	895
Concentrate Packages Tested (Microbial Contaminants)	253	363	417	417	440	422	319	329	417	477	409	312	4,575
Concentrate Packages Tested (Residual Solvent Contaminants)	1,818	1,365	1,743	1,188	1,352	1,517	1,171	1,328	1,302	1,534	1,519	1,276	17,113

Table 15: Retail Marijuana Testing Results in 2017 (Percentage of Packages That Passed Testing)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Infused Edible	88.3%	88.5%	90.9%	91.5%	90.7%	87.0%	91.6%	90.8%	97.09/	96 79/	00.09/	00 70/	90.49/
Potency Results	00.5%	00.5%	90.9%	91.5%	90.7%	87.0%	91.6%	90.8%	87.0%	86.7%	90.9%	88.7%	89.4%
Infused Edible	1000/	00 10/	00.00/	00 49/	00.79/	97.9%	99.8%	98.8%	95.9%	98.3%	99.0%	98.4%	00 00/
Homogeneity Results	100%	99.1%	98.8%	99.4%	99.7%								98.8%
Flower and Shake/Trim	92.1%	92.5%	94.0%	90.8%	91.2%	92.5%	92.0%	89.3%	88.5%	84.5%	85.1%	84.4%	89.7%
Microbial Contaminant Results	92.1%	92.5%	94.070	90.676	91.270	92.570	92.070	05.570	00.570	04.570	65.1/6	04.470	65.7%
Infused Edible	99.5%	99.7%	99.7%	99.7%	100%	100%	100%	100%	99.8%	100%	100%	100%	99.9%
Microbial Contaminant Results	99.5%												33.3%
Infused Non-edible	1000/	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1000/	100%
Microbial Contaminant Results	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Concentrate	98.5%	97.8%	98.3%	98.1%	99.5%	99.1%	98.7%	99.4%	98.8%	97.9%	98.0%	98.4%	98.5%
Microbial Contaminant Results	98.5%	97.8%	98.5%	98.1%	99.5%	99.1%	98.7%	99.4%	98.8%	97.9%	98.0%	98.4%	98.5%
Concentrate	100%	99.8%	99.5%	99.4%	99.7%	99.3%	98.9%	98.3%	99.2%	99.2%	99.0%	99.8%	99.3%
Residual Solvent Contaminant Results	100%	33.0%	33.3%	33.470	33.7%	33.370	30.9%	30.3%	33.270	33.270	33.0%	33.670	33.3%

2017 Total Testing Results by Test Type (Tables 13-15)



Investigation Information

Non-Qualified Sales Checks

• The percentage of Non-Qualified Sales Checks (underage purchases) passed by licensees has risen to 95.1% in 2017 from 94% in 2016.

Administrative Actions

 Of the 210 Administrative Actions issued against business licenses, 89 were for Adult Use licenses and 121 were for Medical licenses.

Table 16: Investigations Conducted by MED in 2017								
Investigation Type	Total Number of Investigations							
Business Background Investigation	463							
Individual Background Investigation	606							
Renewal Investigation	3,960							
Change of Ownership Investigation	575							
Change of Location Investigation	69							
Modification of Premises Investigation	516							
Change of Trade Name Investigation	110							
Non-Qualified Sales Check Investigation (% of Checks Passed)	264 (95.1%)							
Targeted Compliance Inspections	672							
Regulatory and Criminal Investigation	1,148							

Table 17: Administrative Actions Issued by the State Licensing Authority in 2017

	Medical Centers	Medical Cultivations	Medical MIPs	Adult Use Stores	Adult Use Cultivations	Adult Use Product Manufacturers	Adult Use Testing Facilities	Owners or Occupational Badge Holder	Total Licenses Affected
Assurance of Voluntary									
Compliance	3	4	1	0	0	1	0	11	20
Denial	2	4	2	2	2	2	0	79	93
Summary Suspension	2	17	5	2	12	4	0	33	75
Order to Show Cause	1	3	0	6	2	0	0	21	33
Stipulation,									
Agreement, and Order	28	44	5	28	23	3	2	103	236
Totals	36	72	13	38	39	10	2	247	457

2017 Administrative Actions Issued (Table 18)

