

The end of year report provides an update to the [2014 Annual Medical Marijuana Report](#) and is a condensed version. The end of year report provides information on qualifying patients, designated caregivers, and dispensary agents from January 1, 2014 to December 31, 2014. In addition, this year's report contains medical marijuana transaction data for the same time period. During this time, the Arizona Department of Health Services (ADHS) received 65,547 qualifying patient applications, 1,565 caregiver applications and 2,003 dispensary agent applications. There were 63,417 active cardholders and of those, 61,272 (~96%) were qualifying patients, 639 (~1.0%) were designated caregivers and approximately, and 1,506 (~2 %) were dispensary agents.

Almost 70 percent of the qualifying patient cardholders in the Arizona Medical Marijuana Program were males (n = 41,327) and 30 percent were females (n = 19,945). Slightly more than 65 percent (n = 415) of the designated caregivers were males and about 35 percent (n = 224) were females. Qualifying male patients were younger (M = 43.3 years; SD = 15.9 years) as compared to female qualifying patients (M = 47.2 years; SD = 15.4 years), and the age profile of the caregivers was similar to that of qualifying patients. During this time, approximately 2.5 percent of the qualifying patients (n = 1,563) and 58 percent of the designated caregivers were authorized to cultivate (n = 371). The Arizona Medical Marijuana Act (AMMA) also provides an option to the qualifying patients about receiving clinical trial notifications, and approximately 15 percent (n = 8,889) of the qualifying patients indicated interest in receiving clinical trial notifications.

The majority of the qualifying patients (~80%; n = 48,963) had one debilitating medical condition; approximately 20 percent (n = 12,309) had two or more debilitating medical conditions. The top unique debilitating medical condition listed was "severe and chronic pain" (n = 43,504; ~71%) and when combined with one more debilitating medical

Highlights

- ♣ End of Year Report time-period January 1st 2014 to December 31st 2014.
- ♣ 65,547 qualifying patient applications; 1,565 caregiver applications; 2,003 dispensary agent applications
- ♣ 63,417 active cardholders; 61,272 qualifying patients (includes minor patients); 639 designated caregivers (CGs includes caregivers for minors); 1,506 dispensary agents (DAs).
- ♣ ~70% of QPs were males; ~30% females; average age of a qualifying patient was 43.90 years (SD = 15.37 years).
- ♣ 1,563 (~2.5%) of QPs and 371 (~58%) of CGs were authorized to cultivate;
- ♣ "Severe and chronic pain" (~71%; n = 43,504) was the top debilitating medical condition.
- ♣ 11 cards were revoked including caregivers with multiple cards.
- ♣ 85 dispensaries were open and operational during the 2014 calendar year.
- ♣ During 2014, there were 1,433,808 transactions resulting in a sale of 9.14 metric tons of marijuana.

condition, severe and chronic pain accounted for 90% of all debilitating medical conditions.

During 2012, ADHS began the process of registering and licensing non-profit medical marijuana dispensaries. In calendar year 2014, there were 85 non-profit medical marijuana dispensaries licensed. At the time of this report, there were 1,506 dispensary agents (DA) of which, 68 percent (n = 658) were male dispensary agents, and about 32 percent (n = 315) were female dispensary agents. The average age of a dispensary agent was 38 years ± 13 years.

Eleven cards including caregivers with multiple cards were revoked during this time-period.

Figure 1 displays medical marijuana applications and active cardholders during the calendar year 2014. As noted earlier, there were 65,547 qualifying patient applications and 61,272 active patient cardholders at the end of 2014. It is evident there is considerable variation on a month-to-month basis and both applications and cardholders peaked in October of 2014.

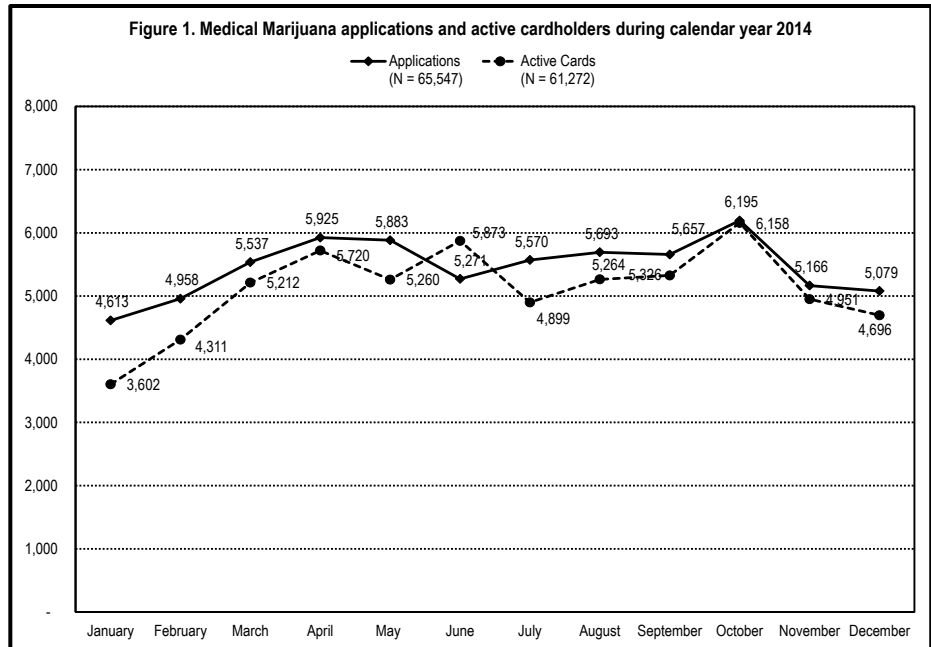
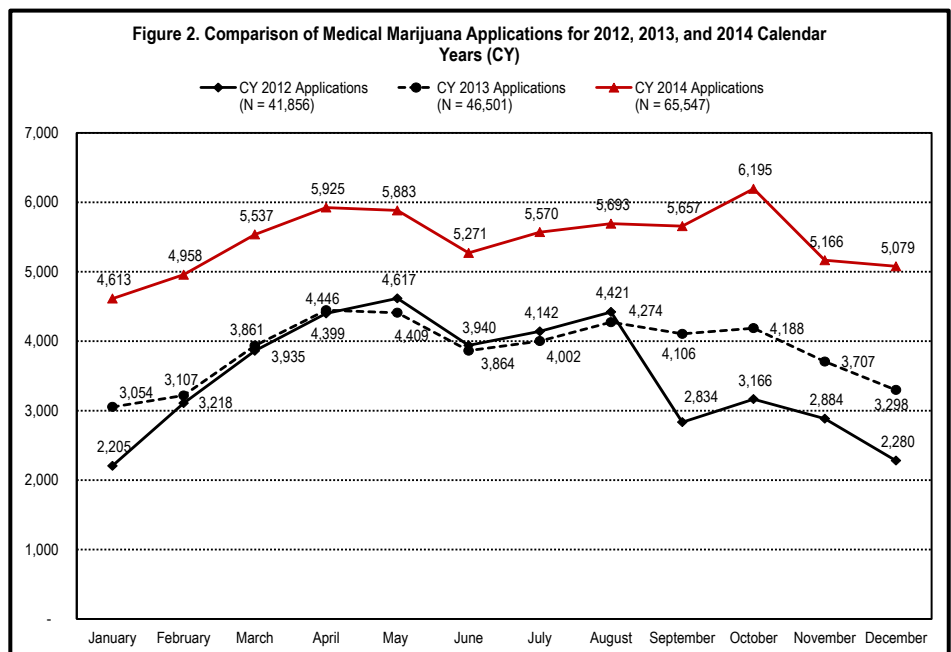


Figure 2 compares data from 2012, 2013, and 2014 calendar years to see any similarities in seasonal variation of medical marijuana applications. There was a 41 percent increase in the total number of applications for qualifying patients in 2014 as compared to calendar year 2013. Interestingly, the uptick in the number of applications for qualifying patients after June 2014 is also partially attributable to the increase in



the number new dispensaries and opening up of rules.

Table 1 provides an overview of 2014 calendar year applications and counts of active cardholders by entity type (i.e., whether an individual is a qualifying patient, minor, designated caregiver, and dispensary agent).

Entity type	Applications		Active Cardholders	
	Counts	Percent	Counts	Percent
Caregivers	1,443	2.1%	521	0.8%
Caregivers for Minors	122	0.2%	118	0.2%
Dispensary Agents	2,003	2.9%	1,506	2.4%
Qualifying Patients	65,428	94.7%	61,153	96.4%
Qualifying Patients (Minors)	119	0.2%	119	0.2%
Totals	69,115	100.0%	63,417	100.0%

In calendar year 2014, the majority of the medical marijuana cardholders (~96%) were qualifying patients and slightly more than two percent were dispensary agents. Compared to 2013 calendar year, there were fewer designated caregiver applications and a higher number of dispensary agent applications. For instance, there was approximately a 51 percent increase in the total number of qualifying patient cardholders from 2013 calendar year, while there was one percent decline in the number of designated caregivers from the previous year. Starting in September of 2012, many cardholders also applied to be dispensary agents. At the end of the 2014 calendar year, there were 1,506 dispensary agents (~55% increase) as compared to 2013 (i.e., 973).

Table 2 provides an overview of the active cardholders by gender, age, and entity type (i.e., qualifying patients and/or designated caregiver).

Age groups	Qualifying Patients		Caregivers	
	Female	Males	Female	Male
<18 years	33 (0.2%)	86 (0.2%)	NA	NA
18-30 years	3,576 (17.9%)	11,181 (27.1%)	29 (12.9%)	100 (24.1%)
31-40 years	3,434 (17.2%)	8,479 (20.5%)	63 (28.1%)	128 (30.8%)
41-50 years	3,529 (17.7%)	6,483 (15.7%)	67 (29.9%)	78 (18.8%)
51-60 years	5,200 (26.1%)	7,618 (18.4%)	39 (17.4%)	62 (14.9%)
61-70 years	3,181 (15.9%)	6,158 (14.9%)	20 (8.9%)	37 (8.9%)
71-80 years	773 (3.9%)	1124 (2.7%)	6 (2.7%)	9 (2.2%)
81+ years	219 (1.1%)	198 (0.5%)	0 (0.0%)	1 (0.2%)
State Totals	19,945 (32.6%)	41,327 (67.4%)	224 (35.1%)	415 (64.9%)
Mean (SD)*	47.2 (15.4)	43.3 (15.9)	44.3 (12.3)	41.3 (13.5)

Note: An individual can be a qualifying patient and/or a designated caregiver
 *Average age of qualifying patients and caregivers was significantly higher for females compared to males.

Irrespective of whether the cardholder was a qualifying patient and/or a designated caregiver, they were more likely to be males. Female qualifying patients and designated caregivers were more likely to be older compared to male qualifying

patients and caregivers. The average age of a female qualifying patient was 47 years and 44 years for a designated caregiver, while that of a male was 44 years and 41 years respectively.

Table 3 on the following page provides an overview of the medical marijuana qualifying patients and designated caregiver cardholders by applicant's county of residence. On average, in Arizona there were nine qualifying patients per 1000 residents in 2014. Yavapai (17.2 per 1000 residents), Gila (16.5 per 1000 residents), Coconino (14.4 per 1000 residents), and Mohave County (12.9 per 1000 residents), had the highest number of qualifying patients per 1000 residents based on 2014 population estimates. Of the 61,272 qualifying patient cardholders, approximately 2.5 percent (n = 1,563) were authorized to cultivate.

Table 4 provides an overview of the qualifying patients and designated caregivers by county of residence that were authorized to cultivate medical marijuana. With opening of several dispensaries in the past year, the rate of qualifying patients who can cultivate and/or grow marijuana was less than one per 1000 residents.

Greenlee (3.6 per 1000 residents), Apache (3.4 per 1000 residents), and Navajo (2.5 per 1000 residents) were the only counties that had more than two qualifying patients per 1000 residents who were eligible to grow marijuana.

The decline in cultivation of marijuana is primarily attributable to growth in the number of dispensaries and the 25-mile regulatory restriction for cultivation.

Table 3. Distribution of Medical Marijuana Qualified Patients and Caregivers by County

County	Qualifying Patients			Designated Caregivers		
	Counts	Percent	Rate per 1000 residents	Counts	Percent	Rate per 1000 residents
Apache	557	0.9%	7.8	<=5	-	NA
Cochise	911	1.5%	7.0	<=5	-	NA
Coconino	2,002	3.3%	14.4	43	6.7%	0.3
Gila	893	1.5%	16.5	7	1.1%	0.1
Graham	222	0.4%	5.8	<=5	-	NA
Greenlee	92	0.2%	8.8	0	0.0%	NA
La Paz	184	0.3%	8.7	0	0.0%	NA
Maricopa	37,453	61.1%	9.3	390	61.0%	0.1
Mohave	2,624	4.3%	12.9	12	1.9%	0.1
Navajo	1,024	1.7%	9.4	20	3.1%	0.2
Pima	8,098	13.2%	8.0	77	12.1%	0.1
Pinal	2,519	4.1%	6.4	30	4.7%	0.1
Santa Cruz	214	0.3%	4.3	<=5	-	NA
Yavapai	3,694	6.0%	17.2	38	5.9%	0.2
Yuma	767	1.3%	3.6	7	1.1%	0.0
Unknown	18	0.0%	NA	0	0.0%	NA
State Totals	61,272	100.0%	9.2	639	100.0%	0.1

Note: 2014 Arizona Population estimated 6,667,241 as per State Demographer Projections (see: <https://population.az.gov/sites/default/files/documents/files/pop-estimates2014-04pla.pdf>)

Table 4. Cultivation Status of Medical Marijuana Qualified Patients and Caregivers by County

County	Qualifying Patients			Designated Caregivers		
	Counts	Percent	Rate per 1000 residents	Counts	Percent	Rate per 1000 residents
Apache	241	15.4%	3.4	<=5	-	NA
Cochise	79	5.1%	0.6	<=5	-	NA
Coconino	141	9.0%	1.0	34	9.2%	0.2
Gila	73	4.7%	1.3	6	1.6%	0.1
Graham	26	1.7%	0.7	<=5	-	NA
Greenlee	38	2.4%	3.6	0	0.0%	NA
La Paz	37	2.4%	1.7	0	0.0%	NA
Maricopa	193	12.3%	0.0	201	54.2%	0.1
Mohave	134	8.6%	0.7	8	2.2%	0.0
Navajo	274	17.5%	2.5	14	3.8%	0.1
Pima	79	5.1%	0.1	54	14.6%	0.1
Pinal	26	1.7%	0.1	16	4.3%	0.0
Santa Cruz	<=5	-	N/A	<=5	-	NA
Yavapai	180	11.5%	0.8	25	6.7%	0.1
Yuma	37	2.4%	0.2	<=5	-	NA
Unknown	<=5	-	N/A	0	0.0%	NA
State Totals	1,563	100.0%	0.2	371	100.0%	0.1

Note: 2014 Arizona Population estimated 6,667,241 as per State Demographer Projections (see: <https://population.az.gov/sites/default/files/documents/files/pop-estimates2014-04pla.pdf>)

As per AMMA requirements, ADHS collects information on 13 debilitating medical conditions and recommending physicians can select more than one of these 13 conditions.

Table 5 provides an overview of the unique debilitating medical conditions of the qualifying patients during calendar 2014. During this time period, the majority of QPs (n = 48,963; ~80%) had one unique qualifying debilitating medical condition, followed by approximately 20% (n = 12,309) having two or more conditions. By way of comparison, approximately 71% of the qualifying patients (n = 43,504)

indicated “severe and chronic pain” as the only debilitating medical condition while other top unique debilitating medical conditions included Cancer (n = 1,666; ~3%), Hepatitis C (n = 769; ~2%), seizures (n = 596; ~1%) and muscle spasms (n = 518; ~1%).

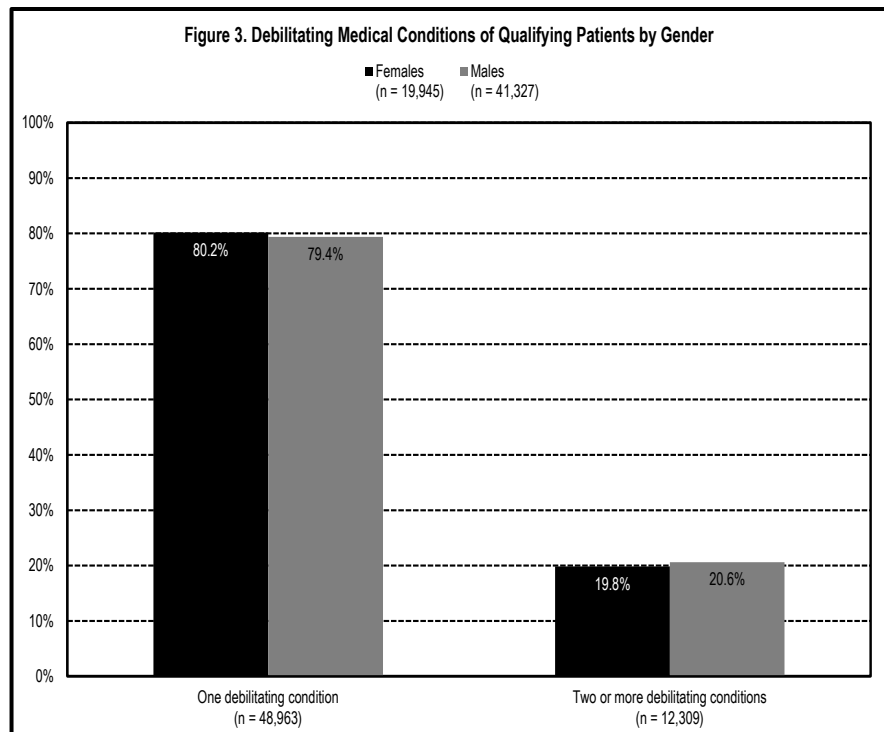
Severe and chronic pain by itself and/or in combination accounted for slightly more than 90 percent (n = 55,219) of all debilitating conditions and approximately one percent of the qualifying patients had multiple debilitating conditions without any mention of severe and chronic pain.

Figure 3 displays debilitating medical conditions of qualifying patients by a patient's gender. Females

Nature of Debilitating Conditions	Qualifying Patients	
	Count	Percent
Unique conditions[†]	48,963	79.9%
Cancer	1,666	2.7%
Hep C	769	1.3%
Cachexia	55	0.1%
Seizures	596	1.0%
Glaucoma	518	0.8%
Sclerosis	30	0.0%
Alzheimers	33	0.1%
Severe and Chronic Pain	43,504	71.0%
Muscle Spasms	699	1.1%
HIV/AIDS	297	0.5%
Crohns Disease	306	0.5%
Nausea	490	0.8%
Multiple conditions[‡]	12,309	20.1%
Severe and chronic pain with mention of one other debilitating condition	10,595	17.3%
Severe and chronic pain with mention of two other debilitating conditions	985	1.6%
Severe and chronic pain with mention of three or more other debilitating conditions	135	0.2%
Multiple conditions without mention of severe and chronic pain	594	1.0%
State Totals	61,272	100%

[†]Conditions are unique as in, of the 61,272 qualifying patients 1,666 indicated cancer as the only debilitating medical condition.

[‡]Multiple conditions are two or more conditions specified by a qualified patient as in, of the 61,272 qualifying patients 12,309 indicated having at least two or more of the listed debilitating conditions.



(~21%) were slightly more likely to report two or more debilitating conditions compared to males (~20%).

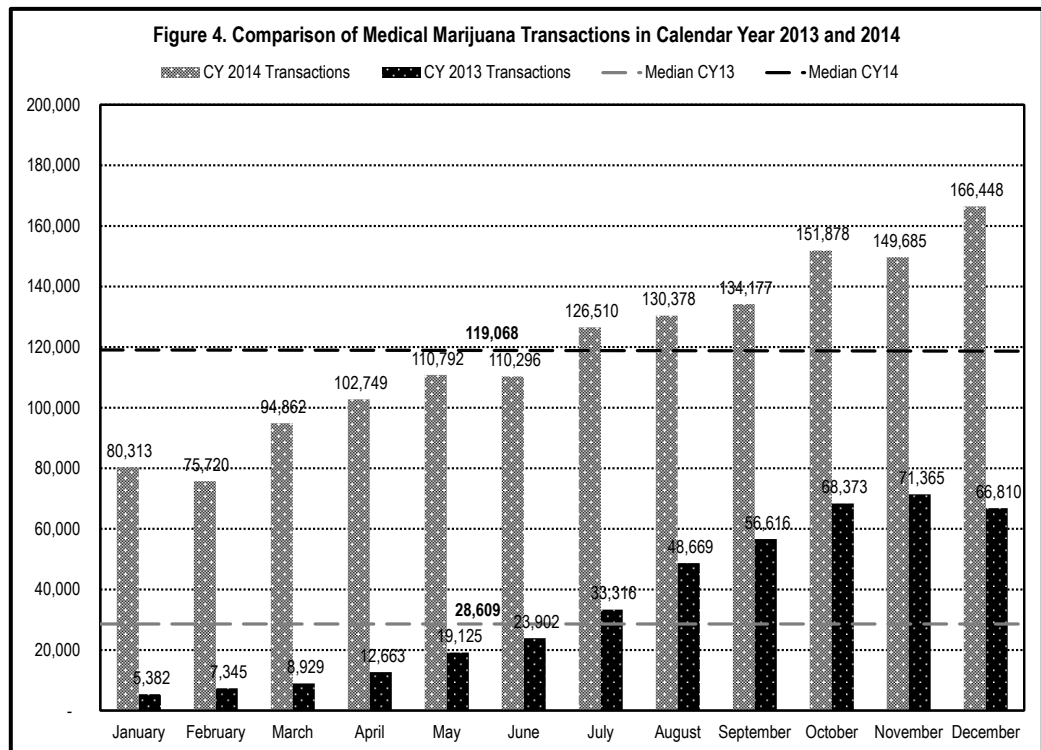
Table 6 gives an overview of the debilitating conditions for minor qualifying patients (i.e., <18 years of age) during calendar year 2014. Of the 56 minor qualifying patients, 44 (~79%) had one unique debilitating condition and 12 (~21%) indicated two or more debilitating conditions. The top unique debilitating condition reported by a qualifying minor patient was "severe and chronic pain" (n = 22; ~40%) followed by seizures (n = 15; ~27%). The AMMA also has a provision for individual qualifying patients to be notified of any clinical studies on a voluntary basis. During this time-period, approximately 8,889 (~15%) qualifying patients elected to receive voluntary clinical trial notifications. Females were more likely (~17%) to elect for receiving clinical trial notifications compared to males (~13%), and this difference was statistically significant.

Nature of Debilitating Condition	Minor Qualifying Patients (<18 years)	
	Count	Percent
Unique conditions[†]	97	81.5%
Cancer	8	-
Hepatitis C	0	0.0%
Cachexia	0	0.0%
Seizures	52	43.7%
Glaucoma	0	0.0%
Sclerosis	0	0.0%
Alzheimers	0	0.0%
Severe and chronic pain	33	27.7%
Muscle spasms	<=5	-
HIV/AIDS	0	0.0%
Crohn's disease	0	0.0%
Nausea	<=5	-
Multiple conditions[‡]	22	18.5%
State Totals	119	100%

[†]Conditions are unique as in, of the 97 minor qualifying patients 33 indicated "severe and chronic pain" as the only debilitating medical condition.

[‡]Multiple conditions are two or more conditions specified by a qualified patient as in, of the 97 minor qualifying patients 22 indicated having at least two or more of the listed debilitating conditions.

Figure 4 provides information on the monthly transactions in 2014 calendar year as compared to 2013 calendar year. The AMMA allows qualifying patients to possess up to 2.5 ounces of marijuana every



14 calendar days. Therefore, the maximum amount any one qualifying patient during a year can possess is about 65 ounces. There were 1,433,808 transactions that resulted in a total annual sale of 322,528.91

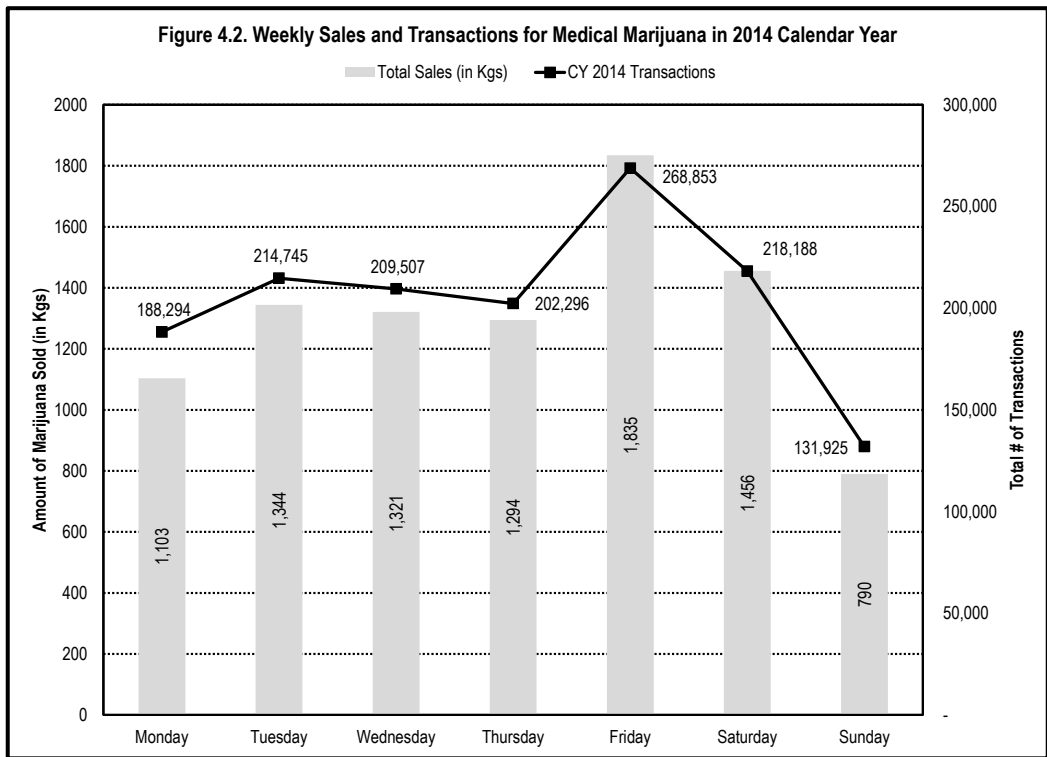
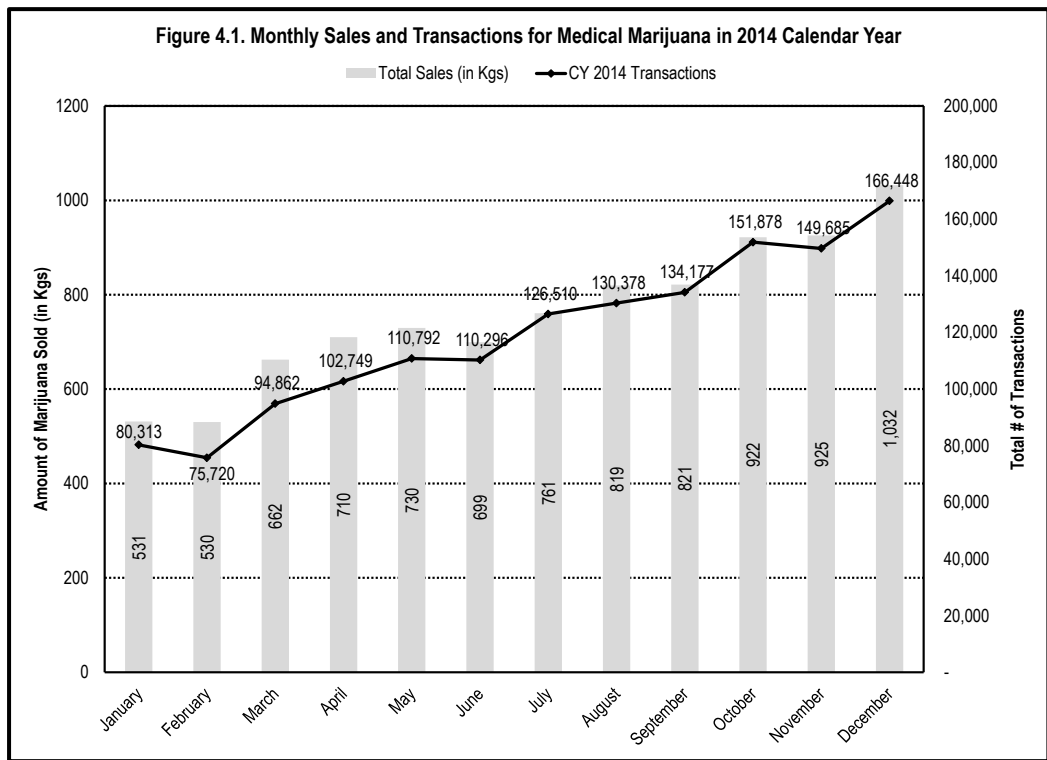
ounces and/or 9,143.54 kg (i.e., 9.14 metric tons) of marijuana.

Assuming that the estimated store price was \$350 an ounce, it means that approximately 112 million worth of revenue was generated.

During the 2014 calendar year, a monthly average amount of 761.96 kg of marijuana (*mdn* = 760.70 kg) was sold. On average a qualifying patient had 17

transactions (*mdn* = 9) during the entire year ranging from a minimum of one transaction to a maximum of 341 transactions.

Figure 4.1 and Figure 4.2 provide monthly and weekly sales in kilograms and transactions for 2014 calendar year.



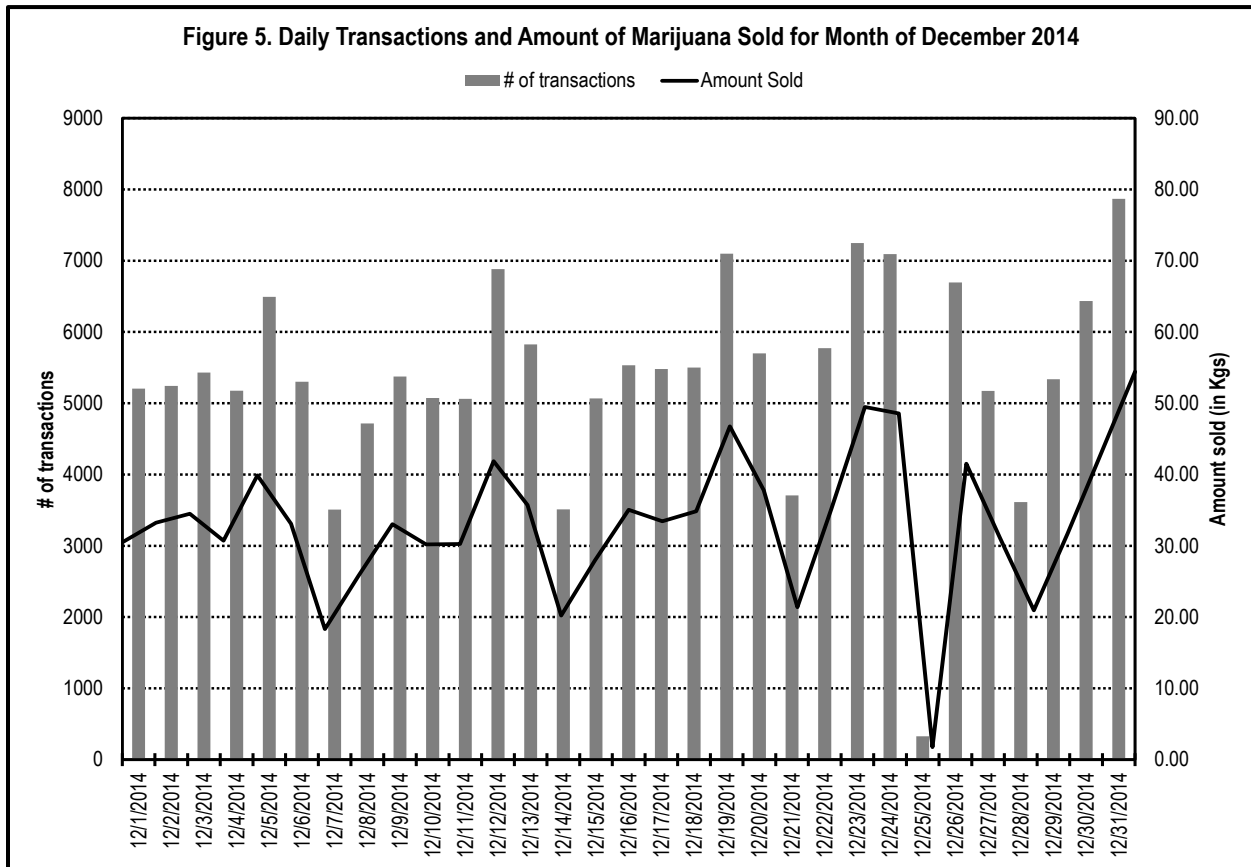
Five dispensaries accounted for 20 percent of the total marijuana sold (296,001 transactions resulting in 1,088 kilograms) in Arizona.

Table 7 provides an overview of the transactions and amount by age group. As evident, 18-30 year olds had the highest number of transactions followed by 31-40 year olds, and 51-60 year olds.

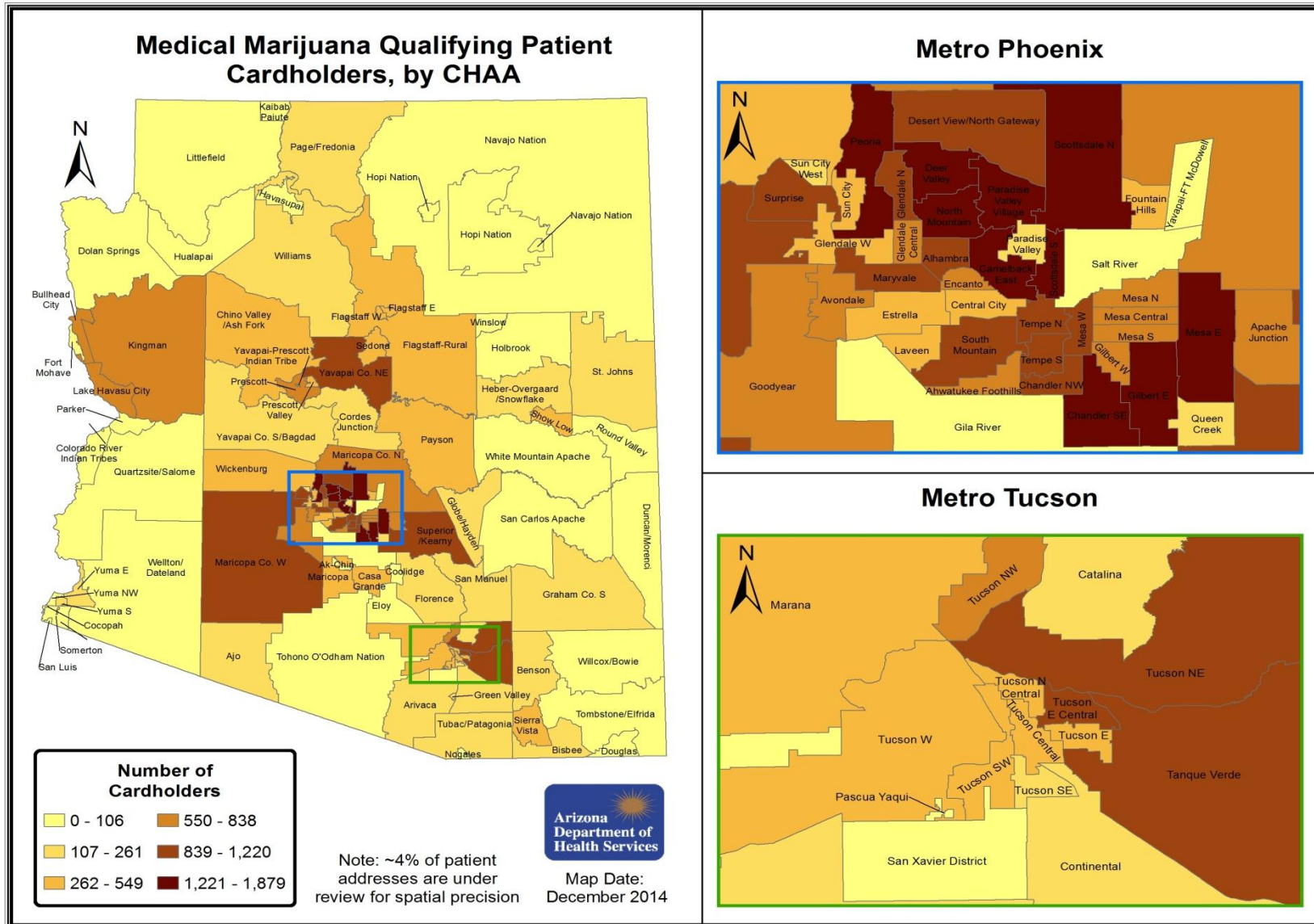
Figure 5 provides a snapshot of the daily transactions and sale for the month of December 2014. New Year's Eve had the highest number of transactions. Appendix A and B provide an overview of the number of qualifying patients and caregivers by community health analysis areas (CHAAs). Appendix C provides an overview of the dispensaries and the 25-mile radius.

Age-groups	# of Transactions	Amount (kgs)
<18 years	1,338	8.96
18-30 years	456,805	2373.81
31-40 years	338,918	2049.69
41-50 years	244,387	1631.47
51-60 years	247,848	1849.30
61-70 years	128,205	1105.44
71-80 years	14,569	112.24
81+ years	1,738	12.63
Total	1,433,808	9,143.54

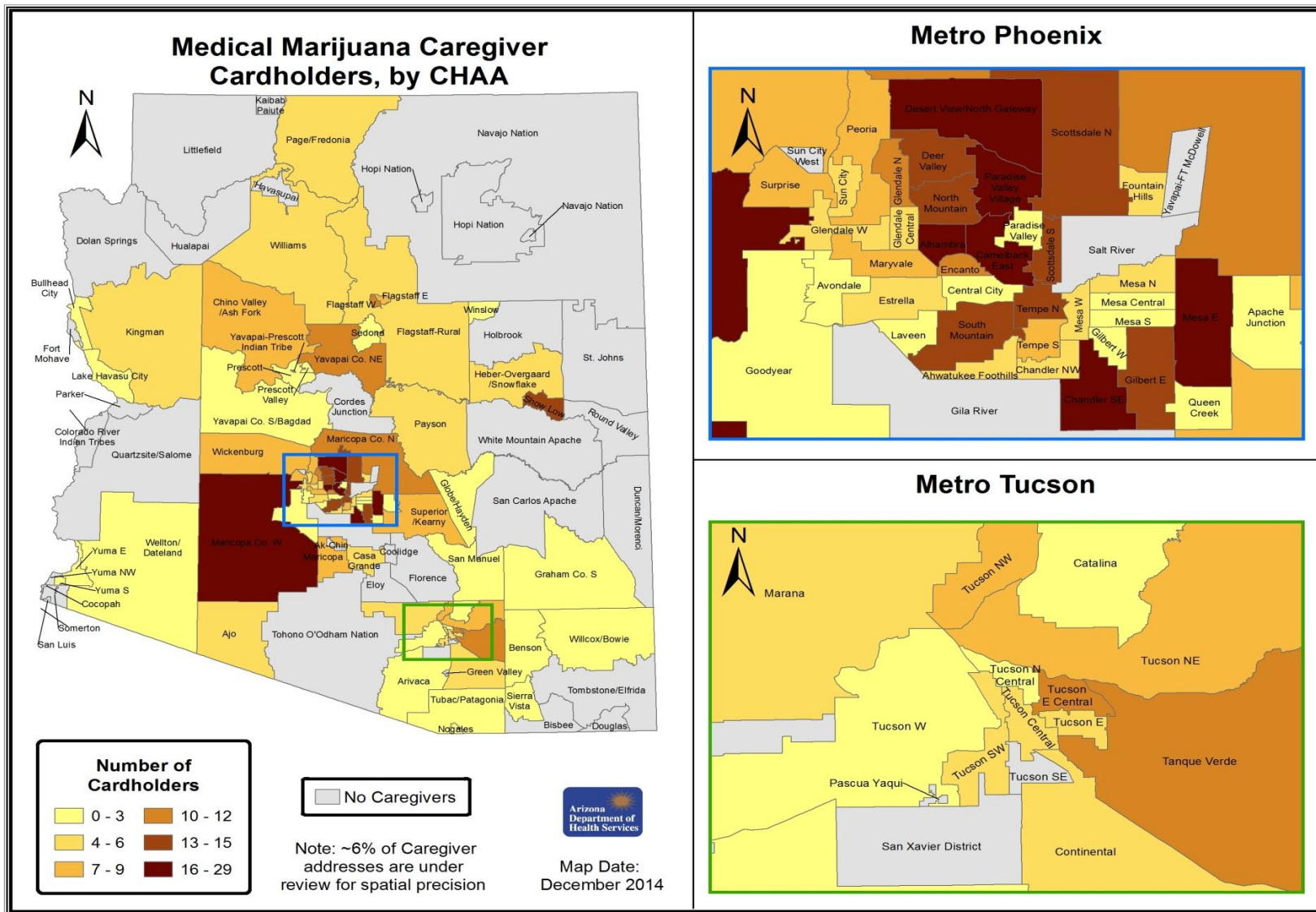
[¶]Age-groups are estimated based on the original creation date of the application. For example, there 456,805 total transactions in 2014 for 18-30 year olds resulting in a sale of approximately 2.3 metric tons of marijuana.



Appendix A



Appendix B



Appendix C

