

The end of year report provides an update to the [2012 Annual Medical Marijuana Report](#) and is a condensed version. The end of year report provides information on qualifying patients (QPs), designated caregivers (CGs), and dispensary agents (DAs) from January 1, 2012 to December 26, 2012. During this time, the Arizona Department of Health Services (ADHS) received 41,856 applications of which 35,641 are currently active cardholders. A key difference in the numbers of applications received versus the number of active cardholders is the fact that an individual can have more than one application while cardholders are typically individuals and usually counted once in the system. Of the 35,641 active cardholders, 97.4 percent ($n = 34,699$) were QPs, 2.3 percent ($n = 806$) were CGs, and less than one percent were DAs ($n = 136$). Approximately 73 percent of the QP cardholders in the Arizona Medical Marijuana Program were males ($n = 25,240$) and approximately 27 percent were females ($n = 9,459$). Approximately 80 percent ($n = 640$) of the CGs were males and approximately 20 percent ($n = 166$) were females. On average, male QP were younger ($M = 41.75$ years; $SD = 14.85$ years) compared to female QP who were older ($M = 45.64$ years; $SD = 14.23$ years), and the age profile of the CGs was similar to that of QPs. During this time, the majority of the QPs (~81%; $n = 28,175$) and CGs were authorized to cultivate (~90 percent; $n = 726$). The Arizona Medical Marijuana Act (AMMA) also provides an option to the QPs about receiving clinical trial notifications, and approximately 25 percent ($n = 8,902$) of the QPs indicated interest in receiving clinical trial notifications.

The majority of the QPs (~80%; $n = 27,649$) had one debilitating medical condition; approximately 17 percent ($n = 6,032$) had two debilitating medical conditions; and approximately three percent ($n = 1,018$) had three or more debilitating medical conditions. The top debilitating medical condition listed was "severe and chronic pain" ($n = 24,595$; ~71%).

During 2012, ADHS began the process of registering and licensing non-profit medical marijuana dispensaries. During 2012, there were three non-profit medical marijuana dispensaries licensed. At the time of this report, there were 136 DAs of which, approximately 71 percent ($n = 97$) were male DAs, and

Highlights

- ♣ End of Year Report time-period January 1 to December 26, 2012.
- ♣ 41,856 applications; 35,641 active cardholders; 34,699 qualifying patients (QPs); 806 designated caregivers (CGs); and 136 dispensary agents (DAs).
- ♣ ~73% of QPs were males; ~27% females; average age of a QP was 42.81 years ($SD = 14.80$ years).
- ♣ 21,875 (~81%) of QPs and 726 (~90%) of CGs were authorized to cultivate;
- ♣ "Severe and chronic pain" (~71%; $n = 24,595$) was the top debilitating medical condition.
- ♣ 3 non-profit medical marijuana dispensaries were opened during this time.
- ♣ 13 cards for 7 individuals were revoked during this time-period (10 CG and 3 QP cards.)

approximately 29 percent (n = 39) were female DAs. The average age of a dispensary age was 43 years ± 13 years.

Thirteen cards (10 designated caregivers and 3 qualifying patients) issued to seven individuals were revoked during this time-period.

Figure 1 displays medical marijuana applications and active cardholders during the calendar year 2012. It is evident there is considerable variation on a month-to-month basis and both applications and cardholders were at the peak in May and August of 2012. In general, the medical marijuana applications as well as number of active cardholders on a monthly basis seem to be declining.

Figure 2 examines a snapshot of partial years of data from 2011 and 2012 calendar years to see any similarities in seasonal variation of medical marijuana applications.

Table 1 provides an overview of 2012 calendar year applications and counts of active cardholders by entity type (i.e. whether an individual is a QP, minor QP, CG, or DA, etc.). In calendar

Figure 1. Medical Marijuana applications and active cardholders during calendar year 2012

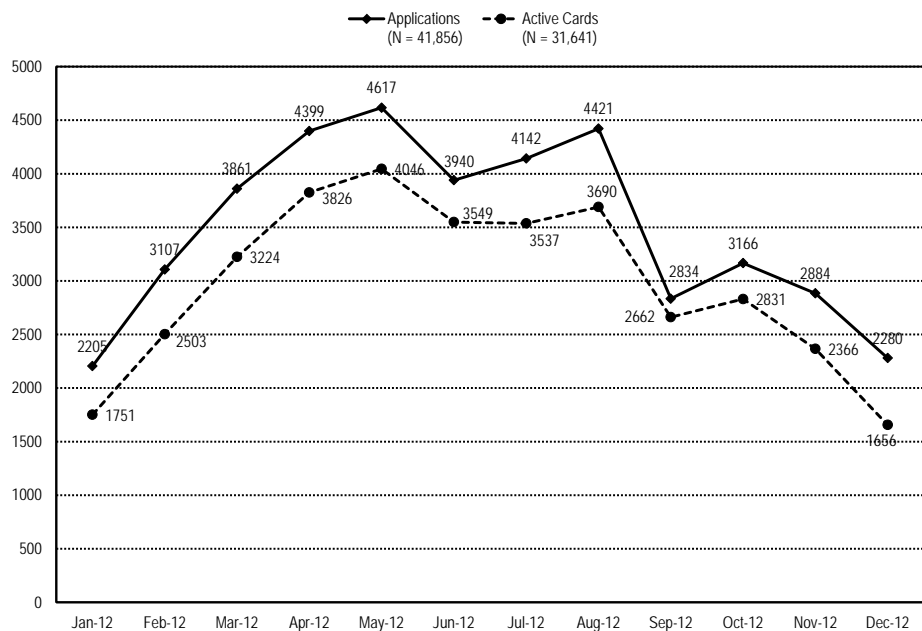
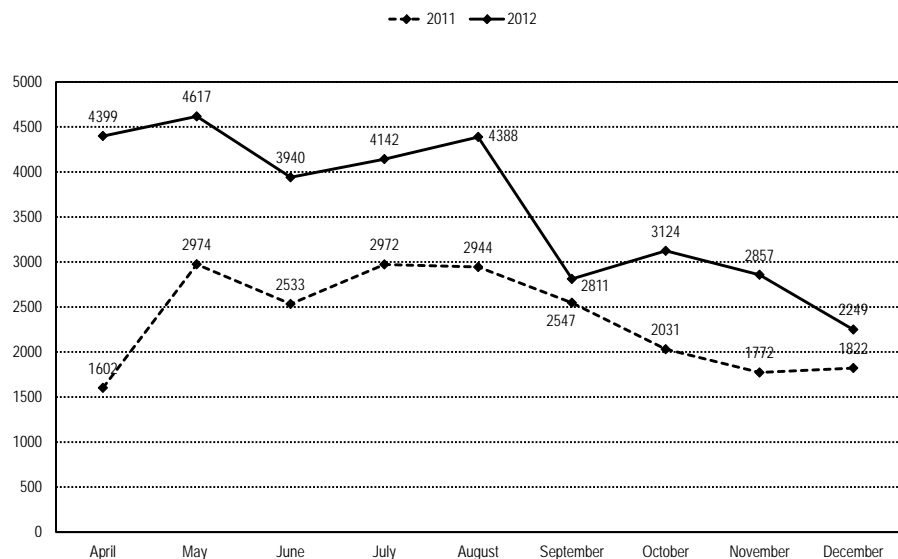


Figure 2. Comparison of Medical Marijuana applications for 2011 and 2012 partial years*



*Because the Medical Marijuana program was initiated in April 2011 partial years are included to examine any seasonal variations. It is important to note that card applications for dispensary agents are not included in this graph.

Table 1. Medical Marijuana Applications and Cardholders in 2012

Entity type	Applications		Active Cardholders	
	Counts	Percent	Counts	Percent
Caregivers	2,804	6.7%	773	2.2%
Caregivers for Minors	39	0.1%	33	0.1%
Dispensary Agents	156	0.4%	136	0.4%
Qualifying Patients	38,823	92.8%	34,667	97.3%
Qualifying Patients (Minors)	34	0.1%	32	0.1%
Totals	41,856	100.0%	35,641	100.0%

year 2012, the majority of the medical marijuana cardholders (~93%) were QPs and slightly over two percent were CGs. One-tenth of one percent were minor QPs.

Table 2 provides an overview of the active cardholders by gender, age, and type (i.e., QPs and/or CGs). Irrespective of whether the cardholder was a QP, and/or a CG, they were more likely to be males.

Average age of a female QP was 46 years and 45 years for a CG, while that of a male was 42 years and 40 years respectively. In general, female QPs and CGs were more likely to be older compared to males.

Starting in September 2012, many cardholders also applied to be DAs. At the end of the 2012 calendar year, there were a total of 136 DAs.

Figure 3 displays the percent of active cardholders who are DAs by age and gender.

Table 2. Medical Marijuana Cardholders by Age, Gender, and Entity Type in 2012

Age groups	Qualifying Patients (N = 34,699)		Caregivers (N = 806)	
	Female	Males	Female	Male
<18 years	8 (0.1%)	19 (.1%)	NA	NA
18-30 years	1803 (19.1%)	7282 (28.9%)	30 (18.1%)	175 (27.3%)
31-40 years	1683 (17.8%)	5539 (21.9%)	34 (20.5%)	191 (29.8%)
41-50 years	1949 (20.6%)	4273 (16.9%)	41 (24.7%)	132 (20.6%)
51-60 years	2635 (27.9%)	4719 (18.7%)	45 (27.1%)	86 (13.4%)
61-70 years	1135 (12.0%)	2961 (11.7%)	14 (8.4%)	51 (8.0%)
71-80 years	195 (2.1%)	394 (1.6%)	2 (1.2%)	5 (0.8%)
81+ years	51 (0.5%)	53 (0.2%)	0 (0.0%)	0 (0.0%)
State Totals	9459 (27.3%)	25240 (72.7%)	166 (20.6%)	640 (79.4%)
Mean (SD)*	45.6 (14.2)	41.7 (14.8)	44.5 (12.1)	40.0 (12.4)

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.

Figure 3. Percent of Dispensary Agents by Age and Gender (N = 136)

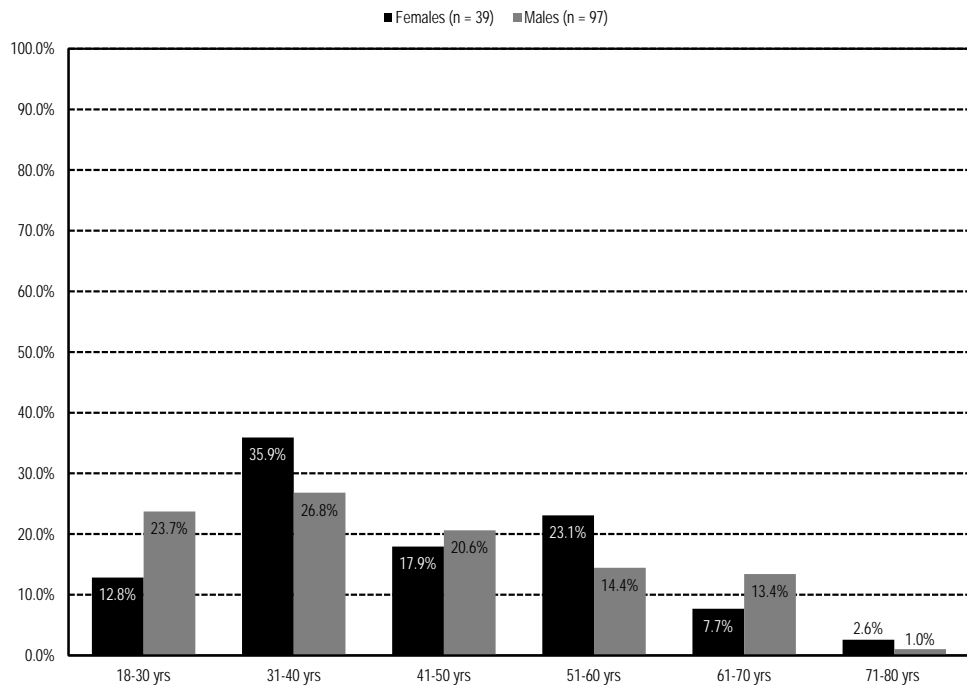


Table 3 provides an overview of the medical marijuana QP and CG cardholders by applicant's county of residence. On average, in Arizona there were five QPs per 1000 residents in 2012. Gila County (11.5 per 1000 residents), followed by Yavapai (10.8 per 1000 residents), and Mohave (7.6 per 1000) had the highest number of QPs per 1000 residents based on 2012 population estimates.

Table 4 provides an overview of the QPs and CGs by county of residence that were authorized to cultivate medical marijuana. Gila County (10.7 per 1000 residents), followed by Yavapai County (9.2 per 1000 residents) and Coconino County (7.4 per 1000 residents) had the highest number of QPs authorized to cultivate. Of the 34,699 QP cardholders, approximately 81 percent (n = 21,875) were authorized to cultivate. On average in Arizona, four QPs per 1000 residents were authorized to cultivate marijuana.

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

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

County	Qualified Patients			Designated Caregivers		
	Counts	Percent	Rate per 1000 residents	Counts	Percent	Rate per 1000 residents
Apache	222	0.6	3.1	<=5	-	NA
Cochise	442	1.3	3.4	6	0.74	0.05
Coconino	1,234	3.6	9.2	25	3.1	0.19
Gila	615	1.8	11.5	8	0.99	0.15
Graham	130	0.4	3.5	3	0.37	0.08
Greenlee	44	0.1	5.1	0	0	0.00
La Paz	108	0.3	5.2	0	0	0.00
Maricopa	21,506	62.0	5.5	547	67.87	0.14
Mohave	1,551	4.5	7.6	18	2.23	0.09
Navajo	629	1.8	5.8	9	1.12	0.08
Pima	4,133	11.9	4.2	93	11.54	0.09
Pinal	1,250	3.6	3.2	35	4.34	0.09
Santa Cruz	84	0.2	1.7	6	0.74	0.12
Yavapai	2,280	6.6	10.8	49	6.08	0.23
Yuma	281	0.8	1.4	<=5	NA	NA
Unknown	190	0.6	NA	<=5	NA	NA
State Totals	34,699	100%	5.34	806	100%	0.12

Note: 2012 Arizona Population estimated 6,498,600 as per State Demographer Projections (see: Medium Series <http://www.workforce.az.gov/population-projections.aspx>)

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

County	Qualified Patients			Designated Caregivers		
	Counts	Percent	Rate per 1000 residents	Counts	Percent	Rate per 1000 residents
Apache	203	0.7%	2.8	<=5	NA	NA
Cochise	382	1.4%	2.9	6	0.8%	0.0
Coconino	996	3.5%	7.4	21	2.9%	0.2
Gila	576	2.0%	10.7	8	1.1%	0.1
Graham	115	0.4%	3.1	<=5	NA	NA
Greenlee	39	0.1%	4.5	0	0.0%	0.0
La Paz	102	0.4%	4.9	0	0.0%	0.0
Maricopa	16,980	60.3%	4.4	495	68.2%	0.1
Mohave	1448	5.1%	7.1	17	2.3%	0.1
Navajo	586	2.1%	5.4	7	1.0%	0.1
Pima	3,306	11.7%	3.3	83	11.4%	0.1
Pinal	1,048	3.7%	2.7	33	4.5%	0.1
Santa Cruz	66	0.2%	1.4	5	0.7%	0.1
Yavapai	1941	6.9%	9.2	45	6.2%	0.2
Yuma	247	0.9%	1.2	<=5	NA	NA
Unknown	140	0.5%	NA	3	0.4%	0.0
State Totals	28,175	100%	4.34	726	100%	0.11

Note: 2012 Arizona Population estimated 6,498,600 as per State Demographer Projections (see: Medium Series <http://www.workforce.az.gov/population-projections.aspx>)

Table 5 provides an overview of the unique debilitating medical conditions of the QPs during calendar 2012 (i.e., January 1 to December 26, 2012). During this time-period, majority of the QPs (n = 27,649; ~80%) had one unique qualifying debilitating medical condition, followed by approximately 17% (n = 6,032) having two conditions, and approximately 3% (n = 1,018) having three or more conditions. By way of comparison, approximately 71% of the QPs (n = 24,595) indicated “severe and chronic pain” as the only debilitating medical condition while other top unique debilitating medical conditions included hepatitis C (n = 636; ~1.8%), cancer (n = 606; ~1.8%), muscle spasms (n = 500; ~1.4%), and nausea (n = 350; ~1.0%). Among those who indicated multiple

conditions, the majority of the QPs had at least two of the listed debilitating conditions, with severe and chronic pain as one of those two conditions.

Figure 4 displays debilitating medical conditions of QPs by a patient’s gender. In general, females (~23%) were more likely to report two or more debilitating conditions compared to males (~19%), and this difference was statistically significant $\chi^2 = 59.36$ (1) p < 0.001.

Table 5. Nature of Debilitating Conditions during calendar year 2012

Nature of Debilitating Conditions	Qualifying Patients	
	Count	Percent
Unique conditions[†]	27,649	79.68%
Cancer	606	1.75%
Hepatitis C	636	1.83%
Cachexia	39	0.11%
Seizures	250	0.72%
Glaucoma	305	0.88%
Sclerosis	10	0.03%
Alzheimers	11	0.03%
Severe and chronic pain	24,595	70.88%
Muscle spasms	500	1.44%
HIV/AIDS	169	0.49%
Crohn’s disease	178	0.51%
Nausea	350	1.01%
Multiple conditions[‡]	7,050	20.3%
Two conditions	6,032	17.4%
Three conditions	908	2.6%
Four conditions	97	0.3%
Five conditions	13	0.0%
State Totals	34,699	100%

[†]Conditions are unique as in, of the 34,699 qualifying patients 606 indicated cancer as the only debilitating medical condition.

[‡]Multiple conditions are two or more conditions specified by a qualified patient as in, of the 34,699 qualifying patients 7,050 indicated having at least two or more of the listed debilitating conditions.

Figure 4. Debilitating Medical Conditions of Qualifying Patients by Gender

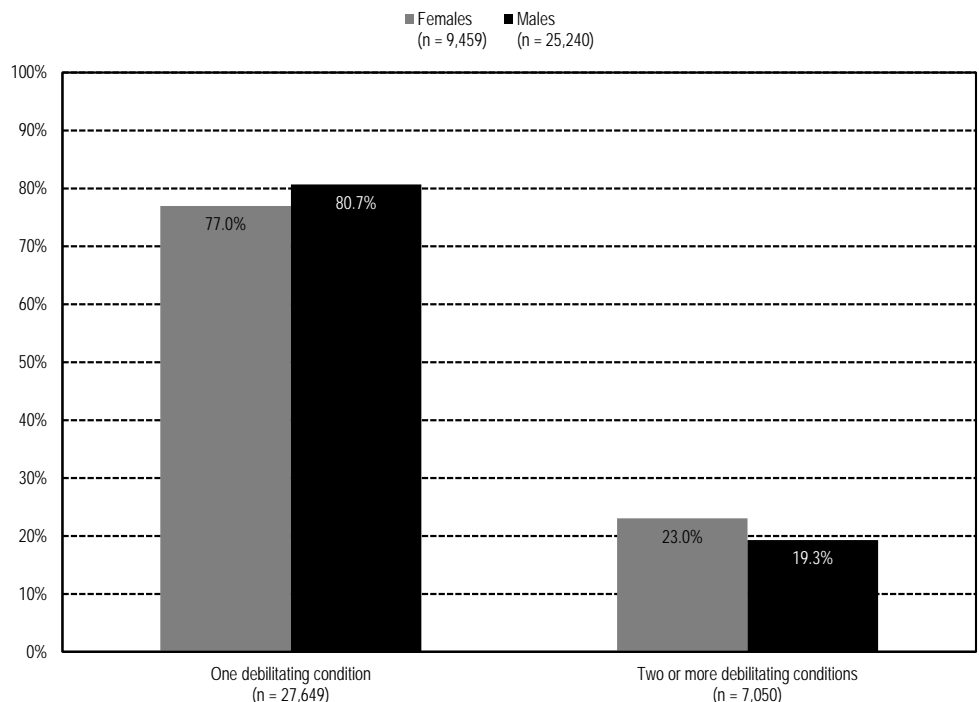


Table 6 gives an overview of the debilitating conditions for minor QPs (i.e. <18 years of age) during calendar year 2012. Of the 27 minor QPs, 19 (~70%) indicated one unique debilitating condition and eight minor QPs (~30%) indicated two or more debilitating conditions. The top unique debilitating condition reported by a minor QP was "severe and chronic pain" (n = 15; ~55%).

The AMMA also has a provision for individual QPs to be notified of any clinical studies on a voluntary basis. During this time period, approximately 8,902 (~26%) QPs elected to receive voluntary clinical trial notifications. Females were more likely (~27%) to elect for receiving clinical trial notifications compared to males (~25%), and this difference was statistically significant $\chi^2 = 18.37 (1) p < 0.001$.

Appendix A and B provide an overview of the number of QPs and CGs by community health analysis areas (CHAAs). Appendix C provides an overview of the non-profit medical marijuana dispensaries and the 25-mile radius.

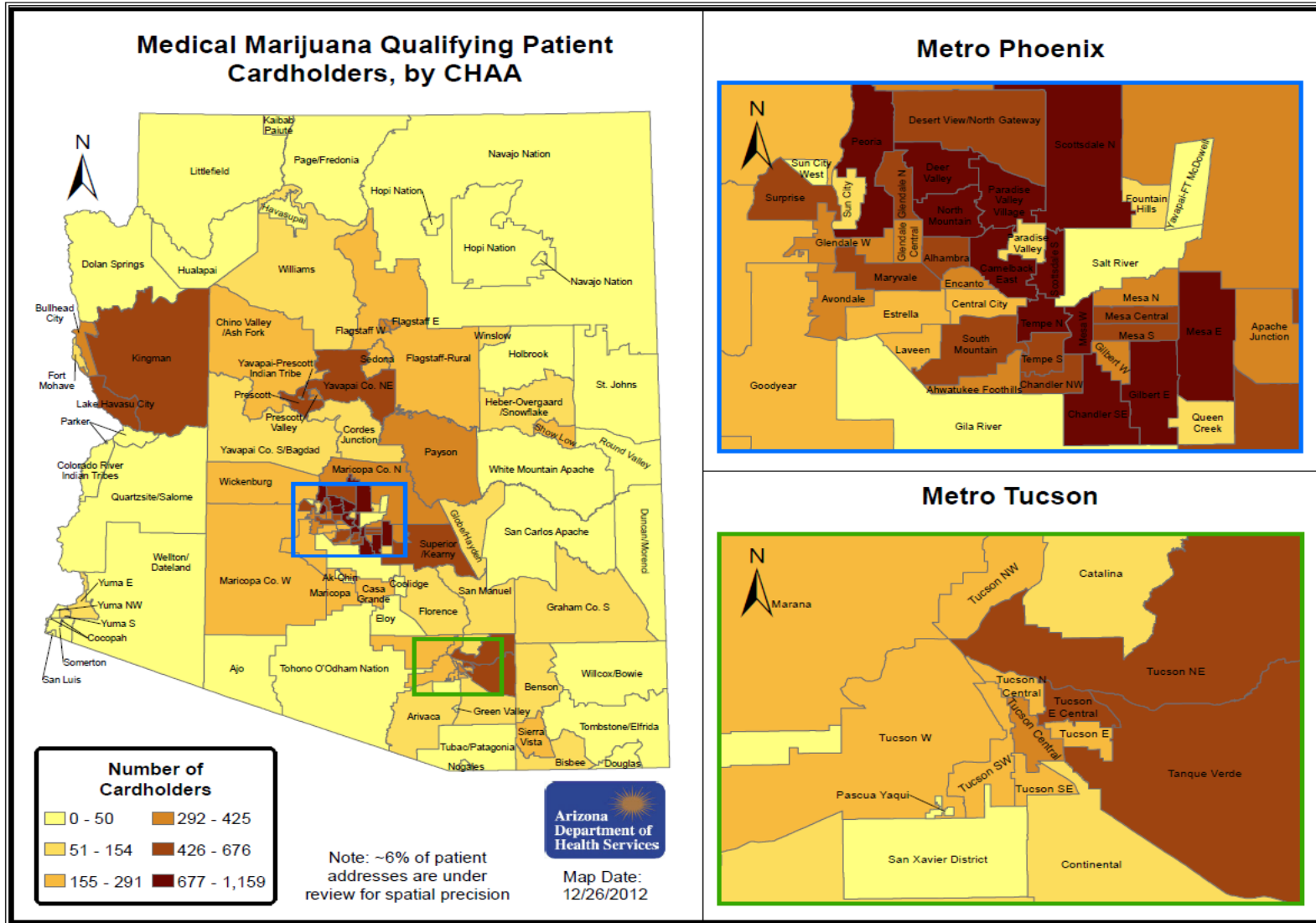
Table 6. Debilitating Medical Conditions for Minor Qualifying Patients

Nature of Debilitating Condition	Minor Qualifying Patients	
	Count	Percent
Unique conditions[†]	19	70.4%
Cancer	2	7.4%
Hepatitis C	0	0.0%
Cachexia	0	0.0%
Seizures	1	3.7%
Glaucoma	0	0.0%
Sclerosis	0	0.0%
Alzheimers	0	0.0%
Severe and chronic pain	15	55.6%
Muscle spasms	1	3.7%
HIV/AIDS	0	0.0%
Crohn's disease	0	0.0%
Nausea	0	0.0%
Multiple conditions[‡]	8	29.6%
State Totals	27	100%

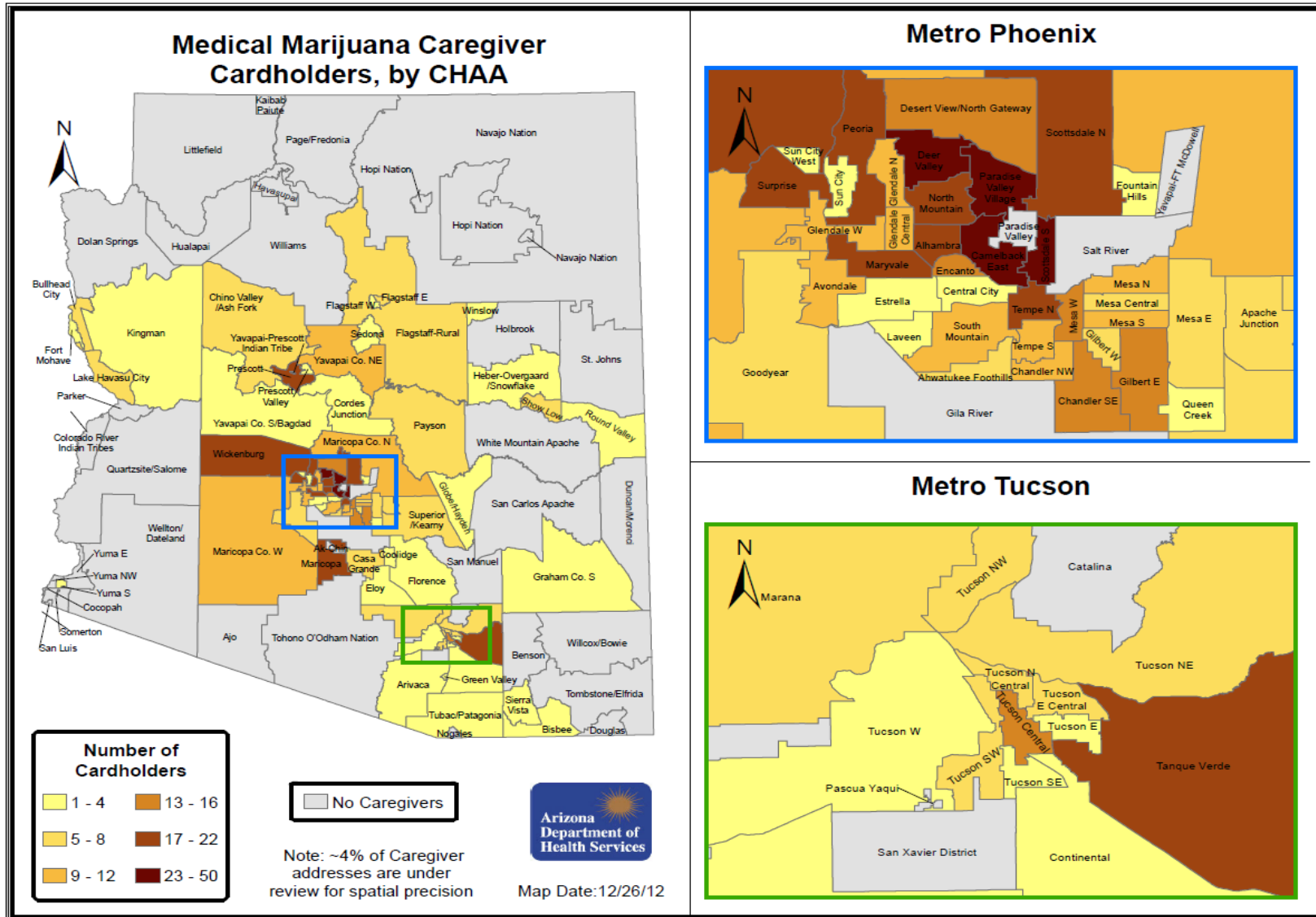
[†]Conditions are unique as in, of the 27 minor qualifying patients 15 indicated "severe and chronic pain" as the only debilitating medical condition.

[‡]Multiple conditions are two or more conditions specified by a qualified patient as in, of the 27 minor qualifying patients 8 indicated having at least two of the listed debilitating conditions.

Appendix A



Appendix B



Appendix C

