Arizona Department of Health Services

THE UNIVERSITY OF ARIZONA | MEL AND ENID ZUCKERMAN COLLEGE OF PUBLIC HEALTH

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November 8, 2012

Health and Wellness for all Arizonans

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State of Arizona

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MISSION

To promote, protect, and improve the health and wellness of individuals and communities in Arizona.

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Executive Summary

As required by Arizona Revised Statues (A.R.S.) §36-2809, the Arizona Department of Health Services (ADHS) is submitting this first annual comprehensive statistical report for the Arizona Medical Marijuana Program from April 2011 to June 2012. The report was prepared by ADHS in conjunction with the University of Arizona, Mel & Enid Zuckerman College of Public Health.

In November 2010, Arizona voters passed a ballot initiative making Arizona the fourteenth state to adopt a medical marijuana law. Of the 16 states and District of Columbia that have enacted medical marijuana programs prior to June 1, 2012, nine have been by ballot initiatives similar to Arizona and eight have been through legislative means not requiring voter approval.

Despite being given a short timeline to develop the program, ADHS posted draft rules about a month after the initiative's passage, sought public input on the initial rules, posted revised draft rules based on comments received, and acquired additional comments during four public hearing sessions. The final rules were published on March 28, 2011, and the Arizona Medical Marijuana Program went into effect on April 14, 2011. ADHS' goal throughout the process was to ensure the development and administration of the pre-eminent program in the country for medical use of marijuana.

For a patient to be eligible to receive a Registry Identification Card, the Arizona law requires that the patient first obtain a medical recommendation from a physician who attests that the patient meets specified medical criteria. This report refers to this recommendation as a "certification" of a "qualifying patient."

During April 2011 to June 2012, ADHS received a total of 41,476 applications and approved approximately 98% of the applications (40,463). Out of the 40,463 approved applications, 33,060 (82%) were new applications and 3,689 (9%) were application for renewals. There were a total of 29,804 active cardholders, which included 28,977 qualifying patients and 827 caregivers. Of the total qualifying patients, approximately 26% (n = 7,702) were female qualifying patients and of the total caregivers, 20% (n = 168) were female caregivers. During April 2011 to June 2012 slightly over 80% (n = 24,191) of the qualifying patients and caregivers (n = 701) were authorized to cultivate. Qualifying patients per 1,000 residents were highest in Gila County (9.2), followed by Yavapai (8.7) and Coconino (8.4), while Yuma (0.9), Santa Cruz (1.6), and Apache (1.9) had the lowest qualifying patients per 1,000 residents.

The majority of the qualifying patients (n = 22,357; 77%) had one debilitating medical condition with the remaining 23% reporting two or more conditions. Approximately 70% of the qualifying patients (n = 19,631) indicated "severe and chronic pain" as the only debilitating medical condition. Four-hundred seventy-five physicians provided certifications to 28,977 patients during this time period (a median value of two certifications per physician; however, 10 physicians certified 13,336 [~46%] of all patients).

From April 2011 through June 2012, one qualifying patient and six designated caregiver Registry Identification Cards were revoked. During this time period, no dispensary agent cards were issued, and no dispensaries were approved to operate.

Introduction

1.1 Arizona Medical Marijuana Timeline and Passage of Proposition

As shown in Table 1, in November 2010, voters passed the Arizona Medical Marijuana Act (AMMA). The citizen initiative (Proposition 203) required the Arizona Department of Health Services (ADHS) to create a medical marijuana program within 120 days from the certification date of official election results. The goal was to create the first truly medical marijuana program in the country.[1] Staff from across the Department joined together to create a plan. The challenging undertaking included Information Technology systems for applications, reporting, and validating. Staff combed through the rules in other states to help write the Arizona rules for how the program would work, how Arizona residents could apply for the different types of licenses, when they could apply, and how to add new debilitating diseases, among other important elements. Even though the initiative allowed ADHS to avoid the normal rulemaking process, staff asked twice for written public comment and held four public hearings to gather public input. On December 17, 2010, ADHS posted the medical marijuana informal draft rules for public comment and received comments via an online survey during the comment period from December 17, 2010 to January 7, 2011.[1] On January 31, 2011, ADHS posted the official medical marijuana draft rules for public comment, and received comments via an online survey during the comment period from January 31 to February 18, 2011. ADHS also received comments at four public meetings held during February 14 to 17, 2011.[1]

Table 1. *Arizona Medical Marijuana voting results by county*

County	Proposition 203 (Arizona Medical Marijuana)				Total
	Yes		No		
	Count	Percent	Counts	Percent	
Apache	6,816	36.8%	11,726	63.2%	18,542
Cochise	18,466	46.8%	20,979	53.2%	39,445
Coconino	20,625	53.7%	17,761	46.3%	38,386
Gila	7,800	44.9%	9,554	55.1%	17,354
Graham	2,926	33.1%	5,906	66.9%	8,832
Greenlee	1,101	46.9%	1,248	53.1%	2,349
La Paz	2,023	46.6%	2,319	53.4%	4,342
Maricopa	480,564	49.8%	484,591	50.2%	965,155
Mohave	25,779	49.3%	26,526	50.7%	52,305
Navajo	9,918	35.1%	18,328	64.9%	28,246
Pima	174,591	57.1%	131,017	42.9%	305,608
Pinal	36,942	48.7%	38,928	51.3%	75,870
Santa Cruz	4,840	51.5%	4,560	48.5%	9,400
Yavapai	35,839	44.9%	44,066	55.1%	79,905
Yuma	13,118	40.2%	19,499	59.8%	32,617
Total	**841,348**	**50.1%**	**837,008**	**49.9%**	**1,678,356**

1.2 Overview of the Arizona Medical Marijuana Program Requirements

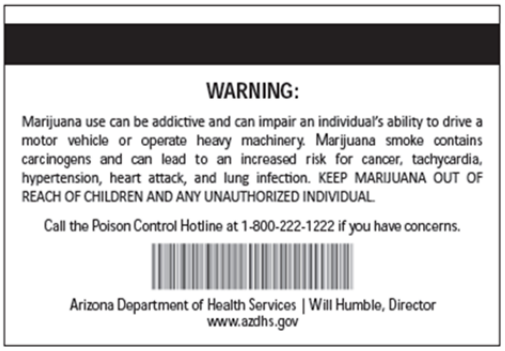
Licensing Authority

The AMMA designates ADHS as the licensing authority for the Arizona Medical Marijuana Program. Along with developing the rules and administrative components for the program, ADHS is responsible for issuing Registry Identification Cards for qualifying patients (QPs), designated caregivers (CGs), and dispensary agents (DAs) and for selecting, registering, and providing oversight for nonprofit medical marijuana dispensaries. See Appendix B for reference to the Arizona Administrative Code (A.A.C.) and specific time frames for components of the program.[1]

Qualifying Patient Applications for Registry Identification Cards

Qualifying patients (QP) began applying for Registry Identification Cards on April 14, 2011. For a QP to be eligible to legally possess and purchase marijuana for medical use under Arizona law, they must possess a Registry Identification Card. To obtain a Registry Identification Card, a QP must submit to ADHS an application for a Registry Identification Card in the ADHS online application system. Applicants must provide:

- Personal demographic information
- Designated CG information (if the applicant is designating a CG)
- The certifying physician's information
- An attestation pledging not to divert marijuana and that the information submitted is true and correct
- An identification document (Arizona Driver's License, Arizona Identification Card, Arizona Registry Identification Card, U.S. Passport Page)
- A current photograph
- Physician Certification
- Documentation for Supplemental Nutrition Assistance Program (SNAP) (if claiming SNAP eligible)
- The application fee



Additionally, the QP must answer whether s/he is requesting authorization for cultivating marijuana plants for medical use. Qualifying patients may be authorized to cultivate if they live at least 25 miles from the nearest operating dispensary. Registry Identification Cards expire each year, and the QP must be re-evaluated by a physician and submit applications (including fees) yearly.

Debilitating Medical Conditions

Debilitating medical conditions for use of medical marijuana in Arizona are the following: cancer, glaucoma, HIV, AIDS, Hepatitis C, Amyotrophic Lateral Sclerosis, Crohn's disease, agitation of Alzheimer's disease, or a chronic or debilitating disease or medical condition (or the treatment of such a condition) that causes cachexia or wasting syndrome, severe and chronic pain, severe nausea, seizures (including those characteristic of epilepsy), severe or persistent muscle spasms (including those characteristic of multiple sclerosis), or a debilitating medical condition or treatment approved by ADHS under A.R.S. §36-2801.01 and A.A.C. R9-17-106.

Pursuant to A.A.C. R9-17-106, ADHS accepts petitions to add a debilitating medical condition to the list of debilitating medical conditions for the Medical Marijuana Program in January and July of each year. In January 2012, ADHS reviewed several conditions from petitions received including Post Traumatic Stress Disorder (PTSD), Depression, Migraines, and Generalized Anxiety Disorder. ADHS held a public hearing on May 25, 2012 to collect public comments on these medical conditions. After consideration of the evidence submitted and the public hearing, ADHS rejected these petitions to add new qualifying conditions to the list of debilitating medical conditions. In July 2012, ADHS again accepted petitions but no conditions moved forward to a public hearing. ADHS will next accept petitions in January 2013.

To assist ADHS in the decision-making process of adding debilitating medical conditions, the University of Arizona's College of Public Health completed an evidence review on each of the four debilitating medical conditions submitted for consideration: PTSD, migraines, anxiety, and depression. These reports are posted on the ADHS website and were presented to the ADHS Medical Committee prior to their submission to the ADHS Director for his consideration. The University also established a system of surveillance for new studies on these four topics so that any new evidence will be located monthly and placed into a data bank. Additionally, they have begun three new evidence reports: two on safety issues including cyclical vomiting and psychosis and one on effectiveness of medical marijuana on wound healing.

Physicians

As part of the application for a Registry Identification Card as a QP, an individual must have a written certification from a physician making or confirming diagnosis of the debilitating medical condition(s). Certifying physicians may be:

- a doctor of medicine (Allopath) who holds a valid and existing license to practice medicine, pursuant to Title 32, Chapter 13 or its successor
- a doctor of osteopathic medicine who holds a valid and existing license to practice osteopathic medicine pursuant to Title 32, Chapter 17 or its successor
- a naturopathic physician who holds a valid and existing license to practice naturopathic medicine pursuant to Title 32, Chapter 14 or its successor
- a homeopathic physician who holds a valid and existing license to practice homeopathic medicine pursuant to Title 32, Chapter 29 or its successor

The certifying physician must document on the physician certification form that s/he has performed the following for each QP:

- Has made or confirmed a diagnosis of a debilitating medical condition
- Has established and is maintaining a medical record for the QP
- Has conducted an in-person physical exam within the last 90 calendar days appropriate to the QP's presenting symptoms and the debilitating medical condition diagnoses or confirmed
- Has reviewed the QP's medical records including those from other treating physicians for the previous 12 months
- Has reviewed the QP's profile on the Arizona Board of Pharmacy Controlled Substances Prescription Monitoring Program database
- Has explained the potential risks and benefits of the medical use of marijuana
- Whether s/he has referred the QP to a dispensary (*this has not been applicable since there were no operating dispensaries during this report period*)

The physician must attest, by signature, that it is the physician's professional opinion that the qualifying patient is likely to receive therapeutic or palliative benefit from the patient's medical use of marijuana.

The physician must also attest, by signature, that it is the physician's professional opinion that the QP is likely to receive therapeutic or palliative benefit from the patient's medical use of marijuana.

Clinical Trials

When QPs apply for a Registry Identification Card, they may ask to be notified of any available clinical trials. Every quarter, ADHS sends an email to those individuals who have selected to

receive this information. The email refers the QP to the United States National Institutes of Health (NIH) website for clinical trials (www.clinicaltrials.gov). NIH has developed a searchable online site to facilitate distribution of information on clinical trials. The database is searchable by disease or condition or by intervention (such as cannabis use) or other factors such as the physical location of the study. Additionally, the University of Arizona has provided a list of available clinical trials which is posted on the ADHS website.

Minor Patients

Minor patients (younger than 18 years of age) can qualify for the Arizona Medical Marijuana Program. However, minor patient requirements include two physician certifications during the application process. Additionally, the minor patient's custodial parent or legal guardian must be designated as the minor patient's designated caregiver (CG). This CG provides parental consent to the minor patient's use of medical marijuana and controls the dosage, acquisition and frequency of use.

Designated Caregiver Applications for Registry Identification Cards

Designated caregivers (CGs) must also hold Registry Identification Cards for each QP who has designated them as a CG. In Arizona, CGs, who must be at least 21 years of age, are limited to serving no more than five QPs. The CG can cultivate, if authorized to do so by his or her QPs, up to 12 marijuana plants per patient.

Similar to QP applications, an individual being designated as a CG by a QP must provide personal demographic information, an identification document, and a current photograph. The CG must also provide the application number from the patient s/he is linking with and complete a signed statement agreeing to assist the QP with the medical use of marijuana, pledging not to divert marijuana to any person who is not allowed to possess marijuana, and stating that the individual has not been convicted of an excluded felony offense. The CG must also submit two original sets of fingerprints to ADHS to complete the application. If the CG is found to have had an excluded felony offense on his or her criminal history, ADHS will seek to revoke the designated CG's card(s).

Registration Fees

The fees are listed in the A.A.C. R9-17-102 and include:

- $150 for an initial or a renewal Registry Identification Card for a QP. QPs may be eligible to pay $75 for initial and renewal cards if they currently participate in SNAP.
- $200 for an initial or a renewal Registry Identification Card for a CG for each QP (up to five patients).
- $500 for an initial or a renewal Registry Identification Card for a DA.
- $5,000 for an initial dispensary registration certificate.
- $1,000 for a renewal dispensary registration certificate.

- $2,500 to change the location of a dispensary or cultivation facility.
- $10 to amend, change, or replace a Registry Identification Card.

Non-Profit Medical Marijuana Dispensaries

Non-profit medical marijuana dispensaries (dispensaries) are entities that acquire, possess, cultivate, manufacture, deliver, transfer, transport, supply, sell, and dispense medical marijuana. For the first year, legal action delayed the dispensary application and registration process in Arizona. The Arizona Medical Marijuana Act and the supporting Administrative Code delineates the process and regulations for medical marijuana dispensary certification, policies, medical director responsibilities and functions, DA registration, and other restrictions and precautions.

Non-profit medical marijuana dispensaries (dispensaries) are entities that acquire, possess, cultivate, manufacture, deliver, transfer, transport, supply, sell, and dispense medical marijuana.

ADHS may not issue more than one dispensary registration certificate for every ten licensed pharmacies in Arizona, except if necessary to ensure ADHS issues at least one dispensary registration certificate in each county. In 2011, the maximum number of potential dispensaries in Arizona was 126.

From May 14 through May 25, 2012, ADHS accepted applications for non-profit medical marijuana dispensaries. Four hundred eighty-six applications were received. Applicants were required to submit an application including components such as policies and procedures, a business plan, zoning compliance and property ownership documentation, and an application fee. Additional evaluation criteria were also accepted and included whether any individual who had a 20% or more interest in the dispensary was not the applicant or principal officer or board member of the dispensary and whether the applicant submitted proof of possessing $150,000 to begin operating.

For the first year of the initial allocation process (2012), dispensary registration certificates were issued based on one dispensary per Community Health Analysis Area (CHAA). If there was more than one dispensary registration certificate application for a CHAA that was complete and in compliance, ADHS issued dispensary registration certificates using a random selection process. ADHS held a lottery on August 7, 2012, and a total of 98 registration certificates were allocated through this process. The lottery process was shown live via streaming video through the ADHS website. ADHS utilized an outside auditing firm to oversee the lottery process. Appendix C describes the Medical Marijuana Dispensary Application Drawing Procedures. After the conclusion of the drawing, the outside auditing firm also provided a review of how ADHS applied these operating procedures (Appendix D, Independent Accountant's Report on Applying Agreed-Upon Procedures).

Prior to opening, dispensaries that received dispensary registration certificates are required to submit an application to operate at least 60 days before the expiration date of the certificate (August 7, 2013). Additionally, Approval to Operate (ATO) applications submitted to ADHS must include elements such as site plans, floor plans, conditional use permits, special use permits, or certificates of occupancy. The dispensary must also receive an inspection during which ADHS will verify, among other requirements, the inventory control system, security, systems to establish, maintain, and ensure confidentiality of QP records, authorized personnel verification, product labeling and analysis, and cleanliness and sanitation.

The second annual report will cover appropriate dispensary information once dispensaries in Arizona are operational.

Non-Profit Medical Marijuana Dispensary Agents

Non-Profit Medical Marijuana Dispensary Agents (DAs) are principal officers, board members, employees or volunteers of non-profit medical marijuana dispensaries, and must be at least 21 years of age. Dispensary Agents perform many functions including:

- Dispensing medical marijuana
- Verifying QP and CG Registry Identification Cards before dispensing
- Maintaining QP records
- Maintaining an inventory control system
- Ensuring that medical marijuana has the required product labeling and analysis
- Providing required security
- Ensuring that edible food products sold or dispensed are prepared only as permitted
- Maintaining the dispensary and cultivation site in a clean and sanitary condition

DAs, similar to CGs, cannot have been convicted of an excluded felony offense. ADHS collects two original sets of fingerprints and processes the fingerprints to determine if the individual has an excluded felony offense. A DA is required to be registered with ADHS before volunteering or working at a dispensary. Dispensaries must apply for a Registry Identification Card for each DA.

During the time period for which the data have been analyzed provided in this report (April 14, 2011 through June 15, 2012), there were zero DA Registry Identification Cards issued.

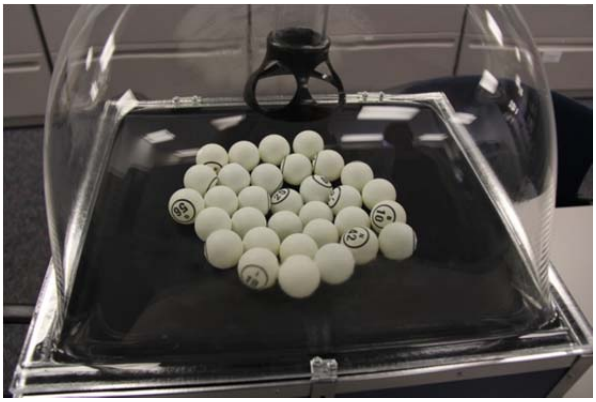
Appendix A provides an overview of the revenue and expenditures since the program's inception in April 14, 2011 until June 30, 2012.

Program Project Contracts and Interagency Service Agreements

Since the program's inception, ADHS has partnered with external agencies, private firms, and institutions to assist in program development and execution. Below is a summary of some of the

major work projects associated with the initial development and continued implementation of the medical marijuana program.

- An Invitation for Bid (IFB) was conducted in 2011 to secure Medical Marijuana Registration Cards, Supplies and Equipment. The Contract issued subsequent to the IFB was for the purchase of pre-printed card stock, color printers, holographic image laminate overlay, software to integrate with the ADHS ITS database, technical support, equipment maintenance, training and printer supplies. The Contract was awarded to Electronic Security Concepts on March 21, 2011. It is valid through March 20, 2014, and has two one-year extensions available. To date, ADHS has spent $152,860.65.
- In preparation for the August 7, 2012 dispensary lottery process, three Atomic Table Top Bingo Blowers (one for testing, one for use at the Dispensary Drawing and one backup) and 15 sets of bingo balls were purchased for $4,279 with the Procurement Office Purchasing Card. Internet research was conducted to find a certified machine that would randomly dispense lottery-type balls for the 126 CHAAs and that was also cost effective. Some of the larger free-standing machines cost up to $10,000 each.



- In preparation for the August 7, 2012 dispensary lottery process, Chain-of-Custody Evidence Bags were purchased using the Finance Office for Public Health Prevention Purchasing Card. The bags cost $99. Procurement provided the research and quotes. These 15" by 20" clear, tamper-proof evidence bags were used to seal the groups of balls for each CHAA drawing and the non-awarded balls were sealed back into a new bag by CHAA number. The Automatic Table Top Bingo Blowers and sealed evidence bags were kept under lock and key in the Office of Procurement at ADHS.
- A Purchase Order under State Contract SCC060006-2 with Henry & Horne, CPA was established for $10,159. The CPA firm provided two individuals to assist with development and review of the dispensary random selection process, establishment of secure bags of balls for each CHAA drawing, attendance at the Medical Marijuana Dispensary drawing to ensure that the written procedures were followed, and provision of a final Management Report of the entire process.
- An Interagency Service Agreement (ISA), ADHS12-017291, for Research and Evaluation Services was executed with the University of Arizona College of Public Health on February 12, 2012 for five years. The intent of the ISA is to provide agency-wide services, but currently the focus is on medical marijuana. The University assists with review of clinical trials, review and evaluation of requests to add new debilitating medical conditions, preparation of Continuing Medical Education curriculum for

physicians related to medical marijuana, and review and evaluation of medical marijuana data and preparation of the Annual Report. The value of the medical marijuana portion of the ISA is $200,000.

- An ISA, HS352036, with the Arizona Board of Pharmacy was executed on September 21, 2012 for five years (if funding is available). The ISA funds upgrading of the Controlled Substances Prescription Monitoring Program database to improve physicians' ability to register online and check the patient's profile on the database. The funds allow for one (1) Full-time Equivalent (FTE) Pharmacist to manage data and provide research, analysis, ad hoc queries and expanded reporting, including necessary office equipment. The current amount encumbered is $284,325.00.
- An ISA, ADHS13-028141, with The Center for Toxicology and Pharmacology Education and Research (CTPER) was sent to the University of Arizona this October for review and input. This ISA is still pending. The intent is to provide a collaborative venue between the Poison and Drug Information Centers at the University of Arizona (Contractor) College of Pharmacy and Banner Good Samaritan Medical Center in Phoenix. The objective of the ISA is a multi-organizational collaborative center of excellence to provide expertise, education and research in the areas of medical toxicology, pharmacology, and medication safety utilizing the 24-hour access of specially trained healthcare professionals to provide medication and patient safety information to the licensed users and dispensers in Arizona. The current projected budget is $900,000 per year.

Arizona Medical Marijuana Program Outside Counsel and Lawsuits

The majority of the medical marijuana program's legal matters are handled by the Arizona Attorney General's Office (AGO). However, in order to avoid the potential of overtaxing the limited resources of ADHS and AGO, in August 2012, ADHS made a request for the appointment of outside counsel. The appointment was requested to allow outside counsel to assist ADHS with the numerous medical marijuana-related administrative appeals and lawsuits, as well as possibly represent ADHS in informal settlement conferences, administrative hearings and court proceedings. Therefore, in late August 2012, through the AGO, the law firm Sherman & Howard, L.L.C. was appointed as outside counsel to ADHS.

Several lawsuits have been filed concerning the implementation of the Arizona Medical Marijuana Act. A scanned copy of the complaint for each lawsuit is available on the ADHS website. As of the date of this Annual Report, the current lawsuits include:

- *Johanna Dispensaries v. ADHS*: LC2012-000544
- *Charise Voss Arfa v. ADHS*: CV2012-014816

- *Arizona Organix v. ADHS*: CV2012-054733
- *White Mountain Health Center v. ADHS*: CV2012-053585
- *Serenity v. ADHS*: LC2011-000410
- *Elements v. ADHS*: CV2011-011288
- *Compassion First v. Arizona*: CV2011-011290
- *Sobol v. Arizona*: CV2011-053246
- *Arizona v. 2811*: CV2011-014508
- *Arizona v. USA*: 11-01072

1.3 Comparisons of Arizona's Medical Marijuana Act with Other States and Districts

Arizona was the fourteenth state to pass medical marijuana legislation. Currently, sixteen other states and the District of Columbia (DC) have adopted legislation.[3] Since the 1970's, numerous cases of marijuana possession and use for medicinal purposes proceeded through the courts with varying outcomes.[2] In 1996 with a 56% majority vote on a ballot initiative, California was the first state to pass legislation allowing for medical use of marijuana. At this time, an additional twelve states have legislation that has been introduced or proposals in process.[2] A summary is provided in Table 2.

Table 2. *Summary of U.S. States and districts with medical marijuana legislation*[3-7]

Year	Passage Margin	State Passing Medical Marijuana Legislation
1996	56%	California
1998	AK - 58% DC - 69% NV - 65% OR - 56% WA - 59%	Alaska; District of Columbia - intervention by Congress -law did not go into effect until July 2010; Nevada - legislation additions in 2000[6]; Oregon; Washington
1999	ME - Legislature	Maine – affirmative defense legislation broadened by public law in 2009[4]
2000	Co - 54% HI - HI Legislature	Colorado; Hawaii
2003	Legislature	Delaware - limited affirmative defense legislation broadened in 2011
2004	MT - 62% VT - VT Legislature	Montana - additional restrictions added in 2011; Vermont
2006	RI - RI Legislature	Rhode Island[7]
2007	NM - NM Legislature	New Mexico[5]
2008	62%	Michigan

Year	Passage Margin	State Passing Medical Marijuana Legislation
2009	61%	Maine – passed public medicinal use legislation, fully clarified and implemented program in 2010[4]
2010	AZ - 50.1% NJ - NJ Legislature	Arizona; New Jersey
2011	DE - DE Senate MD - MD General Assembly	Delaware, cards to be issued in 2012; dispensaries in 2013; Maryland affirmative defense legislation
2012	CO – Initiative Passed, margin TBD CT - Senate bill WA – Initiative Passed, margin TBD	Colorado – Legalization not limited to medical usage Connecticut (6/1/12)[2] Washington – Legalization not limited to medical usage
States with proposed Medical Marijuana Legislation as of 8/22/12[2]: Arkansas; Illinois; Massachusetts; Missouri; New York; Ohio; Pennsylvania		
States with Medical Marijuana Legislation that failed in 2012[2]: Alabama; Idaho; Indiana; Iowa; Kansas; Maryland (currently affirmative defense only); Mississippi; New Hampshire; Oklahoma; Tennessee; West Virginia; Wisconsin		

Within the sixteen states and District of Columbia with legislation, the acts are variable, including primary issues such as the entity that oversees the programs, use of patient or CG identification cards, physician and/or CG oversight, cultivation and dispensary limitations, qualifying conditions for use, and protection limits and access.[3] The legislation passed in Maryland does not set up a medical marijuana program per se, but provides an affirmative defense and potential sentencing mitigation for possession. Maryland also does not require a physician's certification. Within the legislation passed in California, physicians can recommend marijuana use for any condition. In all other jurisdictions with legislation, physicians must certify patients for medical marijuana use for one or more of a set list of qualifying conditions.[3]

All states with the exceptions of Maryland and Washington utilize or are creating a system to issue identification cards for medical marijuana QPs and CGs, if appropriate. For patients in California and Maine, identification cards are optional.[3] The administrative entity that has the authority to issue identification cards varies among the states. For the majority of states, a Department of Health entity is the authority. However, for Hawaii and Vermont, it is the Department of Public Safety, and for Michigan it is the Department of Licensing and Regulatory Affairs.[3]

Physicians play an important role in either recommending the medical use of marijuana or certifying that a patient has one or more of the serious conditions or symptoms specified in the legislation/initiative to qualify for its use in every state except Maryland (affirmative defense legislation only). An affirmative defense in such a situation would allow someone charged with

criminal possession/use of marijuana to present evidence of medical qualifications to avoid conviction.[2] In California, physicians can recommend medical marijuana for one or more of several listed conditions and "...any other illness for which marijuana provides relief."

Physicians play an important role in either recommending the medical use of marijuana or certifying that a patient has one or more of the serious conditions or symptoms specified in the legislation to qualify for its use….

Additional legislation in the states and District of Columbia specify requirements for minor (under 18 years of age) patients. In Washington, the parent or legal guardian is responsible for a minor patient. In Alaska, Oregon, Maine, Hawaii, Nevada, Rhode Island, New Mexico, New Jersey, and the District of Columbia, the minor only qualifies with parent/legal guardian consent and if the adult controls the dosage, acquisition and frequency of use.[3] In Vermont, the minor patient must have a parent or guardian also sign the application. Arizona is similar to Colorado, Montana, and Michigan in requiring the minor to have two physician authorizations along with parental consent.[1-3] Additionally, the adult must control the dosage, acquisition and frequency of use. In Delaware, all medical marijuana patients must be 18 years of age or older. As Maryland does not currently have a medical marijuana program per se, the potential for legal medicinal marijuana use among minors is unclear.

On November 6, 2012, Colorado and Washington passed by voter initiative legalization of marijuana not limited to medical usage. Final vote counts were not yet available at the time of this publication.

Debilitating and qualifying conditions also vary among states and the District of Columbia that have enacted medical marijuana programs. Table 3 on the following page provides a summary of qualifying debilitating conditions by state/District. As of November 6, 2012, no condition is required to qualify an individual to consume marijuana in Colorado and Washington, and therefore, these states were removed from this table.

Table 3. Comparison of qualifying conditions among states and districts with medical marijuana legislation[2-7]

Condition	AK	AZ	CA	DE	DC	HI	ME	MD	MI	MO	NV	NJ	NM	OR	RI	VT
AIDS	X	X	X	X	X		X		X	X	X		X	X	X	X
ALS		X		X			X		X			X	X			
Alzheimer's		X		X			X		X					X	X	
Cancer	X	X	X		X		X		X	X	X	X	X	X	X	X
Cachexia	X	X				X		X	X	X	X		X	X	X	X
Chronic/intractable /Severe Pain	X	X	X			X		X	X	X	X	X	X	X	X	X
Cirrhosis				X												
Crohn's		X					X		X	X			X			
Epilepsy																
Glaucoma		X	X		X		X		X	X	X	X		X	X	
Hepatitis C		X					X						X		X	
HIV	X	X		X	X		X		X	X	X		X	X	X	X
Hospice admittance / terminal ill										X		X				
Inflammatory bowel disease												X				
Migraine			X													
MS										X		X	X			X
Muscle spasms	X	X	X		X	X	X	X	X		X	X		X	X	
Nail patella							X		X							
Nausea	X	X		X		X	X	X	X	X	X			X	X	X
Peripheral neuropathy										X			X			
PTSD				X									X			
Seizures	X	X		X		X	X	X	X	X						X
Spasticity / Spinal cord damage													X			
Treatment w/ AZT, chemo, protease inhibitors, or radiotherapy					X											
Intractable vomiting										X			X			
Other: Doctor states			X									X				

Methodology

Data on all cardholders (i.e., QPs and CGs) are collected via a secure electronic web-based application system. The information collected by ADHS for purposes of administering the program is confidential by statute (A.R.S. §36-2810), exempt from public records requests under A.R.S. Title 39, Chapter 1, Article 2, exempt from requirements for sharing with federal agencies under A.R.S. §36-105, and not subject to disclosure to any individual or public or private entity, except as necessary for authorized employees of ADHS to perform official duties of the department.

2.1 Data Sources

The data for this annual report are derived from the information collected via an electronic web-based system for QPs and CGs. A de-identified dataset for the period starting April 14, 2011 to June 15, 2012 was provided by ADHS to the University of Arizona. The de-identified dataset contained information for all active cardholders during this time period. This de-identified dataset contained 29,804 records that included both QPs (n = 28,977) and CGs (n = 827) and information relevant to their application as required by A.R.S. §36-2809 for preparation of the annual report.

2.2 Measures

The measures reported here were pre-populated by ADHS to ensure confidentiality and mostly relate to the QPs' and CGs' characteristics:

- Gender of the QP and CG;
- Age in years for QPs and CGs (<18, 18-30, 31-40, 41-50, 51-60, 61-70, 71-80, and 81+);
- County of residence;
- Authorized to cultivate or cultivation status of a QP;
- Application type (new, renewal);
- Card status (active, revoked, date of issue, date of expiration);
- Entity type (i.e. QP, QP minor, CG, CG minor);
- Debilitating medical conditions (i.e. Alzheimer, Cancer, Glaucoma, HIV/AIDS, HEPC, Sclerosis, Crohn's Disease, Cachexia, Severe and Chronic Pain, Nausea, Seizures, Muscle Spasms and other specific conditions);
- Clinical trial status;
- SNAP eligibility;
- Homelessness status; and
- Physician specialization

Most of the measures in this report comprise of simple frequencies (counts) and percentages. However, where appropriate, measures of center and spread (i.e. averages, standard deviation,

median, and inter-quartile ranges) are included along with rates. ADHS analyzed data on physicians due to confidentiality considerations, and the analysis has been included in this report to satisfy the requirements of the annual report.

During this time period, no dispensary was authorized by ADHS to operate, and hence, the report does not discuss this in detail.

2.3 Analytic Procedures

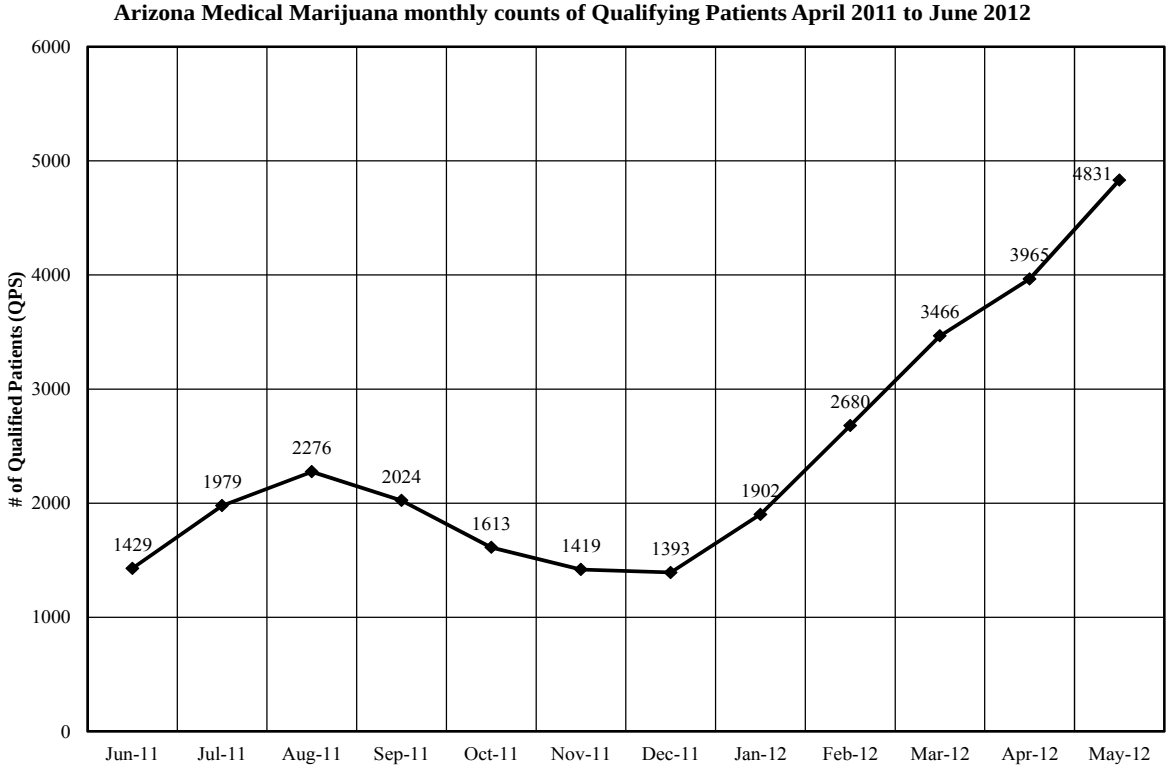
Where applicable both univariate and bivariate statistics are presented. Rates and chi-square tests were estimated using SAS v9.2 2008 software. Population denominators for 2011 were obtained from ADHS vital statistics[8]. ADHS estimated 'physician certification rates' based on data obtained from the Arizona Medical Board, Arizona Board of Naturopathic Medicine, and Arizona Board of Homeopathic Medicine for all active licenses as of May 2012. The denominator is comprised of all qualified physician certifiers of medical marijuana as defined in A.R.S. §36-2801(12). As of May 2012, there were a total of 25,664 physician certifiers in the four categories: Doctor of Medicine (MD; n = 22,111), Doctor of Osteopathic Medicine (DO; n = 2,594), Doctor of Naturopathic Medicine (NMD; n = 1,765), and Doctor of Homeopathic Medicine (HMD; n = 84). Physician certification rates were estimated using actual number of physicians providing certifications for qualifying medical marijuana patients (i.e. numerator) divided by the total number of physicians in the population that could provide a certification in that specific category or specialization.

Results

Cumulative reports posted by ADHS for all QP applications received from April 14, 2011 to June 30, 2012 were based on applications alone. During this period, a total of 41,476 applications were received and approximately 98% of the applications (40,463) were approved. Out of the 40,463 approved applications, 33,060 (82%) were new applications and 3,689 (9%) were applications for renewals. Along with QP and CG initial and renewal applications, any change in primary information or status (such as designating/changing a CG or requesting a change in authorization to cultivate) requires submission of an application. 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.

The results discussed in this report provide an overview of the active cardholders from April 2011 to June 2012. During this time period, there were a total of 29,804 active cardholders that included both QPs (n = 28,977) and CGs (n = 827). Figure 1 below and Figure 2 on the following page provide an overview of the monthly applications of active cardholders during the April 2011 through June 2012 time period.

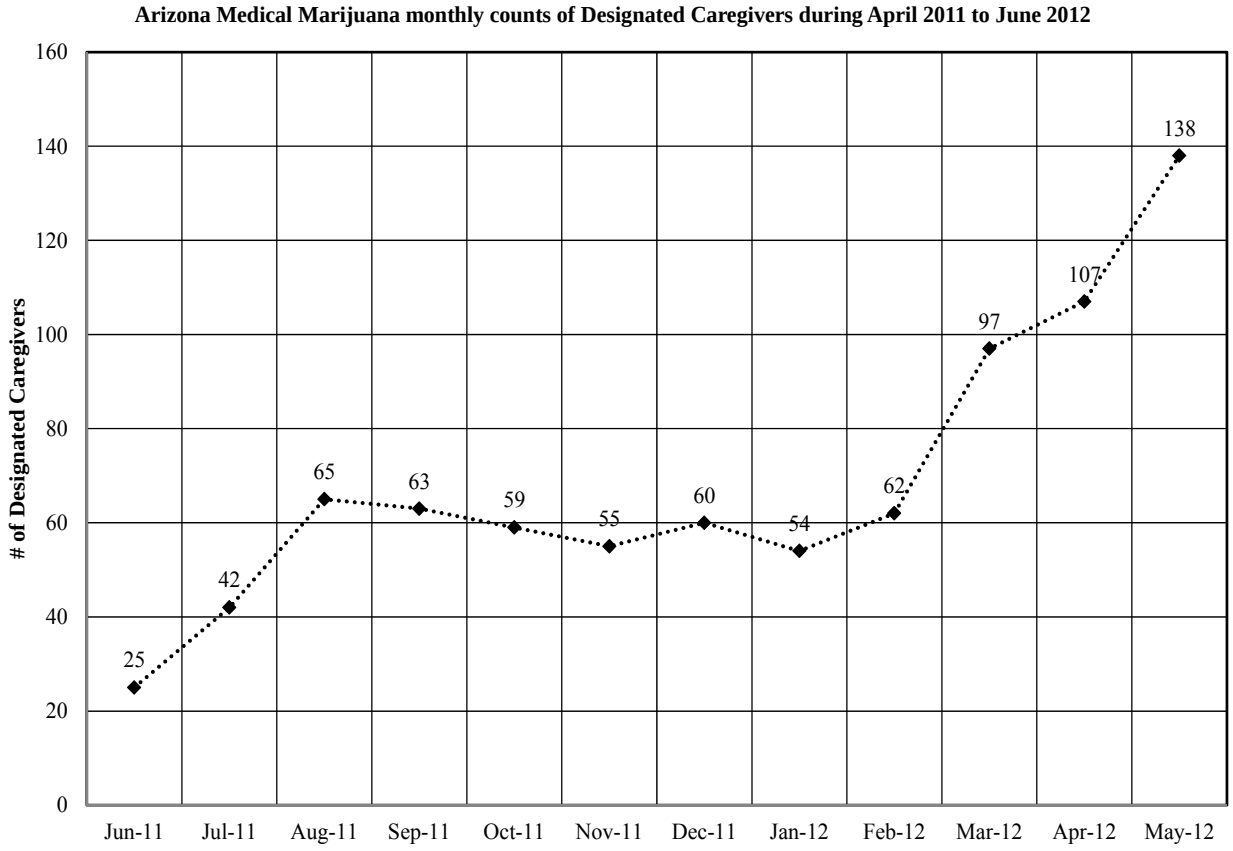
Figure 1. *Arizona Medical Marijuana QP monthly applications of active cardholders from April 2011 through June 2012*



Note: April 2011 and May 2011 counts were combined into June 2011 and June 2012 counts was combined into May 2012 to preserve scalability.

It is evident from Figure 1 that there has been an increase in the number of cardholders for QPs from December of 2011 until April of 2012 (~184%). The same increasing pattern is evident for designated CGs (see Figure 2). The number of cardholders increased monthly by approximately 78% from December 2011 until April of 2012. It is important to note that a CG can have up to five QPs, and further, an individual can be a QP and/or a CG. Hence, they may be counted as a QP and a CG. Because the CG status can change with time, to estimate a 'true count' of the number of individuals who are both CGs and QPs is difficult. One estimate from ADHS suggests that at any given time there are 500 individuals who are both QPs as well as CGs.

Figure 2. *Arizona Medical Marijuana designated caregiver monthly applications of active cardholders during April 2011 to June 2012*



The following sections detail the characteristics of QPs, CGs, and certifying physicians.

3.1 Characteristics of Qualifying Patients and Designated Caregivers

The Arizona Medical Marijuana Program collects a variety of patient data at the time of application that includes date of birth, gender, county of address, debilitating conditions, and details of recommending physician as per AMMA requirements. Table 4 outlines the demographic characteristics of QPs and CGs by age and gender. Twenty-six percent of the QPs were females (n = 7,702) and 20% of the CGs were females (n = 168) while a majority of the QPs and CGs were males. On average, females were more likely to be older compared to males, irrespective of whether they were a QP and/or a CG.

Table 4. *Demographic characteristics of qualifying patients and caregivers*

Age groups	Qualifying Patients (N = 28,977)		Caregivers (N = 827)	
	Female	**Males**	**Female**	**Male**
<18 years	2 (0.0%)	18 (0.1%)	NA	NA
18-30 years	1,492 (19.4%)	6,186 (29.1%)	32 (19.0%)	186 (28.2%)
31-40 years	1,383 (18.0%)	4,728 (22.2%)	34 (20.2%)	195 (29.6%)
41-50 years	1,624 (21.1%)	3,616 (17.0%)	40 (23.8%)	120 (18.2%)
51-60 years	2,117 (27.5%)	4,033 (17.0%)	44 (26.2%)	104 (15.8%)
61-70 years	893 (11.6%)	2,350 (11.0%)	15 (8.9%)	50 (7.6%)
71-80 years	151 (2.0%)	301 (1.4%)	3 (1.8%)	4 (0.6%)
81+ years	40 (0.5%)	43 (0.2%)	0	0
State Totals	**7,702 (26.6%)**	**21,275 (73.4%)**	**168 (20.3%)**	**659 (79.7%)**
Mean (*SD*)*	**45.4 (*14.1*)**	**41.5 (*14.7*)**	**44.2 (*12.5*)**	**39.9 (*12.5*)**

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

Approximately, 16% of the QPs (n = 4,689) applied under SNAP eligibility for a reduced fee for a card during this time period. Of those who were SNAP eligible, the majority (n = 2,916 or 62%) were males.

Figure 3 on the following page gives an overview of the cultivation status by gender for QPs and designated CGs. The AMMA does not stipulate the place of cultivation for a QP and/or a designated CG, and therefore, one cannot infer that an individual cardholder actually cultivates marijuana in the same place as his or her residence. From April 2011 to June 2012, slightly over 80% (n = 24,191) of the QPs and CGs (n = 701) were authorized to cultivate. Males were more likely than females to receive authorization to cultivate marijuana, irrespective of whether they were a patient and/or a CG.

Figure 3. *Arizona Medical Marijuana qualifying patients' and designated caregivers' cultivation status by gender*

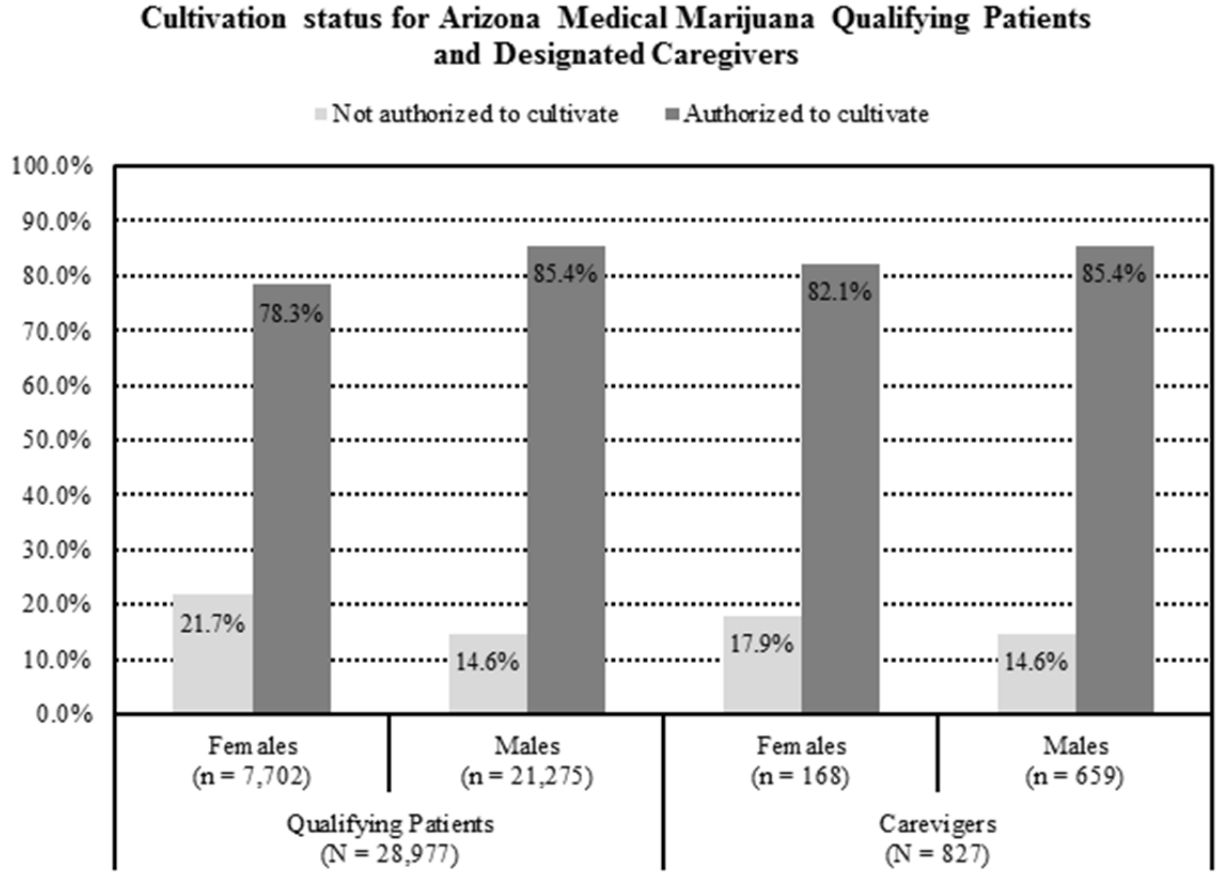


Table 5 on the following page provides an overview of QPs and CGs by county of residence along with their cultivation status. Expressing the number of medical marijuana QPs as a proportion of the population in the county is a more appropriate reflection of the prevalence of cardholders than a simple proportion. For instance, while Maricopa County had the largest percent of QPs (n = 18,001; ~62%), followed by Pima County (n = 3,480; 12%), they are not reflective of the total population. As per ADHS estimates, the estimated population for Maricopa County in 2011 was 3,843,370.[8] Maricopa County had 4.7 QPs per 1000 residents, and Pima County had 3.5 QPs per 1000 residents, compared to the state average of 4.5 per 1000 residents. Per capita QPs was highest in Gila County (9.2 per 1000 residents), followed by Yavapai (8.7 per 1000 residents), and Coconino (8.4 per 1000 residents), while Yuma (0.9 per 1000 residents), Santa Cruz (1.6 per 1000 residents), and Apache (1.9 per 1000 residents) had the lowest rates among the counties.

The same was true for cultivation status with Gila County (8.3 per 1000 residents), followed by Yavapai (7.6 per 1000 residents), and Coconino (6.9 per 1000 residents).

Table 5. *Arizona medical marijuana qualifying patients, designated caregivers and their cultivation status by county of residence*[8]

Residence County	Estimated Population in 2011	Qualifying Patients (QPs)			Caregivers			Authorized to cultivate		
		Counts	Percent	QPs per 1000 residents	Counts	Percent	Caregivers per 1000 residents	Counts	Percent	Cultivation status per 1000 residents
Apache	71,991	138	0.5%	1.92	0	0.0%	0.0	131	94.9%	1.82
Cochise	130,537	344	1.2%	2.64	7	0.8%	0.1	293	85.2%	2.24
Coconino	134,162	1,124	3.9%	8.38	28	3.4%	0.2	927	82.5%	6.91
Gila	53,577	494	1.7%	9.22	7	0.8%	0.1	445	90.1%	8.31
Graham	37,710	113	0.4%	3.00	3	0.4%	0.1	96	85.0%	2.55
Greenlee	8,380	43	0.1%	5.13	1	0.1%	0.1	39	90.7%	4.65
La Paz	20,730	95	0.3%	4.58	2	0.2%	0.1	90	94.7%	4.34
Maricopa	3,843,370	18,001	62.1%	4.68	600	72.6%	0.2	14,760	82.0%	3.84
Mohave	200,417	1,393	4.8%	6.95	14	1.7%	0.1	1,306	93.8%	6.52
Navajo	107,226	446	1.5%	4.16	6	0.7%	0.1	414	92.8%	3.86
Pima	986,081	3,480	12.0%	3.53	73	8.8%	0.1	2,871	82.5%	2.91
Pinal	384,231	1,012	3.5%	2.63	29	3.5%	0.1	856	84.6%	2.23
Santa Cruz	48,088	77	0.3%	1.60	5	0.6%	0.1	58	75.3%	1.21
Yavapai	211,247	1,842	6.4%	8.72	48	5.8%	0.2	1,594	86.5%	7.55
Yuma	200,431	190	0.7%	0.95	2	0.2%	0.0	170	89.5%	0.85
Unknown		185	0.6%		2	0.2%		141	76.2%	
State Totals	**6,438,178**	**28,977**	**100**	**4.47**	**827**	**100**	**0.12**	**24,191**	**83.5%**	**3.76**

3.2 Nature of Debilitating Medical Conditions among Qualifying Patients

As per AMMA requirements, ADHS collects information about 13 debilitating medical conditions: (i) cancer; (ii) Hepatitis C; (iii) cachexia; (iv) seizures; (v) glaucoma; (vi) sclerosis; (vii) Alzheimers; (viii) severe and chronic pain; (ix) muscle spasms; (x) HIV; (xi) AIDS; (xii) Crohn's disease; and (xiii) nausea. Certifying physicians can select more than one of these 13 conditions. Table 6 on the following page provides an overview of the unique debilitating medical conditions of the QPs during this time period.

From April 2011 to June 2012, a majority of the QPs (n = 22,357; 77%) had one qualifying debilitating medical condition, followed by approximately 19% (n = 5,379) having two conditions, and approximately 4% (n = 1,241) having three or more conditions. By way of comparison, 67.7% of the QPs (n = 19,631) indicated “severe and chronic pain” as the only debilitating medical condition while other top unique debilitating medical conditions included Hepatitis C (n = 605; 2.1%), Cancer (n = 467; 1.6%), muscle spasms (n = 420; 1.4%), and nausea (n = 389; 1.3%). 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.

Table 6. *Reported debilitating medical conditions by qualifying patients of medical marijuana*

Nature of Debilitating Conditions	Qualifying Patients	
	Count	**Percent**
Unique conditions[†]	**22,357**	**77.20%**
Cancer	467	1.6%
Hepatitis C	605	2.1%
Cachexia	34	0.1%
Seizures	233	0.8%
Glaucoma	272	0.9%
Sclerosis	7	0.0%
Alzheimers	9	0.0%
Severe and chronic pain	19,631	67.7%
Muscle Spasms	420	1.4%
HIV/AIDS	148	0.5%
Crohn's Disease	142	0.5%
Nausea	389	1.3%
Multiple conditions[‡]	**6,620**	**22.8%**
Two conditions	5,379	18.6%
Three conditions	1,090	3.8%
Four conditions	131	0.5%
Five conditions	19	0.1%
Six conditions	1	0.0%
State Totals	**28,977**	**100%**

[†]Conditions are unique as in, of the 28,977 qualifying patients 467 indicated cancer as the only debilitating medical condition.
[‡]Multiple conditions are two or more conditions specified by a qualified patient as in, of the 28,977 qualifying patients 6,620 indicated having at least two or more of the listed debilitating conditions.

With regards to debilitating medical conditions, age and gender play a significant role, and the following paragraphs detail the nature of debilitating conditions for QPs from April 2011 to June 2012 time periods. For purpose of brevity, debilitating medical conditions were classified in two broad categories: a) unique; and b) two or more conditions. This type of classification allowed examining any association between age and gender with one or more debilitating condition.

Figure 4 and Figure 5 on the following page display the debilitating medical conditions of the QPs by age and gender. Qualifying patients who indicated only one unique debilitating medical condition were more likely to be younger (average age 42 $\pm$ 14.6 years). Seventy eight percent of the males indicated one unique debilitating condition compared to 74% of females, while 26% of females indicated having two or more debilitating conditions compared to 22% of males. In general, females were 26% more likely than males to indicate two or more debilitating conditions, and the difference was statistically significant with $\chi^2 = 57.99$ (1) $p < 0.001$.

Figure 4. *Debilitating medical conditions by age of the qualifying patient*

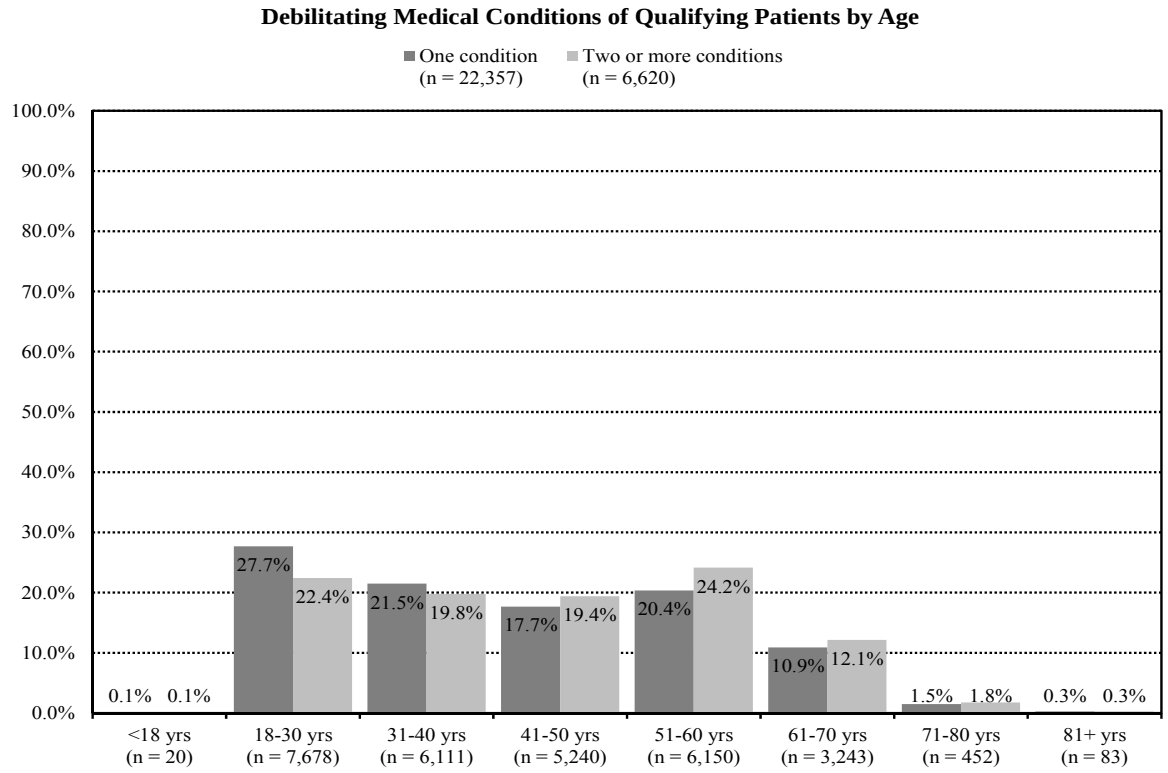


Figure 5. *Debilitating medical conditions by gender of the qualifying patient*

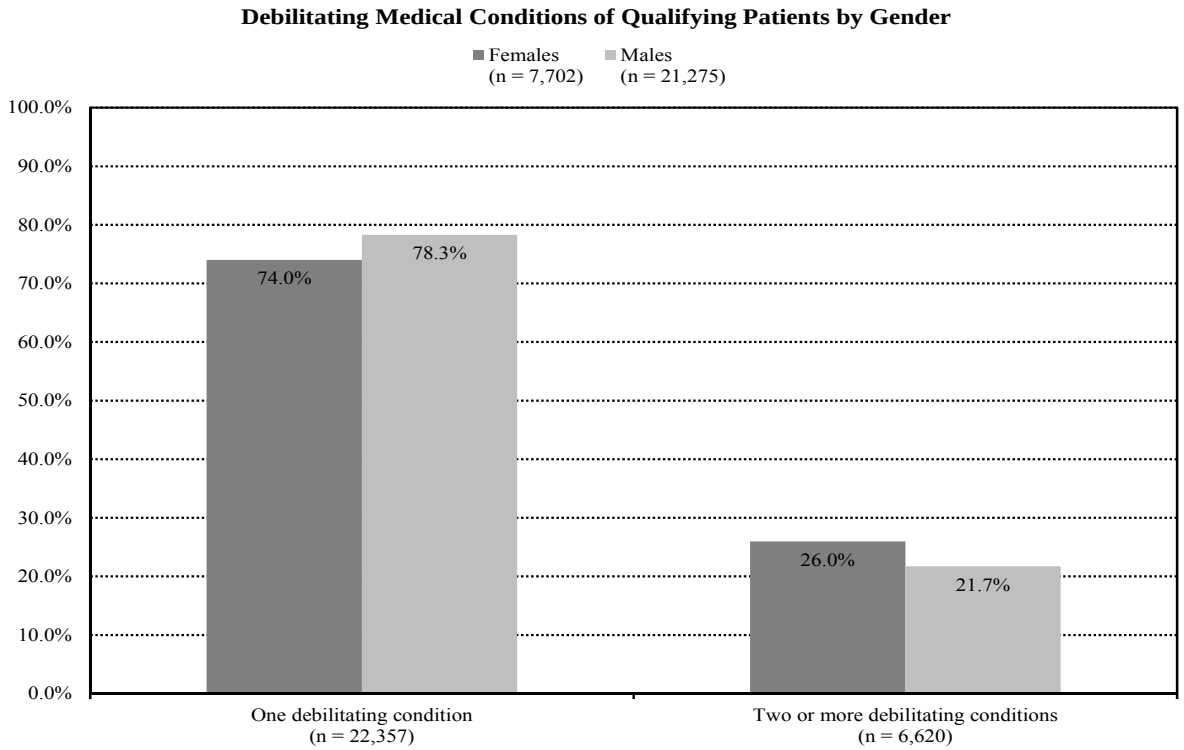


Table 7 gives an overview of debilitating medical conditions for QPs less than 18 years of age in order of frequency. In 50% of the cases (n = 10) "any debilitating medical condition that results in severe and chronic pain" was listed as a unique debilitating condition, followed by 25% (n = 5) of the cases with two or more debilitating conditions, followed by 10% (n = 2) indicating nausea.

Table 7. *Debilitating medical conditions for qualifying patients who are minors*

Nature of Debilitating Condition	**Minor Qualifying Patients (<18 years)**	
	Count	**Percent**
Unique conditions[†]	**15**	**75.0%**
Cancer	1	5.0%
Hepatitis C	0	0.0%
Cachexia	0	0.0%
Seizures	0	0.0%
Glaucoma	0	0.0%
Sclerosis	0	0.0%
Alzheimers	0	0.0%
Severe and chronic pain	10	50.0%
Muscle Spasms	1	5.0%
HIV/AIDS	0	0.0%
Crohn's Disease	1	5.0%
Nausea	2	10.0%
Multiple conditions[‡]	**5**	**25.0%**
State Totals	**20**	**100%**

[†]Conditions are unique as in, of the 20 minor qualifying patients 10 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 20 qualifying patients 5 indicated having at least two of the listed debilitating conditions.

The AMMA allows (see A.R.S. §36-2804.02(B)) individual QPs to be notified of any clinical studies on voluntary basis. During April 2011 to June 2012, out of the 28,977 QPs, 10,172 (~35%) QPs requested to be notified of clinical studies. Table 8 provides an overview of the notifications of clinical studies by QP's age, gender, and debilitating conditions. There were two important findings concerning QP's selection of notification for clinical studies. First, females were 11% more likely than males to request clinical study notifications, and this difference was statistically significant $\chi^2 = 15.28$ (1) $p < 0.001$. Second, QPs with two or more conditions were 20% more likely than those with one unique debilitating medical condition to request clinical study notifications, and this difference was statistically significant $\chi^2 = 69.38$ (1) $p < 0.001$. This finding was consistent with the earlier finding on gender differences in debilitating conditions among QPs that suggested that females were more likely than males to report two or more debilitating conditions and hence, the 'propensity' to request clinical study notifications was higher among females than males.

Table 8. *Notification of clinical studies by qualifying patient's age, gender, and debilitating medical conditions*

Qualifying patient characteristics	Clinical study notification			
	Yes (n = 10,172)		No (n = 18,805)	
	Count	Percent	Count	Percent
Age (in years)				
<18 yrs	5	0.0%	15	0.1%
18-30 yrs	2,488	24.5%	5190	27.6%
31-40 yrs	2,106	20.7%	4005	21.3%
41-50 yrs	1,928	19.0%	3312	17.6%
51-60 yrs	2,272	22.3%	3878	20.6%
61-70 yrs	1,178	11.6%	2065	11.0%
71-80 yrs	164	1.6%	288	1.5%
81+ yrs	31	0.3%	52	0.3%
Gender[†]				
Females	2,844	28.0%	4,858	25.8%
Males	7,328	72.0%	13,947	74.2%
Debilitating conditions[‡]				
Unique condition	7,564	74.4%	14,793	78.7%
Two or more conditions	2,608	25.6%	4,012	21.3%

[†]Statistically significant difference between females and males. Females more likely than males to elect for for clinical study notifications.
[‡]Statistically significant difference between qualifying patients with only one unique condition compared to those with two or more. QPs with two or more were more likely than those with only one condition to elect for clinical study notifications.

3.3 Registry Identification Card(s) Revoked

During the time period of other data reflected in this report, one Qualifying Patient Registry Identification Card was revoked and six Designated Caregiver Registry Identification Cards were revoked (for two total designated CGs who were issued more than one card).

There are several types of revocations for Registry Identification Cards.

- Designated Caregiver Revocations (Excluded Felony Offenses) – ADHS will seek a revocation when a designated CG has been found to have an excluded felony offense and is thus prohibited by statute to be a CG under the AMMA.
- Law Enforcement Revocations – A revocation may be sought when ADHS receives information from a law enforcement entity that a cardholder has violated a provision(s) under the AMMA.
- Credit Card Dispute Revocations – A revocation may be sought when an applicant has disputed the credit card charge for the application fee. ADHS may seek to revoke the card (once the funds have been returned to the credit card company).

3.4 Characteristics of Physicians Providing Written Certifications

Table 9 on the following page provides an overview of the total number of medical marijuana certifications during April 2011 to June 2012. The total certifications in the table reflect the total number of patients certified by each physician type. Four-hundred seventy five (n = 475) physicians certified 28,977 patients during this time period with an overall average of 61 patients per physician. A closer examination of Table 9 indicates that 80 NMDs certified 18,057 patients during this time period with an average certification of 226 patients per NMD, while 332 MDs certified 8,574 patients with an average of 26 certifications per MD during the same time period. Similarly, 61 DOs certified 2,329 patients with an average certification of 38.2 per DO, and two HMDs certified 17 patients with an average of 8.5 per HMD.

It is evident from Table 9 that the distribution is heavily skewed towards a select few categories of physicians. Sixty-two percent of the patient certifications (18,057 / 28,977) were issued by NMDs, followed by approximately 30% (8,574 / 28,977) by MDs; although, MDs accounted for almost 70% (332 / 475) of the total physician certifiers.

To evaluate the most frequent physician certifiers of patients, a 95th percentile was used as a cut-off. Because only two HMDs completed a total of 17 patient certifications they were excluded from the analysis. Based on this criterion, the "24 most frequent physician certifiers" were identified and are displayed in Table 8. For instance, six MDs certified 5,279 patients accounting to approximately 61% of the total patient certifications in the MD category, while 17 NMDs accounted for 14,128 patient certifications accounting to approximately 78% of the total patient certifications in the NMD category. One DO accounted for 1,749 patient certifications accounting for 75% of the total patient certifications in the DO category. In total, 24 physicians certified over 21,000 patients that accounted for almost 75% of the total patient certifications.

Table 9. *Characteristics of physician certifications by type/specialization*

Type of Physician Certifier	Medical Marijuana certifications during April 2011 to June 2012					24 most frequent certifiers of Medical Marijuana		
	Counts of physician certifiers[†]	Total number of certifications by physician type[‡]	Average number of certifications[§]	Total number of eligible physician certifiers in the State[¶]	Rate* (Certifiers per 1000 physicians)	Counts of most frequent physician certifiers	Number of certifications by physician type	Percent of total certifications[φ]
Doctor of Medicine (MD)	332	8,574	25.8	22,111	15.0	6	5,279	61.6
Doctor of Naturopathic Medicine (NMD)	80	18,057	225.7	1,765	45.3	17	14,128	78.2
Doctor of Osteopathic Medicine (DO)	61	2,329	38.2	2,594	23.5	1	1,749	75.1
Doctor of Homeopathic Medicine (HMD)	2	17	8.5	84	23.8	NA	NA	NA
Overall State Totals	**475**	**28,977**	**61.0**	**24,789**	**19.2**	**24**	**21,156**	**73.0**

[†]Counts are unique by type of physician certifiers and are identified using license number.

[‡] Total number of physician certifications for patients during April 2011 and June 2012. For example 332 MDs certified 8,574 patients and 80 NMDs certified 18,057 patients.

[§]Average number of certifications is total number of certifications in each category divided by the unique count of physicians in that category (i.e. 8,574/332 = 25.83). On average each MD certified by 26 patients.

[¶]Data for total number of physicians is periodically obtained from Arizona Medical Board, Arizona Board of Naturopathic Medicine, Arizona Board of Homeopathic Medicine. The total numbers reflect data available as of May 2012 of active licensees.

*Rates are calculated as the unique count of physicians who provided certifications to medical marijuana patients divided by total number of eligible physicians in that category (for example, 332/22,111 = 15.02) per 1000.

[φ]Percent of total certifications reflects the total number of certifications by most frequent physician certifiers divided by total number of physician certifications completed during the time-period. For example, four MDs accounted for 61% of the total certifications in the MD category (i.e. 5,279/8,574).

Figure 6 below displays the most frequent physician certifiers by type to further illustrate the point made in Table 9.

Figure 6. *Most frequent recommending physicians by licensing board*

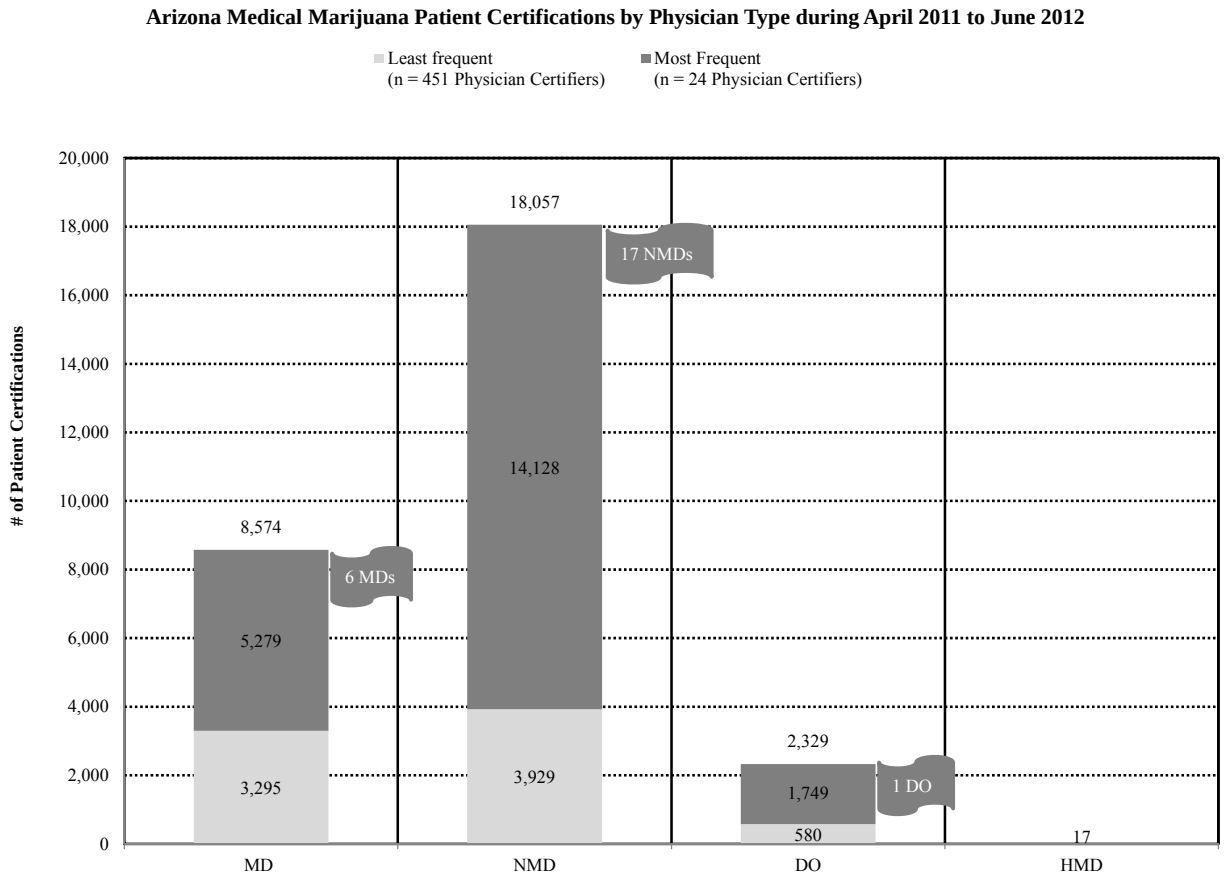


Table 10 on the following page lists the most frequent recommending physicians in order of number of certifications from April 2011 to June 2012. On a bi-annual basis, ADHS conducts an analysis of the most frequent physician certifiers and works with the Arizona Board of Pharmacy to assess whether these certifying physicians have been accessing the controlled substances database. Based on the recommendations from the Arizona Board of Pharmacy, each Arizona physician licensing board is notified of any discrepancies and possible further action. Since the program's inception in April 2011, ADHS has referred 11 physicians to the respective physician licensing boards for this issue.

Table 10. *Twenty-four most frequent recommending physicians of medical marijuana*

24 Most Frequent Certifiers of Medical Marijuana			
#	**Physician type**	**Patients certified**	**Percent within most frequent**
1	NMD	2,557	12.1%
2	DO	1,749	8.3%
3	NMD	1,561	7.4%
4	MD	1,286	6.1%
5	NMD	1,225	5.8%
6	MD	1,079	5.1%
7	MD	1,077	5.1%
8	NMD	1,068	5.0%
9	MD	882	4.2%
10	NMD	852	4.0%
11	NMD	754	3.6%
12	NMD	720	3.4%
13	NMD	668	3.2%
14	NMD	668	3.2%
15	NMD	665	3.1%
16	NMD	592	2.8%
17	NMD	572	2.7%
18	MD	515	2.4%
19	NMD	504	2.4%
20	NMD	474	2.2%
21	MD	440	2.1%
22	NMD	436	2.1%
23	NMD	433	2.0%
24	NMD	379	1.8%
Total Certifications[§]		**21,156**	**100%**

[§]These certifications account to 73 percent of all the certifications during April 2011 to June 2012.

Table 11 on the following page provides an overview of the physician recommendations for different debilitating medical conditions. The counts exclude HMDs due to small sample size. As noted earlier, severe and chronic pain is consistently the highest reported debilitating medical condition irrespective of the physician type. However, approximately 78% of the DOs (n = 1,809) recommended severe and chronic pain as a unique debilitating medical condition compared to MDs (~66%) and NMDs (~67%). Both MDs (~26%) and NMDs (~23%) recommended two or more debilitating medical conditions, while only 14% of the DOs recommended two or more conditions.

Table 11. *Debilitating medical conditions by recommending physician type*

Nature of Debilitating Medical Conditions[§]	Physician Certifications for Debilitating Medical Conditions							
	DO		MD		NMD		**Totals**	**Percent**
	Count	Percent	Count	Percent	Count	Percent		
Cancer	49	2.1%	99	1.2%	318	1.8%	**466**	**1.6%**
Hepatitis C	30	1.3%	125	1.5%	450	2.5%	**605**	**2.1%**
Cachexia	7	0.3%	13	0.2%	14	0.1%	**34**	**0.1%**
Seizures	21	0.9%	51	0.6%	161	0.9%	**233**	**0.8%**
Glaucoma	29	1.2%	58	0.7%	185	1.0%	**272**	**0.9%**
Sclerosis	0	0.0%	1	0.0%	6	0.0%	**7**	**0.0%**
Alzheimers	1	0.0%	2	0.0%	6	0.0%	**9**	**0.0%**
Severe and chronic pain	1,809	77.7%	5,671	66.1%	12,144	67.3%	**19,624**	**67.8%**
Muscle spasms	28	1.2%	139	1.6%	253	1.4%	**420**	**1.5%**
HIV/AIDS	9	0.4%	46	0.5%	93	0.5%	**148**	**0.5%**
Crohn's disease	15	0.6%	29	0.3%	98	0.5%	**142**	**0.5%**
Nausea	16	0.7%	103	1.2%	270	1.5%	**389**	**1.3%**
Two or more debilitating conditions	315	13.5%	2,237	26.1%	4,059	22.5%	**6,611**	**22.8%**
Overall State Totals	**2,329**	**100.0%**	**8574**	**100%**	**18,057**	**100%**	**28,960**[¶]	**100.0%**

[§]Conditions are unique debilitating medical conditions unless noted otherwise.
[¶]17 HMDs are not included in the totals.

3.5 Registered Non-Profit Medical Marijuana Dispensaries

From April 14, 2011 through June 2012, ADHS did not issue any certificates for non-profit medical marijuana dispensaries. ADHS will report these required data elements in the second annual report.

3.6 Non-Profit Medical Marijuana Dispensary Agents

From April 14, 2011 through June 2012, ADHS did not issue any DA Registry Identification Cards. ADHS will report these required data elements in the second annual report.

Discussion and Recommendations

Since the program's inception in April 14, 2011 until June 30, 2012, there were a total of 29,804 active cardholders that included both QPs (n = 28,977) and CGs (n = 827). At the close of its initial year in operation, ADHS has been administering the program to support Arizona residents for whom medical marijuana may provide therapeutic and palliative benefit. The majority (n = 19,631; 67.7%) of the QPs indicated "severe and chronic pain" as the unique debilitating condition and approximately 7% of the patients had other conditions that included Cancer (n = 467; 1.6%), Hepatitis C (n = 605; 2.1%), Muscle Spasms (n = 420; 1.4%), and Nausea (n = 389; 1.3%).

At the close of its initial year in operation, ADHS has been administering the program to support Arizona residents for whom medical marijuana may provide therapeutic and palliative benefit.

It is possible to estimate in further detail the 'true incidence' of debilitating medical conditions by examining other data available at ADHS. However, there are statutory restrictions that require ADHS to maintain confidentiality of the medical marijuana registry data. Any public health analysis of this data will be limited in scope, unless the Arizona Medical Marijuana Act (AMMA) statutory elements are amended (i.e. in furtherance of the act) to conduct any epidemiological analysis to understand public health and safety implications. For instance, although causality was difficult to determine, a recent study, found that residents of states with medical marijuana laws had higher likelihood (odds) of marijuana use (OR:1.92; 95% CI: 1.49–2.47) and marijuana abuse/dependence (OR: 1.81; 95% CI: 1.22–2.67) than residents of states without such laws.[9]

Since the passage of the law, in two instances (Laws 2011, Chapter 112 and Laws 2011, Chapter 336), modifications to AMMA were put in place to clarify ADHS' authority to share doctor information with the various medical boards and required ADHS to allow employer access to the medical marijuana database to verify if employees were valid cardholders. Additionally, Laws 2011, Chapter 94 modified the controlled substances database to include medical marijuana to allow physicians to make more informed decisions about patient care. Without these modifications, it would have been difficult to assess the high frequency physician certifications noted in this report and/or to report them to their respective medical boards. Results found in this report on frequent physician certifications raise concerns about high volume certifiers.

Some of the findings in this report lend support to the following recommendations that can further improve administration of AMMA:

Recommendation 1: Develop intensive training for physicians who are high volume certifiers in conjunction with respective licensing medical boards for better patient provider coordination and adherence to AMMA statutory requirements. Leverage existing contracts with the Arizona Board of Pharmacy to more quickly identify physicians who may be making false attestations on physician certifications.

Recommendation 2: Given the overwhelming recommendations for patients with "severe and chronic pain", explore the feasibility of further examining the nature of debilitating conditions. For instance, the current incident rate for cancer in Arizona (5-year average) was 390 per 100,000 (CI: 387.8–392.1) with an average annual count of 25,432 cases.[10] However, in the medical marijuana database there were only 467 patients with Cancer as a unique debilitating condition.

Recommendation 3: Explore the feasibility of temporary suspensions of cards. For revocations, the current AMMA statute provides only two possibilities with a cardholder status as either active and/or revoked. For instance, during the reporting period there was one revocation for a QP and two revocations for designated CGs. In either case, there are a series of administrative actions that need to occur before a card is revoked, including the possibility of appeals through Administrative Hearing and Superior Court. During this time lag, a card remains in "active" status (i.e. the cardholders are protected by the AMMA) until a final decision is made; thus, providing immunity to potential misuse of AMMA provisions.

Recommendation 4: Explore the feasibility of conducting epidemiological analysis of medical marijuana users through amendment of AMMA statute to understand public health and safety concerns. For instance, epidemiological analyses can shed light on: a) whether use of medical marijuana has an effect on opiate dependency; b) whether use of medical marijuana has an impact on motor vehicle traffic injuries; and (c) whether use of medical marijuana has an impact on pregnancy outcomes or breastfeeding.

Appendix A

Medical Marijuana Fund
Program Inception through FY 2012
4/14/2011 to 6/30/2012

Revenues:	
Application fee for a Registry Card	$5,525,277
Application fee for a Dispensary	$2,420,000
Total Revenues	**$7,945,277**
Expenditures:	
Salaries, Wages and Benefits	$570,972
Operating Expenditures	$1,505,023
Capital Equipment Expenditures	$304,464
Total Expenditures	**$2,380,459**
Fund Balance	**$5,564,818**

Note: ADHS utilizes the fund balance to fulfill the program's outstanding obligations. See Program Project Contracts and Interagency Services Agreements Section for details.

Appendix B

Arizona Medical Marijuana Program Governing Documents

Arizona Revised Statutes (A.R.S.) that Govern the Arizona Medical Marijuana Program

The Arizona Revised Statutes (A.R.S.) represent the statutory laws of the state of Arizona. The A.R.S. and the Arizona Medical Marijuana Rules each contain requirements applicable to the Arizona Medical Marijuana Program. Accordingly, to fully understand all the requirements applicable to the Arizona Medical Marijuana Program, the A.R.S. and the Arizona Medical Marijuana Rules should be read in conjunction with each other.

A.R.S. Title 36

CHAPTER	ARIZONA MEDICAL MARIJUANA ACT
36-2801	Definitions
36-2801.01	Addition of debilitating medical conditions
36-2802	Arizona Medical Marijuana Act; limitations
36-2803	Rulemaking
36-2804	Registration and certification of nonprofit medical marijuana dispensaries
36-2804.01	Registration of nonprofit medical marijuana dispensary agents; notices; civil
36-2804.02	Registration of qualifying patients and designated caregivers
36-2804.03	Issuance of registry identification cards
36-2804.04	Registry identification cards
36-2804.05	Denial of registry identification card
36-2804.06	Expiration and renewal of registry identification cards and registration
36-2805	Facility restrictions
36-2806	Registered nonprofit medical marijuana dispensaries; requirements
36-2806.01	Dispensary locations
36-2806.02	Dispensing marijuana for medical use
36-2807	Verification system
36-2808	Notifications to department; civil penalty
36-2809	Annual report
36-2810	Confidentiality
36-2811	Presumption of medical use of marijuana; protections; civil penalty
36-2813	Discrimination prohibited
36-2814	Acts not required; acts not prohibited
36-2815	Revocation
36-2816	Violations; civil penalty; classification
36-2817	Medical marijuana fund; private donations
36-2818	Enforcement of this act; mandamus
36-2819	Fingerprinting requirements

Arizona Medical Marijuana Administrative Code (Rules)

The rules in the Arizona Administrative Code (A.A.C.) that apply to the Medical Marijuana Dispensary portion of the Arizona Medical Marijuana Act were filed on April 11, 2012. ADHS accepted applications for Medical Marijuana Dispensary Registration Certificates from May 14 through May 25, 2012.

ADHS used an emergency rulemaking process to incorporate the changes required by a recent Superior Court Ruling. This process requires subsequent rulemaking using the regular rulemaking process. An unofficial draft of the rules being made through regular rulemaking combines the amendments contained in the Express Rulemaking with the Medical Marijuana Program Rules.

Appendix C

Random Selection Protocol for Dispensaries

Medical Marijuana Dispensary Application Drawing
August 7, 2012
Arizona Department of Health Services
Procedures – Revised 08-03-12

1. Definitions: (in the order as they appear)
    a. Henry & Horne, LLP (CPA)
    b. Community Health Assessment Area (CHAA)
    c. Atom Action Bubble Top Bingo Blower (machine)
    d. White Bingo Balls (balls)
    e. White Cotton Gloves (gloves)
    f. Chain of Custody Sealed Bags (bags)
2. Purpose: To ensure fair and random conduct during the drawing of Medical Marijuana Dispensaries for competitive CHAAs throughout Arizona.
3. Responsibility: Procurement Officers and CPA to verify the procedure is followed.
4. The drawing will take place at the State Laboratory, 250 North 17th Avenue, Phoenix, Arizona 85007 on Tuesday, August 7, 2012 beginning at 9:00 a.m. and ending approximately at 1:00 p.m.
5. The public will not be able to attend. ADHS ITS will stream a video of the process on a specific URL (http://www.livestream.com/azdhs) so the public can watch each drawing.
6. Credentialed media will be permitted to attend. They must sign in prior to entering the Laboratory so a permanent record exists of all attendees. The log will contain individual name, company name, company address, telephone number, email address, and time in and out.
7. ADHS individuals will sign in, whether working or observing, so a permanent record exists. The log will include name, department, role, telephone number, and email address.
8. Approximately 462 applications have been determined to be complete and compliant pursuant to A.R.S. Title 36, Chapter 28.1, Arizona Medical Marijuana Act, 36-3804. Registration and certification of nonprofit medical marijuana dispensaries.

9. There will be sixty-nine (69) individual drawings for CHAAs where more than one (1) application was received.
10. ADHS purchased three (3) machines and fifteen (15) sets of balls from Kardwell International Inc. Each set contains seventy-five (75) individual balls; B1-15, I16-30, N31-45, G46-60, O61-75. All sixty-nine (69) CHAAs have less than fifteen (15) applications so a letter will only need to be used once from each of the seventy-five (75) sets.
11. Per a letter received July 13, 2012, from Kardwell International, Inc., the machine randomly selects one ball from balls placed in the machine.
12. The CPA will use "IDEA" software program to select a random sample to assign a number to each application per competitive CHAA. ADHS will provide a report to the CPA by competitive CHAA of the application numbers and the range of ball numbers assigned to each drawing.
13. The CPA with the use of "IDEA" will assign a sequential ball number based on the order the random sample was selected. The CPA will maintain in his possession the detailed procedures and processes used to assign a number to the random sample selected using "IDEA".
14. The CPA will provide a report to ADHS for each competitive CHAA with the number of eligible applications, the application number and the assigned ball that will be placed in the machine.
15. The CPA will observe that his staff, wearing gloves, organizes and divides the balls into bags for each competitive CHAA. The bags will be sealed and identified with a label containing the CHAA number for the drawing. The bag will also be marked with the ball letter and numbers for each competitive CHAA. An ADHS individual person will observe. The balance of unused balls will be sealed in another bag and marked by CHAAs. Both the ADHS individual person and the CPA will ensure that the balls are transported immediately to the ADHS Procurement Office. The bags will be locked in the ADHS Procurement Office contract file room in the ADHS 1740 building, with the machine, until the day of the drawing.

16. On the day of the drawing, the CPA will verify that the bags have not been opened or moved since assembly.
17. The ADHS individual will move the machine and bags to the State Laboratory. The CPA will accompany the ADHS individual during the move from one building to the next. The CPA will attend the drawing.
18. At approximately 9:00 a.m., ADHS will start the process with the first competitive CHAA. The only individuals handling the lottery machine will be three (3) ADHS persons. ADHS person A will empty the bag of balls corresponding to the first CHAA for the drawing into the machine.
19. ADHS person B will place the cap on the top of the funnel from which the ball exits.
20. ADHS person A will press the button to turn on the machine.
21. ADHS person B will start a stop watch for fifteen (15) seconds so the balls will circulate within the machine. At the end of the fifteen (15) seconds the same person will stop the watch and remove the cap on the funnel of the machine.
22. ADHS person C will remove the ball and read out loud the ball number and the corresponding application number.
23. ADHS person A will turn off the machine after the ball has been removed by ADHS person C.
24. ADHS person C will place the ball into one of the twenty-four (24) slots in a plastic box so the ball is in view and cannot be tampered with by any person.
25. The ball number and application number is recorded in a database by an ADHS program individual.
26. The remaining balls will be removed from the machine by the ADHS person A and placed into a bag. The next CHAA drawing will take place following the same process.
27. ADHS purchased a 2nd backup machine. Should there be an issue with the first machine during a drawing; the 1st machine will be turned off. The balls in the hopper will be removed by ADHS person B. ADHS person A will remove the 1st machine; replace that machine with the 2nd machine. ADHS person B will then place the balls removed from

machine one (1) into machine two (2). The drawing will then proceed with machine two (2).

28. The CPA will attend the drawing to observe and verify that the process for each drawing was followed.
29. This procedure will be followed for each drawing for eligible CHAA.
30. The CPA will issue a report by August 31, 2012, to ADHS Program summarizing the procedures the CPA performed and that each drawing observed was conducted in accordance with the procedures established by ADHS.
31. ADHS ITS will record the entire process so that a permanent record exists for future viewing or public record requests.
32. ADHS will publish the random selection results on the www.azdhs.gov website.

Appendix D

Independent Accountant's Report on Applying Agreed-Upon Procedures

HENRY & HORNE, LLP
Certified Public Accountants

INDEPENDENT ACCOUNTANTS' REPORT
ON APPLYING AGREED-UPON PROCEDURES

Arizona Department of Health Services:

We have performed the procedures enumerated below, which were agreed to by the Arizona Department of Health Services (ADHS), to ensure that the procedures set by the ADHS for the drawing of qualified nonprofit dispensary applications for the approximately 126 Community Health Analysis Areas (CHAA's) were properly followed. The ADHS is responsible for the procedures developed to be followed for the drawing. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in the report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

Our procedures and findings are as follow:

1. We observed the letter received on July 13, 2012 from Kardwell International, Inc. (Kardwell) noting that Kardwell certified that the atom action bubble top bingo blower (machine) would generate entirely random numbers from the white bingo ball (balls) placed in the machine.

   - No exceptions noted

2. We used the "IDEA" software program to select a random sample of applications for each CHAA from the report provided by the ADHS that contained the application numbers and range of ball numbers to be assigned to each CHAA. Next, we assigned each application a sequential ball number based on the order the random sample was generated by IDEA.

   - No exceptions were noted except for several changes that were required to be made to a few CHAA's after the random sample and assigning of ball numbers as initially performed. The changes made were as follows:

     - CHAA 61 – There was a data entry error on an application number that did not result in the random sample having to be re-performed as application AZDS00000036 should have been AZDS000000069. Since there was not an exclusion or inclusion of an additional application, it was determined that the random sample was still valid as the application number did not factor into the picking of the random sample.

     - CHAA 35, 65, 69, 73, 93, 109, 110, 111 and 113 – Due to last minute changes and/or errors identified by the ADHS with the original assigning of applications to CHAA's, random samples of applications had to be re-performed for these CHAA's and a new sequential ball number was assigned to each application within the CHAA's.

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3. We observed our staff, while wearing white cotton gloves, organize and divide the balls with the above assigned ball numbers into chain of custody bags for each competitive CHAA. The bags were sealed and identified with a label containing the CHAA number for the drawing. The bag was also marked with the ball letters and numbers included. An ADHS individual observed us performing this process. The balance of unused balls were also sealed in a chain of custody bag (bags) and marked by CHAAs that the unused balls related to. After the balls were placed in bags and sealed, we observed that the sealed bags were transported immediately to the ADHS Procurement Office. The bags were locked in the ADHS Procurement Office contract file room in the ADHS 1740 building, with the machine. We also observed that only two procurement administrative staff had access to the room and that there was a sign-in log that was completed each time the room was accessed.

    - No exceptions noted except for the random samples having to be re-performed for certain CHAA's as noted in agreed upon procedure #2 above, certain of those CHAA's had to have balls either removed from or added to the sealed bags. As such, agreed upon procedure #3 was re-performed for those corresponding CHAA's.

4. On the day of the drawing, we accompanied and observed the ADHS staff moving the machine and the bags of sealed balls from the ADHS Procurement Office to the State Laboratory where the drawing was held. As part of this process, we observed and verified that the sealed bags had not been opened or moved since assembly.

    - No exceptions noted

5. We attended the drawing and observed the drawing for each CHAA. As part of this process, we observed for each CHAA that the procedures performed to remove the balls from the sealed bags, place the balls in the machine, selection of the winning ball from the machine, reading of the winning application number and the placing of the ball in the designated plastic box for the winning balls was performed in accordance with the procedures set by the ADHS.

    - No exceptions noted, however, we would like to point out the below items that occurred leading up to and during the drawing to clarify how these situations were addressed.

        - On August 3rd, it was determined that the white gloves to be used by the individuals participating in the drawing would not be worn. The gloves were causing issues with the opening of the bags and the placing of the balls into the machine. Due to the sealed bags having residual glue on the bags, the white gloves were sticking to the glue. As such, it was determined that since no one involved in the drawing would be physically touching the balls with their hands until after the drawing occurred, that wearing the white gloves was not necessary. The initial procedures were revised to include this change in procedure.

- During the drawing for one of the CHAA's, there was one ball that bounced out of the machine and onto the floor while the balls were being poured out of the bag and into the machine. In order to ensure the ball was not handled directly by someone involved in the drawing, a representative of Henry & Horne, LLP obtained a pair of white gloves, put the gloves on and picked up the ball and placed it in the machine.

- After the drawing for each CHAA, there were empty disposal bags that were used to place the used balls into and then these disposal bags were sealed and retained. During the drawing, it was determined that CHAA 27 had two disposal bags created. Prior to putting any of the used balls into the disposal bag, it was researched and determined that one of the disposal bags should have been labeled as CHAA 28. As such, one of the disposal bags for CHAA 27 was discarded and a new disposal bag for the unused balls for CHAA 28 was created.

6. At the conclusion of the drawing, we observed the winning balls and checked to ensure the proper application assigned to the winning ball was documented accurately.

   - No exceptions noted

7. We verified that the results of the drawing were available for public viewing by internet video streaming.

   - No exceptions noted

We were not engaged to, and did not, conduct an audit, the objective of which would be the expression of an opinion on the procedures set by the ADHS for the drawing of qualified nonprofit dispensary applications for the approximately 126 CHAA's being properly followed. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the Arizona Department of Health Services and is not intended to be and should not be used by anyone other than those specified parties.

Henry & Horne, LLP

Tempe, Arizona
August 28, 2012

End Notes:

1. Arizona Department of Health Services website.

2. ProCon.org (2012, August 13). 17 Legal Medical Marijuana States and D.C.: Laws, Fees, and Possession Limits. Retrieved from http://medicalmarijuana.procon.org/view.resource.php?resourceID=000881.

3. Marijuana Policy Project (2011, Fall last update) The Seventeen States and One Federal District with Effective Medical Marijuana Laws. Retrieved from http://www.mpp.org/legislation/state-by-state-medical-marijuana-laws.html.

4. Commissioner's Office Maine Department of Health and Human Services (2011, March) Maine Medical Use of Marijuana Program Annual Report.

5. Medical Cannabis Program Update for the Medical Advisory Board Meeting (2011, November 19) Office of the Secretary, Santa Fe, NM, http://www.nmhealth.org.

6. Nevada Health Division Medical Marijuana Program (2012, September 10) Nevada Medical Marijuana Report.

7. Charles Alexandre, PhD, RN Chief, Health Professions Regulation (2011, February 1) Rhode Island Medical Marijuana Report.

8. ADHS population estimates, by county for year 2011, ADHS Bureau of Vital Statistics (2012, 3 April), http://www.azdhs.gov/plan/menu/info/pop/pop11/pd11.htm.

9. Cerdá C, Wall M, Keyes KM, Galea S, and Hasin D. Medical marijuana laws in 50 states: Investigating the relationship between state legalization of medical marijuana and marijuana use, abuse and dependence. *Drug Alcohol Depend.* 2012; 120(1-3):22-27.

10. State Cancer Profiles. Retrieved from http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?04&001#incdEAPC accessed on November 5th 2012.