Arizona's Primary Healthcare Workforce

2008-2016

Sponsored by the Arizona Nurses Foundation

Arizona Action Coalition

ASU Center for Health Information and Research
Arizona State University

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The Center for Health Information & Research (CHiR) is a multidisciplinary unit of the College of Health Solutions at Arizona State University. Since 2001, CHiR has provided comprehensive information and research on health, healthcare, and the healthcare workforce in Arizona to public and private organizations.

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Executive Summary

This report describes the characteristics and practice locations of nurses and physicians engaged in the delivery of primary care in the State of Arizona in 2016 and some changes that have occurred since 2008.

Two of the most important changes are the marked reduction in solo practitioners and the proliferation of outpatient care in non-traditional settings such as drugstores and urgent care centers. Many of these new settings rely more heavily on nurses than in more traditional environments.

- Approximately 24% of physicians have a primary care specialty compared to 41% in 2008.
- The percentage of primary care physicians in solo practice has declined from 60% in 2008 to less than 20%. The shift from solo practice to hospital-owned or physician-owned group practices is likely to continue.
- Approximately 88% of primary care physicians practice in urban areas. Many small rural towns in Arizona are served by only one primary care physician. The rural urban distribution of primary care physicians is effectively unchanged since 2008.
- Slightly more than 30% of the nurses who work in nursing positions are primary care providers, compared to only 6% of nurses in 2008.
- The rural-urban distribution of primary care nurses mirrors that of primary care physicians and is also virtually unchanged since 2008.
- The decreased numbers of primary care physicians appears to result in increased reliance on nurses in primary care. This result deserves more attention.
- The importance of nurses in the delivery of primary care is likely to increase with changes in physician practices and increases in the delivery of primary care in non-traditional settings.

Introduction

The Center for Health Information & Research (CHiR) has a long history of collaborating with the state licensing boards to track Arizona health care professionals, specifically physicians, nurses, pharmacists, and pharmacy technicians. CHiR has merged licensing data with survey responses for physicians since 1991 and for nurses and pharmacists since 2007.

This report analyzes data on Arizona allopathic physicians (MDs), osteopathic physicians (DOs), advanced practice nurses (APNs), registered nurses (RNs), and licensed practical nurses (LPNs) working in a primary care setting. Registered nurses provide nursing care, but play an important role in the delivery of primary care under the direction of physicians. This report refers to RNs who work in primary care settings as "primary care" nurses.

Methods

The data collection process adds survey questions to license applications for nurses, pharmacists and physicians. Information from the health care professionals' responses to the survey questions is merged with the licensing data to create individual physician records. The data include characteristics such as demographics along with specialty, clinical area, office location, practice changes, retirement status, hours worked, education, date of graduation, and graduate training experiences (Johnson, Rimsza, Garcy, & Grossman, 2005; Rimsza, Johnson, Speicher, & Grossman, 2006; Qiu & Johnson, August 2009). The survey questions vary with changing research and policy interests. The number of respondents to the survey questions varies among the different questions.

Nurses in Arizona renew their licenses every four years. This report covers the full renewal period of 2013-2016 and includes all nurses who were still active at any time in calendar year 2016.

Allopathic physicians renew their licenses every two years on their birthdays, and osteopathic physicians renew their licenses every other year, so the results represent a full renewal cycle from January 2015 – December 2016. A revised physician survey instrument was deployed in April 2015, so this report includes responses from two survey instruments.

Data Sources

Arizona Health Care Workforce Data Sets. CHiR maintains separate longitudinal data systems tracking all licensed physicians (allopathic & osteopathic) and nurses (RNs, APNs & LPNs). Physician data is collected monthly and nursing data is provided annually from their respective licensing boards. The administrative licensing information includes survey questions regarding these workforces. The Arizona Medical Board, the Arizona Board of Osteopathic Medical Examiners in Medicine and Surgery, and the Arizona State Board of Nursing approved the access/disclosure of their data in this project.

Assumptions & Limitations

The data used in this report are restricted to physicians and nurses with Arizona Licenses who also reside in Arizona. Most results in this report are limited to physicians and nurses who practice in primary care settings.

The results for nurses include information that ranges from less than one year to four years earlier because of the renewal cycle. The renewal cycle for physicians is two years.

For physicians, this report presents data from *survey responses* and data from the *licensing records,* which includes all the health care professionals whether or not they responded to the survey questions.

Data from the licensing records, which include all the healthcare professionals, whether or not they respond to the survey, are used wherever such data are available since these are the most accurate of all the results presented in the report.

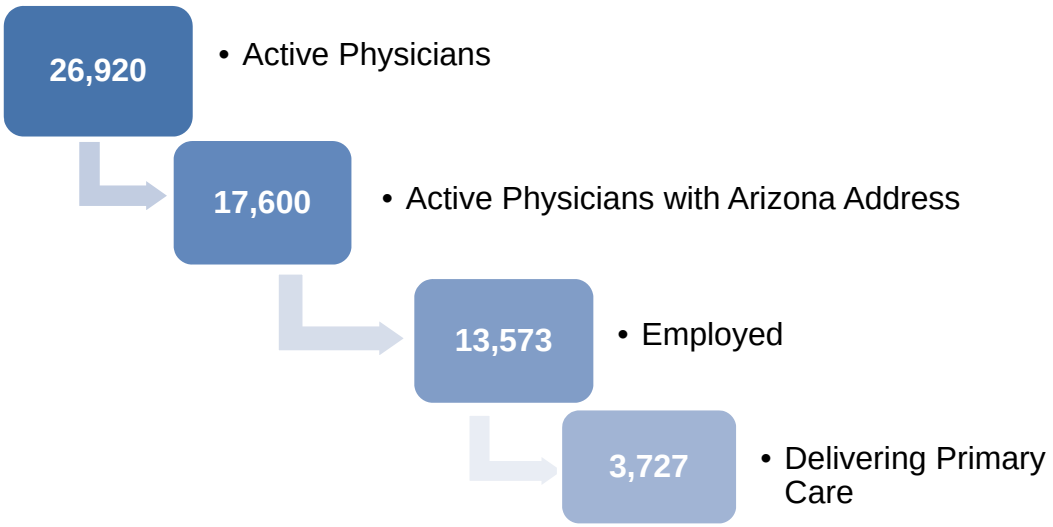
However, much of the information required to define a primary care provider, whether nurses or physicians, can only be obtained from responses to the survey, which are voluntary. The numbers of providers and their various characteristics drawn from the survey will vary with the extent to which the physicians or nurses answered those questions. Each figure or table provides the number of responses on which it is based and the number of non-responses for each question from which the data were drawn, where applicable.

The reported results can be considered representative of the percentages and geographic distributions in the populations under study but may be less accurate estimates of the absolute numbers of physicians or nurses if the subject is based on survey responses with low response rates. Interpretations of the results must recognize these characteristics of the results.

Physicians

The licensing boards define active physicians as those whose license has not expired or been suspended. Some physicians renew their licenses after retirement or while on leave. The distinction between physicians with an active license and those who are practicing medicine is obtained from responses to the survey. The true status of physicians who do not respond to the survey is, therefore, unknown. Survey respondents who indicate that they are retired or semi-retired/on leave are excluded from our results.

Figure 1. Distribution of Arizona Physicians



Source: Arizona Medical Board (AMB), Arizona Board of Osteopathic Examiners (ABOE) Survey and Administrative Data, 2015-2016.

Note: There were 3,469 physicians (3,077 MDs and 392 DOs) who did not respond to the question on employment and 9,247 physicians (8,094 MDs and 1,153 DOs) missing data on specialty or did not respond to the question on type of practice.

Figure 1 shows that there are 26,920 active physicians in 2016. Of those, 17,600 physicians live in Arizona, 7,965 live out of the state, and the state of residence could not be identified for 1,355 physicians. An increasing number of physicians who live in other states provide services, such as interpreting images, to Arizona patients. The information needed to identify the extent to which out of state physicians serve Arizona patients is not always available. It is likely that some of the out of state physicians would be included in the Arizona physician workforce if more information were available.

The classification of a primary care physician is based on a combination of reported specialty and the nature of the practice or organization in which they work. Physicians can report more

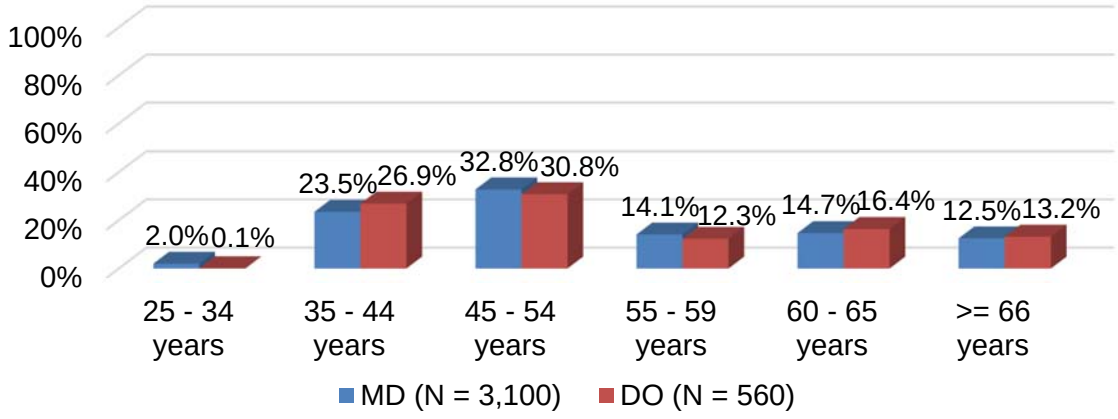
than one specialty to the licensing boards, and they need not be board certified in the reported specialty. We adopt the first specialty reported and do not classify physicians by multiple specialties, except when the reported specialty needs further clarity. *Primary care physicians are* defined as those practicing in family medicine, general medicine, geriatrics, obstetrics and gynecology, or pediatrics. Excluded are physicians working in a hospital, university or research center, mental/behavioral health clinic, insurer or pharmaceutical company, or consultant. Of the Arizona residents, 3,727 physicians who provided the necessary information were primary care providers.

Demographics

Over 40% of primary care physicians are older (age 55+) (Figure 2). MD and DO physicians are also predominantly male (Figure 3). However, the proportion of physicians who are female has increased since 2008. In 2008, 33% of primary care MD physicians were female versus 42% currently. Female physicians represented 28% of primary care DO physicians in 2008 compared to 38% currently.

The majority of physicians, both MD and DO attended medical school outside Arizona, a historical pattern that persists even as new schools of osteopathic medicine have opened in the State.. As indicated in Figure 4, the modal years of graduation for both MD and DO physicians are 1990-1999. Graduates after 2010 are relatively rare, reflecting the long periods of residencies and fellowships characteristic of the training of physicians.

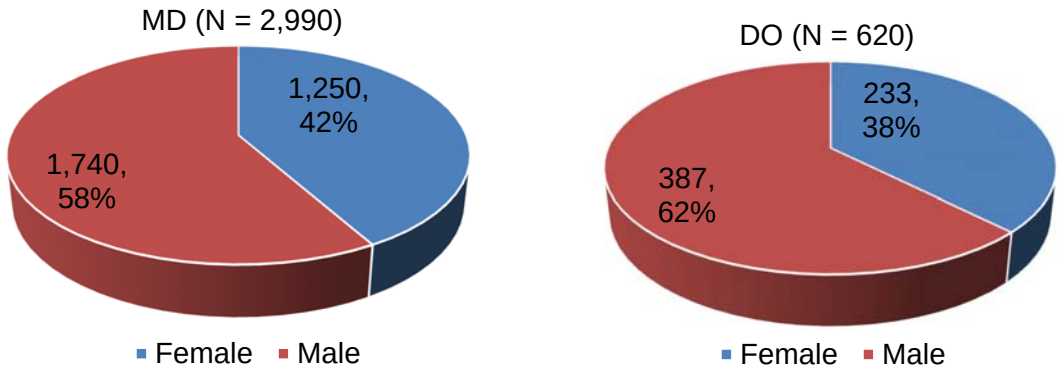
Figure 2. Primary Care Physicians by Age Group (N = 3,660)



Source: AMB & ABOE Survey data, 2015-2016.

Note: There were 67 DOs missing data on date of birth.

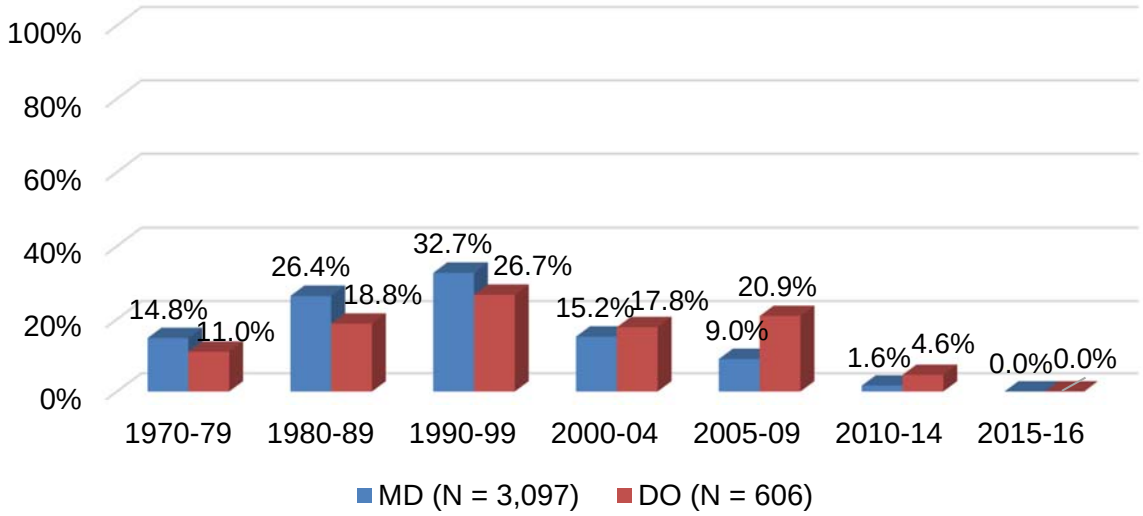
Figure 3. Primary Care Physicians by Gender (N = 3,610)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: There were 110 MDs and 7 DOs who did not respond to the question on gender.

Figure 4. Primary Care Physicians by Medical School Graduation Year (N = 3,703)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: There were 3 MDs and 21 DOs missing graduation year.

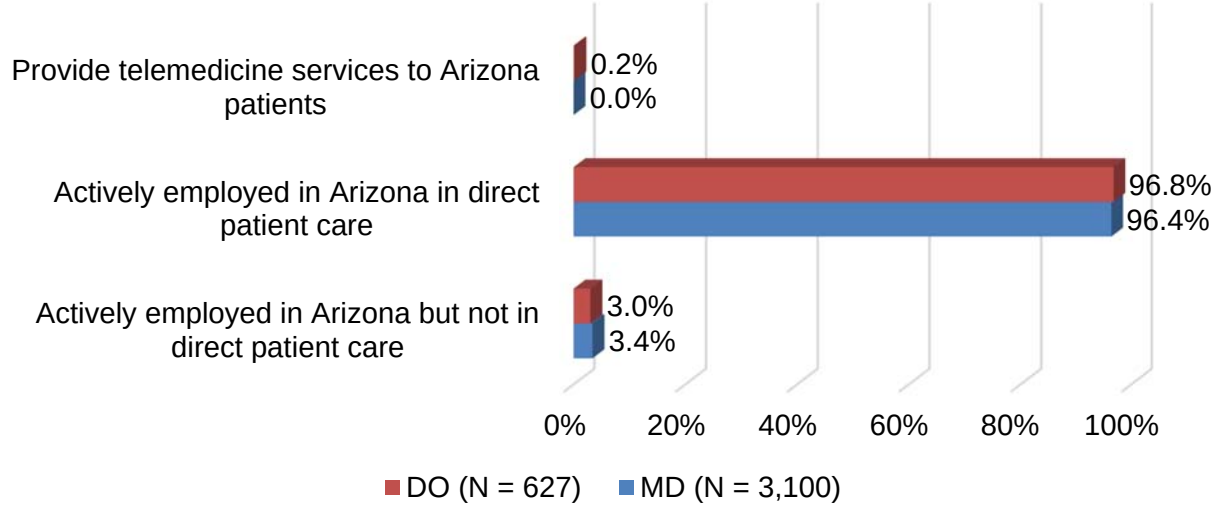
Practice Settings

Licensing applications do not include information on the nature or size of the organizations in which physicians practice. The information is collected through a series of survey questions (see Appendix C, Question 3).

As expected, nearly all of the primary care physicians engage in direct patient care. The few exceptions may reflect some idiosyncratic influences or simply some imperfections in our classification metrics (Figure 5). A small number of physicians list telemedicine as their primary practice. We noted earlier that this estimate likely understates telemedicine practices because the data do not adequately identify telemedicine services provided by out of state physicians.

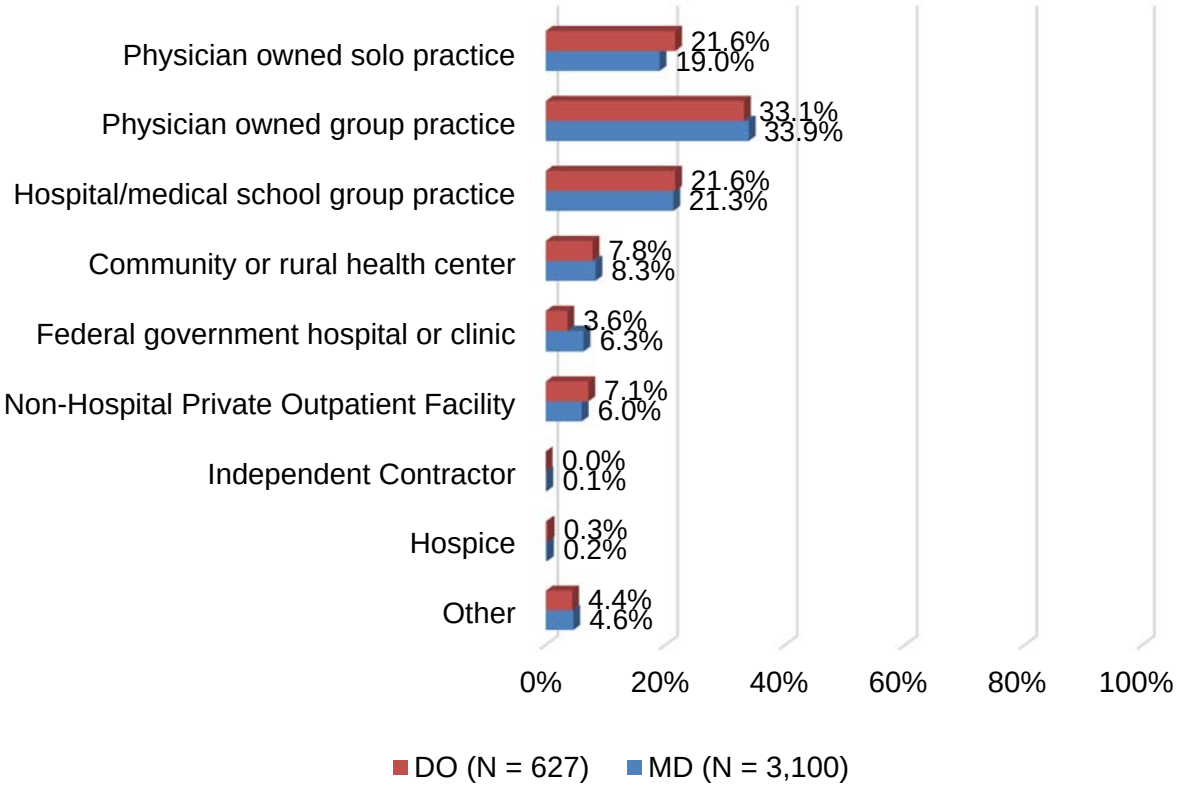
The survey questions in 2008 on organizations of practice are not as detailed as current results, but some important comparisons are possible. Perhaps the most important is the very large reduction in the prevalence of solo practices. Less than 20% of primary care physicians are engaged in solo practice (Figure 6), a substantial decline from 2008 when nearly 60% of Arizona primary care physicians were solo practitioners. The shift reflects the ongoing acquisition of solo practices by hospital systems and the administrative efficiencies of physicians coming together in physician owned group practices. Another influence has been the allure of regular working hours and guaranteed salaries for physicians working as hospitalists or part of hospital owned group practices.

Figure 5. Primary Care Physicians by Employment Status (N = 3,727)



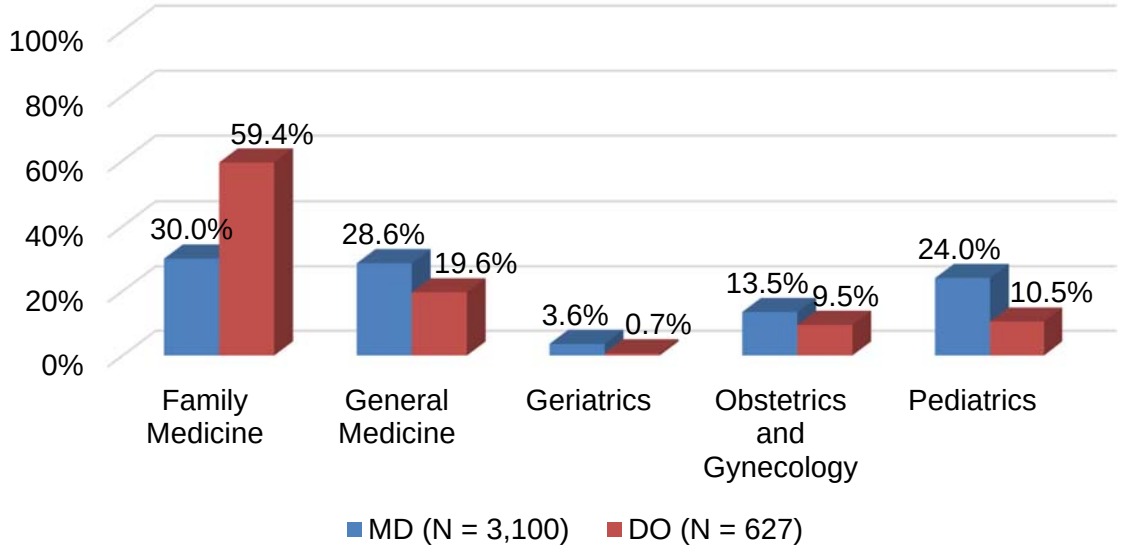
Source: AMB & ABOE Survey data, 2015-2016.

Figure 6. Primary Care Physicians by Type of Practice (N = 3,727)



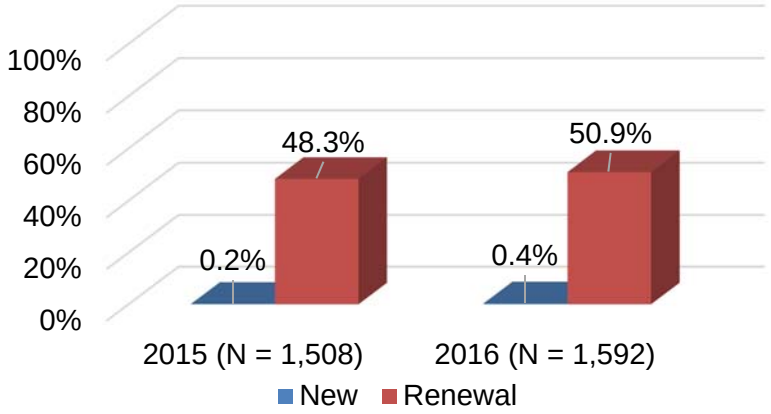
Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Figure 7. Distribution of Primary Care Physicians by Specialty (N = 3,727)



Source: AMB & ABOE Survey and Administrative Data, 2015-2016.

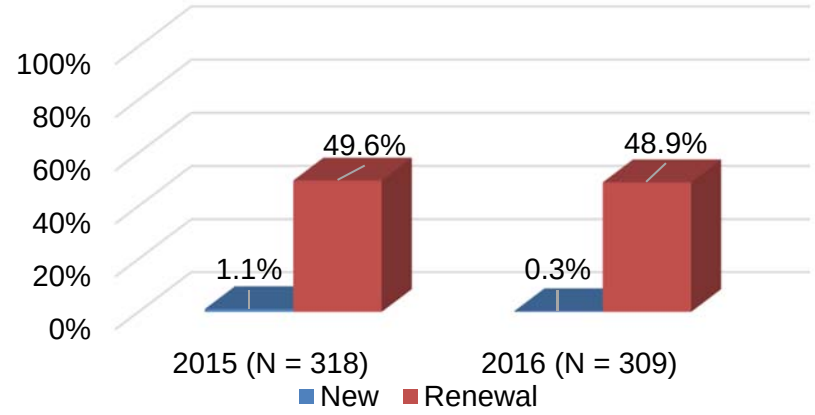
Figure 8. Primary Care MDs by License Status, 2015-2016 (N = 3,100)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Since this report covers a full renewal cycle, it is expected that all physicians would have renewed their licenses during this period. Figures 8 and 9 show the percentage of new licenses versus renewal licenses.

Figure 9. Primary Care DOs by License Status, 2015-2016 (N = 627)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Urban-Rural Distribution of Physician Practices

The population of Arizona is concentrated in four urban areas, namely the cities of Flagstaff, Phoenix, Tucson and Yuma. Phoenix is the fifth largest city in the United States and Tucson, although much smaller, is the second largest city in Arizona. The areas outside the cities are very large, but sparsely populated, and they include both American Indian reservations and

large areas of uninhabitable desert. It is not surprising, therefore, that health care facilities, including physician practices, are also concentrated in the cities.

Limited access to care in rural areas is a chronic problem in most States in the United States. Attempted solutions to the problem include federal and state incentive programs for physicians to locate in rural areas, but the programs have had limited success. In Arizona, the obstacles imposed by the unusual geography of the state have made solutions more difficult.

In 2008, for example, 65% of primary care physicians practiced in Maricopa County (primarily metro Phoenix); 19% practiced in Pima County (Tucson); 2% in Coconino (Flagstaff) and 2% in Yuma County (Yuma) (Table 1). In total, approximately 88% of primary care physicians practiced in urban areas. The numbers of practicing physicians in these counties have decreased slightly since 2008 while county populations have increased, but the rural-urban distribution is effectively the same. In 2016, 66% of primary care physicians practiced in Maricopa County; 17% practiced in Pima County; 2% in Coconino County and 3% in Yuma County.

Table 1. Arizona Active Primary Care Physicians by County, 2008 (N = 6,268)

County	MD		DO		TOTAL	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Apache	19	0.4%	5	0.5%	24	0.4%
Cochise	61	1.1%	15	1.6%	76	1.2%
Coconino	134	2.5%	18	1.9%	152	2.4%
Gila	37	0.7%	12	1.3%	49	0.8%
Graham	26	0.5%	7	0.7%	33	0.5%
Greenlee	7	0.1%	0	0.0%	7	0.1%
La Paz	9	0.2%	4	0.4%	13	0.2%
Maricopa	3,417	64.2%	650	68.6%	4,067	64.9%
Mohave	99	1.9%	24	2.5%	123	2.0%
Navajo	62	1.2%	15	1.6%	77	1.2%
Pima	1,057	19.9%	126	13.3%	1,183	18.9%
Pinal	103	1.9%	20	2.1%	123	2.0%
Santa Cruz	23	0.4%	2	0.2%	25	0.4%
Yavapai	140	2.6%	30	3.2%	170	2.7%
Yuma	114	2.1%	15	1.6%	129	2.1%
Unknown	13	0.2%	4	0.4%	17	0.3%

Source: 2008 Arizona Medical Board License Database.

Note: These numbers are survey responses weighted to population totals.

Table 2. Distribution of Primary Care Physicians' by County, 2015-2016 (N = 5,942)

County	DO		MD		Total	
	Number	Percent	Number	Percent	Number	Percent
Apache	5	0.5%	10	0.2%	14	0.2%
Cochise	18	1.8%	69	1.4%	87	1.5%
Coconino	18	1.8%	129	2.6%	147	2.5%
Gila	3	0.3%	29	0.6%	32	0.5%
Graham	6	0.6%	27	0.5%	34	0.6%
Greenlee	0	0.0%	3	0.1%	3	0.1%
La Paz	2	0.2%	8	0.2%	10	0.2%
Maricopa	729	72.8%	3,212	65.0%	3,941	66.3%
Mohave	32	3.2%	85	1.7%	118	2.0%
Navajo	18	1.8%	63	1.3%	81	1.4%
Pima	106	10.6%	879	17.8%	985	16.6%
Pinal	21	2.1%	127	2.6%	148	2.5%
Santa Cruz	0	0.0%	21	0.4%	21	0.4%
Yavapai	34	3.4%	132	2.7%	166	2.8%
Yuma	10	1.0%	145	2.9%	155	2.6%
Total	1,002	100.0%	4,939	100.0%	5,942	100.0%

Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: The numbers are responses weighted to population totals. There were 3,469 physicians (3,077 MDs and 392 DOs) who did not respond to the question on employment and 9,247 physicians (8,094 MDs and 1,153 DOs) missing data on specialty or did not respond to the question on type of practice.

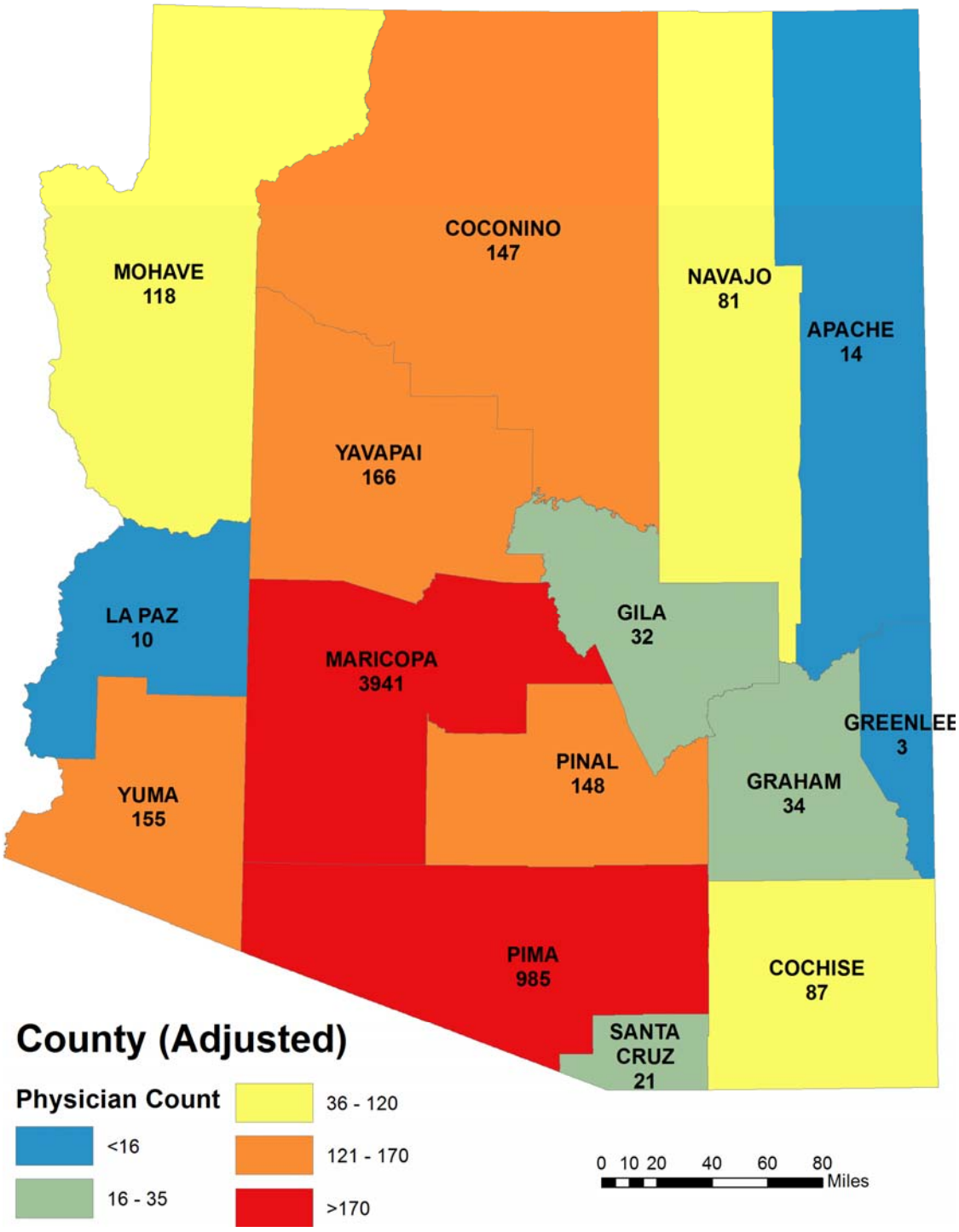
The results for cities, census tracts and Health Professional Shortage Areas (HPSAs) were not available for 2008, but the information for 2016 is described in later in this report.

The pattern of rural-urban distribution by city clarifies the distribution of primary care physicians within the Phoenix metro area, distinguishing between the city of Phoenix and its close suburbs such as Gilbert, Glendale, Scottsdale, Tempe and others. The city of Phoenix proper includes 30% of the primary care physicians with the remaining 36% located in the suburban areas (Table A-2). The differences between the smaller cities and their suburbs range from Tucson at 12% vs. 17%; to Flagstaff at 2% (no difference) and Yuma at 2% (vs 3%).

The rural-urban divide is more striking in terms of the absolute numbers of physicians. As indicated in Table A - 1, there are a very large number of very small towns in Arizona, many of which retain their frontier era distinctive names, with one or two primary care physicians. The role of transport to urban specialty facilities and reliance on telemedicine is not included in our data. The extent to which these small towns are served by non-traditional primary care settings that rely heavily on registered nurses is not directly measured, but we can consider the

possibility by examining changes from 2008-2016 in the rural-urban distribution of registered nurses in the next section of this report.

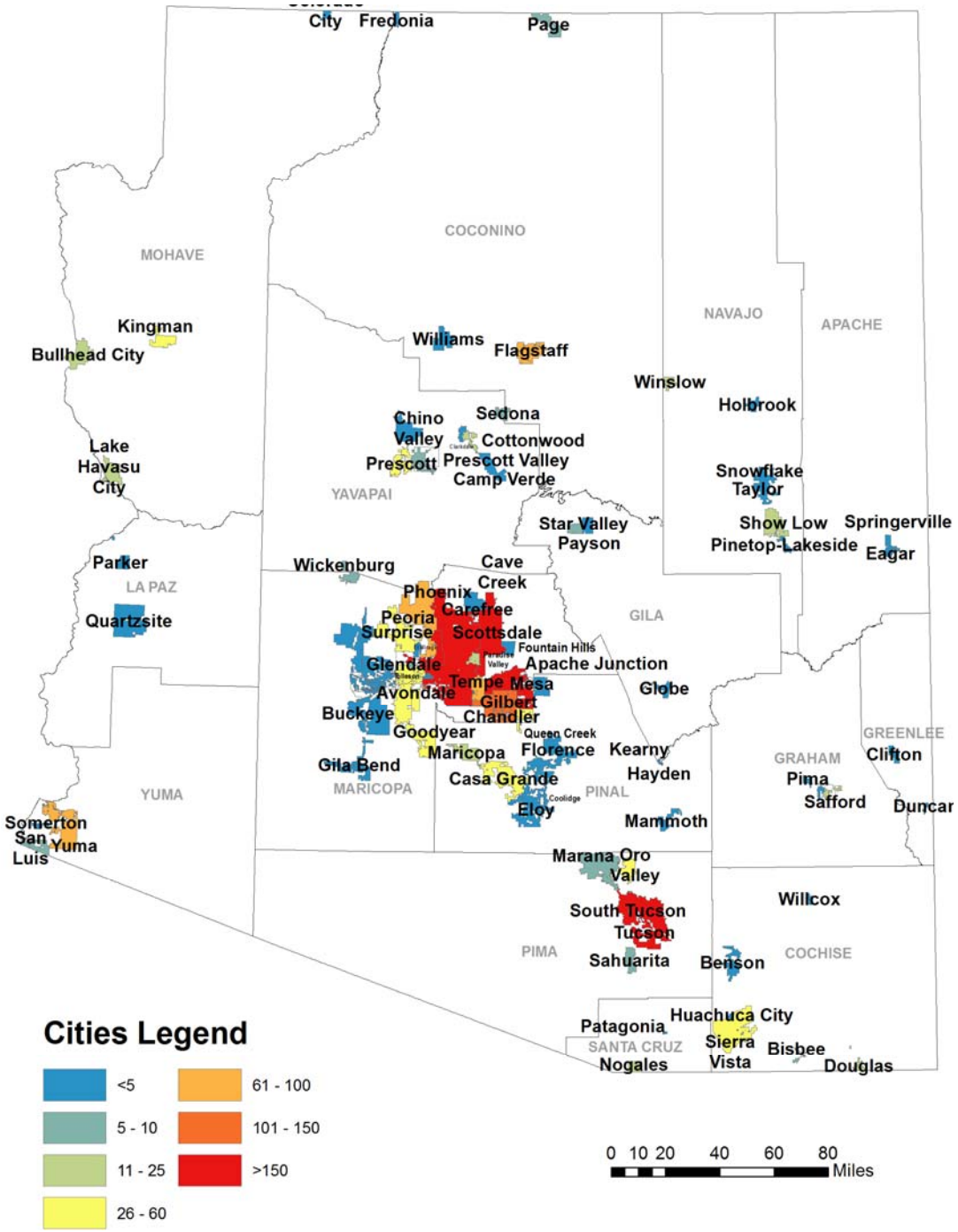
Figure 10. Primary Care Physicians by County (N = 5,942)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: The numbers are responses weighted to population totals. . There were 3,469 physicians (3,077 MDs and 392 DOs) who did not respond to the question on employment and 9,247 physicians (8,094 MDs and 1,153 DOs) missing data on specialty or did not respond to the question on type of practice.

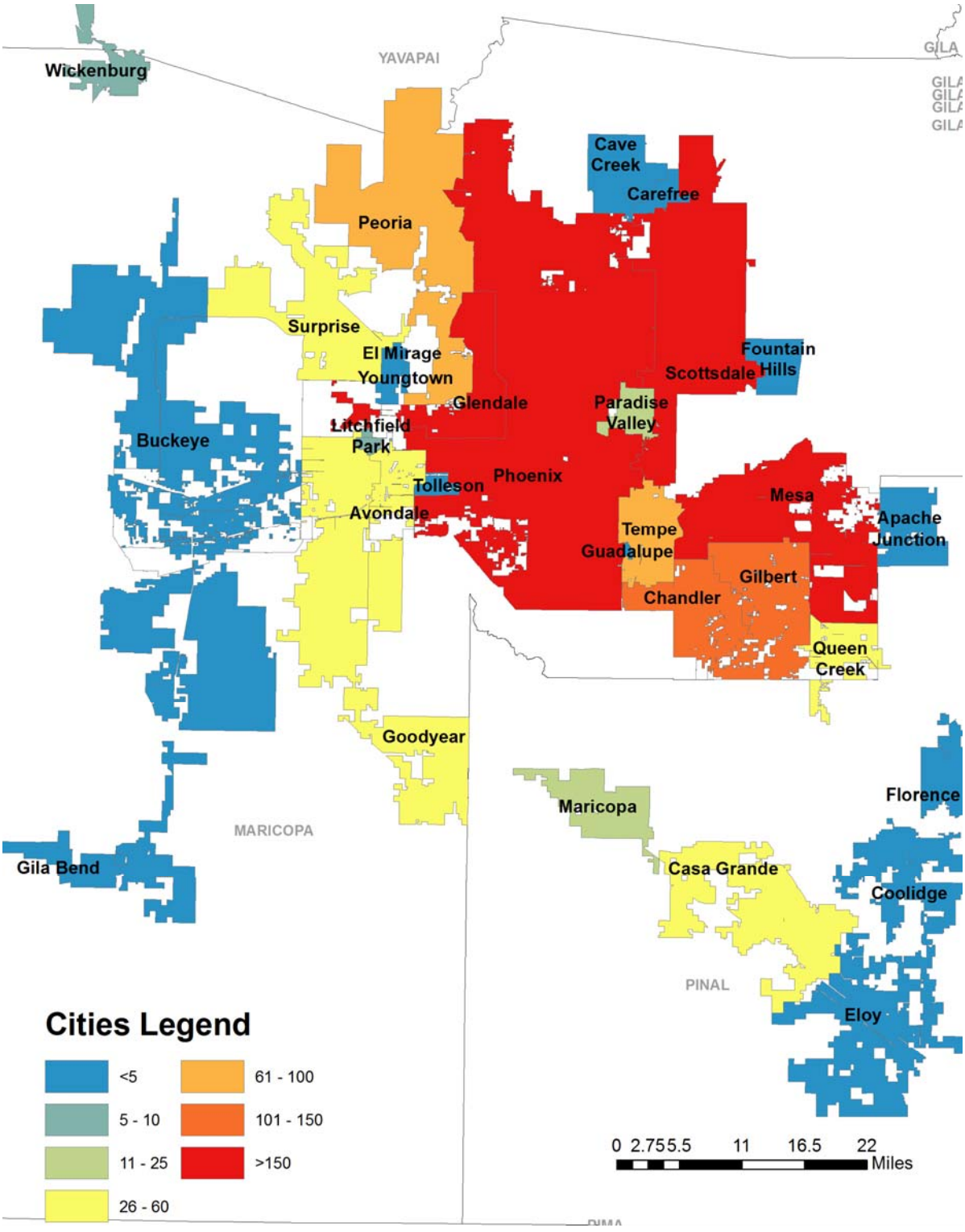
Figure 11. Primary Care Physicians by City (N = 3,683)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: The numbers represent unweighted responses. There were 323 physicians missing address information to determine the city.

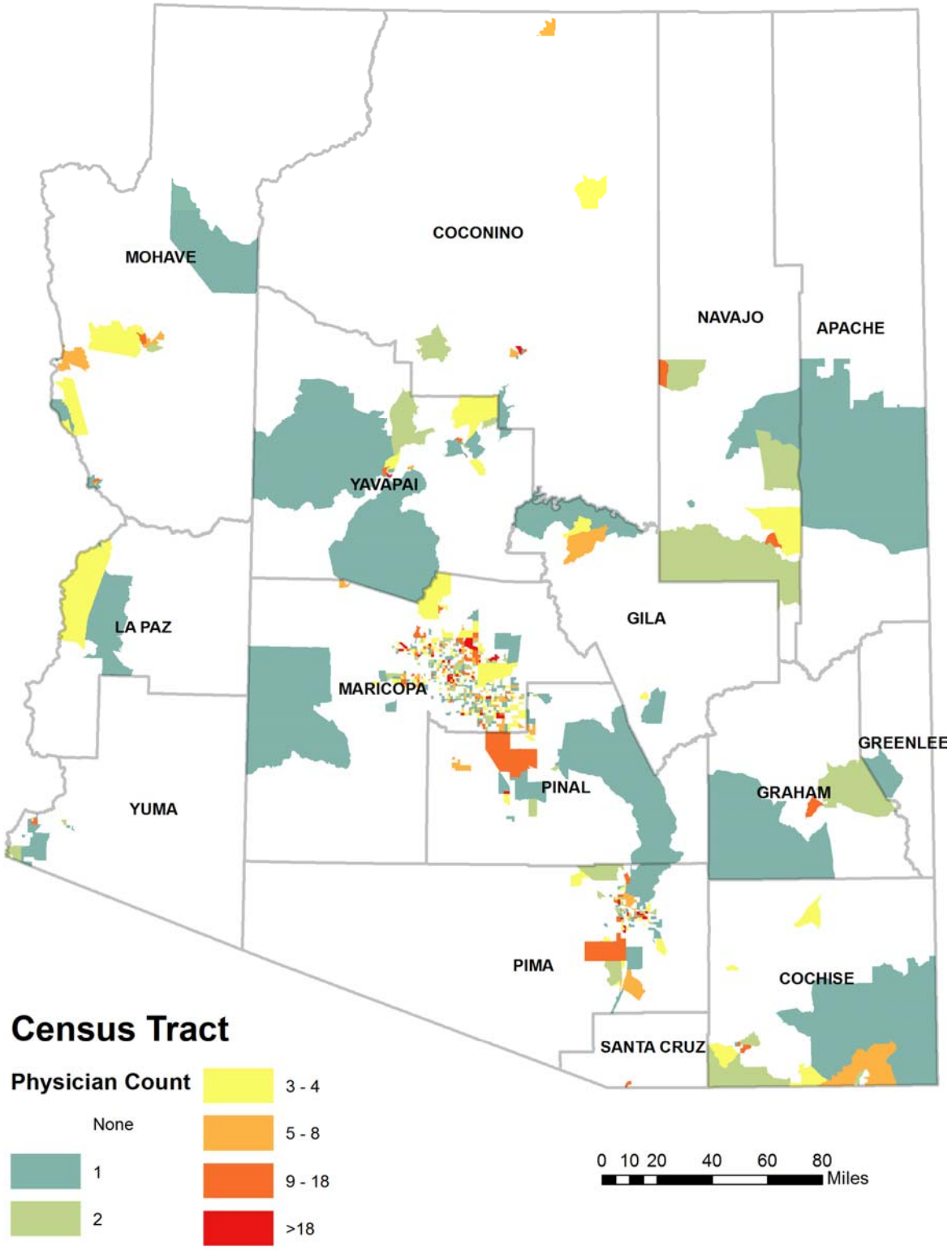
Figure 12. Primary Care Physicians by City in Maricopa County (N = 2,448)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: The numbers represent unweighted responses.

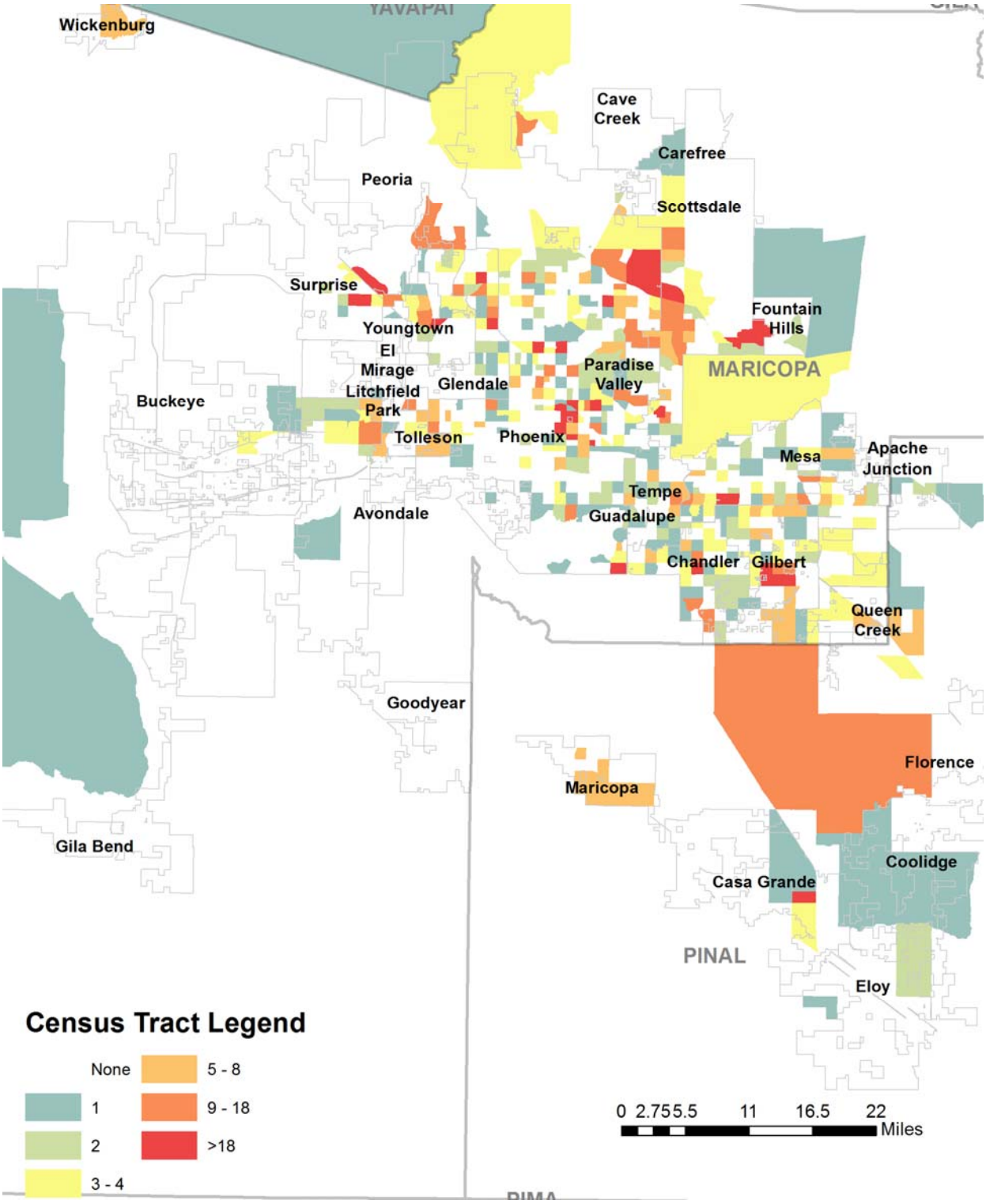
Figure 13. Primary Care Physicians by Census Tract (N = 3,474)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: There were 303 physicians missing address information and unable to determine the census tract.

Figure 14. Primary Care Physicians by Census Tract in Maricopa County (N = 2,448)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Health Professional Shortage Areas

Health Professional Shortage Areas (HPSAs) are federal designations that apply to areas, population groups or facilities in which there are unmet health care needs, and helps to prioritize limited federal resources to the areas of highest need. The Health Resources and Services Administration (HRSA) sets the criteria for HPSAs (Arizona Department of Health Services, 2017).

Types of HPSA designations

- *Geographic*. Based on the ratio between the number of full-time equivalent (FTE) clinical providers and the patient population within a given area, excluding residents of detention facilities. This designation indicates that all individuals in the area of designation have insufficient access to care.
- *Population.* This designation indicates that a subpopulation of individuals living in the area of designation has insufficient access to care. Population groups include those below 200% of federal poverty level, groups on Medicaid, migrant farm workers, tribal or homeless populations, etc. Official Native American Tribes are automatically designated as population HPSAs.
- *Facility*. This designation indicates that individuals served by a specific health facility have insufficient access to care. Such facilities include federal and state correctional institutions, public and nonprofit healthcare facilities, Indian Health Service facilities, and state and county mental hospitals. Federally Qualified Health Centers, Federally Qualified Health Center Look-Alikes, Rural Health Clinics who offer a sliding-fee-schedule, and certain outpatient health programs or facilities operated by a Native American Tribe, tribal organization or urban Indian organization are automatically designated as HPSA facilities.

HPSA facilities can be located in an area that is also a designated HPSA.

Primary care HPSAs refer to a shortage of non-federal MDs and DOs providing direct care in: family practice, general practice, pediatrics, outpatient based internal medicine, and obstetrics/gynecology. To be designated as a HPSA, one of the following criteria must be met.

1. The population to primary care physician ratio must be at least:
    - 3,500:1 for a geographic designation,
    - 3,000:1 for a geographic designation with a poverty rate of 20% or higher or other unusually high needs, or

- 3,000:1 for a population group designation.

2. The designated area must be a rational area for the delivery of primary medical care services. Arizona's rational service area plan is preapproved by the Health Resources and Services Administration.
3. Primary medical care professionals in contiguous areas are over-utilized, excessively distant, or inaccessible to the population of the area under consideration.

Geographic HPSAs calculate the population to primary care physician ratio using the entire population, and population HPSAs consider only a subset of the population and the proportion of primary care physician's time devoted to that population. For example, the subpopulation could be patients enrolled in Medicaid, and the proportion of time devoted would be the amount of care provided to those patients.

Table 3. Arizona's Primary Care Health Professional Shortage Areas, 2017

Designation Type	Number of HPSAs
Comprehensive Health Center	20
Correctional Facility	17
Federally Qualified Health Center Look-Alike	3
HPSA Geographic	42
HPSA Geographic High Needs	14
HPSA Population	11
Indian Health Service Facility	19
Native American Tribal Population	30
Rural Health Clinic	10
Total	**166**

Source: Health Resources & Services Administration, Data Warehouse, Arizona State Profile, June 30, 2017.

Nearly three million people live in Arizona's Primary Care HPSAs, which leaves a significant portion of Arizona's more than 6.9 million residents without appropriate access to medical professionals, which, in turn, leads to poor health outcomes (Tarango, et al., 2016).

Productivity

The data used to study physician productivity are obtained from the following survey question.

Which one of the following **best** describes your employment status? **(check one)**

a) Actively employed in Arizona in direct patient care ☐ *{if checked ask:}*
   i. I usually treat _____patients in a typical work week.
   ii. I usually work _____hours/day, _____days/week, and _____weeks/year.
b) Provide telemedicine services to Arizona patients ☐
c) Actively employed in Arizona but not in direct patient care ☐
d) Actively employed outside of Arizona ☐ *{if checked skip to separate survey questions for out of state physicians}*
e) Retired/ Semi-retired/on leave ☐ *{if checked go to end fill all intermediate questions with DNA}*

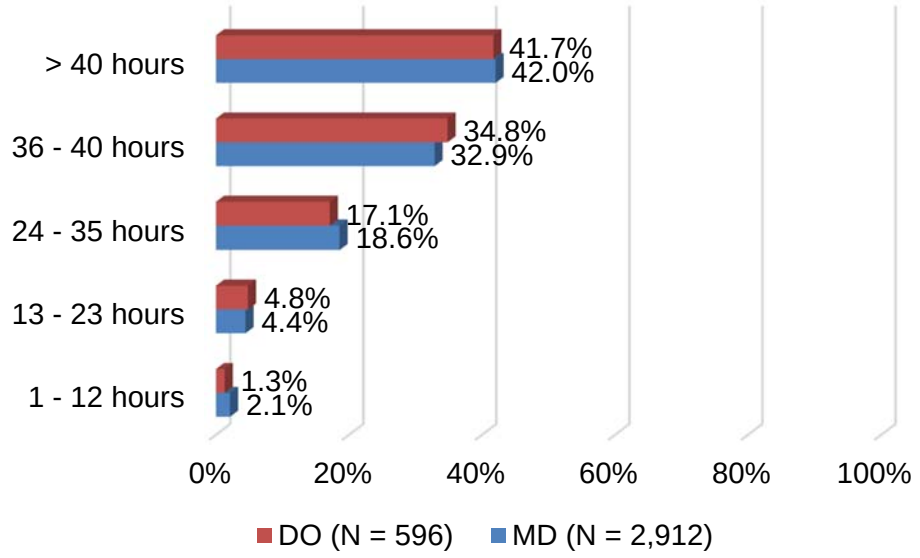
This study does not include the types of services provided or the characteristics of patients, and patient visits per hour is but one component of physician productivity. Nevertheless, it is the same measure used in the two time periods that we compare.

The physician workforce is typically described in terms of the numbers of physicians, but physician services to patients is less simple. Services to patients are the product of the number of physicians and the time (days, weeks, hours etc. they spend in direct patient care. One of the most important changes affecting the productivity of primary care physicians in Arizona in the last 9-10 years has been the adoption of electronic medical records (EMRs). Adoption rates have increased from 45.6% for Arizona physicians in 2007-2009 to 90.5% in 2015-2016. The expectations that the adoption of EMRs would increase physician productivity has not, however, been demonstrated. An ongoing analysis of the effects, measured in terms of patient visits per week, controlling for a variety of other influences, finds no evidence of an increase in productivity related to the adoption of EMRs (Johnson, Butler, 2017). The descriptive data presented in this section are consistent with the more sophisticated results from the multivariate models. Patient visits is not, however, the only component of productivity and if more time is spent per visit, it could imply and increase in the quality of care.

Physicians are more likely to work overtime during the week (Figure 15) and take little time off over the course of a year (Figure 16).

Compared to primary care physicians in 2004-2006 (Table 4), today's physicians work more hours per day as well as more days per week and weeks per year (Table 3). However, the increase in time worked does has not increased the number of patients seen. In fact, MDs and DOs are averaging 78 and 83 patient visits per week, respectively versus 87 and 98 patient visits per week in 2004-2006.

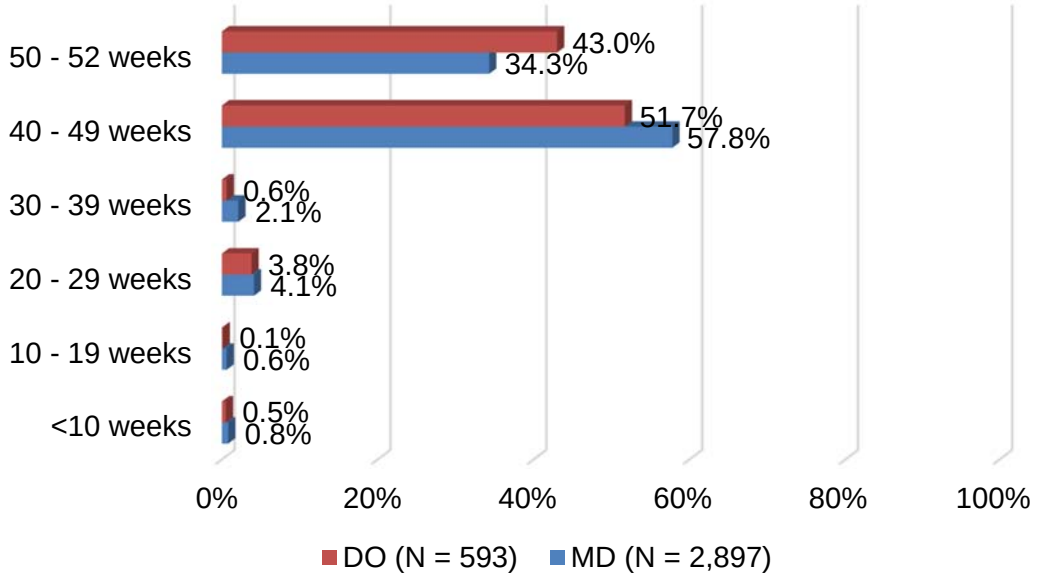
Figure 15. Primary Care Physician Direct Care Hours per Week (N = 3,508)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: There were 107 MDs and 22 DOs not in direct patient care or did not respond to the question on direct patient care, and 81 MDs and 9 DOs who did not respond to the question about hours worked per week.

Figure 16. Primary Care Physician Direct Care Weeks per Year (N = 3,490)



Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: There were 107 MDs and 22 DOs not in direct patient care or did not respond to the question on direct patient care, and 96 MDs and 12 DOs who did not respond to the question about weeks worked per year.

Table 4. Patient Visits among Primary Care Physicians, 2004-2006

Category	MDs		DOs	
	Average	Number of Physicians	Average	Number of Physicians
Hours per Day	9.2	1,131	8.8	560
Hours per Week (1)	44.8	1,173	42.5	560
Days per Week	4.9	1,178	4.8	563
Weeks per Year	45.6	1,503	40.7	666
Number of Patients Visits Per Week (2)	87	1,152	98	563
Number of Patients Visits Per Year	4,125	1,152	4,691	563
Percent of Time Spent on Primary Care (3)	65.0%	2,600	***	***
Minutes Spent on Per Patient Visit (4)	20.0**		26.2	

Data Source: 2004-2006 Arizona Medical Board License Database, 2004-2006 MD & DO PPS Survey.

Note: * The data not weighted to population totals.

** The minutes spent on per patient visit (4) = Hours per Week (1) * Number of Patients Visits per Week (2)* Percent of Time Spent on Primary Care (3) * 60.

***The percent of time spent on Primary care among DOs are not available.

Table 5. Patient Visits among Primary Care Physicians, 2015-2016

Category	MDs		DOs	
	Average	Number of Physicians	Average	Number of Physicians
Hours per Day	9.7	2,988	9.6	610
Hours per Week	49.3	2,961	47.3	607
Days per Week	5.1	2,969	4.8	609
Weeks per Year	47.5	2,943	47.4	604
Number of Patients Visits Per Week	78	2,973	83	608
Number of Patients Visits Per Year	3,716	2,913	3,988	601

Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: There were 107 MDs and 22 DOs not in direct patient care or did not respond to the question on direct patient care; 81 MDs and 9 DOs who did not respond to the question about hours worked per week; and 96 MDs and 12 DOs who did not respond to the question about weeks worked per year.

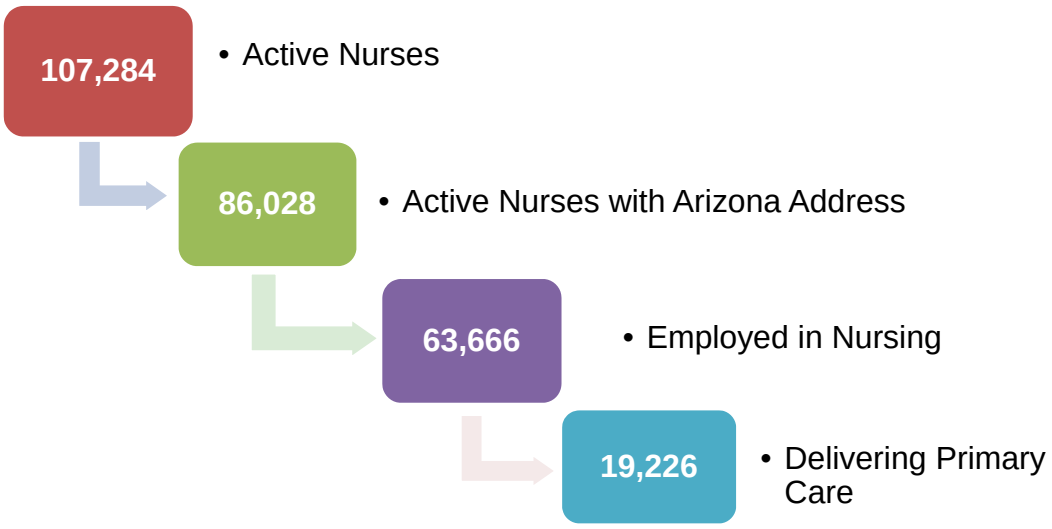
Nurses

Nurses are classified as active if they have an active license and list Arizona as their residence. A nurse is defined as working in primary care based on the work settings reported on the licensing application.

The primary care nurse workforce is defined as nurses who are not employed at a hospital, insurance company, nursing education, informatics, or practice in psychiatric or mental health. Nurses working in medical/surgical or other clinical areas in an ambulatory or other employment setting are also excluded.

The results in Figure 17 include Registered Nurses (RNs), Advanced Practice Nurses (APNs) and Licensed Practical Nurses (LPNs) in separate sections. It is important to note that APNs have a RN license and some RNs have a LPN license, so the numbers in each section are not always mutually exclusive.

Figure 17. Distribution of Arizona Nurses (APN, RN, LPN)

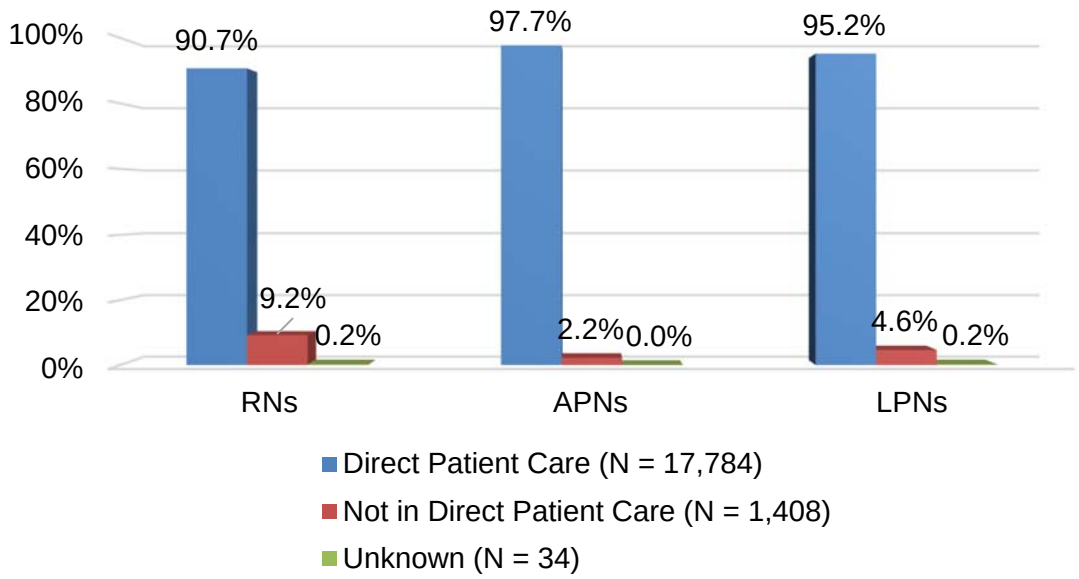


Source: ABON data, 2013-2016.

Note: There were 19,898 nurses who did not respond to the question on employment status and 1,426 who did not respond to the question on primary care.

Figure 17 shows that of the 107,284 active nurses in the most recent licensing cycle, 86,028 nurses (80%) reside in Arizona. Of the nurses residing in Arizona, 63,666 (74%) work in a nursing position and less work than one-third of the employed nurses work in primary care settings. Nearly all of the primary care nurses provide direct patient care (Figure 18).

Figure 18. Distribution of Arizona Primary Care Nurses in Direct Patient Care (N = 19,226)



Source: ABON data, 2013-2016.

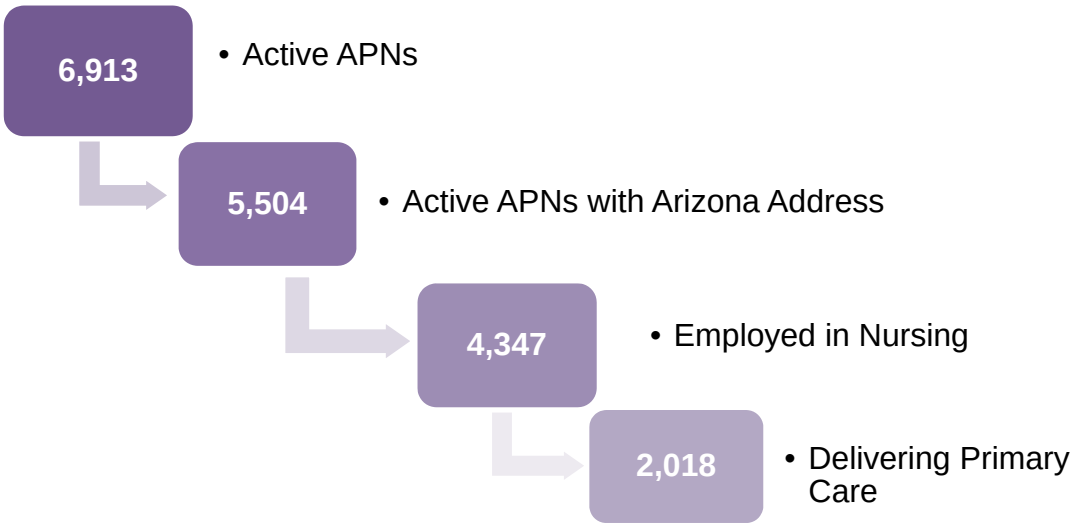
Note: There were 19,898 nurses who did not respond to the question on employment status and 1,426 who did not respond to the question on primary care.

Advanced Practice Nurses

Advanced practice nurses (APNs) include: nurse practitioners (NPs), certified nurse anesthetists (CRNAs), clinical nurse specialists (CNSs), and certified nurse midwives (CNMs) practicing in adult medicine, family medicine, pediatrics, geriatrics, and women's health (outside of a hospital setting).

In Figure 19, 80% of active APNs reside in Arizona, and of those, nearly 80% are employed in nursing. Less than half of APNs (46%) working in nursing deliver primary care.

Figure 19. Distribution of Arizona APNs



Source: ABON, 2013-2016.

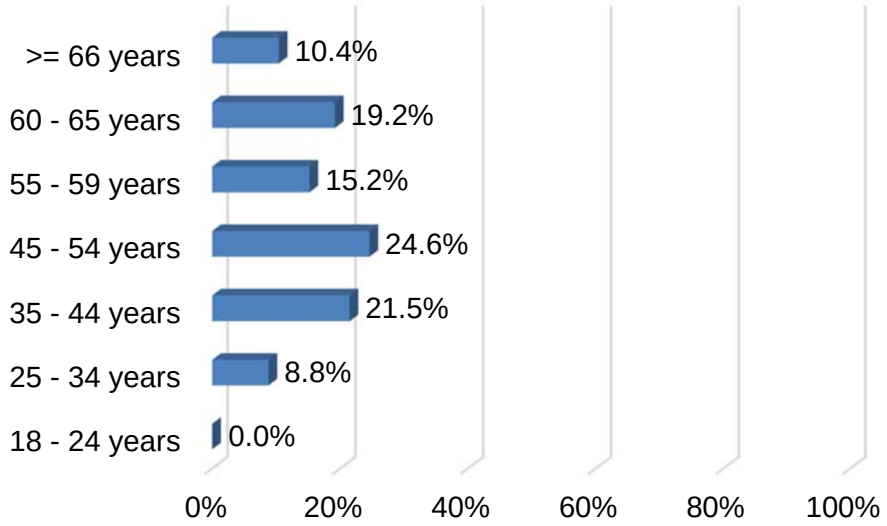
Note: There were 1,093 APNs missing data on employment status and 67 missing data on primary care.

Demographics

Approximately 45% of primary care APNs are age 55 and older, and 92% of primary care APNs are female (Figures 20 and 21).

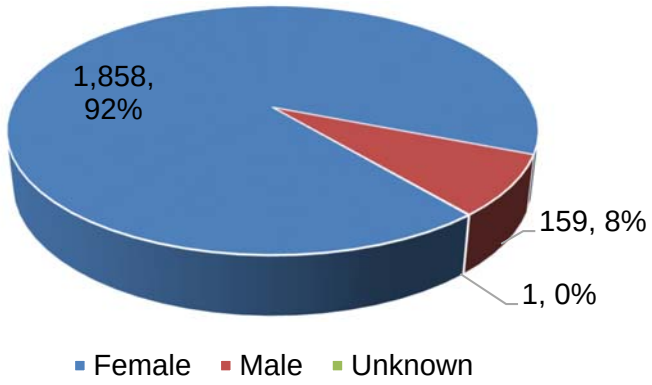
APNs require more education; therefore, the majority of them (93%) have graduate degrees (Table 6, Figure 22). Most degrees are at the master's level, and this degree has been consistently obtained by over 90% of APNs since the 1990s. Over half of primary care APNs have obtained their degrees since 2005. There is a marked and developing trend toward an increased percentage of primary care APNs obtaining doctorate degrees reflecting the increased emphasis in the nursing profession on graduate education (Table 6, Figure 22).

Figure 20. Primary Care APNs by Age Group (N = 2,018)



Source: ABON, 2013-2016.

Figure 21. Primary Care APNs by Gender (N = 2,018)



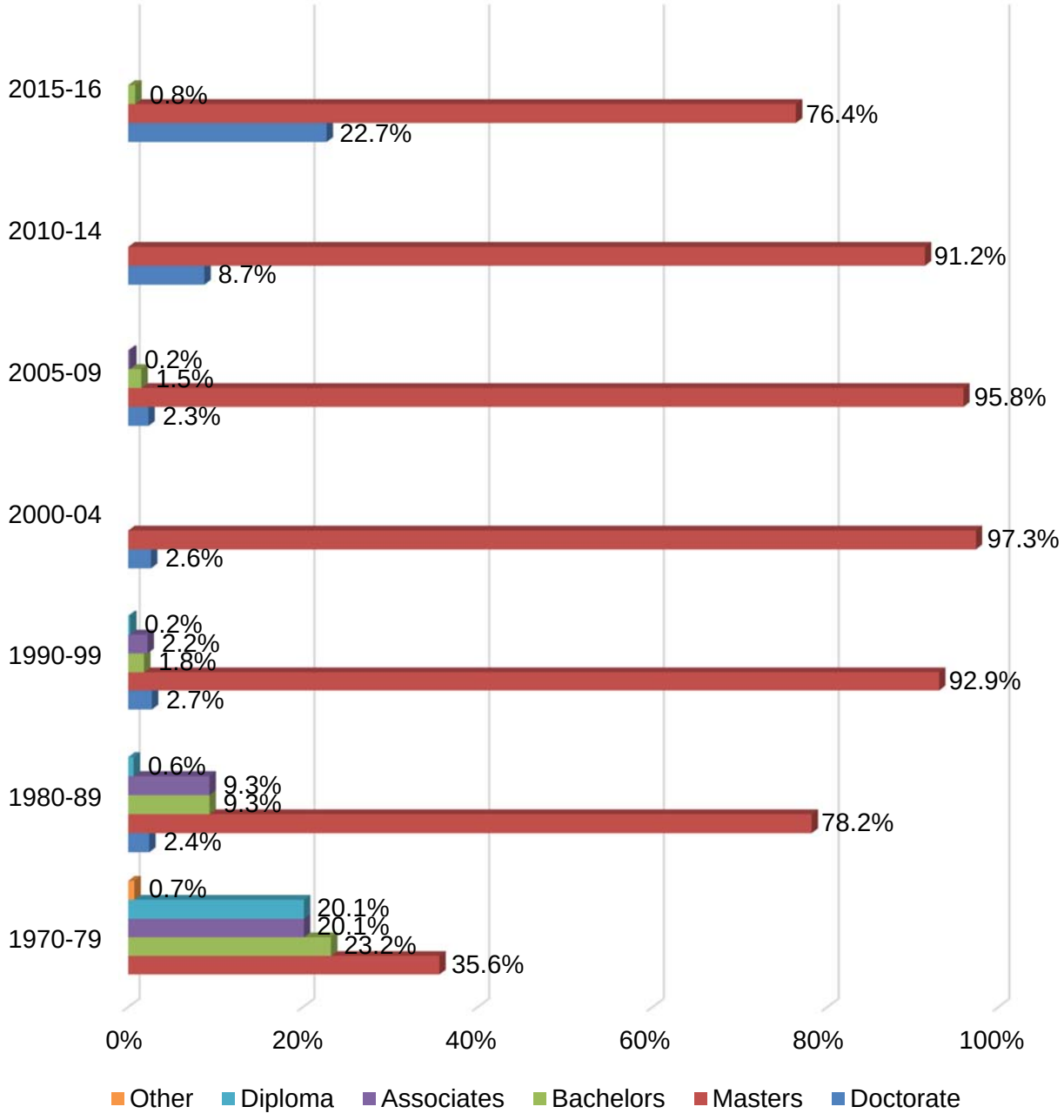
Source: ABON, 2013-2016.

Table 6. Primary Care APNs Highest Level of Education (N = 2,018)

Graduation Year	Doctorate		Masters		Bachelors		Associates		Diploma		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
1970-79			46	35.6%	30	23.2%	26	20.1%	26	20.1 %	1	0.7%	129	6.3%
1980-89	4	2.4%	126	78.2%	15	9.3%	15	9.3%	1	0.6%			161	7.9%
1990-99	12	2.7%	408	92.9%	8	1.8%	10	2.2%	1	0.2%			439	21.7%
2000-04	7	2.6%	259	97.3%									266	13.1%
2005-09	9	2.3%	369	95.8%	6	1.5%	1	0.2%					385	19.0%
2010-14	45	8.7%	470	91.2%									515	25.5%
2015-16	28	22.7%	94	76.4%	1	0.8%							123	6.0%
Total	105	5.2%	1,772	87.8%	60	2.9%	52	2.5%	28	1.3%	1	0.0%	2,018	100.0%

Source: ABON, 2013-2016.

Figure 22. Primary Care APNs Highest Level of Education (N = 2,018)



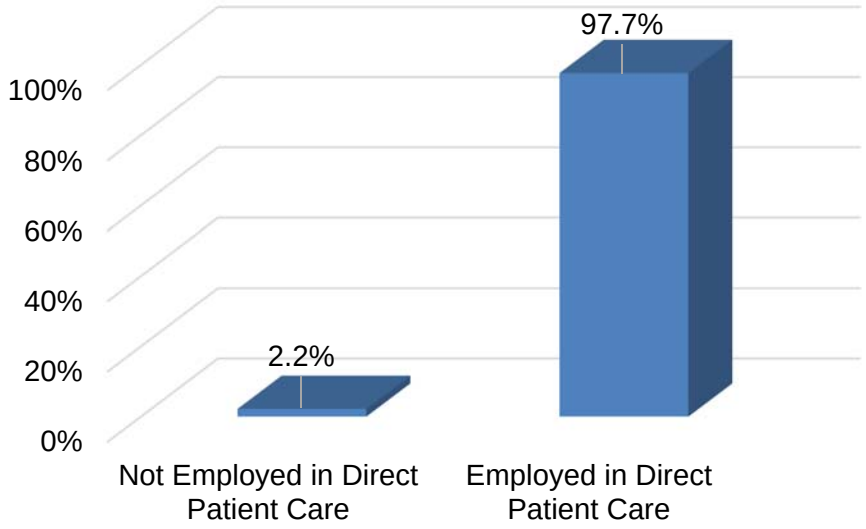
Source: ABON, 2013-2016.

Employment

Most primary care APNs provide direct patient care (Figure 23), and over 55% of that care is delivered in an ambulatory care setting (Figure 24). Primary care APNs are mostly found working in geriatrics, obstetrics/gynecology and public health.

APN licenses expire when their RN license expires, so their renewals are captured in the RN renewals. Only new applications are captured in the nursing data for APNs (Figure 26).

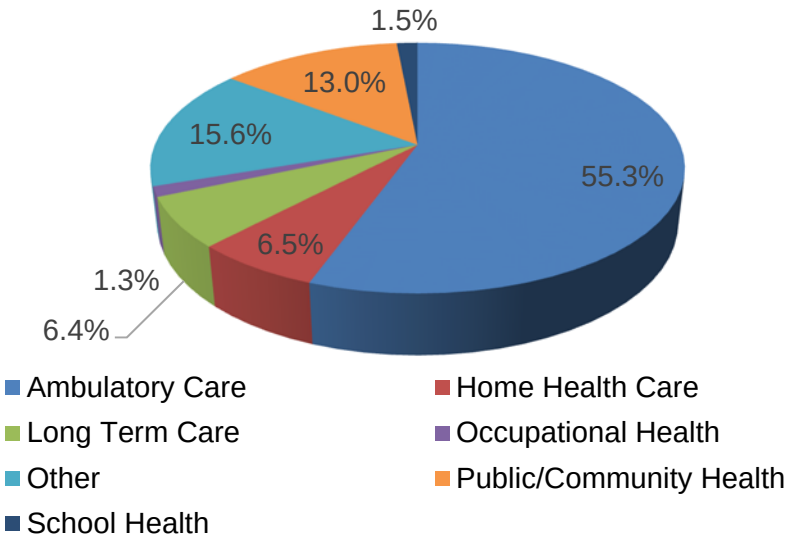
Figure 23. Primary Care APNs by Employment Status (N = 2,017)



Source: ABON, 2013-2016.

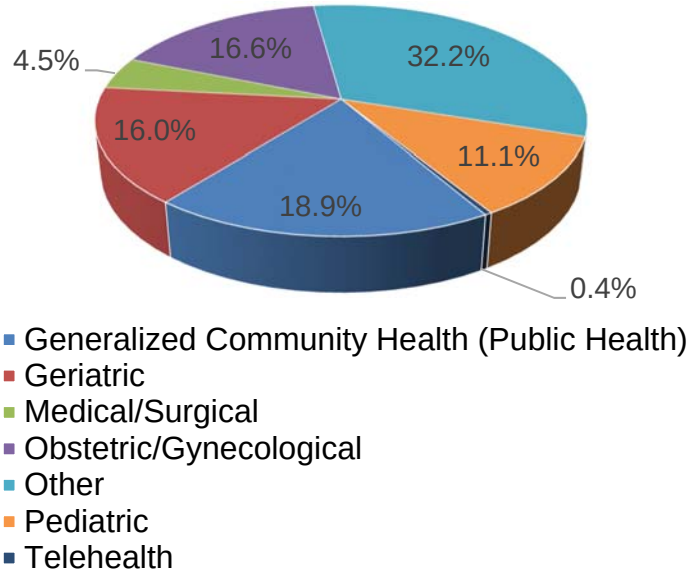
Note: There was one APN who did not respond to the question about direct patient care.

Figure 24. Primary Care APNs by Employment Setting (N = 2,018)



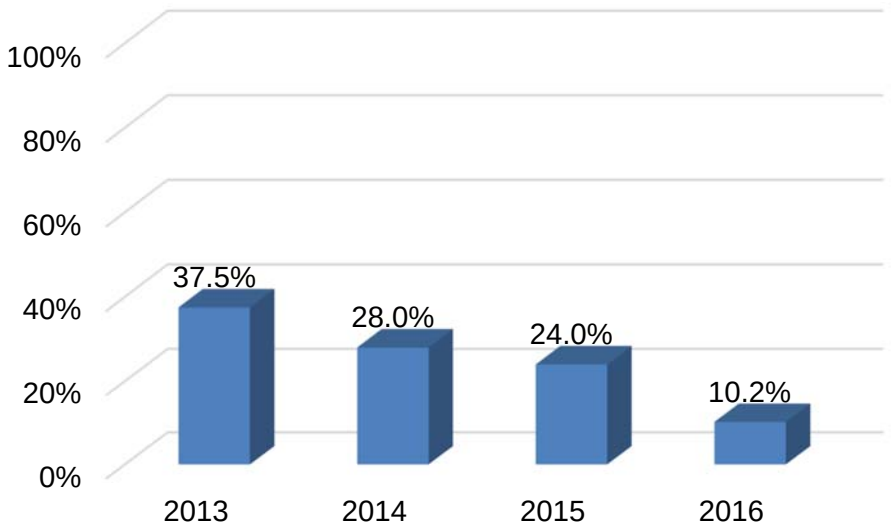
Source: ABON, 2013-2016.

Figure 25. Primary Care APNs by Clinical Area (N = 2,018)



Source: ABON, 2013-2016.

Figure 26. Newly Licensed Primary Care APNs by Year (N = 399)



Source: ABON, 2013-2016.

Note: APNs are licensed RNs so their renewal licenses are captured in the RN licenses (Figure 26).

Urban-Rural Distribution of APN Practice Settings

The small numbers of APNs might lead to the expectation that they would be more likely to be located in the urban areas than physicians would or registered nurses. In fact, the distribution of primary care APNs does not follow the same ordering as that for the two other groups of health care professionals. As indicated in Table 8 and the following maps, Maricopa and Pima counties are the leading locations, but unlike the other professionals, the third highest number of primary care APNs practice in Yavapi County, followed by Pinal County.

These differences, without being conclusive, do support the suggestion that nurses, in this instance APN nurses, are taking an increasing role as the primary care providers in the rural areas of Arizona.

The APN sample for 2008 was very small and included some marked differences in that there were no APNs indicating a practice location in Coconino County and an unusually high percentage of APNs practicing in Yuma County. We are reluctant to make direct comparisons to 2008 because of the very small sample size.

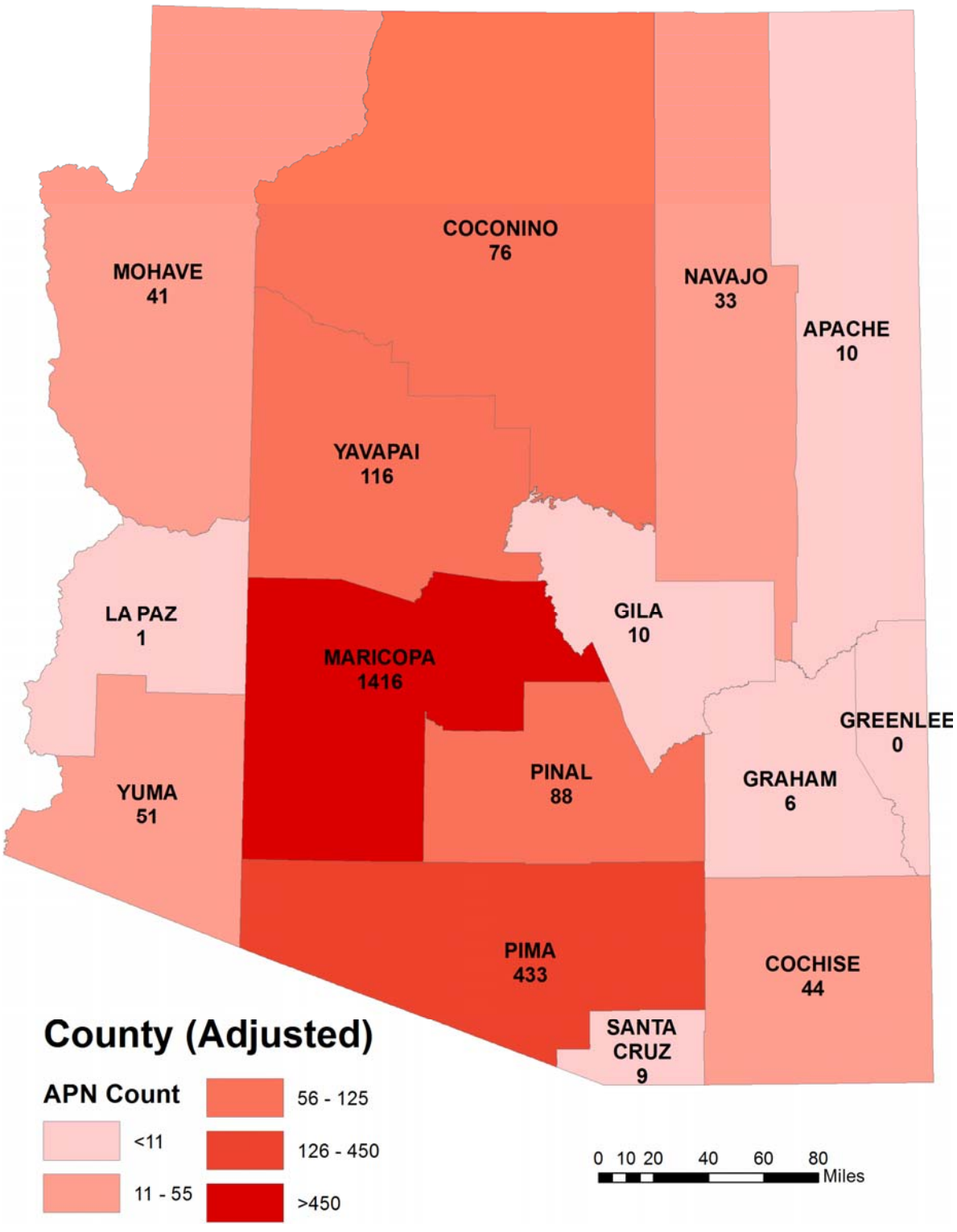
Table 7. Distribution of Primary Care APNs by County (N = 2,334)

County	Number	Percent
Apache	10	0.4%
Cochise	44	1.9%
Coconino	76	3.3%
Gila	10	0.4%
Graham	6	0.3%
Greenlee	0	0.0%
La Paz	1	0.0%
Maricopa	1,416	60.7%
Mohave	41	1.8%
Navajo	33	1.4%
Pima	433	18.6%
Pinal	88	3.8%
Santa Cruz	9	0.4%
Yavapai	116	5.0%
Yuma	51	2.2%
Total	2,334	100.0%

Source: ABON data, 2013-2016.

Note: The numbers are responses weighted to population totals.

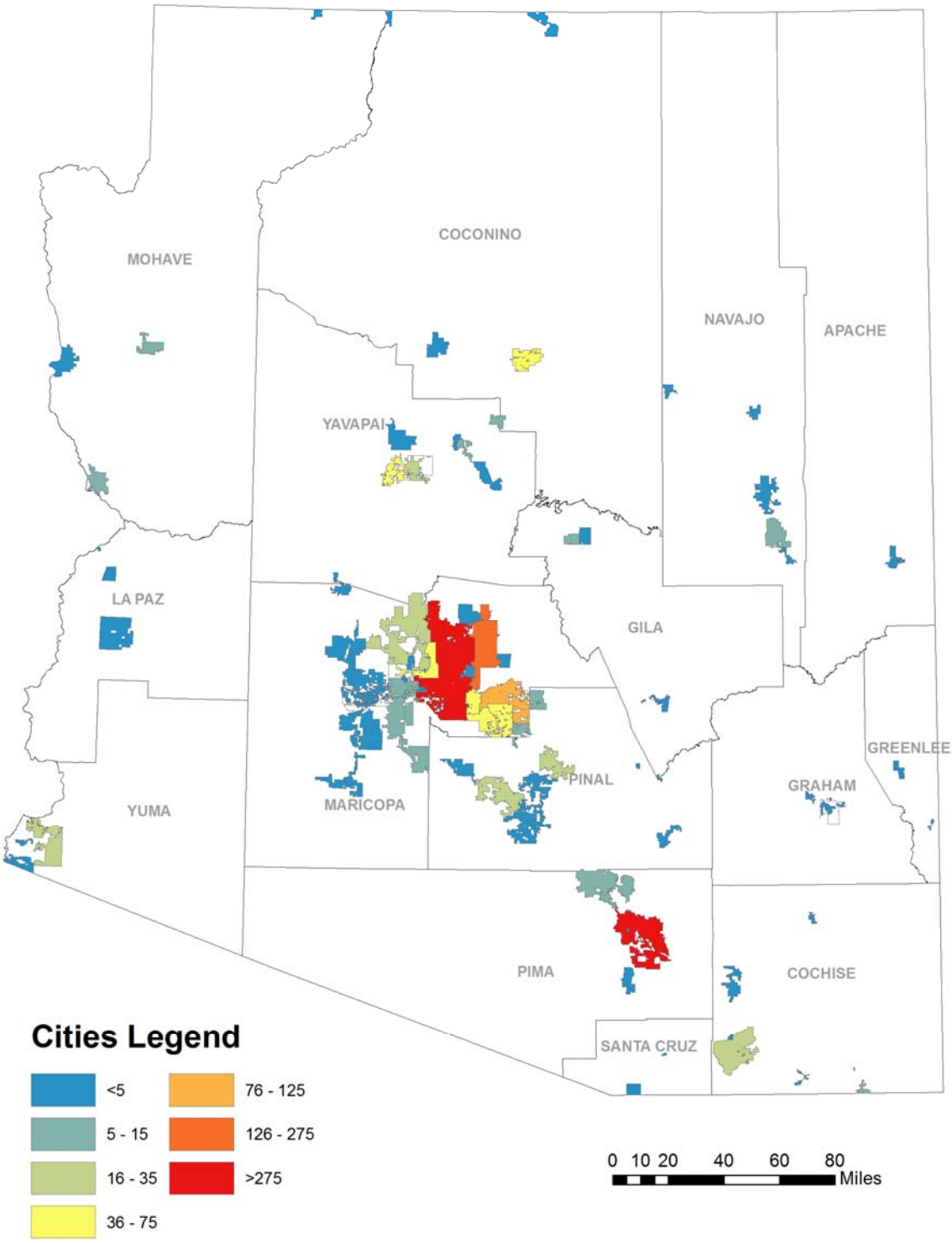
Figure 27. Primary Care APNs by County (N = 2,334)



Source: ABON, 2013-2016.

Note: The numbers are responses weighted to population totals.

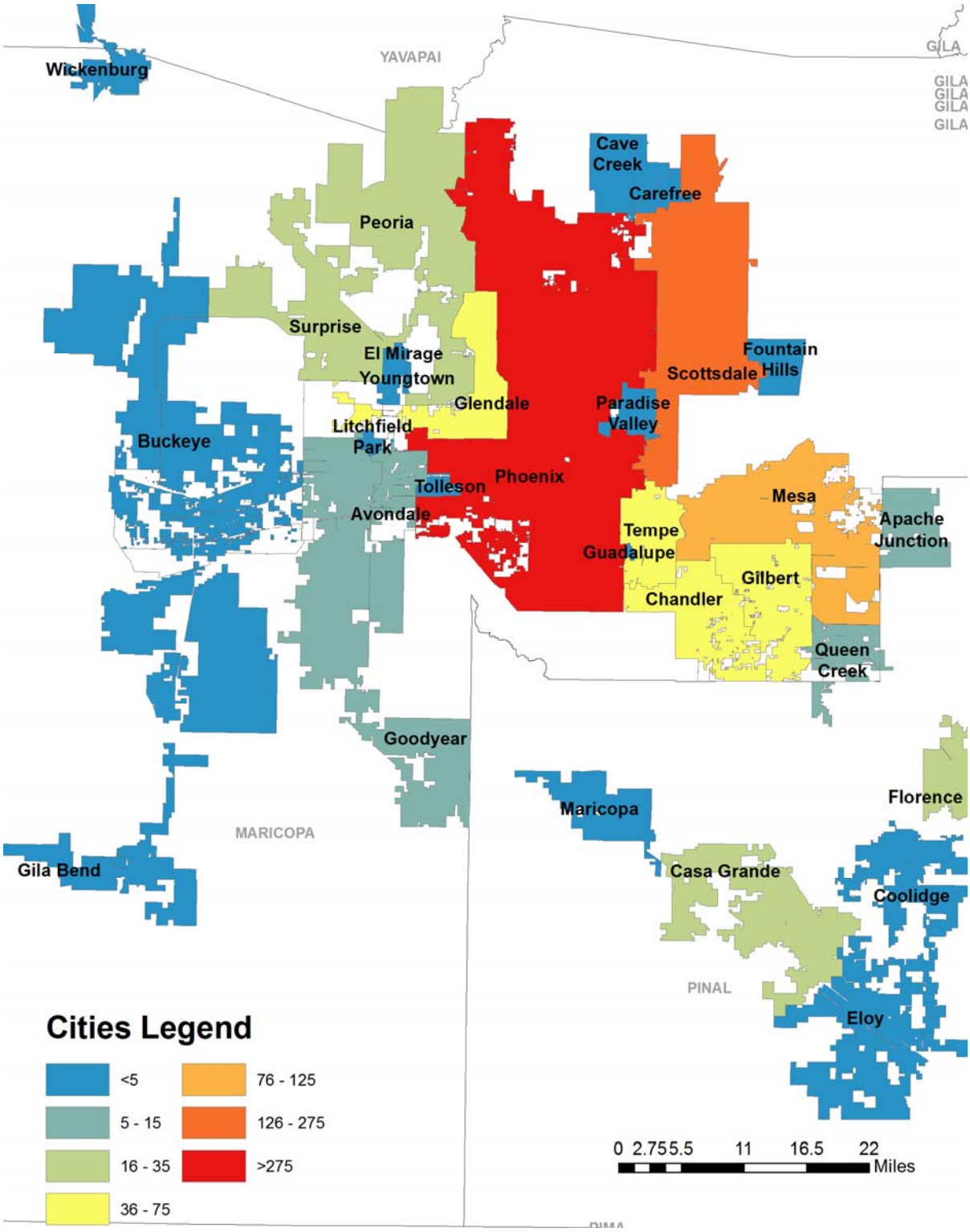
Figure 28. Primary Care APNs by City (N = 1,856)



Source: ABON, 2013-2016.

Note: The numbers represent unweighted responses. There were 162 APNs missing address information and unable to determine the city.

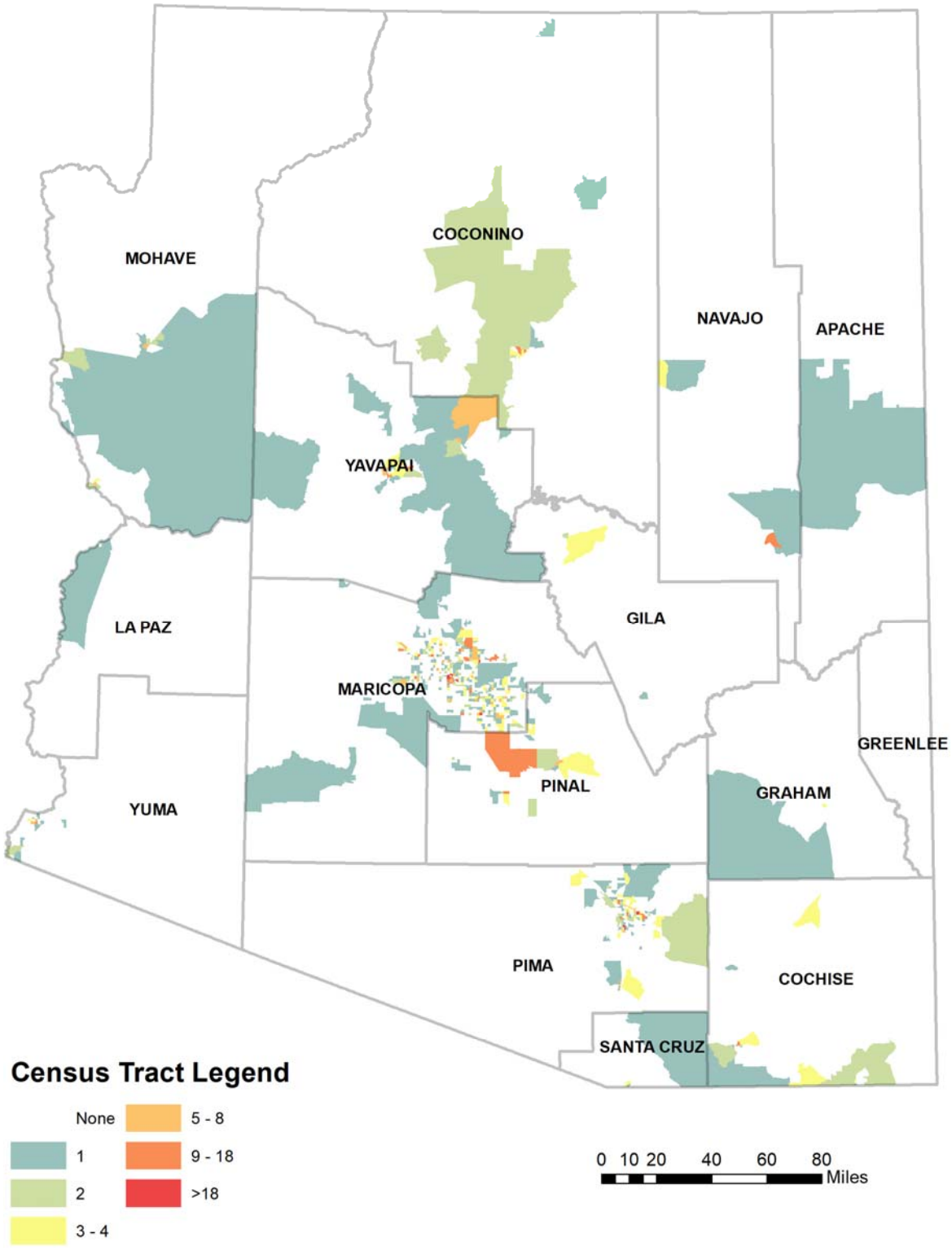
Figure 29. Primary Care APNs by City in Maricopa County (N = 1,867)



Source: ABON, 2013-2016.

Note: The numbers represent unweighted responses.

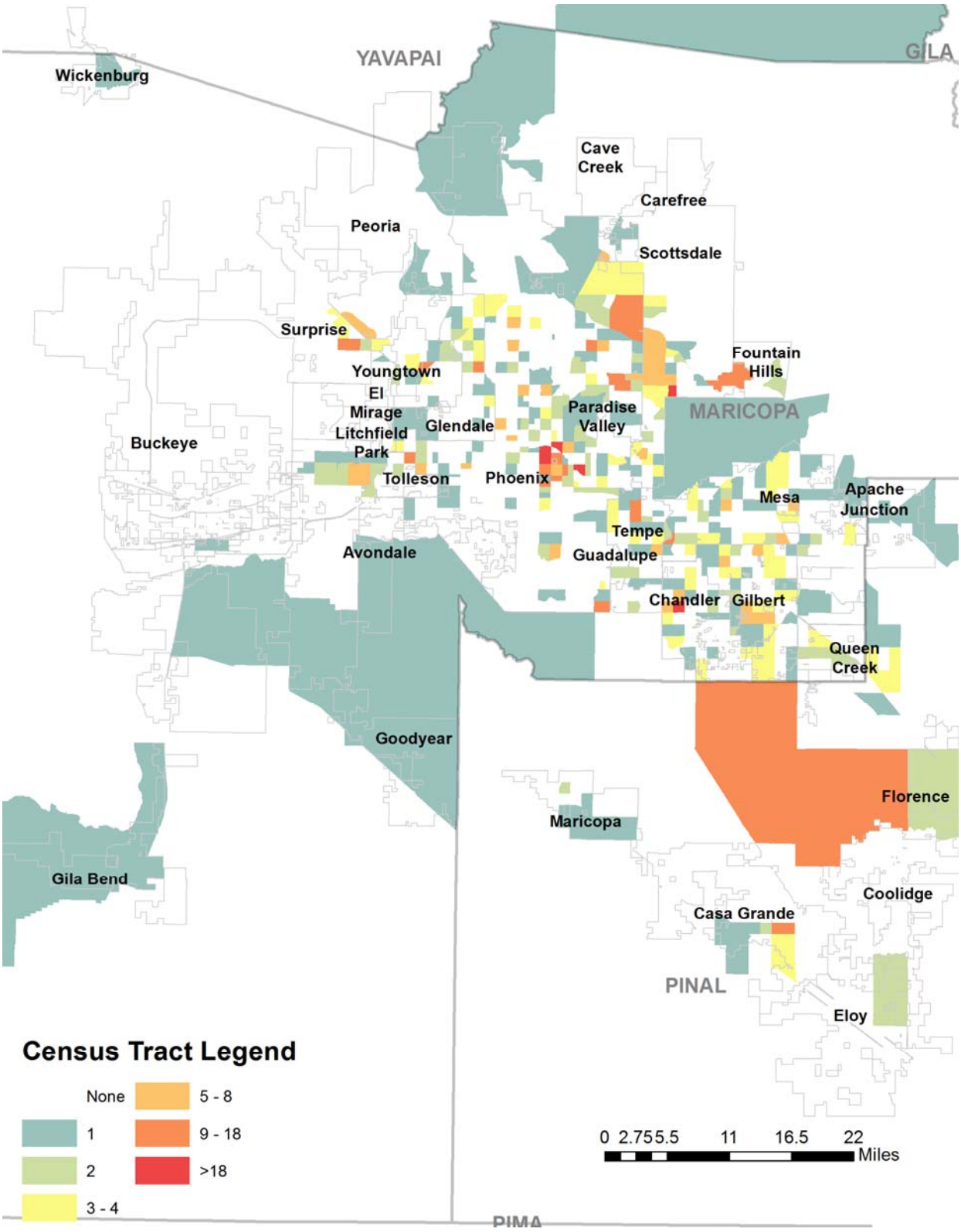
Figure 30. Primary Care APN by Census Tract (N = 1,676)



Source: ABON, 2013-2016.

Note: There were 342 APNs missing address information and unable to determine the census tract.

Figure 31. Primary Care APNs by Census Tract in Maricopa County (N = 1,133)

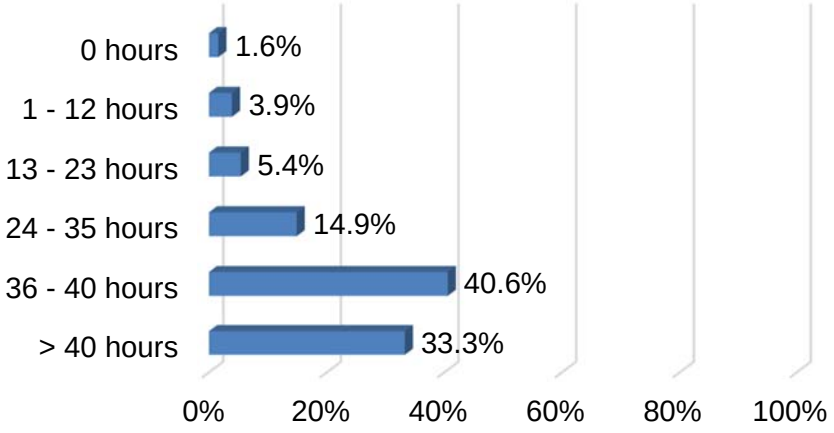


Source: ABON, 2013-2016.

Productivity

More than 73% of primary care APNs work full time and above. Their work schedules are similar to RNs and most likely to be a regular monthly and annual schedule. In 2007- 2008, we show that 226 (68.9%) of primary care APNs were employed full time and 102 (31.1%) of APNs were part time (Qiu & Johnson, August 2009).

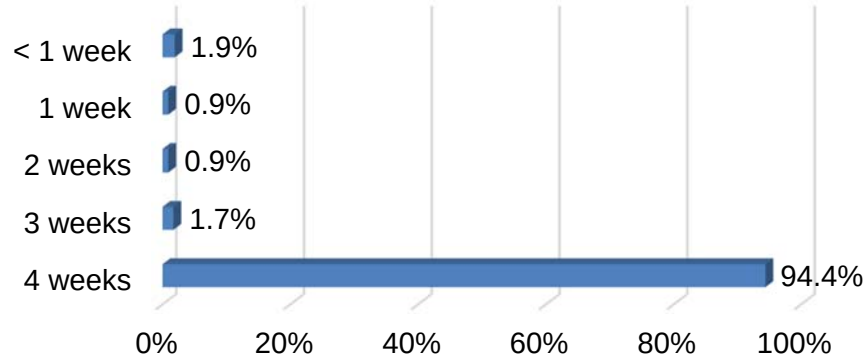
Figure 32. Average APN Direct Care Hours per Week (N = 1,971)



Source: ABON, 2013-2016.

Note: There were 46 APNs who did not respond to the question about direct patient care and 1 APN who did not respond to the question about hours worked per week.

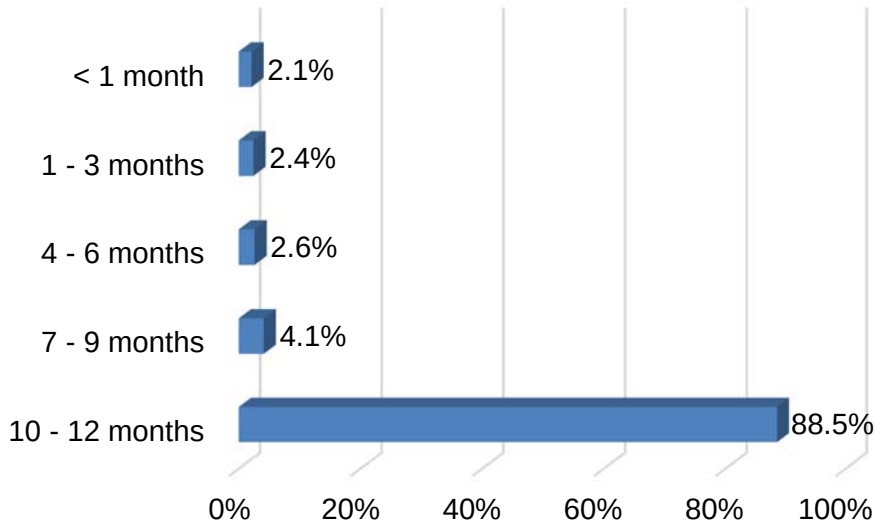
Figure 33. Average APN Direct Care Weeks per Month (N = 1,971)



Source: ABON, 2013-2016.

Note: There were 46 APNs who did not respond to the question about direct patient care and 1 APN who did not respond to the question about weeks worked per month.

Figure 34. Average APN Direct Care Months per Year (N = 1,971)



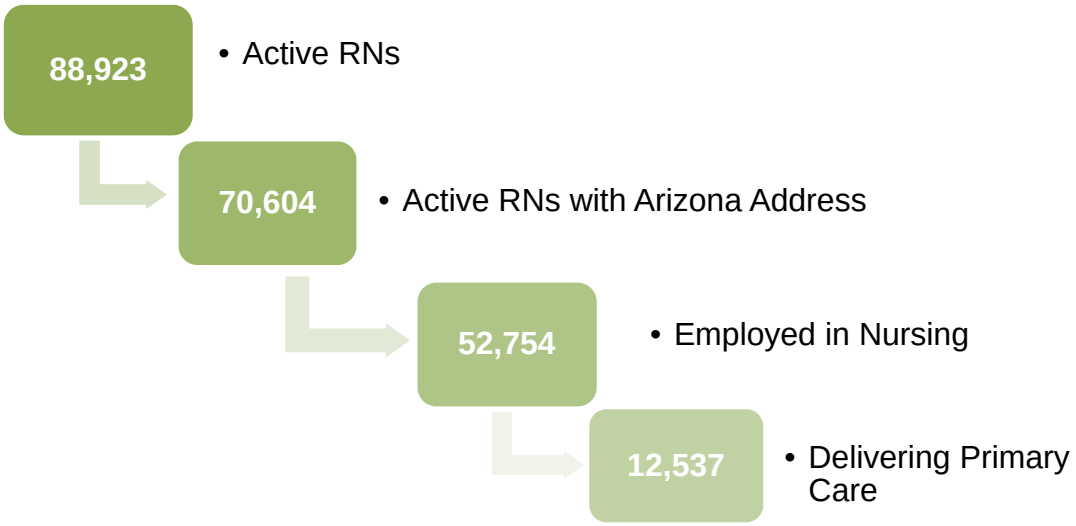
Source: ABON, 2013-2016.

Note: There were 46 APNs who did not respond to the question on direct patient care and 1 APN who did not respond to the question about months per year.

Registered Nurses

Nearly 60% of all Registered Nurses (RNs) work in nursing (Figure 35). Of those, nearly 24% work in primary care settings. In other words, approximately 18% of RNs with an Arizona address work in primary care.

Figure 35. Distribution of Arizona RNs



Source: ABON data, 2013-2016.

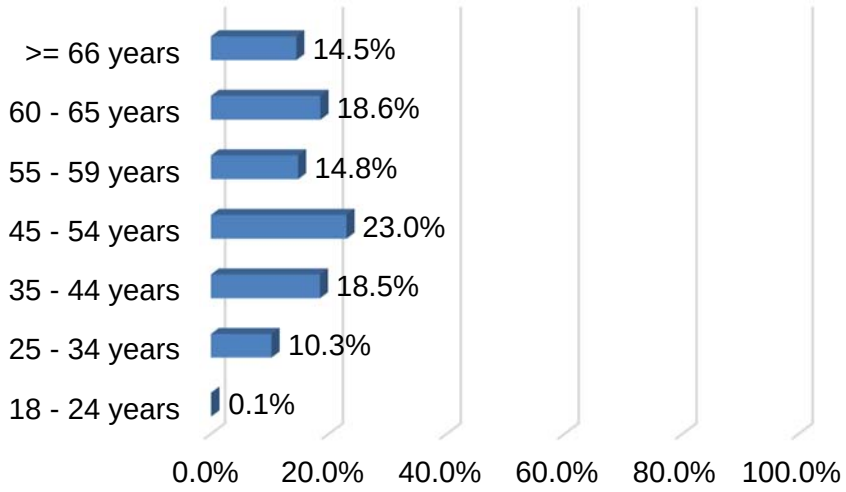
Note: There were 15,707 RNs who did not respond to the question on employment status and 1,157 who did not respond to the question on primary care.

Demographics

The average age of RNs is in the mid-40s. More than 70% of primary care RNs are 45 years or older, raising the specter of increasing losses to retirements over time (Figure 36). Despite attractive salaries compared to many education-equal opportunities, nursing continues to fail to attract men to nursing jobs. Only approximately 7% of primary care RNs are male (Figure 37).

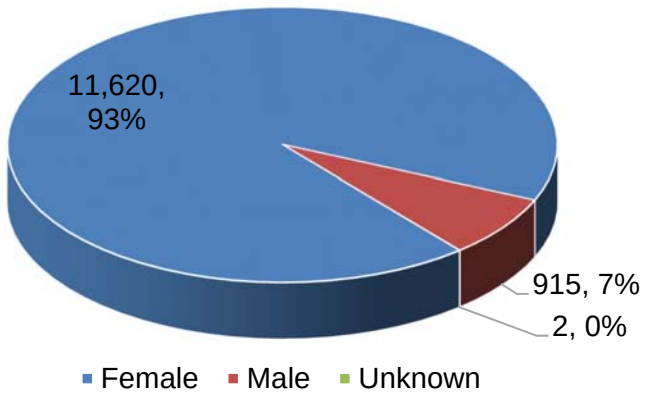
Multiple degrees and graduation years were listed in the licensing data along with licenses, certifications, and continuing education courses. Table 8 shows the highest degree obtained for each RN. RNs typically have Associates (36.3%) and Bachelors (31.2%) degrees. More than half of primary care RN degrees were obtained before the year 2000. Approximately 20% of primary care RNs have graduate degrees.

Figure 36. Primary Care RNs by Age Group (N = 12,537)



Source: ABON data, 2013-2016.

Figure 37. Primary Care RNs by Gender (N = 12,537)



Source: ABON data, 2013-2016.

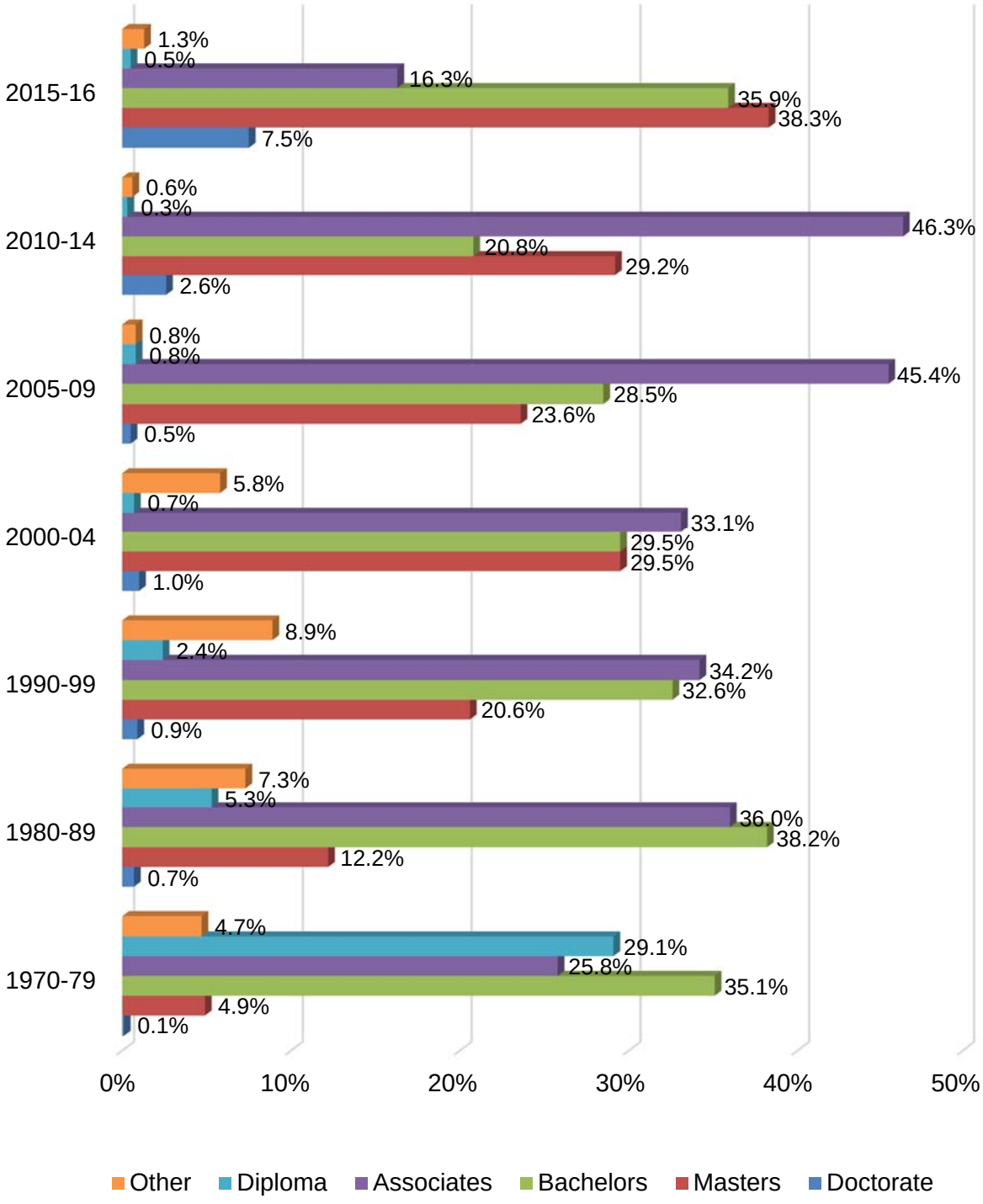
Table 8. Primary Care RNs Highest Level of Education (N = 12,421)

Graduation Year	Doctorate		Masters		Bachelors		Associates		Diploma		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
1970-79	3	0.1%	86	4.9%	612	35.1%	449	25.8%	507	29.1%	82	4.7%	1,739	14.0%
1980-89	16	0.7%	257	12.2%	799	38.2%	753	36.0%	112	5.3%	154	7.3%	2,091	16.8%
1990-99	28	0.9%	598	20.6%	944	32.6%	990	34.2%	71	2.4%	258	8.9%	2,889	23.2%
2000-04	15	1.0%	413	29.5%	413	29.5%	464	33.1%	11	0.7%	82	5.8%	1,398	11.2%
2005-09	12	0.5%	486	23.6%	587	28.5%	933	45.4%	17	0.8%	18	0.8%	2,053	16.5%
2010-14	49	2.6%	549	29.2%	392	20.8%	870	46.3%	6	0.3%	12	0.6%	1,878	15.1%
2015-16	28	7.5%	143	38.3%	134	35.9%	61	16.3%	2	0.5%	5	1.3%	373	3.0%
Total	151	1.2%	2,532	20.3%	3,881	31.2%	4,520	36.3%	726	5.8%	611	4.9%	12,421	100.0%

Source: ABON, 2013-2016.

Note: There were 116 RNs missing graduation date or degree information.

Figure 38. Primary Care RNs Highest Level of Education (N = 12,421)



Source: ABON, 2013-2016.

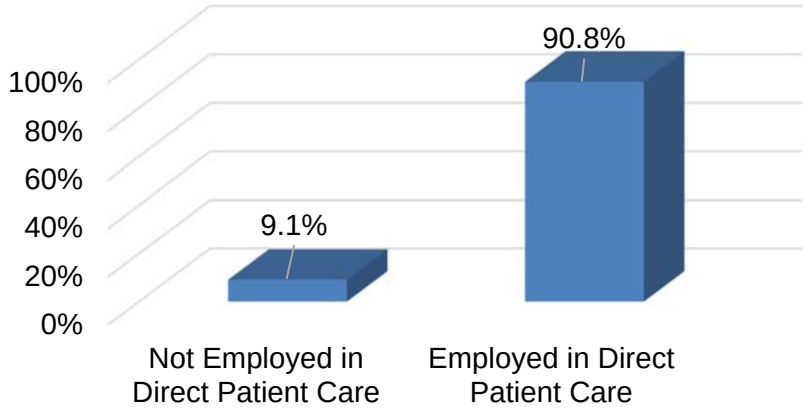
Note: There were 116 RNs missing graduation date or degree information.

Employment

Figure 39 shows that over 90% of primary care nurses work in direct patient care. Interestingly, 53% of primary care RNs deliver care in ambulatory or home health settings (Figure 40). RNs tend to be most concentrated in the clinical areas of geriatrics, public health, and a variety of occupations, aggregated as "other".

Generally, nearly a quarter of primary care RNs renew their licenses annually. The number of new licenses issued to primary care RNs over the last cycle was quite small compared to the number of nurses renewing their licenses (Figure 42).

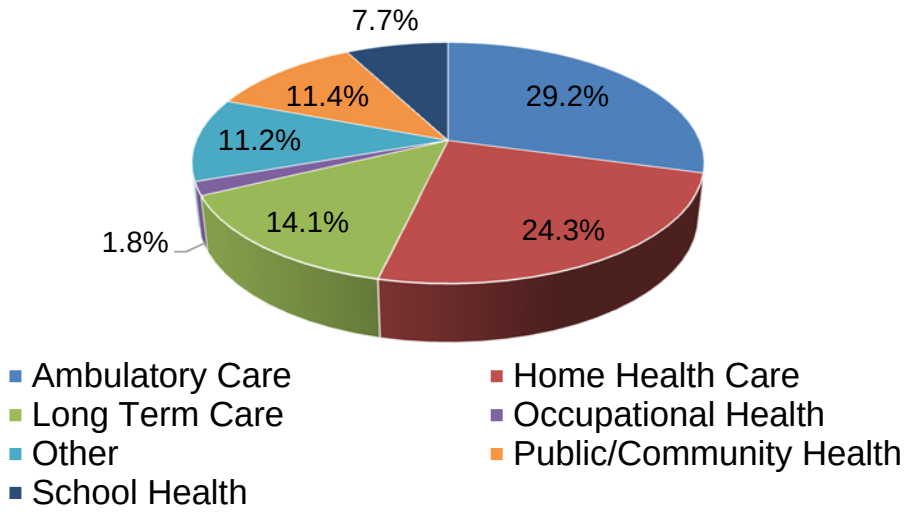
Figure 39. Primary Care RNs by Employment Status (N = 12,514)



Source: ABON data, 2013-2016.

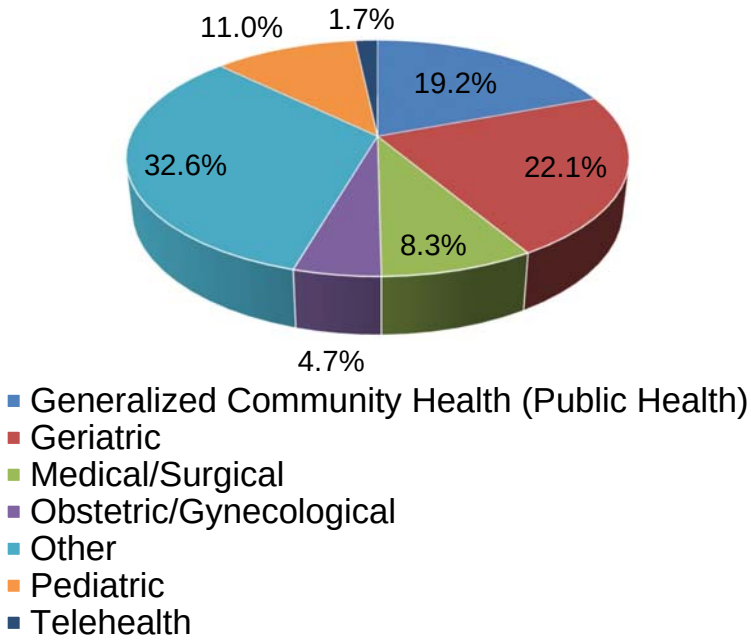
Note: There were 23 RNs who did not respond to the question on employment status.

Figure 40. Primary Care RNs by Employment Setting (N = 12,537)



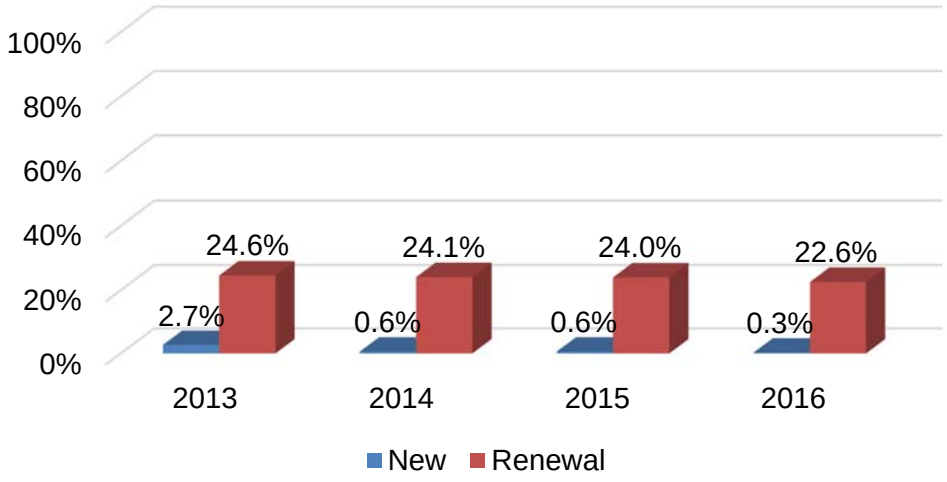
Source: ABON data, 2013-2016.

Figure 41. Percentage of Primary Care RNs by Clinical Area (N = 12,537)



Source: ABON data, 2013-2016.

Figure 42. Primary Care RNs by License Status and Year (N = 11,375)



Source: ABON data, 2013-2016.

Note: APNs renew their licenses as RNs, so the renewals include both RNs and APNs. There were 1,162 RNs and 1,619 APNs missing application type or date.

Urban-Rural Distribution of RN Practice Settings

A previous section of this report described the rural-urban distribution of primary care physicians, noting that approximately 88% of the physicians are located in the cities and close suburbs of Flagstaff, Phoenix, Tucson and Yuma. The rural-urban distribution of physicians has been a source of interest and healthcare policy initiatives for many years, but relatively little attention has been given to the geographic distribution of the practice locations for primary care registered nurses.

Many primary care RNs work in physician practices, community health centers and recently in non-traditional settings such as urgent care or pharmacy based clinics. Their placement in physician practices and community health centers creates a substantial overlap with the geographic distribution of primary care physicians. Any differences suggest situations in which RNs are the primary care provider even though they technically are under the supervision of a physician, who may not be present at the site of care.

The results on the location of primary care nurse practices from 2008 are based on a small sample, drawn from renewals in what was the first year of a new survey (Qiu & Johnson, August 2009). The level of confidence attached to the results is, therefore, much lower than the results

on physician location, which were drawn from a substantially larger sample from a data collection process that had been in place for nearly 25 years.

The 2008 rankings by city for the RNs are similar to the rankings of primary care physician practices. Approximately 60% of the RNs practiced in Maricopa County (Phoenix metro); 16% in Pima County (Tucson); 3% in Coconino County (Flagstaff) and 2% in Yuma County (Yuma). In total, approximately 81% of primary care RNs practiced in urban settings.

In 2016, approximately 61% of the RNs practiced in Maricopa County (Phoenix metro); 18% in Pima County (Tucson); 2% in Coconino County (Flagstaff) and 2% in Yuma County (Yuma). In total, approximately 83% of primary care RNs practiced in urban settings. Thus, similar to the physician results, the rural-urban distribution at the county level is unchanged from 2008.

Table 9. Distribution of Primary Care RNs by County (N = 14,832)

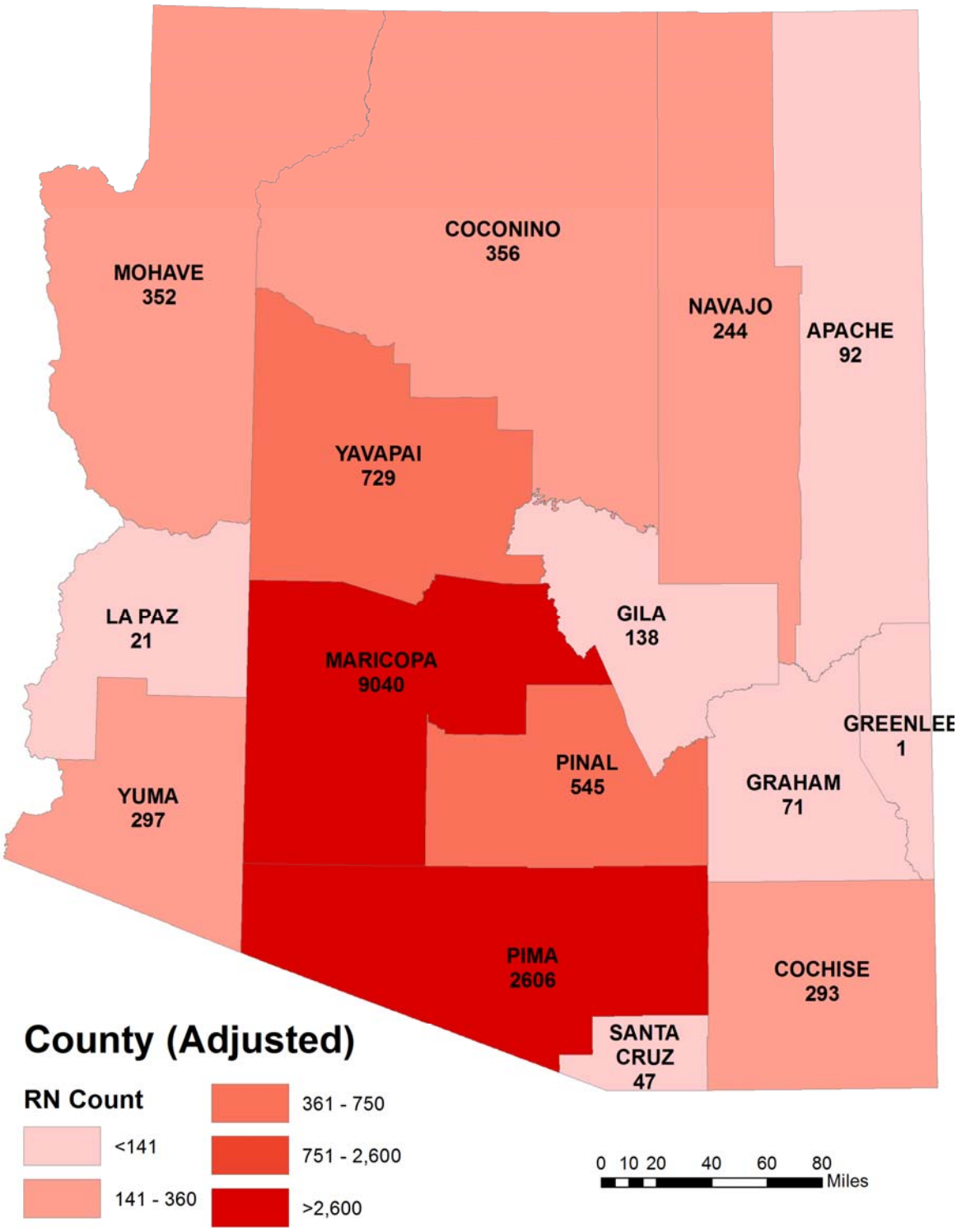
County	Number	Percent
Apache	92	0.6%
Cochise	293	2.0%
Coconino	356	2.4%
Gila	138	0.9%
Graham	71	0.5%
Greenlee	1	0.0%
La Paz	21	0.1%
Maricopa	9,040	60.9%
Mohave	352	2.4%
Navajo	244	1.6%
Pima	2,606	17.6%
Pinal	545	3.7%
Santa Cruz	47	0.3%
Yavapai	729	4.9%
Yuma	297	2.0%
Total	14,832	100.0%

Source: ABON data, 2013-2016.

Note: The numbers are responses weighted to population totals.

Although we have described evidence suggesting increased substitution of RNs for primary care physicians, the data on location indicate that if substitution is occurring, it is not affecting the rural-urban distribution of RNs practice locations. That is, substitution is not occurring differentially in rural and urban settings.

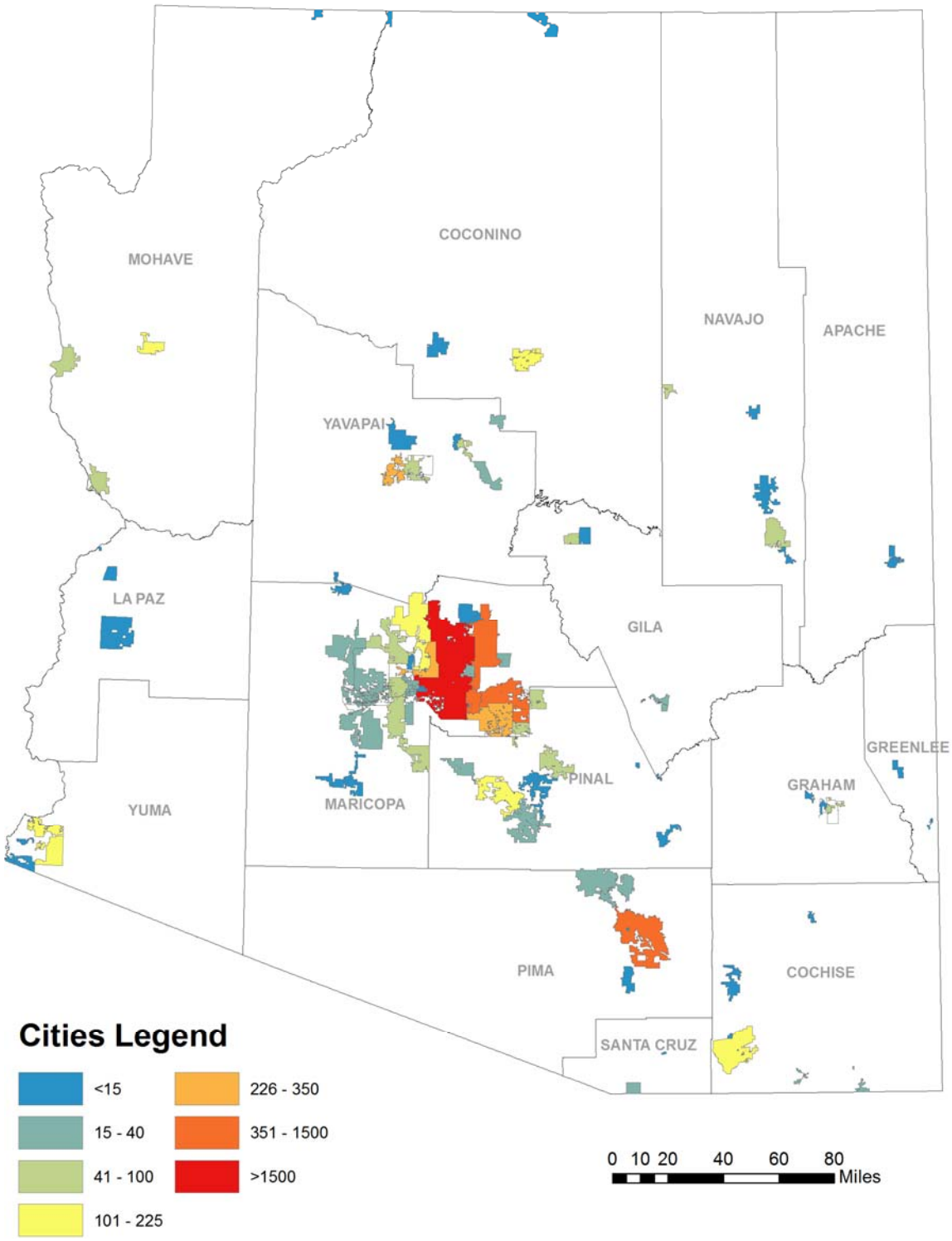
Figure 43. Primary Care RNs Principal Practice by County (N = 14,832)



Source: ABON data, 2013-2016.

Note: The numbers are responses weighted to population totals.

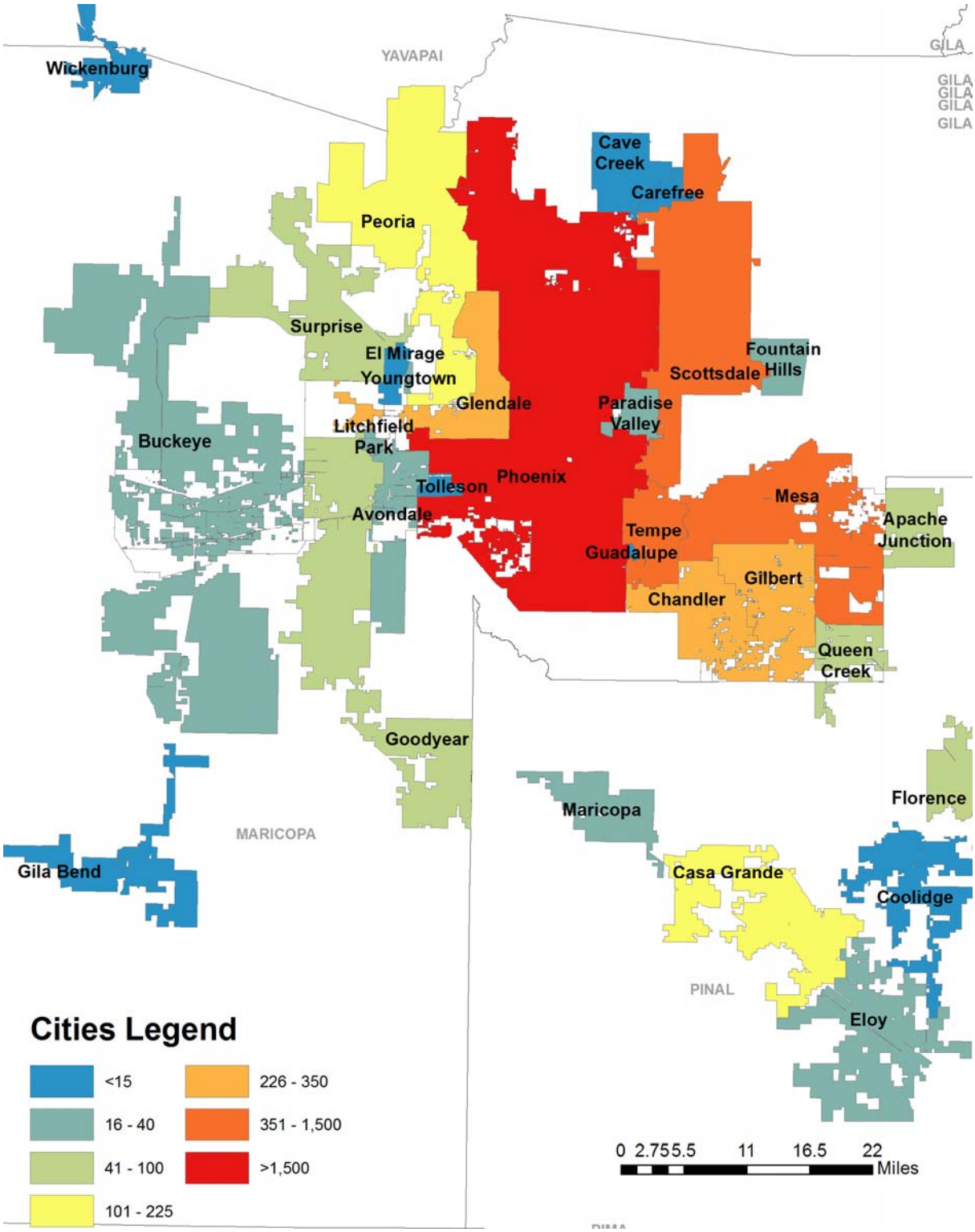
Figure 44. Primary Care RNs by City (N = 11,188)



Source: ABON data, 2013-2016.

Note: The numbers represent unweighted responses. There were 1,349 RNs with missing address information and unable to determine the city.

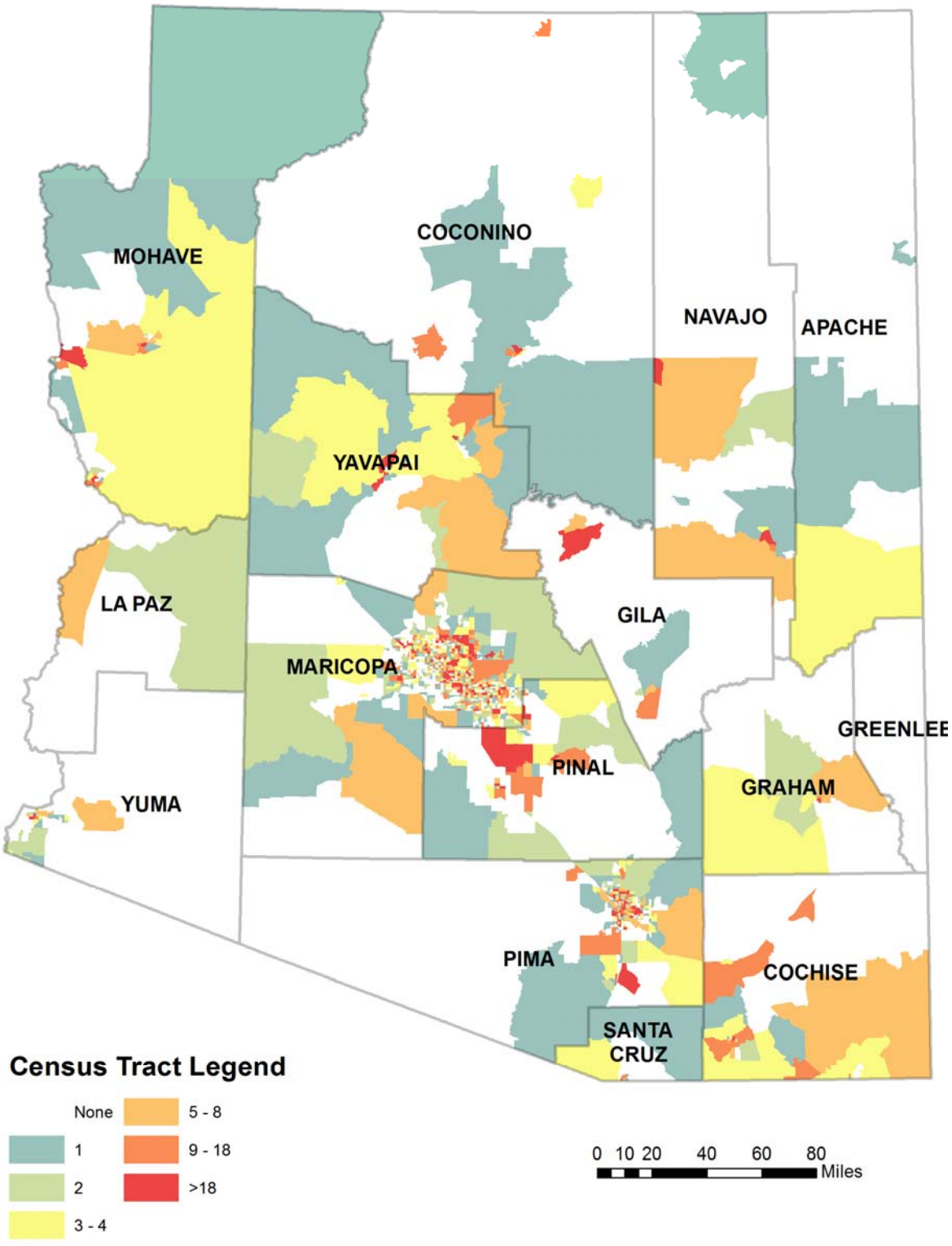
Figure 45. Primary Care RNs by City in Maricopa County (N = 6,880)



Source: ABON data, 2013-2016.

Note: The numbers represent unweighted responses.

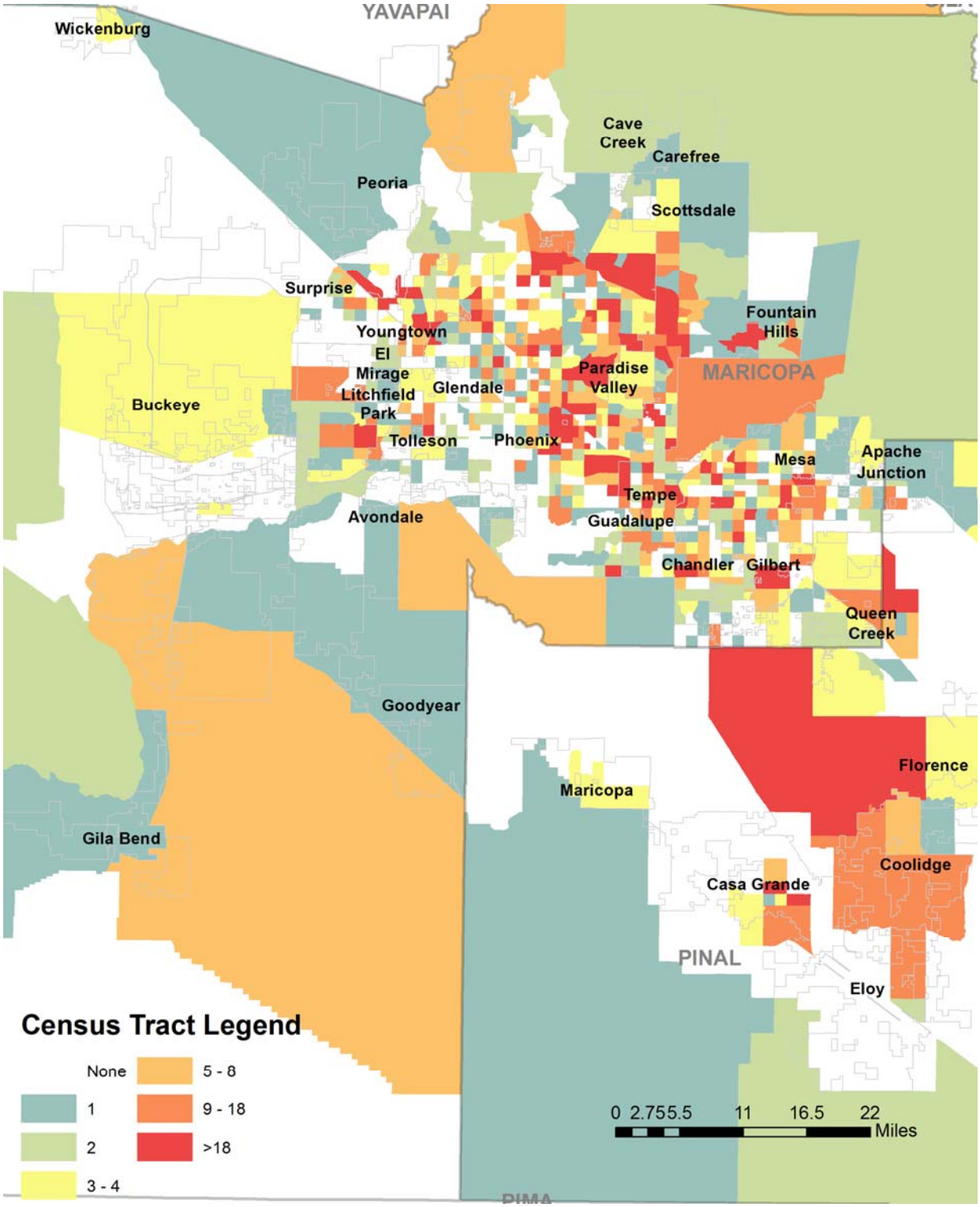
Figure 46. Primary Care RNs by Census Tract (N = 10,031)



Source: ABON data, 2013-2016.

Note: There were 2,506 RNs with missing address information and unable to determine the census tract.

Figure 47. Primary Care RNs by Census Tract in Maricopa County (N = 6,880)



Source: ABON data, 2013-2016.

Productivity

This section describes patterns of work among RNs working in primary care. The nursing workforce is characterized by an unusually large variety of employment arrangements. Hospitals' reliance on part time nurses, traveling nurses and the use of employment registries and continually varying work schedules are well documented. Very little is known, however, concerning patterns of hours and weeks worked among nurses in primary care settings. It is often alleged that nurses leave hospital settings for primary care jobs because of more regular hours and more consistent work schedules.

Our survey captures information on full and part time work by measuring *hours worked per week, weeks worked per month* and *months worked per year.* The supply of nursing services is the product of hours worked per week; weeks worked per month; and months worked per year.

The data on nurses differs from that on physicians, omitting measures of the number of patients served. To partially offset that exclusion, we restrict the information on hours and weeks worked to the provision of direct patient care. As indicated, 68% of primary care nurses work 36 hours or more per week and an additional 14.5% work as much as 35 hours per week and no less than 24 hours per week. The fact that slightly less than 4% of the nurses reported working 0 hours in direct patient care implies that their total work hours are obviously larger, but spent in activities other than direct patient care (Figure 48).

Eighty-eight percent of the primary care nurses work four weeks in each month and the percentage who work from 10-12 months per year is slightly lower.

It is usual in workforce studies to control for variations between full and part time workers by estimating FTEs. An FTE is typically calculated as the number of total hours worked divided by the number of compensable hours in a work year considered full-time work for an occupation. An FTE for employees who work 40 hours per week year-round, with a paid two-week vacation equals 2,080 hours.

Many health care organizations define a full time employee as one who works 36 hours per week or more, year-round (given 12 hour shifts are common). We assume that an average vacation is two weeks. An individual who works 36 hours per week year-round, for example, works 1,800 hours per year. ABON stipulates that the applicant must have practiced at least 960 hours in the past five years in a position that recommends or requires an RN or LPN license. This includes any position requiring an active nursing license (Arizona State Board of

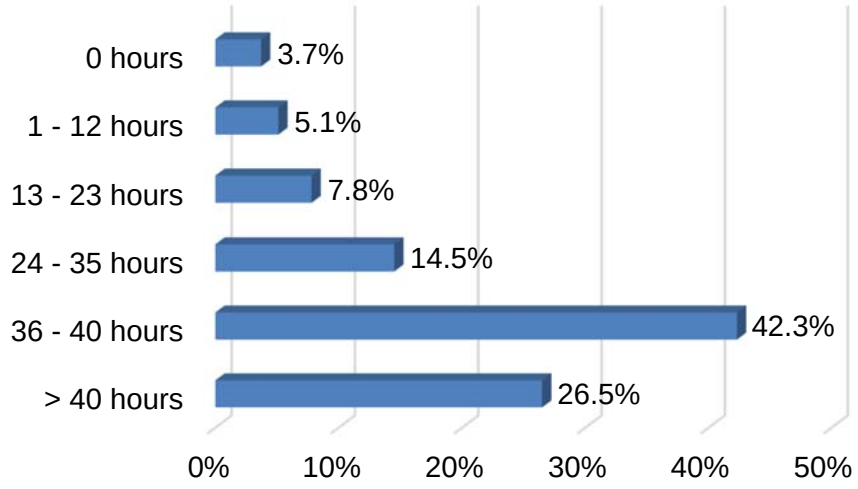
Nursing, 2016). It also could include graduating from a nursing program within 5 years prior to applying for renewal.

Our survey questions are asked in terms of intervals (e.g., 1-12 hours, 13-23 hours, etc.) to avoid recall error for hours worked in the previous twelve months. This approximation limits total hours worked for an RN working four weeks per month, year round to less than 1,800 hours unless he or she works more than 41 hours per week. Therefore, we adopt a total hours worked equal to 1,770 hours per year as equivalent to full time employment.

Our 2008 report determined that 1,447 (65%) of primary care RNs were employed full time and 778 (35%) of RNs were part time (Qiu & Johnson, August 2009). In Figure 48, over 68% of primary care nurses work full time.

As indicated in Figures 48 through 50, the characteristic work pattern is full time year round work, corresponding to the general perception that primary care nursing is much less subject to the vagaries typifying hospital work patterns.

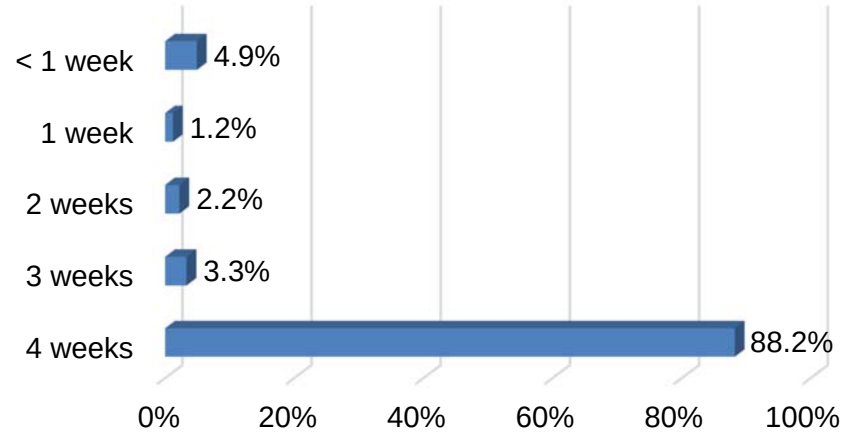
Figure 48. Primary Care RN Direct Care Hours per Week (N = 11,350)



Source: ABON, 2013-2016.

Note: There were 1,172 RNs who did not respond to the question on direct patient care and 15 RNs who did not respond to the question about hours per week.

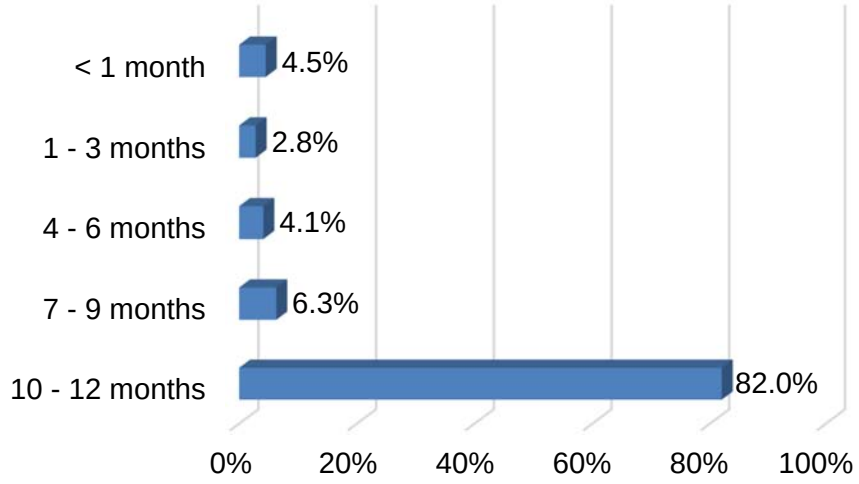
Figure 49. Primary Care RN Direct Care Weeks per Month (N = 11,345)



Source: ABON, 2013-2016.

Note: There were 1,172 RNs who did not respond to the question on direct patient care and 20 RNs who did not respond to the question about weeks per month.

Figure 50. Primary Care RN Direct Care Months per Year (N = 11,346)



Source: ABON, 2013-2016.

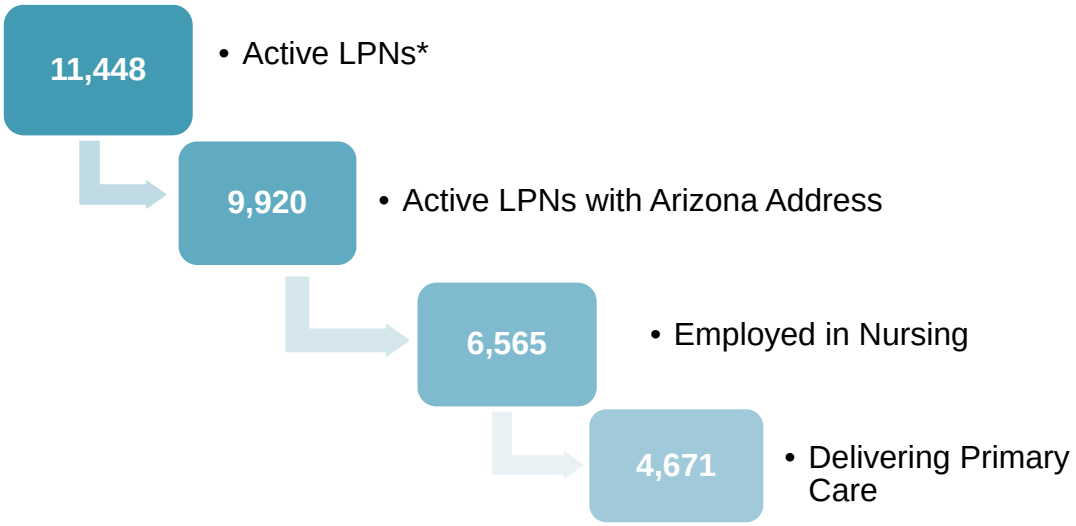
Note: There were 1,172 RNs who did not respond to the question on direct patient care and 19 RNs who did not respond to the question about weeks per month.

So, part time work is certainly a feature of primary care employment, but the data support the usual assumption that primary care offers more stable work environments than many hospital settings for nurses.

Licensed Practical Nurses

According to Figure 51, there were 11,448 Licensed Practical Nurses (LPNs) active in 2016. Of those, 86.6% resided in Arizona. LPNs employed in nursing made up 66% of the LPNs residing in Arizona, and 71% of those worked in primary care.

Figure 51. Distribution of Arizona LPNs



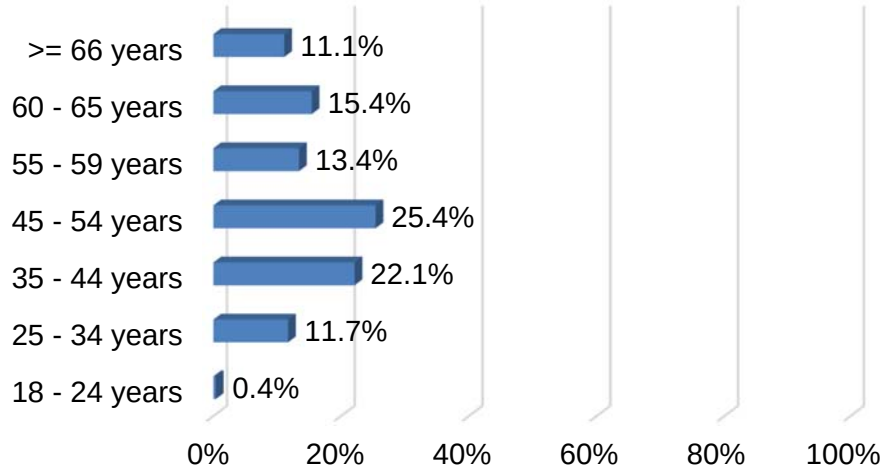
Source: ABON data, 2013-2016.

Note: There were 3,098 LPNs missing data on employment status and 202 missing data on primary care.

Demographics

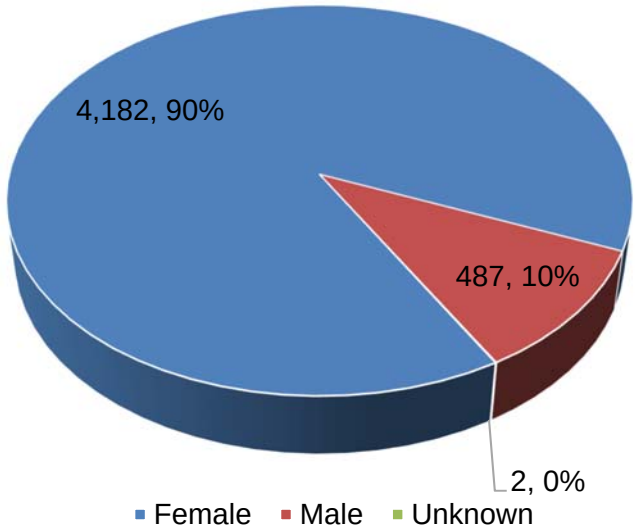
LPNs are, on average, younger than RNs with a nearly normal age distribution as indicated in Figure 52. At 10.4%, males make up slightly more of the LPN population than RNs or APNs. LPNs are least likely of all nurses to obtain a degree, as this is not a requirement for licensing. Only 12% of primary care LPNs have a degree.

Figure 52. Primary Care LPNs by Age Group (N = 4,671)



Source: ABON data, 2013-2016.

Figure 53. Primary Care LPNs by Gender (N = 4,671)



Source: ABON data, 2013-2016.

Table 10. Primary Care LPNs Highest Level of Education (N = 4,640)

Graduation Year	Doctorate		Masters		Bachelors		Associates		Diploma		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
1970-79	1	0.1%	2	0.3%	17	2.5%	17	2.5%	15	2.2%	609	92.1%	661	14.2%
1980-89	1	0.1%	3	0.4%	38	5.6%	23	3.4%	11	1.6%	593	88.6%	669	14.4%
1990-99	2	0.2%	9	0.9%	56	5.6%	38	3.8%	18	1.8%	861	87.5%	984	21.2%
2000-04			6	0.9%	46	7.3%	22	3.4%	6	0.9%	549	87.2%	629	13.5%
2005-09			7	0.8%	31	3.6%	27	3.2%	9	1.0%	765	91.1%	839	18.0%
2010-14			3	0.4%	46	6.5%	87	12.3%	3	0.4%	564	80.2%	703	15.1%
2015-16	1	0.6%	4	2.5%	42	27.0 %	46	29.6%	8	5.1%	54	34.8%	155	3.3%
Total	5	0.1%	34	0.7%	276	5.9%	260	5.6%	70	1.5%	3,995	86.0%	4,640	100.0%

Source: ABON, 2013-2016.

Note: There were 31 LPNs with missing graduation date or degree information.

Figure 54. Primary Care LPNs Highest Level of Education (N = 4,640)

Source: ABON, 2013-2016.

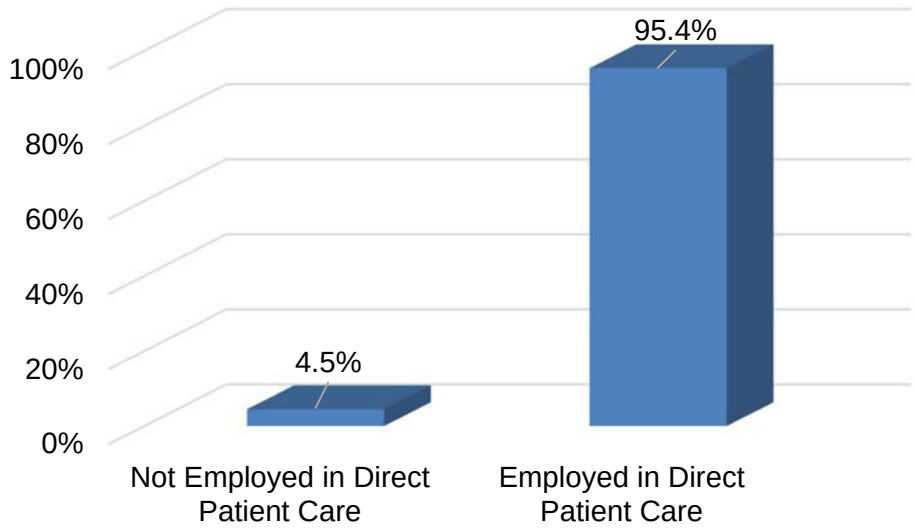
Note: There were 31 LPNs with missing graduation date or degree information.

Employment

Differing from RNs and APNs, Figure 56 shows that primary care LPNs mostly work in long-term care settings, and they are most likely treating geriatric patients (Figure 57).

Roughly, a quarter of LPNs have renewed their licenses over the last three years. Very few new licenses were issued over the four-year cycle.

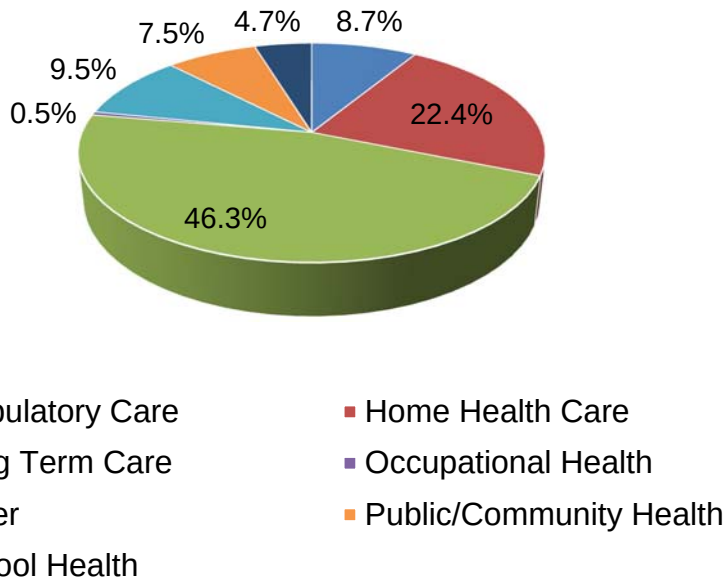
Figure 55. Primary Care LPNs by Employment Status (N = 4,661)



Source: ABON data, 2013-2016.

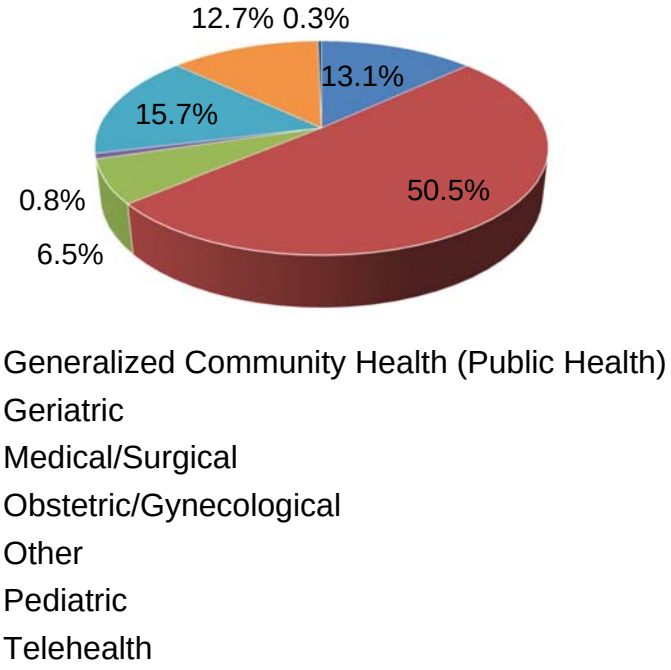
Note: There were 10 LPNs with missing data about direct patient care.

Figure 56. Primary Care LPNs by Employment Setting (N = 4,671)



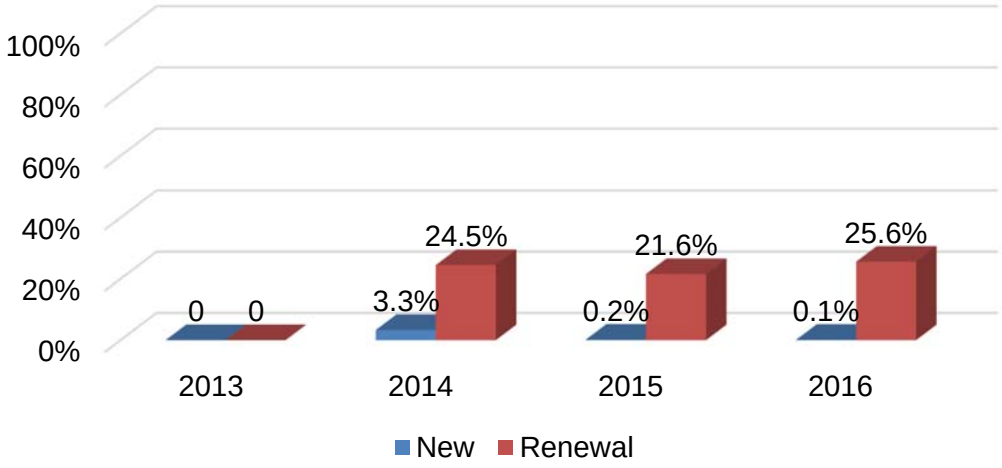
Source: ABON data, 2013-2016.

Figure 57. Percentage of Primary Care LPNs by Clinical Area (N = 4,671)



Source: ABON data, 2013-2016.

Figure 58. Primary Care LPNs by License Status for Most Recent 4-Year Cycle (N = 4,198)



Source: ABON data, 2013-2016.

Note: There were 473 LPNs missing application type or date.

Table 11. Distribution of Primary Care LPNs by County (N = 4,290)

County	LPN	
	Number	Percent
Apache	11	0.2%
Cochise	79	1.8%
Coconino	30	0.6%
Gila	61	1.4%
Graham	4	0.0%
Greenlee	2	0.0%
La Paz	7	0.1%
Maricopa	2,762	64.3%
Mohave	105	2.4%
Navajo	37	0.8%
Pima	829	19.3%
Pinal	143	3.3%
Santa Cruz	12	0.2%
Yavapai	136	3.1%
Yuma	72	1.6%
Total	4,290	100.0%

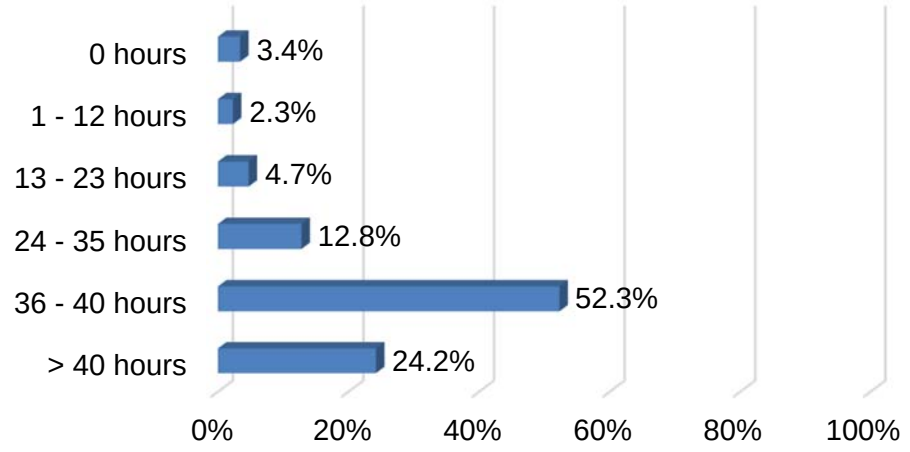
Source: ABON data, 2013-2016.

Note: There were 381 LPNs with missing address information and unable to determine the county.

Productivity

In 2007- 2008, we determined that 673 (76.1%) of primary care LPNs were employed full time and 211 (23.9%) of LPNs were part time (Qiu & Johnson, August 2009). Currently, 76.5% of LPNs are employed full time, so their levels of productivity are unchanged.

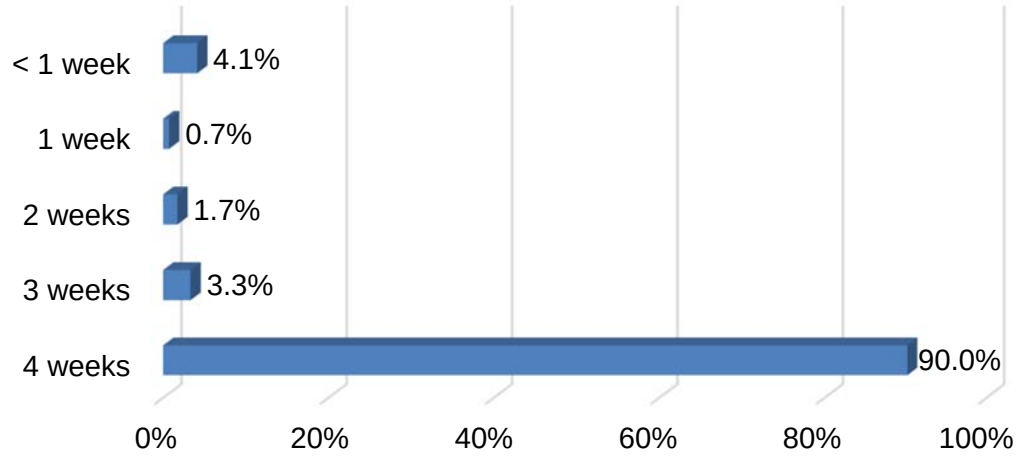
Figure 59. Average LPN Direct Care Hours per Week (N = 4,442)



Source: ABON data, 2013-2016.

Note: There were 224 LPNs missing information on direct patient care and 5 LPNs missing data about hours per week.

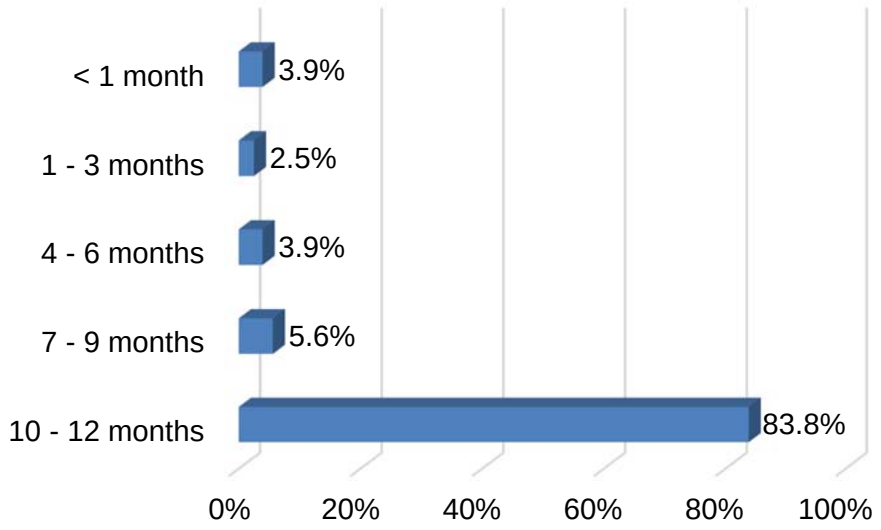
Figure 60. Average LPN Direct Care Weeks per Month (N = 4,428)



Source: ABON data, 2013-2016.

Note: There were 224 LPNs missing information on direct patient care and 19 LPNs missing data about weeks per month.

Figure 61. Average LPN Direct Care Months per Year (N = 4,430)



Source: ABON data, 2013-2016.

Note: There were 224 LPNs missing information on direct patient care and 17 LPNs missing data about months per year.

Conclusion

Research has shown that the most common attributes of primary care: preventive care, care coordination for those with chronic diseases, and continuity of care achieve better outcomes and cost savings than a health system relying heavily on specialty care services. The primary care workforce is expected to satisfy these objectives.

The widespread adoption of electronic medical records was predicted to increase the productivity of physicians, including those in primary care. The expected increases in productivity from the adoption of EMRs have, however, not yet been realized with the current results on patient visits little different from those in 2006.

Bodenheimer, Chen, & Bennett, 2009 stated that the national supply of primary care physicians would decline relative to the population during the period 2005-2020 while other medical specialties increased in supply. The Arizona Primary Care Workgroup (April 2009) reported several factors affecting physicians' decision to work in primary care including: earning potential, medical training driven by specialization, constraining practice patterns, complex patient populations, health information overload, and lifestyle issues. Our results also show a decline in both the number of primary care physicians and a substantial decrease in the number of physicians in solo practice.

Arizona lacks a proportionate distribution of primary care physicians as evident by the number of HPSAs. Approximately 450 full time providers are needed to practice in the shortage areas to eliminate the disparity.

The shortage of primary care providers in rural areas is a long-standing chronic problem that has existed for as long as we have collected the physician data (1991). Presumably one solution to the problem for which there is some suggestive but inconclusive evidence is increased reliance on APNs as primary care providers in rural areas.

There is convincing evidence, not restricted to rural areas, of an increased proportion of registered nurses working outside hospital settings, delivering primary care. That trend is likely to continue.

References

Arizona Department of Health Services. (2017). *Health Professional Shortage Areas (HPSA)*. Retrieved from Arizona Department of Health Services, Bureau of Health Systems Development: http://azdhs.gov/prevention/health-systems-development/shortage-designation/index.php#hpsa-home

Arizona Primary Care Workgroup. (April 2009). *Development of a 21st century healthcare workforce plan for Arizona.* Phoenix, AZ: Arizona Primary Care Workgroup. Retrieved June 29, 2017, from http://vitalysthealth.org/wp-content/uploads/2014/02/PCWorkgroupfinalreport.pdf

Arizona State Board of Nursing. (2016, August 29). *Rules of the State Board of Nursing Section R4-19-312(B).* Retrieved July 6, 2017, from Arizona State Board of Nursing: http://www.azbn.gov/media/2305/rules-updated08292016.pdf

Bodenheimer, T., Chen, E., & Bennett, H. (2009). Confronting the growing burden of chronic disease: can the U.S. health care workforce do the job? *Health Affairs, 28*(1), 64-74.

Johnson, W. G., Rimsza, M. E., Garcy, A. M., & Grossman, M. (2005). *The Arizona physician workforce study - part I: the numbers of practicing physicians 1992-2004.* Tempe, AZ: Center for Health Information & Research, Arizona State University.

Qiu, Y., & Johnson, W. G. (August 2009). *Arizona primary care workforce.* Phoenix, AZ: Center for Health Information & Research, Arizona State University.

Rimsza, M. E., Johnson, W. G., Speicher, M., & Grossman, M. (2006). *The Arizona physician workforce study: part II.* Tempe, AZ: Center for Health Information & Research, Arizona State University.

Tarango, P., Lenartz, T., Zavala, C., Mohapatra, C., Roscetti, A., Drake, A., & Cluff, R. (2016). *Arizona primary care needs assessment.* Phoenix, AZ: Arizona Department of Health Services, Bureau of Health Systems Development.

Appendix A: Tables of the Primary Care Workforce by City

Table A - 1. Distribution of Primary Care Physicians by City (N = 3,683)

City	DO		MD		Total	
	Number	Percent	Number	Percent	Number	Percent
Anthem	3	0.4%	14	0.4%	17	0.4%
Apache Junction	2	0.3%	3	0.0%	5	0.1%
Arizona City	1	0.1%	0	0.0%	1	0.0%
Avondale	2	0.3%	25	0.8%	27	0.7%
Bagdad	0	0.0%	1	0.0%	1	0.0%
Benson	0	0.0%	4	0.1%	4	0.1%
Bisbee	1	0.1%	5	0.1%	6	0.1%
Blackwater	0	0.0%	1	0.0%	1	0.0%
Buckeye	4	0.6%	1	0.0%	5	0.1%
Bullhead City	2	0.3%	11	0.3%	13	0.3%
Camp Verde	2	0.3%	1	0.0%	3	0.0%
Carefree	0	0.0%	2	0.0%	2	0.0%
Casa Grande	4	0.6%	39	1.2%	43	1.1%
Casas Adobes	9	1.4%	81	2.6%	90	2.4%
Catalina	1	0.1%	0	0.0%	1	0.0%
Catalina Foothills	1	0.1%	19	0.6%	20	0.5%
Chandler	29	4.6%	120	3.9%	149	4.0%
Chinle	0	0.0%	2	0.0%	2	0.0%
Chino Valley	2	0.3%	2	0.0%	4	0.1%
Clifton	0	0.0%	1	0.0%	1	0.0%
Cortaro	1	0.1%	0	0.0%	1	0.0%
Cottonwood	6	0.9%	15	0.4%	21	0.5%
Dewey-Humboldt	0	0.0%	1	0.0%	1	0.0%
Douglas	2	0.3%	9	0.2%	11	0.2%
El Mirage	0	0.0%	1	0.0%	1	0.0%
Eloy	0	0.0%	2	0.0%	2	0.0%
Flagstaff	9	1.4%	66	2.1%	75	2.0%
Florence	0	0.0%	4	0.1%	4	0.1%
Flowing Wells	0	0.0%	2	0.0%	2	0.0%
Fort Defiance	1	0.1%	0	0.0%	1	0.0%
Fort McDowell	0	0.0%	1	0.0%	1	0.0%

City	DO		MD		Total	
	Number	Percent	Number	Percent	Number	Percent
Fort Mohave	0	0.0%	1	0.0%	1	0.0%
Fort Mojave	1	0.1%	2	0.0%	3	0.0%
Fortuna Foothills	2	0.3%	2	0.0%	4	0.1%
Fountain Hills	0	0.0%	3	0.0%	3	0.0%
Ganado	0	0.0%	1	0.0%	1	0.0%
Gilbert	29	4.6%	113	3.6%	142	3.8%
Glendale	36	5.8%	115	3.7%	151	4.0%
Globe	0	0.0%	5	0.1%	5	0.1%
Gold Canyon	0	0.0%	2	0.0%	2	0.0%
Golden Valley	2	0.3%	2	0.0%	4	0.1%
Goodyear	8	1.2%	27	0.8%	35	0.9%
Green Valley	3	0.4%	14	0.4%	17	0.4%
Guadalupe	0	0.0%	2	0.0%	2	0.0%
Heber-Overgaard	0	0.0%	1	0.0%	1	0.0%
Holbrook	0	0.0%	1	0.0%	1	0.0%
Hunter Creek	0	0.0%	1	0.0%	1	0.0%
Kayenta	0	0.0%	1	0.0%	1	0.0%
Kearny	0	0.0%	1	0.0%	1	0.0%
Kingman	13	2.0%	15	0.4%	28	0.7%
Lake Havasu City	3	0.4%	21	0.6%	24	0.6%
Lakeside	0	0.0%	3	0.0%	3	0.0%
Laveen	0	0.0%	3	0.0%	3	0.0%
Litchfield Park	4	0.6%	3	0.0%	7	0.1%
Luke Air Force Base	1	0.1%	1	0.0%	2	0.0%
Mammoth	1	0.1%	0	0.0%	1	0.0%
Marana	3	0.4%	6	0.1%	9	0.2%
Maricopa	3	0.4%	8	0.2%	11	0.2%
Mesa	37	5.9%	158	5.1%	195	5.2%
Mohave Valley	0	0.0%	1	0.0%	1	0.0%
Morenci	0	0.0%	1	0.0%	1	0.0%
Nogales	0	0.0%	13	0.4%	13	0.3%
North Fork	0	0.0%	2	0.0%	2	0.0%
Oracle	1	0.1%	1	0.0%	2	0.0%
Oro Valley	4	0.6%	27	0.8%	31	0.8%
Page	1	0.1%	6	0.1%	7	0.1%
Paradise Valley	0	0.0%	12	0.3%	12	0.3%
Parker	1	0.1%	4	0.1%	5	0.1%

City	DO		MD		Total	
	Number	Percent	Number	Percent	Number	Percent
Payson	1	0.1%	9	0.2%	10	0.2%
Peoria	17	2.7%	56	1.8%	73	1.9%
Peridot	0	0.0%	1	0.0%	1	0.0%
Phoenix	198	31.9%	907	29.6%	1,105	30.0%
Pinetop	2	0.3%	2	0.0%	4	0.1%
Pinetop-Lakeside	1	0.1%	2	0.0%	3	0.0%
Prescott	8	1.2%	47	1.5%	55	1.4%
Prescott Valley	3	0.4%	5	0.1%	8	0.2%
Quartzsite	0	0.0%	1	0.0%	1	0.0%
Queen Creek	5	0.8%	25	0.8%	30	0.8%
Sacaton	0	0.0%	6	0.1%	6	0.1%
Safford	4	0.6%	17	0.5%	21	0.5%
Sahuarita	2	0.3%	5	0.1%	7	0.1%
Saint Johns	1	0.1%	0	0.0%	1	0.0%
San Luis	0	0.0%	6	0.1%	6	0.1%
San Tan Valley	0	0.0%	1	0.0%	1	0.0%
Scottsdale	50	8.0%	268	8.7%	318	8.6%
Sedona	0	0.0%	10	0.3%	10	0.2%
Sells	0	0.0%	8	0.2%	8	0.2%
Show Low	5	0.8%	10	0.3%	15	0.4%
Sierra Vista	7	1.1%	23	0.7%	30	0.8%
Snowflake	0	0.0%	2	0.0%	2	0.0%
Somerton	0	0.0%	1	0.0%	1	0.0%
South Tucson	0	0.0%	1	0.0%	1	0.0%
Springerville	0	0.0%	1	0.0%	1	0.0%
Star Valley	1	0.1%	2	0.0%	3	0.0%
Sun City	2	0.3%	21	0.6%	23	0.6%
Sun City West	1	0.1%	22	0.7%	23	0.6%
Surprise	16	2.5%	35	1.1%	51	1.3%
Teec Nos Pos	1	0.1%	1	0.0%	2	0.0%
Tempe	6	0.9%	56	1.8%	62	1.6%
Tolleson	0	0.0%	5	0.1%	5	0.1%
Tsaile	0	0.0%	1	0.0%	1	0.0%
Tuba City	1	0.1%	5	0.1%	6	0.1%
Tucson	42	6.7%	385	12.5%	427	11.5%
Whiteriver	0	0.0%	5	0.1%	5	0.1%
Wickenburg	3	0.4%	4	0.1%	7	0.1%

City	DO		MD		Total	
	Number	Percent	Number	Percent	Number	Percent
Willcox	1	0.1%	2	0.0%	3	0.0%
Williams	0	0.0%	2	0.0%	2	0.0%
Winslow	3	0.4%	10	0.3%	13	0.3%
Yuma	4	0.6%	81	2.6%	85	2.3%
Total	620	100.0%	3,063	100.0%	3,683	100.0%

Source: AMB & ABOE Survey and Administrative data, 2015-2016.

Note: There were 37 MDs and 7 DOs with missing address information and unable to determine the city.

Table A - 2. Distribution of Primary Care APNs by City (N = 1,856)

City	Number	Percent
Amado	1	0.0%
Anthem	1	0.0%
Apache Junction	6	0.3%
Avondale	8	0.4%
Bagdad	1	0.0%
Bapchule	1	0.0%
Benson	1	0.0%
Bisbee	4	0.2%
Buckeye	1	0.0%
Bullhead City	5	0.2%
Camp Verde	2	0.1%
Casa Grande	35	1.8%
Casas Adobes	25	1.3%
Catalina	1	0.0%
Catalina Foothills	9	0.4%
Cave Creek	2	0.1%
Chandler	67	3.6%
Chinle	1	0.0%
Chino Valley	1	0.0%
Chloride	1	0.0%
Clarkdale	1	0.0%
Cottonwood	13	0.7%
Douglas	6	0.3%
El Mirage	1	0.0%
Eloy	2	0.1%
Flagstaff	52	2.8%
Florence	17	0.9%
Flowing Wells	1	0.0%
Fort Mojave	1	0.0%
Fortuna Foothills	2	0.1%
Fountain Hills	3	0.1%
Ganado	1	0.0%
Gila Bend	1	0.0%
Gilbert	73	3.9%
Glendale	52	2.8%
Globe	1	0.0%
Golden Valley	1	0.0%

City	Number	Percent
Goodyear	15	0.8%
Green Valley	13	0.7%
Kayenta	1	0.0%
Kingman	13	0.7%
Lake Havasu City	11	0.5%
Lakeside	1	0.0%
Litchfield Park	1	0.0%
Luke Air Force Base	1	0.0%
Marana	8	0.4%
Maricopa	3	0.1%
Mesa	107	5.7%
Morristown	1	0.0%
Munds Park	2	0.1%
New River	1	0.0%
Nogales	5	0.2%
Oro Valley	8	0.4%
Overgaard	1	0.0%
Page	1	0.0%
Paradise Valley	4	0.2%
Parker	1	0.0%
Patagonia	1	0.0%
Payson	6	0.3%
Peoria	28	1.5%
Peridot	1	0.0%
Phoenix	516	27.8%
Pinetop	1	0.0%
Pinetop-Lakeside	2	0.1%
Polacca	2	0.1%
Prescott	48	2.5%
Prescott Valley	17	0.9%
Queen Creek	13	0.7%
Sacaton	3	0.1%
Safford	5	0.2%
Sahuarita	1	0.0%
Saint Johns	3	0.1%
San Luis	5	0.2%
Scottsdale	127	6.8%

City	Number	Percent
Sedona	10	0.5%
Sells	2	0.1%
Show Low	10	0.5%
Sierra Vista	20	1.0%
Somerton	2	0.1%
Sonoita	1	0.0%
South Tucson	1	0.0%
Springerville	3	0.1%
Sun City	5	0.2%
Sun City West	5	0.2%
Surprise	24	1.2%
Taylor	1	0.0%
Tempe	64	3.4%

City	Number	Percent
Tuba City	2	0.1%
Tucson	276	14.8%
Village Of Oak Creek	1	0.0%
Whiteriver	2	0.1%
Wickenburg	2	0.1%
Willcox	4	0.2%
Williams	2	0.1%
Window Rock	1	0.0%
Winslow	5	0.2%
Youngtown	2	0.1%
Yuma	33	1.7%
Total	1,856	100.0%

Source: ABON data, 2013-2016.

Note: There were 162 APNs with missing address information and unable to determine the city.

Table A - 3. Distribution of Primary Care RNs by City (N = 11,188)

City	Number	Percent
Ajo	5	0.0%
Amado	1	0.0%
Antares	1	0.0%
Anthem	3	0.0%
Apache Junction	41	0.3%
Arivaca	1	0.0%
Arizona City	1	0.0%
Ash Fork	1	0.0%
Avondale	37	0.3%
Bagdad	2	0.0%
Bapchule	1	0.0%
Benson	14	0.1%
Bisbee	19	0.1%
Buckeye	19	0.1%
Bullhead City	54	0.4%
Bylas	1	0.0%
Camp Verde	16	0.1%
Carefree	3	0.0%
Casa Grande	145	1.2%
Casas Adobes	203	1.8%
Cashion	1	0.0%
Catalina	5	0.0%
Catalina Foothills	71	0.6%
Cave Creek	8	0.0%
Central Heights-Midland City	1	0.0%
Chandler	315	2.8%
Chinle	22	0.1%
Chino Valley	8	0.0%
Chloride	1	0.0%
Clarkdale	4	0.0%
Claypool	3	0.0%
Clifton	1	0.0%
Colorado City	1	0.0%
Coolidge	11	0.0%
Cornville	1	0.0%
Cottonwood	61	0.5%

City	Number	Percent
Dewey	1	0.0%
Dewey-Humboldt	2	0.0%
Douglas	26	0.2%
Drexel Heights	2	0.0%
Eagar	3	0.0%
El Mirage	7	0.0%
Elgin	1	0.0%
Eloy	16	0.1%
Flagstaff	216	1.9%
Florence	63	0.5%
Flowing Wells	26	0.2%
Fort Defiance	13	0.1%
Fort Huachuca	6	0.0%
Fort Mcdowell	1	0.0%
Fort Mohave	3	0.0%
Fort Mojave	1	0.0%
Fortuna Foothills	8	0.0%
Fountain Hills	26	0.2%
Fredonia	1	0.0%
Ganado	4	0.0%
Gila Bend	1	0.0%
Gilbert	293	2.6%
Glendale	296	2.6%
Globe	30	0.2%
Gold Canyon	2	0.0%
Golden Valley	9	0.0%
Goodyear	83	0.7%
Green Valley	62	0.5%
Happy Jack	1	0.0%
Hayden	1	0.0%
Heber	1	0.0%
Heber-Overgaard	1	0.0%
Hereford	1	0.0%
Holbrook	11	0.0%
Hotevilla	1	0.0%
Huachuca City	1	0.0%
Kayenta	11	0.0%

City	Number	Percent
Kingman	108	0.9%
Kykotsmovi Village	1	0.0%
Lake Havasu City	90	0.8%
Lake Of The Woods	2	0.0%
Lakeside	11	0.0%
Laveen	2	0.0%
Linden	1	0.0%
Litchfield Park	17	0.1%
Luke Air Force Base	6	0.0%
Lukeville	1	0.0%
Mammoth	1	0.0%
Many Farms	1	0.0%
Marana	31	0.2%
Maricopa	16	0.1%
Mayer	1	0.0%
Mesa	731	6.5%
Miami	5	0.0%
Morristown	1	0.0%
Munds Park	1	0.0%
New River	1	0.0%
Nogales	26	0.2%
North Fork	7	0.0%
Nutrioso	1	0.0%
Oro Valley	31	0.2%
Overgaard	1	0.0%
Page	12	0.1%
Paradise Valley	29	0.2%
Parker	14	0.1%
Patagonia	1	0.0%
Payson	50	0.4%
Peach Springs	1	0.0%
Peoria	207	1.8%
Peridot	4	0.0%
Phoenix	3,253	29.0%
Pima	2	0.0%
Pinetop	1	0.0%
Pinetop-Lakeside	13	0.1%
Pinon	2	0.0%

City	Number	Percent
Polacca	5	0.0%
Prescott	326	2.9%
Prescott Valley	90	0.8%
Quartzsite	2	0.0%
Queen Creek	41	0.3%
Rincon Valley	1	0.0%
Sacaton	10	0.0%
Safford	48	0.4%
Sahuarita	6	0.0%
Saint Johns	9	0.0%
Saint Michaels	1	0.0%
San Carlos	5	0.0%
San Luis	10	0.0%
San Simon	1	0.0%
San Tan Valley	3	0.0%
Sasabe	1	0.0%
Scottsdale	852	7.6%
Second Mesa	1	0.0%
Sedona	35	0.3%
Seligman	1	0.0%
Sells	26	0.2%
Shonto	4	0.0%
Show Low	53	0.4%
Sierra Vista	141	1.2%
Snowflake	1	0.0%
Somerton	6	0.0%
Sonoita	2	0.0%
South Tucson	2	0.0%
Springerville	6	0.0%
Star Valley	5	0.0%
Summit	2	0.0%
Sun City	122	1.0%
Sun City West	77	0.6%
Surprise	69	0.6%
Tanque Verde	8	0.0%
Taylor	1	0.0%
Teec Nos Pos	2	0.0%
Tempe	354	3.1%

City	Number	Percent
Thatcher	3	0.0%
Tolleson	3	0.0%
Tonalea	1	0.0%
Tsaile	3	0.0%
Tuba City	20	0.1%
Tubac	6	0.0%
Tucson	1,498	13.3%
Vail	2	0.0%
Village Of Oak Creek	12	0.1%
Whiteriver	10	0.0%
Wickenburg	6	0.0%

City	Number	Percent
Willcox	11	0.0%
Williams	10	0.0%
Willow Valley	1	0.0%
Window Rock	4	0.0%
Winkelman	1	0.0%
Winslow	51	0.4%
Wittmann	1	0.0%
Youngtown	19	0.1%
Yuma	201	1.7%
Total	11,188	100.0%

Source: ABON data, 2013-2016.

Note: There were 1,349 RNs with missing address information and unable to determine the city.

Table A - 4. Distribution of Primary Care LPNs by City (N = 4,278)

City	Number	Percent
Aguila	1	0.0%
Ajo	1	0.0%
Antares	1	0.0%
Anthem	1	0.0%
Apache Junction	30	0.7%
Arizona Village	1	0.0%
Ash Fork	1	0.0%
Avondale	28	0.6%
Benson	4	0.0%
Bisbee	6	0.1%
Buckeye	13	0.3%
Bullhead City	18	0.4%
Camp Verde	10	0.2%
Casa Grande	51	1.1%
Casas Adobes	114	2.6%
Cashion	2	0.0%
Catalina Foothills	32	0.7%
Cave Creek	3	0.0%
Chandler	123	2.8%
Chinle	5	0.1%
Chino Valley	1	0.0%
Cibecue	1	0.0%
Clifton	1	0.0%
Cochise	2	0.0%
Concho	1	0.0%
Coolidge	1	0.0%
Cottonwood	15	0.3%
Douglas	10	0.2%
Duncan	1	0.0%
Eagar	1	0.0%
El Mirage	1	0.0%
Eloy	10	0.2%
Flagstaff	26	0.6%
Florence	30	0.7%
Flowing Wells	3	0.0%
Fort Defiance	2	0.0%
Fort Huachuca	5	0.1%

City	Number	Percent
Fort Mohave	1	0.0%
Fort Mojave	1	0.0%
Fortuna Foothills	2	0.0%
Fountain Hills	9	0.2%
Ganado	1	0.0%
Gilbert	55	1.2%
Glendale	155	3.6%
Globe	20	0.4%
Golden Valley	5	0.1%
Goodyear	60	1.4%
Grand Canyon Village	1	0.0%
Green Valley	43	1.0%
Hereford	1	0.0%
Holbrook	2	0.0%
Huachuca City	2	0.0%
Kayenta	1	0.0%
Kingman	42	0.9%
Lake Havasu City	35	0.8%
Lakeside	1	0.0%
Laveen	2	0.0%
Litchfield Park	14	0.3%
Luke Air Force Base	6	0.1%
Marana	8	0.1%
Maricopa	2	0.0%
Mesa	285	6.6%
Miami	4	0.0%
Morristown	1	0.0%
Nogales	11	0.2%
Oro Valley	17	0.3%
Page	1	0.0%
Paradise Valley	5	0.1%
Parker	6	0.1%
Payson	34	0.7%
Peoria	119	2.7%
Phoenix	1,152	26.9%
Pinetop-Lakeside	8	0.1%

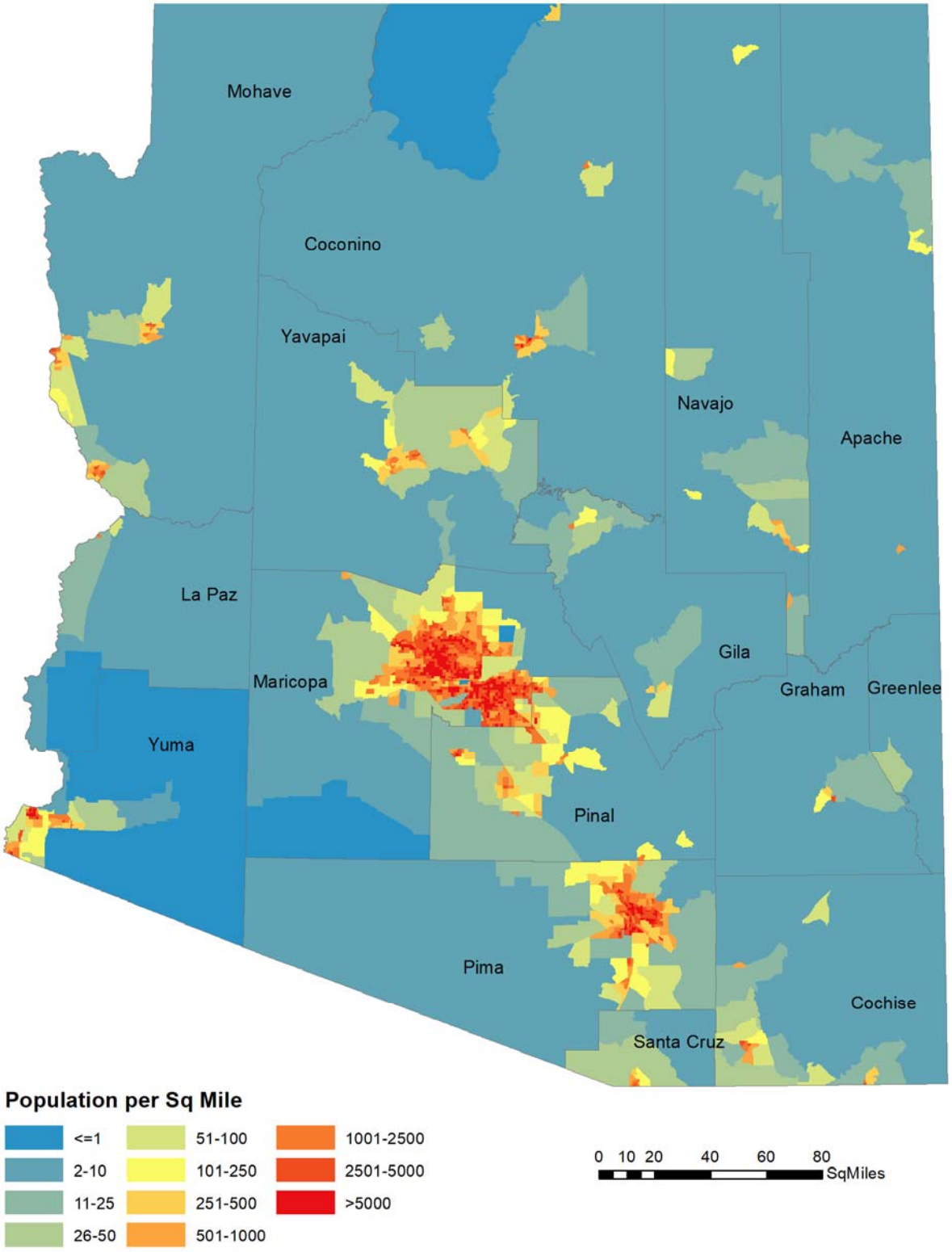
City	Number	Percent
Pinon	1	0.0%
Polacca	1	0.0%
Prescott	74	1.7%
Prescott Valley	19	0.4%
Quartzsite	1	0.0%
Queen Creek	7	0.1%
Queen Valley	1	0.0%
Sacaton	5	0.1%
Safford	4	0.0%
Sahuarita	5	0.1%
Saint Johns	1	0.0%
San Carlos	3	0.0%
San Luis	10	0.2%
San Tan Valley	1	0.0%
Scottsdale	340	7.9%
Sedona	8	0.1%
Sells	15	0.3%
Show Low	10	0.2%
Sierra Vista	48	1.1%

City	Number	Percent
South Tucson	1	0.0%
Sun City	122	2.8%
Sun City West	65	1.5%
Surprise	56	1.3%
Teec Nos Pos	1	0.0%
Tempe	95	2.2%
Tolleson	4	0.0%
Tuba City	1	0.0%
Tubac	1	0.0%
Tucson	591	13.8%
Village Of Oak Creek	9	0.2%
Whiteriver	1	0.0%
Wickenburg	5	0.1%
Winkelman	1	0.0%
Winslow	11	0.2%
Youngtown	34	0.7%
Yuma	58	1.3%
Total	4,278	100.0%

Source: ABON data, 2013-2016.

Note: There were 393 LPNs with missing address information and unable to determine the city.

Appendix B: Arizona Population Density Map



Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates.

Appendix C: Physician Survey Instrument, April 2015-Present

Since 1991, the Arizona Physician Survey has, with the cooperation of physicians, their licensing boards and their professional associations, collected important information on the physician workforce. The current survey focuses on the use of medical records that are electronic (often called electronic medical records (EMRs) or electronic health records (EHRs). Your participation is encouraged by the ***Arizona Medical Association*** and the ***Arizona Osteopathic Medical Association***. The survey includes an opportunity for you to express your opinions on the benefits and limitations of EMRs. Your answers are confidential and results are published only in aggregate form.

1. Which one of the following **best** describes your employment status? **(check one)**

a) Actively employed in Arizona in direct patient care ☐ *{if checked ask:}*
   i. I usually treat _____patients in a typical work week.
   ii. I usually work _____hours/day, _____days/week, and _____weeks/year.

b) Provide telemedicine services to Arizona patients ☐

c) Actively employed in Arizona but not in direct patient care ☐

d) Actively employed outside of Arizona ☐ *{if checked skip to separate survey questions for out of state physicians}*

e) Retired/ Semi-retired/on leave ☐ *{if checked go to end fill all intermediate questions with DNA}*

2. Have you joined a different organization since your last licensing application?
☐ Yes ☐ No *{if yes, go to 3}*

3. Which one of the following **best** describes the organization in which you practice

a) ☐A physician owned solo practice *{if checked, skip to 4 d);*

b) ☐A physician owned group practice
   i. Approximately how many physicians are associated with this organization? [check one]
      i. 2-5 physicians ☐
      ii. 6-50 physicians ☐
      iii. 51-94 physicians ☐
      iv. 95 or more physicians ☐

c) ☐A hospital or medical school physician group practice ☐
   i. Approximately how many physicians are associated with this organization? [check one]
      i. 2-5 physicians ☐
      ii. 6-50 physicians ☐
      iii. 51-94 physician ☐
      iv. 95 or more physicians ☐

d) ☐A community or rural health center(e.g. federally qualified CHC) ☐

i. Approximately how many physicians are associated with this organization? [check one]
   i. 2-5 physicians ☐
   ii. 6-50 physicians ☐
   iii. 51-94 physician ☐
   iv. 95 or more physicians ☐

e) ☐ Private Outpatient Facility not part of a hospital system (e.g. Urgent Care center, insurer owned clinic, etc.)
   i. Approximately how many physicians are associated with this organization? [check one]
      i. 2-5 physicians ☐
      ii. 6-50 physicians ☐
      iii. 51-94 physician ☐
      iv. 95 or more physicians ☐

{*if 3f or 3g or 3h or 3i or 3j checked, then check 4a) and ask 6}*

f) ☐ Federal Government hospital or clinic (e.g. VA, IHS)
g) ☐ City, State or County clinic or hospital
h) ☐ Private For Profit Hospital system
i) ☐ Private Not for Profit Hospital System
j) ☐ Public or private health Insurer, pharmaceutical company or other health related organization that does **not** provide care. ☐ Medical school ,university, research center
k) ☐ Independent Consultant
l) ☐ Public Health Agency or Department *{if checked then check 4 a) & skip to 17; auto code intermediate questions as DNA}*
m) ☐ Other_____

4. Which of the following **best** describes your primary role in the organization in which you practice? **Please Check Only One Box**
   a) ☐ Employee/contractor/locum tenens
   b) ☐ Faculty
   c) ☐ Student (include residents, fellows etc.)
   d) ☐ Owner , partner, partner, part-owner *{if checked then ask}*

5. Are you the person who decides or would decide to purchase or replace an EMR/EHR system?
   a) ☐ Sole decision maker
   b) ☐ Shared decision
   c) ☐ Decided by others

6. How does the organization in which you practice store its medical records**? (Please answer Yes or No to <u>each part</u> a, b, c)**
   a) Paper ☐ Yes ☐ No

b) Scanned images of paper records ☐ Yes ☐ No

c) Electronic files (an electronic version of a patient's medical history, including progress notes, diagnosis, medications and other information used in treatment.)
☐ Yes ☐ No

{*if 6 c) checked no, skip to 11; code 6 c) i, ii, iii, iv, v and 7 (all parts) and 8 (all parts) as DNA; if yes, continue}*

i. What is the name of your current EMR/EHR system **Please check only one box**

1. ☐ ADP AdvancedMD
2. ☐ ALERT
3. ☐ Allscripts
4. ☐ AltaPoint
5. ☐ Amazing Charts
6. ☐ Aprima
7. ☐ Artemis/digiChart
8. ☐ Athena Health
9. ☐ Avatar
10. ☐ Cerner
11. ☐ Chart Logic
12. ☐ Chart Source
13. ☐ ClaimTrak
14. ☐ eClinicalWorks
15. ☐ Empower
16. ☐ Epic
17. ☐ eMDs
18. ☐ GE Centricity
19. ☐ Glo Stream
20. ☐ gMed/gGastro
21. ☐ Greenway Medical
22. ☐ HealthPort
23. ☐ MacPractice
24. ☐ McKesson
25. ☐ Medhost/HMS HealthTech/ PatientLogic
26. ☐ Meditech
27. ☐ NextGen
28. ☐ Noteworthy
29. ☐ Office Ally
30. ☐ Office Practice
31. ☐ Optum/CareTracker
32. ☐ Picis
33. ☐ Practice Fusion
34. ☐ Sage
35. ☐ SOAP ware
36. ☐ Sunrise
37. ☐ Other_____ (**please insert name**)
38. ☐ Don't Know

ii. On a scale of 1 (awful) to 5 (outstanding), how would you rate your EMR/EHR system in terms of:

a. Ease of use	☐1	☐2	☐3	☐4	☐5
b. Effect on your productivity	☐1	☐2	☐3	☐4	☐5
c. Effect on staff productivity	☐1	☐2	☐3	☐4	☐5
d. Effect on patient satisfaction	☐1	☐2	☐3	☐4	☐5
e. Reliability	☐1	☐2	☐3	☐4	☐5
f. Performance versus vendor's promises	☐1	☐2	☐3	☐4	☐5

iii. Do you have a scribe enter the data while you examine and communicate with the patient? ☐ Yes ☐ No

iv. In approximately what year did you first use your current electronic medical record?

☐Before 2005	☐2009	☐2013
☐2006	☐2010	☐2014
☐2007	☐2011	
☐2008	☐2012	

1. Was this a replacement for a different brand of electronic medical record? ☐ Yes {go to a} ☐ No ☐ Don't Know

7. Does your EMR/EHR system include the following functions? **(CHECK ALL THAT APPLY)**

Functions	**7 a) Is the Function Included in the EMR?**	**7 b) Do You Use the Function?**	**7 c) Do you exchange this information using your EMR/EHR to organizations outside your practice or the hospital system in which you practice?"**
i. Patient Care Summary	☐Yes ☐No ☐ Don't Know *{If ne yes set 7 b)i and 7 c) i equal No; then go to 7 a) ii else continue}*	☐ Yes ☐ No *{if No set 7 c) i to no and go to 7 a) ii}*	☐Yes ☐No ☐Don't Know *{if ne yes, go to 7 a) ii f yes then ask*: *A Health Information Exchange (HIE) an organization that provides for the electronic exchange of health information according to nationally recognized standards}* 7 c)-1: I exchange the information by ☐ email ☐ a health information exchange Other _____
ii.Prescriptions (e-prescribing)	☐ Yes ☐ No ☐ Don't Know *{If ne yes set 7 b)ii and 7 c) ii equal No then go to 7 a) iii else continue* }	☐ Yes ☐ No *{if No set 7 c) ii to no and go to 7 a) iii}*	☐Yes ☐No ☐Don't Know *{if ne yes, go to 7 a) iii if yes then ask* : *A Health Information Exchange (HIE) an organization that provides for the electronic exchange of health information according to nationally recognized standards}* 7 c)-2: I exchange the information by ☐ email ☐ a health information exchange Other _____
iii. Lab Test Results	☐Yes ☐No ☐ Don't Know *{If ne yes set 7 b)iii and 7 c) iii equal No; then go*	☐ Yes ☐ No *{if No set 7 c) iii to no and go to 7 a) iv}*	☐Yes ☐No ☐Don't Know *{if ne yes, go to 7 a) iv. if yes then ask* : *A Health Information Exchange (HIE) an organization that provides for the*

	to 7a) iv else continue }		*electronic exchange of health information according to nationally recognized standards}* 7 c)-3: I exchange the information by ☐ email ☐ a health information exchange Other _____
iv. Reminders for Guideline Based Interventions	☐Yes ☐No ☐ Don't Know *{If ne yes set 7 b)ii and 7 c) iv equal No then go to 7 a) v else continue }*	☐ Yes ☐ No *{if No set 7 c) iv to no and go to 7 a) v}*	☐Yes ☐No ☐Don't Know *{if ne yes, go to 7a) v. if yes then ask*: *A Health Information Exchange (HIE) an organization that provides for the electronic exchange of health information according to nationally recognized standards }* 7 c)-4 : I exchange the information by ☐ email ☐ a health information exchange Other _____
v. Public Health Reports: immunizations, notifiable diseases	☐Yes ☐No ☐ Don't Know *{If ne yes set 7 b)v and 7 c) v equal No; then go to 8 else continue }*	☐ Yes ☐ No *{if No set 7 c) v to no and go to 8}*	☐Yes ☐No ☐Don't Know *{if ne yes, go to 8 if yes then ask*: *A Health Information Exchange (HIE) an organization that provides for the electronic exchange of health information according to nationally recognized standards}* 7 c)-5: I exchange the information by ☐ email ☐ a health information exchange Other _____

8. In your opinion, what are the most important obstacles to exchanging clinical information with other health care providers electronically (not fax)? (check all that apply)

a) ☐ Lack of a health information exchange
b) ☐ Concerns with maintaining patient confidentiality
c) ☐ Lack of technological support for problems
d) ☐ Cost
e) ☐ Other_____

☐ No

{Note: the next question is the first question to be answered by physicians without EMRs after they answer question #6)

9. Does the organization in which you practice plan to install an EMR/EHR system?

a) ☐ No *{go to 15}*

b) ☐ Yes, in the next:

i. ☐6 months ☐7-12 months ☐more than 12 months ☐Don't know the timing

c) What systems are you considering (check all that apply)?

1. ☐ ADP AdvancedMD
2. ☐ ALERT
3. ☐ Allscripts
4. ☐ AltaPoint
5. ☐ Amazing Charts
6. ☐ Aprima
7. ☐ Artemis/digiChart
8. ☐ Athena Health
9. ☐ Avatar
10. ☐ Cerner
11. ☐ Chart Logic
12. ☐ Chart Source
13. ☐ ClaimTrak
14. ☐ eClinicalWorks
15. ☐ Empower
16. ☐ Epic
17. ☐ eMDs
18. ☐ GE Centricity
19. ☐ Glo Stream
20. ☐ gMed/gGastro
21. ☐ Greenway Medical
22. ☐ HealthPort
23. ☐ MacPractice
24. ☐ McKesson
25. ☐ Medhost/HMS HealthTech/ PatientLogic
26. ☐ Meditech
27. ☐ NextGen
28. ☐ Noteworthy
29. ☐ Office Ally
30. ☐ Office Practice
31. ☐ Optum/CareTracker
32. ☐ Picis
33. ☐ Practice Fusion
34. ☐ Sage
35. ☐ SOAP ware
36. ☐ Sunrise
37. ☐ Other_____ (**please insert name**)
38. ☐ Don't Know

10. Which of the following factors influenced your practice's decision to acquire an EHR? **Check all that apply**.

a) ☐ Lower costs for implementation
b) ☐ Medicare based incentives
c) ☐ Medicaid based incentives
d) ☐Clear direction on market leading vendors
e) ☐ Easily customizable systems to fit our needs
f) ☐ Cost effective access to EMR training
g) ☐ Ease of integration with our legacy systems
h) ☐ Low learning curve
i) ☐ Agreed upon and published industry standards for EMRs
j) ☐ Confidence in security and privacy of the system
k) ☐ Access to technical resources to support the system
l) ☐ Other (please specify) _____

11. In what ways do you use information from **EMRs**?

a. ☐ Population health management {if checked ask i)
   i. Do you have a separate vendor for population management
b. ☐ Tracking contagious diseases/infections
c. ☐ Outreach to patients based on analysis of EMR data

d. ☐ Evaluating appropriate utilization of care
e. ☐ Analyzing costs or cost effectiveness of care
f. ☐ Post market analysis of side effects of pharmaceuticals
g. ☐ Other_____

12. In what ways do you use information from **Claims Data**?

h. ☐ Population health management
i. ☐ Tracking contagious diseases/infections
j. ☐ Outreach to patients based on analysis of claims data
k. ☐ Evaluating appropriate utilization of care
l. ☐ Analyzing costs or cost effectiveness of care
m. ☐ Post market analysis of side effects of pharmaceuticals
n. ☐ Other_____

13. Please enter any comments that you would like to contribute.

Thank you very much for helping to create an accurate description of how practicing physicians use and rank electronic medical records.

THIS SECTION APPLIES TO PHYSICIANS WITH AZ LICENSES WHO DO NOT PRACTICE IN AZ

{Variable names should indicate that they apply to out of state physicians}

1. When did you leave Arizona?
   a. ☐ I left Arizona in _____,(year) or
   b. ☐ I have never practiced in Arizona

2. I serve patients in multiple states ☐Yes (if yes, check all that apply) ☐No (go to 3)
   a. ☐Telemedicine
   b. ☐Travel among states at different times of year
   c. The states in which I serve patients
      i. ☐include Arizona
      ii. ☐ do not include Arizona

3. Please rate the importance of *each of the following* as an influence on your choice to practice in your current country/state/territory rather than Arizona

		Important	Not Important	Not Applicable
a.	☐ To be Closer to Family/Friends……..	☐	☐	☐
b.	☐ Better Elementary/Secondary Schools	☐	☐	☐
c.	☐ Better Climate	☐	☐	☐
d.	☐ Better salary/compensation/career opportunity	☐	☐	☐
e.	☐ Unable to find a position in my field in Arizona	☐	☐	☐
f.	☐ Lower Medical Malpractice Premiums	☐	☐	☐
g.	☐ Career Opportunity for Spouse/Partner	☐	☐	☐
h.	☐ Better Lifestyle	☐	☐	☐
i.	☐ Better Political Climate	☐	☐	☐
j.	☐ Transferred by the Military	☐	☐	☐
k.	☐ To continue training (residency, fellowship)	☐	☐	☐
l.	☐ To Practice near my Residency location	☐	☐	☐
m.	☐ Availability of Part-time Positions/Locum Tenens	☐	☐	☐
n.	☐ Fulfill loan repayment obligation	☐	☐	☐

   o. If other important factor,

      specify_____

4. Which of the influences that you checked in #3 was the most important reason for practicing outside of Arizona? (please check only one)

   a. ☐ To be Closer to Family/Friends
   b. ☐ . Better Elementary/Secondary Schools
   c. ☐ . Better Climate
   d. ☐ . Better salary/compensation/career opportunity
   e. ☐ Unable to find a position in my field in Arizona
   f. ☐ . Lower Medical Malpractice Premiums
   g. ☐ . Career Opportunity for Spouse/Partner
   h. ☐ . Better Lifestyle
   i. ☐ . Better Political Climate
   j. ☐ . Transferred by the Military
   k. ☐ . To continue training (residency, fellowship)
   l. ☐ . To Practice near my Residency location
   m. ☐ . Availability of Part-time Positions/Locum Tenens
   n. ☐ . Fulfill loan repayment obligation
   o. ☐ Other important factor

5. Are you planning to return to practice in Arizona?
   a. ☐ Definitely yes
      i. When do you plan to return?
         1. ☐ Upon completion of postgraduate training
         2. ☐ In the next 5 years.
         3. ☐ Other(SPECIFY)_____
   b. ☐ Maybe
   c. ☐ Definitely no

6. In your opinion, what changes would make Arizona more attractive to physicians as a place in which to practice?

_____

Appendix D: RN Renewal Form

ARIZONA STATE BOARD OF NURSING
Renewal Application for Registered Nurse/Practical Nurse
License & Advanced Practice Certification

For Office Use Only

[redacted]

* DESIGNATES REQUIRED FIELDS - PRINT CLEARLY IN ALL CAPITAL LETTERS

* RENEWAL DUE DATE ☐☐ / ☐☐ / ☐☐☐☐

* RN/LPN LICENSE NUMBER (Example: RN012345 or LP012345) ☐☐☐☐☐☐☐☐☐☐

AP/CRNA CERTIFICATE AP ☐☐☐☐ CRNA ☐☐☐☐

* FEE $ ☐☐☐

STATUS/LICENSE APPLICATION

☐ **RENEWAL** For all renewals submitted before the renewal due date or within the 30 days following the due date, renewal fee is $160. If you are submitting an application more than 30 days after your renewal due date and worked on an Arizona license beyond those 30 days, a late fee is required. See the Late/Invalid License Questionnaire (page 3) for an explanation of the late fees. If you have not worked on your AZ license at any time more than 30 days after the due date, no late fee is due.

☐ **RENEWAL PENDING REFRESHER COURSE COMPLETION** If one of the three practice requirement options are not met (see question 8) complete a refresher course in order to renew. In addition to the renewal application and fee, submit proof of payment for the Board approved refresher course and an application for temporary license.

☐ **REACTIVATION OF INACTIVE LICENSE** If applying for reactivation within 4 years of your last renewal or original issue date, no fee applies. If it has been 4 years or more since your last license was issued, you will need to renew.

INACTIVE OR RETIRED STATUS Complete the one-page Inactive Status Application or Retired Nurse Application, both of which can be found on our website, www.azbn.gov under Download Applications. A license can also be inactivated online via My Services.

* 1. DEMOGRAPHICS

* Applicant's Legal First Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Middle Initial ☐

* Applicant's Legal Last Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

* SSN ☐☐☐ - ☐☐ - ☐☐☐☐ * Date of Birth ☐☐ / ☐☐ / ☐☐☐☐

* Birth City ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

* Birth State/Province ☐☐ * Birth Country (Example: USA) ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Gender
☐ Female
☐ Male

Marital Status
☐ Never Married ☐ Divorced
☐ Married ☐ Widowed
☐ Separated

Ethnicity
☐ Black - Not of Hispanic Origin ☐ Hispanic
☐ White - Not of Hispanic Origin ☐ Multi Racial
☐ Asian/Pacific Islander ☐ Other
☐ American Indian/Alaskan

2. APPLICATION FOR NAME CHANGE

Do you have a new name? ☐ No ☐ Yes - Write in your new name **(Documentation is required. See instructions.)**

* First Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Middle Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

* Last Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

[redacted] RNRA [redacted]

*** Is there a change of mailing address?** ☐ Yes ☐ No

If yes, address changes are required to be submitted to the Board within 30 days. If it has been more than 30 days since you relocated and you have not submitted a change of address to the Board, include a $25 address change fee.

*** 3. PRIMARY STATE OF RESIDENCE** (This declares that the state listed below is the primary state of residence. The primary state of residence reflects where you vote, pay federal taxes or obtain a drivers license.)

* Street Address Line 1

Street Address Line 2

* City

* State/Province * Zip Code

* County (Example: Maricopa)

* Country (Example: USA)

4. MAILING ADDRESS (If different than primary state of residence)

* Street Address Line 1

Street Address Line 2

* City

* State/Province * Zip Code

* County (Example: Maricopa)

* Country (Example: USA)

*** 5. CONTACT INFORMATION** (Either a home or cell phone number is required)

* Home Phone Number ( ) -

* Cell Phone Number ( ) -

E-Mail Address

Please print e-mail address clearly. E-mail address is used for notification of renewal dates and pertinent Board related information. E-mail address is not shared, sold, or otherwise disseminated by the Arizona State Board of Nursing. E-mail address should be kept up to date at www.azbn.gov/myservices.

*** 6. LIST ALL OTHER STATES IN WHICH THERE IS AN ACTIVE LICENSE TO PRACTICE AS AN RN/LPN**

*** 7. LIST ALL STATES WHERE CURRENTLY PRACTICING NURSING, WHETHER PHYSICALLY OR ELECTRONICALLY**

[redacted] RNRB [redacted]

*** 8. PRACTICE REQUIREMENTS**

Indicate the practice requirement met for license renewal. One option must be marked to be eligible for renewal. The practice requirement must have been met within the previous 5 years. The five years are calculated from the application received date (for example if the application is received on 3/31/2010, the five year time period begins 3/31/2005). If one of these practice requirements is not met, you are not eligible for license renewal and will either need to inactivate your license or complete a Board approved refresher program. Arizona does not accept CEU hours for renewal.

☐ a) I have practiced as a nurse for 960 hours or more in the past 5 years (you MUST document employment in question 9) OR

☐ b) I have completed an Arizona Board approved refresher course or graduated from a nursing program in the last 5 years (mark this option if currently enrolled in a refresher course) OR

☐ c) I have obtained an additional nursing degree (RN to BSN, Masters or Doctorate) or advanced practice certificate in the past 5 years.

*** 9. NURSING EMPLOYMENT** (Required if option "a" is checked in question 8)

List current or most recent employment in nursing. If 960 hours or more were not practiced in the employment below, add a separate sheet of paper listing additional/previous nursing employment. All information in the fields below will be required for additional employment on the separate sheet. If you are a private duty nurse or are submitting volunteer hours to meet the 960 hour requirement, include a description of the nursing knowledge used or duties performed on a separate sheet.

* Employer Name

* Street Address Line 1

Street Address Line 2

* City

* State/Province * Zip Code

* Start Date / /

End Date (Leave Blank if Current) / /

* Title

* Phone Number ( ) -

* Total Hours Worked at this Employer

PRN/Pool/Registry
☐ Yes
☐ No

* Employment
☐ Full Time
☐ Part Time

* Does this meet 960 hours?
☐ Yes
☐ No - Add separate sheet listing additional/previous nursing employment

10. CHECK ONE BOX THAT BEST DESCRIBES YOUR CURRENT EMPLOYMENT STATUS

Note: Any position that requires an active nursing license is considered to be a position in nursing. Direct patient care is not a requirement.

☐ Actively employed in a paid position in nursing
☐ Actively employed, but not in nursing or in healthcare
☐ Unemployed and seeking work as a nurse
☐ Unemployed but not seeking employment of any type
☐ Working in nursing but ONLY as a volunteer
☐ Actively employed in a paid position in healthcare but not in nursing
☐ Unemployed and seeking work outside of nursing
☐ Retired/Disabled/No plans to return to work

11. DOES YOUR POSITION INVOLVE PROVIDING DIRECT CARE SERVICES TO PATIENTS/CLIENTS/FAMILIES?

☐ Yes ☐ No

[redacted] RNRC [redacted]

12. COLLEGE OR UNIVERSITY FOR HIGHEST DEGREE OBTAINED SINCE LAST RENEWAL

* School Name
* City
* State/Province * Zip Code
* Country (Example: USA)
* Graduation Month/Year /

* Degree
- ☐ Licensed Practical Nurse
- ☐ RN Diploma
- ☐ RN Associates
- ☐ Bachelors in Nursing
- ☐ Masters in Nursing
- ☐ Doctorate in Nursing
- ☐ Bachelors Other Field
- ☐ Associates Other Field
- ☐ Masters Other Field
- ☐ Doctoral Other Field

13. CERTIFICATION If applicable list any current national certification in nursing that you hold (not including CPR).

* Specialty/Category
* Certification Body
* Certification Date / * Expiration Date /

14. SINCE YOUR LAST RENEWAL, CHECK ALL DEGREES OBTAINED AND WRITE THE MONTH AND YEAR OF GRADUATION

TYPE OF PROGRAM	MM	YYYY
☐ RN Diploma, Nursing	/	
☐ Associate Degree, Nursing	/	
☐ Associate Degree, Other	/	
☐ Baccalaureate Degree, Nursing	/	
☐ Baccalaureate Degree, Other	/	

TYPE OF PROGRAM	MM	YYYY
☐ Masters Degree, Nursing	/	
☐ Masters Degree, Other	/	
☐ Doctoral Degree, Nursing	/	
☐ Doctoral Degree, Other	/	

15. ESTIMATE THE TIME WORKED DURING THE PAST YEAR

Number of hours worked as a nurse in a typical week (do not count on call hours): ☐ >41 ☐ 36-40 ☐ 24-35 ☐ 13-23 ☐ 1-12 ☐ 0

Approximate number of weeks worked per month: ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1

Approximate number of months worked: ☐ 10-12 ☐ 7-9 ☐ 4-6 ☐ 1-3 ☐ <1

[redacted] **RNRD** [redacted]

16. WHICH SETTING DO YOU PRACTICE THE MOST HOURS PER WEEK IN A TYPICAL WEEK? (Check One)

- ☐ Hospital
- ☐ Ambulatory Care
- ☐ Public/Community Health
- ☐ Occupational Health
- ☐ Insurance Company
- ☐ Long Term Care
- ☐ Home Health Care
- ☐ Nursing Education
- ☐ School Health
- ☐ Other

17. WHICH NURSING ROLE DO YOU PRACTICE THE MOST HOURS PER WEEK IN A TYPICAL WEEK? (Check One)

- ☐ Quality Assurance, Infection Control
- ☐ Discharge Planner, Case Manager
- ☐ Educator (School or In-Service Education)
- ☐ Nurse Practitioner, Certified Nurse Midwife, Clinical Nurse Specialist, Nurse Anesthetist
- ☐ Utilization Review, Outcomes Management, Other Insurance Related Role
- ☐ Facility or Nursing Department Administrator/Supervisor
- ☐ Staff/general duty nurse/team leader/charge nurse
- ☐ Researcher, Consultant
- ☐ Nurse Manager or Head Nurse
- ☐ Other

18. MAJOR CLINICAL OR TEACHING AREA IN NURSING (Check One)

- ☐ Generalized Community Health (Public Health)
- ☐ Obstetric/Gynecological
- ☐ Pediatric
- ☐ Geriatric
- ☐ Medical Surgical
- ☐ Special Care (e.g. OR, ER, ICU, CCU)
- ☐ Psychiatric/Mental Health
- ☐ Telehealth
- ☐ Information
- ☐ Other

Continue to next page

PLEASE KEEP THIS PAGE WITH THE APPLICATION

19. PROCEED TO THE NEXT PAGE UNLESS YOU ARE A CERTIFIED NP/CNS/CNM/CRNA.

Check the practice hour requirement that you meet for certification. At least ONE option must be marked to be eligible for continued certification.

A. ☐ I have completed an advance practice nursing education program within the past 5 years.

B. ☐ I have practiced as an APRN in my category and specialty area of AZ Board certification for a minimum of 960 hours within the past 5 years.

C. ☐ I have current national certification in my category and specialty area of AZ Board certification. (Required for all initial certifications after 7/1/2004)

i. Date you received National Certification:

☐☐ / ☐☐ / ☐☐☐☐

ii. Certification Board:

iii. Specialty area:

iv. Expiration Date.

☐☐ / ☐☐ / ☐☐☐☐

NOTES: 1. If this option is marked, certification renewal is contingent upon the Board receiving official verification of certification, including initial and expiration dates and category/specialty, which must be provided directly to the Board by the credentialing agency. Online verification directly from the agency is acceptable.

2. Exemptions from National Certifications: If initial NP/CNM certification was issued before 7/1/04 in AZ or another jurisdiction **OR** if your CNS certification was granted by waiver, (i.e. your initial CNS application was received between 11/05 and 11/06) **AND** you do not hold national certification , you must meet options A, B, or D.

D. ☐ The practice requirements of option A, B, or C are not met as specified in the Nurse Practice Act, R4-19-506 (C) (2).

NOTE: Submit all evidence of completion of coursework and precepted clinical practice for review.

If the requirements above (A-D) are not met, inactivate the A.P. certificate until one of these requirements is met. Evidence of completion must be submitted to reactivate your certificate.

E. ☐ Inactivate my Advanced Practice certification.

*** 20. CITIZENSHIP OR NATIONAL STATUS DECLARATION**

Are you a citizen of the United States? ☐ No ☐ Yes

If yes, submit with your application a legible xeroxed copy of your proof of citizenship document. Most often submitted is a photocopy of a birth certificate or US passport. If you submit a copy of a birth certificate, please include copy of photo I.D. Social security cards are not accepted. To see a list of other accepted documents, visit www.azbn.gov/applications.aspx and click on 'Citizenship and or Lawful Presence Cover Sheet/Alien Status Declaration/Lists A & B'. If you have already submitted a proof of citizenship/nationality document after 1/1/08 you will not need to submit the document again.

Type of document you are submitting (i.e. passport, birth certificate) _____ ☐ Already Submitted

Expiration Date, if any (mm/dd/yyyy) ____/____/____

If you are a citizen or national of the United States, go directly to Question 22. If you are not a citizen or national of the United States, complete question 21.

OR

*** 21. ALIEN STATUS DECLARATION**

To be completed by applicants who are not citizens or nationals of the United States. Please indicate alien status by checking the appropriate box. Submit a legible xeroxed copy of the front and back of a document from List B with your application. See List B on our website by visiting www.azbn.gov/applications.aspx and clicking on 'Citizenship and or Lawful Presence Cover Sheet/Alien Status Declaration/Lists A & B'.

"Qualified Alien" Status

☐ A. An alien lawfully admitted for permanent residence under the Immigration and Nationality Act (INA).

☐ B. An alien who is granted asylum under Section 208 of the INA.

☐ C. A refugee admitted to the United States under Section 207 of the INA.

☐ D. An alien paroled into the United States for at least one year under Section 212(d)(5) of the INA.

☐ E. An alien whose deportation is being withheld under section 243(h) of the INA.

☐ F. An alien granted conditional entry under Section 203(a) (7) of the INA as in effect prior to April1,1980.

☐ G. An alien who is a Cuban and Haitian entrant (as defined in section 501(e) of the Refugee Education Assistance Act of 1980).

☐ H. An alien who has, or whose child or child's parent has, been declared a "battered alien" or an alien subjected to extreme cruelty in the United States.

Nonimmigrant Status (8 U.S.C § 1621(a) (2))

☐ I. A nonimmigrant under the Immigration and Nationality Act [8 U.S.C § 1101 et seq.] Nonimmigrants are persons who have temporary status for a specific purpose. See 8 U.S.C § 1101(a) (15).

Alien paroled into the United States for less than one year (8 U.S.C § 1621(a) (3))

☐ J. An alien paroled into the United States for less than one year under Section 212(d) (5) of the INA.

Other Person (8 U.S.C § 1621 (c) (2) (A) and (C))

☐ K. A nonimmigrant whose visa for entry is related to employment in the United States

☐ L. A citizen of a freely associated state, if section 141 of the applicable compact of free association approved in Public Law 99-239 or 99-658 (or a successor provision) is in effect [Freely Associated States include the Republic of the Marshall Islands, Republic of Palau and the Federate States of Micronesia, 49 U.S.C § 1901 et seq.];

☐ M. A foreign national not physically present in the United States.

Otherwise Lawfully Present (A.R.S. § 1-501)

☐ N. A person not described in categories A-M who is otherwise lawfully present in the United States. **PLEASE NOTE: The federal Personal Responsibility and Work Opportunity Reconciliation Act may make persons who fall into this category ineligible for licensure.**

To establish alien status, **submit with your application a legible xeroxed copy of one of the documents from List B.**

Type of document you are submitting _____

Expiration Date, if any (mm/dd/yyyy) ____/____/____

[redacted] RNRG [redacted]

*** 22. APPLICATION QUESTIONS (must complete and sign before submitting)**

i. Have you, since your certificate was granted or since your last renewal, whichever is later:

A. Been convicted, entered a plea of guilty, no lo contender or no contest, been sentenced or served time in jail for any **felony or undesignated offense**?

B. Had prosecution deferred or probation deferred in any **felony or undesignated offense**?

C. Had a **felony or undesignated offense** pardoned, expunged, dismissed, deferred, reclassified or redesignated?

☐ No ☐ Yes If yes, provide a detailed **written explanation** of the details of each arrest conviction and sentence. Return the written explanation, a copy of the police report and court documents for each arrest conviction indicating type of conviction, conviction date, and sentence including the date of absolute discharge of the sentence for each **felony or undesignated offense** conviction.

If yes, has this previously been reported to the Arizona Board of Nursing? ☐ No ☐ Yes

ii. Are you currently participating in a state board/designee monitoring program in a state **other than Arizona** including alternative to discipline, diversion, or a peer assistant program?

☐ No ☐ Yes If yes, include a detailed **written explanation** and a copy of the documentation with your application.

iii. Have you ever been terminated from an alternative to discipline, diversion, or a peer assistance program due to unsuccessful completion?

☐ No ☐ Yes If yes, include a detailed **written explanation** and a copy of the documentation with your application.

iv. Since your last renewal, have you had any drug or alcohol related convictions?

☐ No ☐ Yes If yes, provide a detailed **written explanation** of the details of each arrest conviction and sentence. Return the written explanation and court documents for each conviction indicating type of conviction, conviction date, and sentence.

If yes, has this previously been reported to the Arizona Board of Nursing? ☐ No ☐ Yes

v. Since your last renewal, has disciplinary action or revocation been taken or is there currently a complaint, investigation, or disciplinary action pending against your CNA certificate or, any other health care or non health care related license or certification, in any state or territory of the United States? **(If your nursing license/CNA certificate is under investigation in Arizona only, do not mark yes.)**

☐ No ☐ Yes If yes, include a detailed **written explanation** and a copy of the documentation regarding the current investigation or pending disciplinary action with your application.

If yes, has this previously been reported to the Arizona Board of Nursing? ☐ No ☐ Yes

PLEASE BE ADVISED THAT FAILURE TO PROVIDE THE REQUESTED DOCUMENTS WILL DELAY THE PROCESSING OF YOUR APPLICATION

***VERIFICATION BY OATH OR AFFIRMATION OR DECLARATION**

The undersigned declares under penalty of perjury under the laws of Arizona, that he/she:

- Is the person referred to in the foregoing application;
- That the statements are true in every respect to the best of his/her knowledge;
- That he/she has not suppressed any information that would affect this application;
- That he/she will conform to ethical standards of conduct in the profession of nursing and obey the laws and rules of the Arizona Board of Nursing;
- That he/she has read and understands that failure to disclose the requested information or disclosure of false information or disclosure of misleading information may constitute fraud and may result in denial of licensure/certification or disciplinary action, up to and including revocation, taken against an issued license or certificate
- Failure to disclose the requested information or disclosure of false or misleading information may also result in criminal prosecution.

REMEMBER TO ENCLOSE A COPY OF CITIZENSHIP/LAWFUL PRESENCE DOCUMENTATION ON 8 ½ BY 11 PAPER WITH THE APPLICATION IF NOT PREVIOUSLY SUBMITTED.

Applicant's Signature **Date**

PLEASE NOTE:

Online Renewal- If renewing online and proof of citizenship/lawful presence documentation has already been received and processed by the Board, your license will be immediately renewed and verifiable via the license verification on our website (www.azbn.gov) within minutes, and the paper copy mailed to you within a week. You can renew online 24 hours a day, 7 days a week.

Paper Renewal- It may take up to 2 weeks to process your application before the license can be issued and verified, and another week for you to receive the paper copy. If this application is not postmarked by midnight on May 1st of your renewal year and you have been working on your Arizona license you will be required to pay a late fee. If you do not renew on or before August 1st, your license expires. If your application is not completely filled out or the fee is incorrect, it will be returned to you and further delay the renewal process.

Please staple all pages of the application together with documentation of citizenship/lawful presence and mail to: ARIZONA STATE BOARD OF NURSING
4747 N. 7TH STREET, SUITE 200
PHOENIX, AZ 85014-3655

[redacted] **RNRH** [redacted]