

# New Mexico Health Care Workforce Committee

**2019 ANNUAL REPORT** 

**OCTOBER 1, 2019** 



This publication was developed as a white manage to page the status of the New Mayion health care
This publication was developed as a white paper to report on the status of the New Mexico health care workforce during the period 1 January 2018 – 31 December 2018. Where appropriate for continuity and clarity, key language has been repeated or excerpted verbatim from prior years' reports. <sup>1–6</sup> For the purposes of attribution and authorship, the New Mexico Health Care Workforce Committee suggests the following citation:
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# From the Chair of the New Mexico Health Care Workforce Committee

The New Mexico Health Care Workforce Committee is pleased to provide its annual report to the Legislature regarding its analysis of the state's licensed health professionals and where they practice.

New Mexico has become a leader nationally in the compilation and dissemination of health care workforce data, owing to the Legislature's 2011 mandate that health professionals be surveyed during their re-licensure. Each year, staff members collate and analyze data provided by the health professional licensing boards. This informs the Committee's recommendations for measures to recruit and retain providers in the state's rural and underserved areas.

This year, we focus on the state's nursing workforce, including for the first time the demographics of registered nurses, in addition to certified nurse practitioners and clinical nurse specialists. We also discuss recent nursing workforce assessments by other state and national groups, and how these compare to the committee's analysis.

The report also includes our analysis of selected physicians – primary care physicians and specialists in obstetrics and gynecology, general surgery and psychiatry – and physician assistants, as well as these professions' demographics. We provide additional data on certified nurse-midwives, licensed midwives, dentists and emergency medical technicians.

As in past years, the committee offers recommendations for reducing workforce shortages. These are broad recommendations, intended to lay the groundwork for future initiatives, even if funding limitations prevent all of them from being fulfilled at this time.

We wish to commend the Legislature and the state for acting on many of our prior recommendations, and we present this report with our gratitude for your dedicated efforts to meet our state's ongoing challenges in making high-quality health care accessible for all New Mexicans.

Sincerely,

Richard S. Larson, MD, PhD

Chair, New Mexico Health Care Workforce Committee

Executive Vice Chancellor, University of New Mexico Health Sciences Center



# Summary of the 2019 Recommendations of the New Mexico Health Care Workforce Committee

For detailed descriptions of these recommendations, please see Section VI.

- Rec. 1 Provide \$6 million in recurring funding for tuition-free training for medical students at public institutions pledging to practice in New Mexico.
- Rec. 2 Double funding for New Mexico's Medical, Nursing and Allied Health Loan-for-Service Programs.
- Rec. 3 Increase line-item appropriations to New Mexico's community colleges for nursing program enhancement.
- Rec. 4 Continue to fund NMNEC by making the current funding of \$500,000 entirely recurring.
- Rec. 5 Fund RPSP for expansion of nursing education and targeted recruitment of Native American and rural students (\$199,671).
- Rec. 6 Fund RPSP for the freshman direct entry early assurance pre-licensure BSN program (\$428,271).
- Rec. 7 Fund RPSP for the expansion of physician assistant training (\$453,180).
- Rec. 8 Establish a tax credit for rural primary care provider and pharmacist preceptors who work with public institutions.
- Rec. 9 Increase Nurse Educator Loan-for-Service Program awards to \$12,000 per participant per year.
- Rec. 10 Fulfill the state's previous commitment to expansion of a remaining nine primary and secondary care residencies in New Mexico (\$1.1 million in recurring funding) and consider further residency expansion through state funding, Medicaid funds or other mechanisms.
- Rec. 11 Enact legislation for New Mexico's participation in PSYPACT, with recurring funding of \$6,000 for the cost of the compact.
- Rec. 12 Expand the rural health care tax credit to include pharmacists, social workers and counselors.
- Rec. 13 Direct the New Mexico Taxation and Revenue Department and Department of Health to examine the effectiveness of the rural health tax credit in recruiting and retaining providers in rural areas.
- Rec. 14 Enact memorial legislation creating a subcommittee under the New Mexico Health Care Workforce Committee to examine future health care workforce needs related to the state's changing demographics and changing makeup of health care teams.
- Rec. 15 Provide \$250,000 in recurring funding for the analytical, data management and administrative work undertaken by the New Mexico Health Care Workforce Committee.



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### Section I

### Introduction

### I.A. Background

The landmark passage in 2011 of the New Mexico Health Care Work Force Data Collection, Analysis and Policy Act ("the Act") positioned the state at the national forefront in its ability to collect and analyze health workforce data, as well as to bring this evidence to bear in health workforce planning.<sup>7</sup>

Under the Act, all health professional licensing boards are required to collect a core essential data set at the time of license issue and/or renewal. The Act further established the New Mexico Health Care Workforce Committee, a broad group of stakeholders who oversee analysis of these data and develop recommendations to the Legislature to improve access to health professionals for all New Mexicans. In 2012, the Act was amended to assign data stewardship and committee leadership to the University of New Mexico Health Sciences Center, benefitting these efforts toward statewide health workforce planning through the unique resources of the state's only academic health center.

This annual report is the committee's seventh since 2013. In the intervening years, analysis has expanded from six to 12 professions, and now regularly includes in-depth analyses of special interest topics such as the behavioral health or women's health workforce, workforce trends over time or, this year, the state's nursing workforce. Beyond this annual report, the New Mexico Health Care Workforce Committee conducts research on topics of interest both within the state and nationally, disseminated through research publications and conference presentations (see Appendix A for a full bibliography of the research works produced). Since publication of the October 1, 2018 annual report, the state's health care workforce data informed a conference presentation on part-time and full-time practice patterns among New Mexico's physician workforce and a conference poster comparing demographic and practice patterns among rural and metropolitan obstetrics and gynecology physicians.<sup>8,9</sup> Research products like these bring awareness nationally to New Mexico as a leader in this area, in addition to offering in-depth insights into the state's health care workforce needs.

### I.A.1 Overview of the 2019 Annual Report

Each year of data collection under the Act brings new breadth and depth, as established individuals complete new license renewal surveys and new providers complete their first surveys. This year, we are pleased to include a special focus section on the state's nursing workforce (Section II), including for the first time the demographics of registered nurses (RNs) in addition to certified nurse practitioners and clinical nurse specialists (CNPs/CNSs) (Section III.F). In addition, this report features discussion of recent nursing workforce assessments by other state and national groups, and how these compare to the committee's analysis (Section II.B). Section III includes our analysis of selected physicians – primary care physicians (PCPs) (Section III.B.1) and specialists in obstetrics and gynecology (OB-GYNs) (Section III.B.2), general surgery (Section III.B.3), or psychiatry (Section III.B.4) – and physician assistants (PAs) (Section III.C.1), as well as these professions' demographics (Section III.F). Section III also reports on other professions, including certified nurse-midwives (CNMs) (Section III.C.2), licensed midwives (LMs) (Section III.C.3), dentists (Section III.C.4) and emergency medical technicians (EMTs) (Section III.C.5). Our customary analysis of pharmacists, primary care advanced practice nurses and

primary care physician assistants will return in future years; these professions are undergoing survey transitions, discussed in Section III.D, and we will resume their analysis once the majority of providers have completed the improved surveys. We are grateful to the New Mexico Regulation and Licensing Department for their prompt correction of last year's survey issues, which has allowed us to resume our focus section on behavioral health (Section IV). As in past years, the report concludes with an overview of progress on prior years' recommendations (Section V) and our 2019 recommendations (Section VI).

### I.B. Methodology

This year's report is informed by eight full years of data collection and committee activities. As established under the Act, required surveys are completed at license renewal for all health care professionals licensed by the state, including medical, dental, nursing, behavioral and allied health professions. Each professional licensing board administers the surveys, which must include questions regarding demographics, practice status, education and training, practice activities, hours and weeks worked, acceptance of Medicare/Medicaid, near-future practice plans and the effects of changes in professional liability insurance on practice plans. Beyond this core essential data set, boards may choose to include survey items relevant to their profession.

In this report, we provide estimates of the health care workforce practicing in New Mexico during any part of calendar year 2018 in the following professions:

- 1. **Registered Nurses (RNs):** Includes all individuals licensed as RNs by the Board of Nursing, excluding those also licensed as certified nurse-midwives, certified nurse practitioners, clinical nurse specialists and/or certified registered nurse anesthetists (CRNAs).
- 2. **Certified Nurse Practitioners (CNPs) and Clinical Nurse Specialists (CNSs):** Includes CNPs and CNSs in practice areas other than behavioral health. Not included in this count are psychiatric CNPs and CNSs, CRNAs and certified nurse-midwives who are not also CNPs.
- 3. **Primary Care Physicians (PCPs):** Includes all medical doctors (MDs) and doctors of osteopathy (DOs) who specialize in family practice, family medicine, general practice, general pediatrics or general internal medicine.
- 4. **Obstetrics and Gynecology Physicians (OB-GYNs):** Includes all MDs and DOs who specialize in obstetrics and/or gynecology.
- 5. **General Surgeons:** Includes all MDs and DOs who specialize in general surgery.
- 6. **Psychiatrists:** Includes all MDs and DOs who specialize in psychiatry.
- 7. **Physician Assistants (PAs):** Includes all providers licensed as physician assistants by the Board of Medicine or Board of Osteopathy.
- 8. **Certified Nurse-Midwives (CNMs):** Includes all individuals licensed as CNMs by the Department of Health, whether CNM only or CNM and CNP.
- 9. **Licensed Midwives (LMs):** Includes all individuals licensed as LMs by the Department of Health.
- 10. **Dentists:** Includes all licensed dentists.
- 11. **Emergency Medical Technicians (EMTs):** Includes all individuals licensed as EMT-Basic, EMT-Intermediate or EMT-Paramedic.

### I.B.1. Practitioner Estimates

In order to produce an accurate and complete snapshot of New Mexico's health care workforce, the number of practitioners in each county were estimated by linking licensure data (name, date of birth, mailing address and credentials) with license renewal survey responses. By merging these two valuable data sets, we reduce the limitations inherent in either data set on its own.

Licensure data do not allow for precise estimates of practice location. Many health care providers maintain licensure in multiple states, and may choose to receive mail related to their licensure at an address other than where they practice, such as a residence or post office box. For example, of the 9,704 physicians with active New Mexico licenses during 2018, only 5,548 (57.2%) report practice addresses in New Mexico on the license renewal survey (Table 1.1).

Table 1.1. Number of Health Professionals with New Mexico Licenses Practicing in the State

Profession	Percent Practicing in NM, 2017	Total Licensed in NM	Estimated Total Practicing in NM	Percent Practicing in NM, 2018
RNs	67.0%	28,883	17,526	60.7%
CNPs/CNSs	67.5%	2,415	1,542	63.9%
All MDs/DOs	57.4%	9,704	5,548	57.2%
Primary Care Physicians	64.4%	3,365	2,162	64.2%
OB-GYN Physicians	66.5%	401	279	69.6%
General Surgeons	60.2%	300	188	62.7%
Psychiatrists	57.0%	578	317	54.8%
Physician Assistants	75.4%	1,107	805	72.7%
CNMs	95.2%	213	169	79.3%
Licensed Midwives	52.5%	78	40	51.3%
Dentists	76.0%	1,608	1,216	75.6%
EMTs	92.5%	7,358	6,501	88.4%

In addition, licensure data alone may overestimate practitioner counts for professions that maintain multiple levels of licensure. It is common for New Mexico's nurses, dentists and EMTs to carry several concurrent licenses, such as a CNP who is also an RN, but our analysis includes individuals only once at the highest level of licensure. The only exception is CNPs who are also CNMs; these levels of licensure are considered equal and these individuals are accordingly counted as both CNPs and CNMs.

Another potential source of overcounting is physician specialties. General internal medicine or pediatric physicians who subspecialize as cardiologists or endocrinologists do not practice as primary care physicians. Because the survey data distinguish between specialty and subspecialty, we are able to correctly allocate such individuals among the state's specialist physicians, rather than the primary care workforce.

Because the Act requires that practitioners be surveyed at renewal, survey data is not yet available for some individuals. Physicians (MDs and DOs), for example, are not surveyed upon initial licensure. After their initial license renewal, they are required to renew their licenses and complete surveys every three years. As a result, collecting survey responses across all physicians requires a full three-year cycle; it is important to note that practice changes such as reducing hours or moving counties will not be registered

until the physician next renews his or her license. At the time of this report, 82.7% of physicians licensed in New Mexico had completed a survey. The remaining portion comprises physicians who have not yet renewed their licensure, and thus have not yet had the opportunity to respond to the survey. Similar conditions prevail across all professions except EMTs and those professions licensed by the Board of Nursing, who are surveyed at initial licensure as well as license renewal.

With the exception of EMTs and the professions licensed by the Board of Nursing, who are surveyed at initial licensure as well as license renewal, county-level practitioner estimates have been adjusted to account for un-surveyed individuals. Practitioners who have completed a survey were allocated to practice locations by self-reported practice location ZIP codes; practitioners with blank, out-of-state or unrecognized ZIP codes were counted as practicing outside of New Mexico. For those practitioners who have not yet completed a survey, practice locations were estimated from license mailing address ZIP codes. For this limited subset of providers, using mailing address as a proxy for practice location is a reasonable approximation.

Additional methodology specific to individual professions is detailed under those professions in Sections II, III and IV. Appendix E shows the proportion surveyed for all licensed health professionals.

### I.B.2. Comparison to National Practitioner Benchmarks

For each profession included in this report, we compare the estimated number of health care providers working in each county with national benchmarks, either national averages or recommended provider-to-population ratios. This comparison allows both state-level comparisons to the national health care workforce and county-by-county assessments to identify counties or regions most in need of targeted recruitment and retention activities due to exceptionally low health care workforce. Maps for each profession illustrate each county's workforce in comparison to these national benchmarks.

Table 1.2. Practitioner-to-Population Benchmarks Used to Assess the New Mexico Health Care Workforce

Profession	National Benchmark	Benchmark per 10,000 Population
Registered Nurses <sup>1</sup>	8.64 per 1,000 population	86.4 per 10,000 population
Certified Nurse Practitioners and Clinical Nurse Specialists <sup>10</sup>	0.59 per 1,000 population	5.9 per 10,000 population
Primary Care Physicians <sup>11</sup>	0.79 per 1,000 population	7.9 per 10,000 population
Obstetrics and Gynecology Physicians <sup>12</sup>	2.1 per 10,000 female population	2.1 per 10,000 female population
General Surgeons <sup>13</sup> Critical Need Minimum Need Optimal Ratio	3.0 per 100,000 population 6.0 per 100,000 population 9.2 per 100,000 population	0.3 per 10,000 population 0.6 per 10,000 population 0.92 per 10,000 population
Psychiatrists <sup>14</sup>	1 per 6,500 population	1.54 per 10,000 population
Physician Assistants <sup>15</sup>	0.303 per 1,000 population	3.03 per 10,000 population
Certified Nurse-Midwives 16, a	7.05 per 100,000 female population	0.705 per 10,000 female population
Licensed Midwives <sup>17, a</sup>	1.7 per 100,000 female population	0.17 per 10,000 female population
Dentists <sup>18, a</sup>	1 per 2,500 population	4 per 10,000 population
Emergency Medical Technicians 19, a	28.7 per 10,000 population	28.7 per 10,000 population

See our 2017 Annual Report for additional detail on the calculation of these benchmarks from the listed source.<sup>5</sup>

Table 1.2 summarizes the national benchmarks used to assess New Mexico's health care workforce. County-level population estimates from the U.S. Census Bureau were used to calculate practitioner-to-population ratios for each county, and the number of providers necessary for the county to meet the benchmark.<sup>20</sup>

### I.B.3. Understanding the Data

There are many possible approaches to workforce analysis. The analysis undertaken by the New Mexico Health Care Workforce Committee for this annual report measures the workforce practicing in the state in comparison to national benchmarks, taking care to match the New Mexico providers we include to those included in the benchmark calculation. Other analyses might measure workforce supply (all licensed providers), workforce demand (as measured by job openings, population demographics or an ideal ratio of providers to population or hospital bed) or projected need. As a result, not all workforce studies are directly comparable. In order to make meaningful inferences regarding New Mexico's need for providers and to understand the data in this report in relation to other workforce publications, it is necessary for the reader to gauge whether two analyses are comparable as "apples to apples," that is, measuring the same things using the same methodology. Table 1.3 highlights common differences between the committee's analysis and other popular methods as a framework for understanding why the values presented in this report may differ from other published reports. This is discussed in additional detail in Section II.B, which compares the committee's analysis for RNs with other recently published reports.

Table 1.3. Important Points of Difference among Health Care Workforce Analyses

Table 1.5. Important 1 of the billion of the land of t					
NM Health Care Workforce Committee Analysis	Other Analyses				
Data from state licensure lists and state-mandated relicensure survey	Data from state licensure lists, national licensure lists, federal Department of Labor surveys, non-mandatory surveys or other sources				
Location by practice address	Location methodology varies				
Headcounts of practicing individuals	May be headcount of practicing individuals, headcount of licensed individuals, a calculation of full-time equivalents or other methodology				
Practitioners are included or excluded based on methodology used to calculate national benchmarks	Practitioners may be included or excluded based on different standards				
Measures workforce per capita compared to national benchmarks	May measure workforce <i>supply</i> from counts or per capita ratios, <i>need</i> from estimated ideal ratios based on population demographics, <i>demand</i> from advertised job openings, <i>projected demand</i> via simulation or other methodology				

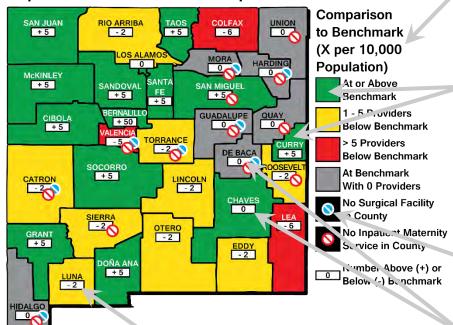
National benchmarks and county-level benchmark maps like those shown in Figure 1.1 provide an accurate and readily understood snapshot of the state's health care workforce. However, it is important to remember in reviewing Sections II and III that the number of health care professionals above or below benchmark is not a direct measure of the population's access to health care, or the adequacy of the workforce to meet the county's health care needs. These county-level provider-to-population ratios do not take into account the distribution of health care providers, distribution of the population or the

population's health care needs. Important factors in access to care, including practitioner work hours, patient utilization of care, severity of illness, driving distance to the nearest provider and others, are assumed homogeneous using this method.

Maps similar to that shown in Figure 1.1 are included for each profession analyzed. This guide explains how to interpret each element of these maps.

The **BENCHMARK VALUE** is provided in the legend of each map for easy reference.

### **Interpretation of the Benchmark Maps**



The **COLOR** of each county corresponds to its providers above or below the national benchmark. Green counties are at or above benchmark, yellow counties are moderately below benchmark, and red counties are severely below benchmark.

Additional **SYMBOLS** like these may be included for additional information pertinent to the profession. Look in the legend for their definitions.

The **NUMBER** in each county shows the number of providers above or below benchmark. In this example, Luna County would need to add two providers in order to meet the national benchmark.

What's the difference between counties with the number **ZERO** and colored **GREEN** or **GRAY**? In both cases, the number zero indicates that the number of providers is the same as the benchmark value. Those with a benchmark of zero and no providers are GRAY, while those with a benchmark of one or more that is met by the number of providers identified for the county are GREEN.

Figure 1.1. Maps like this one are included for each profession analyzed in Sections II and III. The text boxes here highlight the key points illustrated by these benchmark maps. For maps with different coloration or format, keys to interpretation can be found in the figure captions.

In summary, provider-to-population ratios have been selected as the most appropriate metric for national and county-level workforce comparisons. However, these do not measure workforce adequacy directly, and should be considered an indicator of areas that may be most in need of additional resources.

### I.B.4. Limitations of the Data

While New Mexico is unique in the quality and robustness of its workforce data, the practitioner surveys cannot capture certain aspects of the health professional workforce. First, as mentioned previously, some providers have not yet had the opportunity to complete a license renewal survey, either because they have not yet renewed their license or because they have not done so since their profession instituted the survey. Appendix E summarizes the survey response rate by profession, disregarding surveys older than one full licensure cycle; note that the surveys we reported as missing in the 2018 annual report have been restored through the efforts of the New Mexico Regulation and Licensing Department.

Second, several professions have recently updated their surveys for improved data collection. In 2018, the Board of Pharmacy implemented a new survey system to align the registered pharmacist survey with the Act; to date, 20.3% of the state's licensed pharmacists have completed surveys under the new system. The new survey data will allow analysis of pharmacists by practice location rather than mailing address. Because we anticipate shifts in the distribution of the state's pharmacists to occur in the transition between mailing address and practice location, we will resume our analysis of pharmacists once the majority have completed surveys under the new system.

Similarly, in estimating the primary care CNP/CNS and physician assistant workforce, we have previously used self-reported practice area for CNPs/CNSs and an estimate of the proportion of physician assistants providing primary care. Because a specialty item has recently been implemented on the physician assistant survey and because the practice area options nurses may select on their survey have recently changed, we will also resume our analysis of these providers' contributions to the primary care workforce once the majority have been surveyed under the new survey items.

Third, survey data are by nature subject to uncertainty introduced by variation among respondents; the state's health care professional licensure survey data is no exception. Providers may differ in their interpretation of a survey item, which in turn affects their responses. For example, New Mexico physicians are asked what proportion of their work hours are spent in direct patient care. While one respondent may include only time in the exam room, another may include interpretation of laboratory results, writing up notes and other patient care activities beyond that spent face-to-face with patients. In addition, providers may choose not to answer survey items to which they are uncomfortable providing data or do not know the correct response.

Finally, we emphasize that national benchmarks do not measure workforce adequacy, surplus or shortage. For the majority of the professions analyzed, no optimal provider-to-population ratio has been identified. Indeed, variation in population density, health care needs and insurance coverage make it unlikely that a single optimal provider-to-population ratio could be pinpointed for any health care profession. In addition, the benchmarks used here combine practice specialties in a manner appropriate to large-grained analysis such as the county-level measures, but may obscure finer-grained details of the population's health care needs. For example, primary care physicians include both adult and pediatric primary care providers; a county above benchmark for primary care physicians could host many adult providers and few pediatricians relative to the county's demographics.

As a result, provider counts above benchmarks throughout Sections II and III *should not be assumed to represent surplus*, or even a sufficient number of health professionals. Patients in these areas are still likely to experience barriers to access, such as long waits for appointments and difficulty finding innetwork providers or those who accept Medicaid, among other challenges. There are additional facets of health care that our analysis does not seek to measure: facility adequacy, employer demand and hiring practices and patient satisfaction with the care they receive.

Despite these limitations, New Mexico's health care workforce data remain a signal achievement for the state, and offer a powerful tool to understand the density of health care providers statewide and inform solutions to the health care challenges facing our state.

### I.C. Summary of New Mexico's Health Care Workforce

The New Mexico Health Care Workforce Committee has estimated that in 2018, there were *practicing in the state* 17,526 registered nurses (RNs), 1,542 certified nurse practitioners and clinical nurse specialists (CNPs/CNSs), 2,162 primary care physicians (PCPs), 279 obstetrics and gynecology physicians (OBGYNs), 188 general surgeons, 317 psychiatrists, 805 physician assistants (PAs), 169 certified nurse-midwives (CNMs), 40 licensed midwives (LMs), 1,216 dentists, and 6,501 emergency medical technicians (EMTs). (Table 1.4).

As in prior years, our analysis shows growth in many licensed health professions. Since 2017, New Mexico has *gained providers* in four of the 11 professions examined: 89 CNPs/CNSs (6.1%), 13 PAs (1.6%), one dentist (0.1%), and 137 EMTs (2.2%). We observed *modest decreases* since 2017 in seven professions: 647 RNs (-5.5%), 198 PCPs (-8.4%), three OB-GYNs (-1.1%), six general surgeons (-3.1%), 15 psychiatrists (-4.5%), nine CNMs (-5.1%) and two LMs (-4.8%).

Figure 1.2 shows at a glance the benchmark status of each county for each profession analyzed. Many of New Mexico's counties continue to show health professionals below benchmarks, summarized in Figure 1.2. Our analysis indicates that without redistributing the current workforce, *to bring all counties to benchmarks would require* an additional 3,689 RNs, 135 CNPs/CNSs, 136 PCPs, 39 OB-GYNs, 11 general surgeons, 108 psychiatrists, 115 PAs, 14 CNMs, four LMs, 46 dentists and 392 EMTs.

Table 1.4. Summary of Statewide Health Care Professionals Since 2013

Profession Metric	2013	2014	2015	2016	2017	2018	Net Change Since 2013 <sup>a</sup>
RNs							Office 2010
# in New Mexico	15,713ª	NAb	NAb	17,219	18,173	17,526	1,813
Total Below Benchmark <sup>c</sup>	4,269 <sup>a</sup>	1471	1471	3,361	3,022	3,689	-580
Counties Below Benchmark	30 <sup>a</sup>			30	29	31	1
CNP/CNS	00			00	20	01	
# in New Mexico	1,089	1,228	1,293	1,379	1,453	1,542	453
Total Below Benchmark <sup>c</sup>	271	197	201	142	147	135	-136
Counties Below Benchmark	25	20	19	18	17	16	-9
PCP							
# in New Mexico	1,957	1,908	2,073	2,076 <sup>d</sup>	2,360	2,162e	205
Total Below Benchmark <sup>c</sup>	153	145	125	139	126	136	-17
Counties Below Benchmark	23	22	17	22	16	18	-5
OB-GYN							
# in New Mexico	256	236	253	273 <sup>d</sup>	282	279	23
Total Below Benchmark <sup>c</sup>	40	43	36	31	30	39	-1
Counties Below Benchmark	14	14	12	9	11	15	1
General Surgeons							
# in New Mexico	179	162	177	188 <sup>d</sup>	194	188	Ç
Total Below Benchmark <sup>c</sup>	21	18	16	14	12	11	-10
Counties Below Benchmark	12	8	8	7	7	6	-6
Psychiatrists							
# in New Mexico	321	289	302	332 <sup>d</sup>	332	317	-4
Total Below Benchmark <sup>c</sup>	104	109	111	106	111	108	
Counties Below Benchmark	25	26	26	26	26	26	1
PA							
# in New Mexico	ND <sup>f</sup>	694	717	746	792	805	111
Total Below Benchmark <sup>c</sup>		136	136	119	113	115	-21
Counties Below Benchmark		21	22	22	20	22	1
CNM							
# in New Mexico	ND	ND	ND	156	178	169	13
Total Below Benchmark <sup>c</sup>				12	11	14	2
Counties Below Benchmark				9	9	10	1
_M							_
# in New Mexico	ND	ND	ND	38 <sup>g</sup>	42	40	2
Total Below Benchmark <sup>c</sup>				4	4	4	C
Counties Below Benchmark				4	4	4	C
Dentists							
# in New Mexico	ND	1,081	1,131	1,171	1,215	1,216	135
Total Below Benchmark		73	67	55	46	46	-27
Counties Below Benchmark		18	20	18	17	15	-3
EMTs	NID	ME	ND	0.404	0.004	0.504	400
# in New Mexico	ND	ND	ND	6,101	6,364	6,501	400
Total Below Benchmark <sup>c</sup>				475	415	392	-83
Counties Below Benchmark 2012, not 2013, is the initial an	,	5.1		12	11	10	-2

<sup>2012,</sup> not 2013, is the initial analysis year for RNs.

b NA indicates this profession was not analyzed for the years indicated.

c Total below benchmark reflects the number of providers needed to bring all counties below benchmarks to national provider-to-population values without reducing workforce in counties above benchmarks.

d This is the first year for which DO specialties were analyzed, correcting prior years' overestimation of DOs in primary care and underestimation in OB-GYN, general surgery and psychiatry.

See Section III.B.1 for adjustments to the PCP workforce for non-practicing providers.

ND indicates survey data were not yet available.

<sup>&</sup>lt;sup>9</sup> This value has been modified from that reported in 2017 to remove apprentice midwives.

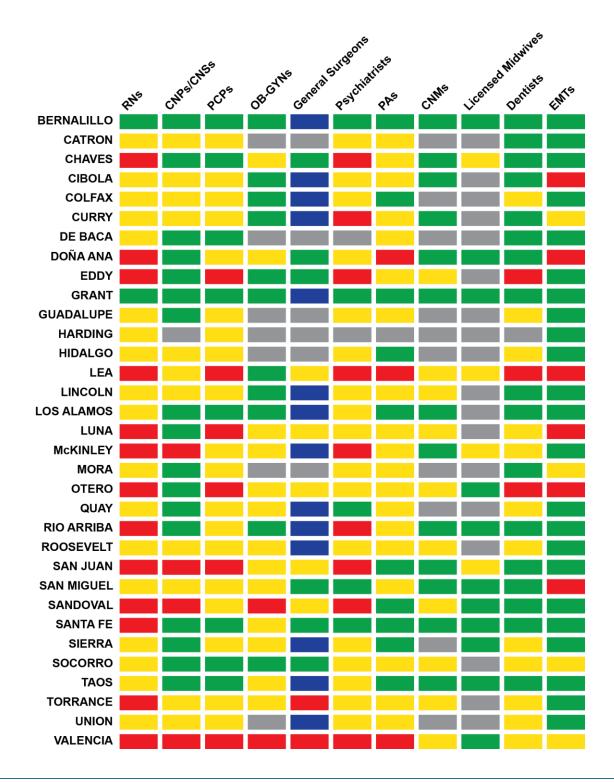


Figure 1.2. This at-a-glance summary shows the benchmark status by county for each profession analyzed in this report. Green indicates counties at or above benchmark; yellow, counties moderately below benchmark; and red, counties severely below benchmark. Those with a benchmark of zero and no providers are gray. Blue for general surgeons indicates counties above the optimal ratio. See the maps for each profession and additional details in Sections II and III.

### I.C.1. Practitioner Maldistribution

Access to health care for New Mexicans statewide is complicated by the state's large rural and frontier areas. Thirty-four percent of New Mexico's 2.1 million residents reside in rural or frontier counties (Figure 1.3), which tend to have lower densities of health professionals.

# **Population Density of New Mexico Counties**

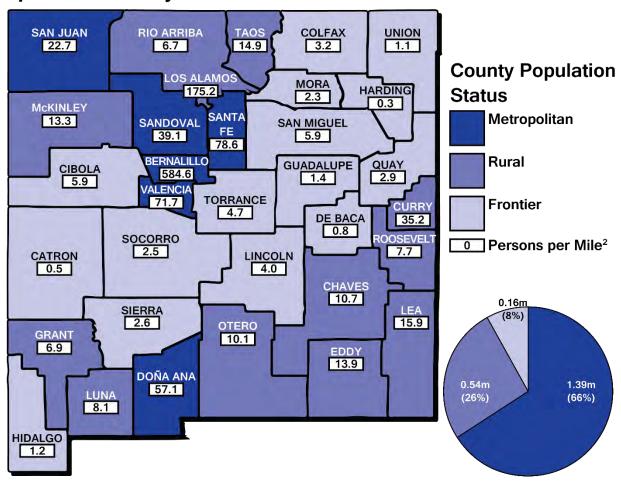


Figure 1.3. Each county's color indicates its classification as frontier (light), rural (medium) or metropolitan (dark); the white boxes show the population density (persons per square mile). The pie chart shows the proportion of the state's population residing in metropolitan, rural or frontier counties.

In Sections II and III of this report, readers will note that many counties have provider counts far below benchmarks, while others have providers equal to or exceeding benchmark values. This uneven distribution – or maldistribution – of providers across the state underscores the need to evaluate workforce distribution. Counties that meet or exceed benchmarks tend to be those with urban areas and/or close proximity to training and major health care facilities. Because we do not anticipate substantial relocation of providers from better-served to more poorly served counties, we state for each profession the

number of providers that would allow New Mexico counties to meet national benchmarks assuming no redistribution of practitioners from counties with above-benchmark numbers to those with fewer.

In addition, New Mexico faces substantial health disparities related to income inequality and other social determinants of health. Meeting or exceeding benchmarks for providers does not indicate that all county residents have adequate access to health care and health professionals.

### I.C.2. Strategies to Improve Health Care Workforce Shortages

As illustrated in Figure 1.4, addressing the health care workforce needs of the state will require a multipronged approach combining increased production in-state ("growing our own"), recruitment incentives, retention measures and targeting rural and underserved areas for growth of workforce.

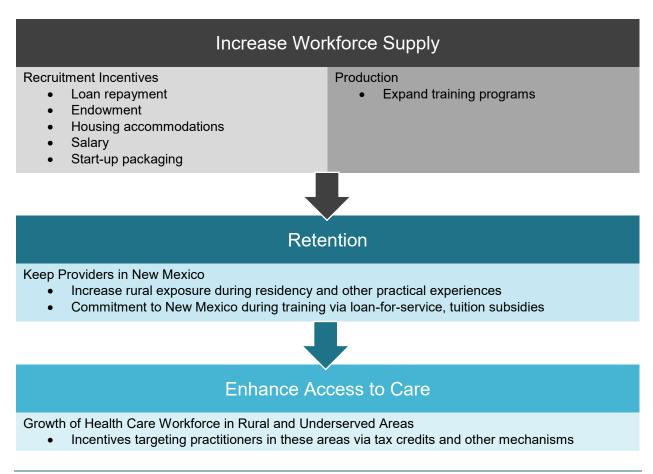


Figure 1.4. Schematic representation of the multipronged approach necessary to increase health care workforce in New Mexico.

As a result, our recommendations for 2019, detailed in Section VI, are broad-ranging. They encompass ways to reduce the financial barriers preventing potential trainees from undertaking health professional education; strategies to increase the slots available for training nurses, physician assistants and medical residents; mechanisms for recruitment and retention of providers in rural and underserved areas; and ways to improve our understanding of how such programs work together to increase the state's health care workforce and access to care for New Mexicans statewide.

### Section II

# New Mexico's Nursing Workforce

### II.A. The Nursing Workforce

Nursing professionals are among the most numerous and most important health care providers. The close relationship between nurses and patients, together with these professionals' scientific and practical training, place them at the forefront of initiatives to improve quality of care and contribute integrally to health care teams. Registered nurses (RNs), particularly those trained as bachelors of science in nursing (BSNs), are of interest due to the incentives within the federal Patient Protection and Affordable Care Act for hospitals to utilize higher-skilled RNs. Demand for RNs in the state is high, as discussed in Section II.B, whether trained with BSNs or associate's degrees in nursing (ADNs) or measured via workforce counts, job vacancies or projected need. Advanced practice registered nurses – certified nurse practitioners, clinical nurse specialists, certified nurse-midwives and certified registered nurse anesthetists – also figure prominently in the state's health care workforce. In particular, certified nurse practitioners (CNPs) and clinical nurse specialists (CNSs) are key contributors to the primary care workforce, while certified nurse-midwives (discussed in Section III.C.2) provide women's health care and attend a large proportion of the state's births.

In this section, we examine New Mexico's RNs (Section II.A.1) and CNPs/CNSs (Section II.A.2) relative to national benchmarks. Section II.B provides an overview of recently published studies regarding the current and projected demand for RNs in New Mexico, and examines these analyses in relation to the committee's analysis in order to clarify the ways in which multiple measures provide a richer understanding of the state's health care needs.



### II.A.1. Registered Nurses

### II.A.1.a. Executive Summary

In 2018, there were an estimated 17,526 RNs practicing in New Mexico, 60.7% of the total number licensed and 647 fewer than in 2017 (Figure 2.1, Appendix B.1). Table 2.1 tracks changes in each county's RN workforce since 2012. Despite an overall increase of 1,813 RNs in the state since 2012 and 14 counties showing a net gain, only two counties – Bernalillo and Grant – are above benchmark for these practitioners. The counties most below benchmark are Valencia (-492), Sandoval (-385), Doña Ana (-363), Lea (-278) and Santa Fe (-233) (Table 2.2). The state as a whole has 578 fewer RNs than the national benchmark, yet assuming no redistribution of the current workforce, an additional 3,689 RNs would be needed for all New Mexico counties to meet the national benchmark (8.64 per 1,000 population).

## Registered Nurses Compared to Benchmark, 2018

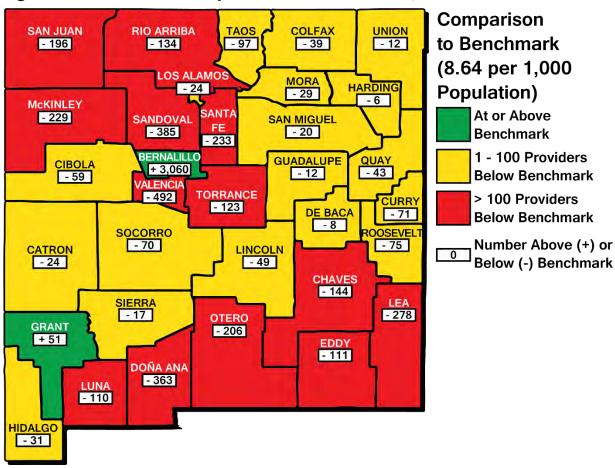


Figure 2.1. Registered nurse workforce relative to the national benchmark of 8.64 RNs per 1,000 population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by 100 or fewer providers (yellow), or below benchmark by more than 100 providers (red).

Table 2.1. RN Distribution by New Mexico County Since 2012

County	2012	а	2016	2017	2018	Net Change Since 2012
Bernalillo	7,725		8,344	8,895	8,924	1,199
Catron	9		10	7	7	-2
Chaves	422		442	449	415	-7
Cibola	125		170	185	172	47
Colfax	69		65	73	66	-3
Curry	312		345	383	356	44
De Baca	6		7	8	7	1
Doña Ana	1,403		1,490	1,569	1,516	113
Eddy	390		412	437	389	-1
Grant	304		325	323	287	-17
Guadalupe	17		19	24	26	9
Harding	1		0	0	0	-1
Hidalgo	7		4	4	6	-1
Lea	344		359	368	323	-21
Lincoln	120		123	135	120	0
Los Alamos	152		150	166	141	-11
Luna	81		104	100	97	16
McKinley	428		457	474	396	-32
Mora	8		15	13	10	2
Otero	388		384	394	371	-17
Quay	34		35	28	28	-6
Rio Arriba	176		182	206	203	27
Roosevelt	70		81	85	87	17
San Juan	845		881	927	884	39
San Miguel	259		266	260	218	-41
Sandoval	379		800	884	869	490
Santa Fe	1,087		1,129	1,138	1,063	-24
Sierra	66		70	79	78	12
Socorro	82		81	91	75	-7
Taos	192		215	222	187	-5
Torrance	22		35	36	12	-10
Union	37		25	29	24	-13
Valencia	153		194	181	169	16
STATE TOTAL	15,713		17,219	18,173	17,526	1,813

a Registered nurse data were not analyzed for 2013 – 2015.

Table 2.2. Counties with the Greatest Numbers of RNs Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Valencia	492
Sandoval	385
Doña Ana	363
Lea	278
Santa Fe	233

### II.A.1.b. Methodological Notes

The breadth and depth of data available for New Mexico's nurses is exceptional, due to the efficiency with which New Mexico's Board of Nursing instituted their required survey following the New Mexico Health Care Work Force Data Collection, Analysis and Policy Act of 2011. Data from the survey of New Mexico's nurses were the first to be made available to the New Mexico Health Care Workforce Committee, and remain an exemplar for professions developing or updating their surveys.

The estimated counts of RNs are based on New Mexico's 28,883 RNs who were not also licensed at a higher level. That is, RNs who were also CNPs, CNSs, CRNAs or CNMs were excluded from the RN count. Of these 28,883 RNs, 17,526 identified a New Mexico practice location in the survey. Because nurses are surveyed at initial licensure as well as renewal, there are no un-surveyed RNs. As a result, all RNs were allocated to counties by their self-reported practice five-digit ZIP code.

### II.A.1.c. Discussion

Figure 2.1 shows the county-level comparison of New Mexico's RNs to the national benchmark of 8.64 per 1,000 population. While in 2017 the RN workforce had risen slightly above benchmark for the state as a whole – despite persistent and often large counts below benchmark for individual counties – in 2018 the RN workforce is again characterized by an overall shortage for the state. The estimated 17,526 RNs practicing in New Mexico represent a statewide RN-to-population ratio of 8.36, or 578 below the national benchmark. Only two counties – Bernalillo and Grant – were above benchmark. The five counties most below benchmark – Valencia, Sandoval, Doña Ana, Lea and Santa Fe – together would require 1,752 RNs to achieve benchmark RN-to-population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 3,689 RNs would be needed to meet the national benchmark in all counties. This is the state's single largest gap relative to benchmark across all professions analyzed.

Since 2012, net decreases in the RN workforce have been observed in more than half of counties (19, 57.6%). Lincoln County has the same number of RNs as in 2012, and the remaining 13 counties show net increases. The most substantial increases have been in Bernalillo, Sandoval and Doña Ana counties, even though the latter two still require large numbers of nurses to meet the benchmark value.

Given the large and persistent number of RNs needed to bring all New Mexico counties to the national benchmark, we reiterate the critical need to identify effective recruitment and retention strategies for this profession. To this end, several of our 2019 recommendations (Section VI) relate to increasing the state's capacity to train nurses and incentives for nursing trainees to remain in the state after graduation.

## II.A.2. Certified Nurse Practitioners and Clinical Nurse Specialists

### II.A.2.a. Executive Summary

In 2018, there were an estimated 1,542 CNPs/CNSs practicing in New Mexico, 63.9% of the total number licensed and 89 more than in 2017 (Figure 2.2, Appendix B.2). Table 2.3 tracks changes in each county's CNP/CNS workforce since 2013. There has been an overall increase of 453 CNPs/CNSs in the state since 2013, with 29 counties showing a net gain. Despite this, 16 counties remain below benchmark for these practitioners. The counties most below benchmark are San Juan (-37), Sandoval (-25), Valencia (-19), McKinley (-17), Torrance and Curry (each -6) (Table 2.4). The state as a whole has 306 more CNPs/CNSs than the national benchmark, yet assuming no redistribution of the current workforce, an additional 135 CNPs and CNSs would be needed for all New Mexico counties to meet the national benchmark (0.59 per 1,000 population).

# CNPs and CNSs Compared to Benchmark, 2018

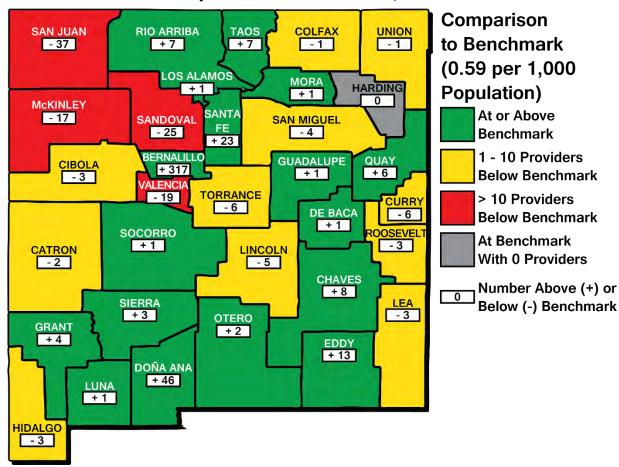


Figure 2.2. Certified nurse practitioner and clinical nurse specialist workforce relative to the national benchmark of 0.59 CNPs/CNSs per 1,000 population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by 10 or fewer providers (yellow), or below benchmark by more than 10 providers (red). Gray counties have no providers and benchmark values of zero. A benchmark of zero occurs when the county population multiplied by the benchmark results in a value less than 0.50.

Table 2.3. CNP/CNS Distribution by New Mexico County Since 2013

County	2013	2014	2015	2016	2017	2018	Net Change Since 2013
Bernalillo	533	595	636	643	703	717	184
Catron	0	0	0	0	0	0	0
Chaves	25	31	27	29	31	46	21
Cibola	9	9	12	13	16	13	4
Colfax	5	7	7	10	5	6	1
Curry	19	23	22	28	28	23	4
De Baca	1	2	2	1	1	2	1
Doña Ana	112	125	130	131	138	174	62
Eddy	36	33	44	45	48	47	11
Grant	12	14	14	17	15	20	8
Guadalupe	3	3	3	3	4	4	1
Harding	0	1	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0
Lea	26	24	28	33	36	38	12
Lincoln	9	6	7	10	8	7	-2
Los Alamos	6	8	9	8	10	12	6
Luna	13	14	16	15	17	15	2
McKinley	16	21	25	26	30	26	10
Mora	4	3	4	4	4	4	0
Otero	12	18	22	28	29	41	29
Quay	8	7	11	13	13	11	3
Rio Arriba	23	21	24	20	28	30	7
Roosevelt	7	8	10	9	9	8	1
San Juan	28	33	28	43	40	37	9
San Miguel	13	15	15	14	11	12	-1
Sandoval	29	54	37	56	52	61	32
Santa Fe	85	91	96	112	110	112	27
Sierra	2	1	5	6	8	9	7
Socorro	7	9	8	9	10	11	4
Taos	18	18	23	27	24	26	8
Torrance	5	10	5	5	4	3	-2
Union	2	3	3	2	3	1	-1
Valencia	21	21	20	19	18	26	5
STATE TOTAL	1,089	1,228	1,293	1,379	1,453	1,542	453

Table 2.4. Counties with the Greatest Numbers of CNPs/CNSs Below National Benchmark

County	Practitioners Needed to Meet Benchmark
San Juan	37
Sandoval	25
Valencia	19
McKinley	17
Curry, Torrance	6 each

### II.A.2.b. Methodological Notes

As discussed in Section II.A.1.b, the New Mexico Board of Nursing is to be commended on the quality of the nurses' survey and the efficiency with which it was instituted. Certified nurse practitioners (CNPs) and clinical nurse specialists (CNSs) are advanced practice registered nurses with independent authority to diagnose and prescribe within their scope of practice. Advanced practice registered nurses include certified registered nurse anesthetists (CRNAs) and certified nurse-midwives (CNMs) in addition to CNPs and CNSs. However, it was necessary to adjust the advanced practice registered nurse count in order to evaluate this sector of the health care workforce consistent with our national benchmark.<sup>10</sup>

The national benchmark excludes CRNAs and CNMs who are not also CNPs, as well as CNPs/CNSs practicing in behavioral health. Thus, it was necessary to reduce the total of 3,302 advanced practice registered nurses with active New Mexico licensure by 503 CRNAs, 180 CNMs, and 204 CNPs/CNSs reporting a practice area of behavioral health. Our analysis in this section includes the remaining 2,415 CNPs/CNSs; the contributions of CNMs are discussed in Section III.C.2. Behavioral health advanced practice registered nurses play an important role in the state's workforce, and their contributions are discussed within the larger context of the state's behavioral health workforce in Section IV.

As for RNs, there are no un-surveyed CNPs/CNSs. All CNPs/CNSs were allocated to counties by their self-reported practice five-digit ZIP code. Of the 2,415 CNPs/CNSs consistent with the national benchmark criteria, 1,542 identified a New Mexico practice location in the survey.

The New Mexico Board of Nursing survey asks area of specialty. Because the possible responses have recently changed, with the exception of behavioral health (responses of psychiatric/mental health, psychiatric and mental health – adult, and psychiatric/mental health/substance abuse) – excluded from the benchmark counts as discussed above – these practice areas were not examined for 2018. We will resume analysis of those reporting primary care practice areas when a majority of CNPs/CNSs have been surveyed under the new response options. This does not affect our CNP/CNS analysis, as the national benchmark does not distinguish among advanced practice nursing specialties beyond the exclusion of behavioral health.

#### II.A.2.c. Discussion

Figure 2.2 shows the county-level comparison of New Mexico's CNPs/CNSs to the national benchmark of 0.59 CNPs/CNSs per 1,000 population. For the state as a whole, the estimated 1,542 CNPs/CNSs practicing in New Mexico represent a statewide CNP/CNS-to-population ratio of 0.74 per 1,000, or 306 above the national benchmark. However, 16 counties (48.5%) were below benchmark. The counties most below benchmark were Curry, McKinley, San Juan, Sandoval, Torrance and Valencia, and together would require 110 CNPs/CNSs to achieve benchmark CNP/CNS-to-population ratios. For the state as a

whole, and assuming no redistribution of the current workforce, an additional 135 CNPs/CNSs would be needed to meet the national benchmark in all counties.

As reported in our 2018 annual report, since 2013, net decreases in the CNP/CNS workforce have been observed in only four counties: Lincoln, San Miguel, Torrance and Valencia.<sup>6</sup> All other counties have remained stable (four counties) or increased (25 counties). The largest gains since 2013 have occurred in Bernalillo, Doña Ana, Otero, Sandoval and Santa Fe counties. These observations have held true since our 2017 annual report.<sup>5</sup>

As discussed in Section II.A.2.b, New Mexico's CNPs/CNSs report practice areas on the licensure survey. Of 204 licensed behavioral health CNPs/CNSs, there were 118 practicing in the state; they are included in the analysis of the behavioral health workforce in Section IV.

## II.B. Other Assessments of the State Nursing Workforce

## II.B.1. Executive Summary

Given the large gaps below benchmark across New Mexico for registered nurses (RNs), it is both expected and welcome that other state and national organizations have also turned their attention to this issue. Several recent publications on the New Mexico RN workforce have lent new perspective on the state's nursing shortage. In this section, we discuss four of these studies with respect to the New Mexico Health Care Workforce Committee data. They include an analysis of current RN job openings published in April 2019 by the New Mexico Department of Workforce Solutions (DWS) and a 2019 poll regarding RN job openings by the New Mexico Hospital Association (Section II.B.2), a report on projected job growth for RNs in New Mexico published by DWS in June 2018 (Section II.B.3), and a 2017 Health Resources and Services Administration (HRSA) projection of nursing supply and demand (Section II.B.4).

## II.B.2. Job Openings for RNs in New Mexico

In April 2019, DWS issued a press release titled, "Healthcare Occupations in New Mexico With the Most Job Openings" (shown in Appendix C). This snapshot of health care practitioner job openings advertised during March 2019 was topped by RNs: *3,841 RN openings were reported across all employment settings* (such as hospitals, clinics or schools).

The New Mexico Hospital Association also conducted a member survey of nurse vacancies as of June 1, 2019 and presented preliminary results to the New Mexico Health Care Workforce Committee. This survey found that among the 41 of 46 member acute care and specialty hospitals responding, nurse vacancies *in hospitals only* totaled 1,225 (1,120 full time or part time vacancies for RNs and RNs in administrative roles and 105 for RN contract labor or travelers), with an additional 447 RN contract labor or traveler positions currently in use. If we assume the need in hospitals comprises the current RN vacancies as well as the positions currently held by RN contract labor, these 41 hospitals reported a need for 1,672 RNs in New Mexico hospitals. Given that five member hospitals did not respond to the survey, *the total RN vacancies in New Mexico hospitals is greater than 1,672*.

These are measures of demand, in contrast to the committee's analysis of workforce per population compared to the national average. Nonetheless, these values do not contradict the committee's findings. With respect to hospital RNs only, the U.S. Bureau of Labor Statistics reports that 60 percent of RNs work in hospital settings.<sup>24</sup> If we estimate that 60 percent of RN job openings are also in hospitals, we would predict that 2,305 of the 3,841 job openings reported by DWS are in hospitals. This is greater than the 1,672 vacancies identified by the New Mexico Hospital Association. However, it is important to remember that the New Mexico Hospital Association total is a minimum value, as it does not include data from all member hospitals.

With respect to the DWS report of RN job openings across all employment settings, the DWS measure of 3,841 openings differs by only 152 RNs (4.1%) from the committee's finding in Section II.A.1 that 3,689 RNs would be needed for all counties to achieve the benchmark RN-to-population ratio.

## II.B.3 Projected Job Growth for RNs in New Mexico

In the *New Mexico 2018 State of the Workforce* report, released in June 2018, DWS projects employment growth for RNs of 2,760 between 2014 and 2024.<sup>25</sup> The DWS analysis was conducted using U.S. Department of Labor methodology via a packaged software suite. Inputs to the projection included federal sources of employer-reported baseline and historical data from the *Quarterly Census of Unemployment and Wages* and *Wages and Occupational Employment Statistics Survey*. The resulting 10-year projection of 2,760 averages to 276 additional RN positions per year. This number, again despite being a measure (projected increase in demand) distinct from the committee's analysis, accords well with the committee's observation of growth in the state RN workforce since 2012: New Mexico has added an average of 259 RNs each year between 2012 and 2018.

Taken together, these observations imply that the state's current rate of RN workforce expansion is nearly sufficient to keep pace with projected growth – but given the large statewide shortage relative to benchmark, underscored by the large number of RN job openings, *a large gap is likely to persist between the state's county-level RN-to-population ratios and the benchmark values*. That is, production of new RNs and recruitment of RNs from other states will need to increase beyond the current pace in order to both accommodate the projected expansion in RN jobs and make progress in bringing RN-to-population ratios toward benchmarks.

## II.B.4. Projected Surplus of RNs in New Mexico

Perhaps the most surprising recent finding regarding the state's RN workforce is HRSA's projection of a 44.9% *surplus* of RNs in New Mexico by 2030.<sup>26</sup> This finding was the result of a simulation conducted by HRSA using the Bureau of Health Workforce Simulation Model. The model's baseline for New Mexico was 15,900 RNs in 2014. The committee did not analyze RNs for the 2014 practice year, but for 2012, we reported 15,713 RNs practicing in the state. If we assume 259 RNs were added in 2013 and 2014 – the yearly average for RN workforce increase between 2012 and 2018 – we would estimate 16,231 RNs in 2014, only 2.1% more than the HRSA baseline. Thus, the model's starting point accords well with the committee's data.

However, the first assumption made in HRSA's simulation model is that supply was equal to demand in the baseline year, 2014. That is, a central premise of this projection is that New Mexico had exactly the right number of RNs for its health care needs in 2014. This assumption is not supported by the committee's analyses, which have found county-level RN-to-population ratios to be persistently far below the national average. We have no reason to assume the state's need for nurses is significantly less than for the nation as a whole, and as a result, we cannot assume that the number of RNs in the state at the start of HRSA's simulation was equal to demand. On the contrary, the 2014 RNs were very likely far below the needs of the state.

Furthermore, in HRSA's simulation the rate of increase for New Mexico RNs is quite high relative to that of other states. HRSA projects that the state's RN workforce will increase by a factor of 1.97, growing from 15,900 in 2014 to 31,300 in 2030. This is the third-highest rate of increase in the HRSA model, below only Washington, D.C., where RNs are projected to increase by a factor of 4.9, and Wyoming, with a projected RN workforce in 2030 1.98 times that in 2014. It is unclear how HRSA arrived at these rates of increase. Certainly a 15-year doubling of the New Mexico RN workforce is not supported by our experience since 2012. Such an increase would require adding an average of 1,027 RNs each year

between 2014 and 2030, nearly four times the average increase of only 259 RNs per year we have observed since 2012.

Thus, neither the baseline assumption of adequate RN workforce in 2014 nor the projected rate of RN workforce increase used in the HRSA simulation to arrive at a projected RN surplus of 44.9% in 2030 are supported by the committee's analysis. The state is not likely to achieve such a large increase in the RN workforce without fourfold increases in our capacity to train new nurses and recruit them from other states.

### II.B.5 Discussion

The committee is glad of the increased interest at the state level in rectifying the state's health care workforce shortages in order to achieve better health for all New Mexicans. With a problem of this magnitude, bringing many perspectives to bear in understanding the problem and potential solutions can only increase our likelihood of success. The recent findings by DWS of 3,841 job openings for RNs accord well with our analysis of the number of RNs needed to bring all counties to benchmark RN-to-population values. DWS's recent projection of job growth for nurses suggests that additional job openings are expected to arise at a pace similar to the increase of RN workforce in the state. *As the number of job openings increases, it will be necessary to increase our capacity to train and recruit new nurses to the state, as advocated in our recommendations relative to nursing*. While the simulation by HRSA appears to suggest that we will have no difficulty achieving these necessary increases, the assumptions underlying HRSA's model are not borne out by the committee's analysis. We must continue to implement measures at the state level to ensure the state's future RN needs can be met.

## II.C. Discussion

Registered nurses remain the single largest number of health professionals needed to bring all counties in New Mexico to benchmark provider-to-population ratios. With a total gap of 3,689 RNs between existing workforce and benchmark values, it will be critical to support the training and recruitment of RNs by multiple approaches, as recommended by the committee in several of our 2019 recommendations.

Beyond the broad need for more RNs, there is need more specifically for baccalaureate-trained nurses. In 2010, the Institute of Medicine recommended an increase in the proportion of nurses with a baccalaureate degree to 80% by 2020.<sup>21</sup> According to the American Association of Colleges of Nursing (AACN), many hospitals and other medical facilities are following the IOM guidelines and strongly encourage associate degree in nursing-prepared RNs to earn their bachelor of science in nursing (BSN) within five years of graduation.

For the past 10 years, AACN research has shown that higher education does make a difference in the quality of clinical practice. Evidence shows that nurses with a BSN give better care. The studies show that patients in the care of nurses with a BSN have better outcomes, including lower rates of mortality. Also, research shows that nurses who have a BSN or higher training are more proficient in making diagnoses and evaluating the results of interventions.<sup>27</sup>

The efforts of the New Mexico Nursing Education Consortium (NMNEC) have been integral in broadening access to BSN training for the state's RNs. Expanding the slots available for nursing trainees at the state's public institutions will further increase New Mexico's ability to meet the nursing needs of the state.

## Section III

# New Mexico's Workforce for Other Health Care Professions

## III.A. Introduction

A broad range of health care providers are necessary to meet the spectrum of health needs for the state's population. In this section, we examine New Mexico's physicians in selected specialties (Sections III.B.1 through III.B.4: primary care, obstetrics and gynecology, general surgery and psychiatry), physician assistants (Section III.C.1), non-physician birth attendants (Sections III.C.2 and III.C.3: certified nurse-midwives and licensed midwives), dentists (Section III.C.4) and emergency medical technicians (Section III.C.5). In addition, we discuss the survey enhancements in progress for the state's pharmacists and non-physician primary care providers (Section III.D), as well as the distribution of women's health and birth attendance providers statewide (Section III.E). In Section III.F, we examine the demographics of selected professions – physicians, physician assistants, registered nurses, certified nurse practitioners and clinical nurse specialists.

## III.B. Physicians

## III.B.1 Primary Care Physicians

## III.B.1.a. Executive Summary

In 2018, there were an estimated 2,162 PCPs with New Mexico practice addresses, 64.7% of the total number licensed and 198 fewer than in 2017. This total was adjusted to remove 257 non-practicing individuals, leaving an estimated 1,905 PCPs practicing in New Mexico (Figure 3.1, Appendix B.3).\* Table 3.1 tracks changes in each county's PCP workforce since 2013. Taking into account the adjustment for non-practicing individuals, there has been an overall decrease of 52 PCPs in the state since 2013. Nine counties have shown a net gain, with eight counties above benchmark for these practitioners. The counties most below benchmark are Valencia (-40), Otero (-22), Lea (-21), Eddy and San Juan (-19 each) (Table 3.2). The state as a whole has 248 more PCPs than the national benchmark with this adjustment, yet assuming no redistribution of the current workforce, an additional 206 PCPs would be needed for all New Mexico counties to meet the national benchmark (0.79 per 1,000 population).

# Primary Care Physicians Compared to Benchmark, 2018\*

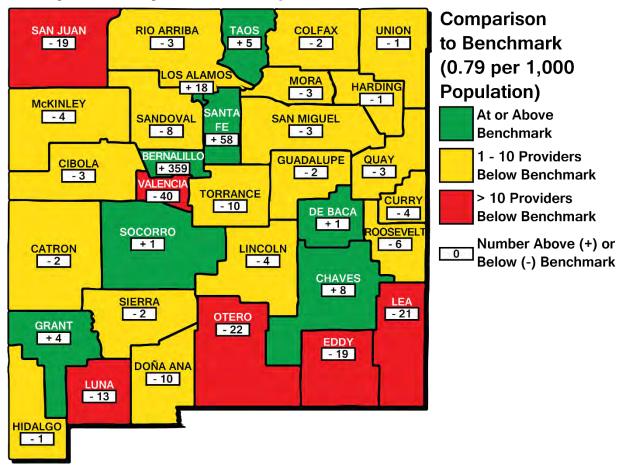


Figure 3.1. Primary care physician workforce relative to the national benchmark of 0.79 PCPs per 1,000 population, **adjusted to remove non-practicing PCPs and retirees**, is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by 10 or fewer providers (yellow), or below benchmark by more than 10 providers (red).

<sup>\*</sup> All PCP counts shown in Figure 3.1 and discussed subsequently are *adjusted values*.

Table 3.1. Primary Care Physician Distribution by New Mexico County Since 2013

County	2013	2014	2015	2016	2017	2018	2018 Adjustment	Net Change Since 2013
Bernalillo	855	807	936	946	1,123	999	-104	40
Catron	2	3	3	2	3	3	-2	-1
Chaves	73	71	75	63	75	70	-11	-14
Cibola	20	19	19	21	21	19	-1	-2
Colfax	9	9	11	7	10	9	-1	-1
Curry	36	36	39	36	42	39	-4	-1
De Baca	1	2	1	1	2	2	0	1
Doña Ana	168	162	182	185	200	192	-30	-6
Eddy	35	37	39	36	33	34	-7	-8
Grant	32	34	38	39	40	34	-8	-6
Guadalupe	3	3	3	2	2	1	0	-2
Harding	1	0	0	0	0	0	0	-1
Hidalgo	2	2	1	1	2	2	0	0
Lea	30	29	35	36	41	37	-3	4
Lincoln	13	13	14	12	14	12	-1	-2
Los Alamos	33	33	32	31	37	35	-2	0
Luna	10	10	9	8	9	6	0	-4
McKinley	50	50	62	59	62	59	-6	3
Mora	1	2	2	1	2	1	0	0
Otero	37	42	37	34	33	39	-8	-6
Quay	7	7	5	6	4	4	0	-3
Rio Arriba	27	29	28	26	27	29	-1	1
Roosevelt	14	13	14	13	9	9	0	-5
San Juan	96	93	95	86	95	92	-12	-16
San Miguel	26	24	22	19	24	25	-6	-7
Sandoval	103	104	101	111	137	122	-15	4
Santa Fe	188	183	185	203	222	199	-22	-11
Sierra	11	12	11	11	13	9	-2	-4
Socorro	12	13	16	16	15	18	-4	2
Taos	37	36	33	34	36	35	-4	-6
Torrance	1	2	2	2	3	3	-1	1
Union	0	0	1	2	1	2	0	2
Valencia	24	28	24	27	23	22	-2	-4
STATE TOTAL	1,957	1,908	2,075	2,076	2,360	2,162	-257	-52

Table 3.2. Counties with the Greatest Numbers of PCPs Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Valencia	40
Otero	22
Lea	21
Eddy, San Juan	19 each

## III.B.1.b. Methodological Notes

We estimate as PCPs MDs and DOs who specialize in family medicine, general practice, general internal medicine and general pediatrics. Neither internal medicine nor pediatrics physicians who subspecialize (e.g., cardiology, immunology) are counted among New Mexico's PCPs.

Some organizations include obstetrics and gynecology physicians (OB-GYNs) in their primary care estimates; however, we report OB-GYNs as a separate health workforce category. We do so in order to examine features unique to this specialty, such as their need for specialized facilities and practice limited to a specific segment of the population. In so doing, our analysis also matches that of the Association of American Medical Colleges benchmark we use in assessing PCPs, which also excludes OB-GYNs from the national PCP-per-population ratio (0.79 per 1,000 population).<sup>11</sup>

Our PCP estimates include PCPs employed strictly in acute care (i.e., hospital emergency department and inpatient services), again in order to align our analysis with the Associate of American Medical Colleges methodology used to establish our PCP benchmark. Research in this area indicates that approximately 30% of general internal medicine physicians work as hospitalists and 7% of family medicine physicians work in emergency departments.<sup>28</sup> In prior years, we have found a comparable proportion of New Mexico's PCP workforce practicing as hospitalists.<sup>4</sup>

Our estimated PCP counts are based on 9,704 MDs and DOs with active licenses in New Mexico during 2018. These comprise 7,367 surveyed MDs, 1,588 MDs with active license but no survey (including those newly licensed in the state), 661 surveyed DOs and 88 un-surveyed DOs. For both MDs and DOs, primary care specialty (family practice, general practice, general pediatrics or general internal medicine) was determined first by self-reported specialty on the individual's most recent survey. For un-surveyed physicians and those for whom the only survey available was 2015 (the year for which the specialty item was omitted from the survey), specialty was identified through licensure and/or board certification. A total of 3,344 MDs and DOs were identified with primary care specialties. Surveyed PCPs were allocated to counties by the five-digit ZIP code of their self-reported primary practice location; for un-surveyed individuals, the county was identified by the licensure address ZIP code.

As discussed in Section III.B.1.c, in analyzing the 2018 workforce an adjustment was made for the first time to remove non-practicing individuals from the PCP workforce. Individuals meeting the following criteria were removed in this adjustment:

- 1. **Retired:** Includes all individuals who selected *retired*, *but maintain an active license* or *retired and do not maintain an active license* among their responses to the current work status survey item.
- 2. **Residents:** Includes all individuals not excluded above who selected *current resident of fellowship training* among their responses to the current work status survey item.

- 3. **Inactive:** Includes all individuals not excluded above who selected *permanently or temporarily inactive in New Mexico* among their responses to the current work status survey item.
- 4. **Out of State:** Includes all individuals who, regardless of their self-reported primary practice ZIP code, selected *practice medicine in another state* as their sole response to the current work status survey item.
- 5. **No Patient Care:** Includes all individuals not excluded above who reported *no time spent providing direct patient care* by entering *zero* in response to one or more of the following survey items: weeks per year practicing in New Mexico, hours per week practicing in New Mexico, percent of New Mexico practice time spent on direct patient care, or weekly patient care hours for primary location of patient care.

### III.B.1.c. Adjustments to PCP Counts

In order to correct for PCPs providing no patient care in New Mexico, individuals were identified who met the criteria for exclusion listed in Section III.B.1.b. A total of 257 PCPs were identified as non-practicing in New Mexico despite reporting New Mexico practice addresses. These individuals are shown by county and exclusion criteria in Table 3.3. This adjustment resulted in an 11.9% reduction in the 2018 New Mexico PCP workforce overall, ranging by county from no change to a 66.7% decrease in Catron County. By numbers, Bernalillo County was most affected, showing a total of 104 excluded PCPs; however, this amounts to only a 10.4% decrease in the total Bernalillo County PCPs for 2018, and the county remains 359 PCPs above the benchmark value.

As a result of this adjustment, Figure 3.1 shows a number of changes in benchmark status relative to previous PCP benchmark maps. Compared to the 2017 workforce reported in the committee's October 1, 2018 report, Catron, Cibola, Colfax, Curry, Doña Ana, McKinley, San Miguel, Sandoval and Sierra counties, previously above the PCP benchmark, fell below benchmark by 10 or fewer PCPs. Luna and San Juan counties, previously below the PCP benchmark by 10 or fewer providers, fell below benchmark by more than 10 PCPs. There was no change in the benchmark status for the remaining 22 counties.

For the PCPs still included in our analysis, we have yet to adjust for variation in full time equivalency (FTE) – the hours worked per week relative to a standard 40-hour work week. In the coming month, we intend to incorporate this adjustment as well as PCPs' self-reported patient visits in order to further clarify the contributions of these factors to the state's PCP workforce. This will be particularly important for counties like Bernalillo, where the counts are far above benchmark yet access to care remains challenging for many. As of November 1, 2019 an addendum (Appendix G) has been provided in this report exploring the effects of variation in PCP FTEs and patient visits.

Table 3.3. Adjustments to 2018 PCP Counts by New Mexico County

County	2018 Total	Retired	Residents	Inactive	Out of State	No Patient Care	Adjusted 2018 Total	Adjustment %
Bernalillo	999	-35	-10	-2	-38	-19	895	-10.4%
Catron	3	0	0	0	-2	0	1	-66.7%
Chaves	70	0	-1	0	-10	0	59	-15.7%
Cibola	19	0	0	0	-1	0	18	-5.3%
Colfax	9	0	0	0	-1	0	8	-11.1%
Curry	39	-1	0	0	-3	0	35	-10.3%
De Baca	2	0	0	0	0	0	2	No change
Doña Ana	192	-4	0	-2	-20	-4	162	-15.6%
Eddy	34	-1	0	0	-5	-1	27	-20.6%
Grant	34	-1	0	0	-5	-2	26	-23.5%
Guadalupe	1	0	0	0	0	0	1	No change
Harding	0	0	0	0	0	0	0	No PCPs
Hidalgo	2	0	0	0	0	0	2	No change
Lea	37	0	0	0	-2	-1	34	-8.1%
Lincoln	12	0	0	-1	0	0	11	-8.3%
Los Alamos	35	0	0	0	0	-2	33	-5.7%
Luna	6	0	0	0	0	0	6	No change
McKinley	59	0	-1	0	-4	-1	53	-10.2%
Mora	1	0	0	0	0	0	1	No change
Otero	39	0	0	0	-4	-4	31	-20.5%
Quay	4	0	0	0	0	0	4	No change
Rio Arriba	29	0	0	0	0	-1	28	-3.4%
Roosevelt	9	0	0	0	0	0	9	No change
San Juan	92	-3	0	0	-5	-4	80	-13.0%
San Miguel	25	0	0	0	-6	0	19	-24.0%
Sandoval	122	-3	-5	0	-4	-3	107	-12.3%
Santa Fe	199	-4	0	-1	-12	-5	177	-11.1%
Sierra	9	0	0	0	-1	-1	7	-22.2%
Socorro	18	-1	0	0	-3	0	14	-22.2%
Taos	35	0	0	0	-4	0	31	-11.4%
Torrance	3	0	0	0	-1	0	2	-33.3%
Union	2	0	0	0	0	0	2	No change
Valencia	22	-1	0	0	-1	0	20	-9.1%
STATE TOTAL	2,162	-54	-17	-6	-132	-48	1,905	-11.9%

### III.B.1.d. Discussion

Figure 3.1 shows the county-level comparison of New Mexico's adjusted PCP counts to the national benchmark of 0.79 PCPs per 1,000 population. For the state as a whole, the estimated 1,905 PCPs practicing in New Mexico in 2018 represent a statewide PCP-to-population ratio of 0.91 per 1,000, or 248 above the national benchmark. However, 25 counties (75.8%) were below benchmark. The five counties most below benchmark were Valencia, Otero, Lea, Eddy and San Juan, and together would require 121 PCPs to achieve benchmark PCP-to-population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 206 PCPs would be required to meet the national benchmark in all counties.

While these adjusted numbers represent a decrease of 455 PCPs compared to 2017 and a decrease of 52 PCPs compared to when these providers were first analyzed for 2013, this adjustment for the first time takes into account those PCPs who, despite reporting a New Mexico practice address, are unlikely to be providing care. Despite the reductions from this adjustment, nine counties have seen net increases since 2013, three have shown no change, and 21 have had decreases of one to 16 PCPs.

As highlighted in the discussion of data limitations in Section I.B.4, it is important to remember that counties shown in Figure 3.1 as having PCPs above benchmark may still experience difficulty accessing necessary care, even with these adjustments. The benchmark value is a national average rather than an ideal ratio. No benchmark is ideal.

Health care providers are not distributed evenly on a per capita basis within counties: providers may be concentrated within metropolitan areas, leaving residents outside these areas with long drive times to reach the nearest provider. Residents of counties short of providers also likely travel to better-supplied counties or out of state to receive health care services. As a result, the population served by health professionals in a given county may be larger than just that county's residents. This is particularly likely in counties where there are large per capita numbers, such as Bernalillo, Chaves and Santa Fe, where the presence of large medical systems provides ample infrastructure for medical practice – facilitating recruitment and retention of providers – and residents of surrounding areas regularly commute to population centers to conduct business, including medical appointments. As a result, care can become concentrated, resulting in individuals traveling considerable distances for care.

## III.B.2 Obstetrics and Gynecology Physicians

## III.B.2.a. Executive Summary

In 2018, there were an estimated 279 OB-GYNs practicing in New Mexico, 71.2% of the total number licensed and three fewer than in 2017 (Figure 3.2, Appendix B.4). Table 3.4 tracks changes in each county's OB-GYN workforce since 2013. Despite an overall increase of 23 OB-GYNs in the state since 2013, only 10 counties have shown a net gain. The counties most below benchmark are Valencia (-8), Sandoval (-6), McKinley and San Juan (-5 each) (Table 3.5). The state as a whole has 57 more OB-GYNs than the national benchmark, yet assuming no redistribution of the current workforce, an additional 39 OB-GYNs would be needed for all New Mexico counties to meet the national benchmark (2.1 per 10,000 female population).

## **OB-GYNs Compared to Benchmark, 2018**

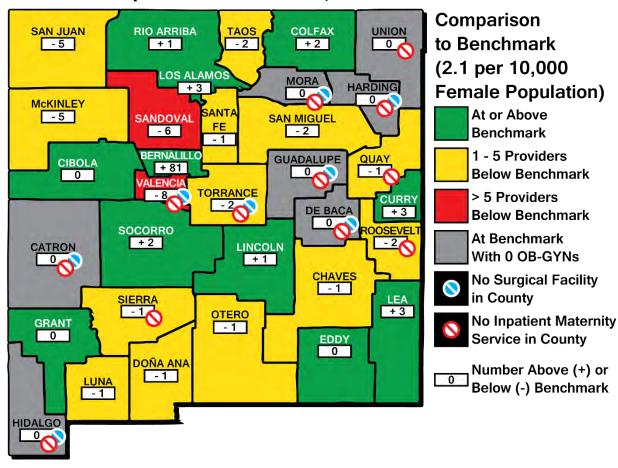


Figure 3.2. OB-GYN workforce relative to the national benchmark of 2.1 OB-GYNs per 10,000 female population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by five or fewer providers (yellow), or below benchmark by more than five providers (red). Gray counties have no providers and benchmark values of zero. Red "no" symbols denote counties without inpatient labor and delivery facilities; blue "no" symbols denote counties without surgical facilities.

Table 3.4. OB-GYN Physician Distribution by New Mexico County Since 2013

County	2013	2014	2015	2016	2017	2018	Net Change Since 2013
Bernalillo	133	119	133	144	151	154	21
Catron	0	0	0	0	0	0	0
Chaves	9	7	7	7	7	6	-3
Cibola	2	2	2	3	3	3	1
Colfax	2	2	2	4	4	3	1
Curry	2	2	3	5	6	8	6
De Baca	0	0	0	0	0	0	0
Doña Ana	21	20	23	26	23	22	1
Eddy	9	7	9	7	7	6	-3
Grant	3	3	3	3	3	3	0
Guadalupe	0	0	0	0	0	0	0
Harding	0	0	0	0	0	0	0
Hidalgo	0	0	0	0	1	0	0
Lea	3	3	6	7	10	10	7
Lincoln	3	2	2	2	2	3	0
Los Alamos	2	3	2	3	4	5	3
Luna	4	4	3	2	2	2	-2
McKinley	8	10	9	9	7	3	-5
Mora	0	0	0	0	0	0	0
Otero	11	10	8	8	6	6	-5
Quay	0	0	0	0	0	0	0
Rio Arriba	3	3	3	5	4	5	2
Roosevelt	1	1	1	1	0	0	-1
San Juan	9	9	7	6	7	8	-1
San Miguel	4	4	3	3	2	1	-3
Sandoval	7	7	6	7	9	10	3
Santa Fe	12	11	13	13	16	15	3
Sierra	0	0	0	0	0	0	0
Socorro	4	4	4	3	4	4	0
Taos	3	3	4	5	4	2	-1
Torrance	0	0	0	0	0	0	0
Union	0	0	0	0	0	0	0
Valencia	1	0	0	0	0	0	-1
STATE TOTAL	256	236	253	273	282	279	23

Table 3.5. Counties with the Greatest Numbers of OB-GYNs Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Valencia	8
Sandoval	6
McKinley, San Juan	5 each

### III.B.2.b. Methodological Notes

Our estimates of the New Mexico OB-GYN workforce include MDs and DOs who specialize in obstetrics and/or gynecology. As for PCPs, the estimated counts of OB-GYNs are based on 9,704 MDs and DOs with active license in New Mexico, comprising 7,367 surveyed MDs, 1,588 MDs who have an active license but no survey, 661 surveyed DOs and 88 un-surveyed DOs. For both MDs and DOs, obstetrics and/or gynecology specialty was determined first by self-reported specialty on the individual's most recent survey. For un-surveyed physicians and those for whom the only survey available was 2015 (the year for which the specialty item was omitted from the survey), specialty was identified through licensure and/or board certification. Surveyed OB-GYNs were allocated to counties by the five-digit ZIP code of their self-reported primary practice location; for un-surveyed OB-GYNs, the county was identified by the licensure address ZIP code.

Using this methodology, we identified a total of 392 actively licensed physicians specializing in obstetrics and/or gynecology. Of these, 336 MDs and 17 DOs (86.7%) were surveyed.

### III.B.2.c. Discussion

Figure 3.2 shows the county-level comparison of New Mexico's OB-GYNs to the national benchmark of 2.1 OB-GYNs per 10,000 female population. For the state as a whole, the estimated 279 OB-GYNs represent a statewide OB-GYN-to-female population ratio of 2.64, or 57 above the national benchmark. However, 15 counties (45.5%) were below benchmark, and an additional seven counties had no OB-GYNs and a benchmark value of zero. The five counties most below benchmark were McKinley, San Juan, Sandoval and Valencia, and together would require 24 OB-GYNs to achieve benchmark OB-GYN-to-female population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 39 OB-GYNs would be needed to meet the national benchmark in all counties.

Since 2013, 10 counties have shown net decreases in OB-GYN workforce: Chaves, Eddy, Lincoln, Luna, McKinley, Otero, Roosevelt, San Juan, San Miguel and Valencia. Thirteen counties have remained stable – 10 of these with no OB-GYNs – and 10 have increased. Bernalillo County has gained 21 OB-GYNs since 2013, and the Lea County OB-GYN workforce has grown by seven; all other increases have been changes of fewer practitioners. In total, the state has gained 23 OB-GYNs since 2013.

In San Miguel County, 2018 saw the reopening of labor and delivery facilities at Alta Vista Regional Hospital in Las Vegas. This recovery of inpatient maternity services in the northeastern quadrant of the state is a great success for women's health care in New Mexico.

## III.B.3. General Surgeons

### III.B.3.a. Executive Summary

In 2018, there were an estimated 188 general surgeons practicing in New Mexico, 62.7% of the total number licensed and six fewer than in 2017 (Figure 3.3, Appendix B.5). Table 3.6 tracks changes in each county's general surgeon workforce since 2013. Despite an overall increase of only 21 general surgeons in the state since 2013, 12 counties have shown a net gain and only six counties are below benchmark for these practitioners. The counties most below benchmark are Valencia (-5), Otero (-2), Lea, San Juan, Sandoval and Torrance (-1 each) (Table 3.7). The state as a whole has 63 more general surgeons than the national benchmark, yet assuming no redistribution of the current workforce, an additional 11 general surgeons would be needed for all New Mexico counties to meet the national benchmark (6.0 per 100,000 population).

# General Surgeons Compared to Benchmark, 2018

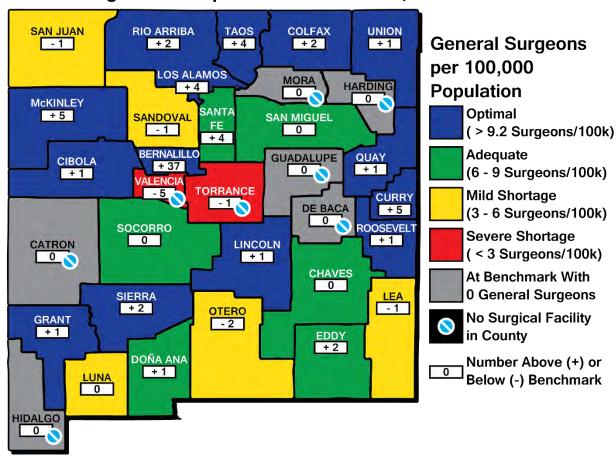


Figure 3.3. General surgeon workforce relative to the national benchmark of more than six general surgeons per 100,000 population is shown in the white boxes. Each county's color indicates whether the count of general surgeons per 100,000 population is considered optimal (blue), adequate (green), a mild shortage (yellow) or a severe shortage (red). Gray counties have no providers and benchmark values of zero. Blue "no" symbols denote counties without surgical facilities.

Table 3.6. General Surgeon Distribution by New Mexico County Since 2013

County	2013	2014	2015	2016	2017	2018	Net Change Since 2013
Bernalillo	68	60	74	75	84	78	10
Catron	0	0	0	0	0	0	0
Chaves	3	4	4	4	3	4	1
Cibola	1	2	2	3	3	3	2
Colfax	5	4	4	3	2	3	-2
Curry	9	9	9	9	8	8	-1
De Baca	0	0	0	0	0	0	0
Doña Ana	12	11	13	13	15	14	2
Eddy	7	5	8	8	5	5	-2
Grant	4	5	3	2	4	3	-1
Guadalupe	0	0	0	0	0	0	0
Harding	0	0	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0
Lea	2	2	2	2	3	3	1
Lincoln	0	0	0	0	1	2	2
Los Alamos	6	5	4	5	5	5	-1
Luna	1	1	1	1	1	1	0
McKinley	7	8	8	9	7	9	2
Mora	0	0	0	0	0	0	0
Otero	2	2	2	2	3	2	0
Quay	1	1	2	2	1	1	0
Rio Arriba	1	2	3	3	3	4	3
Roosevelt	1	1	1	2	2	2	1
San Juan	7	7	6	10	9	7	0
San Miguel	3	3	2	2	0	2	-1
Sandoval	4	4	5	6	8	8	4
Santa Fe	12	15	17	17	14	13	1
Sierra	0	0	0	1	3	3	3
Socorro	2	3	2	4	3	1	-1
Taos	7	7	4	5	6	6	-1
Torrance	0	0	0	0	0	0	0
Union	2	1	1	0	1	1	-1
Valencia	0	0	0	0	0	0	0
STATE TOTAL	179	162	177	188	194	188	9

Table 3.7. Counties with the Greatest Numbers of General Surgeons Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Valencia	5
Otero	2
Lea, San Juan, Sandoval, Torrance	1 each

### III.B.3.b. Methodological Notes

Our estimates of the New Mexico general surgeon workforce include MDs and DOs who specialize in general surgery. Thresholds for optimal, adequate, mild shortage and severe shortage are taken from Ricketts et al.<sup>13</sup>

The estimated counts of general surgeons are based on 9,704 MDs and DOs with active license in New Mexico, comprising 7,367 surveyed MDs, 1,588 MDs who have an active license but no survey, 661 surveyed DOs and 88 un-surveyed DOs. For both MDs and DOs, general surgery specialty was determined first by self-reported specialty on the individual's most recent survey. For un-surveyed physicians and those for whom the only survey available was 2015 (the year for which the specialty item was omitted from the survey), specialty was identified through licensure and/or board certification. General surgeons were allocated to counties by the five-digit ZIP code of their self-reported primary practice location; for un-surveyed physicians, the county was identified by the licensure address ZIP code.

A total of 300 general surgeons with active New Mexico licensure were identified. Of these, 242 MDs and 18 DOs (86.7%) were surveyed.

## III.B.3.c. Discussion

Figure 3.3 shows the county-level comparison of New Mexico's general surgeons to the national benchmark of six general surgeons per 100,000 population. For the state as a whole, the estimated 188 general surgeons practicing in New Mexico represent a statewide general surgeon-to-population ratio of 9.0 per 100,000, or 63 above the national benchmark. Only six counties (18.2%) were below benchmark. For the state as a whole, and assuming no redistribution of the current workforce, an additional 11 general surgeons would be needed to meet the national benchmark in all counties. However, it is important to note that two of the nine counties below benchmark do not have surgical facilities: these are Torrance and Valencia counties, which together are six general surgeons below benchmark.

Since 2013, the state has seen an increase of 21 general surgeons. Net increases in the county-level general surgeon workforce have been observed in 12 counties, an additional 12 have remained stable (eight with zero providers) and nine have experienced a net decrease in general surgeons. The largest gain – 10 general surgeons – has been in Bernalillo County. There are eight New Mexico counties without surgical facilities, and these will remain unstaffed by general surgeons.

## III.B.4. Psychiatrists

## III.B.4.a. Executive Summary

In 2018, there were an estimated 317 psychiatrists practicing in New Mexico, 55.5% of the total number licensed and 15 fewer than in 2017 (Figure 3.4, Appendix B.6). Table 3.8 tracks changes in each county's psychiatrist workforce since 2013. With an overall decrease of four psychiatrists since 2013 and a net gain in only five counties, 26 counties are below benchmark for these practitioners. The counties most below benchmark are Sandoval (-11), Lea, McKinley, San Juan (-8 each) and Eddy (-7) (Table 3.9). The state as a whole has six fewer psychiatrists than the national benchmark, yet assuming no redistribution of the current workforce, an additional 108 psychiatrists would be needed for all New Mexico counties to meet the national benchmark (1.0 per 6,500 population).

# Psychiatrists Compared to Benchmark, 2018

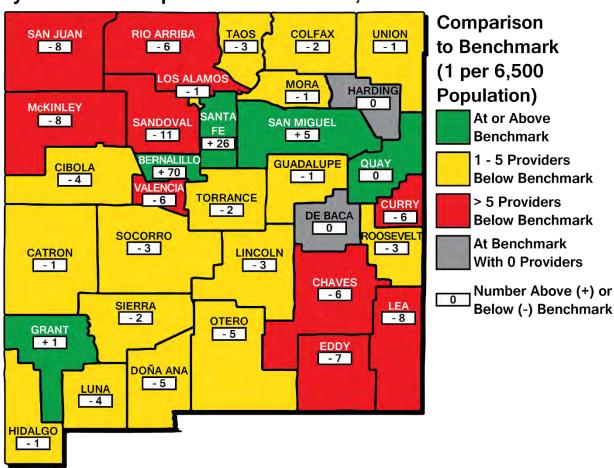


Figure 3.4. Psychiatrist workforce relative to the national benchmark of one psychiatrist per 6,500 population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by five or fewer providers (yellow), or below benchmark by more than five providers (red). Gray counties have no providers and benchmark values of zero.

Table 3.8. Psychiatrist Distribution by New Mexico County Since 2013

County	2013	2014	2015	2016	2017	2018	Net Change Since 2013
Bernalillo	174	150	167	183	188	174	0
Catron	0	0	0	0	0	0	0
Chaves	6	6	5	4	5	4	-2
Cibola	1	1	1	0	0	0	-1
Colfax	0	0	0	0	1	0	0
Curry	4	4	4	3	2	2	-2
De Baca	0	0	0	0	0	0	0
Doña Ana	23	25	21	22	26	28	5
Eddy	2	2	4	3	2	2	0
Grant	5	4	3	3	3	5	0
Guadalupe	0	0	0	0	0	0	0
Harding	0	0	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0
Lea	3	3	4	4	4	3	0
Lincoln	0	0	0	0	0	0	0
Los Alamos	1	1	3	3	3	2	1
Luna	1	1	1	1	0	0	-1
McKinley	7	7	5	6	3	3	-4
Mora	0	0	0	0	0	0	0
Otero	2	2	2	3	4	5	3
Quay	1	1	1	1	1	1	0
Rio Arriba	0	0	1	1	1	0	0
Roosevelt	0	0	0	0	0	0	0
San Juan	8	6	8	11	9	11	3
San Miguel	9	9	9	10	10	9	0
Sandoval	8	6	8	10	10	11	3
Santa Fe	51	48	51	53	52	49	-2
Sierra	0	0	0	0	0	0	0
Socorro	3	2	1	1	0	0	-3
Taos	4	4	3	4	3	2	-2
Torrance	0	0	0	0	0	0	0
Union	0	0	0	0	0	0	0
Valencia	8	7	7	6	5	6	-2
STATE TOTAL	321	289	309	332	332	317	-4

Table 3.9. Counties with the Greatest Numbers of Psychiatrists Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Sandoval	11
Lea, McKinley, San Juan	8 each
Eddy	7

### III.B.4.b. Methodological Notes

Our estimates of the New Mexico psychiatrist workforce include MDs and DOs who specialize in psychiatry. The estimated counts of psychiatrists are based on 9,704 MDs and DOs with active license in New Mexico, comprising 7,367 surveyed MDs, 1,588 MDs who have an active license but no survey, 661 surveyed DOs and 88 un-surveyed DOs. For both MDs and DOs, psychiatry specialty was determined first by self-reported specialty on the individual's most recent survey. For un-surveyed physicians and those for whom the only survey available was 2015 (the year for which the specialty item was omitted from the survey), specialty was identified through licensure and/or board certification. Surveyed psychiatrists were allocated to counties by the five-digit ZIP code of their self-reported primary practice location; for un-surveyed psychiatrists, the county was identified by the licensure address ZIP code.

A total of 571 psychiatrists with active New Mexico licensure were identified. Of these, 451 MDs and 28 DOs (83.9%) were surveyed.

### III.B.4.c. Discussion

Figure 3.4 shows the county-level comparison of New Mexico's psychiatrists to the national benchmark of one per 6,500 population. For the state as a whole, the estimated 317 psychiatrists practicing in New Mexico represent a statewide psychiatrist-to-population ratio of 0.98 per 6,500, or six below the national benchmark. Twenty-six counties (78.8%) were below benchmark. The five counties at or above benchmark – Bernalillo, Grant, Quay, San Miguel and Santa Fe – together account for 75 percent of the state's psychiatrists (see psychiatrist counts reported in Table 3.8). The counties most below benchmark were Eddy, Lea, McKinley, San Juan and Sandoval, and together would require 42 psychiatrists to achieve benchmark psychiatrist-to-population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 108 psychiatrists would be needed to meet the national benchmark in all counties.

Since 2013, net decreases in the psychiatrist workforce have been observed in nine counties: Chaves, Cibola, Curry, Luna, McKinley, Santa Fe, Socorro, Taos and Valencia. Nineteen counties have remained stable (11 with zero psychiatrists) and five have increased. The most substantial loss since 2013 has been in McKinley County, which has seen a decrease of four psychiatrists. The most substantial gain has been five in Doña Ana County. All other counties' changes have been of three or fewer providers.

### III.C. Other Health Professions

## III.C.1. Physician Assistants

## III.C.1.a. Executive Summary

In 2018, there were an estimated 805 PAs practicing in New Mexico, 72.7% of the total number licensed, and 13 more than in 2017 (Figure 3.5, Appendix B.7). Table 3.10 tracks changes in each county's PAs workforce since 2014. Despite an overall increase of 111 PAs in the state since 2014 and 14 counties showing a net gain, only 11 counties are above benchmark for these practitioners. The counties most below benchmark are Doña Ana (-25), Valencia (-13), Lea (-12) and McKinley (-9) (Table 3.11). The state as a whole has 170 more PAs than the national benchmark, yet assuming no redistribution of the current workforce, an additional 115 PAs would be needed for all New Mexico counties to meet the national benchmark (0.303 per 1,000 population).

# Physician Assistants Compared to Benchmark, 2018

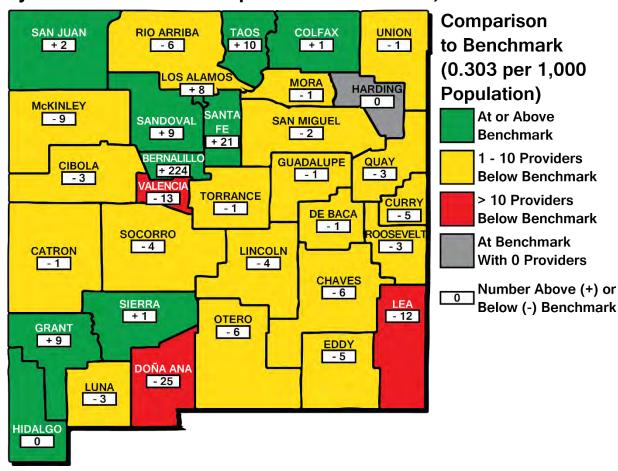


Figure 3.5. Physician assistant workforce relative to the national benchmark of 0.303 PAs per 1,000 population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by 10 or fewer providers (yellow), or below benchmark by more than 10 providers (red). Gray counties have no providers and benchmark values of zero.

Table 3.10. Physician Assistant Distribution by New Mexico County Since 2014

County	2014	2015	2016	2017	2018	Net Change Since 2014
Bernalillo	351	358	391	409	430	79
Catron	0	0	0	0	0	0
Chaves	14	12	13	15	14	0
Cibola	0	4	5	4	5	5
Colfax	4	4	3	4	5	1
Curry	6	9	12	11	10	4
De Baca	0	0	0	0	0	0
Doña Ana	33	35	38	44	41	8
Eddy	6	10	10	9	13	7
Grant	18	18	15	17	17	-1
Guadalupe	1	0	0	1	0	-1
Harding	0	0	0	0	0	0
Hidalgo	1	2	2	1	1	0
Lea	10	9	9	11	9	-1
Lincoln	1	1	2	2	2	1
Los Alamos	6	11	11	13	14	8
Luna	3	3	3	3	4	1
McKinley	12	13	12	10	13	1
Mora	0	1	1	0	0	0
Otero	11	14	14	14	14	3
Quay	0	0	0	1	0	0
Rio Arriba	8	10	10	7	6	-2
Roosevelt	3	3	2	3	3	0
San Juan	38	35	36	42	40	2
San Miguel	8	7	7	9	6	-2
Sandoval	54	45	53	52	53	-1
Santa Fe	66	58	61	75	66	0
Sierra	4	5	4	4	4	0
Socorro	3	2	2	1	1	-2
Taos	19	19	19	19	20	1
Torrance	0	2	3	3	4	4
Union	0	0	0	0	0	0
Valencia	14	8	8	8	10	-4
STATE TOTAL	694	698	746	792	805	109

Table 3.11. Counties with the Greatest Numbers of Physician Assistants Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Doña Ana	25
Valencia	13
Lea	12
McKinley	9

### III.C.1.b. Methodological Notes

Estimated counts of PAs are based on 1,107 PAs with active license in New Mexico, comprising 762 surveyed PAs and 345 PAs who have an active license but no survey. County-level counts include all PAs, regardless of specialty, consistent with our national benchmark metric. As for physicians, surveyed PAs were allocated to counties by the five-digit ZIP code of their self-reported primary practice location; for un-surveyed PAs, the county was identified by the licensure address ZIP code.

### III.C.1.c. Discussion

Figure 3.5 shows the county-level comparison of New Mexico's PAs to the national benchmark of 0.303 PAs per 1,000 population. For the state as a whole, the estimated 805 PAs represent a statewide PA-to-population ratio of 0.38 per 1,000, or 170 above the national benchmark. However, 22 counties (66.7%) were below benchmark. The counties most below benchmark were Doña Ana, Lea, McKinley and Valencia, and together would require 59 PAs to achieve benchmark PA-to-population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 115 PAs would be needed to meet the national benchmark in all counties.

Since 2014, net decreases in PA workforce have been observed in eight counties: Grant, Guadalupe, Lea, Rio Arriba, San Miguel, Sandoval, Socorro and Valencia. Eleven counties have remained stable (five with zero providers) and 14 have increased. The largest gains since 2014 have occurred in Bernalillo, Doña Ana and Los Alamos counties; all other counties show net increases of four or fewer PAs. In 2017, changes to PA practice regulations made provisions for collaborative practice, a licensure designation available to PAs who have practiced under supervision for at least three years that allows more independence of practice and billing.<sup>29</sup> We are optimistic that this change will have a positive impact on the state's PA workforce.

PA specialties are not reflected in the estimated counts described above, in order to match the inclusion criteria of our benchmark metric. According to the National Commission on Certification of Physician Assistants, approximately 40 percent of PAs work in primary care fields, indicating that there could be 322 PAs providing primary care in New Mexico. In 2017 the PA survey was amended to include an item asking respondents' specialties; as a result, we anticipate being able to report more in-depth information on PAs' specialties in the near future (see Section III.D.2).

### III.C.2. Certified Nurse-Midwives

### III.C.2.a. Executive Summary

In 2018, there were an estimated 169 CNMs practicing in New Mexico, 79.3% of the total number licensed and nine fewer than in 2017 (Figure 3.6, Appendix B.8). Table 3.12 tracks changes in each county's CNM workforce since 2016. CNMs have shown an overall increase of 13 in the state since 2016; seven counties show a net gain and five a net loss. Only 10 counties are below benchmark for these practitioners. The counties most below benchmark are Sandoval (-3), Lea and Valencia (-2 each) (Table 3.13). The state as a whole has 96 more CNMs than the national benchmark, yet assuming no redistribution of the current workforce, an additional 14 CNMs would be needed for all New Mexico counties to meet the national benchmark (7.05 per 100,000 female population).

# CNMs Compared to Benchmark, 2018

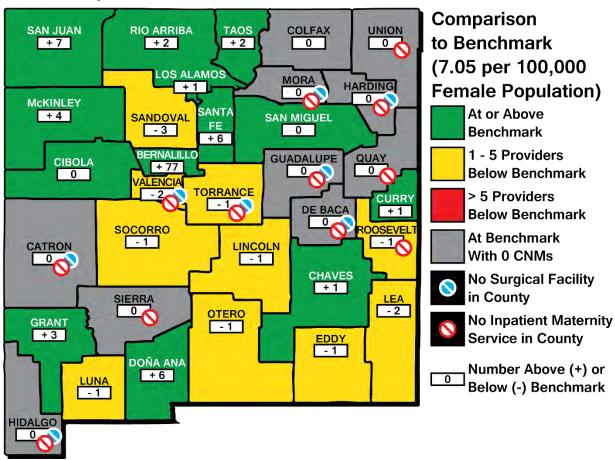


Figure 3.6. CNM workforce relative to the national benchmark of 7.05 CNMs per 100,000 female population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by five or fewer providers (yellow), or below benchmark by more than five providers (red). Gray counties have no providers and benchmark values of zero. Red "no" symbols denote counties without inpatient labor and delivery facilities; blue "no" symbols denote counties without surgical facilities.

Table 3.12. CNM Distribution by New Mexico County Since 2016

County	2016	2017	2018	Net Change Since 2016
Bernalillo	89	104	101	12
Catron	0	0	0	0
Chaves	2	3	3	1
Cibola	1	1	1	0
Colfax	0	0	0	0
Curry	3	3	3	0
De Baca	0	0	0	0
Doña Ana	9	14	14	5
Eddy	1	1	1	0
Grant	4	4	4	0
Guadalupe	0	0	0	0
Harding	0	0	0	0
Hidalgo	0	0	0	0
Lea	0	0	0	0
Lincoln	0	0	0	0
Los Alamos	1	2	2	1
Luna	0	0	0	0
McKinley	7	7	7	0
Mora	0	0	0	0
Otero	1	1	1	0
Quay	0	0	0	0
Rio Arriba	0	2	3	3
Roosevelt	0	0	0	0
San Juan	6	9	11	5
San Miguel	3	3	1	-2
Sandoval	8	5	2	-6
Santa Fe	16	14	11	-5
Sierra	0	0	0	0
Socorro	1	0	0	-1
Taos	4	4	3	-1
Torrance	0	0	0	0
Union	0	0	0	0
Valencia	0	1	1	1
STATE TOTAL	156	178	169	13

Table 3.13. Counties with the Greatest Numbers of CNMs Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Sandoval	3
Lea, Valencia	2 each

## III.C.2.b. Methodological Notes

CNM licensure and survey data from the New Mexico Department of Health were merged with Board of Nursing licensure and survey data for analysis of CNMs. The estimated counts of CNMs are based on New Mexico's 213 actively licensed CNMs, of whom 169 were found to practice in New Mexico. As for CNPs/CNSs, CNMs were allocated to counties by their self-reported practice five-digit ZIP code from the Board of Nursing survey.

#### III.C.2.c. Discussion

Figure 3.6 shows the county-level comparison of New Mexico's CNMs to the national benchmark of 7.05 CNMs per 100,000 female population. For the state as a whole, the estimated 169 CNMs practicing in New Mexico represent a statewide CNM-to-female population ratio of 16.0 per 100,000 – over twice the national benchmark and totaling 96 above the national benchmark. This is to be expected, given the substantial contributions made by CNMs to women's health in New Mexico discussed in Section III.E.

Ten counties (30.3%) were below benchmark; however, all required five or fewer CNMs to achieve benchmark CNM-to-female population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 14 CNMs would be needed to meet the national benchmark in all counties.

Since 2016, net decreases in the CNM workforce have been observed in five counties: San Miguel (likely following the temporary closure of the labor and delivery inpatient service, since reopened), Sandoval, Santa Fe, Socorro and Taos. All other counties have remained stable (21 counties, 15 with zero CNMs) or increased (seven counties). Substantial gains have been observed in Bernalillo, Doña Ana and San Juan counties, with increases of 12, five and five CNMs, respectively.

## III.C.3. Licensed Midwives

## III.C.3.a. Executive Summary

In 2018, there were an estimated 40 LMs practicing in New Mexico, 51.3% of the total number licensed and two fewer than in 2017 (Figure 3.7, Appendix B.9). Table 3.14 tracks changes in each county's LM workforce since 2016. There has been an overall increase of two LMs in the state since 2016, and only four counties – Chaves, Lea, McKinley, and San Juan (-1 each) – are below benchmark for these practitioners (Table 3.15). The state as a whole has 24 more LMs than the national benchmark, yet assuming no redistribution of the current workforce, an additional four LMs would be needed for all New Mexico counties to meet the national benchmark (1.7 per 100,000 female population).

# LMs Compared to Benchmark, 2018

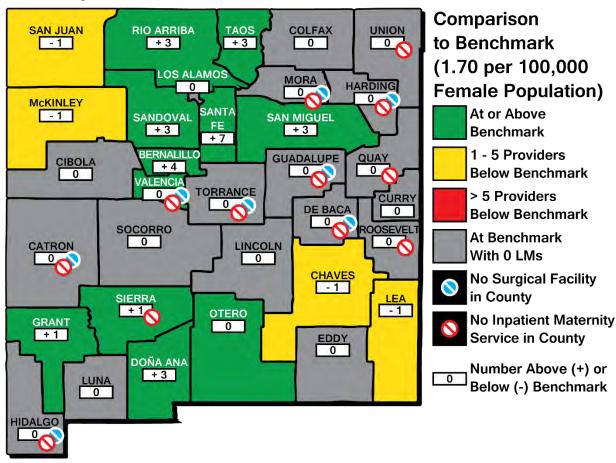


Figure 3.7. LM workforce relative to the national benchmark of 1.7 LMs per 100,000 female population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by five or fewer providers (yellow), or below benchmark by more than five providers (red). Gray counties have no providers and benchmark values of zero. Red "no" symbols denote counties without inpatient labor and delivery facilities; blue "no" symbols denote counties without surgical facilities.

Table 3.14. LM Distribution by New Mexico County Since 2016

County	2016	2017	2018	Net Change Since 2016
Bernalillo	10	10	10	0
Catron	0	0	0	0
Chaves	0	0	0	0
Cibola	1	1	0	-1
Colfax	0	0	0	0
Curry	0	0	0	0
De Baca	0	0	0	0
Doña Ana	4	5	5	1
Eddy	0	0	0	0
Grant	1	1	1	0
Guadalupe	0	0	0	0
Harding	0	0	0	0
Hidalgo	0	0	0	0
Lea	0	0	0	0
Lincoln	0	0	0	0
Los Alamos	0	0	0	0
Luna	0	0	0	0
McKinley	0	0	0	0
Mora	0	0	0	0
Otero	1	1	1	0
Quay	0	0	0	0
Rio Arriba	2	3	3	1
Roosevelt	0	0	0	0
San Juan	0	0	0	0
San Miguel	1	3	3	2
Sandoval	3	3	4	1
Santa Fe	7	7	8	1
Sierra	1	1	1	0
Socorro	0	0	0	0
Taos	6	6	3	-3
Torrance	0	0	0	0
Union	0	0	0	0
Valencia	1	1	1	0
STATE TOTAL	38	42	40	2

Table 3.15. Counties with the Greatest Numbers of Licensed Midwives Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Chaves, Lea, McKinley, San Juan	1 each

#### III.C.3.b. Methodological Notes

In analyzing the 2016 LM workforce for the 2017 report, both regularly licensed and apprentice midwives were counted. Since 2017, only regularly licensed LMs are counted. Where 2016 counts are included in this report, numbers have been corrected to exclude apprentices.

The estimated counts of LMs are based on New Mexico's 78 actively licensed LMs, of whom 36 (46.2%) have been surveyed and 42 are un-surveyed. Forty were found to practice in New Mexico. LMs were allocated to counties by their city and state as reported on the Department of Health LMs roster.

#### III.C.3.c. Discussion

Figure 3.7 shows the county-level comparison of New Mexico's LMs to the national benchmark of 1.7 LMs per 100,000 female population. For the state as a whole, the estimated 40 LMs represent a statewide LM-to-female population ratio of 3.8 per 100,000, or 24 above the national benchmark. Only four counties (12.1%) were below benchmark. For the state as a whole, and assuming no redistribution of the current workforce, an additional four LMs would be needed to meet the national benchmark in all counties.

Since 2016, two counties – Cibola and Taos – have seen a decrease in LM workforce. Twenty-six counties have remained stable (21 with zero LMs) and five have increased. These gains have occurred in Doña Ana, Rio Arriba, San Miguel, Sandoval and Santa Fe counties.

The large number of gray counties shown in Figure 3.7 highlights the relative scarcity of LMs, both in the state and nationwide. However, it is important to note that in Sierra County, an LM practices as the only birth attendant. Valencia County shared this distinction in our 2017 annual report,<sup>5</sup> but has since continued to retain a CNM. Sierra County is also without a hospital maternity service, a reflection of LMs' predominately home-birthing attendance.

#### III.C.4. Dentists

### III.C.4.a. Executive Summary

In 2018, there were an estimated 1,216 dentists practicing in New Mexico, 75.6% of the total number licensed and one more than in 2017 (Figure 3.8, Appendix B.10). Table 3.16 tracks changes in each county's dentist workforce since 2014. With an overall increase of 135 dentists in the state since 2014, 18 counties have shown a net gain; 15 counties are currently below benchmark for these practitioners. The counties most below benchmark are Eddy, Lea (-9 each), Otero (-7) and Torrance (-4) (Table 3.17). The state as a whole has 376 more dentists than the national benchmark, yet assuming no redistribution of the current workforce, an additional 46 dentists would be needed for all New Mexico counties to meet the national benchmark (1.0 per 2,500 population).

# **Dentists Compared to Benchmark, 2018**

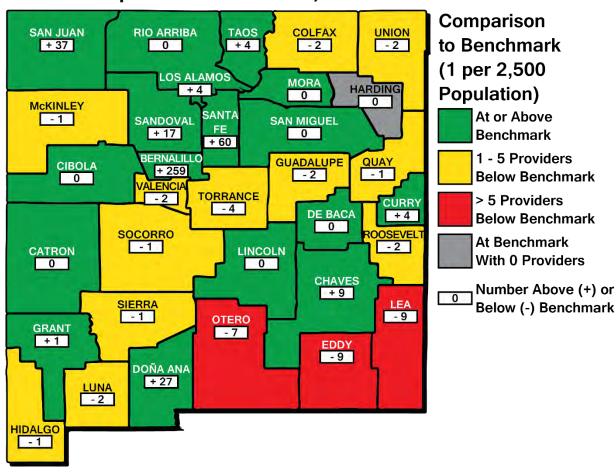


Figure 3.8. Dentist workforce relative to the national benchmark of one dentist per 2,500 population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by five or fewer providers (yellow), or below benchmark by more than five providers (red). Gray counties have no providers and benchmark values of zero.

Table 3.16. Dentist Distribution by New Mexico County Since 2014

County	2014	2015	2016	2017	2018	Net Change Since 2014
Bernalillo	480	504	508	533	530	50
Catron	1	1	1	1	1	0
Chaves	21	24	28	32	35	14
Cibola	8	8	9	11	11	3
Colfax	4	4	4	4	3	-1
Curry	25	29	27	24	24	-1
De Baca	0	0	0	0	1	1
Doña Ana	95	104	106	109	114	19
Eddy	15	19	19	17	14	-1
Grant	13	11	13	12	12	-1
Guadalupe	1	1	2	1	0	-1
Harding	0	0	0	0	0	0
Hidalgo	0	0	0	1	1	1
Lea	19	17	23	22	19	0
Lincoln	8	10	8	9	8	0
Los Alamos	16	15	14	12	12	-4
Luna	7	7	8	7	8	1
McKinley	32	31	29	28	28	-4
Mora	1	1	2	2	2	1
Otero	19	18	17	21	20	1
Quay	1	1	1	1	2	1
Rio Arriba	10	11	14	16	16	6
Roosevelt	3	3	5	4	5	2
San Juan	71	78	88	89	87	16
San Miguel	12	10	9	10	11	-1
Sandoval	60	60	69	77	75	15
Santa Fe	112	114	121	117	120	8
Sierra	6	4	3	2	3	-3
Socorro	4	4	4	5	6	2
Taos	15	17	16	20	17	2
Torrance	2	2	2	2	2	0
Union	0	0	0	0	0	0
Valencia	20	23	21	26	29	9
STATE TOTAL	1,081	1,131	1,171	1,215	1,216	135

Table 3.17. Counties with the Greatest Numbers of Dentists Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Eddy, Lea	9 each
Otero	7
Torrance	4

#### III.C.4.b. Methodological Notes

New Mexico has 1,608 actively licensed dentists, of whom 1,118 (69.5%) have completed a license renewal survey. Surveyed dentists were allocated to counties by the five-digit ZIP code of their self-reported primary practice location; for un-surveyed dentists, the county was identified by the licensure address ZIP code.

## III.C.4.c. Discussion

Figure 3.8 shows the county-level comparison of New Mexico's dentists to the national benchmark of one per 2,500 population. For the state as a whole, the estimated 1,216 dentists practicing in New Mexico represent a statewide dentist-to-population ratio of 1.5 per 2,500, or 376 above the national benchmark. However, 15 counties (45.5%) were below benchmark. The counties most below benchmark were Eddy, Lea, Otero and Torrance, and together would require 29 dentists to achieve benchmark dentist-to-population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 46 dentists would be needed to meet the national benchmark in all counties.

Since 2014, net decreases in the dentist workforce have been observed in nine counties: Colfax, Curry, Eddy, Grant, Guadalupe, Los Alamos, McKinley, San Miguel and Sierra. Six counties have remained stable (two with zero dentists) and 18 have increased. The most substantial gains have been in Bernalillo, Doña Ana, San Juan and Sandoval counties.

## III.C.5. Emergency Medical Technicians

## III.C.5.a. Executive Summary

In 2018, there were an estimated 6,501 EMTs practicing in New Mexico, 88.4% of the total number licensed and 137 more than in 2017 (Figure 3.9, Appendix B.11). Table 3.18 tracks changes in each county's EMT workforce since 2016. There has been an overall increase of 400 EMTs in the state since 2016, and 22 counties have shown a net gain. Ten counties are below benchmark for these practitioners; the counties most below benchmark are Doña Ana (-153), Otero (-58), Valencia (-47), San Miguel (-37) and Cibola (-27) (Table 3.19). The state as a whole has 487 more EMTs than the national benchmark, yet assuming no redistribution of the current workforce, an additional 392 EMTs would be needed for all New Mexico counties to meet the national benchmark (2.87 per 1,000 population).

# **Emergency Medical Technicians Compared to Benchmark, 2018**

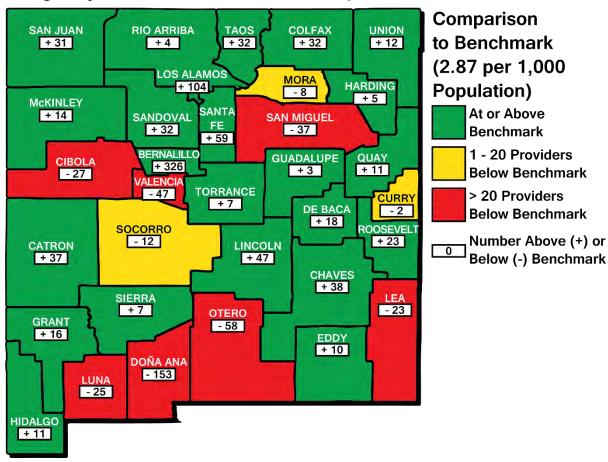


Figure 3.9. EMT workforce relative to the national benchmark of 2.87 EMTs per 1,000 population is shown in the white boxes. Each county's color indicates whether it is at or above benchmark (green), below benchmark by 20 or fewer providers (yellow), or below benchmark by more than 20 providers (red).

Table 3.18. EMT Distribution by New Mexico County Since 2016

County	2016	2017	2018	Net Change Since 2016
Bernalillo	2,031	2,242	2,274	243
Catron	39	42	47	8
Chaves	216	223	224	8
Cibola	45	45	50	5
Colfax	65	66	67	2
Curry	120	137	140	20
De Baca	22	22	23	1
Doña Ana	469	468	471	2
Eddy	166	164	176	10
Grant	94	95	92	-2
Guadalupe	20	16	17	-3
Harding	6	7	8	2
Hidalgo	26	23	22	-4
Lea	142	163	177	35
Lincoln	109	101	103	-6
Los Alamos	85	122	159	74
Luna	45	42	44	-1
McKinley	194	207	221	27
Mora	5	5	5	0
Otero	127	132	134	7
Quay	27	35	35	8
Rio Arriba	131	123	116	-15
Roosevelt	78	74	77	-1
San Juan	364	375	390	26
San Miguel	39	37	42	3
Sandoval	553	480	449	-104
Santa Fe	397	464	490	93
Sierra	47	38	38	-9
Socorro	32	34	36	4
Taos	126	132	126	0
Torrance	57	51	52	-5
Union	17	23	24	7
Valencia	207	176	172	-35
STATE TOTAL	6,101	6,364	6,501	400

Table 3.19. Counties with the Greatest Numbers of EMTs Below National Benchmark

County	Practitioners Needed to Meet Benchmark
Doña Ana	153
Otero	58
Valencia	47
San Miguel	37
Cibola	27

## III.C.5.b. Methodological Notes

Because our identified benchmark metric includes only EMTs of license type basic, intermediate and paramedic (EMT-B, EMT-I and EMT-P),<sup>19</sup> our analysis only includes individuals with these licenses. New Mexico also issues dispatcher and first responder licenses, but these individuals were excluded from the EMT counts.

The estimated counts of EMTs are based on New Mexico's 8,387 actively licensed EMTs, of whom 7,358 (87.7%) are of license types EMT-B, EMT-I and EMT-P. EMTs complete surveys at initial licensure and license renewal; as a result, survey responses are available for all licensees. EMTs were allocated to counties by self-reported employment county.

#### III.C.5.c. Discussion

Figure 3.9 shows the county-level comparison of New Mexico's EMTs to the national benchmark of 2.87 EMTs per 1,000 population. For the state as a whole, the estimated 6,501 EMTs practicing in New Mexico represent a statewide EMT-to-population ratio of 3.1 per 1,000, or 487 above the national benchmark. However, 10 counties (30.3%) were below benchmark. The counties most below benchmark were Cibola, Doña Ana, Otero, Valencia and San Miguel, and together would require 322 EMTs to achieve benchmark EMT-to-population ratios. For the state as a whole, and assuming no redistribution of the current workforce, an additional 392 EMTs would be needed to meet the national benchmark in all counties.

Since 2016, net decreases in the EMT workforce have been observed in 11 counties. Two counties have remained stable, and 20 have increased. The most substantial decrease was observed in Sandoval County, which showed a net loss of 104 EMTs, while the largest increases occurred in Bernalillo, Santa Fe and Los Alamos counties (gains since 2016 of 243, 93 and 74, respectively).

EMTs continued to show a bimodal distribution relative to benchmark, with 16 counties falling more than 10 EMTs above benchmark and seven falling more than 20 below benchmark. In addition, this third year of survey data for EMTs confirmed prior years' observations of notable volatility in county-level workforce. Since 2017, three counties (Bernalillo, Los Alamos and Santa Fe) have shown gains of more than 20 EMTs, and one county (Sandoval) has shown a loss greater than 20 EMTs.

As discussed in the 2018 annual report,<sup>6</sup> it is important to remember that across all of the professions analyzed, the practitioner counts are based upon active licenses to match the national benchmarks used; the proportion of these individuals' time spent on health care activities is not examined. With respect to EMTs, it is thought that many maintain certification to practice on a volunteer rather than full-time professional basis. Alternatively, it may be that more EMTs are needed in New Mexico than in the average state. With our scant and maldistributed workforce for many other health professions, these

individuals may serve a larger role in New Mexico communities than in states better-supplied with health workforce. In future years, we will explore this phenomenon in greater depth.

## III.D. Status of Survey Transitions

#### III.D.1. Pharmacists

In 2017, the Board of Pharmacy restructured their survey data collection in order to remedy the committee's earlier inability to merge licensure and survey data for a complete snapshot of these health care providers. Prior to that time, all analysis of pharmacists by the committee used licensure mailing addresses, as it was not possible to match the anonymous surveys with individual licensees. Now that surveyed practice addresses are beginning to be available, we anticipate that the distribution of the state's pharmacists by counties will change appreciably as the mailing addresses of un-surveyed individuals are replaced with practice addresses for a more accurate understanding of the pharmacists serving communities statewide. To date, only 20.3% of the state's registered pharmacists have completed surveys under the enhanced methodology. We plan to resume our analysis of pharmacists once a majority have been surveyed under the new system.

## III.D.2. The Primary Care Workforce

Physicians, certified nurse practitioners and physician assistants all contribute greatly to New Mexico's primary care workforce. To analyze this sector of the health care workforce, in past years the committee has examined primary care advanced practice registered nurses and an estimated 40 percent of PAs practicing in primary care alongside primary care physicians.

The Board of Nursing has recently updated the options nurses can select from in identifying their area of practice. Similarly, specialty data for physician assistants began to be collected in 2017. These changes will allow more accurate identification of the members of these professions who provide primary care. At this time, however, these new responses have been collected from a relatively small proportion of these practitioners. As for pharmacists, we plan to resume our analysis of primary care physicians, advanced practice registered nurses and physician assistants once a majority of the latter two professions have been surveyed under the enhanced methodology.

## III.E. Discussion of the Women's Health and Birth Attendant Workforce

Since the 2017 report, we have analyzed not only obstetrics and gynecology physicians (OB-GYNs), but also certified nurse-midwives (CNMs) and licensed midwives (LMs). All three types of provider contribute substantially to women's health in New Mexico.

OB-GYNs are physicians specially trained to treat obstetric (pregnancy- and birth-related) and/or gynecological (related to the female reproductive system) health issues. OB-GYNs provide prenatal care and attend births at hospitals for both normal and high-risk pregnancies, perform caesarean deliveries if the need arises, and provide the full spectrum of women's health care.

Certified nurse-midwives have undergone training in both nursing and midwifery; they are educated at a master's degree level in both nursing and midwifery and certified by the American College of Nurse Midwives. The care CNMs provide includes prenatal care and birth attendance in hospitals, birthing centers and homes, as well as routine well-woman care and treatment for minor gynecological conditions.

Licensed midwives are sometimes called direct-entry midwives. Direct-entry midwives may be trained through self-study, apprenticeship or a school of midwifery. New Mexico is one of 27 states that license direct-entry midwives. In New Mexico, all LMs are required to be certified professional midwives – a certification overseen by the North American Registry of Midwives. This certification requires training and education (through apprenticeship or an accredited program such as the National College of Midwifery in Taos), supervised clinical experience and a written exam. LMs provide prenatal care and birth attendance in homes and birthing centers. They may not prescribe medications, but they do have limited authority to administer them.

New Mexico has the highest proportion of midwife-attended births in the United States. CNMs attend 8% of births in the nation as a whole, while in New Mexico, 26% of births are attended by CNMs.<sup>30</sup> This is thought to be due to the autonomy of practice allowed CNMs in the state, the official recognition and licensure of direct-entry midwives (LMs) and our history as a frontier state.

In addition to the above practitioners, it is important to note that physicians specializing in family medicine may also provide obstetric and gynecological care to New Mexico's women. These providers are included among the primary care physicians discussed in Section III.B.1; we have not included them here due to the difficulty of quantifying their relative contributions to primary care (for both children and adults) and obstetrics and gynecology.

In this section, there is analysis of all three types of providers exclusively practicing in women's health and birth attendance. OB-GYNs are discussed in Section III.B.2, CNMs in Section III.C.2, and LMs in Section III.C.3. Here, we discuss what the distribution of all three provider types indicates for the health care of New Mexican women.

Table 3.20 shows the counts of all three types of women's health providers and birth attendants by county. Notable is the absence of all three types of providers from 10 counties: Catron, De Baca, Guadalupe, Harding, Hidalgo, Mora, Quay, Roosevelt, Torrance and Union. That is, *30.3 percent of New Mexico counties have no women's health specialists at all*. These counties have changed slightly since 2017, as Hidalgo has lost its single OB-GYN.

Table 3.20. Women's Health Providers and Birth Attendants by County

County	OB-GYN Physicians	CNMs	LMs	TOTAL	Net Change Since 2017
Bernalillo	154	101	10	265	0
Catron	0	0	0	0	0
Chaves	6	3	0	9	-1
Cibola	3	1	0	4	-1
Colfax	3	0	0	3	-1
Curry	8	3	0	11	2
De Baca	0	0	0	0	0
Doña Ana	22	14	5	41	-1
Eddy	6	1	0	7	-1
Grant	3	4	1	8	0
Guadalupe	0	0	0	0	0
Harding	0	0	0	0	0
Hidalgo	0	0	0	0	-1
Lea	10	0	0	10	0
Lincoln	3	0	0	3	1
Los Alamos	5	2	0	7	1
Luna	2	0	0	2	0
McKinley	3	7	0	10	-4
Mora	0	0	0	0	0
Otero	6	1	1	8	0
Quay	0	0	0	0	0
Rio Arriba	5	3	3	11	2
Roosevelt	0	0	0	0	0
San Juan	8	11	0	19	3
San Miguel	1	1	3	5	-3
Sandoval	10	2	4	16	-1
Santa Fe	15	11	8	34	-3
Sierra	0	0	1	1	0
Socorro	4	0	0	4	0
Taos	2	3	3	8	-6
Torrance	0	0	0	0	0
Union	0	0	0	0	0
Valencia	0	1	1	2	0
STATE TOTAL	279	169	40	488	-14

In 2018, OB-GYNs were the sole obstetric practitioners in five counties and an LM in one. Previous research has found that of the three types of provider, CNMs were least likely to practice in rural counties: in 2016, 18 percent of CNMs practiced in rural counties, compared with 28 percent of OB-GYNs and 35 percent of LMs.<sup>31</sup>

Following the 2018 reopening of maternity services at San Miguel county's Alta Vista Regional Hospital, 11 counties had no hospital maternity services in 2018. Eight counties lack surgical facilities in which to perform caesarean deliveries. It is a great boon to the state that the inpatient maternity service has reopened in San Miguel County, as it is the only such service in the entire northeast quadrant of the state.

The needs of rural hospitals to balance costly facilities and services with their relatively low demand due to low population density make it challenging to maintain maternity services, and some degree of regionalization of care is perhaps unavoidable due to these economic pressures. Nonetheless, it will be important to explore ways to ease access to maternity and particularly prenatal care for women in these underserved counties.

## III.F. Demographics of Selected Health Professionals

## III.F.1. Executive Summary

The demographic data collection required under the Work Force Data Collection, Analysis and Policy Act is a tremendous resource for workforce analysis and planning. In this section, we present for New Mexico's physicians (MDs and DOs), PAs, RNs and CNPs/CNSs three demographic categories important for state workforce planning efforts: gender, race/ethnicity and age.

In each table, the total practitioner counts indicate the number of practitioners who completed a survey and/or completed the relevant survey item; as a result, these counts may differ from the counts presented earlier in Sections II and III. In comparison to New Mexico's population,<sup>32</sup> the physician workforce is more likely to be male, non-Hispanic, and Asian or (to a lesser extent) Black. While New Mexico's physicians continue to be older than the national average, their median age (53.3) has remained stable since 2017.

In contrast, New Mexico's PAs and nurses are more likely than the state's population as a whole to be female; they are also more likely than the state's population to be non-Hispanic and Asian or (for PAs) white. As is to be expected based on the length of training required, PAs, RNs and CNPs/CNSs are all younger than the state's physicians: the median age for PAs is 43.6, for RNs 46.6 and for CNPs/CNSs 50.6.

## III.F.2. Gender

Across all specialties, 35.9% of New Mexico's physicians were female and 64.1% male in 2018 (Table 3.21). These proportions do not reflect the state's population as a whole, but compare favorably to the national median of 33.8% female and 66.2% male.<sup>33</sup> Female physicians make up 43.9% of PCPs, 60% of OB-GYNs and 39.4% of psychiatrists, but only 21.7% of general surgeons. The gender distribution of New Mexico's physicians continues to remain stable: in 2012, MDs were 35.1% female and 64.8% male.<sup>1</sup>

Table 3.21. Gender of Surveyed New Mexico Physicians

Gender	NM Pop. <sup>32</sup>	All MDs and DOs		Primar	y Care	OB-	GYN	Gen Surg		Psychi	atrists
	%	Count	%	Count	%	Count	%	Count	%	Count	%
Female	50.5%	1,623	35.9%	716	43.9%	150	60.0%	35	21.7%	109	39.4%
Male	49.5%	2,892	64.1%	914	56.1%	100	40.0%	126	67.0%	168	60.6%
TOTAL		4,515		1,630		250		161		277	

Table 3.22 shows the gender proportions of New Mexico's PAs, RNs and CNPs/CNSs. Unlike physicians, these practitioners are more commonly female, with 62% of state PAs, 88% of RNs, and 86.4% of CNPs/CNSs reporting female gender.

Table 3.22. Gender of Surveyed New Mexico CNPs/CNSs and PAs

Gender	NM Pop. <sup>32</sup>	P/	\s	RI	ls	CNPs/CNSs		
	%	Count	%	Count	%	Count	%	
Female	50.5%	416	62.0%	15,417	88.0%	1,333	86.4%	
Male	49.5%	255	38.0%	2,109	12.0%	209	13.6%	
TOTAL		1,542		671				

## III.F.3. Race and Ethnicity

Diversity of the health care workforce directly affects patient access to care, and is important for meeting the health care needs of New Mexico's racially and ethnically diverse population, especially in rural and underserved communities.

Table 3.23 shows the racial diversity of New Mexico's physicians, PAs, RNs and CNPs/CNSs compared to the state's population as a whole. Compared to the state's population, physicians practicing in-state are less likely to be American Indian or Alaska Native, two or more races or other races. New Mexico's physicians are more likely than the state population as a whole to be Asian or Pacific Islander or Black or African American, and nearly equally likely to be white.

Among PAs, RNs and CNPs/CNSs, individuals reporting a race of American Indian or Alaskan Native were underrepresented and Asian or Pacific Islander individuals were slightly overrepresented. PAs were more likely than the state as a whole to report being white.

Table 3.24 shows the self-reported ethnicity of New Mexico's physicians, PAs, RNs and CNPs/CNSs compared to the state's population as a whole. Hispanic individuals were underrepresented across all three professions relative to the state's population. With the exception of RNs, fewer than one in four of these health professionals self-classified as Hispanic, compared to nearly one in two in the New Mexico population. Among RNs, 30.6% identified as Hispanic.

Table 3.23. Race of Surveyed New Mexico Physicians, PAs and Nurses Compared to New Mexico's Population

	Total Count <sup>a</sup>	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	White	Other	Two or More <sup>b</sup>	Hispanic <sup>b</sup>
NM Population <sup>32</sup>	2,084,828	197,191 (9.5%)	31,381 (1.5%)	42,187 (2.0%)	1,547,843 (74.2%)	197,944 (9.5%)	68,282 (3.3%)	See Table 3.25
All Physicians	4,436	39 (0.9%)	479 (10.8%)	128 (2.9%)	3,319 (74.8%)	358 (8.1%)	113 (2.5%)	
Primary Care Physicians	1,588	22 (1.4%)	193 (12.2%)	49 (3.1%)	1,104 (69.5%)	172 (10.8%)	48 (3.0%)	
OB-GYN	248	4 (1.6%)	25 (10.1%)	13 (5.2%)	188 (75.8%)	15 (6.0%)	3 (1.2%)	
General Surgeons	168	1 (0.6%)	28 (16.7%)	5 (3.0%)	116 (69.0%)	14 (8.3%)	4 (2.4%)	
PAs	499	19 (3.8%)	17 (3.4%)	11 (2.2%)	411 (82.4%)	25 (5.0%)	16 (3.2%)	
RNsb	15,205	728 (4.8%)	675 (4.4%)	341 (2.2%)	8,401 (55.3%)	413 (2.7%)	С	4,647 (30.6%)
CNPs/CNSsb	1,437	24 (1.7%)	37 (2.6%)	28 (1.9%)	986 (68.6%)	99 (6.9%)	С	263ª (18.3%)

<sup>&</sup>lt;sup>a</sup> For the rows pertaining to New Mexico's health care workforce, the total count represents those who answered the survey item pertaining to race.

The nursing survey options for race and ethnicity are as follows: African American/Black, American Indian/Alaska Native, Asian/Pacific Islander, Caucasian/White, Other and Hispanic. There is no "Two or More" option.

Table 3.24. Ethnicity of Surveyed New Mexico Physicians, PAs and Nurses Compared to New Mexico's Population

	Total Count <sup>a</sup>	Hispanic or Latino
NM Population <sup>32</sup>	2,084,828	1,004,103 (48.2%)
All Physicians	3,839	653 (17.0%)
Primary Care	1,421	324 (22.8%)
OB-GYN	217	32 (14.7%)
General Surgeons	148	28 (18.9%)
Psychiatrists	237	41 (17.3%)
PAs	420	83 (19.8%)
RNs	15,205	4,647 (30.6%)
CNPs/CNSs	1,314	280 (21.3%)

For the rows pertaining to New Mexico's health care workforce, the total count represents those who answered the survey item pertaining to ethnicity.

## III.F.4. Age

The age distribution of New Mexico physicians is shown in Table 3.25. The median age of New Mexico physicians was 53.3 in 2018. This is the youngest median age since 2012, due largely to the adjustments made to the PCP workforce discussed in III.B.1, but remains comparable to the median ages in 2017 (53.8), 2016 (53.5), 2015 (53.6) and 2012 (53.4). The state's average physician is over one year older than the average for the nation as a whole: New Mexico physicians averaged 53.6 years of age, while the national average is 52.3. Nationally, New Mexico also continues to have the highest percentage of physicians aged 60 or older as reported by the Association of American Medical Colleges (37.0%, compared to 30.3% nationally). The percentage of physicians over 60 practicing in the state is slightly lower (34.6%), but still above the national proportion.

Table 3.25. Age of Surveyed New Mexico Physicians

Age	All Ph	ysicians	Primary Care		OB-GYN		General Surgeons		Psychiatrists	
J	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<25	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
25-34	387	7.3%	148	7.8%	15	5.4%	6	3.2%	6	1.9%
35-44	1,291	24.4%	476	25.0%	81	29.0%	47	25.0%	47	14.8%
45-54	1,140	21.5%	415	21.8%	53	19.0%	46	24.5%	65	20.5%
55-64	1,266	23.9%	464	24.4%	61	21.9%	41	21.8%	97	30.6%
65+	1,190	22.5%	399	20.9%	68	24.4%	46	24.5%	101	31.9%
Unknown	17	0.3%	3	0.2%	1	0.4%	2	1.1%	1	0.3%
TOTAL	5,291		1,902		279		188		317	
Median Age Avg. Age		53.3 53.6		52.9 53.1		52.8 53.6		54.3 54.2		59.0 58.4

The age distribution of the state's PAs, RNs and CNPs/CNSs is shown in Table 3.26. New Mexico's PAs are substantially younger than the state's physicians, with a median age of 43.6. RNs tend to be older than PAs, with a median age of 46.6 years. CNPs/CNSs have gotten younger relative to physicians: in 2017, their median age was 52.3, while for 2018, the median was 50.6.

Table 3.26. Age of Surveyed New Mexico PAs and Nurses

Ama	Р	As	RNs	S	CNPs	CNPs/CNSs		
Age	Count	Percent	Count	Percent	Count	Percent		
<25	0	0.0%	346	2.0%	1	0.1%		
25-34	218	27.1%	3578	20.4%	183	11.9%		
35-44	203	25.2%	4215	24.0%	381	24.7%		
45-54	153	19.0%	3531	20.1%	373	24.2%		
55-64	165	20.5%	3978	22.7%	405	26.3%		
65+	50	6.2%	1878	10.7%	199	12.9%		
Unknown	16	2.0%	0	0.0%	0	0.0%		
TOTAL	805		17,526		1,542			
Median Age Avg. Age		43.6 45.3		46.6 47.4		50.6 50.4		

## III.G. Discussion

Health workforce planning requires efforts to ensure that the right professionals – and combination of professionals for effective teams – are available when and where they are needed to meet a population's health care needs.

We have been pleased this year to be able to update 11 of the 12 professions included in the 2018 report, as well as to restore the focus section on behavioral health (Section IV) and to add nuance to our analysis of PCPs by adjusting for non-practicing individuals. We look forward to resuming our analysis of pharmacists and primary care PAs and CNPs/CNSs in the coming years. In addition, we will continue to add professions and to expand our more detailed analyses – as for primary care physicians and the women's health workforce in recent years – and develop recommendations for training, recruitment and statewide innovations.

Knowing the number of health professionals and where they are practicing is only the first step – though a very important one – in being able to plan for current and future health care workforce needs. The national averages and standard ratios that we are using as benchmarks are meant to be tools for comparison and for representing the distribution of professionals across the state. The analyses based on these metrics do not represent access to care, i.e., whether New Mexico's residents are able to consult health professionals where and when the need arises.

With respect to factors beyond the health care workforce affecting access to care, the committee learned with interest of the statewide transportation system for rural veterans developed under 2019 HM32. We look forward to its implementation, as well as future exploration of expanding this program to all rural residents. Doing so could improve access to secondary and tertiary health care among residents of these underserved areas.

Many factors influence access to care and the capacity of the workforce to meet the population's needs. People living in an area with practitioner-to-population ratios above benchmark values may nevertheless lack access to care for a number of reasons. They might be unable to afford care, for example. Even with affordable health care, they might find that it takes a month or more to get an appointment with a new primary care physician or to see a specialist. Health system issues – including the time needed for preauthorization, billing and other scheduling matters – also greatly affect sufficiency in all areas of the state.

The benchmarks themselves are also inadequate for examining the dynamic nature of the health care workforce under national health care reform and new team-based care models. These new variables underscore the need to know not just the number of professionals, but also what capabilities exist in the workforce and the interconnections between professional roles and potential reconfigurations to enhance quality and capacity.

The report serves as a snapshot of how many health care professionals are practicing in New Mexico and where they are concentrated or lacking – and as a launching point for asking more specific questions about the state's health care workforce and what actions should be taken to enhance access to care for all residents.

## Section IV

## New Mexico's Behavioral Health Workforce

### IV.A. Introduction

The data from the licensure survey allows us to answer specific questions for the following categories of behavioral health providers:

- 1. **Prescribers:** Includes all psychiatrists as defined in Section I.B, certified nurse practitioners or clinical nurse specialists with a practice area of behavioral health, and prescribing psychologists.
- Independently Licensed Clinicians: Practitioners who provide therapy and psychosocial
  interventions for both mental illness and addictions treatment, including non-prescribing
  psychologists, social workers, counselors and marriage and family therapists.
- Non-Independently Licensed Clinicians: Practitioners who have a limited scope of practice to treat mental illness and addictions treatment, including psychology associates, non-independently licensed social workers and non-independently licensed counselors.
- 4. **Substance Use Clinicians:** Practitioners who provide psychosocial interventions to treat addictions, including licensed alcohol and drugs counselors and licensed substance abuse associates. This category includes dedicated substance use clinicians and does not overlap with the other categories, regardless of independent licensure. Unlike other clinicians in the behavioral health workforce, their scope of practice does not include treatment of mental illness.

## IV.B. Methodology

This section presents all data for behavioral health care providers actively licensed and practicing in New Mexico during the 2018 calendar year. The same data sources and methodology was used to identify behavioral health providers as for those providers described in Section I. As discussed in Section I, using licensure data alone to determine practice location would result in over-counting providers because professionals often use a residential address to obtain licensure rather than a practice address. Counts were determined using the practice address of surveyed providers and the mailing address of un-surveyed providers. Providers with out-of-state and unknown zip codes for practice location are excluded from the counts. In 2018, 9,431 behavioral health providers with an active license were practicing in New Mexico.

Surveys are administered by the provider's licensing board upon license renewal only. Several of the tables presented below were derived from survey data including race/ethnicity and gender. Therefore, the total providers included in these tables are lower than the total licensed in the state. In each case, only providers who responded to the survey question are included in the tables. Appendix D.1 provides detailed information about the proportion of providers who were surveyed in 2018.

## IV.C. Analysis of New Mexico's Behavioral Health Workforce

### IV.C.1. Behavioral Health Care Providers

## IV.C.1.a. Behavioral Health Care Providers by Provider Type

In 2018, there were 473 prescribers, 4,723 independently licensed psychotherapy providers, 3,464 non-independently licensed psychotherapy providers and 771 substance abuse treatment providers practicing in New Mexico. Figure 4.1 shows how behavioral health provider-to-population ratios compare among New Mexico's 33 counties and the proportions of these providers made up by the four provider types (see also Appendix D.2). Although there is no widely accepted definition of an ideal ratio for providers to population, this figure provides a view of the ranges that are available in each county. Note, as for all the maps included in this report, that a county falling in the top category does not necessarily have adequate numbers of practitioners. In this case, the county has a large per capita behavioral health workforce relative to other counties in the state.

# Composition of Behavioral Health Care Workforce, 2018

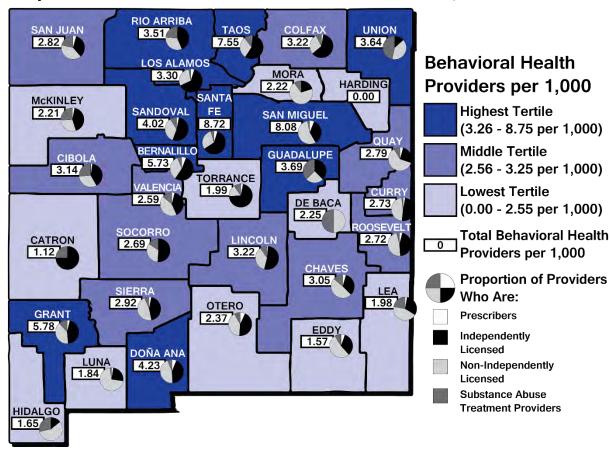


Figure 4.1. White boxes in each county show the total number of behavioral health providers per 1,000 population. County colors indicate whether each county ranks in the top (dark), middle (medium) or bottom (light) third of counties for this measure. Each county's pie chart shows the proportion of prescribers (white), independently-licensed clinicians (black), non-independently licensed clinicians (light gray), or substance use clinicians (dark gray).

Table 4.1 shows the number of behavioral health clinicians in each category by county in 2018. *Of note*, eight counties do not have any access to behavioral health prescribers and two counties do not have any access to independently licensed clinicians. Appendix D.3 breaks the disciplines into smaller categories by license type and includes information about access to child psychiatry. There are no child psychiatrists in 28 out of 33 New Mexico counties.

Table 4.1. Behavioral Health Care Providers by License Category

County	Prescribers <sup>a</sup>	Independently Licensed Psychotherapy Providers	Non- Independently Licensed Psychotherapy Providers	Substance Use Treatment Providers	County Total
Bernalillo	233	2,085	1,346	228	3,892
Catron	0	3	0	1	4
Chaves	9	65	96	27	197
Cibola	2	33	27	22	84
Colfax	1	24	11	3	39
Curry	4	66	62	3	135
De Baca	0	0	2	2	4
Doña Ana	57	398	412	54	921
Eddy	5	30	48	8	91
Grant	6	71	63	18	158
Guadalupe	0	6	4	6	16
Harding	0	0	0	0	0
Hidalgo	0	1	4	2	7
Lea	4	43	60	31	138
Lincoln	1	33	23	6	63
Los Alamos	3	40	18	2	63
Luna	1	11	31	1	44
McKinley	5	67	47	41	160
Mora	0	2	7	1	10
Otero	11	70	64	13	158
Quay	1	6	14	2	23
Rio Arriba	1	59	45	32	137
Roosevelt	2	23	24	2	51
San Juan	16	120	140	76	352
San Miguel	14	79	123	7	223
Sandoval	19	306	207	52	584
Santa Fe	65	799	385	59	1,308
Sierra	1	14	15	2	32
Socorro	0	23	15	7	45
Taos	3	144	75	26	248
Torrance	1	22	5	3	31
Union	0	2	6	7	15
Valencia	8	78	85	27	198
STATE TOTAL	473	4,723	3,464	771	9,431

<sup>&</sup>lt;sup>a</sup> This column includes 306 Medical Doctors and 11 Doctors of Osteopathy.

## IV.C.1.b. Independently and Non-Independently Licensed Behavioral Health Care Providers

As non-independently licensed counselors and social workers progress toward full independent licensure, they must meet regularly with an independently licensed clinician for supervision. Figure 4.2 shows the proportions of independently and non-independently licensed clinicians in each county (see also Appendix D.4). This information is helpful for developing sustainable pathways to full licensure for all clinicians. In communities with high proportions of non-independently licensed clinicians, it will be important to create structures for access to clinical supervision with independently licensed clinicians. Some rural New Mexico counties have especially high proportions of non-independently licensed clinicians, which reflects the relative scarcity of independently licensed behavioral health clinicians in these communities.

## Percent of Clinicians with Independent Licensure, 2018

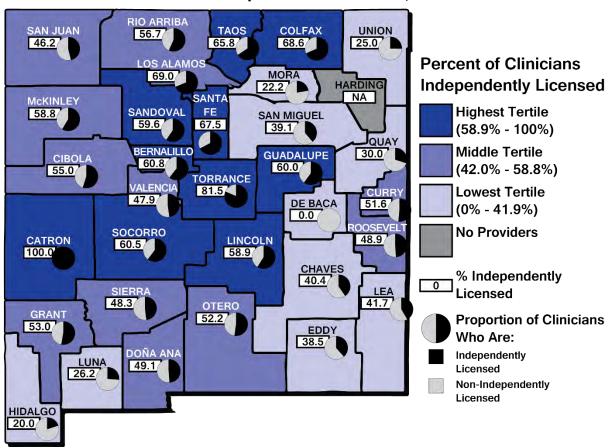


Figure 4.2. The white box for each county shows the percent of clinicians with independent licensure; colors indicate whether each county ranks in the top (dark), middle (medium) or bottom (light) third for this value. Harding County, which has no behavioral health providers, is colored gray. Pie charts show proportions of independently (black) or non-independently (gray) licensed clinicians.

In order to strengthen our workforce, it will be helpful to expand efforts to provide clinical supervision via telehealth with a particular focus on counties that have a higher proportion of non-independently licensed behavioral health providers compared to independently licensed clinicians. Chaves, De Baca, Doña Ana, Eddy, Hidalgo, Lea, Luna, Mora, Quay, Roosevelt, Sandoval, San Juan, Sierra, Union and Valencia counties have fewer independently licensed behavioral health providers than non-independently licensed clinicians. This pattern suggests that non-independently licensed behavioral health clinicians in these counties may have difficulty obtaining the necessary supervision to reach independent licensure.

## IV.C.2. Demographics of Behavioral Health Care Providers

#### IV.C.2.a. Gender

Table 4.2 provides the gender demographics of the behavioral health workforce and shows that the majority of clinicians are female, in all license categories.

Table 4.2. Gender of New Mexico Behavioral Health Care Providers Co	compared to New Mexico's
Population	

Gender	NM Pop. <sup>32</sup>	Prescribers		Independently Licensed Psychotherapy Providers		Non- Independently Licensed Psychotherapy Providers		Substance Use Treatment Providers	
	%	Count	%	Count	%	Count	%	Count	%
Female	50.5%	222	51.9%	3,218	77.2%	2,049	83.9%	455	65.6%
Male	49.5%	206	48.1%	949	22.8%	394	16.1%	239	34.4%
TOTAL		428		4,167		2,443		694	

#### IV.C.2.b. Race and Ethnicity

Tables 4.3, 4.4 and 4.5 provide information about the race and ethnicity of the 2,897 behavioral health care providers who were surveyed and answered the questions about race and ethnicity. Table 4.3 shows race data for all behavioral health care providers except for nurse practitioners and nurse specialists, because the race and ethnicity questions on the nurse licensing renewal survey included different categories. Table 4.4 shows their ethnicity. Table 4.5 describes the race and ethnicity of the 98 nurse practitioners and nurse specialists who were surveyed. *Unfortunately, the behavioral health care workforce is less diverse than the population of the state.* 

To address health disparities and to provide culturally and linguistically competent care, it will continue to be important to actively recruit and retain healthcare professionals from diverse backgrounds. *Of note, nearly 50% of non-independently licensed psychotherapy providers are of Hispanic ethnicity, compared to 23% of independently licensed psychotherapy providers.* As discussed above, non-independently licensed clinicians require supervision from practitioners with independent licenses. As New Mexico continues efforts to diversify its workforce and to provide strong mentorship and support to new clinicians, it will be important to increase the pool of potential supervisors from diverse backgrounds.

Table 4.3. Race of Surveyed New Mexico Behavioral Health Care Providers Compared to New Mexico's Population

	Total Count	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	White	Other	Two or More
NM Population <sup>32</sup>	2,084,828	197,191 (9.5%)	31,381 (1.5%)	42,187 (2.0%)	1,547,843 (74.2%)	197,944 (9.5%)	68,282 (3.3%)
Prescribers <sup>a</sup>	263	7 (2.3%)	26 (8.7%)	3 (1.0%)	238 (79.9%)	15 (5.0%)	9 (3.0%)
Ind. License	1,324	30 (1.9%)	16 (1.0%)	26 (1.7%)	1,306 (84.0%)	78 (5.0%)	98 (6.3%)
Non-Ind. License	1,145	74 (5.7%)	10 (0.8%)	29 (2.2%)	997 (77.2%)	119 (9.2%)	63 (4.9%)
Substance Use	165	16 (9.4%)	0 (0.0%)	5 (2.9%)	109 (64.1%)	10 (5.9%)	30 (17.6%)

<sup>&</sup>lt;sup>a</sup> Excludes nurse practitioners and nurse specialists; see table 4.5.

Table 4.4 Ethnicity of Surveyed New Mexico Behavioral Health Care Providers Compared to New Mexico's Population

	Total Count	Hispanic or Latino
NM Population <sup>32</sup>	2,084,828	1,004,103 (48.2%)
Prescribers	263	46 (17.5%)
Ind. License	1,324	308 (23.3%)
Non-Ind. License	1,145	567 (49.5%)
Substance Use	165	56 (33.9%)

<sup>&</sup>lt;sup>a</sup> Excludes nurse practitioners and nurse specialists; see table 4.5.

Table 4.5. Race and Ethnicity of Surveyed New Mexico Psychiatric CNPs/CNSs

	Total Count	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	Hispanic	White, Non- Hispanic	Other
Psychiatric CNPs/CNSs	98	3 (3.1%)	2 (2.0%)	1 (1.0%)	16 (16.3%)	73 (74.5%)	3 (3.1%)

## IV.C.2.c. Age

Table 4.6 provides information about the average age of the various behavioral health providers and the proportion of providers in each age category. Many of New Mexico's behavioral health clinicians are approaching retirement age; therefore, it will be important to continue to recruit new clinicians. Nearly one-third of New Mexico's behavioral health prescribers are at least 65 years of age.

Table 4.6. Age of Behavioral Health Care Providers

Age	Prescribers		Independently Licensed Psychotherapy Providers		Non-Inde <sub>l</sub> Lice Psycho Provi	nsed therapy	Substance Use Treatment Providers	
	n	%	n	%	n	%	n	%
<25	0	0.0%	2	(0.0%)	93	2.7%	13	1.7%
25-34	13	2.8%	404	8.8%	936	27.5%	79	10.4%
35-44	61	13.1%	912	19.8%	873	25.6%	123	17.4%
45-54	103	22.1%	888	19.3%	720	21.1%	178	23.4%
55-64	142	30.4%	1,124	24.4%	557	16.3%	224	29.5%
65+	148	31.7%	1,280	27.8%	230	6.7%	134	17.6%
TOTAL	467		4,610		3,409		760	
Median Age		59.0		56.1		42.3		53.9
Avg. Age		58.0		54.7		44.0		52.3

## Section V

# Update on Previous Recommendations of the New Mexico Health Care Workforce Committee

## V.A. Introduction

Beginning with its 2014 report, the New Mexico Health Care Workforce Committee has proposed solutions to the issues highlighted in its annual analysis of the state's health care providers. These have included both items actionable by the Legislature and more general recommendations for communities and health professional training programs. Here, we review prior years' recommendations and their status.

## V.B. Status of 2014 Recommendations

## V.B.1. 2014 Education and Training Recommendations

Rec. 2014.1

Health professions training programs should be enhanced, including strong support for the University of New Mexico (UNM) School of Medicine, advanced practice registered nurse programs at UNM and New Mexico State University, New Mexico Nursing Education Consortium programs to increase the BSN-prepared workforce, and development of a BA/DDS program similar to UNM's BA/MD program. As the state invests in these programs, the New Mexico Health Care Workforce Committee will need expanded tracking to analyze how many graduates practice in New Mexico.

ACTION: Supplemental appropriations to institutions for nursing program expansion increased from \$1.81 million in FY 2014 to \$8.39 million in FY 2016, with a decrease to \$7.70 million in FY 2018. The Legislative Finance Committee reported that the number of nursing degrees awarded has increased from 932 in 2011 to 1,062 in 2014. It notes that "additional evaluation work is needed ... to fully assess whether investments in expanding nurse education is working as intended." 35

The first graduates from UNM HSC's expanded pediatric nurse practitioner, family nurse practitioner and certified nurse-midwife programs joined the workforce in 2017. Their entry into the workforce will provide an opportunity to analyze the impact of training program expansion on the state's need for advanced practice registered nurses.

Rec. 2014.2

The state should fully support Graduate Medical Education (GME) by continuing funding for nine current GME positions and explore options for increasing the number of funded positions, particularly for practice in rural areas and underserved areas. This would entail developing additional primary care training locations throughout New Mexico.

ACTION: The Legislature fully funded nine residency slots each year in FY 2015 and FY 2016, with an emphasis on internal medicine, family medicine, general surgery and psychiatry. For these 18 slots, \$1.65 million was appropriated to UNM HSC in FY 2018. Additional slots were not funded in either FY 2017 or FY 2018.

The Legislature also appropriated \$399,500 in FY 2015 and FY 2016 to support primary care residencies at Hidalgo Medical Services, a Federally Qualified Health Center in southwestern New Mexico.

The 2014 Legislature also advanced the creation of primary care residency slots by leveraging state Medicaid funds.<sup>36</sup> This program is still in development; if successful, primary care residency development under this program could be supported through the base Medicaid funding budget for residency slots at Federally Qualified Health Centers in New Mexico primary care shortage areas.

Rec. 2014.3

The Community Health Worker certificate should be fully implemented.

ACTION: We have reiterated this recommendation (Rec. 2016.17).

V.B.2. 2014 Financial Incentives for Addressing Shortages

Rec. 2014.4

Financial incentives for recruiting health care professionals should be maintained and expanded on the basis of their demonstrated efficacy. The New Mexico Health Care Workforce committee should be funded in order to collect data, conduct analyses and develop appropriate outcome measures of these programs.

ACTION: In 2015, the LFC reported several state investments in health care workforce financial aid.<sup>35</sup> The Legislature appropriated \$3.9 million for loan-for-service or loan repayment programs in FY 2016, an increase over FY 2014 levels. This included \$200,000 to compensate for funds previously received from a U.S. Department of Health and Human Services matching grant that was not renewed for FY 2014 – 2015. However, we commend the state for its successful efforts to secure this grant again for FY 2019. The amount allocated to loan-for-service or loan repayment programs in FY 2018 has been reduced to \$2.9 million.

In addition, the state expanded funding for Western Interstate Commission for Higher Education positions, which allow students from New Mexico to pay in-state tuition at affiliated dental and veterinary schools in exchange for three years of service in New Mexico. Funding was expanded from \$1.15 million in FY 2015 to \$2.27 million in FY 2016, but as of FY 2018 stands at \$750,000.

Rec. 2014.5

The state tax incentive program should be evaluated for its impact on recruiting and retaining New Mexico's rural health care workforce.

ACTION: We have reiterated this recommendation (Rec. 2015.13).

V.B.3. 2014 Recruitment for Retention in New Mexico Communities

Rec. 2014.6

Recruitment efforts should address social and environmental barriers to successful recruitment.

ACTION: The non-profit New Mexico Health Resources has continued to support recruitment of health professionals to underserved areas. In 2015 – 2016, this organization placed 62 health professionals and 30 physicians with Conrad J-1 Visa Waivers in the state.

Rec. 2014.7

Explore strategies to help manage workloads for health care practitioners and create professional support networks, particularly in health professional shortage areas.

ACTION: Several successful New Mexico programs that foster health professions career development in rural areas – including Hidalgo Medical Services, UNM Locum Tenens, the UNM Physician Access Line and UNM's Health Extension Regional Offices – continue to help manage workloads and create professional support networks, as we reported in 2014 and 2015.

Rec. 2014.8

Enhance linkages between rural practitioners and the UNM Health Sciences Center to improve health care workforce retention.

ACTION: As we reported in 2015, telehealth technologies and virtual clinic platforms such as Project ECHO have continued to enhance primary care practice in rural New Mexico.

V.B.4 2014 New Mexico Health Care Workforce Committee

Rec. 2014.9

The New Mexico Health Care Workforce Committee should be funded in order to conduct its analyses. Funding for this committee will allow it to assess the efficacy of health care workforce programs and study in depth the mental health service environment, as well as expand tracking of health care workforce recruitment and retention.

ACTION: We have reiterated this recommendation (Rec. 2015.14, 2016.18, 2017.8 and 2018.7).

### V.C. Status of 2015 Recommendations

#### V.C.1. 2015 Behavioral Health Recommendations

Rec. 2015.1

With additional funding, UNM HSC can expand statewide access to telehealth consultation with behavioral health clinicians.

ACTION: We recognize the ongoing need to expand telehealth access to direct clinical services and real-time consultation. Given the tight fiscal environment, we will defer this recommendation for the future. In 2016, we instead recommended commencing planning for a statewide telehealth infrastructure to expand behavioral health access (Rec. 2016.8).

Rec. 2015.2

Request that the New Mexico Counseling and Therapy Practice Board and the Board of Psychologist Examiners re-examine their requirements for face-to-face mentoring (to be replaced by tele-mentoring) in order to minimize the barriers to rural practice.

ACTION: As of 2015, the New Mexico Counseling and Therapy Practice Board, the Board of Psychologist Examiners and the Board of Social Work Examiners have agreed to expand or examine expanding the definition of supervised practice toward independent licensure to include tele-mentoring.

Rec. 2015.3

Request that the New Mexico Counseling and Therapy Practice Board, the Board of Social Work Examiners and the Board of Psychologist Examiners eliminate barriers in reciprocity (e.g., eliminate requirements for time practiced in a particular state) to make New Mexico more competitive in recruiting new practitioners.

ACTION: As above, these boards have agreed to examine ways to lessen or eliminate reciprocity barriers to improve practitioner recruitment.

Rec. 2015.4

Request that the New Mexico Behavioral Health Collaborative develop reimbursement mechanisms for services delivered by psychology interns, social work interns and counseling interns when participating in electives in the public behavioral health system.

ACTION: We have reiterated this recommendation (Rec. 2016.2, 2017.10, 2018.10).

Rec. 2015.5

Request that all publicly funded higher education institutions release their licensure board pass rates to the New Mexico Behavioral Health Collaborative and the respective professional licensing boards so that the state can identify areas of continuous quality improvement to ensure that graduates are adequately prepared for licensing board examinations.

ACTION: In 2016, the New Mexico Behavioral Health Collaborative commenced discussions with Higher Education Department to facilitate this action.

Rec. 2015.6

The New Mexico Behavioral Health Collaborative should establish financing systems that promote sustainability and employee retention. Request that the Behavioral Health Collaborative disseminate a strategic plan on this topic by the end of FY 2016.

ACTION: The New Mexico Behavioral Health Collaborative developed and disseminated a strategic plan on sustainable financing systems (see http://www.newmexico.networkofcare.org/ content/client/1446/4.-Strategic-Plan-Implementation-Updated.pdf).

Rec. 2015.7

Request that the Department of Health add social workers and counselors to the list of health care professions who are eligible for New Mexico's Rural Healthcare Practitioner Tax Credit program.

ACTION: See update below at Rec. 2015.15.

Rec. 2015.8

Support recruitment mechanisms by expanding the Rural Primary Health Care Act to include behavioral health and contracting with a non-profit entity for recruitment services.

ACTION: We continue to recognize the ongoing need to support recruitment of behavioral health clinicians. A centralized job board has been created for all New Mexico agencies to recruit for behavioral health clinicians (see http://www.newmexico.networkofcare.org/mh/nocJobBoard/).

The Rural Primary Care Act needs to be expanded to include a specialized behavioral health entity to support recruitment and contracting. Given the tight fiscal environment, we will defer this recommendation for the future.

V.C.2. 2015 Recommendations for Other Health Professions

Rec. 2015.9

We strongly recommend that the Higher Education Department take full advantage of the next opportunity to reinstate the U.S. Department of Health and Human Services matching grant to support New Mexico's loan repayment program.

We commend the Higher Education Department for their successful work to reinstate this funding. The funding was secured in 2018.

Rec. 2015.10

We strongly recommend that the Legislative Health and Human Services (LHHS) and Legislative Finance Committees (LFC) support funding for loan-for-service and loan repayment programs and consider increasing funding levels to enhance rural health care practice.

ACTION: LHHS supported this recommendation in 2015. We have reiterated this recommendation (Rec. 2016.12, 2017.5 and 2018.4)

Rec. 2015.11

We recommend that loan-for-service and loan repayment programs be structured to target the professions most needed in rural areas, rather than prioritizing practitioners with the highest levels of debt.

ACTION: We have reiterated this recommendation (Rec. 2016.13, 2017.5 and 2018.4).

Rec. 2015.12

We recommend that telehealth services be encouraged and funded to assist rural physicians in managing workload and treating complex cases.

ACTION: In 2015, the LHHS endorsed \$3 million in appropriations for Project ECHO. However, no additional funding was provided in the 2016 legislative session due to budgetary constraints. An additional \$50,000 appropriation was made to Project ECHO in FY 2018; however, due to the across-the-board cuts, Project ECHO's FY 2018 appropriation is less than the FY 2017 appropriation.

Rec. 2015.13

We recommend that the Department of Health cooperate with the Taxation and Revenue Department so that the New Mexico Health Care Workforce Committee can analyze the impact of the Rural Health Care Tax Credit on retention.

ACTION: LHHS requested the LFC update the 2011 study of the tax credit. As of August 2016, the Department of Health and Taxation and Revenue Department have initiated analysis of the retention impact of the Rural Health Care Tax Credit.

Rec. 2015.14

We recommend that the Legislature support funding the New Mexico Health Care Workforce Committee to study whether residents have adequate access to the various types of providers.

ACTION: The LFC has recommended supporting the committee's workforce analysis initiatives. LHHS endorsed the 2016 Senate Bill 150 to provide \$300,000 to support the work of the New Mexico Health Care Workforce Committee. However, this bill did not pass. We have reiterated this recommendation (Rec 2016.18, 2017.8 and 2018.7).

Rec. 2015.15

We recommend that pharmacists, counselors and social workers be added to the list of health care practitioners eligible for the Rural Health Care Tax Credit.

ACTION: The 2017 House Bill 68 would have equalized the tax credit among all practitioners at the \$5,000 level and added licensed counselors, pharmacists and social workers. However, this bill did not pass. We have reiterated this recommendation (Rec. 2016.5, 2017.6 and 2018.5).

#### V.D. Status of 2016 Recommendations

#### V.D.1. 2016 Behavioral Health Recommendations

Rec. 2016.1

In compliance with Chapter 61 of NMSA 1978, expedite implementation of professional licensure by endorsement for social workers, counselors and therapists.

ACTION: We defer this recommendation to a future year.

Rec. 2016.2

Develop reimbursement mechanisms through Medicaid for services delivered by trainees in community settings.

ACTION: We have reiterated this recommendation (Rec. 2017.10, 2018.10).

Rec. 2016.3

Identify funding for efforts to support and prepare candidates from diverse backgrounds to complete graduate degrees in behavioral health fields.

ACTION: This recommendation is deferred, given current fiscal constraints.

Rec. 2016.4

Support Medicaid funding for community-based psychiatry residency programs in Federally Qualified Health Centers.

ACTION: The 2014 Legislature also advanced the creation of psychiatry residency slots by leveraging state Medicaid funds.<sup>36</sup> Through this program, psychiatry residency development will be supported through the base Medicaid funding budget for residency slots at Federally Qualified Health Centers in New Mexico primary care shortage areas.

Rec. 2016.5

Request that the Department of Health add social workers and counselors to the list of health care professions who are eligible for New Mexico's Rural Healthcare Practitioner Tax Credit program.

ACTION: As noted for Rec. 2015.15, 2017 HB 68 would have equalized the tax credit among all practitioners at the \$5,000 level and added licensed counselors, pharmacists and social workers. However, this bill did not pass. We have reiterated this recommendation (Rec. 2017.6 and 2018.5).

Rec. 2016.6

Explore opportunities to leverage federal funding for the Health Information Exchange and adoption of electronic health records for behavioral health providers.

ACTION: This recommendation is deferred, as the New Mexico Human Services Department focuses on the update of Centennial Care 2.0.

Rec. 2016.7

Bring licensing boards together to create a unified survey and dataset for behavioral health care providers.

ACTION: The Board of Psychologist Examiners is piloting an updated behavioral health survey with expanded fields to better understand the needs of behavioral health providers.

Rec. 2016.8

Convene a planning group to develop statewide telehealth infrastructure to deliver behavioral health services via telehealth to rural communities.

ACTION: The New Mexico Hospital Association has convened a planning group to explore the financing and sustainability of a statewide emergency telepsychiatry network to provide emergency consultations to patients in emergency departments.

Rec. 2016.9

Support the Collaborative Advanced Psychiatric-Education Exchange Program.

ACTION: The UNM College of Nursing was successful in receiving Health Resources and Services Administration funding to develop a post-master's certificate in psychiatric and mental health through the Collaborative Advanced Psychiatric – Education Exchange initiative.

V.D.2. 2016 Recommendations for Other Health Professions

Rec. 2016.10

Correct the recent omission by the Regulation and Licensing Department of the practice specialty item from the physicians' online license renewal survey platform.

ACTION: We commend the New Mexico Regulation and Licensing Department for their prompt and effective response to this recommendation. The omission was resolved in January 2017.

Rec. 2016.11

Enhance the Physician Assistants' survey with an added practice specialty item.

ACTION: The practice specialty item has been incorporated into the Physician Assistants' license renewal survey in 2017.

Rec. 2016.12

Maintain funding for the loan-for-service and loan repayment programs at their current levels.

ACTION: The Higher Education Department's application to reinstate federal funds was approved by the U.S. Department of Health and Human Services in 2018. Nonetheless, we reiterate our recommendation that funding for these programs be maintained or expanded (Rec. 2017.5, 2018.4).

Rec. 2016.13

Restructure loan-for-service and loan repayment programs to target the professions most needed in rural areas, rather than prioritizing practitioners with the highest levels of debt.

ACTION: We have reiterated this recommendation (Rec. 2017.5 and 2018.4).

Rec. 2016.14

Position the Higher Education Department to take full advantage of the 2017 opportunity to reinstate the U.S. Department of Health and Human Services matching grant to support New Mexico's loan repayment program.

ACTION: We commend the Higher Education Department for their successful application to reinstate these funds in 2018.

Rec. 2016.15

Continue funding for expanded primary and secondary care residencies in New Mexico.

ACTION: No further action has occurred since that described above for Rec. 2014.2. We have reiterated this recommendation (Rec. 2017.2 and 2018.3).

Rec. 2016.16

Support further exploration of Medicaid as an avenue for expanding residencies in New Mexico.

ACTION: See update above at Rec. 2014.2. We have reiterated this recommendation (Rec. 2017.3).

Rec. 2016.17

Continue support for the Community Health Workers certification program to promote consistency among training programs for these health professionals.

ACTION: This support continues to be needed.

Rec. 2016.18

Provide funding for the New Mexico Health Care Workforce Committee.

ACTION: We have reiterated this recommendation (Rec. 2017.8 and 2018.7).

#### V.E. Status of 2017 Recommendations

V.E.1. 2017 Recommendations for All Health Professions

Rec. 2017.1.

Identify funding for efforts to support the New Mexico Nursing Education Consortium (NMNEC).

ACTION: We have reiterated this recommendation (Rec. 2018.1).

Rec. 2017.2.

Continue funding for expanded primary and secondary care residencies in New Mexico.

ACTION: We have reiterated this recommendation (Rec. 2018.3).

Rec. 2017.3.

Support further exploration of Medicaid as an avenue for expanding residencies in New Mexico.

ACTION: This avenue for expanding residencies continues to progress at the state level. We encourage continuation of this discussion.

Rec. 2017.4.

Position the Higher Education Department to take full advantage of the next opportunity to reinstate the U.S. Department of Health and Human Services matching grant to support New Mexico's state loan repayment program.

ACTION: We commend the Higher Education Department for their successful work to reinstate this funding. The funding has been secured in 2018.

Rec. 2017.5.

Increase funding for state loan-for-service and loan repayment programs, and consider restructuring them to target the professions most needed in rural and underserved areas rather than prioritizing those with higher debt.

ACTION: We have reiterated this recommendation (Rec. 2018.4).

Rec. 2017.6.

Request that the Department of Health add pharmacists, social workers and counselors to the health care professions eligible for New Mexico's Rural Healthcare Practitioner Tax Credit program.

ACTION: We have reiterated this recommendation (Rec. 2018.5).

Rec. 2017.7.

Remedy the pharmacists' survey.

ACTION: We commend the Board of Pharmacy and the Regulation and Licensing Department for their prompt action in correcting the registered pharmacists' survey.

Rec. 2017.8.

Provide funding for the New Mexico Health Care Workforce Committee.

ACTION: We have reiterated this recommendation (Rec. 2018.7).

V.E.2. 2017 Behavioral Health Recommendations

Rec. 2017.9.

Require that licensed behavioral health professionals receive three hours of continuing education credits each licensure cycle in the treatment of substance use disorders

ACTION: This issue has been discussed with the relevant professional boards, who are in support of this measure. We have reiterated this recommendation (Rec. 2018.9).

Rec. 2017.10.

Develop reimbursement mechanisms through Medicaid for services delivered by behavioral health interns in community settings

ACTION: This recommendation has been included in Medicaid's proposed rule, which is currently being promulgated but is not yet finalized. We have reiterated this recommendation (Rec. 2018.10).

Rec. 2017.11.

Create a state Behavioral Health Workforce Center of Excellence

ACTION: We defer this recommendation.

Rec. 2017.12.

Expedite direct services via telehealth by participating in interstate licensing compacts when available

ACTION: We have modified this recommendation to specifically support enacting PSYPACT (Rec. 2018.12).

#### V.F. Status of 2018 Recommendations

#### V.F.1. 2018 Recommendations for All Health Professions

Rec. 2018.1.

Identify funding for efforts to support the New Mexico Nursing Education Consortium (NMNEC).

ACTION: We are grateful to the Legislature for their initial funding of NMNEC in the amounts of \$450,000 recurring and \$50,000 non-recurring. The continuation of this program with state support will be critical to expanding the state's supply of BSN-prepared registered nurses.

Rec. 2018.2.

Direct RLD to correct its information technology system deficiencies so that all survey responses can be provided to the University of New Mexico Health Sciences Center and the committee.

ACTION: We commend RLD on their prompt restoration of the missing data.

Rec. 2018.3.

Continue funding for expanded primary and secondary care residencies in New Mexico.

ACTION: We have reiterated this recommendation (Rec. 2019.10).

Rec. 2018.4.

Increase funding for state loan-for-service and loan repayment programs, and consider restructuring them to target the professions most needed in rural and underserved areas rather than prioritizing those with higher debt.

ACTION: In 2017, the New Mexico Higher Education Department reported targeting professions for the state's loan repayment program, with advanced practice registered nurses, clinical psychologists and other mental health providers receiving priority.<sup>37</sup> We commend the New Mexico Higher Education Department on their efforts to target the state's loan repayment program to the professions most in need.

Rec. 2018.5.

Request that the Department of Health add pharmacists, social workers and counselors to the health care professions eligible for New Mexico's Rural Healthcare Practitioner Tax Credit program.

ACTION: We have reiterated this recommendation (Rec. 2019.12).

Rec. 2018.6.

Create a committee tasked with examining future health care workforce needs related to the state's changing demographics.

ACTION: We have reiterated this recommendation (Rec. 2019.14).

Rec. 2018.7.

Provide funding for the New Mexico Health Care Workforce Committee.

ACTION: We have reiterated this recommendation (Rec. 2019.15).

Rec. 2018.8.

Establish a tax credit for health care professional preceptors who work with public institutions.

ACTION: We have reiterated this recommendation (Rec. 2019.8).

V.F.2. 2018 Recommendations for Behavioral Health Professions

Rec. 2018.9.

Require that licensed behavioral health professionals receive three hours of continuing education credits each licensure cycle in the treatment of substance use disorders.

ACTION: No action was taken; we defer this recommendation.

Rec. 2018.10.

Finalize and promulgate changes to the New Mexico Medicaid Behavioral Health Regulations to reimburse Medicaid services when delivered by behavioral health interns in community settings.

The recommended changes were finalized and promulgated in 2019. ACTION:

Rec. 2018.11.

Finalize and promulgate changes to the New Mexico Medicaid Behavioral Health Regulations to identify physician assistants as a behavioral health provider type which will allow Medicaid reimbursement of services when delivered by physician assistants in behavioral health settings.

These recommended changes were also finalized and promulgated in 2019. We look forward to the positive effects the changes described in Recommendations 2018.10 and 2018.11 together will have on the state's behavioral health workforce and access statewide to behavioral health care.

Rec. 2018.12.

Expedite direct services via telehealth by participating in the PSYPACT interstate licensing compact.

ACTION: We have reiterated this recommendation (Rec. 2019.11). Rec. 2018.13.

Fund an infrastructure through the New Mexico Hospital Association for a centralized Telebehavioral Health Program to provide direct care to rural communities.

ACTION: This initiative has been deferred by the New Mexico Hospital Association.

V.F.3. 2018 Recommendation for Correction and Alignment of New Mexico's Health Professionals Surveys

Rec. 2018.14.

Direct the pertinent professional licensing boards to make the necessary changes to align their surveys with legislative requirements and other boards' surveys.

ACTION: The New Mexico Health Care Workforce Committee is contacting the boards to request the necessary survey amendments.

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## Section VI

# 2019 Recommendations of the New Mexico Health Care Workforce Committee

#### Recommendation 1

Provide \$6 million in recurring funding for tuition-free training for medical students at public institutions pledging to practice in New Mexico.

This new program, to be structured as a scholarship provided in exchange for a signed commitment to practice in New Mexico for at least four years following residency, would halve the debt load of medical education for participants. The recommended \$6 million in recurring funding would be sufficient to pay tuition for all MD students at the University of New Mexico (UNM) School of Medicine willing to commit to practice in the state. This would provide a powerful incentive to these medical students – 99% of whom are from the state – to remain in New Mexico to practice after their training is completed.

#### Recommendation 2

Double funding for the state's medical, nursing and allied health loan-for-service programs.

These programs encourage trainees to commit to working in health professional shortage areas. In state fiscal year 2017, appropriations funded only 55% of eligible applicants for the state's health professional loan-for-service programs, including 15 medical, 33 nursing and five allied health.<sup>37</sup> Doubling the appropriations to accommodate up to 30 medical, 66 nursing and 10 allied health students would cost up to an additional \$375,000 for medical (\$25,000 x 15 participants), \$396,000 for nursing (\$12,000 x 33 participants) and \$60,000 for allied health (\$12,000 x five participants), for a total of up to \$831,000 in additional funding. The actual cost might well be less, as in FY 2017 the number of applications to the medical and nursing loan-for-service programs were 22 and 59 respectively, each less than the new maximums of 30 and 66.

#### Recommendation 3

Increase line-item appropriations to New Mexico's community colleges for nursing program enhancement.

Training nurses in-state at community colleges holds promise for increasing the supply of registered nurses in New Mexico. From state fiscal year 2004 to 2013, a total of \$28.7 million in supplemental funding for nursing program enhancement was allocated to New Mexico's public institutions via line-item appropriations.<sup>38</sup> Allocating supplemental funding to this line item for the state's community colleges in future years would increase the training slots available for nursing, making training at public institutions more accessible statewide.

#### Recommendation 4

Continue to fund NMNEC by making the current funding of \$500,000 entirely recurring.

We are grateful to the Legislature for its commitment of recurring support for the New Mexico Nursing Education Consortium (NMNEC). NMNEC successfully addressed the need to increase nurses with BSN degrees for New Mexico's nursing workforce. Funding support for NMNEC is essential to continue building partnerships between universities and community colleges to expand the BSN degree option, increase BSN-prepared nurses for New Mexico, improve efficiency, quality and educational outcomes of nursing education, increase workforce diversity by improving nursing education for minorities — particularly in rural areas — and maintain the NMNEC curriculum integrity.

Current this program receives \$450,000 in recurring funding and \$50,000 non-recurring appropriations. Making the total of \$500,000 recurring, as requested through the RPSP process by the UNM College of Nursing, will allow NMNEC to not only continue functioning at the current level, but also work toward expanding enrollments at community colleges throughout the state.

#### Recommendation 5

Fund RPSP for expansion of nursing education and targeted recruitment of Native American and rural students (\$199,671).

New Mexico has a particular need for Native American and rural nurses. These requested funds would serve to increase undergraduate enrollment by 32 students per year at the UNM College of Nursing Rio Rancho Campus. Recruitment for these added slots will be targeted toward Native American and rural communities.

#### Recommendation 6

Fund RPSP for the freshman direct entry early assurance pre-licensure BSN program (\$428,271).

This new program aims to 1) identify and admit academically prepared high school students to the UNM College of Nursing and ensure academic success for BSN freshman direct-entry students, 2) provide the basis to advance BSN-prepared nurses into the MSN in Education or Administration or a related graduate degree, and thereby 3) continue to address the state's nursing and nursing faculty shortage. By so doing, this new program has the potential to increase the state's nursing workforce by both educating an additional 22 BSN-prepared nurses each year and increasing the state's capacity to train future nurses.

#### Recommendation 7

Fund RPSP for the expansion of physician assistant training (\$453,180).

Physician assistants form a critical component of both the primary care workforce and the workforce trained in providing medication-assisted treatment for opioid addiction in New Mexico. The proposed addition of nine additional students per year to the UNM School of Medicine PA program would help to build access to these services in the state.

#### Recommendation 8

Establish a tax credit for rural primary care provider and pharmacist preceptors who work with public institutions.

Community-based clinical training preceptors play an important role in the clinical education of health professionals, including physicians, advanced practice registered nurses, physician assistants and pharmacists. These practicing health care professionals provide trainees with clinical experience and mentoring. They are located outside of the academic medical sites where the majority of training takes place. For example, UNM School of Medicine preceptors are located in 77 communities and 30 of New Mexico's 33 counties, while the College of Pharmacy has sites in 48 communities and 28 counties. As a result, community preceptors provide a diversity of patients, cases and settings that broaden students' clinical knowledge and can be instrumental in their decision to practice in rural areas.

The clinical experiences provided by community preceptors are critically needed in order to increase the state's health workforce training capacity. Despite the important role they play and time they commit to training, however, preceptors for public institutions are typically unpaid. Public institutions, while able to provide non-monetary compensation to their preceptors such as access to library resources, must compete with private institutions that are able to pay for this valuable service. Providing a \$1,000 tax credit to up to 250 primary care provider or pharmacist preceptors who provide at least 80 hours of service for public institutions, defined similarly to the comparable program in Hawaii, <sup>39</sup> would cost the state only \$250,000 in tax revenue while increasing the supply of health workforce and recognizing the valuable public service provided by volunteer preceptors in training future workforce.

#### Recommendation 9

Increase Nurse Educator Loan-for-Service Program awards to \$12,000 per participant per year.

The nurse educator loan-for-service program currently provides up to \$7,500 per participant per year for individuals enrolled in a nursing program at a public institution who declare their intention to become a nurse educator at an eligible institution after completing training. As discussed in Section II.C of this report, the state is limited in its capacity to train new nurses. While limited clinical experience slots are a significant factor, difficulty finding and recruiting qualified nurse educators also plays a role. In 2017, the New Mexico Higher Education Department reported funding all eight of the eligible applicants for this program. In recent years, no more than nine have been funded.<sup>37</sup> Increasing the award cap to \$12,000 per participant per year – equal to the state's nursing loan-for-service program – would encourage qualified individuals to commit to becoming educators for nurse training programs in the state, increasing the supply of nursing workforce.

#### Recommendation 10

Fulfill the state's previous commitment to expansion of a remaining nine primary and secondary care residencies in New Mexico (\$1.1 million in recurring funding), and consider further residency expansion through state funding, Medicaid funds or other mechanisms.

Residency service in rural and underserved areas serves as a powerful recruitment tool. In prior years (2014, 2016, 2017 and 2018), the Committee recommended expansion of state-funded Graduate Medical Education positions, and has further recommended exploring the use of Medicaid funds to create state-supported residencies. We reiterate the need to fulfill funding of nine new primary and secondary care

residencies, particularly for practice in areas that are rural or underserved, as residency service in such areas can be a powerful recruitment tool. In addition, we recommend examination of alternate sources of funding to further expand residencies in the state, particularly in medically underserved and rural areas to which recent medical graduates might not otherwise be exposed.

#### Recommendation 11

Enact legislation for New Mexico's participation in PSYPACT, with recurring funding of \$6,000 for the cost of the compact.

Interstate licensure compacts allow licensed behavioral health clinicians to provide direct telehealth services in participating compact states, promoting the mobility of health professionals and decreasing barriers and obstacles for licensure in order to increase access to care to underserved populations and in rural areas. One such compact under consideration by the Legislature is the Psychology Interjurisdictional Compact (PSYPACT), which authorizes psychologists from participating states to provide HIPAA-compliant telepsychological services and face-to-face services outside of the provider's home state for up to 30 days per year to patients in participating states without obtaining licensure in the remote jurisdiction. Since the committee's 2018 report, 12 states have joined PSYPACT, including all of those with which New Mexico shares a border: Arizona, Utah, Colorado, Oklahoma and Texas. Both the New Mexico Psychological Association and the New Mexico Board of Psychologist Examiners strongly support PSYPACT for New Mexico. The approximate annual cost for compact participation is only \$6,000.

#### Recommendation 12

Expand the rural health care tax credit to include pharmacists, social workers and counselors.

The professions currently eligible include licensed dental hygienists, physician assistants, certified nurse-midwives, certified registered nurse anesthetists, certified nurse practitioners and clinical nurse specialists. Pharmacists are urgently needed in many areas of the state, and counselors and social workers made up 80.6% of our state behavioral health workforce in 2018. Excluding these professions from the rural health tax credit removes an incentive that might otherwise act as a recruitment and retention tool to improve access to pharmacy and mental health services outside of urban centers in the state. At the \$3,000 credit level, the state would demonstrate its commitment to those members of these professions serving in rural areas and encourage those entering the profession to practice rurally.

#### Recommendation 13

Direct the New Mexico Taxation and Revenue Department and Department of Health to examine the effectiveness of the rural health tax credit in recruiting and retaining providers in rural areas.

While we encourage the expansion of the rural health tax credit as a relatively low-cost recruitment and retention tool, we are aware of no recent studies that examine the total cost of the program, the proportion of rural practitioners who claim the credit, or outcomes such as duration of practice in rural areas for practitioners who receive the credit. We recommend that the Legislature direct the Taxation and Revenue

Department and Department of Health to work collaboratively to generate a report detailing the scope and effectiveness of this program to inform future legislative action on this matter.

#### Recommendation 14

Enact memorial legislation creating a subcommittee under the New Mexico Health Care Workforce Committee to examine future health care workforce needs related to the state's changing demographics and changing makeup of health care teams.

The state population is projected to age rapidly over the coming decades, with 32.5% of the state's population aged 60 or older by 2030, putting New Mexico third in the nation for this demographic. 40 Meeting the unique health care needs of this changed population will require proactive planning at the same time we work to address the state's current needs. Similarly to the behavioral health subcommittee that has provided valuable insights into the state's mental health needs, we recommend the creation of a subcommittee under the New Mexico Health Care Workforce Committee, "Projection of Health Care Needs Towards 2030," directed to examine and report on the state's future health care workforce requirements related to the state's changing demographics and propose actions to proactively ensure the state's needs are met.

#### Recommendation 15

Provide \$250,000 in recurring funding for the analytical, data management and administrative work undertaken by the New Mexico Health Care Workforce Committee.

The work of the Committee incurs costs, including staff effort in analysis, data management and committee administration, as well as printing and binding of the Annual Report. Without funding, the analyses that can be conducted, the dissemination of these findings, and the research support that can be provided to efforts to mitigate New Mexico's shortages of health professionals through recruitment and retention are severely curtailed. Recurring funding in the amount of \$250,000 would allow for the expansion of analysis to include additional professions, improvements in data management, and more indepth examinations of the state's health care workforce and the efficacy of recruitment and retention programs.

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# Appendix A

# Bibliography of Publications and Conference Presentations Resulting from New Mexico's Health Care Workforce Data

#### A.A. Peer-Reviewed Journal Articles

Altschul DB, Bonham CA, Faulkner MJ, et al. State legislative approach to enumerating behavioral health workforce shortages: lessons learned in New Mexico. *American Journal of Preventive Medicine*. 2018;54(6S3):S220-S229.

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#### A.B. Conference Presentations

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Reese AL, Farnbach Pearson AW, Larson RS, Rayburn W, Cox KJ. New Mexico's metropolitan and rural CNM workforce. In: *American College of Nurse-Midwives 63rd Annual Meeting and Exhibition*. Savannah GA; 2018.

# A.C. Opinion and Commentary

Farnbach Pearson AW, Larson RS. Shortage or surplus of physicians in the United States. *JAMA*. 2017;318(11):1069 (1 p.).

# A.D. Policy Reports

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Appendix B Benchmark Gap Analyses for New Mexico Health Professions

Table B.1. Benchmark Gap Analysis of New Mexico Registered Nurses

County	Population	Estimated RNs	Above (+) / Below (–) Benchmark
Bernalillo	678,701	8,924	3,060
Catron	3,578	7	-24
Chaves	64,689	415	-144
Cibola	26,746	172	-59
Colfax	12,110	66	-39
Curry	49,437	356	-71
De Baca	1,781	7	-8
Doña Ana	217,522	1,516	-363
Eddy	57,900	389	-111
Grant	27,346	287	51
Guadalupe	4,341	26	-12
Harding	655	0	-6
Hidalgo	4,240	6	-31
Lea	69,611	323	-278
Lincoln	19,556	120	-49
Los Alamos	19,101	141	-24
Luna	23,963	97	-110
McKinley	72,290	396	-229
Mora	4,506	10	-29
Otero	66,781	371	-206
Quay	8,253	28	-43
Rio Arriba	39,006	203	-134
Roosevelt	18,743	87	-75
San Juan	125,043	884	-196
San Miguel	27,591	218	-20
Sandoval	145,179	869	-385
Santa Fe	150,056	1,063	-233
Sierra	10,968	78	-17
Socorro	16,735	75	-70
Taos	32,835	187	-97
Torrance	15,591	12	-123
Union	4,118	24	-12
Valencia	76,456	169	-492
STATE TOTAL	2,095,428	17,526	-578

Table B.2. Benchmark Gap Analysis of New Mexico Certified Nurse Practitioners and Clinical Nurse Specialists

County	Population	Estimated CNPs and CNSs	Above (+) / Below (–) Benchmark
Bernalillo	678,701	717	317
Catron	3,578	0	-2
Chaves	64,689	46	8
Cibola	26,746	13	-3
Colfax	12,110	6	-1
Curry	49,437	23	-6
De Baca	1,781	2	1
Doña Ana	217,522	174	46
Eddy	57,900	47	13
Grant	27,346	20	4
Guadalupe	4,341	4	1
Harding	655	0	0
Hidalgo	4,240	0	-3
Lea	69,611	38	-3
Lincoln	19,556	7	-5
Los Alamos	19,101	12	1
Luna	23,963	15	1
McKinley	72,290	26	-17
Mora	4,506	4	1
Otero	66,781	41	2
Quay	8,253	11	6
Rio Arriba	39,006	30	7
Roosevelt	18,743	8	-3
San Juan	125,043	37	-37
San Miguel	27,591	12	-4
Sandoval	145,179	61	-25
Santa Fe	150,056	112	23
Sierra	10,968	9	3
Socorro	16,735	11	1
Taos	32,835	26	7
Torrance	15,591	3	-6
Union	4,118	1	-1
Valencia	76,456	26	-19
STATE TOTAL	2,095,428	1,542	306

Table B.3. Benchmark Gap Analysis of New Mexico Primary Care Physicians

County	Population	Estimated Primary Care Physicians (Adjusted Value)	Above (+) / Below (–) Benchmark (Adjusted Value)
Bernalillo	678,701	999 (895)	463 (359)
Catron	3,578	3 (1)	0 (-2)
Chaves	64,689	70 (59)	19 (8)
Cibola	26,746	19 (18)	-2 (-3)
Colfax	12,110	9 (8)	-1 (-2)
Curry	49,437	39 (35)	0 (-4)
De Baca	1,781	2 (2)	1 (1)
Doña Ana	217,522	192 (162)	20 (-10)
Eddy	57,900	34 (27)	-12 (-19)
Grant	27,346	34 (26)	12 (4)
Guadalupe	4,341	1 (1)	-2 (-2)
Harding	655	0 (0)	-1 (-1)
Hidalgo	4,240	2 (2)	-1 (-1)
Lea	69,611	37 (34)	-18 (-21)
Lincoln	19,556	12 (11)	-3 (-4)
Los Alamos	19,101	35 (33)	20 (18)
Luna	23,963	6 (6)	-13 (-13)
McKinley	72,290	59 (53)	2 (-4)
Mora	4,506	1 (1)	-3 (-3)
Otero	66,781	39 (31)	-14 (-22)
Quay	8,253	4 (4)	-3 (-3)
Rio Arriba	39,006	29 (28)	-2 (-3)
Roosevelt	18,743	9 (9)	-6 (-6)
San Juan	125,043	92 (80)	-7 (-19)
San Miguel	27,591	25 (19)	3 (-3)
Sandoval	145,179	122 (107)	7 (-8)
Santa Fe	150,056	199 (177)	80 (58)
Sierra	10,968	9 (7)	0 (-2)
Socorro	16,735	18 (14)	5 (1)
Taos	32,835	35 (31)	9 (5)
Torrance	15,591	3 (2)	-9 (-10)
Union	4,118	2 (2)	-1 (-1)
Valencia	76,456	22 (20)	-38 (-40)
STATE TOTAL	2,095,428	2,162 (1,905)	505 (248)

Table B.4. Benchmark Gap Analysis of New Mexico Obstetricians and Gynecologists

County	Population	Female Population	Estimated OB-GYNs	Above (+) / Below (–) Benchmark
Bernalillo	678,701	345,729	154	81
Catron	3,578	1,689	0	0
Chaves	64,689	32,591	6	-1
Cibola	26,746	13,080	3	0
Colfax	12,110	5,968	3	2
Curry	49,437	23,794	8	3
De Baca	1,781	899	0	0
Doña Ana	217,522	110,760	22	-1
Eddy	57,900	28,750	6	0
Grant	27,346	13,918	3	0
Guadalupe	4,341	1,868	0	0
Harding	655	320	0	0
Hidalgo	4,240	2,139	0	0
Lea	69,611	33,843	10	3
Lincoln	19,556	10,010	3	1
Los Alamos	19,101	9,396	5	3
Luna	23,963	11,918	2	-1
McKinley	72,290	37,314	3	-5
Mora	4,506	2,202	0	0
Otero	66,781	32,251	6	-1
Quay	8,253	4,224	0	-1
Rio Arriba	39,006	19,931	5	1
Roosevelt	18,743	9,368	0	-2
San Juan	125,043	63,145	8	-5
San Miguel	27,591	13,920	1	-2
Sandoval	145,179	74,035	10	-6
Santa Fe	150,056	77,345	15	-1
Sierra	10,968	5,479	0	-1
Socorro	16,735	8,339	4	2
Taos	32,835	16,671	2	-2
Torrance	15,591	7,327	0	-2
Union	4,118	1,814	0	0
Valencia	76,456	38,106	0	-8
STATE TOTAL	2,095,428	1,058,143	279	57

Table B.5. Benchmark Gap Analysis of New Mexico General Surgeons

County	Population	Estimated General Surgeons	Above (+) / Below (–) Benchmark
Bernalillo	678,701	78	37
Catron	3,578	0	0
Chaves	64,689	4	0
Cibola	26,746	3	1
Colfax	12,110	3	2
Curry	49,437	8	5
De Baca	1,781	0	0
Doña Ana	217,522	14	1
Eddy	57,900	5	2
Grant	27,346	3	1
Guadalupe	4,341	0	0
Harding	655	0	0
Hidalgo	4,240	0	0
Lea	69,611	3	-1
Lincoln	19,556	2	1
Los Alamos	19,101	5	4
Luna	23,963	1	0
McKinley	72,290	9	5
Mora	4,506	0	0
Otero	66,781	2	-2
Quay	8,253	1	1
Rio Arriba	39,006	4	2
Roosevelt	18,743	2	1
San Juan	125,043	7	-1
San Miguel	27,591	2	0
Sandoval	145,179	8	-1
Santa Fe	150,056	13	4
Sierra	10,968	3	2
Socorro	16,735	1	0
Taos	32,835	6	4
Torrance	15,591	0	-1
Union	4,118	1	1
Valencia	76,456	0	-5
STATE TOTAL	2,095,428	188	63

Table B.6. Benchmark Gap Analysis of New Mexico Psychiatrists

County	Population	Estimated Psychiatrists	Above (+) / Below (–) Benchmark
Bernalillo	678,701	174	70
Catron	3,578	0	-1
Chaves	64,689	4	-6
Cibola	26,746	0	-4
Colfax	12,110	0	-2
Curry	49,437	2	-6
De Baca	1,781	0	0
Doña Ana	217,522	28	-5
Eddy	57,900	2	-7
Grant	27,346	5	1
Guadalupe	4,341	0	-1
Harding	655	0	0
Hidalgo	4,240	0	-1
Lea	69,611	3	-8
Lincoln	19,556	0	-3
Los Alamos	19,101	2	-1
Luna	23,963	0	-4
McKinley	72,290	3	-8
Mora	4,506	0	-1
Otero	66,781	5	-5
Quay	8,253	1	0
Rio Arriba	39,006	0	-6
Roosevelt	18,743	0	-3
San Juan	125,043	11	-8
San Miguel	27,591	9	5
Sandoval	145,179	11	-11
Santa Fe	150,056	49	26
Sierra	10,968	0	-2
Socorro	16,735	0	-3
Taos	32,835	2	-3
Torrance	15,591	0	-2
Union	4,118	0	-1
Valencia	76,456	6	-6
STATE TOTAL	2,095,428	317	-6

Table B.7. Benchmark Gap Analysis of New Mexico Physician Assistants

County	Population	Estimated PAs	Above (+) / Below (–) Benchmark
Bernalillo	678,701	430	224
Catron	3,578	0	-1
Chaves	64,689	14	-6
Cibola	26,746	5	-3
Colfax	12,110	5	1
Curry	49,437	10	-5
De Baca	1,781	0	-1
Doña Ana	217,522	41	-25
Eddy	57,900	13	-5
Grant	27,346	17	9
Guadalupe	4,341	0	-1
Harding	655	0	0
Hidalgo	4,240	1	0
Lea	69,611	9	-12
Lincoln	19,556	2	-4
Los Alamos	19,101	14	8
Luna	23,963	4	-3
McKinley	72,290	13	-9
Mora	4,506	0	-1
Otero	66,781	14	-6
Quay	8,253	0	-3
Rio Arriba	39,006	6	-6
Roosevelt	18,743	3	-3
San Juan	125,043	40	2
San Miguel	27,591	6	-2
Sandoval	145,179	53	9
Santa Fe	150,056	66	21
Sierra	10,968	4	1
Socorro	16,735	1	-4
Taos	32,835	20	10
Torrance	15,591	4	-1
Union	4,118	0	-1
Valencia	76,456	10	-13
STATE TOTAL	2,095,428	805	170

Table B.8. Benchmark Gap Analysis of New Mexico Certified Nurse-Midwives

County	Population	Female Population	Estimated CNMs	Above (+) / Below (–) Benchmark
Bernalillo	678,701	345,729	101	77
Catron	3,578	1,689	0	0
Chaves	64,689	32,591	3	1
Cibola	26,746	13,080	1	0
Colfax	12,110	5,968	0	0
Curry	49,437	23,794	3	1
De Baca	1,781	899	0	0
Doña Ana	217,522	110,760	14	6
Eddy	57,900	28,750	1	-1
Grant	27,346	13,918	4	3
Guadalupe	4,341	1,868	0	0
Harding	655	320	0	0
Hidalgo	4,240	2,139	0	0
Lea	69,611	33,843	0	-2
Lincoln	19,556	10,010	0	-1
Los Alamos	19,101	9,396	2	1
Luna	23,963	11,918	0	-1
McKinley	72,290	37,314	7	4
Mora	4,506	2,202	0	0
Otero	66,781	32,251	1	-1
Quay	8,253	4,224	0	0
Rio Arriba	39,006	19,931	3	2
Roosevelt	18,743	9,368	0	-1
San Juan	125,043	63,145	11	7
San Miguel	27,591	13,920	1	0
Sandoval	145,179	74,035	2	-3
Santa Fe	150,056	77,345	11	6
Sierra	10,968	5,479	0	0
Socorro	16,735	8,339	0	-1
Taos	32,835	16,671	3	2
Torrance	15,591	7,327	0	-1
Union	4,118	1,814	0	0
Valencia	76,456	38,106	1	-2
STATE TOTAL	2,095,428	1,058,143	169	96

Table B.9. Benchmark Gap Analysis of New Mexico Licensed Midwives

County	Population	Female Population	Estimated LMs	Above (+) / Below (–) Benchmark
Bernalillo	678,701	345,729	10	4
Catron	3,578	1,689	0	0
Chaves	64,689	32,591	0	-1
Cibola	26,746	13,080	0	0
Colfax	12,110	5,968	0	0
Curry	49,437	23,794	0	0
De Baca	1,781	899	0	0
Doña Ana	217,522	110,760	5	3
Eddy	57,900	28,750	0	0
Grant	27,346	13,918	1	1
Guadalupe	4,341	1,868	0	0
Harding	655	320	0	0
Hidalgo	4,240	2,139	0	0
Lea	69,611	33,843	0	-1
Lincoln	19,556	10,010	0	0
Los Alamos	19,101	9,396	0	0
Luna	23,963	11,918	0	0
McKinley	72,290	37,314	0	-1
Mora	4,506	2,202	0	0
Otero	66,781	32,251	1	0
Quay	8,253	4,224	0	0
Rio Arriba	39,006	19,931	3	3
Roosevelt	18,743	9,368	0	0
San Juan	125,043	63,145	0	-1
San Miguel	27,591	13,920	3	3
Sandoval	145,179	74,035	4	3
Santa Fe	150,056	77,345	8	7
Sierra	10,968	5,479	1	1
Socorro	16,735	8,339	0	0
Taos	32,835	16,671	3	3
Torrance	15,591	7,327	0	0
Union	4,118	1,814	0	0
Valencia	76,456	38,106	1	0
STATE TOTAL	2,095,428	1,058,143	40	24

Table B.10. Benchmark Gap Analysis of New Mexico Dentists

County	Population	Estimated Dentists	Above (+) / Below (–) Benchmark
Bernalillo	678,701	530	259
Catron	3,578	1	0
Chaves	64,689	35	9
Cibola	26,746	11	0
Colfax	12,110	3	-2
Curry	49,437	24	4
De Baca	1,781	1	0
Doña Ana	217,522	114	27
Eddy	57,900	14	-9
Grant	27,346	12	1
Guadalupe	4,341	0	-2
Harding	655	0	0
Hidalgo	4,240	1	-1
Lea	69,611	19	-9
Lincoln	19,556	8	0
Los Alamos	19,101	12	4
Luna	23,963	8	-2
McKinley	72,290	28	-1
Mora	4,506	2	0
Otero	66,781	20	-7
Quay	8,253	2	-1
Rio Arriba	39,006	16	0
Roosevelt	18,743	5	-2
San Juan	125,043	87	37
San Miguel	27,591	11	0
Sandoval	145,179	75	17
Santa Fe	150,056	120	60
Sierra	10,968	3	-1
Socorro	16,735	6	-1
Taos	32,835	17	4
Torrance	15,591	2	-4
Union	4,118	0	-2
Valencia	76,456	29	-2
STATE TOTAL	2,095,428	1,216	376

Table B.11. Benchmark Gap Analysis of New Mexico Emergency Medical Technicians

County	Population	Estimated EMTs	Above (+) / Below (–) Benchmark
Bernalillo	678,701	2,274	326
Catron	3,578	47	37
Chaves	64,689	224	38
Cibola	26,746	50	-27
Colfax	12,110	67	32
Curry	49,437	140	-2
De Baca	1,781	23	18
Doña Ana	217,522	471	-153
Eddy	57,900	176	10
Grant	27,346	92	14
Guadalupe	4,341	17	5
Harding	655	8	6
Hidalgo	4,240	22	10
Lea	69,611	177	-23
Lincoln	19,556	103	47
Los Alamos	19,101	159	104
Luna	23,963	44	-25
McKinley	72,290	221	14
Mora	4,506	5	-8
Otero	66,781	134	-58
Quay	8,253	35	11
Rio Arriba	39,006	116	4
Roosevelt	18,743	77	23
San Juan	125,043	390	31
San Miguel	27,591	42	-37
Sandoval	145,179	449	32
Santa Fe	150,056	490	59
Sierra	10,968	38	7
Socorro	16,735	36	-12
Taos	32,835	126	32
Torrance	15,591	52	7
Union	4,118	24	12
Valencia	76,456	172	-47
STATE TOTAL	2,095,428	6,501	487

## Appendix C

## Press Release Enumerating RN Job Openings

#### For Immediate Release

April 22, 2019

Contact: Stacy Johnston Acting Public Information Officer 505.250.3926

#### Healthcare Occupations in New Mexico With the Most Job Openings

(Albuquerque) – The New Mexico Department of Workforce Solutions' Economic Research & Analysis Bureau reported that there were over 11,000 job openings advertised on the New Mexico Workforce Connection Online System (<a href="https://www.jobs.state.nm.us">www.jobs.state.nm.us</a>) in March 2019 for Healthcare Practitioners and Healthcare Support Occupations. Over one-third of those advertised job openings were for registered nurses, with over 3,800 advertised job postings.

"Our New Mexico Workforce Connection staff are working diligently with both job seekers and employers to fill these job openings as quickly as possible," said Secretary Bill McCamley. "A major focus of Governor Lujan Grisham is to make sure every New Mexican has the opportunity to get a good job at a fair wage and our department is here to facilitate that."

The graph below shows the top ten healthcare practitioner and healthcare support occupations job openings advertised in the month of March 2019.

Occupation	Job Openings
Registered Nurses	3,841
Physicians and Surgeons, All Other	831
Physical Therapists	619
Nursing Assistants	441
Speech-Language Pathologists	405
Occupational Therapists	391
Licensed Practical and Licensed Vocational Nurses	381
Nurse Practitioners	331
Medical Assistants	261
Emergency Medical Technicians and Paramedics	233

Source: New Mexico Workforce Connection Online System

Advertised jobs are spidered daily in real-time. Real-time advertised jobs are collected from employer corporate sites, hospitals, non-profits, local and federal government agencies, schools and universities, recruiter sites, newspapers, volunteer sites, and other public, private, and state job boards. Each site is individually reviewed and evaluated and each site's data extraction is custom tailored to that site. Every job listing is spidered every day so that it can be removed from the database when the job is de-posted. Each job is processed for O\*NET code assignment, NAICS code assignment, employer name normalization, and city/town name standardization.

Continued on next page

The Department encourages individuals interested in pursuing a career within the healthcare industry to register for free on the New Mexico Workforce Connection Online System (<a href="www.jobs.state.nm.us">www.jobs.state.nm.us</a>). Here they can search, review, and apply for available positions across the state of New Mexico.

A listing of degree programs available in New Mexico for each of the healthcare occupations mentioned above can be found on the Career Solutions website at <a href="https://www.nmcareersolutions.com">www.nmcareersolutions.com</a>. Start by clicking "Career Exploration" from the top menu, then click "Occupation Finder" under tools, then you will simply type in the occupation you are looking for under "Filters." The results will display the projected annual openings, the demand for that position, the degree needed, and the typical wage range. By clicking on "Programs" individuals will find a list of institutions that describes the program offered, a link to the institution's website, and be able to browse for scholarship opportunities.

Additional information on Healthcare Practitioners and Technical Occupations can be found in the April 2018 edition of the Occupational Bulletin. Information on the Health Care and Social Assistance Industry in New Mexico is available in the April 2018 edition of the Industry Spotlight. Both items can be found here: <a href="https://www.dws.state.nm.us/Labor-Market-Information/Publications/Reports-Special-Analysis">https://www.dws.state.nm.us/Labor-Market-Information/Publications/Reports-Special-Analysis</a>

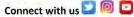
For one-on-one assistance, there are 21 New Mexico Workforce Connection Centers located in communities statewide. The friendly staff in each center assist businesses with posting their job openings, special recruitment, analyzing hard to fill jobs, layoffs, job fairs, and skills assessments for hiring. For job seekers, staff assist with job search, job referrals and placement, and customized skill development like interviewing skills and resume writing. Individuals can find an office near them by visiting <a href="https://www.dws.state.nm.us/en-us/Office-Locations">https://www.dws.state.nm.us/en-us/Office-Locations</a>.

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## Stacy Johnston Acting Public Information Officer

New Mexico Department of Workforce Solutions Office of Communications, Marketing, and Government Affairs

Office: 505-841-9004 Fax: 505-841-8491 Stacy.johnston@state.nm.us www.dws.state.nm.us





Appendix D.

Additional Practice Details for New Mexico Behavioral Health Providers

Table D.1. Proportion of Behavioral Health Care Providers Surveyed by Large License Category and License Type

License Type	Surveyed	Not Surveyed	Total
Prescribers			
Prescribing Psychologist	27 (71.1%)	11 (28.9%)	38
CNP/CNS	118 (100.0%)	0 (0.0%)	118
All Psychiatrists <sup>a</sup>	277 (87.4%)	40 (112.6%)	317
Child & Adolescent Psychiatrist <sup>b</sup>	13 (72.2%)	5 (27.8%)	18
TOTAL	417 (89.1%)	51 (10.8%)	473
Independently Licensed Psychothera	py Providers		
Non-Prescribing Psychologist	324 (55.8%)	257 (44.2%)	581
Counselor	639 (30.2%)	1,477 (69.8%)	2,116
Social Worker	622 (30.7%)	1,404 (69.3%)	2,026
TOTAL	1,585 (33.6%)	3,138 (66.4%)	4,723
Non-Independently Licensed Psychot	herapy Providers		
Psychologist	4 (50.0%)	4 (50.0%)	8
Counselor	241 (23.7%)	774 (76.3%)	1,015
Social Worker	1,109 (45.4%)	1,332 (54.6%)	2,441
TOTAL	1,354 (39.1%)	2,110 (60.9%)	3,464
Substance Use Clinicians			
Independent License	121 (25.6%)	351 (74.4%)	472
Non-Independent License	52 (17.4%)	247 (82.6%)	299
TOTAL	173 (22.4%)	598 (77.6%)	771
TOTAL	3,529 (37.4%)	5,897 (62.5%)	9,431

This row includes 306 MDs and 11 DOs. This row is included in the "All Psychiatrists" row.

Table D.2. Ratio of Behavioral Health Care Providers-to-Population by Large License Category and County

County	Prescribers	Independently Licensed Psychotherapy Providers	Non- Independently Licensed Psychotherapy Providers	Substance Use Treatment Providers	County Total
Bernalillo	0.34	3.07	1.98	0.34	5.73
Catron	0.00	0.84	0.00	0.28	1.12
Chaves	0.14	1.00	1.48	0.42	3.05
Cibola	0.07	1.23	1.01	0.82	3.14
Colfax	0.08	1.98	0.91	0.25	3.22
Curry	0.08	1.34	1.25	0.06	2.73
De Baca	0.00	0.00	1.12	1.12	2.25
Doña Ana	0.26	1.83	1.89	0.25	4.23
Eddy	0.09	0.52	0.83	0.14	1.57
Grant	0.22	2.60	2.30	0.66	5.78
Guadalupe	0.00	1.38	0.92	1.38	3.69
Harding	0.00	0.00	0.00	0.00	0.00
Hidalgo	0.00	0.24	0.94	0.47	1.65
Lea	0.06	0.62	0.86	0.45	1.98
Lincoln	0.05	1.69	1.18	0.31	3.22
Los Alamos	0.16	2.09	0.94	0.10	3.30
Luna	0.04	0.46	1.29	0.04	1.84
McKinley	0.07	0.93	0.65	0.57	2.21
Mora	0.00	0.44	1.55	0.22	2.22
Otero	0.16	1.05	0.96	0.19	2.37
Quay	0.12	0.73	1.70	0.24	2.79
Rio Arriba	0.03	1.51	1.15	0.82	3.51
Roosevelt	0.11	1.23	1.28	0.11	2.72
San Juan	0.13	0.96	1.12	0.61	2.82
San Miguel	0.51	2.86	4.46	0.25	8.08
Sandoval	0.13	2.11	1.43	0.36	4.02
Santa Fe	0.43	5.32	2.57	0.39	8.72
Sierra	0.09	1.28	1.37	0.18	2.92
Socorro	0.00	1.37	0.90	0.42	2.69
Taos	0.09	4.39	2.28	0.79	7.55
Torrance	0.06	1.41	0.32	0.19	1.99
Union	0.00	0.49	1.46	1.70	3.64
Valencia	0.10	1.02	1.11	0.35	2.59
TOTAL	0.23	2.25	1.65	0.37	4.50

Table D.3. New Mexico Behavioral Health Providers

		Presc	ribers		Psyc		tly Licens py Provid			ndepend chothera				ostance L Clinicians		
County	Prescribing Psychologist	CNP/CNS	Psychiatrist <sup>a</sup> (Child & Adolescent)	TOTAL	Non- Prescribing Psychologist	Counselor	Social Worker	тотаг	Psychologist	Counselor	Social Worker	TOTAL	Independent License	Non- Independent License	TOTAL	County Total
Bernalillo	12	47	174 (13)	233	323	855	907	2,085	2	419	925	1,346	137	91	228	3,892
Catron	0	0	0 (0)	0	1	2	0	3	0	0	0	0	1	0	1	4
Chaves	2	3	4 (0)	9	6	27	32	65	0	11	85	96	15	12	27	197
Cibola	1	1	0 (0)	2	7	17	9	33	1	7	19	27	13	9	22	84
Colfax	0	1	0 (0)	1	0	11	13	24	0	3	8	11	3	0	3	39
Curry	0	2	2 (0)	4	3	35	28	66	0	11	51	62	1	2	3	135
De Baca	0	0	0 (0)	0	0	0	0	0	0	0	2	2	1	1	2	4
Doña Ana	9	20	28 (1)	57	53	156	189	398	1	79	332	412	39	15	54	921
Eddy	0	3	2 (0)	5	1	12	17	30	0	9	39	48	6	2	8	91
Grant	0	1	5 (0)	6	10	38	23	71	1	17	45	63	12	6	18	158
Guadalupe	0	0	0 (0)	0	0	3	3	6	0	1	3	4	3	3	6	16
Harding	0	0	0 (0)	0	0	0	0	0	0	0	0	0	0	0	0	0
Hidalgo	0	0	0 (0)	0	0	1	0	1	0	0	4	4	1	1	2	7
Lea	1	0	3 (0)	4	5	26	12	43	0	9	51	60	12	19	31	138
Lincoln	1	0	0 (0)	1	4	14	15	33	0	6	17	23	5	1	6	63
Los Alamos	1	0	2 (1)	3	9	19	12	40	1	12	5	18	2	0	2	63
Luna	0	1	0 (0)	1	1	6	4	11	0	2	29	31	0	1	1	44
McKinley	0	2	3 (0)	5	11	28	28	67	0	16	31	47	29	12	41	160
Mora	0	0	0 (0)	0	0	2	0	2	0	1	6	7	1	0	1	10
Otero	0	6	5 (0)	11	5	39	26	70	0	16	48	64	8	5	13	158
Quay	0	0	1 (0)	1	0	5	1	6	0	2	12	14	1	1	2	23
Rio Arriba	0	1	0 (0)	1	3	24	32	59	0	8	37	45	16	16	32	137
Roosevelt	0	2	0 (0)	2	0	12	11	23	0	9	15	24	2	0	2	51
San Juan	1	4	11 (0)	16	4	43	73	120	0	20	120	140	48	28	76	352
San Miguel	1	4	9 (0)	14	11	31	37	79	0	20	103	123	4	3	7	223
Sandoval	0	8	11 (0)	19	32	138	136	306	0	68	139	207	33	19	52	584
Santa Fe	6	10	49 (2)	65	75	444	280	799	2	206	177	385	41	18	59	1,308
Sierra	0	1	0 (0)	1	0	5	9	14	0	2	13	15	2	0	2	32
Socorro	0	0	0 (0)	0	0	15	8	23	0	5	10	15	5	2	7	45
Taos	1	0	2 (0)	3	13	60	71	144	0	31	44	75	13	13	26	248
Torrance	0	1	0 (0)	1	0	10	12	22	0	2	3	5	2	1	3	31
Union	0	0	0 (0)	0	0	2	0	2	0	3	3	6	4	3	7	15
Valencia	2	0	6 (1)	8	4	36	38	78	0	20	65	85	12	15	27	198
TOTAL  a This column	38	118	371 (18)	473	581	2,116	2,026	4,723	8	1,015	2,441	3,464	472	299	771	9,431

<sup>&</sup>lt;sup>a</sup> This column includes 306 MDs and 11 DOs.

Table D.4. Proportion of Independently Licensed Psychotherapy Providers<sup>a</sup>

County	Independently Licensed	Non-Independently Licensed	Percent Independently Licensed
Bernalillo	2,085	1,346)	60.8%
Catron	3	0	100.0%
Chaves	65	96	40.4%
Cibola	33	27	55.0%
Colfax	24	11	68.6%
Curry	66	62	51.6%
De Baca	0	2	0.0%
Doña Ana	398	412	49.1%
Eddy	30	48	38.5%
Grant	71	63	53.0%
Guadalupe	6	4	60.0%
Harding	None	None	None
Hidalgo	1	4	20.0%
Lea	43	60	41.7%
Lincoln	33	23	58.9%
Los Alamos	40	18	69.0%
Luna	11	31	26.2%
McKinley	67	47	58.8%
Mora	2	7	22.2%
Otero	70	64	52.2%
Quay	6	14	30.0%
Rio Arriba	59	45	56.7%
Roosevelt	23	24	48.9%
San Juan	120	140	46.2%
San Miguel	79	123	39.1%
Sandoval	306	207	59.6%
Santa Fe	799	385	67.5%
Sierra	14	15	48.3%
Socorro	23	15	60.5%
Taos	144	75	65.8%
Torrance	22	5	81.5%
Union	2	6	25.0%
Valencia	78	85	47.9%
TOTAL	4,723	3,464	57.7%

<sup>&</sup>lt;sup>a</sup> Prescribers and substance use treatment providers were not included in this analysis.

## Appendix E.

## Survey Collection Progress, 2010 – 2018

Table E.1 depicts the state's progress in obtaining survey data for licensed health professionals. Survey data for physicians is not collected up to a year after they obtain their license. The New Mexico Medical Board requires physicians to renew their license in the following renewal cycle after a license is issued, at which time they are required to submit a survey. After the initial renewal, they are required to renew every three years.

The New Mexico Nursing Board was the first board to implement survey collection upon licensure, and the board requires completion of a survey at the time of initial licensure in order to collect demographic data. Similarly, emergency medical technicians complete a survey at initial licensure and subsequent license renewals. As a result, all licensed nursing professionals and EMTs in the state have completed a licensure survey and are not included in Table E.1.

Table E.1. Health Care Professionals' License Renewal Surveys Obtained Since 2010

License Type	License Count	Survey Count	Percent
Alcohol Abuse Counselor	2	0	0.0%
Alcohol and Drug Counselor	559	166	29.7%
Anesthesiologist Assistant	48	0	0.0%
Art Therapist	96	31	32.3%
Associate Marriage & Family Therapist	33	0	0.0%
Audiologist	161	64	39.8%
Clinical Mental Health Counselor (LPCC)	2,209	780	35.3%
Dental Assistant	2,972	1,953	65.7%
Dental Hygienist	1,406	973	69.2%
Dentist	1,608	1,118	69.5%
Doctor of Chiropractic	574	460	80.1%
Doctor of Chiropractic APC	109	0	0.0%
Doctor of Naprapathy	26	0	0.0%
Doctor of Osteopathy	749	661	88.3%
Licensed Baccalaureate Social Worker	521	363	69.7%
Licensed Clinical Social Worker	2,031	752	37.0%
Licensed Independent Social Worker	143	106	74.1%
Licensed Masters Social Worker	1,873	1,205	64.3%
Licensed Mental Health Counselor	1,184	357	30.2%
Licensed Midwife	78	36	46.2%
Marriage and Family Therapist	359	117	32.6%
Medical Doctor	8,955	7,367	82.3%
Occupational Therapist	1,063	861	81.0%
Occupational Therapy Assistant	512	419	81.8%
Physical Therapist	2,057	501	24.4%
Physical Therapist Assistant	863	227	26.3%
Physician Assistant	1,107	762	68.8%
Podiatrist	146	109	74.7%
Professional Mental Health Counselor	187	140	74.9%
Psychologist	817	466	57.0%
Psychologist Associate	9	5	55.6%
Registered Independent Counselor	6	2	33.3%
Registered Pharmacist	3,311	671	20.3%
Speech-Language Pathologist	1,789	734	41.0%
Substance Abuse Associate	325	70	21.5%
Telemedicine	824	4	0.5%
TOTAL	38,712	21,480	55.5%

## Appendix F.

## Members of the New Mexico Health Care Workforce Committee, October 1, 2019

#### Name Organization

Richard Larson, Chair University of New Mexico Health Sciences Center

Pamela Blackwell NM Hospital Association

Caroline Bonham UNM HSC, Representing the Behavioral Health Subcommittee Albert Bourbon NM Medical Board *and* NM Academy of Physician Assistants

William Duran NM Board of Nursing

Doris Fields NM NAACP

Tomas Granados NM Board of Psychologist Examiners

Jerry Harrison NM Health Resources

Ellen Interlandi NM Organization of Nurse Leaders Wayne Lindstrom NM Division of Behavioral Services

Timothy Lopez NM Department of Health
Steve Lucero NM Hispanic Medical Society
Cheranne McCracken NM Board of Pharmacy

Michael Moxey NM Dental Association

Matthew Probst NM Academy of Physician Assistants

Joseph Sanchez UNM College of Nursing Darren Shafer Presbyterian Medical Systems

James Spence NM Medical Board

Eugene Sun

Leonard Thomas

U.S. Indian Health Service

Dale Tinker

NM Pharmacists Association

Deborah Walker

Barbara Webber

Sandra Whisler

NM Medical Society

#### Staff

Megan BatemanUNM Health Sciences CenterAmy Farnbach PearsonUNM Health Sciences CenterMichael HaederleUNM Health Sciences CenterJessica RenoUNM Health Sciences Center

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## Appendix G.

# Addendum on Bernalillo County PCP Capacity, November 1, 2019

This annual report of the New Mexico Health Care Workforce Committee measures the per capita count of primary care physicians (PCPs) relative to a national value of 79 per 100,000 population from the Association of American Medical colleges (AAMC).<sup>11</sup> By this measure, Bernalillo County appears well provided, with more than 350 PCPs above the national PCP-to-population ratio in 2018 (Section III.B.1). However, this contrasts with anecdotal experiences of difficulty finding a PCP and long wait times for appointments.

#### G.A. What is a Primary Care Physician?

In the analysis of the committee, PCPs are those physicians (Medical Doctors or Doctors of Osteopathy) specializing in family practice, family medicine, general practice, general pediatrics or general internal medicine, regardless of self-reported practice setting. Those practicing in New Mexico are identified by self-reported practice ZIP code. In defining PCPs by *specialty* rather than *setting*, the methodology follows that of the AAMC, which does not distinguish between members of these specialties providing inpatient care and those serving a primary care role in the community. However, this inclusive measure does not provide detailed insight as to the workforce of physicians providing primary care in their community.

#### G.B. How Many Bernalillo County PCPs are Providing Community Care?

#### G.B.1. Adjusting for Hospitalist and Non-Practicing Physicians

To examine more closely how many of the identified physicians with primary care specialties might fill the role of community PCP – that is, act as the primary source of medical care for community members – adjustments were made to the count of 2018 PCPs to remove non-practicing providers. This adjustment removed PCPs who reported being retired, residents, inactive, only practicing out of state (despite reporting a New Mexico practice ZIP code), or providing no patient care (Section III.B.1.c). These adjustments are reviewed in Table G.1. As discussed in Section III.B.1, the adjusted count of Bernalillo PCPs excluding non-practicing physicians numbered 359 above the national PCP-per-population benchmark of 79 per 100,000 population.

In addition, PCPs were identified as hospitalists if they reported their primary practice setting as hospital inpatient or emergency room, or that 100% of their patient care time was spent in hospital/inpatient facilities. A further exclusion was made of PCPs reporting some patient care, but at 20 or fewer hours per week, although these 80 providers do report providing an average of 14.9 patient care hours per week (Table G.1).

Regardless of these additional adjustments, and remembering that the benchmark value *does* include hospitalists, Bernalillo County remained substantially above the national benchmark for PCPs per capita. Indeed, Bernalillo County remained further above benchmark (+ 100) than any other New Mexico county: the next highest count of PCPs above benchmark was Santa Fe County, with 80 above benchmark unadjusted and 58 above benchmark when adjusted for non-practicing PCPs (Table B.3).

Table G.1. Bernalillo County PCPs Adjusted for Non-Practicing Providers

Category	2018 Count	Count Above Benchmark
All PCPs	999	463
Retired	-35	
Residents	-10	
Inactive	-2	
Only Practice Out of State	-38	
Provide No Patient Care	-19	
Adjusted PCPs	895	359
Hospitalists	-179	
Adjusted PCPs Less Hospitalists	716	180
Provide ≤ 20 Hours Patient Care per Week	-80	
Adjusted PCPs Less All Above Categories	636	100

#### G.B.2. Patient Care Capacity of the Bernalillo County PCP Workforce

Despite counts of Bernalillo County PCPs that are consistently above the national benchmark, anecdotal experience indicates that county residents have difficulty accessing primary medical care. This discrepancy led us to examine the volume of patient visits reported by these practitioners relative to PCPs nationwide.

The Physicians Foundation 2018 physician survey found that PCPs nationwide saw an average of 19.7 patients per day and work an average of 50.6 hours per week, of which 12.1 hours were non-clinical – leaving an average of 38.5 patient care hours per week.<sup>34</sup> This equates to 102.3 patients seen per 40 patient care hours. Hospitalists were not excluded from this metric.

For those Bernalillo County PCPs who reported the number of patients seen per week, patient care hours per week and weeks worked per year at their primary practice location, these values were combined to calculate patient capacity relative to the national metric calculated from the 2018 Physicians Foundation survey. For Bernalillo County, non-practicing physicians were excluded from these calculations.

Table G.2. Self-Reported Hours Worked and Patient Visits per Week of Bernalillo County PCPs

Metric	U.S. <i>Including</i> Hospitalists	Bernalillo County Including Hospitalists	Bernalillo County Excluding Hospitalists
Total Adjusted Count		895	716
Responses to Relevant Survey Items		392	296
Mean Patient Care Hours per Week	38.5	37.2	33.1
Mean Patients per Week	98.5	62.5	63.7
Mean Patients per 40-Hour Week	102.3	72.5	80.2

Table G.2 shows physicians' responses to the mean patient care hours per week and patient visits per week survey items. For Bernalillo County PCPs, mean patients per 40 hour week was calculated by multiplying each PCP's self-reported patients per hour (patients per week divided by hours per week) by 40 hours, then taking the average of these values across all PCPs who responded to the relevant survey

items. As shown in Table G.2, the rate of patient visits per 40 patient care hours of Bernalillo County PCPs is only 70.9% (hospitalists included) to 78.4% (hospitalists excluded) of that reported by PCPs nationwide (hospitalists included). The average patient care hours per week reported by Bernalillo County PCPs is also 1.3 to 5.4 hours per week lower than the national average.

Assuming that the 43.8% of PCPs who responded to the patients, hours and weeks survey items are representative of all Bernalillo County PCPs, it is possible to estimate the total capacity of Bernalillo County's PCP workforce from these values (Table G.3). The resulting total estimated capacity of Bernalillo County PCPs is 2.3 million patient visits per year across non-hospitalist PCPs. This averages 3.3 visits per Bernalillo County resident per year, below the U.S. average rate of 5.1 PCP visits per year specified in the Code of Federal Regulations but similar to the often-cited value of 3.2 visits per year observed in a single practice by Murray et al. 41,42 However, it is likely that the patient pool is larger than just Bernalillo County's residents, as Bernalillo County PCPs are likely to serve patients who travel from shortage areas outside of the county.

Table G.3. Estimated Total Capacity of Bernalillo County PCPs

Metric	Bernalillo County <i>Including</i> Hospitalists	Bernalillo County <i>Excluding</i> Hospitalists
Total Adjusted Count	895	716
Mean Patients per PCP per Week	62.5	63.7
Mean Weeks per PCP per Year	48.5	49.4
Estimated Visits per PCP per Year (Patients x Weeks)	3,031	3,147
Estimated Total Visits per Year (Patients x Weeks x Adj. Count)	2,712,745	2,253,252
Visits per Bernalillo County Resident (n = 678,701) per Year	4.0	3.3

#### C. Discussion

In summary, Bernalillo County PCPs appear to be more numerous per capita than national values; this observation persists even when non-practicing physicians, hospitalists and physicians reporting 20 or fewer patient care hours per week are removed from analysis. In contrast, these physicians report seeing fewer patients on average per 40 patient care hours and have estimated per capita annual visits less than PCPs nationwide. The anecdotally reported difficulty of the population in accessing primary care likely results from a combination of Bernalillo County PCPs' appreciably reduced efficiency compared to PCPs nationwide, as gauged by the self-reported number of patients per 40 hours of patient care, combined with a patient load greater than just Bernalillo County residents.

Suggested citation: Farnbach Pearson AW, Reno JR, New Mexico Health Care Workforce Committee. 2018 Annual Report. Albuquerque NM: University of New Mexico Health Sciences Center, 2018.		
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