

**Primary Care Retention Among the University of
Nevada, Reno School of Medicine
UME Graduates – 2005 to 2015**

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Primary Care Retention Among the UNR Med UME Graduates – September 2019

Primary Care Retention Among the University of Nevada, Reno School of Medicine UME

Graduates – 2005 to 2015 contains information about the University of Nevada, Reno School of Medicine (UNR Med) undergraduate medical education (UME) graduates who reported their intention to go into primary care at residency match and follow up with the graduates current training and medical practice to determine if primary care choice of occupation was retained upon entering into the health care workforce.

Key Findings

- Two hundred and thirty-six of the UNR Med graduates stated their intention of going into primary care at residency match. However, only 160 (26.7%) were practicing in primary care after GME training.
- Family medicine had the highest primary care retention when compared to pediatrics and internal medicine residency programs. Of the 87 graduates who stated their intention of going into family medicine, 74 (85.0%) are actively practicing in family medicine.
- Of 160 physicians who are practicing in primary care, 128 (80.0%) are practicing in Nevada and surrounding western states, of which 72 are practicing in Nevada.

Background

Nevada has a shortage of primary care physicians. Nevada ranks 48th for active primary care physicians in the U.S. ¹ Nevada has 84.3 primary care physicians per 100,000 population compared to 93.8 primary care physicians per 100,000 population in the U.S. ² Medical schools generally publicize their primary care graduation rates based on the residency choice of their graduates rather than their actual career upon entry into practice. However, during residency training many physicians choose to subspecialize and using residency match rates dramatically overestimates a school's primary care production. This report summarizes the results of the 2005-2015 graduates' intention of entering into a primary care residency at match and actual

practice of primary care medicine, as well as the state location of where the graduates are currently practicing.

Methods

Residency match data from UNR Med Alumni Association was used to identify graduates from 2005-2015 cohorts who entered nominal primary care residencies. Nominal primary care is defined as graduates who intend to go into a primary care residency at match. Actual primary care is defined as graduates who entered into the health care workforce as primary care physicians. For this study, primary care was classified using the Institute of Medicine’s definition of physicians who trained in family medicine, general internal medicine, geriatrics, and general pediatrics.³

Nominal primary care graduates were excluded if they reported entering into a transitional year, emergency medicine, or medicine preliminary (Table 1a.). The actual primary care graduates were excluded if they practiced medicine in hospice/ palliative care, or were hospitalist with 50% of patient care in hospitals, urgent care, emergency medicine, or any subspecialty of internal medicine, pediatrics and family medicine (Table 1b). Using the AAMC definition of active medical licenses, graduates who worked less than 20 hours per week in patient care were excluded from this study.⁴

Table 1a. “Nominal” Primary Care Criteria

Included	Excluded
Family Medicine	Transitional Year
Internal Medicine	Medicine-Emergency
Pediatrics	Medicine-Preliminary
Geriatrics	

Table 1b. “Actual” Primary Care Criteria

Included	Excluded
Family Medicine	Hospice/Palliative Care
General Internal Medicine	Hospitalists
General Pediatrics	Urgent Care
Geriatrics	Emergency Medicine
	Any subspecialty of Peds, IM, FM

Using the residency match data it was determined that 95.6% of the nominal primary care graduates could be found via internet search utilizing the Federation of State Medical Boards website, multiple state boards of medical examiners websites, as well as other sources such as Google, Sharecare, social media (LinkedIn), institutional websites, and medical practice websites available to the public. The graduate’s current practice environment and training status were assessed and re-classified as either primary care or non-primary care. Using the location of the graduate’s active license, the researchers created a map using Geographic Information Systems. (ArcGIS, Version 10.6.1) software to display where the graduates are practicing in the U.S.

Results

Table 2 highlights the number of individuals in each cohort across 11 years. The nominal column is the number of graduates who intended primary care training at residency match at the time of UME completion. The actual column is the number of graduates who upon GME completion, practiced as a primary care provider in the health care workforce. The nominal number of graduates who reported primary care at residency match varies from 17 (32.1%) in 2006 to 31 (56.4%) in 2012. The actual number of graduates who practice primary care upon GME completion varies from 9 (17%) in 2006 to 24 (43.6%) in 2012. Across 11 years, the nominal total number of graduates who intended primary care training at residency match was 236 (39.3%), however, upon completion of GME and entering into the health care

workforce only 160 (26.7%) of the graduates actually remained in primary care. Of the nominal graduates who reported primary care at residency match, 76 (12.6%) chose to subspecialize during their GME training.

Table 2. Nominal Primary Care Output Based on Residency Program and Actual Entry into Primary Care Practice After Residency Completion

Year of Graduation	Cohort Total	Number		Percentage Retained In Primary Care	
		Nominal	Actual	Nominal	Actual
2005	51	23	12	45.1 %	23.5 %
2006	53	17	9	32.1 %	17.0 %
2007	52	20	14	38.5 %	26.9 %
2008	48	20	11	41.7 %	22.9 %
2009	50	19	13	38.0 %	26.0 %
2010	54	19	11	35.2 %	20.4 %
2011	54	20	11	37.0 %	20.4 %
2012	55	31	24	56.4 %	43.6 %
2013	59	25	19	42.4 %	32.2 %
2014	54	23	18	42.6 %	33.3 %
2015	69	19	18	35.8 %	34.0 %
Total	599	236	160	39.3 %	26.7 %

Figure 1 display trends over time of the UNR Med UME graduates nominal and actual primary care output. The total number of graduates in each cohort is represented in dark blue, the nominal number of graduates intending to go into a primary care residency at match is represented in teal and the actual number of graduates entering into the health care workforce is represented in green.

**Figure 1. UNR Med UME 2005-2015 Cohorts
Nominal versus Actual Primary Care Graduates**

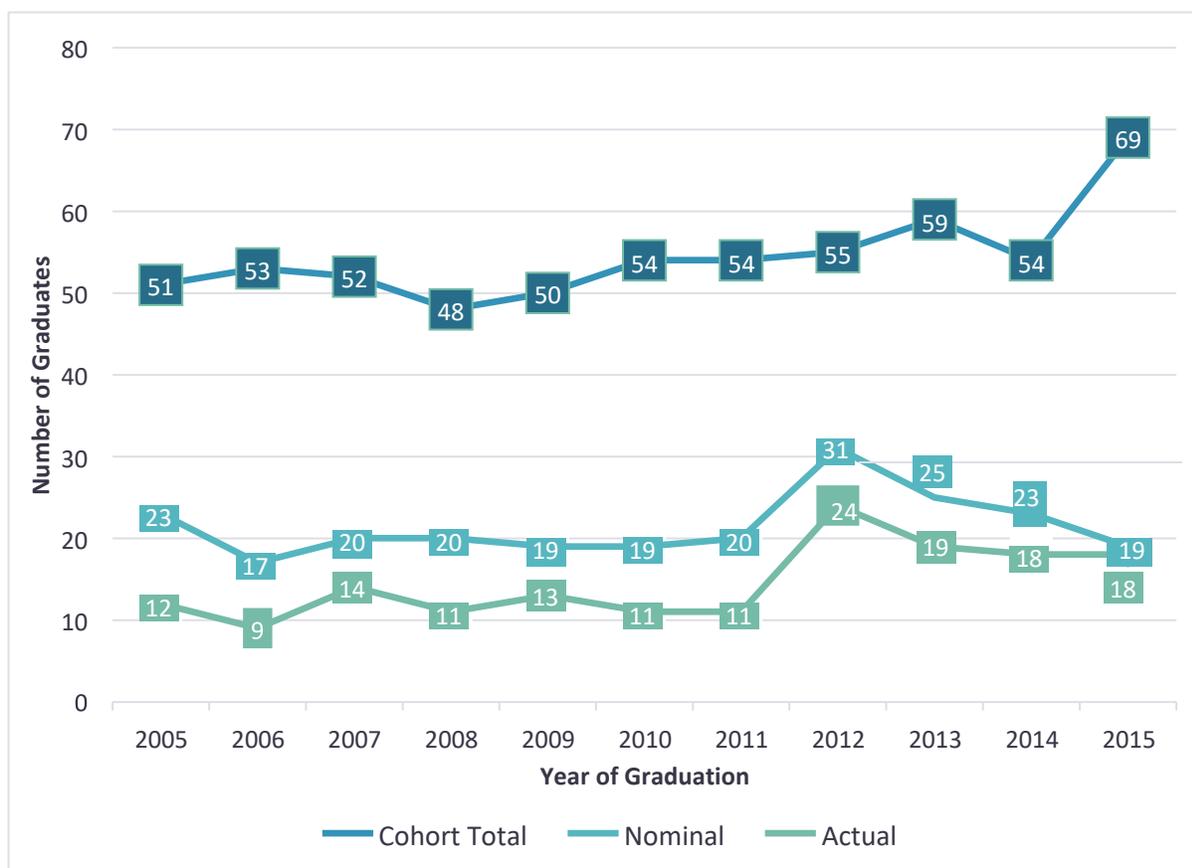


Figure 2 displays the distribution of the 2005-2015 UNR Med graduates who remained in primary care and are practicing in Nevada after GME completion. The total number of UNR Med UME graduates from 2005 to 2015 with active medical licenses is 566, the number of graduates who intended primary care training at residency match was 236, the number of graduates who remained in primary care after GME completion is 160. The number of graduates who are practicing primary care out of state is 88, and the number of graduates who are practicing primary care in Nevada is 72.

Figure 2. The Distribution of UNR Med 2005-2015 Graduates Who Have Remained in Primary Care and are Practicing in Nevada after GME Completion

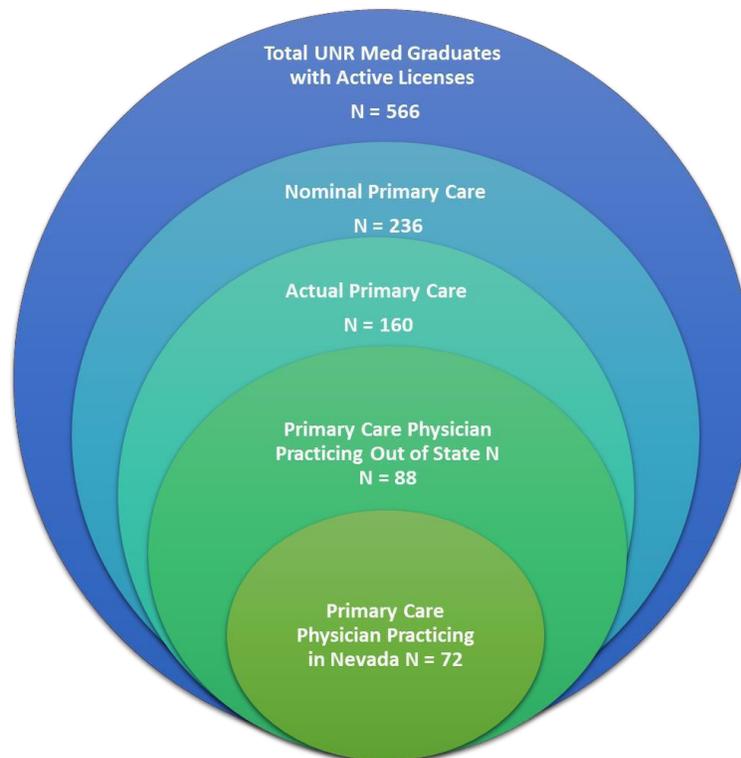


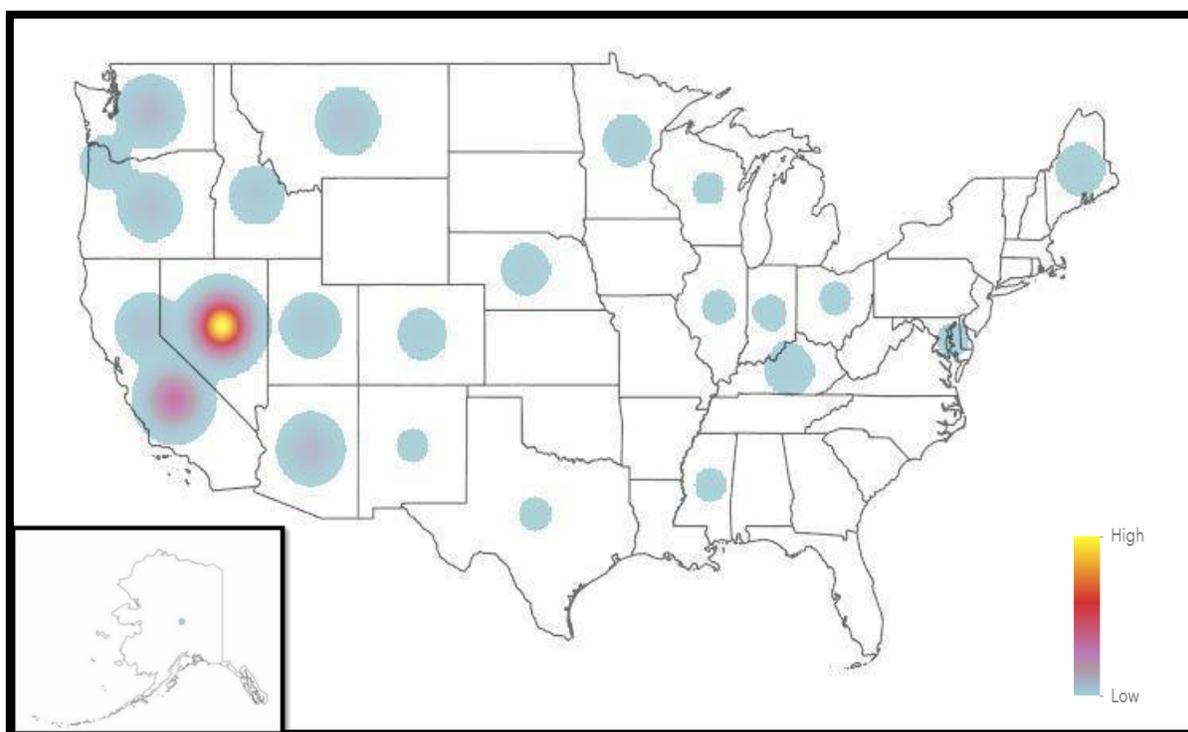
Table 3 displays the primary care retention rates separated by residency training type. The family medicine residency programs had the highest retention rate (85.0%) of the graduates who intended to enter into family medicine at residency match and remained in family medicine upon entry into the health care workforce. The pediatric residency programs had a retention rate (60.8%) of the graduates who intended to enter into pediatrics at residency match and remained in pediatrics upon entry into the health care workforce. The internal medicine residency programs had the lowest retention rate (56.1%) of the graduates who intended to enter into internal medicine at residency match and remained in internal medicine upon entry into the health care workforce. The total primary care retention rate of the graduates who intended primary care at residency match and eventually practiced primary care medicine is 67.8%.

Table 3. Primary Care Retention of the UNR UME Graduates by the Primary Care Residency Training Type – 2005 to 2015

Primary Care Retention by Residency Program			
Residency Training	Number		Percentage Retained
	Nominal	Actual	
Internal Medicine	98	55	56.1 %
Family Medicine	87	74	85.0 %
Pediatrics	51	31	60.8 %
Total	236	160	67.8 %

Figure 3 is a heat map of the locations of UNR Med UME Graduates with active licenses in primary care. The locations with the red/yellow colors indicate a higher concentration of UNR Med UME graduates in the area. Of the 160 graduates who remained in practice primary care, 72 (45.0%) are in Nevada, followed by 27 (16.8%) in California, 8 (5.0%) in Washington, 7 (4.3%) in Arizona, 8 (5.0%) in Oregon, and 6 (3.7%) in Utah. The majority (80.0%) of the UNR Med UME graduates working in primary care are practicing in western states. The remaining 32 (20.0%) UNR Med UME graduates are located in various states across the US.

Figure 3. The location of UNR UME Graduates with Active Licenses in Primary Care



Conclusion

Using the graduate's intended residency match over-estimates UNR Med UME primary care output. The number of graduates from UNR Med who eventually enter careers in primary care is lower than the intended primary care residency choice at UME completion. Of the graduates who remained in primary care after GME completion, the majority now practice in Nevada and surrounding western states. Medical schools should report primary care physician output based on actual career upon entry into practice rather than the residency choice of the graduates.

Sources:

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