



IDFPR

Illinois Department of
Financial and Professional Regulation



Advanced Practice Registered Nurse (APRN) 2020 Workforce Survey Report

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Completed in 2020, under the leadership of the Illinois Nursing Workforce Center's Advisory Board of Directors, this survey was the second Illinois Advanced Practice Registered Nurse (APRN) workforce study offered through direct requests to individual email addresses. The acquisition of data was accomplished through the collaboration of the following IDFPR sections: Licensing, the Division of Nursing, the Board of Nursing, the Illinois Nursing Workforce Center and the State of Illinois Department of Innovation and Technology.

Finally, thank you to the Illinois Society Advanced Practice Nursing (ISAPN) for encouraging their members to complete the survey.

Special thanks to the Advanced Practice Registered Nurses licensed in Illinois who responded to the survey. The feedback provided will make a significant contribution to planning health services in Illinois, specifically those focused on the nursing workforce. Finally, thank you to the Illinois Society Advanced Practice Nursing for encouraging their members to complete the survey.

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Key Findings

IL Nursing Workforce Center Advanced Practice Registered Nurse Survey 2020

The survey was conducted through an email direct request for participation post license renewal. Participation was voluntary, 1,962 of the 16,548 Illinois APRNs completed the survey. The data quantifies the services APRNs provide, the process that is used to bill for these services, and reimbursement for services. Finally, the survey captures the diversity of APRN specialty expertise and the settings where patients receive these specialized services.

Key Findings

- Employment: the majority of APRNs work one job full-time, and 93% provide direct patient care
- Employment setting: slightly more (39%) APRNs work in hospital acute care settings than ambulatory outpatient (35%) settings.
- Diversity: there is more racial and ethnic diversity of APRNs under the age of 45 years in the Illinois workforce.
- Age: approximately 52% of APRNs are over 55 years of age; age cohorts for Illinois APRNs in 2020 are similar to those reported in 2018.
- Education: 89% of APRNs have a masters' degree, 17% have a doctoral degree.

APRN Workplace Settings

35% Practice in an ambulatory setting – outpatient clinic, private physician practice, etc.

39% Practice in hospital acute care settings, an inpatient unit, the emergency room, etc.

93% Provide direct patient care

Diversity

More APRNs under the age of 55 years are from ethnic and racially diverse backgrounds

Approximately half of Latinx APRNs are under 45 years of age

Approximately half of Asian APRNs are under 45 years of age

Approximately forty percent of African American or Black APRNs are under 45 years of age

APRN Billing/Reimbursement

45% Manage a panel of patients

46% Bill exclusively under their National Provider Identifier (NPI) number

Reimbursement for services is split Medicare (34%), Medicaid (24%), Private Insurance (35%)

Summary

Aging APRN workforce, 12% are planning to retire within 10 years

There is an increase in diversity of APRN workforce among younger age groups

Approximately forty percent of APRNs work in an ambulatory setting

Approximately forty percent manage a panel of patients and bill under their NPI number

Reimbursement for services is divided amongst Medicare, Medicaid and Private Insurance

Executive Summary

General overview: Data on the characteristics, supply, and distribution of Advanced Practice Registered Nurses (APRNs) in the State of Illinois is essential to expanding access to care and planning for provision of essential primary and other health care services. The survey was conducted through an email direct request for participation post license renewal. Participation was voluntary, 12% or 1,962 of the 16,548 Illinois APRNs completed the survey. This report contains data on the demographics of Illinois' current APRN workforce, including type of APRN, the relative numbers of APRNs in each age group, their racial, ethnic and gender diversity, and educational preparation. The data quantifies the services APRNs provide, the process that is used to bill for these services, and reimbursement for services. Finally, the survey captures the diversity of APRN specialty expertise and settings where patients receive these specialized services.

Aging workforce: The report presents important information about the aging of the Illinois APRN workforce, overall, 52% of respondents are over the age of 55 years. However, the average age varies based on type of APRN. There are four types of APRNs: Certified Registered Nurse Anesthetist (CRNA), Clinical Nurse Specialist (CNS), Certified Nurse Midwife (CNM) and Certified Nurse Practitioner (NP). For example, 54% of Certified Nurse Practitioners (NPs), 33% of CNMs, and 35% CRNAs are less than 45 years of age. Sixty four percent of CNSs are 56 years of age or older. Interestingly, years of experience as an APRN does not closely correlate with the age of the APRN -- suggesting the diverse career trajectories of APRNs.

Increasing diversity: In contrast to the increase in ethnic and racial diversity in the state of Illinois, data indicate a less ethnic and racially diverse Advanced Practice Registered Nursing workforce. Though the majority, 83% of APRNs are White, a higher percent of APRNs under the age of 55 years are from ethnic and racially diverse backgrounds compared to APRNs in the older age range. For example, approximately half of Hispanic/Latino and Asian APRNs are under the age of 45 years, while approximately 40% of Black or African American APRNs are younger than 45 years of age. The results are similar to, but slightly higher than data reported in the 2018 APRN survey.

Specialty/Workplace Characteristics: The survey respondents reported on their nursing specialty, and workplace setting. The respondents were provided a choice amongst job settings as well as the option to write in settings that were not listed. Approximately 50% of respondents practice in ambulatory settings; approximately 30% practice in a hospital/inpatient setting. Some APRNs indicated time was split between hospital and outpatient settings. In line with Illinois regulation, APRNs maintain collaborative agreements, but within a range, of physician-collaborator relationships.

Billing/Reimbursement: Approximately 44% of APRN respondents indicated they manage a panel of patients; this is up from the 2016 survey which indicated that 30% of Illinois APRNs manage a panel of patents. Seventy-nine percent of APRNs indicate that with most of their patients, they counsel and educate both patients and families; in addition, approximately forty percent of respondents note they provide preventive care. Forty-six percent of respondents bill exclusively under their National Provider Identifier (NPI) number; this was followed by 13% billing under the clinic/facility number. With full practice authority, the numbers of APRNs managing a panel of patients in addition to providing education, counseling, and preventive care it is anticipated to increase. It is also anticipated that the responses to the billing questions may change.

Summary: The 2020 Illinois APRN survey data will be extremely valuable as health care planners project the human health care capital that will be needed in Illinois. These data will be of great use in estimating the current APRN supply, their demographics, and practice specialties. The anticipated shortage of primary care providers is particularly acute in Illinois. Focused workforce planning is urgently needed to assure access to healthcare for Illinois residents. The full report is available on the Illinois Nursing Workforce Center website <http://nursing.illinois.gov/ResearchData.asp>

About the Data

The primary source of data for this report was a survey offered to individual Advanced Practice Registered Nurses (APRNs) completing a direct email survey distributed post license renewal. The survey was conducted through one direct request email from the Illinois Department of Financial and Professional Regulation (IDFPR) requesting participation. The IDFPR email was sent to Illinois APRNs on November 18 and survey was closed on December 30, 2020. Participation was voluntary, 12% or 1,962 of the 16,548 Illinois APRNs completed the survey. The Illinois Society for Advanced Practice Registered Nursing (ISAPN) sent on November 20, 2020, email notification to approximately 5,000 members supporting survey participation. The direct email request was conducted after the APRN online license renewal response (approximately 880) was limited.

The survey included 50 questions consistent with the Health Resources and Services Administration (HRSA) designed National Sample Survey of Nurse Practitioners (NSSNP) with additional questions on billing practices, compensation, place-of-work zip codes, retirement, and professional collaboration. A full list of survey questions is provided in Appendix A. Information from the survey is categorized into the following areas in this report: demographics (including age), human capital (education, specialties, earnings), and employment, job characteristics (settings, services, collaboration).

Demographics

Demographics are “the statistical characteristics of human populations...” <https://www.merriam-webster.com/dictionary/demographic>. This section examines the breakdown of select characteristics, such as age, sex, race, and ethnicity among the population of Advanced Practice Registered Nurses (APRN) in Illinois.

The overall distribution of APRN survey participants by selected age categories is described below. Data were derived from participant responses to a question asking their date of birth (non-response 1%, 20). The age ranges of respondents are similar to the APRN age range in the Illinois Department of Financial and Professional Regulation (IDFPR) licensure data base. Since the age ranges differ based on type of APRN, it is useful for each category to be reviewed separately.

Figure 1 apportions age by type of Advanced Practice Registered Nursing category. It illustrates that for three of the four types of APRNs, approximately half are 44 years of age or younger. For example, 43% of Certified Registered Nurse Anesthetists (CRNAs) are under 45 years of age. Among the other categories, 31% of the Certified Nurse Midwives (CNMs) are younger than 45 years and a full 50% of Certified Nurse Practitioners (NPs) are younger than 44 years of age. The majority (65%) of Clinical Nurse Specialists (CNSs) are over 55 years of age. The growth of the CNS workforce may be impacted by the limited number of Illinois universities and colleges that offer the CNS program and certification.

Figure 1: Type of Advanced Practice Registered Nurse (APRN) and age

Type of Advanced Practice Registered Nurse	<24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-70 years	71+ years	Total
Certified Registered Nurse Anesthetist (CRNA)	0% 0	12% 25	23% 47	23% 47	12% 24	27% 56	4% 9	11% 208
Certified Clinical Nurse Specialist (CNS)	1% 1	2% 3	10% 13	23% 29	20% 26	38% 48	6% 8	7% 128
Certified Nurse Midwife (CNM)	0% 0	15% 12	18% 14	25% 20	18% 14	18% 14	6% 5	4% 79
Certified Clinical Nurse Practitioner (CNP)	0% 0	19% 278	34% 493	23% 337	6% 88	15% 219	2% 27	78% 1,442
Total responses	1	318	567	433	152	337	49	1,857

Figure 1: No response: age= 20 respondents

Figure 1: No response: type of APRN= 88 respondents

In Illinois there is one DNP Certified Nurse Midwifery program at the University of Illinois at Chicago, Chicago, Illinois. The number of Illinois APRN Certified Nurse Midwives (CNM) continues to increase, from 406 in 2012 to 462 in 2021. It is important to note that there are Women’s Health Nurse Practitioner (WHNP) programs that focus on preparing clinicians who provide comprehensive healthcare throughout women’s lives. These WHNP’s are providing some of the care that CNM’s provide in addition to offering primary care to women of all ages.

Diversity, race, and ethnicity reported by survey respondents are illustrated in Figure 2 (below). To capture both race and ethnicity respondents answered the question “are you Hispanic or Latino”; followed by the question “Select one of the following races that apply to you”. Summary responses are illustrated in Figure 2 below. (Because U.S. Census Bureau regards the Hispanic ethnonym as a culture, irrespective of race, these data may represent duplicate counts. <https://suburbanstats.org/population/how-many-people-live-in-illinois>)

Figure 2: Diversity: Race and Ethnicity Overall Summary 2020

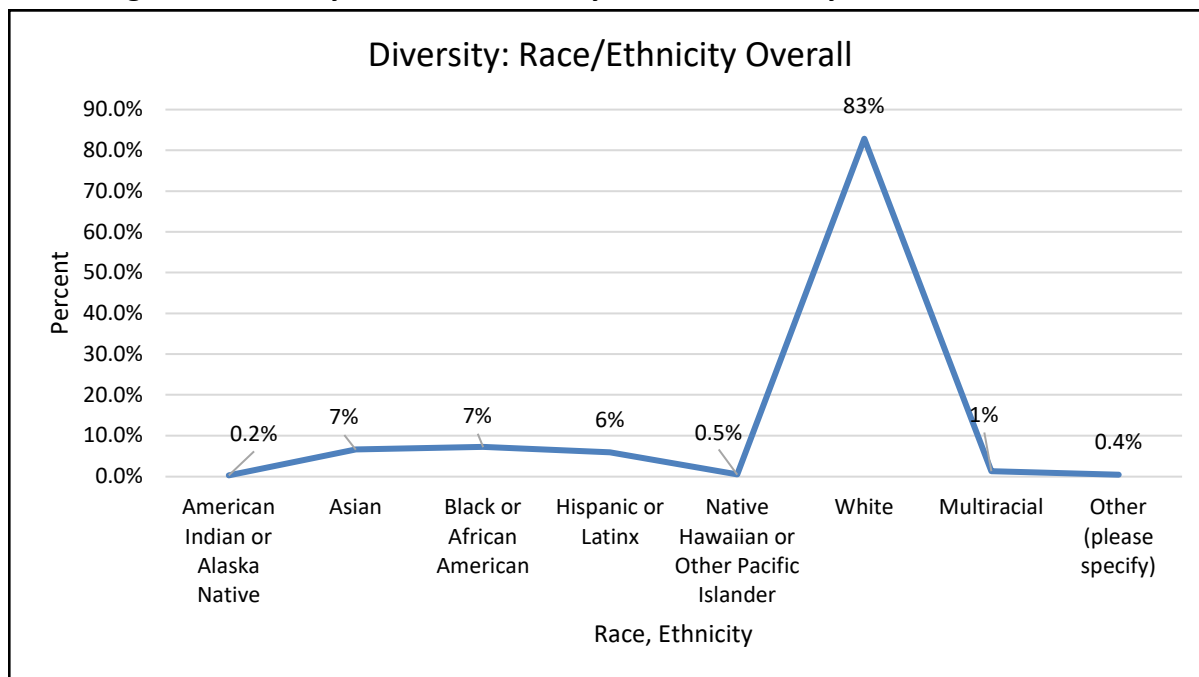


Figure 2: No response: ethnicity, Hispanic or Latino= 11 respondents

Figure 2: No response: race = 21 respondents

The distribution of racial and ethnic diversity of the Illinois Advanced Practice Registered Nurse (APRN) workforce is less robust than the diversity of the general population of the state. The United States (U.S.) Census Bureau in July 2020 reported that the Illinois population totaled approximately thirteen million.

Of the 13.1 million Illinois residents, 15% are Black/African American. In contrast, Black/African American race was indicated by only 7% of APRN respondents. Hispanic/Latinx

comprise 17% of the population of Illinois but only 5% of survey respondents. Survey responses indicated a clear majority of APRNs are White (84%). Schools of nursing and workforce incentives should seek to recruit and retain student cohorts reflective of the diversity of the general population.

Figure 3: Diversity: Ethnicity, Race and Gender by age

Age Ethnicity and Race	<24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-70 years	71+ years	Total
American Indian or Alaska Native (percent) N	0% 0	20% 1	20% 1	20% 1	20% 1	0% 0	0% 0	0.3% 5
Asian N	0% 0	20% 25	43% 52	29% 35	5% 6	2% 2	2% 2	6% 122
Black or African American N	0% 0	5% 7	33% 46	36% 50	4% 6	1% 1	2% 3	7% 143
Native Hawaiian or Other Pacific Islander N	0% 0	5% 1	33% 3	11% 1	44% 4	0% 0	0% 0	0.5% 9
White N	0.1% 1	18% 286	29% 463	21% 341	20% 313	3% 45	3% 45	84% 1,595
Multiracial N	33% 12	25% 11	42% 10	33% 8	0% 0	0% 0	0% 0	1% 24
Hispanic or Latinx N	0% 0	23% 23	40% 40	25% 25	7% 7	4% 4	0% 0	5% 99
Female N	0.1% 1	18% 314	31% 545	23% 405	18% 323	8% 141	3% 46	92% 1,775
Male N	0% 0	13% 21	30% 49	24% 39	19% 32	11% 18	4% 165	9% 165
Age, Gender	<24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-70 years	71+ years	Total

Figure 4 Note: Hispanic is a culture regardless of race so respondent options for Hispanic were not included in the Multiracial category. Race question: No response = 21 respondents; ethnicity question: no response = 19 respondents; gender question: no response = 6 respondents.

Racial and ethnic diversity increased among younger APRN respondents. A higher percent of APRNs under the age of 56 years are from cultural and racially diverse backgrounds compared to APRNs in older age ranges. For example, 63% Hispanic/Latinx APRNs are under the age of 45 years and 38% of Black or African American APRNs are younger than 45 years of age. This is a similar

to the results of the previous 2018 APRN report. The July 1, 2020 United States Census-Illinois for race and Hispanic origin: 61% White, 14.6% Black or African American, 0.6% American Indian and Alaska Native, 5.7% Asian, 0.1% Native Hawaiian and Other Pacific Islander, 17.3% Hispanic or Latino and 2.0% two or more races. While the percent of representation amongst Illinois APRNs does not match that of the Illinois population, it is increasing. <https://www.census.gov/quickfacts/fact/table/IL/PST045218>

Respondents were asked “approximately when do you plan to retire?” Responses indicate that more than half of survey participants (61%) plan to stay in the workforce beyond 10 years. Fifteen percent (12%) indicate they will retire within the next 10 years. This is essentially unchanged from the 2016 APRN Survey report where 57% of the respondents indicated a plan to stay in the workforce more than 10 years.

Human Capital

Human capital refers to the stock of knowledge, education, experience, habits, social and personality attributes, including creativity, embodied in the ability to perform labor to produce economic value.

In the highly skilled workplace environment of healthcare delivery, patient cases are more complex than in the past, the population is aging, and the technology is increasingly sophisticated. Taken together, these factors mean that the ongoing development of human capital is increasingly important to ensure high quality of care and positive patient outcomes.

The skills, knowledge, education, talents, and experiences of Advanced Practice Registered Nurse (APRN) employees (their human capital) are an extremely important intangible asset to the employer and to the entire healthcare system. Human capital is cultivated from continuing professional development, including academic coursework, conferences, workshops, and experience.

Advanced educational credentials are a requirement of the Advanced Practice Registered Nurse (APRN) workforce. In Illinois a minimum requirement of APRN licensure is a masters’ degree in nursing and APRN certification. This is reflected in the survey responses: 99% respondents have APRN certification and 93% have a masters’ degree or higher. Less than 3% of respondents reported completing a “certificate program” as preparation for licensure as an APRN and these individuals have been grandfathered into Illinois APRN licensure for many years.

In Illinois APRNs must first be licensed in Illinois as a registered nurse (RN) prior to becoming licensed as an APRN. The Illinois Nurse Practice Act (NPA) mandates for licensure as an advanced

practice registered nurse in Illinois, is a minimum of a master's degree in nursing (IL NPA Article 65, Section 65-5(4)). Figure 4 below shows the types of degrees that Illinois APRNs have earned, beginning with the educational degree that was received when first licensed as a RN. Respondents checked off that multiple degrees were earned, the degree obtained with both an RN license and APRN license.

Approximately 26% of APRNs began their nursing education through a community college with an associate degree in nursing. Ten percent of respondents received a diploma in nursing, this low number could be because currently there is only one RN diploma education program in Illinois. Eighty five percent of respondents have a bachelor's degree in nursing; for some the bachelor's degree was the first degree obtained prior to becoming licensed as a nurse (RN). For others, who received nursing education through a community college or a diploma program, the bachelor's degree was obtained post-RN licensure. Eighty-five percent of the respondents also have a master's degree in nursing. Fifteen percent of the respondents have completed additional education resulting in a doctoral degree of which thirteen percent are the Doctorate in Nursing Practice (DNP), a practice-focused doctoral degree that prepares experts in specialized advanced nursing practice. Figure 4 below displays all degrees earned by Illinois APRNs. There are a variety of education articulation pathways amongst nursing education programs leading to graduate education to practice as an Advanced Practice Registered Nurse. This is reflected in the number and type of degrees that Illinois APRNs have acquired prior to becoming licensed as an APRN. The survey did not ask what the highest degree was as a separate question.

The American Association of Nurse Practitioners (AANP) shows a growth in DNP programs nationally. As of 2020 there were 357 DNP programs enrolling students nationwide, and an additional 106 new DNP programs are in the planning stages. DNP programs are now available in all 50 states plus the District of Columbia. States with the most programs (10 or more programs) include California, Florida, *Illinois*, Massachusetts, Minnesota, New York, Ohio, Pennsylvania and Texas. From 2018 to 2019, the number of students enrolled in DNP programs increased from 32,678 to 36,069. During that same period, the number of DNP graduates increased from 7,039 to 7,944. <https://www.aacnursing.org/DNP>

Figure 4: All Educational Degrees Earned

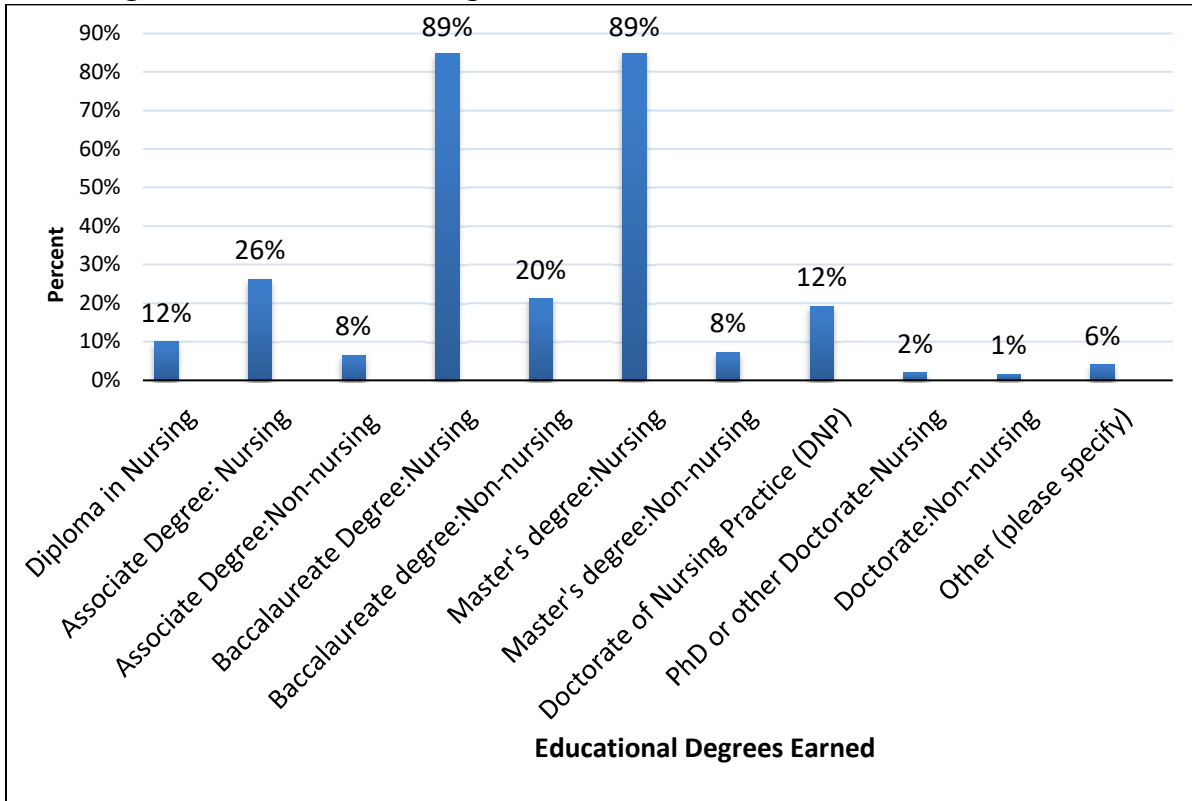


Figure 4: No response = 95 respondents

The majority (60%) of survey respondents indicate becoming licensed as an APRN in the past approximately ten years (Figure 5 below). Data in Figure 6 below is from the Illinois Department of Financial and Professional Regulation (IDFPR) licensure database and reflects growth in the number and type of Illinois APRNs beginning in 2001. This growth is similar to the increase in survey respondents initial Illinois APRN licensure during a similar time period. (Illinois Nursing Workforce Center [http://nursing.illinois.gov/PDF/ 2021-11 to 2012 APRNReport for Website.doc](http://nursing.illinois.gov/PDF/2021-11%20to%202012%20APRNReport%20for%20Website.doc) (illinois.gov). Figure 6 illustrates that in 2008 there were 6,164 Illinois APRNs, as of December 2020 there were 17,017 APRNs, almost triple the number of APRNs licenses as there were in 2008 including all APRN specialties.

Figure 5: Year of initial licensure as an Advanced Practice Registered Nurse (APRN)

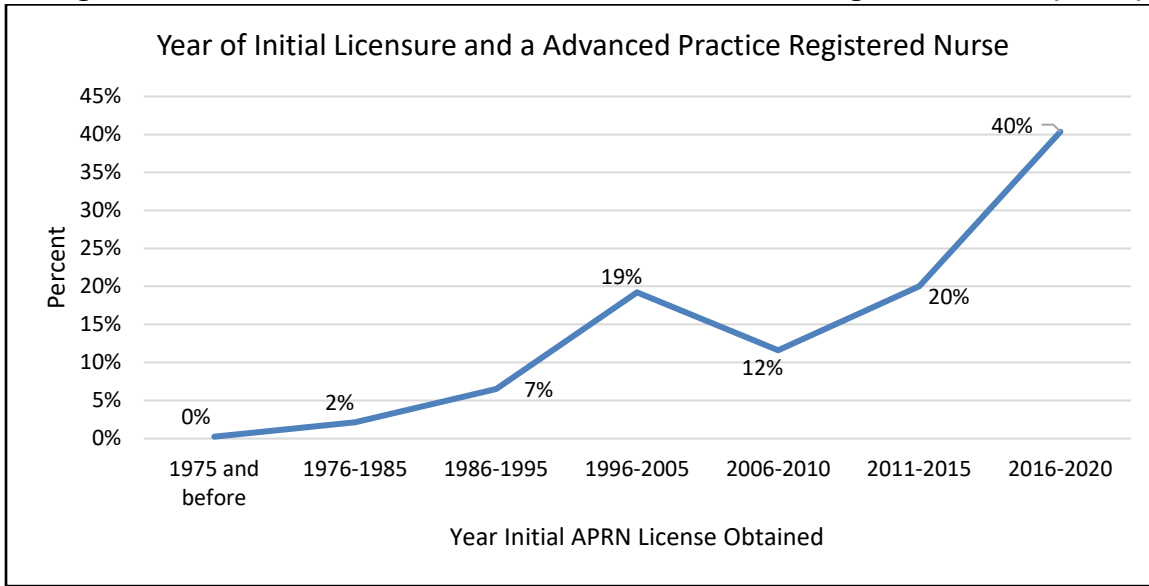


Figure 5: No response = 72 respondents

Figure 6: Type of APRN Specialty – Data from the Illinois Licensure Database*

Type of APRN Specialty	2001	2008	2012 Jan	2014 Feb	2015 March	2016 Jan	2017 Feb	2018 Jan	2019 March	2020 Dec
CNS			1,023	1,054	1,034	1,081	1,016	1,056	989	963
CRNA			1,924	1,883	1,849	1,997	1,945	2,076	2,044	2,300
CNM			406	447	445	486	489	525	502	510
CNP			4,682	5,917	6,411	7,697	8,777	10,162	11,175	13,244
Total APRNs	1,976	6,164	7,833	9,301	9,739	11,261	12,227	13,819	14,710	17,017

*Figure 6: the number of APRNs indicated reflects the total number of APRNs licensed in Illinois on the date listed. Type of APRN was not available until 2012.

Data regarding APRN employment within medical specialty areas were categorized by practice specialties in the areas of Primary Care, Total Subspecialties, Surgical, and Other Specialty. Similar to the 2018 APRN survey, there are specialty areas of significant need (Psychiatric- Mental Health, Long Term Care) which contain a relatively small number of licensed APRNs.

Figure 7: Summary of Advanced Practice Nurse (APRN) Practice Specialty Focus

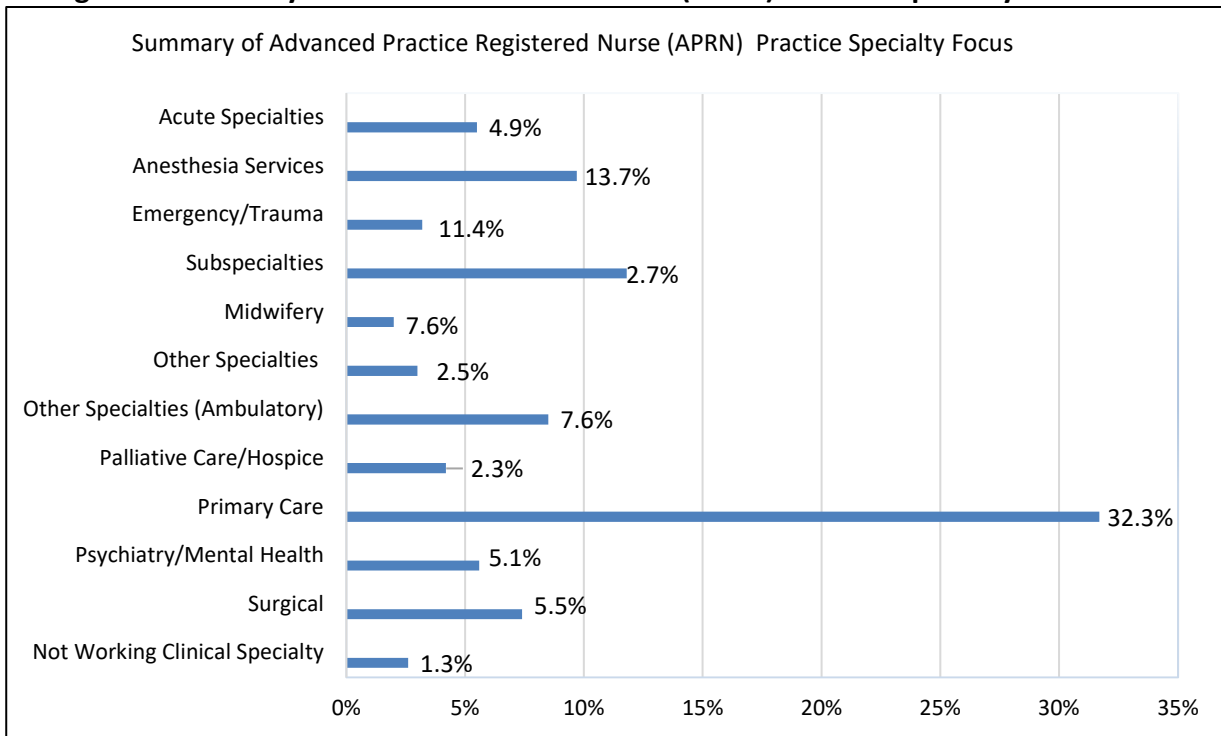


Figure 7: No response = 445 respondents

A summary of Advanced Practice Registered Nurse (APRN) Practice Focus Specialty is described in Figure 7 (above); this summary reflects a combining of practice specialty responses based on similarities in specialty, acuity, or location of service. Certain specialties are shown separately due to the uniqueness of their care or setting (e.g., Anesthesia Services, Emergency/Trauma, Midwifery, Palliative Care, Psychiatry/Mental Health). The specialties that were combined are as follows:

- **Acute Specialties:** Hospitalist (1.9%), Intensive Care (2.0%), Neonatal (1.6%)
- **Anesthesia Services:** (10.0%)
- **Emergency, Trauma:** (3.2%)
- **Subspecialties:** Advance Disease Management (0.2%), Cardiology (4.6%), Endocrinology (0.3%), Gastroenterology (1.1%), Hematology/Oncology (2.7%), Infectious Disease (0.73%), Pulmonary/Respiratory (1.2%), Renal/Nephrology (0.7%), Rheumatology (0.3%)
- **Midwifery:** (2.0%)
- **Other Specialties:** Allergy and Immunology (0.2%), Dermatology (0.5%), Interventional Radiology (0.3%), Neurology (0.9%), Wound/Ostomy (1.1%)
- **Other Specialties (Ambulatory Settings):** Long Term Care (1.0%), Occupational Health (1.3%), Rehabilitation (1.0%), School Health (0.5%), Urgent Care (4.7%)
- **Palliative Care, Hospice:** (4.2%)

- **Primary Care:** includes Pediatrics through Gerontology/Geriatrics: Internal Medicine (5.2%), Family Practice (14.8%), Geriatrics (3.2%), General Pediatrics (2.9%), Pediatric Specialties (0.9%), OB/GYN Women’s Health (4.7%)
- **Psychiatric/Mental Health:** (5.6%)
- **Surgical:** General Surgery (1.5%), Urological Surgery (0.5%), Orthopedic Surgery (1.5%), Other Surgery (3.9%)
- **Not Working in a Clinical specialty:** (2.6%)
- **Other:** (4.9%)

Overall pre-tax earnings reported by respondents are illustrated in Figure 8. The median income for APRNs in Illinois is approximately \$100,000 to \$110,000 range. However, the survey did not ask if the annual salary was for part-time or full-time work. The Illinois APRN annual salary is slightly lower than the national data from the United States Department of Labor, Bureau of Labor Statistics, which reports that the “median annual wage for nurse anesthetists, nurse midwives, and nurse practitioners was \$117,670 in 2020. The median wage is the wage at which half the workers in an occupation earned more than that amount, and half earned less. The lowest 10 percent earned less than \$84,120, and the highest 10 percent earned more than \$190,900.” (<https://www.bls.gov/ooh/healthcare/nurse-anesthetists-nurse-midwives-and-nurse-practitioners.htm#tab-5>)

Figure 8: Overall 2019 Pre-Tax Annual Earnings

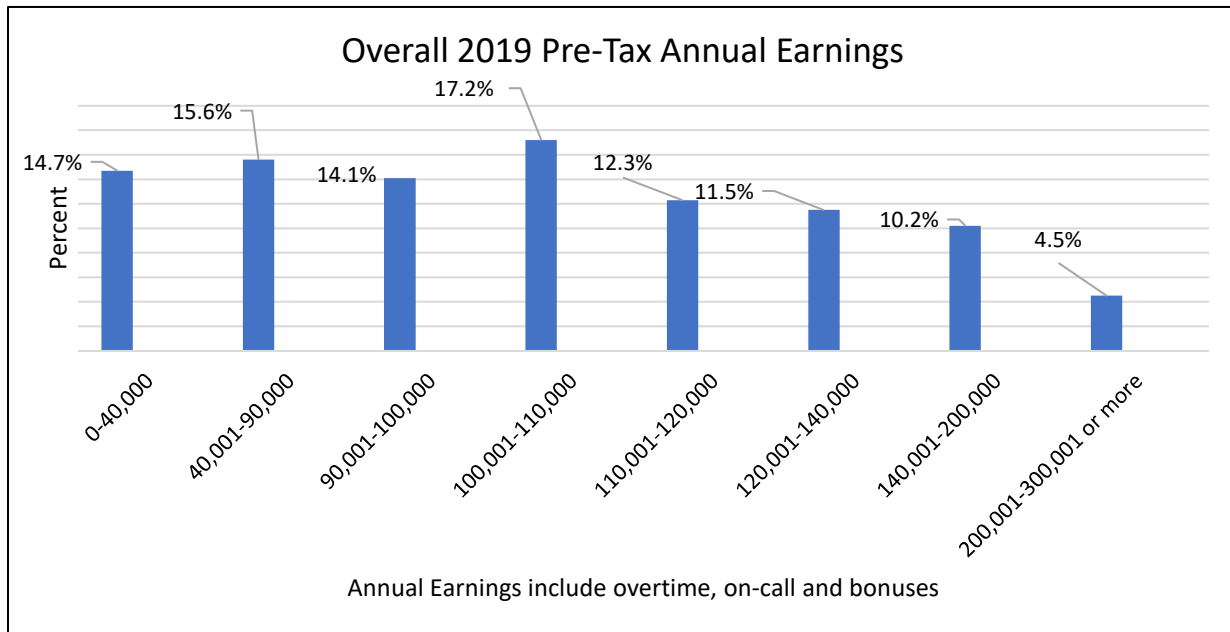


Figure 8: No response = 174 respondents

Information about annual salaries was reported by approximately 90% of the survey respondents, and information about typical weekly hours for primary positions was provided by nearly 70% of survey respondents. Among the many survey questions, participants were asked about the number of hours worked in a typical work week, how and when they were paid, the estimated pre-tax annual earnings, and whether they worked overtime and on-call hours. The overwhelming majority (93%) of Illinois APRNs reported that they provide direct patient care. The majority work one job full-time (70%), 31-40 hours per week, and are a salaried employee. Approximately thirty-three percent of APRNs work between 41-50 hours per week; 7% work more than 50 hours per week. Approximately 17% of respondents indicated that they worked a second job. The salary survey question did clarify if the APRN was working full-time or part-time. Of the 1,962 total participants 174 did not respond, a 91% response rate. Salaries at the lower end of the scale may be associated with employment at less than full-time hours.

Responses to the survey show that Advanced Practice Registered Nurses (APRNs) are typically paid an annual salary. Seventy-two per cent indicate they receive an annual salary rather than an hourly rate or a percentage of billing. This, too, is consistent with the national trend, according to the United States Department of Labor. The Bureau of Labor Statistics reports that “most advanced practice registered nurses (APRNs) work full time. APRNs working in physicians’ offices typically work during normal business hours. Those working in hospitals and various other healthcare facilities may work in shifts to provide round-the-clock patient care. They may work nights, weekends, and holidays. Some APRNs, especially those who work in critical care or those who deliver babies, also may be required to be on call.” (<https://www.bls.gov/ooh/healthcare/nurse-anesthetists-nurse-midwives-and-nurse-practitioners.htm#tab-5> (United States Department of Labor, Bureau of Labor Statistics Occupational Outlook Handbook, 2020, Nurse Anesthetists, Nurse Midwives, and Nurse Practitioners)).

While the majority (72%) of APRNs are paid an annual salary, 25% are paid by the hour, and approximately 4% are paid a percentage of billing, or “other”. The Certified Registered Nurse Anesthetists (CRNAs) indicate that approximately half are paid an annual salary and half are paid by the hour. The Certified Nurse Midwives (CNMs), only 18% indicate that they are paid hourly, 78% are paid an annual salary. The majority of APRNs (64%) indicate that they are not required to take evening or weekend call. Of those who are required to take call 26% indicate they either are not compensated for taking evening or weekend call, or taking call is included as part of the annual salary compensation

Figure 9: Summary of APRN Employment Settings

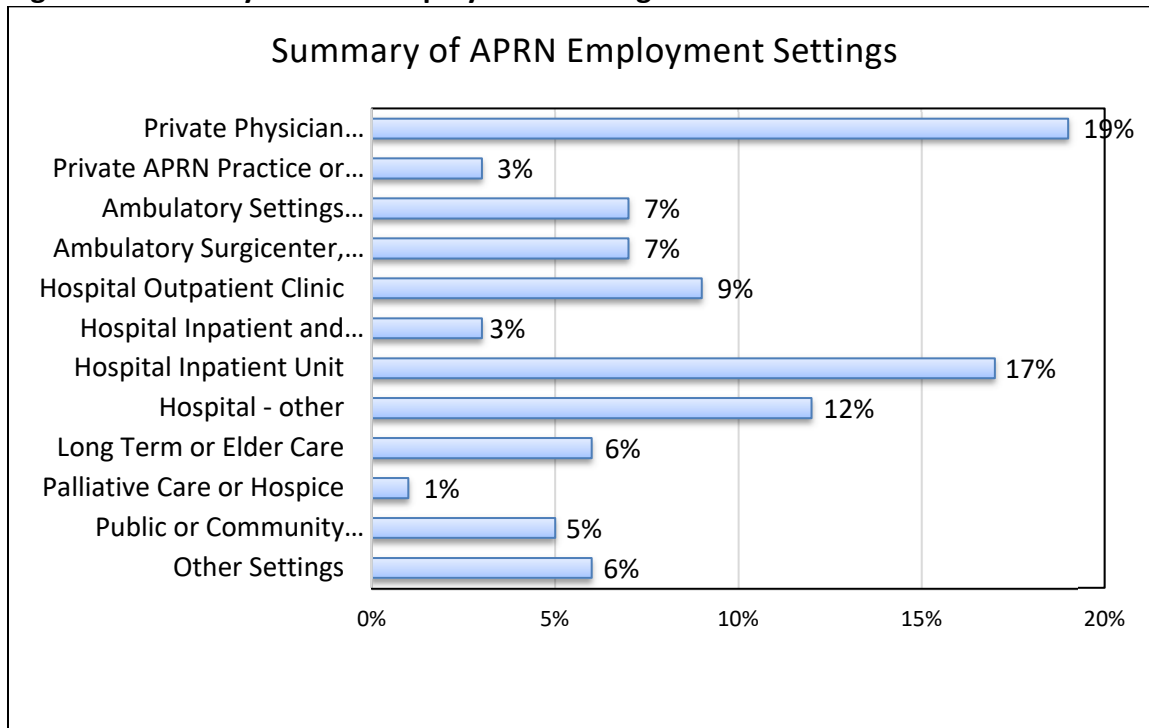


Figure 9: No response =456 respondents

The practice settings (Figure 9 above) in the survey were grouped into broad categories: multiple types of outpatient ambulatory settings, private physician office or practice, inpatient hospital settings, long term, and elder care, public or community health and general other. A significant number of APRNs (39%) work in a hospital inpatient or other setting. Amongst the various hospital settings, most APRNs work either in an inpatient unit (17%) or emergency department (3%). Inpatient unit includes those working in the operating room (OR) and perioperative areas (8%). The major ambulatory settings where APRNs are employed are either a private physician office or practice (19%), a hospital outpatient clinic (9%) or an ambulatory setting (16%). For a detailed description please see below.

The survey offered thirty-two different options to choose from to describe the employment setting as well as the opportunity to write in individual responses. If the individual response fit into a previously listed category, the response was moved into that category and the response percentages were adjusted. For purposes of this report the responses were combined as follows:

- **Private physician office/practice:** (19.2%)
- **Ambulatory settings:** Private APRN practice (1.9%), Nurse managed clinic (0.6%), Retail based clinic (1.9%), Urgent care clinic (4.9%), Ambulatory surgery center (1.4%), Federal clinic (FQHC, VA, Military, NIH, IHS) (5.6%)

- **Hospital outpatient clinic setting:** (not an emergency department) (8.5%)
- **Hospital inpatient settings:** Hospital inpatient unit (17.4%), Hospital operating room and/or peri-operative area (7.6%), Hospital emergency department (3.3%), Federal hospital (Military, VA, NIH, IHS) (0.5%), Hospital administration (0.5%), Hospital educator/education of staff and/or patients (0.3%), combination Hospital inpatient and outpatient settings (3.7%)
- **Long term and elder care:** long-term care facility (4.4%), Home care agency (1.3%)
Advance disease management (0.5%),
- **Hospice** (0.6%), Palliative care (0.8%),
- **Public or Community Health:** Community clinic (2.3%), Correctional facility (0.5%), Health department (0.2%), Mental health center (0.8%), Rural health clinic (1.3%)
- **Other settings:** Academic (university/college) education program (2.5%), Health maintenance organization/managed care (0.8%), Occupational/employee health (0.9%), School/college health service (1.0%), Research (0.1%), Government agency (0.5%),
- **Other** (written descriptions): (4.48%)

There were a limited number of responses from the “other” category that were moved. Most responses indicated specifics of a subspecialty. There were some APRNs that split time between inpatient and outpatient settings. Outpatient settings described included both private physician practice or a clinic setting. Other responses included telehealth, research, industry, pharmacy, insurance, and government. Some APRN workplace settings continue to have a high number of APRNs working in those settings. For example, the percent responses in the past three surveys (2016, 2018, 2020) that were similar, show, for example, APRNs are employed in private physician practice setting (2016: 19%; 2018: 21%; 2020: 19%) and hospital outpatient settings (2016: 10%; 2018: 11%; 2020: 9%). The percent of APRNs employed in hospital inpatient settings has gradually decreased, from 30% in 2016 to 28% in 2020. Other settings showed similar results in past survey reports that were completed in 2015-2018. These past reports are available on the Illinois Nursing Workforce Center website: <https://www.nursing.illinois.gov/DataReports>.

To determine how APRNs divided their time in the various settings, APRNs were provided four professional activities to choose from as to how their work time was spent. The total for each respondent should have had a limit of 100%, but it did not, the summary total of all responses is 122%. Regardless of workplace setting, the vast majority of time was spent providing patient care/documentation (81%), with equitable amounts of time spent teaching/precepting/orienting (14%), supervision/administration (14%) and other (13%).

Services provided are summarized in Figure 10. Responses are ordered by frequency in the “most patients” column. The top five responses include; “counsel and educate patients and families”, “conduct physical exams and obtain medical histories”, “order, perform and interpret

tests, diagnostic studies”, “prescribe drugs for acute and chronic illnesses” and “diagnosis, treatment, management of acute illnesses”.

Figure 10: Summary of Services Provided by APRNs

Summary of Services Provided by Advanced Practice Registered Nurses (APRNs)					
Type of Service	Most Patients	Some Patients	Few Patients	No Patients	Total*
Diagnosis, treatment, management of acute illnesses	62.8% 891	19.7% 280	6.8% 96	10.8% 153	1,420
Diagnosis, treatment, management of chronic illnesses	57.4% 814	19.3% 274	10.8% 153	12.5% 177	1,418
Conduct physical exams, obtain medical histories	83.9% 1,185	7.5% 1.60	2.5% 35	6.2% 87	1,413
Order, perform, interpret lab tests, x-rays, EKGs, other diagnostic studies	69.4% 988	16.6% 236	5.6% 80	8.4% 119	1,423
Prescribe drugs for acute and chronic illnesses	67.2% 952	11.5% 163	4.7% 67	16.5% 234	1,416
Provide preventive care including screening and immunizations	40.5% 573	16.5% 233	15.6% 221	27.4% 388	1,415
Type of Service	Most Patients	Some Patients	Few Patients	No Patients	Total*
Deliver Anesthesia	12.1% 171	2.3% 33	6.0% 84	80.0% 1,122	1,410
Provide psychotherapy	5.9% 82	9.9% 138	12.2% 170	72.1% 1,009	1,399
Counsel and educate patients and families	79.4% 1,126	11.4% 161	4.1% 58	5.2% 73	1,418
Perform procedures	17.8% 250	29.0% 407	23.0% 324	30.3% 427	1,408
Type of Service	Most Patients	Some Patients	Few Patients	No Patients	Total*
Provide care coordination	50.0% 702	26.6% 377	13.8% 195	10.0% 141	1,415
Make referrals	33.9% 480	39.5% 559	13.9% 197	12.8% 181	1,417
Participate in practice improvement activities	33.9% 477	30.6% 431	22.3% 314	13.2% 186	1,408
Type of Service	Most Patients	Some Patients	Few Patients	No Patients	Total*
*Total indicates the number of respondents that perform a service; the number may vary from line to line depending on the number of respondents that answered affirmatively					

Figure 10: no response = 521 respondents

The APRNs were asked how many patients they provided services to in an average day, providing care as described above. Most APRNs indicated the number of patients seen in an average day: (46%) see between 0-10 patients, 43% see between 11-20 patients in an average day. A panel of patients is the number of individual patients under the care of a specific provider, in this survey, the provider is an Advanced Practice Registered Nurse (APRN). Approximately 45% of respondents indicated they manage a panel of patients; this is up from the 2016 Illinois APRN survey which indicated that 30% of Illinois APRNs manage a panel of patents. It is similar to 2018 when 44% of Illinois APRNs managed a panel of patients. 79% of APRNs indicate that with most of their patients, they counsel and educate both patients and families. This is in addition to approximately 40% APRNs provide preventive care. With APRN full practice authority, the numbers of APRNs managing a panel of patients in addition to providing education, counseling, and preventive care, it is anticipated that these numbers will increase with less restrictive practice.

One survey question asked: “Do you have prescriptive authority, the ability and authority to prescribe medications and treatments to patients?” Eighty four percent of APRNs do have prescriptive authority, up from seventy seven percent in 2016. Approximately fifty five percent of those who do not have prescriptive authority are CRNAs providing anesthesia services who work primarily in an inpatient or outpatient setting and do not need to prescribe medications. Eighteen percent of the respondents who answered that they did not have prescriptive authority indicated that they did not need it to perform their job, that they worked in administration, research, education, insurance, pharmacy, government, or industry. Clinical Nurse Specialists (CNS) often work in inpatient settings where they may not need prescriptive authority; 13% of CNSs responded that they did not need prescriptive authority to perform their job. Of those nurses who have prescriptive authority, 78% have a controlled substance license, up from 65% in the 2016 Illinois APRN report. Approximately the same number (79%) also have a DEA number, which allows the APRN to prescribe certain controlled substances; this is also up from the 2016 Illinois APRN report (66%).

In the Fall of 2020 when these data were collected, according to Illinois statute, APRNs were required to work with a physician in a collaborative agreement unless they were practicing in hospital settings, ambulatory surgical treatment centers, or hospital affiliates (Illinois Nurse Practice Act, Article 65, Section 65-45). This is reflected in the responses as to how often a physician is present on site to discuss patient problems as they occur. Forty nine percent (49%) responded that physicians are present 76-100% of the time. See Figure 11 (below) for a summary of the amount of time physicians are present with the APRNs while they are treating patients.

Figure 11: Amount of Time a Collaborating Physician is Present on Site

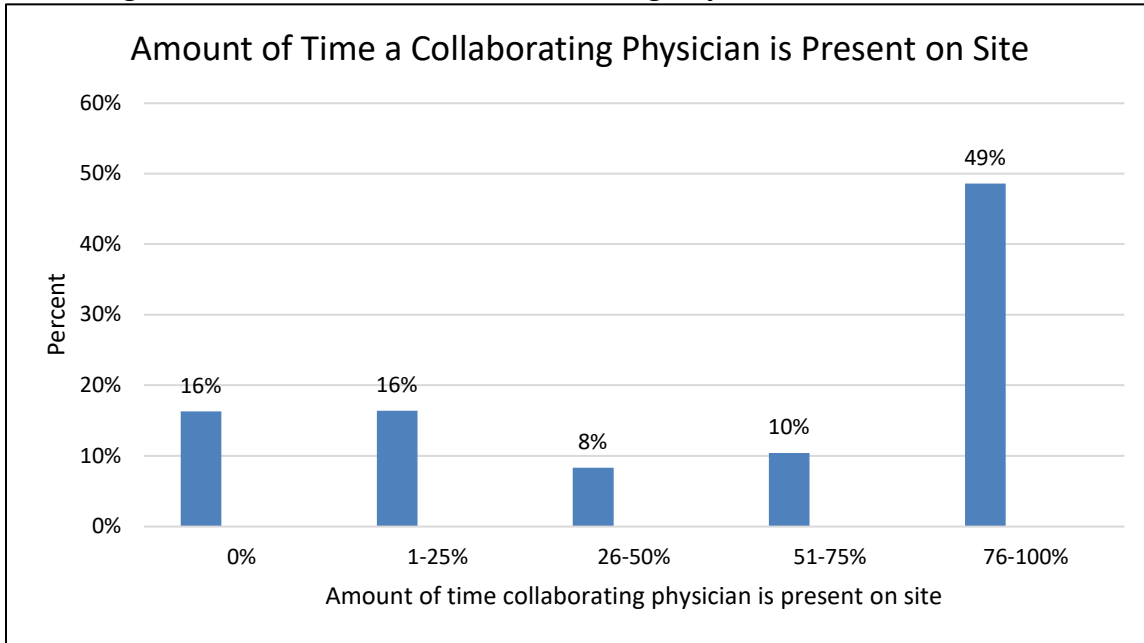


Figure 11: No response = 570 respondents

The survey requested the specific type of professional relationship the APRN has with the collaborating physician and respondents could choose more than one option. The majority of APRNs (63%) responded that they collaborated with a physician who was on site. The next top three collaborations arrangements were: the collaborating physician is the medical director who oversees the practice (23%); collaborate with a physician at another site (24%) and for 16% of APRNs there is no hierarchy, physician and APRN are equal colleagues. In response to a separate question, the majority of APRNs (82%) do not pay the collaborating physician or physicians a fee. Only 3% of respondents indicated that they do pay the collaborating physician a fee. With the change in the Illinois Nurse Practice Act (Sec 65-43) supporting Full Practice Authority, there may be an increase in the payment of physician collaboration fees.

The respondents were asked “to what extent would you agree or disagree that you are allowed to practice to the fullest extent of your state’s legal scope of practice?” The second question asks about the extent of agreement with “...my APRN skills are being fully utilized.” For both questions, approximately seventy-five percent of the APRN respondents agreed that they are practicing to the full extent of their scope of practice.

Survey responses to billing arrangements and the use of a National Provider Identifier (NPI) number were derived from two questions. The response rate to the first question, “Do you have an NPI number?”, was 98% (in 2015 - 73.5%). The second question asked, “Which of the following best describes your billing arrangements for your principal APRN position?” Options include “bill under my provider number (45%)”, “bill under a physician’s provider number (10%)”, “bill under my clinic/ facility number (15%)”, “No billing, cash only (0.4%)”, and “No, billing, grant supported/ free clinic (1%)”. This is shown in Figure 12 below. Almost half of the APRNs bill under their own NPI provider number, which is approximately the same as in 2018.

Figure 12: Advanced Practice Nurse (APRN) Billing Arrangements

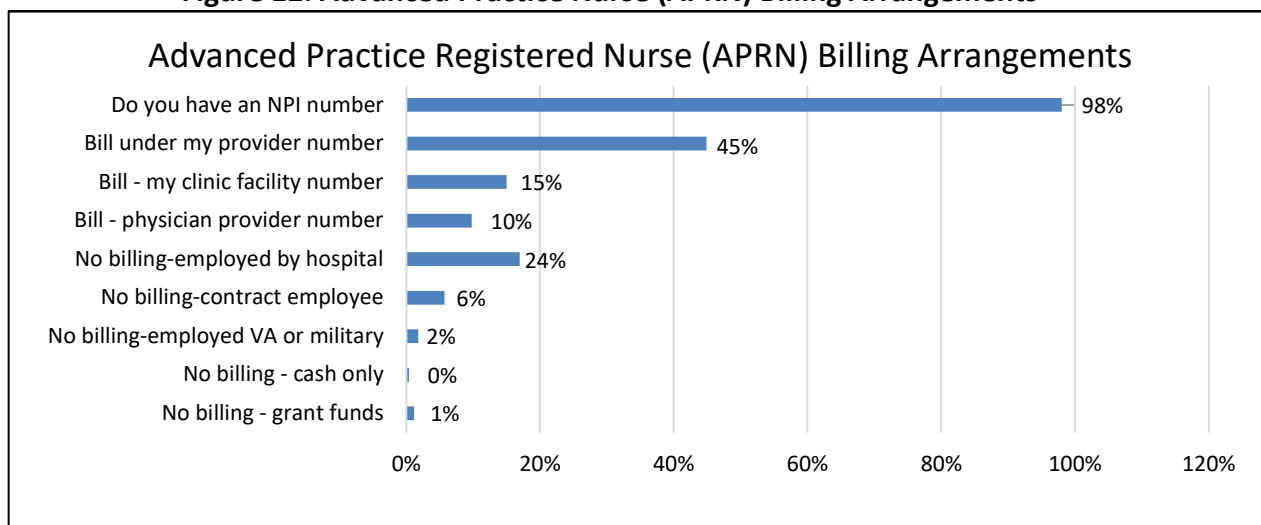


Figure 22: No response: do you have a National Provider Identifier (NPI) number = 586 respondents

Figure 22: No response: billing arrangements = 545 respondents

Survey respondents indicated reimbursement for APRN services is from Medicare (34%), Medicaid (24%), private insurance (35%), no insurance (4%) and a small percent of APRNs are not involved in direct patient care (4%). While the vast majority of non-pediatric physicians accept Medicare, analysis has found that approximately 21% are not taking any new Medicare patients compared to 14% who are not taking any new patients with commercial insurance.¹ With health care reform possibilities, including a proposed lower age of Medicare eligibility, some have argued that such a proposal could lead to more physicians opting out of Medicare. This would create barriers to care for people with Medicare. Access to APRNs would provide an option for patients with Medicare to receive care.

Emerging Trends: Workplace Violence

The Illinois General Assembly (IGA) recently passed the Health Care Violence Prevention Act (Public Act #100-1051) to combat the violence that occurs against health care workers in nearly all

care settings. To better understand workplace violence, three questions were added. The questions were prefaced by the Emergency Nurses Association (ENA) definition of violence: an act of aggression directed toward persons at work or on duty that ranges from offensive or threatening to homicide. Workplace violence is commonly understood as any physical assault, emotional or verbal abuse, or threatening, harassing, or coercive behavior in the work setting that causes physical or emotional harm. Both the questions and the definition were used with permission from the Emergency Nurses Association.²

The three workplace violence questions are in the report appendix with the other survey questions. In summary, 36% of APRNs reported experiencing physical or verbal abuse (based on the ENA definition) at least quarterly or more often; 13% have never attended workplace violence training and the clear majority, 84%, know that the facility where they work has a policy for reporting workplace violence. The number of APRNs that have not attended workplace violence prevention training is approximately half of what it was in 2018. Approximately 600 respondents skipped each of these questions.

Limitations

There are several limitations to this survey report. First, there was an initial low response rate (5%), approximately 900 respondents, during the March – September 30, 2020 license renewal period. The renewal period was extended past the usual May 30, 2020 deadline in response to the COVID-19 pandemic. During that time period, there were 16,182 Advanced Practice Registered Nurses (APRNs) in Illinois. The Illinois Nursing Workforce Center requested an additional distribution of the survey, and the request for participation was sent by the Illinois Department of Financial and Professional Regulation (IDFPR) Licensing Section to the 16,548 Illinois APRNs via email once on November 18, 2020. The survey was closed to data collection on December 31, 2020; the overall response rate was 1,962 (12%). The approximately 900 survey responses that were collected during license renewal were not included in this report.

Discussion

The 2020 Illinois Advanced Practice Registered Nursing survey report provides valuable data on this important workforce. The size of the Illinois APRN workforce has grown by approximately 34% since 2014. Most of this increase can be attributed to the Certified Nurse Practitioner (NP) specialty group which approximately tripled, from 4,682 in 2012 to 13,244 in 2020. Two of the other three types of APRN specialties increase as followed: Certified Registered Nurse Anesthetist increased by 8% (from 1,924 in 2012 to 2,300 in 2020); Certified Nurse Midwives (from 406 in 2012

to 510 in 2020) 11%. The Clinical Nurse Specialist APRN decrease by 6 % from 2012 to 2020 (from 1,023 to 963).³

Yet even with this overall growth, Illinois NPs remain at approximately 60 per 100,000 population. Considering that 42% of the APRN population is over 55 years of age, there is reason for concern about the availability of APRNs to address the needs of Illinois citizens, particularly within Illinois' 229 Health Professional Shortage Areas.⁴ These concerns heighten considering Psychiatric Mental Health (PMH) NPs; a small percent of NPs (5%) challenged to address the 126 Illinois Mental Health Professional Shortage areas. With our ever increasing 65 years and over group (15.2%),⁴ also concerning is the small percent of APRNs practicing in Geriatrics (3.5%) and in long term care (0.72%). The complex needs of these populations and the growing shortages of physicians compound the workforce needs for this group. ⁴

Schools/Colleges of Nursing must continue efforts to recruit and enroll diverse student cohorts. While race and ethnic diversity is improving slightly in younger APRN age groups, the workforce remains largely female and the majority Caucasian/White (83%). This is of particular concern considering the cultural and racial diversity of the State: 18 % Hispanic or Latinx and 15% Black or African American; and 6% Asian.⁵

The majority of APRNs provide direct care (94%) in a variety of ambulatory and inpatient services. APRNs are providing the basics of primary care, diagnosis/treatment/management, physical exams and prescribing medication. A significant portion of their role is educating families and providing care coordination. Most APRN see between 10 and 20 patients per day; indicating that these APRNs are valuable providers for basic health needs of Illinois Citizens. In addition, a large portion of APRN services are to Medicare (34%) and Medicaid (24%) recipients, which research demonstrates is of high quality yet with a less intensive use of costly health services.⁶

Finally, with the change in the Illinois practice laws, the Illinois APRN-FPA license became available in December 2019, these data serve as an important baseline for gauging the impact of increased practice authority. Billing may be one area to monitor. In Illinois, while 98% of APRNs have an NPI number only 45% bill under this provider number. Currently 63% of APRNs collaborate with a physician on site. National data indicate a greater percent of APRNs who do not work within an MD practice use their NPI number.⁷ National data also indicate that more APRN-FPA's, advanced practice nurses with full practice authority practice in rural and underserved areas(8).

The 2020 Illinois APRN survey results indicate relatively low numbers of APRNs and primary care providers in the state. It is important to continue to recruit and train a diverse APRN workforce to address the human health care capital that will be needed in Illinois. This will be critical to low

income and low access areas of the state. Continued data collection and focused workforce planning are vital to assure access to healthcare for all Illinois residents.

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Appendix A

Questions from the 2020 APRN Voluntary License Renewal Survey

1. What is your gender?
2. Are you Hispanic/Latino? (Yes or No)
3. Select one of the following races that apply to you.
4. What is your year of birth?
5. Please identify your APRN role?
6. Are you currently licensed in Illinois as an APRN with full-practice authority (APRN-FPA)?
7. Which educational program did you complete for your initial APRN preparation?
8. Please check all educational degrees that you have earned:
9. In what year did you receive your initial APRN license?
10. In what year did you receive your initial RN/registered nurse license?
11. In which state(s) or U.S. territories do you currently have certification/licensure/recognition to practice as an APRN? (Select up to 3)
12. In which area(s) have you ever received certification from a national certifying organization for APRNs? (Check all that apply)
13. Please estimate our 2019 pre-tax annual earnings from our APRN primary position. Include overtime, on-call earnings, and bonuses.
14. If you are not working as an APRN, what are the reasons? (Check all that apply)
15. In how many positions are you currently employed as an APRN?
16. Functioning in your primary APRN position, check the one term below that best describes the focus of your practice/facility. Choose from Primary Care, Subspecialties, Surgical Specialties, Other Specialties or check "Not working in a clinical specialty".
17. For this survey, your primary position refers to the APRN position in which you work the most hours per week and are compensated monetarily. Do not include volunteer positions or adjunct faculty status. Describe your primary position? Check only one.
18. In what type of setting do you work in your primary APRN position? (*Please select only one*)
19. Functioning in your primary APRN position, do you provide direct patient care?
20. Functioning in your primary APRN position, what percentage of your time is spent in each of the following roles? The total must equal 100%.
21. Regarding your primary APN position, for how many patients do you provide the following services?
22. Which of the following best describes your primary APRN position billing arrangements?
23. How often is a physician present on site to discuss patient problems as they occur in your primary APRN position?
24. What type of professional relationship do you have with the physician(s) in your primary APRN position? (Select all that apply)

25. What type of professional relationship do you have with the physician(s) in your primary APRN position? (Select all that apply)
26. Do you pay your collaborating physician a fee?
27. If you do pay your collaborating physician a fee, how would you define the fee schedule (Check all that apply)? Is it:
28. Are you privileged and credentialed at your primary place of employment?
29. To what extent would you agree or disagree with the following: In my primary APRN position I am able to practice to the fullest extent of my state's legal scope of practice.
30. To what extent would you agree or disagree with the following: In my primary APRN position, my APRN skills are being fully utilized.
31. I receive adequate administrative support in my primary APRN position in order that my APRN skills are fully utilized.
32. How many patients do you see on an average day?
33. Do you have a panel of patients you manage and for whom you are the primary provider?
34. Are you required to take evening or weekend call for your primary APRN position?
35. Are you compensated for taking evening or weekend call for your primary APRN positions?
36. Are you covered by malpractice insurance?
37. Who pays for your malpractice insurance?
38. Do you have prescriptive authority?
39. If you don't have prescriptive authority - why not?
40. Do you have a National Provider Identifier (NPI) number?
41. Do you have a controlled substance license in Illinois?
42. Do you have a personal drug enforcement administration (DEA) number?
43. Do you and/or your practice accept Medicaid?
44. Regarding patients for whom you provide care, who pays the majority of the cost?
45. How are you paid for your primary APRN position? (Select all that apply)
46. In a typical week, how many hours do you work in your primary APRN position?
47. What is the ZIP code(s) where you practice your APRN primary position? You may enter up to three zip codes, each followed by a comma. If you do not know the zip code, please supply the county
48. How often have you experienced patient/visitor/family physical or verbal abuse while at work?
49. Where have you attended workplace violence training?
50. Does your hospital/facility have a policy in place for reporting workplace violence incidents?
51. Approximately when do you plan to retire from nursing and ARN work?