AMN Healthcare

EMPOWERING THE FUTURE OF CARE

# CRNA Supply, Demand and Recruiting Trends

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AMN Healthcare CENTER FOR WORKFORCE RESEARCH

## Introduction

AMN Healthcare's Physician Solutions (formerly Merritt Hawkins) is the nation's leading physician search and consulting organization.

As the thought leader in its field, AMN Healthcare's a series of surveys, white papers, speaking presentations and other resources intend to provide insight into physician supply and demand, physician compensation, practice patterns, recruiting strategies and related trends.

This white paper examines supply, demand and recruiting trends pertaining to Certified Registered Nurse Anesthetists (CRNAs).

## CRNAs: History and Current Role

Certified Registered Nurse Anesthetists (CRNAs) trace their origin in the U.S. to the pioneering work of Alice Magaw, "the mother of anesthesia," who collaborated successfully with Dr. Charles Mayo of the Mayo Clinic at the end of the 19th Century.

The first educational programs for CRNAs were established in 1909, and participation in the profession and its overall impact on healthcare accelerated in World War I, during which CRNAs were the primary providers of anesthesia (though nurses provided anesthesia to wounded soldiers as early as the Civil War).

CRNAs have served in every war since and the names of two CRNAs are engraved on the Vietnam War Memorial in Washington, D.C. Today, CRNAs continue to be the primary providers of anesthesia care to U.S. military personnel on the front lines, serving in ships, aircraft, and evacuation teams around the globe.

CRNAs provide anesthesia in collaboration with surgeons, anesthesiologists, dentists, podiatrists, and other qualified healthcare professionals. When anesthesia is administered by a nurse anesthetist, it is recognized as the practice of nursing; when administered by an anesthesiologist, it is recognized as the practice of medicine. Regardless of whether their educational background is in nursing or medicine, all anesthesia professionals give anesthesia the same way.

CRNAs are the primary providers of anesthesia care in rural America, enabling health care facilities in many medically underserved areas to offer obstetrical, surgical, pain management and trauma stabilization services. In some states, CRNAs are the sole anesthesia providers in many rural hospitals and represent 80% of all anesthesia providers in rural hospitals. CRNAs administer over 50 million anesthetics to patients each year in the U.S. (*Certified Registered Nurse Anesthetist Fact Sheet. American Association of Nurse Anesthesiology. AANA.org*)

CRNAs practice in every setting in which anesthesia is delivered, including traditional hospital surgical suites and obstetrical delivery rooms; critical access hospitals; ambulatory surgical centers; the offices of dentists, podiatrists, ophthalmologists, plastic surgeons, and pain management specialists; and U.S. military, Public Health Services, and Department of Veterans Affairs healthcare facilities.

## Educational Requirements

According to the AANA, the minimum education and experience required to become a CRNA include:

- A baccalaureate or graduate degree in nursing or another appropriate major.
- An unencumbered license as a registered professional nurse and/or APRN in the United States or its territories and protectorates.
- A minimum of one-year full-time work experience, or its part-time equivalent, as a registered nurse in a critical care setting within the United States, its territories, or a U.S. military hospital outside of the United States. The average experience of RNs entering nurse anesthesia educational programs is 2.9 years.
- Graduation with a minimum of a master's degree from a nurse anesthesia educational program accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs. As of August 2019, there were 121 accredited nurse anesthesia programs in the United States and Puerto Rico utilizing 1,870 active clinical sites; 91 nurse anesthesia programs are approved to award doctoral degrees for entry into practice.
- Nurse anesthesia programs range from 24-51 months, depending on university requirements. Programs include clinical settings and experiences. Graduates of nurse anesthesia educational programs have an average of 9,369 hours of clinical experience.
- Some CRNAs pursue a fellowship in a specialized area of anesthesiology such as chronic pain management following attainment of their degree in nurse anesthesia.

**Certification:** Before they can become CRNAs, graduates of nurse anesthesia educational programs must pass the National Certification Examination.

**Recertification:** A recertification program called the Continued Professional Certification (CPC) Program, which is administered by the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA), is based on eight-year periods comprised of two four-year cycles and officially began on Aug. 1, 2016. In addition to practice and license requirements, the CPC Program includes four main components: 60 Class A CE credits or traditional continuing education credits; 40 Class B credits or professional development activities; completion of Core Modules in four content areas, including airway management technique, applied clinical pharmacology, human physiology and pathophysiology, and anesthesia equipment and technology (recommended but not required); and pass a comprehensive examination every eight years.

It takes 7.8 to 8.5 calendar years of education and experience to become a CRNA, according to the AANA. CRNAs must complete all state-mandated continuing education for registered nurses in addition to the requirements set forth by the NBCRNA. Requirements vary by state and hospital and may change from year to year. Depending on the CRNA's initial certification date, the NBCRNA requires 40 - 60 credit hours every four years.

As of February 2019, there were 121 accredited nurse anesthesia programs in the United States utilizing more than 1,800 active clinical sites; 88 nurse anesthesia programs are approved to award doctoral degrees for entry into practice.

## Scope of Practice

CRNAs are unusual in that their practice of anesthesia is recognized as both a nursing and a medical specialty unified by the same standards of care.

According to the AANA web site, "nurse anesthesia practice may include performing a comprehensive history and physical; conducting a pre-anesthesia evaluation; obtaining informed consent for anesthesia; developing and initiating a patient-specific plan of care; selecting, ordering, prescribing and administering drugs and controlled substances; and selecting and inserting invasive and noninvasive monitoring modalities. CRNAs provide acute, chronic, and interventional pain management services, as well as critical care and resuscitation services; order and evaluate diagnostic tests; request consultations and perform point-of-care testing. CRNAs plan and initiate anesthetic techniques, including general, regional, local, and sedation. Anesthetic techniques may include the use of ultrasound, fluoroscopy and other technologies for diagnosis and care delivery, and to improve patient safety and comfort. Nurse anesthetists respond to emergency situations using airway management and other techniques; facilitate emergence and recovery from anesthesia; and provide post-anesthesia care, including medication management, conducting a post-anesthesia evaluation, and discharge from the post-anesthesia care area or facility."

## Independent Practice

Federal law requires that CRNAs practice under the supervision of a licensed physician, usually a surgeon or anesthesiologist. However, in 2001, a new rule promulgated by the Centers for Medicare and Medicaid Services (CMS) was created that allows states to "opt-out" of the federal requirement for physician supervision of CRNAs. The rule applies to hospitals and ambulatory surgery centers meeting three criteria. States must:

1. Consult the state boards of medicine and nursing about issues related to access to and the quality of anesthesia services in the state
2. Determine that opting out is consistent with state law
3. Determine that opting out is in the best interests of the state's citizens

To date, 19 states and Guam have opted out of the federal physician supervision requirement, including:

- Iowa
- Nebraska
- Idaho
- Kansas
- Minnesota
- New Hampshire
- New Mexico
- North Dakota
- Washington
- Arizona
- Oklahoma
- Alaska
- Oregon
- Montana
- South Dakota
- Wisconsin
- California
- Colorado
- Kentucky

Additional states do not have supervision requirements in state law and are eligible to opt-out should the governors elect to do so. Other states have various laws and regulations outlining the extent to which CRNAs must collaborate with physicians or work under their supervision.

## CRNA and Anesthesiologist Work Models

There are various models for how anesthesiologists and CRNAs interact, including the Anesthesia Care Team (ACT) model.

The American Society for Anesthesiology (ASA) defines the ACT model as "Care [that] is led by a physician anesthesiologist who directs or supervises care of qualified anesthesia personnel and meets the ASA Guidelines for the Ethical Practice of Anesthesiology." The anesthesiologist may delegate monitoring and some appropriate tasks but retains overall responsibility for the patient.

In this model, CRNAs administer anesthesia and analgesia for surgery, labor and delivery, trauma stabilization and chronic pain management as part of the patient care team.

Under the ACT model, the hospital or other facility often determines whether the physician directs or supervises care. Anesthesiologists cannot direct more than four rooms, but with supervision, the anesthesiologist could be responsible for more than four rooms.

In either case, the ASA states that the physician should assess and prepare the patient preoperatively, prescribe the anesthesia plan, ensure a nurse anesthetist or anesthesiologist assistant will be with the patient during the entire surgery, be in the area and monitor during the surgery, provide appropriate post-anesthesia care, and participate in the most demanding portions of the case and if an emergency develops. Both CRNAs and AAs (Anesthesiologist Assistants, who are non-physician anesthesia providers who practice anesthesia under the medical direction of an anesthesiologist) can participate in the ACT model.

Other anesthesia delivery models include the all-MD model, in which only medical doctors administer anesthesia. Because of the higher costs associated with staffing this model, it is most prevalent in one- or two-room surgery centers and less common in large ambulatory surgery centers.

The MD+CRNA model is similar to the ACT model but with fewer supervision requirements. In states where physician supervision is required, CRNAs practicing in this model can be supervised by any licensed physician.

There is no requirement at the federal or state levels that CRNAs need to be supervised by an anesthesiologist.

Both anesthesiologists and CRNAs are in strong demand whether working independently or in collaboration.

## CRNA Roles and Settings

CRNAs being hired into new positions generally assume one or more of five primary roles, including:

- Care in the operating room
- Services for outpatient procedures
- Care in the emergency room
- Managing pain
- Administration of epidurals

CRNAs typically practice in the following settings.

- Hospital surgical suites
- Ambulatory surgery centers
- Obstetrical delivery rooms
- Critical access hospitals
- Prisons
- Facilities of the Public Health Service, Veterans Affairs, and military bases
- Offices of specialists like plastic surgeons, ophthalmologists, podiatrists, and dentists

## The CRNA workforce

Below are several data points regarding the current CRNA workforce:

- According to the AANA, there are approximately 50,000 CRNAs in active practice in the U.S., excluding students and those who are not in active patient care roles, a number projected to grow to 52,700 by 2028, according to the Bureau of Labor Statistics.
- Approximately 2,400 CRNAs graduate from training each year, pass the National Certification Exam and join the workforce.
- 40% of CRNAs are men, compared to 10% of nurses generally
- The average age of CRNAs is approximately 45.

## Factors Driving Demand

AMN Healthcare has observed a growing demand among our clients for CRNAs over the last several years that reflects an overall growth in the need for anesthesiology and other forms of specialty care nationwide.

The Association of American Medical Colleges (AAMC), in its June 2021 report on physician supply and demand, projected a shortage of up to 124,000 physicians by 2034. This includes a shortage of up to 48,000 primary care physicians, but an even greater shortage of up to 78,000 medical specialists, including anesthesiologists.

The shortage of specialists is driven largely by population aging. Approximately 10,000 Americans turn 65 every day, and this age cohort utilizes medical services at a considerably higher rate than younger age groups. People 65 and older visit a physician at three times the rate of those 30 and younger, according to the CDC. While seniors represent only 14% of the population, they generate 37.4% of diagnostic tests and treatments and 34% of inpatient procedures, many of which require anesthesia, the CDC reports. The U.S. Census Bureau reports that in 2035, there will be 78 million seniors and 77 million children 17 or under, projecting that for the first time in U.S. history senior citizens will outnumber children.

AMN Healthcare's search engagements reflect the growing need for specialty care. In our 2022 Review of Physician and Advanced Practitioner Recruiting Incentives, AMN Healthcare reported that 64% of our search engagements over the previous 12 months were for specialists, while 17% were for primary care physicians. An additional 19% were for nurse practitioners, physician assistants and CRNAs, up from 13% two years ago.

## More Elective Procedures, Cost Control

Utilization of specialty services, including anesthesia, also has been driven upward by years of economic growth following the 2007/08 recession, which has given patients the option of undergoing more elective procedures requiring anesthesia. The proliferation of sites of service providing consumer convenience, such as urgent care centers, and the rise of hospital outpatient services, also drives the utilization of procedures requiring anesthesia. Demand for CRNA services is further driven by the lack of anesthesia providers in rural areas, which are often entirely reliant on CRNAs.

The continual effort of healthcare facilities to cope with rising costs and flat or declining reimbursement also stimulates demand for CRNAs, who are paid considerably less than anesthesiologists (see the section on CRNA Compensation below) while providing many of the same services. Outcomes data generally are positive for CRNAs indicating they are a fit for emerging quality/value-based reimbursement models. Some hospital systems and other healthcare facilities have determined that having CRNAs work multiple operating rooms under the supervision of an anesthesiologist can be a cost-effective staffing model that does not detract from quality of care.

More data and analysis regarding the growing demand for specialty care, including anesthesia, is included in the AMN Healthcare's white paper *Physician Supply Considerations, the Emerging Shortage of Medical Specialists*.

## The Effect of COVID-19

Covid-19 has had a profound effect on the economy as a whole and on healthcare. In the first quarter of 2020, healthcare spending declined by 18% and hospitals lost over $200 billion (*Modern Healthcare, May 8, 2020*). The number of elective procedures declined as hospitals shut down elective services to deal with the coronavirus. Many patients lost their employer-based health insurance and could not afford care, while others avoided procedures at hospitals or other locations for safety reasons.

Entering 2023, however, AMN Healthcare has seen more clients requesting anesthesiology and CRNA searches. During the worst part of the pandemic, some of these clients had furloughed their anesthesiologists and CRNAs as the number of procedures declined. As hospitals have reopened to electives, and as patients seek care they may have put off, demand for anesthesiologists and CRNAs is rising again. This is a strong sign that overall volumes are returning as patients have more confidence that hospitals and other venues have put effective safety measures in place. In addition, volumes are rising due to a backlog of procedures that were delayed when electives were shut down. As noted in the Harvard Review:

> "One recent study predicts that the post-pandemic backlog will exceed one million cases for spinal fusions and joint replacements in the field of orthopedic surgery alone. This anticipated demand in combination with health providers' decreased capacity will likely result in creation of wait lists and potentially worsened health impacts on patients" (*Covid-19 Created an Elective Surgery Backlog. Harvard Review. August 10, 2020*).

The surge in Covid-19 cases caused by the delta variant caused some healthcare facilities to reduce elective procedures. However, many facilities have expanded categories of what they deem to be non-elective procedures. They also are more experienced at ensuring patient and employee safety, and many patients have taken the Covid-19 vaccine. Declines in non-elective surgeries are likely to be less dramatic than in early surges, and many facilities are continuing to rehire the CRNA workforce they were obliged to furlough earlier in the pandemic.

The reluctance or inability of patients to undergo elective procedures is having a negative effect on quality of care, in part by creating procedure backlogs which now are driving the need for anesthesiologists upward. Though these procedures may be classified as "elective," it is inaccurate to say they are unnecessary. The designation "elective" simply divides emergent from non-emergent care. Necessary preventive procedures such as colonoscopies are classified as electives, as are essential surgeries such as cataract removal.

## Consolidation Driving Competition

Consolidation has been taking place in the healthcare market over the last several years at a rapid pace. In 2020 alone, there were 79 major hospital mergers and acquisitions (*Fierce Healthcare. Jan. 12, 2021*). Medical groups also are getting larger, with entities such as the Permanente Group, Ascension Medical Group, Mayo and others employing thousands of physicians. Consolidation has been particularly pervasive in the anesthesia market. Prior to the 1990s, anesthesia groups were practically unknown. Today, there are dozens of anesthesia groups with 100 or more providers, including industry leaders such as U.S. Anesthesia Partners, Northstar Anesthesia, North American Partners in Anesthesia and others. Anesthesia services now generate more than $19 billion in revenue annually, with the number expected to grow as utilization of medical services increases (*Anesthesiology News. Oct. 23, 2019*).

Larger and larger entities are competing for the services of anesthesia providers, and many have the financial resources to offer highly competitive compensation. In addition, these entities often engage in multiple ongoing staffing efforts, seeking five, ten, or more anesthesia providers at a time. This increases the pressure on smaller hospitals, medical groups, and other facilities who also are seeking anesthesiologists and CRNAs, raising the bar of competitiveness in anesthesia to previously unrealized heights. In fact, the market for CRNAs has reached the fever pitch that occurred in primary care several years ago, when hospitals, medical groups and others were committed to expanding their primary care networks.

## Anesthesiologists and CRNAs in the Top 20

A clear indicator of the rise in demand for anesthesia services is provided in AMN Healthcare's 2022 *Incentive Review* referenced above, in which both anesthesiology and CRNA were included in our list of top 11 most requested search assignments.

Anesthesiology was number 7 on the list and CRNA was number 11. Neither had been in our top 20 since 2009, a fact underscoring the recent strong increase in demand for anesthesia services.

Given the demographic and related trends reviewed above, demand for CRNAs is likely to remain robust for the foreseeable future.

## CRNA Compensation

Various sources track compensation/average income for CRNAs. AMN Healthcare's 2022 *Incentive Review* tracks low, average, and high salary offers made to CRNAs.

| STARTING SALARY OFFERS MADE TO CRNAs | | |
|---|---|---|
| LOW | MEDIUM | HIGH |
| $163,000 | $245,000 | $270,000 |

*Source: AMN Healthcare 2022 Review of Physician and Advanced Practitioner Recruiting Incentives*

AMN Healthcare's data differs from other sources in that we report starting salaries offered to CRNAs and physicians, rather than total pre-tax annual compensation. In general, AMN Healthcare's averages are usually lower than that of other sources, though our CRNA numbers are higher, underscoring the current strong demand for these professionals.

It should be noted that demand for CRNAs is growing so rapidly that starting salaries are a moving target. The starting salaries we are seeing for CRNA in 2023 often reach or exceed $300,000 in non-academic positions, with variations by region. They are a constantly moving target that should be monitored month-to-month.

By comparison, the average starting salary for anesthesiologists as tracked by AMN Healthcare in 2022 was $400,000.

In a further sign of rising compensation and demand for CRNAs, the locum tenens hourly rate paid by hospitals and other healthcare facilities has increased over the last 12-18 months from the $135 range to $200-$235.

AMN Healthcare Locum Tenens reports that the number one request they receive in locum tenens is for anesthesia providers – more than for primary care physicians, physician specialists, nurse practitioners, or physician assistants. The high demand for anestheia in the locum tenens market, and the relatively high pay rates, attracts many CRNAs, further reducing the number of candidates available, driving up competition and increasing salary offers.

## CRNA Recruiting Recommendations

The recruiting process for CRNAs closely mirrors the recruiting process for physicians in terms of strategies, time, and resource allocation. Considerable effort may be required to recruit candidates who are an enduring match for the healthcare facilities seeking them. Front end preparation, appropriate candidate parameters, clear lines of communication among stakeholders, a positive working environment, responsiveness, and a sense of urgency are all essential elements common to physician and CRNA searches.

The following are several factors to consider specific to CRNA recruitment.

- Recruit CRNAs with the same aggressiveness and commitment you would when recruiting physicians. Like physicians, CRNAs have many options to choose from today. Bring your opportunity to the market as quickly as possible and be just as responsive to candidates.
- Keep in mind that CRNA recruiting is made more difficult by the fact that CRNAs have many locum tenens/1099 opportunities to choose from, and many CRNAs have a mindset like that of emergency medicine physicians in that they are seeking the most positive shift schedules for the highest compensation. You may have to make clear why a permanent position is a more attractive option for them.
- Offer clinical autonomy. Allow CRNAs to practice to the highest extent of their licensure and have broad practices. Practice autonomy may be the single most important factor CRNAs consider when evaluating practice opportunities. Independent practice opportunities are attractive options
- Offer flexibility. Schedule flexibility is of growing importance to physicians and CRNAs, 60% of whom are women who may be in their child-rearing years and require a family-friendly schedule. Offer many types of shifts. Call, providing it is reasonable, is acceptable to most candidates. Fewer hours and less call may not be a requirement if there is flexibility for CRNAs to have time off when needed.
- Be competitive. CRNAs rarely relocate for an average salary, particularly if they are being recruited from locum tenens work to a permanent practice. In today's market, even opportunities located in major metro areas must be reasonably competitive.
- Offer independent practice settings. Given the fact that many CRNAs were furloughed in the early states of the Covid-19 pandemic, many are no longer embracing the employee model but prefer the independent contractor (e.g., I-99) practice model, where they feel they have more practice autonomy and financial potential.

To these guidelines should be added others that are common to physician recruiting, such as have a clear time frame for when a decision on candidates will be made (avoid "comparison shopping"), have a contract or offer letter ready, involve the spouse/significant other in the process and the interview, and keep lines of communication open post-interview to ensure a timely resolution to the search.

## Conclusion

Though CRNAs have a very in-demand skill set, COVID-19 temporarily reduced the volume of procedures requiring anesthesia. Some healthcare facilities were even compelled to reduce CRNA hours and impose pay cuts or furloughs. Today, volumes are returning. With the combination of provider shortages coupled with an increasing demand for anesthesia services creating a highly competitive market, it will be essential for employers to think creatively and develop an aggressive recruitment strategy to attract both CRNAs and anesthesiologists. Employers who have the ability to offer flexible work schedules including part time or less than 1.0 FTE, a decreased call volume, contractual or 1099 employment, or a competitive compensation and benefits package, will have an advantage over other opportunities in the market. Regardless of institutional supervision and direction guidelines, creating a respectful professional culture also goes a long way toward successfully attracting CRNAs.

## About AMN Healthcare Physician Solutions

AMN Healthcare Physician Solutions was originally established in 1987 as Merritt Hawkins. AMN Healthcare provides permanent physician, locum tenens, advanced practitioner, plus, leadership, language services, nursing, and allied search services to hospitals, medical groups, community health centers, telehealth providers and many other types of entities nationwide. As a thought leader in our industry, AMN Healthcare produces a series of surveys, white papers, books, and webinar presentations internally and produces research and thought leadership for third parties.

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