

## Chapter 1

# FROM VIETNAM TO AFGHANISTAN: THE HISTORY OF THE ARMY PHYSICIAN ASSISTANT

*John F. Detro, APA-C, MPAS, MSS, MEd; John E. Balsler, PA-C, MPAS, MSS; David W. Broussard, PA-C, MPAS; Amelia M. Duran-Stanton, PA-C, PhD, DSc, MPAS; Pauline V. Gross, PA-C, MPH; Robert S. Heath, APA-C, MPAS; Amy L. Jackson, PA-C, MPAS; James J. Jones, PA-C, PhD, MPAS; Jimmie E. Keller, PA-C, MPH; and Sarah E. Scott, BA*

As the face of the AMEDD [Army Medical Department] provider to the line, Army PAs [physician assistants] will continue to serve as a key healthcare link between the Warfighter and the AMEDD. Army PAs fulfill the mission and vision of being agile, adaptable, versatile, and innovative to meet the ever-changing challenges of today and tomorrow. Army PAs are proud to take care of the Nation's greatest treasure: the men and women in uniformed service, their Families and beneficiaries. Army PAs are truly part of "One Team. One Purpose! Conserving the Fighting Strength!"

—Lieutenant General Nadja West  
The Surgeon General & Commanding General,  
Office of The Surgeon General/US Army Medical Command, 2016–2019  
2016 National Physician Assistant Week Email Message

## Introduction

The physician assistant (PA) community and the US military have been connected since the founding of the PA profession. Currently, National PA Week is celebrated annually from October 6 to 12. Initially, National PA Day was celebrated once a year, on October 6. This date is significant for two reasons: (1) it is the date three former Vietnam-era Navy corpsmen graduated from Duke University's PA program in 1967, and (2) it is the birthday of Dr Eugene Stead Jr, the founding father of this prestigious program and of the PA profession.<sup>1</sup>

## The 1960s: Origins of the Profession

The PA profession's past can be traced to an article written in 1961 by Dr Charles L. Hudson. Titled "Expansion of Medical Professional Services with Nonprofessional Personnel," it was published in the *Journal of the American Medical Association*.<sup>2</sup> Due to a shortage of physicians and allied health care professionals, Dr Hudson's vision was to create two new groups of providers to assist doctors in performing supervised primary care support to the public.<sup>3</sup> During the 1961 American Medical Association (AMA) conference, he described the two groups.<sup>4</sup> The first group would be interns who lacked formal medical education but would undergo on-the-job training like physicians of the past, and would serve in medical and surgical inpatient settings, including operating and emergency rooms. The second group was to be called externs. These individuals were to undergo formalized medical training somewhere between the level of a physician and that of a technician. The graduates would then work as primary care physician extenders. For this group, Dr Hudson proposed a 2-year college program followed by a 2-year clinical rotation leading to a Bachelor of Science in Medicine (BSM) degree. He felt that these "assistants to doctors" could be employed to handle routine care, allowing doctors to manage more complex procedures and care for increased patient populations.<sup>2</sup>

Three physicians took Dr Hudson's vision to heart. Dr Eugene Stead Jr, at Duke University, Dr Richard Smith from the University of Washington, and Dr Hu C. Myers at Alderson Broaddus College all bought into the idea of creating a program to address the national primary care physician shortage and began to develop the curricula.<sup>3</sup> Dr Stead and Dr Smith were aware of the plight faced by discharged medics after serving in the Vietnam conflict. These individuals had developed exceptional medical skills while serving in the military, but much of their training failed to translate into civilian education or health care professions. Both physicians felt that these former military medics could be trained to meet the primary care void.<sup>4</sup>

As early as 1964, Dr Stead and others used the term "physician assistant" to describe this new health care provider.<sup>4</sup> In 1965, Dr Stead was the first to create a PA program. Originally, he had hoped to convince the nursing community that his development of a nurse clinician program was a worthy cause. Unfortunately, the National League for Nursing, on three separate occasions, declined to accredit

the program. Disillusioned by their rejection of his proposal, Dr Stead enlisted former Navy corpsmen into his PA program. His idea was to develop a curriculum based on clinical versus didactic training, an approach that would produce results much more quickly than traditional academic programs.<sup>5</sup> The PA medical training model ultimately utilized was similar to a program developed during World War II that fast-tracked the training of physicians.<sup>4</sup>

This was not a totally new concept even during World War II. Peter the Great introduced a group of medical assistants called “fel’dshers” into the Russian army around 1721.<sup>6</sup> By the 1790s, over 500,000 fel’dshers were providing care in rural areas of Russia. “Loblolly boys” were used by the British and US navies to assist surgeons as early as the 1800s.<sup>6</sup> Their job description was “to do anything and everything that was required—from sweeping and washing the deck and saying ‘amen’ to the chaplain, down to cleaning the guns and helping the surgeons to make pills and plasters and to mix medicine.”<sup>6</sup> Loblolly boys were predecessors of today’s Navy corpsmen.<sup>6</sup>

According to Dr James Mau, first administrator of the Duke PA Program, he and Dr Stead traveled to Fort Bragg, North Carolina, to observe the Army Special Forces medic training program in 1965. The physicians noted that these medics were trained well beyond the level of Navy corpsmen. The Special Forces medics were equipped to operate independently, supporting units in austere environments without the presence of a physician. Dr Stead was impressed by this course, and the experience influenced his development of the PA program at Duke University.<sup>5</sup>

Though it was not easy to implement, Dr Hudson’s original 1961 proposal to train former military medics as PAs made sense as a cost-efficient way to meet the growing health care needs of the country and to employ veterans returning from Vietnam.<sup>3</sup> To further help cover the costs of the PA program, Dr Stead tied the educational curriculum into an existing grant for training hyperbaric chamber specialists.<sup>7</sup>

In 1965 Dr Mau also visited with Dr Amos Johnson in Garland, North Carolina. Dr Johnson regularly interacted with the Duke University medical community.<sup>5</sup> In the 1940s Dr Johnson had employed a young African American man, Henry Lee “Buddy” Treadwell, who he trained as his assistant. Treadwell performed physical exams, made diagnoses, and treated patients. By 1960, Treadwell was traveling regularly with patients to Duke University Medical Center and interacting with

students and physicians. This was significant given the South remained segregated into the late 1960s. His role in the medical community was well known and respected. On the recommendation of Dr Mau, Duke eventually made Treadwell an honorary PA.<sup>8</sup>

During this period, Dr Smith, who had made a separate visit to Fort Bragg's Special Forces medic course, started his "MEDEX" (medicine extension) model, focusing on development and employment of graduates in medically underserved communities around the world, with 14 former military medics making up the first cohort. This program was not about creating a new health profession, but rather constituted a strategy to transform health care. Both Dr Stead and Dr Smith were greatly influenced by the Special Forces medic curriculum in creating their programs.<sup>9</sup>

On October 6, 1967, three of the four original Duke students graduated from the PA program with certificates of completion. These men were Victor H. Germino, Kenneth F. Ferrell, and Richard J. Scheele. Due to the fledgling nature of the profession, all three were hired by and remained at the Duke University Medical Center.<sup>10</sup>

Dr Myers disagreed in part with the educational philosophy of his counterparts Dr Stead and Dr Smith. Dr Myers believed that a degree was necessary to confer a sense of professionalism on this new career field. In 1968, he established the first baccalaureate degree-producing program at then Alderson Broaddus College (now a university) in Philippi, West Virginia. It quickly became clear that the federal government favored degree-producing schools, and the majority of new programs followed Dr Myers' lead.<sup>3</sup>

From 1968 to 1972, Duke hosted the first of four conferences to promote the PA profession, develop and standardize the curricula, and promote related legislation. The first graduates of Duke University's PA program established the American Academy of Physician Assistants (AAPA) in 1968 and incorporated the organization in North Carolina.<sup>7</sup> Its purpose was to serve as a national professional society to represent PAs in all areas of practice and promote the profession.<sup>7</sup> AAPA is now headquartered in the Carlyle area near Old Town Alexandria, Virginia.<sup>7</sup>

## **The 1970s: Beginnings**

In 1971, the AMA passed a resolution to recognize PAs and began to develop national certification standards.<sup>3</sup> The same year, Dr Marvin

Gliedman, Dr Richard Rosen, and Clara Vanderbilt, Registered Physician Assistant–Certified (PA-C), established the first postgraduate residency in general surgery at Montefiore Medical Center, Bronx, New York. Later that year, Congress passed the Comprehensive Health Manpower Training Act of 1971, which included \$4 million to establish PA educational programs.<sup>7</sup> At the same time, cartoonist Dick Moores' popular comic strip *Gasoline Alley* first introduced PAs to the public when leading character and former Vietnam-era Navy corpsman Chipper Wallet decided to become a PA.<sup>11</sup>

To garner support for the program, Dr Stead collaborated with AMA to develop an advertisement that ran in the July 30, 1971, issue of *Life Magazine* (Figure 1-1). Showing a young African American Vietnam veteran washing a car's windshield, the copy read: "This man belongs in a hospital. Or a doctor's office. Working alongside doctors, helping to care for patients." The advertisement copy related how for 2 years, this man was the first one on the battlefield to make decisions that could save the arms, legs, and lives of wounded service members in action. After serving his country, he could not get a job in medicine, like others with his skills. Not only did the advertisement describe the story of military medics, but it also informed the public of PA educational opportunities. The publicity effort was a powerful reminder to members of Congress about the sacrifices of America's medics, and led to support for educational funding of PA programs.

Also in 1971, Colonel Dwight F. Morse Jr wrote his US Army War College research paper on the initiation of an Army PA program. He based his concepts on the civilian programs, recognizing the shortage of physicians within the nation and military: "During recent years, the Army Medical Department has been progressively plagued with increasing losses of career medical officers by resignation or retirement."<sup>12</sup> His article described the impetus for the first military PA class, which was scheduled to begin the following year. At the time, Lieutenant Colonel Henry A. Robinson Jr, Medical Corps, was the acting program manager of the former Medical Field Service School at Fort Sam Houston, Texas (now the Medical Center of Excellence). Lieutenant Colonel Robinson led efforts to develop student prerequisites, curriculum, and utilization tours for those who graduated from the PA program. According to Morse, the PA was meant to fill a need to provide medical care to soldiers in their respective field units and to allow nurses to continue providing care within military medical treatment facilities (MTFs),



## We want to put this man in the hospital.

This man belongs in a hospital. Or in a doctor's office. Working alongside doctors, helping to care for patients.

For two years, he was a medic in Vietnam (volunteered for the duty because he was always interested in medicine). For two years he was the first one to be wounded on the battlefield. The first one to make the decisions that could save an arm, a leg—or a life.

That happens to be pretty good experience for a career in medicine.

But back in civilian life, he's pumping gas. Nothing wrong with that, of course. Except for the terrible waste of his training.

But now there's a way to put people like this into hospitals and doctors' offices. Programs developed by the American Medical Association are now putting qualified people into patient care work. So they can apply their skills as "physician's assistants."

These "physician's assistants" are men and women who in a relatively short time can be trained to perform certain kinds of medicine (under a doctor's supervision, of course).

They can do everything from taking blood pressure to giving shots, to saving lives in emergencies.

They're arriving on the scene just in time.

You see, there's a shortage of doctors today. And with the growth in population (a population that is living longer), and with the surge in demand for medical care, doctors need help now.

These "physician's assistants" are one very good answer to this grave problem. They're virtually an extra right hand for the doctor. And that's very good news for the doctor's patients.

For information on the "Physician's Assistant" programs, write: Box P, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

### America's Doctors of Medicine

**Figure 1-1.** *Life Magazine* advertisement, July 30, 1971.

©American Medical Association [July 30, 1971]. All rights reserved/Courtesy of AMA Archives.

stating, "No plans exist at present for the assignment of the Army PA to duties in a hospital setting."<sup>12</sup> He concluded his paper by providing six recommendations to Army medical leaders:

- (1) continual monitoring of civilian PA programs;
- (2) involving all hospital staff at inpatient medical facilities in the education requirements of the Army PA program to maximize benefits;
- (3) developing a marketing plan to ensure all involved understood the importance of PAs to Army medicine;
- (4) urging physicians to utilize PAs in appropriate roles based on training and patient populations;
- (5) developing further studies on the role of PAs within Army medicine; and
- (6) conducting recurrent reviews to determine future extensions in the PA scope of practice.<sup>12</sup>

Up to this point, all the work of development and training in the profession had been conducted through universities with former US Army and Navy personnel. In 1971, the Air Force, under the direction of its surgeon general, Lieutenant General Alonzo A. Towner, was the first service to create a military PA program. Towner realized that the Air Force was not meeting medical needs in general and family medicine, and shortages could not be addressed through physician recruitment alone. To look into possible solutions to this problem, Towner created the Air Force Medical Services Health Manpower Utilization Study Committee. For the first time since 1966, the Air Force submitted a request to draft 150 medical professionals to cover this gap in active duty officers. Towner then requested that the committee establish a curriculum to train PAs to help fill the acute shortage in family medicine (email from John Heitz, US Air Force Medical Services History Office, Houston, TX, September 17, 2016).

The Navy and Army quickly followed suit. In 1973, the first Army PA class graduated (Figure 1-2), and its students became warrant officers. This initial class of Army PAs consisted of fifty-eight men and two women. Upon assignment, these graduates were designated “battalion surgeons” because of the lack of military physicians (general medical officers) within these units, therefore becoming first-line medical officers. Through their expertise, proximity to the troops, and respect earned within garrison and operational environments, they earned the affectionate designation of “doc.”<sup>5</sup> Sergeant First Class Louis Rocco was a member of this first class. Rocco had gained fame in Vietnam while participating in a medevac mission as an Army medic. During



Warrant officer candidates attending the first class of the Physicians' Assistant Course, staff and faculty members include (from left, front) Dr. William G. Toland, Dean, Graduate School, Baylor University; Major General Kenneth D. Orr, Commanding General of Brooke Army Medical Center and Superintendent of AHSUSA; WOC's James O. Tanner, Benjamin N. Stewart, Dennis J. McCullough, De Leon Gunter, Roy D. Arian, Ray Barger Jr., Vincent Tenorio, David H. Jenkins, (second row) Hugh P. Hughes, Richard L. Curtis, Harold E. Slusher, Gerald E. Hulst, Robert G. Hood, Joseph E. Swarts, Arthur Kyliavas, Harold B. Tyler Jr., William D. Long, Gary R. Herron, (third row) Daryl D. Butler, Harold W. Ward, David F. Duncan, James F. Madison, Louis R. Rocco, Harry M. Matthews Jr., Phillip O. Kerns, Ramona F. Deliz, George G. Strickler, Marvin H. Bruce, Milton Johnson, (fourth row) Don A. Johnson, Lawrence R. Williams Jr., Truman O. Thompson, Gilbert W. Coates, Howard L. Wells, Alvin R. Baccus, William H. Reinkins, Darwin D. Thomas, Jerry A. Massa and James L. Mountcastle; (fifth row) CPT Jerry J. Noren; WOC's John W. Hunt, Gordon E. Greentree, Clarence L. Thomas, Marshall E. Walker, Jo Ann E. Nick, Donald L. Edwards, Donald L. Spidel, Ernest C. Chastain, Walter E. Schofield, Johnny M. Brown Jr. and Joseph G. Obermire; CPT Joseph M. Long; CPT John Geesbreght; (back row) MAJ John Craig; MAJ Roger L. Christian; MAJ Dean Smith; CPT Peter B. Engber; Dr. Alton B. Lee, Baylor University; COL Henry A. Robinson Jr., Chief, Physicians' Assistant Branch, Medicine and Surgery Division, AHSUSA; COL Thomas C. Birk Jr.; LTC Joseph McNaney; CPT Stephen R. Uhlin; CPT Charles P. Cole; CPT Mark Langenfeld; MAJ George K. McMullan and CPT Henry S. Eden. Not shown is WOC Kurt M. Wyson.

**Figure 1-2.** Warrant officer candidates attending the first class of the Physician Assistant Course pose along with staff and faculty members. The photo appears to have been taken on the northern steps of the causeway between Willis and Abel Halls.

US Army photo courtesy of the Medical Center of Excellence History Office.

a casualty evacuation mission, the UH-1H "Huey" helicopter Rocco was traveling in was shot down. Despite a fractured wrist, severe burns to his hands and body, and a badly injured hip and back, he carried several wounded crewmembers to safety while under enemy fire and was credited with saving their lives. For his bravery, Sergeant First Class Rocco received the Medal of Honor.<sup>13</sup>

In April 1972, the National Board of Medical Examiners (NBME) agreed to oversee development of the examination to certify PAs at the national level. The same year, the National Commission on Certification of Physician Assistants (NCCPA) was founded by 14 national health



care organizations to oversee eligibility and standards for the NBME examination. Formally recognized as a nonprofit group, NCCPA's purpose was and continues to be providing certifying examinations for new PA graduates and recertifying examinations for licensed PAs. The NBME appointed an advisory committee and task force to construct a blueprint for test committees, which eventually became the examination administered by the NCCPA.<sup>14</sup> During early versions of the testing, the candidate was required to perform hands-on testing in addition to a challenging written exam. PA programs varied in recognition from awarding certificates to conferring college degrees. The first civilian PAs to receive baccalaureate degrees graduated in 1972.<sup>15</sup> The first Army PAs graduated in 1973, earning certificates, and in 1985 the first Army PAs received baccalaureate degrees from University of Oklahoma Health Science Center.

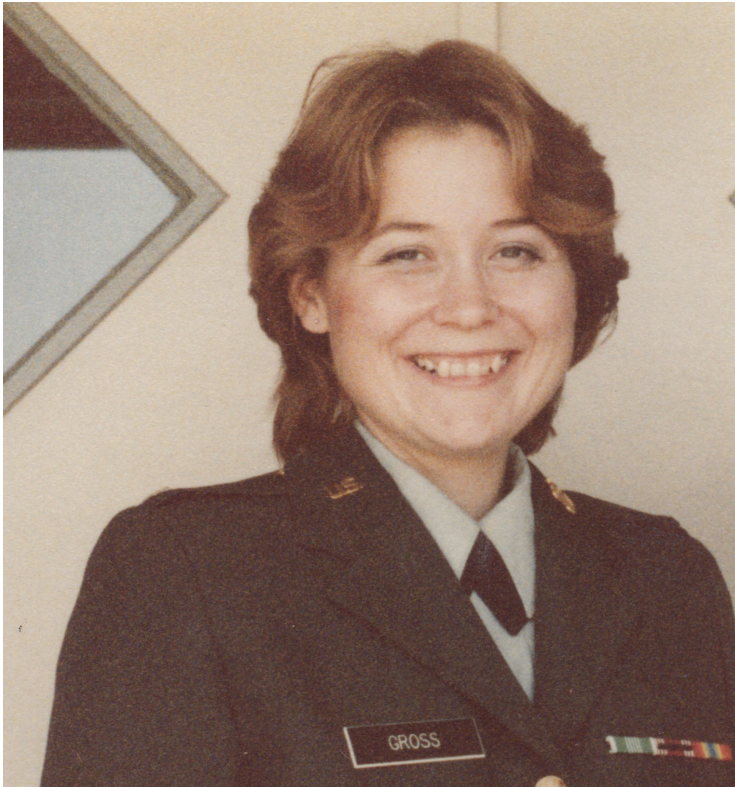
In 1975, the Army determined that enough PAs were on active duty to fulfill primary care requirements and terminated its program. Within 3 years, another shortage ensued, and the Army surgeon general ordered the program restarted. Due to a lack of funding, however, the Army contracted with the Air Force to send students to Sheppard Air Force Base, Texas, for training. In September 1979, the Army resumed its program at Fort Sam Houston.<sup>15</sup>

In 1976, a group of former Army PAs stationed at Fort Hood, Texas, started a civilian organization to represent Army PAs. The first recorded meeting for the Society of Army Physician Assistants (SAPA) was held on September 24, 1976. In 1980, the first annual SAPA PA refresher course was held in Fayetteville, North Carolina. The annual conference continues to be held in Fayetteville, and today the organization has an average active membership of around 466.<sup>16</sup>

## **The 1980s: Combat Tested and Valued Members of the Army Medical Team**

In 1980 and 1981, the Army began specialty programs for PAs in orthopedics, cardiovascular perfusion, emergency medicine, occupational medicine, and aviation medicine.<sup>5</sup> These programs continue today, with the addition of general surgery training. The first Army PAs deployed into combat with the 82nd Airborne Division (ABN DIV) and the 1st and 2nd Ranger battalions, proving their worth during fierce fighting in support of Operation Urgent Fury. Though operations

in Grenada were brief, several medical units that included PAs provided critical care to soldiers and civilians, treating their wounds and getting them safely away from the battlefield (email from Major [Retired] Jimmie E. Keller, former PA consultant to the Army surgeon general, Highlands Ranch, CO, November 17, 2015).



**Figure 1-3.** Chief Warrant Officer 2 Pauline Gross deployed to Palmerola Air Force Base in Honduras with the Joint Task Force-Bravo Medical Element as a physician assistant and surgical technician. As of this writing, now Colonel (Retired) Gross is the longest serving PA in the US Army Medical Department. She was appointed the Army Installation Management Command Surgeon in 2015. Photograph courtesy of Colonel (Retired) Pauline Gross.

On Mother's Day in 1986, Chief Warrant Officer 2 Pauline Gross (Figure 1-3) was deployed to Palmerola Air Force Base in Honduras to support Operation Golden Pheasant with the Joint Task Force (JTF)-Bravo Medical Element. The purpose of this operation was to disrupt the Contra supply chain during the Iran-Contra affair. The JTF-Bravo Medical Element included veterinarians, dentists, public health nurses, force protection officers, orthopedic surgeons, general surgeons, and family practice/internal medicine physicians, who traveled to different villages, providing sick call and sexually transmitted disease clinics for the troops as well as providing care for the local population outside the gates. Because of her prior operating room experience, PA Gross also worked in the surgical suite assisting the surgeons with emergency procedures. She previously served in the Women's Army Corps. In 2018 Colonel Gross retired as the Installation Management Command surgeon (Figure 1-4), earning the distinction of being the longest serving active duty PA in the Army,



**Figure 1-4.** On June 15, 2018, Colonel Pauline Gross celebrated her retirement with fellow female Army physician assistants (left to right): Lieutenant Colonel (Retired) Rhonda Wynder, Lieutenant Colonel Sharon Denson, Lieutenant Colonel Amelia Duran-Stanton, Lieutenant Colonel Lauris Trimble, Colonel (Retired) Pauline Gross, Colonel (Retired) Sherry Morrey, Major Lakeshia Logan, Major Adhana McCarthy, and Colonel Dawn Orta.

Photograph courtesy of Lieutenant Colonel Amelia Duran-Stanton.

having served as an enlisted soldier, noncommissioned officer, warrant officer, and commissioned officer.

In 1984, Major (then Chief Warrant Officer 3) Jimmie Keller (Figure 1-5) became the first Army PA assigned to the White House Medical Unit. During his 4-year tour, he traveled to 35 states and 22 foreign countries to prepare for and support presidential and vice presidential travels. This included the travel of families, staff, Secret Service, and the traveling press corps. Military PAs remain the primary care providers within the White House clinic and support the staff and government workers in the White House compound (see Chapter 60 for information on the White House Medical Unit). Major Keller said his most memorable event was planning for and supporting the summits between President Ronald Reagan and Soviet General Secretary Mikhail Gorbachev in Geneva, Iceland, Moscow, and Washington, DC (email from Major [Retired] Jim E. Keller, PA-C, former PA consultant to the Army surgeon general, Highlands Ranch, CO, November 20, 2015).

In December 1989, in support of Operation Just Cause, several PAs deployed once again with the 82nd ABN DIV and the 75th Ranger Regiment to Panama in order to remove General Manuel Noriega from power. They parachuted into a hot Panamanian swamp in the middle of the night a few kilometers from the target, Torrijos International Airport, which was held by the Panamanian Defense Forces. While parachuting and upon landing, the paratroopers could see green tracer rounds coming at them from three different directions. Working through the marsh, then Chief Warrant Officer 3 Bob Oyler, PA-C, of the 82nd ABN DIV, finally hit solid ground and crawled out onto dry land. Under the light of a half-moon, he saw a fence. Reaching underneath, he found an 18-inch gap. Sliding his rucksack through the hole, Oyler began to crawl under the fence. Unfortunately, he had forgotten to remove his pistol belt, and his ammunition pouches got caught in the fence. As he struggled to get free, he heard voices speaking Spanish right above him. With the enemy virtually standing over him, Oyler managed to undo his belt and pull his weapon. The enemy failed to notice him and talked for a few moments but moved away in the other direction, and into a Ranger ambush. Oyler freed himself and proceeded to the assembly area. He was the first medic to arrive on the scene, and it had taken him 93 minutes to get there (email from Captain [Retired] Robert J. Oyler, PA-C, Headquarters

Company, 307th Medical Battalion, 82nd Airborne Division, Saint Pauls, NC, December 21, 2015).

## **The 1990s: Finally Commissioned**

Though one of the first services to produce graduates from PA training, the Army was the last to commission them. Air Force PAs were first



**Figure 1-5.** Then-Major Jimmie Keller, first Army physician assistant assigned to White House Medical Unit.

Photograph courtesy of Major (Retired) Jimmie Keller.

commissioned in 1978 and Navy graduates were commissioned in 1989.<sup>17</sup> A 1984 study found that PAs provided care to 79% of patients seen by primary care physicians at half the cost. The Defense Audit Task Force on Non-Physician Health Care Providers recommended to Congress that all military PAs be commissioned officers.<sup>17</sup> The SAPA was critical to the lobbying effort for commissioning. Despite Congress' desire to commission Army PAs, it was not until 1990 that a proposal to do so was approved by the Army chief of staff. A year later the defense authorization bill included funding for commissioning PAs, authorized the inclusion of Army PAs in the Army Medical Specialist Corps (AMSC), and created a fourth assistant chief of the AMSC to supervise the PA section.<sup>18</sup>

Through diligent staff work, SAPA and AAPA involvement, and congressional influence, senior PA leadership garnered the support of Lieutenant General (Retired) Frank Ledford, the Army surgeon general, for PA commissioning (Figure 1-6). Ledford and others (including PA consultant Major [Retired] Jimmie Keller) convinced key Army leaders, including the chief of staff of the Army, General Carl Vuono, future chief of staff General Gordon Sullivan, and the deputy chief of staff for personnel, Al Ono, to persuade Secretary of the Army Michael P.W. Stone to commission Army PAs. Despite ongoing officer force reductions, given the need for midlevel providers to support readiness of the force, the first Army PA commissioning ceremony occurred on February 4, 1992.<sup>18</sup> Across the globe, the Army commissioned 257 PAs, changing their rank from warrant officers to second lieutenant through major. In 2007, the US Public Health Service was the first, and remains the only, federal service organization to promote PAs to the rank of flag officer with the promotion of Captain Michael Milner to the rank of rear admiral.<sup>19</sup>

In December 1990, during Operation Desert Storm, eight physicians and four PAs were attached to the regimental clearing station for the 2nd Armored Cavalry Regiment (ACR). The job of the 2nd ACR was to spearhead the VII Corps' end-run deep into the Iraqi Republican Guard's Tawakalna Division, which ended with US forces decimating the Iraqis in the famed Battle of 73 Easting. The operation required quick movement and a mobile facility to treat casualties. The PAs also needed options for evacuating casualties from the battlefield. With air evacuation and ground options unsupported, medical staff had to be creative. Medics acquired two old Saudi National Guard buses and,



**Figure 1-6.** Lieutenant General (Retired) Frank F. Ledford Jr, 37th surgeon general of the US Army. Lieutenant General Ledford died on May 15, 2019.

with the help of maintenance troops and some scrap metal, converted these buses into mobile MTFs that would, supposedly, follow the battle and treat and remove casualties as needed. The buses were named the *Comfortless* and the *Merciless* after the Navy's medical ships, the USS *Comfort* and USS *Mercy*. On February 24, 1991, the buses

crossed into Iraq. Unfortunately, just a few miles across the border, the brake line ruptured on the *Merciless* and it had to be abandoned. The *Comfortless* continued on, and in the course of the next 4 days, PAs treated approximately 60 wounded soldiers and civilians as the bus made its way across the desert. On February 28, the day the cease-fire went into effect, the *Comfortless* crossed the border back into Kuwait. Ingenuity and teamwork made this mission a success (Figure 1-7).<sup>20</sup>

Chief Warrant Officer 2 Thomas F. Haigler, who was assigned to the 2nd ACR, stated that the biggest concern early on was the estimated casualty count. “It was estimated that 220 casualties would come from a squadron of 1,200, including 40 men who were expected to die. We were expecting to lose one of our tanks for every four of theirs. We faced not only conventional weapons but also the very real threat of chemical weapons.”<sup>21</sup> However, there were few American or coalition casualties during the conflict, and the 2nd ACR (like the majority of US medical personnel) spent most of its efforts treating enemy prisoners of war.<sup>21</sup>

In support of Operations Desert Shield and Desert Storm, over 230 PAs saw action in 1991; of these, 12 were women, and they deployed



**Figure 1-7.** The *Comfortless*, in the Kuwaiti desert, 1991. Photograph courtesy of Colonel John Balser.



across the battlefield. Chief Warrant Officer Karen K. Kelso deployed with the 3rd ACR. At the time, she was a 49-year-old grandmother; her second grandchild was born during her deployment. About a career spent supporting soldiers, Kelso remarked, "I fell in love with soldiers . . . It was amazing to me that they were willing to give their lives."<sup>22</sup> To meet the large number of PAs needed to support these operations, the Army recalled retired PAs to active duty for the first time, including Vietnam veteran Chief Warrant Officer 2 Louis Rocco.<sup>13</sup>

PAs continued serving with distinction throughout the 1990s. Chief Warrant Officer 3 William "Doc" Donovan was a legend in both the PA and Special Operations communities. In 1980, Donovan served as chief medic during the failed attempt to rescue the hostages in Iran. Among the hostages was Don Hohman, an Army medic on the embassy staff, who later went on to graduate from the PA program in 1984 (personal communication, Chief Warrant Officer 3 [Retired], William "Doc" Donovan, Atlanta, GA, August 25, 2015).

In 1991, Chief Warrant Officer 3 Louis "Lou" Smith III (Figure 1-8) was assigned to the 5th Special Forces Group when the 1st Battalion, 75th Ranger Regiment, conducted a combat parachute training mission into Kuwait. According to Smith, during high winds, the unit "evacuated some 40 guys off the drop zone." Two days later, "Doc" Donovan hobbled into Smith's aid station with a broken foot. Donovan had been blown off course during the jump and walked over 20 miles on his injured foot (personal communication, Colonel [Retired] Louis H. Smith III, Andrew Rader US Army Health Clinic, Fort Myer, VA, January 5, 2016).

In 1992, Donovan earned the Soldier's Medal for Heroism after he and two others rowed a Zodiac boat continuously for 4 hours in near-freezing weather to save fellow Rangers from drowning after a helicopter crash during a training mission in Utah. In 1999, Donovan, who had served in Vietnam and as well as multiple operations including Eagle Claw, Urgent Fury, Just Cause, Desert Storm, and Restore Hope, became the first PA to be inducted into the US Army Ranger Hall of Fame.<sup>23</sup>

After the Gulf War, the federal government began mandatory force reductions, which led to the consolidation of the military's PA programs. In 1995, the Army PA program was renamed and reflagged as the Interservice PA Program (IPAP), based at Fort Sam Houston, with an effective date of May 1996. Today, this program matriculates



**Figure 1-8.** Colonel Louis H. Smith III, the third physician assistant chief, and son then-First Lieutenant Chris Smith at former Iraqi President Saddam Hussein’s palace in Baghdad, Iraq. Chris was serving as a field artillery officer and Louis was present to promote him to captain. Then-Captain Chris Smith later also became a physician assistant through the Interservice Physician Assistant Program.

Photograph courtesy of Major Chris Smith.

students from the Army, Air Force, Navy, and Coast Guard, with the majority of IPAP students being Army active duty, Reserve, and National Guard. Recently the program was lengthened from 24 to 29 months. Currently, students attend a 16-month didactic phase (Phase 1) followed by a 13-month clinical phase (Phase 2) at one of 23 military MTFs (see Chapter 38 for more information on IPAP). The program’s vision is “to be recognized as the world-class leader in physician assistant education,”<sup>24</sup> and in 2019 the IPAP was ranked 10th out of 170 US PA programs by *US News and World Report*.<sup>25</sup>

On October 2, 1995, Sergeant First Class Robert Howes, who was attending the Special Forces Advanced Noncommissioned Officer Course, helped prevent further deaths during a dawn sniper attack at Fort Bragg that resulted in the death of one officer and wounding of 18 soldiers. Sergeant First Class Howes, along with three other Special

Forces noncommissioned officers, was doing a physical training run nearby and heard the shots. They diverted to help subdue the shooter, and Howes was wounded in the foot. While at Womack Army Hospital, he was visited by the Fort Bragg senior PA, Major Michael Robertson, and asked what he wanted to do in the Army. Howes stated he wanted to go to PA school. He applied and was admitted to the IPAP, and served as a PA in the 1st Battalion, 36th Infantry Regiment, in Friedberg, Germany, and in Iraq, then attended training to become an orthopedic PA. He retired from military service at Brooke Army Medical Center (BAMC), on November 10, 2011, culminating his military career as the Army orthopedic PA residency director, and retired from BAMC as a civilian orthopedic PA in 2016 (email from Lieutenant Colonel David L. Hamilton, commander, Public Health Command District–Fort Bragg, Fort Bragg, NC, November 20, 2015, and personal conversation, Lieutenant Colonel Amelia Duran-Stanton, deputy chief, Thermal and Mountain Medicine Division, Natick, MA, October 4, 2016).

## **Early 21st Century: Battle Hardened**

Army PAs remain the backbone of soldier readiness and frontline care. Following the attacks of September 11, 2001, and the beginning of the conflicts in Iraq and Afghanistan, Army PAs found themselves overworked and understrength. The Army PA became the most deployed AMEDD officer. Demand for the total force of PAs continues to outstrip inventory. Today, the Army has 778 active duty PA authorizations with an inventory of 683 active duty PAs, including those in the process of retiring and those attending graduate-level education. The significant delta in inventory versus authorizations is being addressed with a multipronged approach including mentorship, use of talent management principles, increased active duty accessions, increased IPAP starts, and reinstatement of the health professions officer retention bonus. The Army's PA total force also includes 393 Reserve 65Ds (the PA area of concentration), 942 National Guard 65Ds, and 352 civilian PAs. With the active duty force, this totals 2,461 PAs serving the nation. Collectively, Army PAs have conducted 1,129 combat tours for a total of 9,278 months. The average combat tour is 12 months. Individually, Army PAs averaged 21.6 months, or 1.75 combat tours per PA. Many PAs in these conflicts have been deployed for a total of 3 to 4 years (email communication, Major Nicholas Bradley, PA-C,

65D assignment officer, Human Resource Command, Fort Knox, KY, February 9, 2017).

In February 2001, Lieutenant Colonel (Retired) Donald Parsons, a retired Army PA (Figure 1-9) and combat medical specialist training instructor at AMEDD Center and School, became concerned that Regular Army units were not following the guidance developed by the Committee on Tactical Combat Casualty Care (CoTCCC) on the training of first responders and Army medics despite the success of this training and implementation seen within the special operations community. Before the establishment of CoTCCC, military medicine had employed training doctrine that was more in line with care of



**Figure 1-9.** Lieutenant Colonel (Retired) Donald Parsons.  
Photograph courtesy of Don Parsons.

civilian trauma patients. This doctrine failed to fully recognize the unique challenges of providing care within austere environments, with medical personnel caring for injured at night or under enemy fire, while moving patients through long evacuation corridors. Parsons participated in numerous discussions with special operations medical personnel and became a member of the Committee on Tactical Combat Casualty Care (CoTCCC). The CoTCCC had been established in 2001 as a US Special Operations Command biomedical research effort to ensure that emerging technology and information is incorporated into the TCCC guidelines on an ongoing basis. The membership of the CoTCCC includes combat medics, corpsmen, pararescue jumpers, physicians, and PAs.<sup>26</sup>

As a former 18D (Special Forces medic), Parsons understood the training of Special Operations medics and was intrigued by the 75th Ranger Regiment's success at treating combat injuries, including a successful bleeding (hemorrhage) control kit that was attached to every Ranger's body armor. The kit was developed by a team that included then-Captain John F. Detro, an Army Ranger PA, who provided an example of the kit to Parsons. The original Ranger kit included a tourniquet, trauma dressing, a nasopharyngeal airway, a 14-gauge catheter for needle decompression, an oral antibiotic/analgesic pill pack, an intravenous starter kit, surgical tape, and gloves. This kit evolved into today's Individual First Aid Kit (IFAK), which has been issued to every soldier during Operation Enduring Freedom, Operation Iraqi Freedom, and other overseas contingency operations. The IFAK's contents, like the Ranger's kit, are focused on the three leading causes of preventable death: airway compromise, tension pneumothorax, and extremity exsanguination (personal conversation, Lieutenant Colonel John F. Detro, physician assistant consultant to the surgeon general, Falls Church, VA, January 5, 2016).

In 2003, Captain James Rice and fellow PAs developed a rough draft for a predeployment trauma course designed to prepare frontline PAs for combat. Eventually called the Tactical Combat Medical Care (TCMC) Course, the training was developed using principles of Tactical Combat Casualty Care to teach PAs the techniques required to treat preventable causes of battlefield death. The TCMC gained the Army surgeon general's approval and was first offered in April 2004. Shortly afterward, other medical providers began to attend the course. Today, the priority for attendance includes providers deploying to Roles 1 and 2 combat assignments.<sup>27</sup>

The United States again invaded Iraq in 2003, commencing Operation Iraqi Freedom. Many PAs stationed at military MTFs across the United States were deployed to support operations in theater, and many of these facilities were left without critical support. To provide adequate coverage for dependents, retired PAs were recalled to active duty for the second time. Recall was restricted to those still actively practicing medicine and included fill for 30 to 60 positions, with plans to recall more if the situation deteriorated (email from Major [Retired] Jim E. Keller, former PA consultant to the Army surgeon general, Highlands Ranch, CO, November 20, 2015).

On March 4, 2005, the first Army PA was killed in combat. Six months after Captain Sean Grimes deployed to Iraq, an improvised explosive device detonated near his convoy outside Ramadi, killing Grimes and three others. Grimes was the first PA killed on the battlefield in Iraq. At Fort Campbell, his home post, a training center at Blanchfield Army Community Hospital has been named for Grimes. His family used part of Grimes' life insurance money to establish an educational scholarship award through SAPA (email from Major Shawn Lockett, deputy division surgeon, 2nd Infantry Division, Beijing, China, September 27, 2016). SAPA provides three annual \$1,000 Grimes scholarships to SAPA members and their beneficiaries (Figure 1-10).

In 2006, then-Major Leonard Gruppo, director of the Army's emergency medicine PA (EMPA) residency program, proposed a doctorate-level clinical training program for specialty PAs. The goal was to produce specialized PAs with a substantially higher level of clinical competency. This increased capability could then be forward deployed with units on the battlefield. The EMPA program, which had started in July 2005, was expanded from 12 to 18 months, and the first class graduated with a Doctor of Science in Physician Assistant Studies—Emergency Medicine from Baylor University on December 15, 2007. These PAs became the first in the nation to earn clinical doctorate degrees. Since this first graduation, the Army has developed similar doctorate programs in clinical orthopedics and clinical general surgery/intensivist.<sup>28</sup>

As the US footprint in Afghanistan began downsizing in 2009, Combat Outpost (COP) Keating was one of many forward operating bases being closed. The enemy was anticipating the closure, and on October 3, 400 Taliban troops launched a brutal attack on COP



**Figure 1-10.** Captain Sean Grimes.

Keating. Intense fighting continued for more than 12 hours. A team of medics, led by PA Captain Christopher Cordova, Headquarters Troop, 3rd Squadron, 61st Cavalry Regiment, 4th Brigade Combat Team, 4th Infantry Division, cared for the injured and helped defend the COP. Under heavy fire and with medevac support unavailable, Cordova and his team treated traumatic battle wounds and evacuated 16 Afghan soldiers and US personnel while providing aid to another 27 “walking wounded.” In an event that continued for 84 hours, Cordova successfully led his team and provided continuous medical support to soldiers at the base. In recognition of his actions over those long days, Cordova earned the Silver Star for gallantry in action against an armed enemy (Figure 1-11).<sup>29</sup>



**Figure 1-11.** Then-Captain Christopher Cordova meeting with President Barack Obama.

Photograph courtesy of Major (Retired) Christopher Cordova.

## Continuing Progress

In 2015, Major Saibatu Mansaray-Knight, PA-C, was designated as the Army military aide to the vice president of the United States (Figure 1-12). “This prestigious position is usually held by a line officer, such as an infantry officer or pilot,” said Lieutenant Colonel James J. Jones, PhD, PA-C, deputy director and chief of protective medicine, White House Medical Unit. “It’s not a medical role at all—which makes her appointment unique.”<sup>30</sup> Another historic first was when Colonel John Balser (Figure 1-13) became the first PA to be selected as chief of the AMSC (email from Colonel Nikki Butler, Human Resources Command, Fort Knox, KY, January 19, 2016).

Many assignments traditionally limited to male PAs have now been opened to women. Several women have served in civil affairs units: Major Charisse Gonzalez served as the company commander for the Joint Special Operations Medical Training Center, and recently Major Katrina Monti became the senior PA, 1st Special Forces Group (email from Lieutenant Colonel John Elliott, US Special Operations Command, Fort Bragg, NC, March 15, 2020).





**Figure 1-12.** Then-Major Saibatu Mansaray-Knight during her tenure as Vice President Biden’s Army military aide.  
Photograph courtesy of Major (Retired) Saibatu Mansaray-Knight.

Currently, there are five PAs serving in brigade-level commands, eight in battalion-level commands, and one as a forward surgical team (FST) commander. There are two PAs who formerly served in brigade-level commands, eleven in battalion-level commands, and eight as FST commanders. In April 2019, Colonel Amy L. Jackson became the first PA to be promoted to colonel “below the zone,” and on July 20, 2020, with the change of command ceremony at Keller Army Community Hospital, West Point, New York (Figure 1-14), she became the first female PA to command a level-1 military MTF.<sup>31</sup> “Below the zone” refers to early promotion, before the usual, expected time for consideration. These promotions “are intended to provide officers of exceptional ability an opportunity to advance quickly to more responsible positions, help retain high-quality officers, and give officers an incentive to perform at their highest potential.”<sup>32</sup> (p19)



**Figure 1-13.** Colonel John Balsler, Army Medical Specialist Corps chief. Photograph courtesy of Colonel John Balsler.

On February 26, 2020, the Centers for Disease Control and Prevention reported the first case of the spread of the novel coronavirus disease (COVID-19) within the United States. The disease was first recognized in Wuhan, China, and the first US patient had recently returned from China. The ensuing global pandemic led to the activation of active and reserve military forces to support civilian authorities to battle COVID-19. Several Army PAs were instrumental in the early efforts, including Colonel David Hamilton, commander of the 9th Hospital Center, which was set up within New York City’s Javits Center to take on non-COVID patients to decrease pressure on the city’s health care system (Figure 1-15). Within a few days, the team began and continues



**Figure 1-14.** Colonel Amy L. Jackson’s change of command ceremony at Keller Army Community Hospital, West Point, New York, on July 10, 2020. Brigadier General Paula C. Lodi (right), commanding general, Regional Health Command–Atlantic, passes the Medical Activity West Point flag to Colonel Amy L. Jackson, signifying the change of command from Colonel Brett H. Venable to Colonel Jackson. Photo by John Pellino/USMA PAO. Reproduced from: Lanier RK. WPHSA, CACH welcomes new commander. *Pointer View*. Published July 23, 2020. Accessed August 4, 2020. <http://www.pointerview.com/2020/07/23/wphsa-kach-welcomes-new-commander/>

to take on COVID-19 patients (email from Colonel David Hamilton, April 14, 2020). As of July 30, 2020, the global number of infections was 17,067,754 cases, with 667,935 deaths. Within the United States, there were 4,431,399 infected and 150,765 deaths.<sup>33</sup> As the fight to contain the virus attests, military PAs have been and will continue to be at the forefront of military medicine, whether supporting combat or humanitarian missions.



**Figure 1-15.** Captain Alex Merkle providing medical care to COVID-19 patients at the Javits Center, New York City. Photograph courtesy of Lieutenant Colonel Terry “Lee” Clark.

## Conclusion

Today’s Army PA is not only a clinician, but also a leader. Several PAs have served in command roles, senior clinical positions, and administrative leadership roles throughout Army and military medicine. Army PAs are seasoned veterans with years of service. By drawing on their experiences, PAs can lead in both tactical and clinical settings. Today’s soldiers continue to pave the way for future Army PA and AMSC leaders. The future of the Army PA is bright, and the potential is limitless. As Colonel John Balser frequently states, “PAs are the chameleons of the AMEDD, able to adjust to any mission, anywhere, at any time” (email from Colonel John E. Balser, Command Surgeon, US Army Reserve Headquarters, Fort Bragg, NC, January 20, 2016).

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